



**SOLVAY**

asking more from chemistry®

**ASKING**

**MORE**

2015  
Annual Report

## SUSTAINABLE VALUE CREATION

Our strategy is a virtuous circle in which positive actions interact to create enriching contributions centered around a single goal: creating a future with more potential.



**€ 12.4 bn**  
NET SALES

**30,900**  
EMPLOYEES

**145**  
INDUSTRIAL SITES AND  
A PRESENCE IN 53 COUNTRIES

### Who we are

An international chemical and advanced materials company, Solvay assists its customers in innovating, developing, and delivering high-value, sustainable products and solutions that consume less energy and reduce CO<sub>2</sub> emissions, optimize the use of resources and improve the quality of life. Solvay serves diversified global end markets including automotive and aerospace, consumer goods and healthcare, energy and environment, electricity and electronics, building and construction, as well as industrial applications. Solvay is headquartered in Brussels with about 30,000 employees spread across 53 countries. It generated pro forma net sales of €12.4 bn in 2015, with 90% made from activities where it ranks among the world's top 3 players. Solvay SA (SOLB.BE) is listed on Euronext in Brussels and Paris (Bloomberg: SOLB.BB – Reuters: SOLB.BR).

# Asking MORE

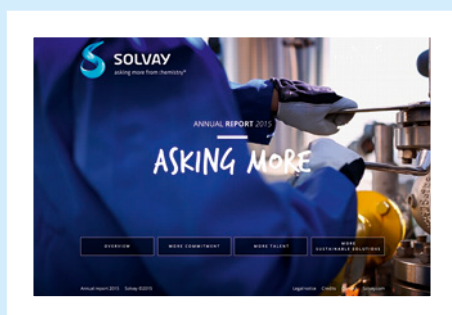
## from chemistry

**The 2015 Solvay Annual Report takes you inside our journey of transformation. We're implementing an ambitious strategy to build a new model of sustainable chemistry that addresses the environmental and societal factors impacting our world.**

The challenge we have set ourselves is to achieve these strategic targets while continuing to drive value creation and profitable growth in a responsible way. We're reshaping our portfolio to include advanced solutions that contribute to sustainable development and help make our customers more competitive. At the same time, we're focused on operational excellence across the organization in areas such as supply chain, purchasing, manufacturing, and capital spending.

We're accelerating the pace of innovation. Sustainable development has been placed at the heart of our business to drive innovation. We focus our attention on a selected number of acquisitions and strategic investments. Finally, we pay special attention to the diversity of our workforce to make sure it reflects the diversity of our customers.

**See how we're asking more from chemistry by asking more from ourselves.**



### More content

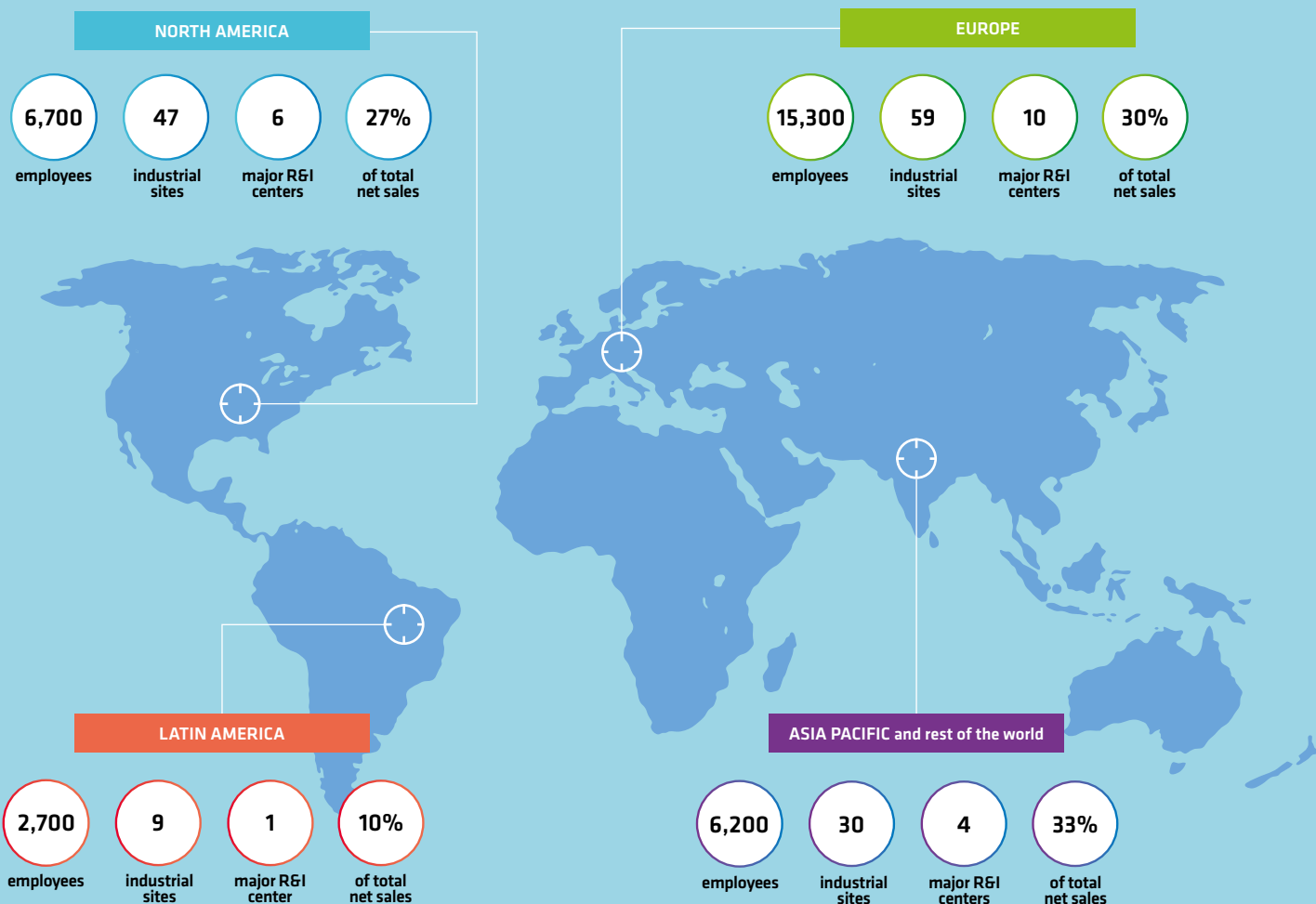
For even greater insight, please consult the online version of our annual report.

[www.annualreport2015.solvay.com](http://www.annualreport2015.solvay.com)

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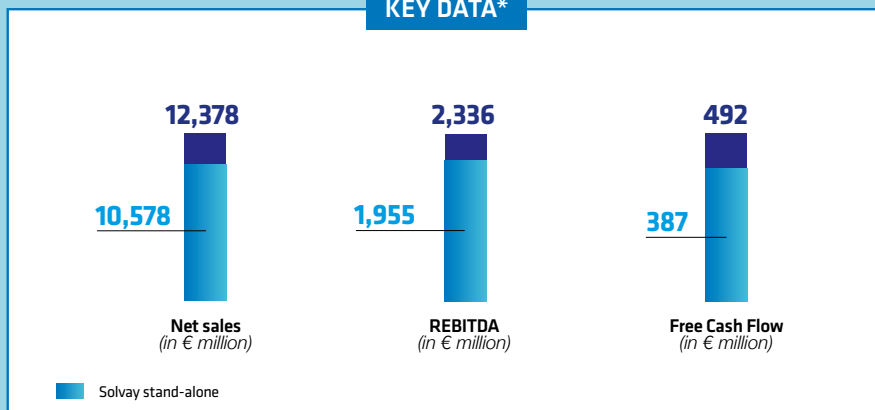
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# SOLVAY PRO FORMA 2015 \* (unaudited, including Cytec)



02

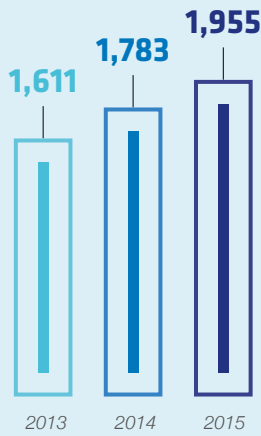
## KEY DATA\*



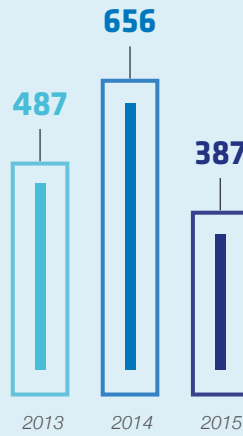
\* Following the acquisition of Cytec at year end 2015 and in order to provide a reference frame for the Group's performance going forward, Solvay presents pro forma information for the year 2015 both on an IFRS and Underlying basis. These unaudited figures represent a situation as if the acquisition had taken place on January 1, 2015.

# SOLVAY (excluding Cytec)

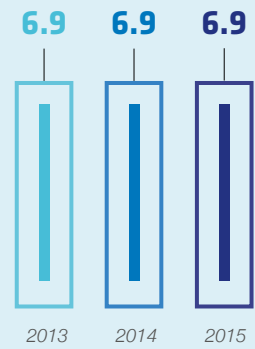
As of December 31, 2015



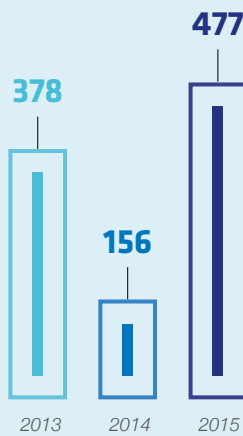
**REBITDA**  
(in € million)



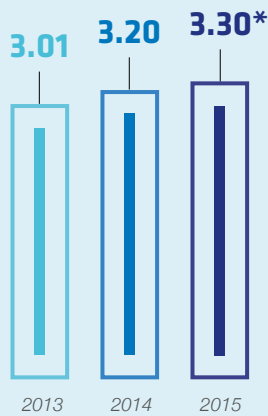
**Free Cash Flow**  
(in € million)



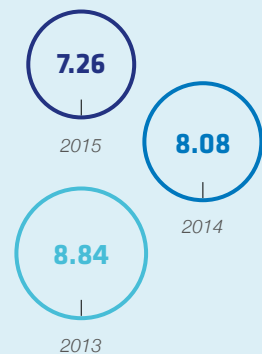
**CFROI**  
(as percentage)



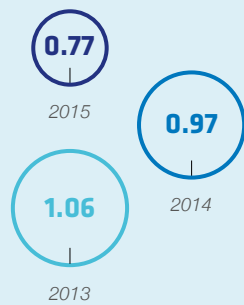
**Adjusted Net Income, Solvay Share**  
(in € million)



**Dividend\*\***  
(in €)



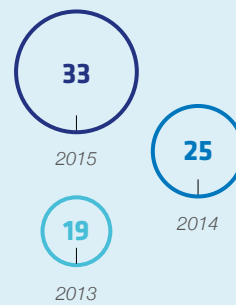
**Greenhouse gas intensity**  
(Kg CO<sub>2</sub> eq. per € REBITDA)



**Occupational accidents at Group sites**  
(rate of accidents with medical treatment, with or without work stoppage)  
(per million hours worked)



**Employees involved in societal actions**  
(as percentage)



**Sustainable solutions (SPM)**  
(as percentage of net sales)



**Employee engagement index**  
(as percentage)



\* Recommended to the Ordinary Shareholders' Meeting scheduled on May 10, 2016.

\*\* The 2013 and 2014 historical data have been adjusted for the bonus factor of 0.9398 resulting from Solvay's right issue completed in 2015.

# STRATEGIC DECISIONS IN OUR OPERATING SEGMENTS

**To achieve our strategy, we're on a permanent quest to upgrade our portfolio, strengthen our growth engines, and enhance our resilience, profitability, and returns. We invest selectively to accelerate our organic growth and innovation capabilities. In 2015, we took major steps to optimize our portfolio and deliver greater operational excellence.**

## LEVERAGING GROWTH DRIVERS

— As the Group's growth engines, Advanced Formulations and Advanced Materials received most of our capital investments in 2015. There were eight new manufacturing sites were commissioned, all of them addressing an increasing demand for high-added-value, sustainable solutions. The plants are chiefly located in growth regions, such as Asia and Eastern Europe.

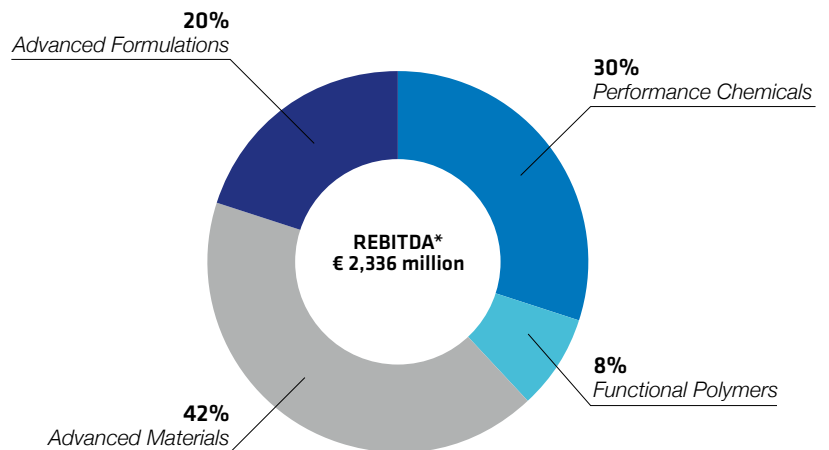
— The two recent acquisitions, Ryton and Flux, were successfully integrated into Advanced Materials. The new Global Business Unit (GBU), Special Chem, was created to leverage greater scale and innovative power, and its portfolio was upgraded by divesting its refrigerant activities and pharma propellants to Daikin.

— The Cytec acquisition was a step change in our transformation, reinforcing the Group portfolio, most notably in sustainable solutions for lightweighting transportation. The acquisition gave birth to two new Global Business Units. Composite Materials GBU brings together Cytec's aerospace and industrial composite business which is now part of Advanced Materials. Technology Solutions GBU combines Cytec's In Process Separation, polymer additives and formulated resins activities with Solvay's Novecare phosphorus-based intermediates, and is now part of Advanced Formulations.

## SELECTIVE INVESTMENTS AND ONGOING OPTIMIZATION

— In Performance Chemicals, selective investments were made in 2015 to support regional business opportunities. One was Southeast Asia's largest sodium bicarbonate plant, built in Thailand to meet local growing demand. In Saudi Arabia, construction of a new mega plant (the 3<sup>rd</sup> of this type) is almost completed at the Sadara Chemical Complex. It will produce H<sub>2</sub>O<sub>2</sub> for the production of Propylene Oxide.

— The Functional Polymers Segment continued to deploy ongoing cost competitive optimization strategies. In July 2015, the Inovyn European joint venture between Solvay and Ineos in chlorovinyls started operations. Solvay has announced its intention to exit the joint venture by the end of 2016, earlier than was originally foreseen. The Energy Services GBU of the Corporate & Business Services Segment continued to lead the Group-wide effort to optimize energy efficiency by 10% by 2020 and reduce greenhouse gas intensity by 40% by 2025.



\* Pro forma 2015, unaudited, including Cytec



# MORE

## COMMITMENT

In 2015, our transformation continued thanks to dynamic portfolio management, organic growth, innovation for more sustainable chemistry, and a strong culture of excellence.

# CYTEC ACQUISITION

**Becoming a heavyweight  
in lightweighting**



**— In December 2015,  
we successfully  
completed  
the acquisition  
of the U.S.-based  
company Cytec.**

**+10%**

**THE ANNUAL GROWTH**  
EXPECTED FOR LIGHTWEIGHT  
COMPOSITE MATERIALS  
WITH CYTEC.

**€ 100 m**

**ANNUAL SYNERGIES**  
EXPECTED WITHIN  
THREE YEARS.

## **NEW HORIZONS FOR GROWTH AND INNOVATION**

— With this deal, Solvay becomes the world's second largest player in aerospace composite materials. Moreover, it helps us strengthen our Advanced Materials growth engine and push into other markets for composites such as high-end automobiles. Our advanced formulations for the mining industry are significantly strengthened thanks to our on-site support. *“Cytec represents a decisive milestone in Solvay’s transformation and opens up new horizons for growth and innovation,”* says CEO Jean-Pierre Clamadieu.



A large team of Solvay and Cytec employees has been mobilized to ensure that cost synergies are delivered as quickly as possible.

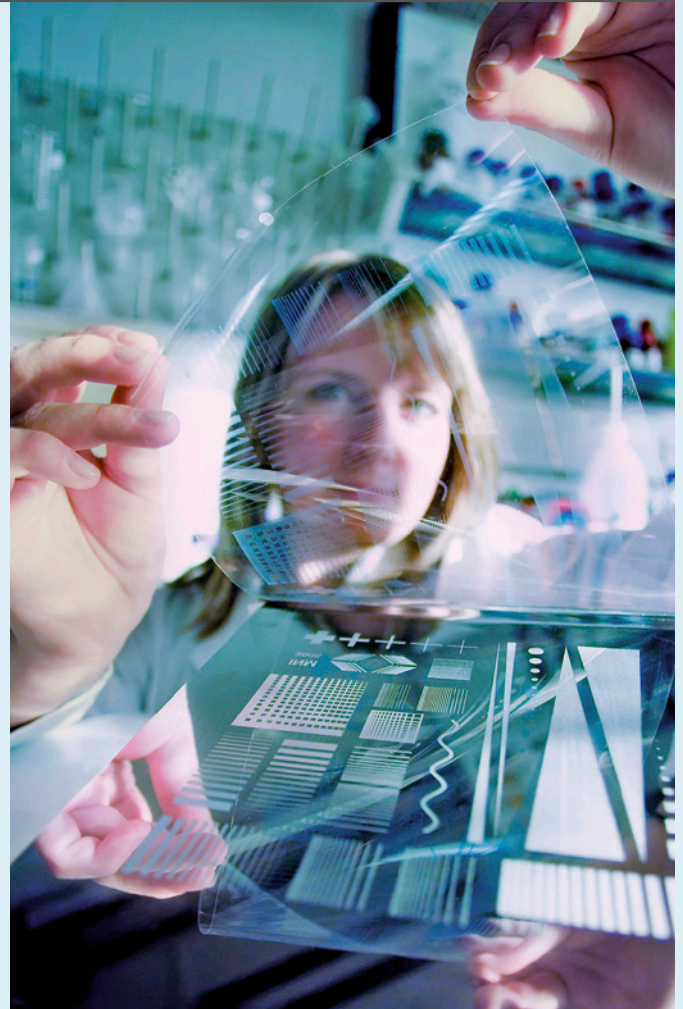
## LIGHTWEIGHTING IS THE KEY

— The global trend towards CO<sub>2</sub> reduction and resource efficiency are driving greater demand for lightweight composite materials. We expect the use of lightweight materials to grow significantly across all industries. The aerospace industry is currently the biggest user, while the automotive industry is massively increasing its lightweighting efforts. Already used in Formula 1 and luxury cars, composites should find their way into other automotive segments in the near future.

## HELPING OUR CUSTOMERS

— We can now offer our customers the largest range of advanced materials combining composites and specialty polymer technologies to reduce the weight and increase the fuel efficiency of their products without compromising structural strength or safety. Cytec lightweight composite materials are currently used in Airbus A350 and Boeing 787 aircraft. In the aerospace sector alone, we expect annual growth of around 10% for such materials.

— We expect to generate a minimum of € 100 million in annual synergies between Solvay and Cytec within three years. A large team of Solvay and Cytec employees has been mobilized since early October to handle the integration of the two companies and ensure that cost synergies are delivered as quickly as possible.



## Delivering value from the first day of the merger

The job of ensuring that the Solvay and Cytec teams were ready to start working together as soon as the acquisition was finalized fell to the specially created Integration Management Team.

It ensured that there was a clear future-state organization and detailed integration plans to unleash the enormous business and innovation potential from the first day of the integration.

At closing, two Global Business Units were created to merge Cytec's businesses into Solvay's organization. Composite Materials brings together aerospace and industrial composite businesses. Technology Solutions combines specialty mining reagents, phosphine-based chemistry, and solutions for the stabilization of polymers.



In a macro-economic environment characterized by a major slowdown at the end of the year, these solid fundamentals constitute a great help in facing up to the current uncertainties.

### **TRANSFORMATION**

— 2015 was marked by the Group's transformation, targeting less cyclical activities that create greater value. In July, Inovyn, the European PVC joint venture established together with Ineos went operational and, thanks to its solid fundamentals, we announced mid-March that we intend to exit the joint venture later in the year. Moreover, Solvay boosted its growth drivers through the acquisition of Cytec, making Solvay the world's No. 2 producer of composite materials for the aerospace industry and a major supplier of reagent solutions for the mining industry. This acquisition and its financing through a capital increase unprecedented in the Group's history were completed in less than five months, demonstrating the continued momentum of our restructuring.

— The new activities contributed by Cytec are helping shape the new face of Solvay, making the Group a world leader in lightweight structures for the aerospace and automotive sectors. In combination with our high-performance polymers, these ultra-light and ultra-resistant materials have great potential in substituting components up to now made of metal in both aircraft and cars.

# **CHAIRMEN'S MESSAGE**

**— On February 25,  
our Group presented  
solid results supported  
by its programs of  
excellence and a  
positive currency effect.**

— Solar Impulse, a plane with over 50% of its structure designed with Solvay products, is a remarkable illustration of what we can achieve with our combined know-how. Moreover, a new geographical balance is emerging, with greater priority being given to the United States, now one of the Group's top talent pools.

## SUSTAINABLE COMMITMENTS

— At the end of 2015, the Group reached a milestone on its way to achieving its sustainable development goal, presenting quantified commitments underlining Solvay's strategic dimension. The Solvay Board of Directors is very much behind these commitments which define an ambitious framework for the Group's future.

— This future is also dependent on the Group's ability to attract young talents from a wide range of backgrounds, reflecting the Group's global presence and the diversity of the customers it serves. Progress in this field is backed by Solvay's diversity policy and its ambitious goal of boosting employee commitment.

## CHEMISTRY FOR THE FUTURE

— Solvay is continuing its long tradition centred on a positive and committed vision of science at the service of future generations. Awarded for the second time, the Chemistry for the Future Solvay Prize went to Professor Ben Feringa in 2015 for his innovative work on molecular motors.

— The capital increase successfully completed last December allows Solvay to retain its shareholder structure while at the same time pursuing an ambitious growth and restructuring policy. Backed by our shareholders and our solid fundamentals, we are proposing a 3.3% rise in the dividend for 2015 to the General Shareholders' Meeting.

— Rising to the challenges of 2016 with confidence, Solvay is determined to pursue its restructuring policy and affirm its place among the leaders in a changing global chemicals industry.

**Nicolas Boël,**  
Chairman of  
the Board of Directors

**Jean-Pierre Clamadieu,**  
Chairman of the Executive  
Committee and CEO





## JEAN-PIERRE CLAMADIEU

*Executing a strategy driven  
by sustainability and innovation.*

### **HOW DOES THE RECENT ACQUISITION OF CYTEC FIT IN WITH SOLVAY'S STRATEGIC DIRECTION?**

– **Jean-Pierre Clamadieu:** The current macro-economic context is very volatile. We also see significant transformation happening in our industry. The pace of innovation is accelerating. And sustainability plays an increasingly important role, both regarding our impact on the planet and the opportunities that it offers in terms of strategy and development.

Our objective is to make our Group much more resilient to the short term uncertainty while making sure we sustainably generate increasing returns and rewards to all our stakeholders, both internal and external.

So what levers are we using to put this strategy in place? The first is portfolio management and this is where Cytec fits in. The acquisition of Cytec significantly upgrades our portfolio by making us a major global player in composites for the aerospace and the automotive sectors. The integration of Cytec is moving very quickly and our top priority is to ensure full success and delivery of synergies. The second lever is operational excellence or continuous improvement in all of our internal processes. And the third is our management model and the quality of our teams.

**Jean-Pierre Clamadieu**  
Chairman of the Executive Committee and CEO

### TALKING ABOUT PEOPLE, WHAT KIND OF WORKFORCE DOES SOLVAY NEED TO MEET THE NEEDS OF TOMORROW?

**\_ J-P. C.:** We need people who are committed and imaginative, with an entrepreneurial spirit. We need to broaden our skill set. Our workforce already has excellent technical skills, but we need to add people to the organization who are more marketing and customer-oriented. Also, as digital technologies are changing the way in which we work together and do business, we need to develop a digital mindset among our staff. Finally, as the Group is becoming more and more global, we need to make sure that the diversity of our workforce reflects the diversity of the world in which we operate.

### WHAT DO YOU MEAN BY DIVERSITY?

**\_ J-P. C.:** Promoting diversity is not about being politically correct. It is about efficiency and performance. The fact is: diverse teams make better decisions. This is true at all levels, from the shop floor to the highest levels of management. As I said earlier, our industry is facing

some major transformations, some rapidly evolving challenges. We cannot meet them with a homogeneous mindset. We need new ideas, more points of view, more creativity. Diversity is both a source and an accelerator of innovation.

### HOW DO YOU SEE INNOVATION?

**\_ J-P. C.:** Innovation is a key enabler of our strategy. There is innovation in our management model. There is innovation across all our operational excellence programs. And, of course, there is innovation in new products, new materials, new solutions. This kind of innovation is critical to the success of the company. It allows us to serve our customers and anticipate their needs in a fast moving environment. That is one of the main reasons why we acquired Cytec. It allows us to make a step forward in terms of developing lightweight materials and applications and to better serve the growing needs for more overall efficiency and less CO<sub>2</sub> emissions in aerospace and automotive. We have just announced significant step forward in our strategic supplier relationship with a large commercial aircraft manufacturer, leveraging the combined strengths of our composite materials and our high-performance specialty polymers.

### WHAT ARE YOUR OBJECTIVES FOR SUSTAINABLE DEVELOPMENT FOR 2025?

**\_ J-P. C.:** Sustainability is today at the heart of our strategy. We are working to reduce the impact on the planet of our own operations. But we also need to understand what sustainability means for our customers, what type of opportunities it creates.

By 2025, we aim to reduce the greenhouse gas intensity of our operations by 40%. To that end, we have started this year applying an internal price for CO<sub>2</sub> emissions of € 25/ton to take into account climate challenges in our investment decisions. Talking about opportunities, we have set an ambitious target of 50% of revenues generated from products and solutions with high environmental benefits.

### WHAT DOES MAKE SOLVAY DIFFERENT FROM OTHER CHEMICAL COMPANIES?

**\_ J-P. C.:** Solvay is a unique company. There are few companies around today that are 150 years old and I do not know of another one of our size that has been supported by the same group of family shareholders for 150 years. This long-term ownership structure has enabled us to make some very important transformations. Also, I do not know many companies in our industries that have made such bold moves to transform their portfolio as we have over the past few years. All this has also been made possible by the quality of our people and by our ability to understand early on the needs of customers and come up with solutions that exactly meet those needs.

### WHAT IS THE OUTLOOK FOR SOLVAY IN 2016?

**\_ J-P. C.:** We expect 2016 to be another year of growth in an environment which will be as uncertain as it was in 2015. Growth will be driven by the synergies with Cytec, by greater volumes thanks to the eight new plants we started-up in 2015 and the continued success of our innovation. And we will continue to work to upgrade our portfolio of activities.



*I do not know many companies in our industry that have made such bold moves to transform their portfolio as we have over the past few years. ”*

# FIVE COMMITMENTS BY 2025

With Solvay Way, the Group reinforces its commitment to sustainable chemistry.

REDUCE GREENHOUSE GAS INTENSITY

↓  
- 40%

Reduce the greenhouse gas intensity of our operations by 40% by increasing our energy efficiency and improving our industrial processes.



REDUCE THE NUMBER OF ACCIDENTS

↓  
- 50%

Reduce the number of accidents on our sites by 50% thanks to a safety management based on people's involvement and a continuous improvement plan.



INCREASE EMPLOYEE ENGAGEMENT

↓  
+ 5 points

Raise the level of employee engagement from 75% to 80%. The main levers are recognition and personal development, while respecting the work-life balance and fostering a culture of openness.

ENCOURAGE EMPLOYEES' SOCIETAL INITIATIVES

↓  
X 2

Double the number of employees engaged in activities benefiting society at large by federating existing actions and facilitating employee involvement.



INCREASE SUSTAINABLE SOLUTIONS

↓  
x 2

Double the share of net sales generated by sustainable solutions from 25% to 50%.



# MORE

## TALENT

**This year, we continue to develop our people, engage with our social partners, and transform our workforce to reflect the diversity of our clients and our geographical presence.**



# DIVERSITY & INCLUSION

DIVERSE THINKING, SMARTER BUSINESS

— **Strengthen our business through diversity and integration.**

## A COMPETITIVE ADVANTAGE

— November saw the introduction of a Group Diversity & Inclusion Policy as part of the Executive Committee's decision to build a more diverse workforce in order to bring us closer to our customers. As Jean-Pierre Clamadieu explained to all employees: *"A more diverse team makes better decisions, manages business better, and can innovate better and faster."* In short, diversity is a competitive advantage in a global economy.

— The Policy will focus on improving talent diversity in four key areas: experience and personal background, gender, geographical origin, and age. Progress will be measured against two clear objectives. First, by 2020 women should hold at least one-fifth of all senior executive positions. Second, the number of senior managers from the Americas and Asia should be doubled in the same period, compared to 2015.

## REFLECTING THE SOCIETIES AND REGIONS IN WHICH WE OPERATE

— The Policy sets out a framework for Diversity & Inclusion across the Group. *"It is fundamental to the business that our workforce reflects the societies and regions in which Solvay operates,"* explains Brigitte Laurent, Head of Change, Engagement & Diversity. The Policy will guide the Group as it embeds diversity and inclusion in all relevant HR processes such as recruitment, talent management, and succession planning.



## CÉCILE TANDEAU DE MARSAC

*Following the 2015 Employee Survey held in April, Solvay took measures in four key areas of Human Resources. The Group's head of HR explains how these actions support the Group's broader transformation strategy.*



*Since Solvay is very focused on growth, we must encourage and accompany our employees to grow too. »*



**Cécile Tandeau de Marsac**  
Group General Manager Human Resources

### WHAT IS THE GROUP'S HR STRATEGY?

– **Cécile Tandeau de Marsac:** The HR strategy serves the global ambitions of the Group. We won't be successful without the full engagement of our employees and our social partners. To see how we were progressing, we conducted an employee survey in April.

### WHAT DID THE SURVEY SHOW YOU?

– **C.T.d.M.:** The results confirmed the need to strengthen the link between the Group's growth objectives and developing people. As of 2015, the annual evaluation process has been updated

to ensure that managers place more importance on professional development opportunities for team members during interviews, and don't just take performance into account. We also defined an engagement index to monitor progress. Also, to transform our business, we need managers from different backgrounds, with different points of view, who are able to find innovative solutions to the challenges we face. That was the goal behind the 2-day Transformational Leadership seminar held this year. It took the leaders who participated out of their routine and comfort zone by encouraging interaction with colleagues from different backgrounds.

### IT SOUNDS LIKE DIVERSITY IS INCREASINGLY IMPORTANT TO THE BUSINESS?

– **C.T.d.M.:** We believe that by fostering diversity and team cohesion we will generate the best solutions for our employees, our customers, and all our stakeholders. To us, diversity encompasses all the traditional criteria, but also convictions, culture, education, and place of origin. Our success and performance are based on our ability to promote diversity and encourage openness and respect. We encourage a culture where employees are valued and involved in the Group's success.

### HOW DO YOU LINK YOUR EMPLOYEES TO THE GROUP SUCCESSSES?

– **C.T.d.M.:** It is quite obvious that compensation and recognition are critically important tools. In 2015, a Global Performance Sharing Plan for the Group was developed in consultation with the European Works Council. It allows all employees to share financially in the Group's performance. The quality of social dialogue is crucial to implement successfully a plan of this size at the Group level.

# THE EXECUTIVE COMMITTEE



**The Executive Committee is responsible for setting the Group's strategy, ensuring that objectives are realized, and optimizing the allocation of resources among the Global Business Units. It is collectively responsible for Solvay's overall performance and protecting the Group's interests. On December 31, 2015, the Executive Committee consisted of five members, each overseeing a number of GBUs, Functions or Zones.**

**JEAN-PIERRE CLAMADIEU**  
Chairman of the Executive Committee and CEO



**ROGER KEARNS**



**KARIM HAJJAR**  
Chief Financial Officer



**VINCENT DE CUYPER**



**PASCAL JUÉRY**



# THE LEADERSHIP TEAM\*

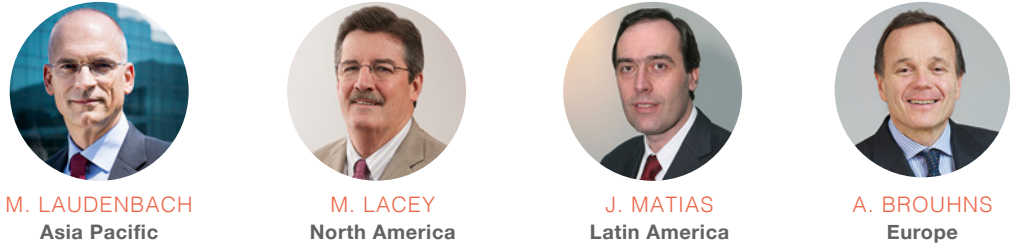
The Leadership Team consists of GBU Presidents, General Managers of Functions, and Zone Presidents. In 2015, the Presidents of the two new GBUs created after the acquisition of Cytec joined the Leadership Team.



\*As of April 1, 2016



**Zone Management**

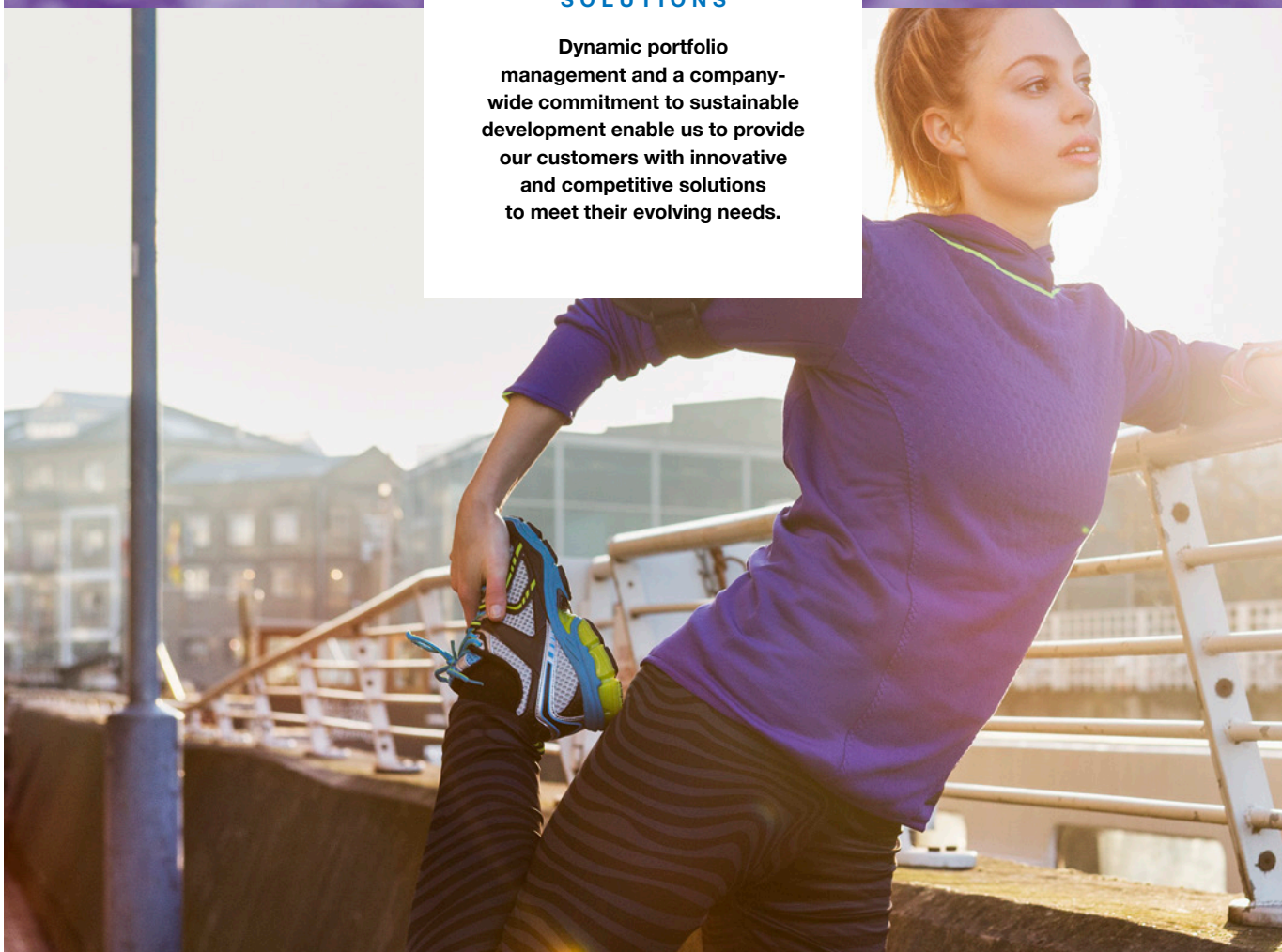




# MORE

SUSTAINABLE  
SOLUTIONS

**Dynamic portfolio management and a company-wide commitment to sustainable development enable us to provide our customers with innovative and competitive solutions to meet their evolving needs.**





*Our ecosystem  
enables us to make  
bold moves  
in innovation. ”*

**Nicolas Cudré-Mauroux**  
Group Research & Innovation  
General Manager

# NEW WAYS OF INNOVATION

## NICOLAS CUDRÉ-MAUROUX

*Group Research & Innovation General Manager Nicolas Cudré-Mauroux talks about 2015 and how a collaborative, value-driven approach to R&I is boosting Solvay's portfolio of technologies and solutions.*

### WHAT DOES INNOVATION LOOK LIKE AT SOLVAY?

**Nicolas Cudré-Mauroux:** Innovation has always played a critical role in our global strategy. We have the ambition to combine all the technologies at our disposal to create new solutions. We do this not only by investing significantly in Research & Innovation (R&I), but also by seeking out new ideas both inside and outside of the Group.

Solvay's innovation assets consist of strong, focused research teams working in close collaboration with business and marketing teams. Together they create a balanced innovation ecosystem and enable the Group

to make bold moves in innovation oriented towards sustainable development. For instance, in 2015 this ecosystem led to a new technology for high-density batteries and to N PROTECT™ for the agriculture. It also contributed to the development of EFFICIUM® for energy-saving tires and salt-free vanillin.

Our innovation ecosystem also extends outside the company. We work with universities, invest in start-ups, and support breakthrough projects like Solar Impulse. We are not afraid to explore new ways of innovation.

2,350\*

STAFF WORKING  
IN R&I**WHAT IS THE LINK BETWEEN INNOVATION AND SUSTAINABLE DEVELOPMENT?**

**N.C.M.:** We consider all projects with respect to addressing the challenges of sustainable development. We also use eco-design to integrate environmentally efficient thinking into all our projects from day one. Very tangibly, our work on batteries and energy storage, for example, is contributing to the next generation of electric vehicles and energy storage solutions for better grid management. Our research on lightweighting will decrease the fuel consumption of cars and planes.

**WHAT DOES THE ACQUISITION OF CYTEC MEAN FOR INNOVATION AT SOLVAY?**

**N.C.M.:** In the case of lightweighting solutions, it brings extensive expertise in composite materials which, combined with our expertise in advanced thermoplastics, will help accelerate innovation in cost competitive thermoplastic composites. In the case of Cytec's chemical businesses, they're very complementary, both from a technical and from a market point of view, to several existing Solvay businesses. Beyond that, both businesses bring an amazing level of customer focus that's very visible in the way innovation projects are run. Finally, this acquisition also increases our R&I presence in North America, which remains a world-leading region for research investments and universities.

\* Solvay pro forma 2015, unaudited, including Cytec.

**SOLVAY PRIZE****SHAPING TOMORROW'S CHEMISTRY**

The 2015 Chemistry for the Future Solvay Prize went to Professor Ben Feringa at the University of Groningen, Netherlands, for his groundbreaking work on molecular motors. He manipulates molecules at the nanometer scale and turns them into motors. His design of the first rotary molecular motor sets the stage for a range of future applications such as information storage on a molecular scale, the development of responsive materials, smart catalysts for chemical processes, artificial muscles, and medication that can be switched on and off for precision therapy.

**COMBINED INNOVATION****A NEW WAY TO REDUCE FERTILIZER USAGE**

Nitrogen is a key nutrient of plants. Farmers supplement the natural supply of nitrogen with fertilizers, and the one most commonly used today is urea fertilizer in granular form.

Combining our expertise in green solvents and agrochemical formulations, we developed N PROTECT™, a liquid stabilizer for urea fertilizer that reduces the amount of nitrogen lost by ammonia volatilization. It allows urea fertilizer to carry more nitrogen and avoids the use of toxic and malodorous solvents. Trials show that N PROTECT™ helps farmers achieve higher crop yields while using less urea fertilizer.



# OUR MARKETS

— Chemistry plays a key role in meeting the sustainability challenges that face our world. Megatrends such as demographic shifts, evolving consumer behavior, faster innovation, and resource scarcity are redefining the way people interact, communicate, move around, and shop. Solvay helps our customers turn these challenges into market opportunities thanks to innovative, competitive, and sustainable solutions.



**Consumer  
goods and  
healthcare**

## Improving quality of life

Demographic evolutions such as aging populations in mature economies and the rise of the middle-class in Africa, Asia and Latin America are changing consumer behavior. They want easy-to-use and multifunctional solutions that are tailor-made, safe, and sustainable – and that contribute to their health and well-being.

## CONSUMER GOODS

From smart textiles to personal care, our broad portfolio offers innovative, sustainable, and competitive solutions. We're constantly improving the performance of our products by combining innovation and sustainability, as we have done with EURECO® organic peroxide for detergents, and the recent licensing agreement on encapsulation technology with Revolymer.

## HEALTHCARE

We offer a unique range of thermoplastics for implantable and non-implantable medical devices. Our portfolio of advanced medical-grade polymers such as RADEL® PPSU offers a versatile toolbox of solutions for medical instrument designers. We also manufacture BICAR® sodium bicarbonate for effervescent tablets.



## Automotive and aeronautics

### Cleaner mobility

Manufacturers have to comply with ever stricter regulations on CO<sub>2</sub> and particle emissions while meeting consumer demand for safe, environmentally sustainable travel.

Our solutions contribute to cleaner, safer, and more energy-efficient modes of transportation.

### LIGHTWEIGHTING

We're an integrated player with a comprehensive portfolio of lightweight materials, from high-performance polymers to long-fiber compounds, tapes, foams, and the most advanced composite solutions for semi-structural and structural applications. Our acquisition of Cytac in 2015 considerably strengthened our composite offering for both the aerospace and automotive industries.

### POWERTRAIN EFFICIENCY

Our polymers and fluorinated products provide effective thermal control solutions, optimized acoustic systems, and corrosion protection for automobile powertrains. Our NOCOLOK® Flux brazing product is an industry standard for aluminum heat exchangers.

### ELECTRIFICATION

Our solutions meet the highest requirements in terms of safety, and temperature and chemical resistance. Our new generation of electrolyte additives, salts, binders, and separators improve lithium-ion battery performance.

### GREEN TECHNOLOGIES

Our range of highly dispersible silica helps reduce the rolling resistance of tires while lowering fuel consumption and CO<sub>2</sub> emissions. Our rare earth catalytic materials reduce polluting emissions such as NOx.

## Building and construction

### Sustainability and energy efficiency

Demand is growing for longer lasting buildings that reduce energy consumption and enhance well-being. Our solutions focus on meeting the ever more stringent accreditation systems that measure environmental performance in passive residential and commercial buildings.

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### ENERGY PERFORMANCE

Our solutions are used in energy-saving triple-glazed windows and in foam wall insulation for low-energy housing. HALAR® ECTFE film, with its unique transparency and weatherability, is helping architects come up with more innovative designs.

### PROTECTION AND SAFETY

To meet growing demand for greater safety and longevity in buildings, we provide materials that offer increased resistance to corrosion, UVs and fire. These include a wide range of zero VOC<sup>1</sup> and APE<sup>2</sup>-free components for water-based architectural paints and coatings, a strong expertise in color solutions, and fire-resistant materials for wires, cables, and appliances.

### RESOURCE MANAGEMENT

Our high-performance plastics ensure the robustness of water supply systems and drinking water quality. Our bio-sourced TECHNYL eXten®, for instance, provides an effective alternative to polyamide 12 protective coating for metal pipes.

1\_VOC: Volatile Organic Compounds

2\_APE: Alkyl Phenol Ethoxylates



## Agro, feed and food

### Sustainable living, environmental protection

The growing global population requires greater agricultural yields and better resource management.

Solvay offers a unique portfolio of innovative solutions to support customers, from farmers to food processors, to operate responsibly, qualitatively, and sustainably.

#### AGRICULTURE

Our eco-efficient bio-polymers and RHODIASOLV® Polarclean solvents improve crop protection and yields. Our AGRHO™ solutions promote water and nutrient retention in plants. PROCrop offers an effective and sustainable alternative to conventional pesticides in grain silos.

#### FEED

Our silica and sodium bicarbonate-based solutions meet the quality, food safety, and productivity requirements of this market. A feed supplement for livestock, BICAR® Z sodium bicarbonate helps fight acidosis and thus contributes to animal health. We opened Southeast Asia's largest sodium bicarbonate plant in Thailand in 2015 to meet the region's growing demand.

#### FOOD

With the introduction of two new natural VANIFOLIA™ flavor brands and the expansion of our GOVANIL® range, we leverage our unique know-how in vanilla aroma. In 2015, the worldwide production of our vanillin was 100% FSSC 22000 certified. Also, our AMODEL® PPA and KETASPIRE® PEEK polymer solutions earned National Safety Foundation (USA) approval for use in food processing, expanding Solvay's solutions for the packaging industry.

### Connectivity and energy efficiency

Our miniaturization technology and advanced materials open up new perspectives for manufacturers in terms of design, safety, and technology and energy performance.

#### DESIGN AND CONNECTIVITY

Our KALIX® HPPA polyamides make it possible to manufacture slim and stylish smartphones that are also very strong.

#### SAFETY

Thanks to our polyamide solutions, electrical equipment can offer higher temperature resistance, more efficient fire protection, and user safety. Our TECHNLY® flame-retardant products, for example, meet the latest international electrical safety regulations.

#### SUSTAINABLE SOLUTIONS

For low-energy solutions, we provide materials for LED lighting. Energy-saving light bulbs using LUMINOSTAR® consume up to seven times less energy than incandescent bulbs.

#### PROCESS EFFICIENCY

Electronics require high purity for high technical components. Our INTEROX® PICO hydrogen peroxide is the reference for semiconductor manufacturers.

## Electrical and electronics



**Energy and environment**

**Protect and care**

Worldwide demand for energy continues to grow and environmental protection has become the norm. The oil and gas industry is striving to reduce its environmental footprint, while energy companies continue to add renewables to their energy mix. Solvay offers proven solutions and expertise, focusing on environmental protection and CO<sub>2</sub> emissions reduction.

**\_OIL AND GAS**

SOLEF® PVDF is used to manufacture pipelines that resist corrosion and high temperatures, and avoid leakage. Our solutions for oil extraction include additives like natural guar derivatives and surfactants that increase yields and limit the environmental impact of drilling.

**\_ALTERNATIVE ENERGIES**

Our solutions are used in the production and storage of renewable energies. HALAR® ECTFE brings high-performance and UV protection to photovoltaic panels. Our LiTFSI lithium salt makes Li-Ion batteries last up to 20% longer while improving safety and performance. We are a partner in the LIFE+ GLEE project, focusing on alternative technologies for batteries. It was named as “Best in Class-Growth & Sustainability” by the Fondazione Sodalitas (Italy) in 2015.

**\_ENERGY EFFICIENCY**

Our SOLWATT® integrated service is designed to improve energy performance and reduce the CO<sub>2</sub> footprint for both Solvay operations and energy-intensive third-party industrial clients.

**\_ENVIRONMENTAL PROTECTION**

Our solutions support air and water treatment using filtration, gas separation, absorption, and chemical reactions. For example, UDEL® PSU and ALGOFLON® PTFE ensure better water filtration in membrane processes, while INTEROX® hydrogen peroxide is widely used in drinking water treatment.



## Industrial applications

### Efficiency and value

Industrial players strive to find the balance between innovation and regulations in order to increase the competitiveness of their products and the efficiency of their production. We develop intermediaries, materials, and processes that help manufacturers get more out of their equipment in a more responsible way.

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### INDUSTRIAL AND PROTECTIVE COATINGS

In addition to offering a wide range of binders, solvents, and additives, we won the JEC Innovation award (Singapore) in 2015 for EPICEROL<sup>®</sup>, a 100% bio-based epichlorohydrin used in the production of epoxy resins. Our eco-friendly RHODIASOLV<sup>®</sup> IRIS biodegradable solvent is used in industrial cleaning, resin clean-up, foundry resins, paint stripping, paints, and coatings.

### 3D PRINTING

We offer 3D printing polymers like SINTERLINE<sup>®</sup> TECHNYL<sup>®</sup> for prototyping, which is widely used in the aerospace industry.

### METAL AND SURFACE TREATMENT

Our solutions improve the performance of finished products. Our RHODOCLEAN<sup>®</sup> formulation (industrial cleaning) and the bio-based AUGEO<sup>®</sup> SL191 solvent (leather processing) are two examples of environmentally responsible solutions.

### INDUSTRIAL EQUIPMENT PROTECTION

Our SOLEF<sup>®</sup> fluoropolymers and TECHNYL<sup>®</sup> high-performance polyamide offer superior resistance to corrosion, high temperatures, and chemical aggression.

### MINING

Our recent acquisition of Cytec has made us a leading supplier of chemical reagents, enabling customers to improve productivity and reduce operating costs for the recovery of many metals and minerals, especially copper, alumina, gold, silver, uranium, nickel/cobalt and poly-metallic ores.

# SPiRiT OF INNOVATION

— For more than 150 years, Solvay has been cultivating a tradition of audacity and a spirit of innovation. It is our way of asking more from chemistry. Our way of looking beyond compounds and molecules to find sustainable, responsible solutions to real-world challenges.

— This spirit is active throughout the company. It is what led us to support the Solar Impulse project over a decade ago. Solar Impulse is a flying test bed and showcases for our state-of-the-art materials.

— Our pioneering spirit is what powers the work of our Research & Innovation laboratories around the world. Ever since Ernest Solvay made his technological breakthrough in the ammonia-soda process 150 years ago, we have been developing new concepts such as bio-sourced alternatives to fossil raw materials, silica for energy efficient tires, and high-performance polymers that reduce the weight of cars and airplanes.

— This spirit of innovation extends outside of the company. We currently manage over 100 collaborative “open innovation” projects with customers, academia, start-ups and other companies. It is why we recognize major scientific discoveries through our Chemistry for the Future Solvay Prize, which this year went to groundbreaking work on unidirectional molecular motors.

— It also extends to addressing the challenges facing our planet, thanks to the deep integration of sustainability in our strategy. Our objective is clear: be a source of progress and competitiveness for our clients along the entire value chain.

— Finally, this spirit is driving our push to increase the share of sustainable solutions in the Group’s portfolio from 25% currently to 50% by 2025. It is why we decided to acquire Cytec, a leader in composites used in the lightweighting of planes and cars. The spirit of innovation transforms Solvay every day.



**EVOLVING DEMOGRAPHY AND CONSUMER BEHAVIOR**



**INNOVATION ACCELERATION**



**RESOURCE CONSTRAINTS AND DEMAND FOR SUSTAINABILITY**



Solar Impulse started its Round the World Flight on March 9, 2015 from Abu Dhabi, landing in Hawaii on July 3<sup>rd</sup> after stopovers in Oman, India, Myanmar, China and Japan. After a technical stop in Hawaii in the winter 2015-16 for maintenance on the batteries, the flight should resume in April 2016 from Hawaii, to the US mainland, then cross the Atlantic ocean for finally close the loop in Abu Dhabi in the summer of 2016.



**GOVERNANCE AND  
FINANCIAL AND  
EXTRA-FINANCIAL  
INFORMATION**

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# 1

## CORPORATE GOVERNANCE

*This chapter is an annex  
to the management report*

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# CORPORATE GOVERNANCE STATEMENT

## Reference code and introduction

The Solvay group has adopted the 2009 Belgian Corporate Governance Code as its reference code in governance matters. This report<sup>(1)</sup> presents the application of the recommendations of that Code in accordance with the “comply or explain” principle. The 2009 Belgian Corporate Governance Code is available on the internet site of the Belgian Corporate Governance Committee ([www.corporategovernancecommittee.be](http://www.corporategovernancecommittee.be)).

## 1 Legal and shareholding structure of Solvay SA

**1.1** Solvay SA is a *société anonyme* (public limited liability company) created under the Belgian law. The address of its registered office is 310, rue de Ransbeek, 1120 Brussels, Belgium.

The Company's by-laws can be found on the Solvay internet site: [www.solvay.com](http://www.solvay.com).

**1.2** Solvay shares are registered or dematerialized. Since January 1, 2008, it is no longer possible to receive paper (bearer) shares. Bearer shares in a securities account have automatically been converted into dematerialized shares. Additionally, following a resolution adopted by the General Shareholders' Meeting of May 8, 2007, all bearer shares issued by the Company and not recorded in dematerialized securities accounts or converted into registered shares by July 1, 2011, were converted automatically into dematerialized shares.

Persuant the law of December 21, 2013, Solvay SA has offered in July 2015 all the unclaimed Solvay shares (*i.e.* 33,099 shares) for sale on the stock market. The net proceeds of such sale have been deposited with the State owned Deposits and Consignments Fund (Caisse des Dépôts et Consignations) on August 20, 2015.

At December 31, 2015, the capital of Solvay SA was represented by 105,876,416 shares.

In the frame of the financing of the Cytec acquisition completed on December 9th, 2015, Solvay SA proceeded with a rights issue for an amount of € 317,629,245 through the issue of 21,175,283 new ordinary Solvay shares, with an issuance premium of € 1,182,216,050.

This rights issue was completed on December 21, 2015. Consequently, the capital of Solvay SA was increased from 84,701,133 shares as of December 31, 2014 to 105,876,416 shares in 2015. Each share entitles its holder to one vote whenever voting takes place (except for any shares held by Solvay SA or its subsidiaries, the voting rights for which are suspended). All shares are equal and common.

The stock is listed on Euronext Brussels. It has also been admitted to trading on Euronext Paris since January 23, 2012. The Solvay share is included in several indexes:

- the Euronext 100 index, consisting on the leading 100 European companies listed on Euronext, where Solvay ranked in 60<sup>th</sup> place (0.46% of the index) at December 31, 2015;
- the BEL 20 index, based on the 20 most significant shares listed on Euronext Brussels. At December 31, 2015, Solvay represented 6.96% of the value of this index (7<sup>th</sup> place in this index). Solvay shares are included in the “Chemicals – Specialties” category of the Euronext Brussels sector index;
- the CAC 40 index, based on the 40 most significant shares listed on Euronext Paris where Solvay ranked in 36<sup>th</sup> place (0.76% of the index) at December 31, 2015;
- the DJ Stoxx, DJ Euro Stoxx, FTSE 300, MSCI and other indexes.

In May 2014, Solvay Stock Option Management SPRL appointed Kepler Cheuvreux to improve the liquidity of the share on Euronext under a liquidity contract. Prior to Kepler Cheuvreux, the liquidity contract was managed by the bank Rothschild & Cie.

**1.3** Solvay SA's main shareholder is Solvac SA, which at December 31, 2015 held a little over 30% of the capital (32,115,770 shares) and voting rights in Solvay. Solvac SA has filed the required transparency declarations every time it has passed a legal or statutory declaration threshold. It has also made the notifications required by law with regard to public takeover bids.

Solvac SA is a *société anonyme* established under Belgian law, the shares of which are admitted to trading on Euronext Brussels.

At December 31, 2015, Solvay Stock Option Management SPRL held 1.989% of the shares issued by Solvac SA (2,105,905 shares), in particular to cover the Solvay stock options program (see under 2.1 “Policy in respect of capital”).

(1) For reason of readability, the present document also contains the information requested by the 2009 Belgian Corporate Governance Code for the Corporate Governance Charter.

JPMorgan Asset Management Holdings Inc. notified Solvay that on August 3, 2015, the total participation of its various affiliates fell below 3% of the total number of shares issued.

Prudential Plc. notified Solvay that on January 7, 2015, the total participation of its various affiliates fell below 3% of the total number of shares issued.

The latest transparency declarations are available on the internet site [www.solvay.com](http://www.solvay.com).

The remaining shares are held by:

- individual shareholders who hold shares directly in Solvay SA. None of these persons, either individually or in concert with others, reaches the initial 3% transparency declaration threshold;
- European and international institutional shareholders, whose number and interest can be measured by the intensity of contacts at the many roadshows, by the regular publication of analysts' reports and by the level of trading volumes over recent years (an average daily trading volume on Euronext of 325,619 shares in 2015, compared to 193,011 shares in 2014, and on all MTFs of 538,210 vs. 328,398).

The Company has been informed that certain individual shareholders who hold shares directly in Solvay SA have decided to arrange to consult together when questions of particular strategic importance are submitted by the Board of Directors to the Shareholders' Meeting. Each of these shareholders, however, remains free to vote as he or she chooses. None of these persons, either individually or in concert with others, reaches the initial 3% transparency declaration threshold.

**1.4** At the May 12, 2015, Ordinary Shareholders' Meeting, shares were deposited and votes cast in respect of 60.32% of Solvay SA's capital.

**1.5** At December 31, 2015, Solvay SA did not hold any shareholding requiring a legal or statutory transparency declaration.

## 2 Capital and dividend policy

### 2.1 Policy in respect of capital

**2.1.1** Since being converted into a *société anonyme* and listed on the Stock Exchange in 1967, the Company has made only once public call for capital from its shareholders, in 2015 in the specific context of the acquisition of Cytec.

It finances itself out of its profits, only a portion of which are distributed (see "Dividend policy" below).

The capital of the Company amounts to € 1,588,146,240 after the capital increase completed on December 21, 2015, in the context of the financing of the Cytec acquisition.

This capital increase was made after the decision of the Board of Directors acting on the basis on an authorization granted by an Extraordinary Shareholders' Meeting held on November 17, 2015.

**2.1.2** In December 1999, the Company introduced an annual stock option program for Group executives worldwide. These programs are covered in part or totally by own shares purchased by the Solvay group on the stock exchange. Since January 2007, the covering program has been handled by Solvay Stock Option Management SPRL.

At December 31, 2015, Solvay Stock Option Management SPRL's holdings of Solvay SA shares represented 1.989% (2,105,905 shares) of the Company capital.

In 2015, stock options representing a total of 563,540 shares were exercised (it should be noted that options are in principle exercisable over a period of five years after being frozen for three years).

The stock options exercised break down as follows:

- 2005 stock option plan: 16,940 shares;
- 2006 stock option plan: 18,200 shares;
- 2007 stock option plan: 96,250 shares;
- 2008 stock option plan: 33,250 shares;
- 2009 stock option plan: 40,400 shares;
- 2010 stock option plan: 88,800 shares;
- 2011 stock option plan: 269,700 shares.

Voting and dividend rights attached to these shares are suspended as long as they are held by the Company.

Finally it should be mentioned that, under the tender offer by Solvay SA for the shares of Rhodia, liquidity agreements were concluded with employees receiving free shares or options on Rhodia shares to enable these beneficiaries to retain their rights and to sell their Rhodia shares during a specified period after the close of the tender offer. The free shares exposure is fully covered.

## I STOCK OPTIONS PLANS

Issue date	Exercise price (ln €) <sup>(1)</sup>	Exercise date <sup>(2)</sup>	Acceptance rate
2001	62.25	02/2005-12/2009	98.6%
2002	63.76	02/2006-12/2010	98.4%
2003	65.83	02/2007-12/2011	97.3%
2004	82.88	02/2008-12/2012	96.4%
2005	91.45	02/2009-12/2013	98.8%
2006	102.53	02/2010-12/2014	97.2%
2007	90.97	01/2011-12/2015	97.6%
2008	55.27	01/2012-12/2016	96.9%
2009	67.99	01/2013-12/2017	98.2%
2010	71.89	01/2014-12/2018	98.1%
2011	61.76	01/2015-12/2019	93.8%
2012	83.37	01/2016-03/2020	97.2%
2013	104.33	01/2017-03/2021	100%
2014	101.14	01/2018-02/2022	100%
2015	114.51	01/2019-04/2023	100%

(1) Due to capital increase, exercise prices for plan from 2005 to 2015 have been adjusted according to Euronext ratio methodology (ratio = 0.93984) as decided by the Board of Directors on December 2, 2015 (see section 6 below).

(2) Increased to eight years in the case of the 1999 to 2002 Stock Options Plans for beneficiaries in Belgium. Increased to 10 years in the case of the 2005 to 2007 Stock Options Plans for beneficiaries in Belgium.

## 2.2 Dividend policy

**2.2.1** Board policy is to propose a dividend increase to the Shareholders' Meeting whenever possible, and as far as possible, never to reduce it. This policy has been followed for many years. The graph below illustrates the application of this policy over the past 25 years.

**2.2.2** The annual dividend is paid in two instalments, in the form of an advance payment (interim dividend) and a final payment of the remaining balance.

The method to set the advance payment is determined partly by reference to 40% (rounded) of the previous year's total dividend, and takes into account the results for the first nine months of the current year.

As to the balance, once the annual financial statements have been completed, the Board of Directors proposes a dividend, in accordance with the policy described above, which it submits to the General Shareholders' Meeting for approval.

The second dividend instalment, *i.e.* the balance after deducting the advance payment, is payable in May.

In this way, an interim dividend of € 1.33 gross per share (€ 1.00 net after Belgian withholding tax of 25%) was approved by the Board of Directors on November 12, 2014, and was paid on January 22, 2015.

The dividend for 2014, approved by the General Shareholders' Meeting of May 12, 2015 was € 3.40 gross per share (€ 2.55 net per share), *i.e.* an increase of 6.3% compared with the dividend of previous year. Given the interim dividend paid, the balance of € 2.06 gross per share (€ 1.55 net per share) has been paid on May 19, 2015.

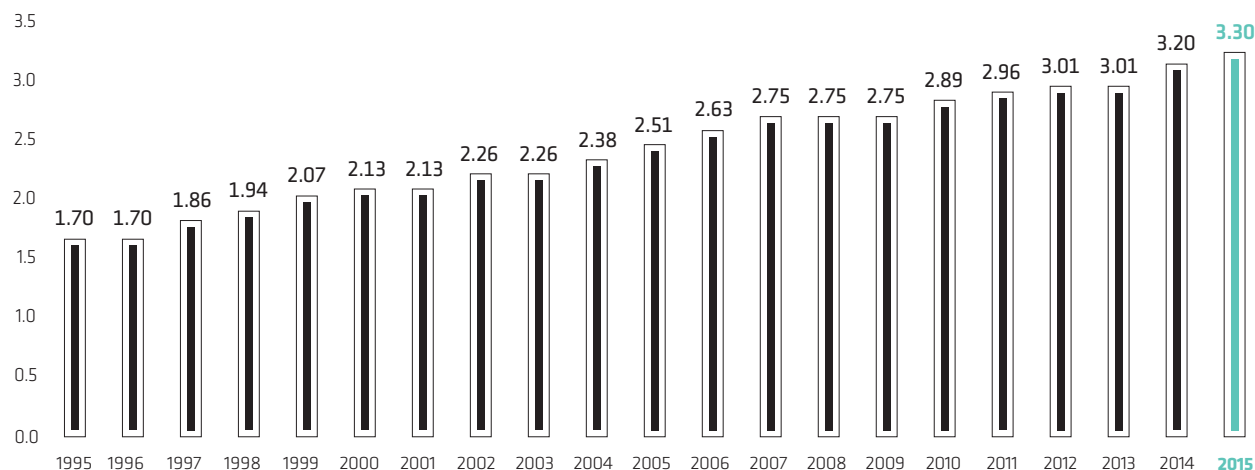
The dividend for 2015 proposed to the General Shareholders' Meeting of May 10, 2016 is € 3.30 gross per share (€ 2.41 net per share<sup>(1)</sup>). Following Solvay's rights issue completed in December 2015 and in order to render comparable the proposed 2015 dividend to those paid in 2014 and preceding years, the latter need to be restated by application of an adjustment factor. This adjustment factor amounts to 93.98% according to article 6.3 of the Euronext Derivatives Corporate Actions Policy (as explained in section 13 page 54). This means that the proposed 2015 dividend compares with an adjusted 2014 dividend of € 3.20 gross per share (rounded figure, adjusted from € 3.40 gross per share value), which represents an increase of 3.3%.

An interim dividend of € 1.36 gross per share was paid on January 21, 2016 to all outstanding shares on registration date of January 20, 2016. Given the interim dividend payment made, the balance of € 1.94 gross per share (€ 1.42 net per share<sup>(1)</sup>) will be payable from May 17, 2016, subject to approval of General Shareholders' Meeting of May 10, 2016.

(1) when subject to Belgian withholding tax.

## SOLVAY DIVIDEND (GROSS) FROM 1995 TO 2015 (IN €)

Total dividend adjusted by the bonus factor of 0.9398 (for rights issue)



**2.2.3** Shareholders who have opted to hold registered shares receive the interim dividend and the balance of the dividend automatically and free of charge by transfer to the bank account they have indicated, on the dividend payment date. Shareholders owning dematerialized shares receive their dividends via their banks or as they elect and arrange.

Coupons representing the interim dividend and dividend balance are payable at KBC Bank SA and CBC Banque SA:

- KBC Bank SA, Havenlaan 2, 1080 Brussels (Belgium);
- CBC Banque SA, Grand-Place 5, 1000 Brussels (Belgium).

**2.2.4** The Company has not, up to this point, proposed optional dividends to its shareholders, *i.e.* stock instead of cash dividends. This option does not offer any tax or financial benefit in Belgium to make it attractive to investors.

## 3 Shareholders' Meetings

It should be noted that the law of December 20, 2010 concerning the exercise of certain rights of shareholders in listed companies has modified the provisions of the Companies' Code concerning the holding of General Meetings. The by-laws of Solvay SA have been adapted accordingly.

### 3.1 Place and date

The Company's annual Ordinary Shareholders' Meeting is held every year on the second Tuesday of May at 10.30 a.m. at the registered office or any other place indicated in the notice of meeting.

The Board tries to organize any necessary Extraordinary Shareholders' Meeting immediately before or after the annual Ordinary Shareholders' Meeting.

### 3.2 Agenda

The Shareholders' Meeting is convened by the Board of Directors, which also sets its agenda. Shareholders may, however, request the calling of a Shareholders' Meeting and set its agenda where those shareholders together represent 20% of the capital, as required by the Companies' Code.

One or more shareholders owning together at least 3% of capital may also, under the conditions provided for by the Companies' Code, call for items to be included on the agenda of any Shareholders' Meeting and submit proposals for decisions concerning the items

to be included or already included on the agenda of an already convened meeting.

The agenda of the Ordinary Shareholders' Meeting as a rule includes the following items:

- the Board of Directors' report on the financial year, including the corporate governance report and the compensation report;
- the auditor's report for the year;
- the consolidated financial statements for the year;
- approval of the annual financial statements;
- setting the dividend for the year;
- discharge of the directors and the statutory auditor in respect of the financial year;
- setting the number of directors and of independent directors, the length of their terms of office and the rotation of renewals;
- election of directors and of the external auditor (renewals or new appointments);
- the Company's compensation report (included in Chapter 6 below), which is communicated to the Works' Council as provided by law;
- setting the auditor's annual fee for the external audit for the duration of the auditor's appointment; and approval of change of control clauses in significant contracts (*e.g.* joint ventures).

Extraordinary Shareholders' Meetings are required in particular for all matters affecting the content of the Company's by-laws. Every time the Board of Directors prepares a special report in advance of an Extraordinary Shareholders' Meeting, this special report is enclosed with the notice of the meeting and is published on the Company's internet site.

### 3.3 Procedure for calling meetings

The notices convening Shareholders' Meetings set forth the place, date and time of the meeting, the agenda, the reports, proposed decisions on each item to be voted on, and the procedure for taking part in the meeting or for appointing proxies.

Holders of registered shares receive notice of the meeting by post-office mail at the address they have given, including notification of participation and proxy forms, except where recipients have agreed, individually, expressly and in writing, to receive notice of meetings and attached documents by another means of communication. Persons owning dematerialized shares are notified of meetings by announcements in the press. These notices of meetings are published in the official Belgian gazette (*Moniteur Belge/Belgisch Staatsblad*) and in the financial press, in particular the Belgian French and Dutch-language newspapers. The major banks established in Belgium also receive the necessary documentation to pass on to Solvay shareholders among their clients.

### 3.4 Participation in Shareholders' Meetings and appointment of proxies

**3.4.1** Since January 1, 2012, the registration procedure has been obligatory for participating in and voting at the Shareholders' Meeting.

Shareholders must complete the registration of their securities by 24.00 hours (Belgian time) on the 14<sup>th</sup> calendar day prior to the relevant Shareholders' Meeting.

For holders of registered shares, shares are registered automatically by virtue of being in the Company's register of registered shares on the registration date.

Dematerialized shares are registered by virtue of their being recorded in the accounts of a recognized account holder or a clearing organization.

Shareholders are admitted to the Shareholders' Meetings and may exercise their voting rights with the shares that have gone through the legal registration procedure, regardless of the number of shares they hold on the date of the particular Shareholders' Meeting.

**3.4.2** Shareholders should also indicate to the Company and, where applicable, to the person they have designated to that effect, their desire to take part in the Shareholders' Meeting, no later than the sixth calendar day preceding the date of the Shareholders' Meeting.

Holders of registered shares must send to the Company the signed original notice of participation, using the form attached to their notice of meeting.

Holders of dematerialized shares should send the Company a certificate from the recognized account holder or the clearing organization certifying the number of shares that are registered in their name in their accounts at the registration date and for which they wish to participate in the Shareholders' Meeting.

More detailed information on arrangements for taking part in the Shareholders' Meeting will be made available to shareholders on the Company website (<http://www.solvay.com/en/investors/shareholders-meeting/index.html>).

**3.4.3** The exercise of voting rights attached to shares that are jointly owned or the usufruct and bare property rights of which have been separated, or shares belonging to a minor or a legally incapacitated person, follows special legal and statutory rules, a common feature of which is the appointment of a single representative to exercise the voting right. Failing this, the voting right is suspended pending such appointment.

**3.4.4** Shareholders vote at Shareholders' Meetings in person or by proxy. The form of proxy is determined by the Board and will be available on the Company website once the Shareholders' Meeting in question has been called. Proxies must be received at the location indicated or, where applicable, at the email address mentioned in the notice no later than the sixth calendar day preceding the date of the Shareholders' Meeting.

The appointed agent does not have to be a shareholder of the Company.

In the event that certain shareholders exercise their right to add items or proposals for decisions to the agenda of a Shareholders' Meeting, the proxies already notified to the Company remain valid for the subjects they cover. Regarding the new items, the reader is referred to the provisions of the Companies Code.

The appointed agent may not deviate from the specific voting instructions given to him by a shareholder, except for the exceptions provided by the Companies Code.

In the absence of specific instructions on each agenda item, the agent who finds himself in a situation of potential conflict of interest with his principal, within the meaning of Article 547 *bis*, ¶ 4 of the Companies Code, may not vote.

Invalid proxy forms will be excluded from the count. Abstentions formally expressed as such during a vote or on proxy forms are counted as such.

**3.4.5** Each shareholder who complies with the formalities for admission to the Shareholders' Meeting is entitled to ask questions in writing concerning the items on the agenda. These questions can be submitted by mail to the registered office or electronically to the email address specified in the notice. Written questions must reach the Company no later than the sixth calendar day before the date of the Shareholders' Meeting.

## 3.5 Procedure

**3.5.1** The Shareholders' Meeting is chaired by the Chairman of the Board or, in his absence, by a Director delegated to this task by his colleagues.

The Chairman will preside over the discussions following Belgian practice for deliberative meetings. He will take care to ensure that questions from the meeting are answered, whilst respecting the agenda and confidentiality commitments. He will appoint the secretary of the meeting, who as a rule is the Corporate Secretary, and will appoint two shareholders as tellers.

**3.5.2** Resolutions in Ordinary Shareholders' Meetings are passed by a simple majority of votes of shareholders present and represented on a "one share, one vote" basis.

**3.5.3** In the case of Extraordinary Shareholders' Meetings, the Company respects the legal rules governing quorums and majorities.

**3.5.4** Voting is, as a general rule, public, by show of hands or by electronic voting. Votes are counted and the results announced immediately.

Provision is made for secret balloting in exceptional cases when a particular person is involved.

This procedure has never been requested to date. This by-law was amended at the Extraordinary Shareholders' Meeting of May 9, 2006

so as to set a threshold of 1% of capital to be reached by one or more shareholders acting in concert, and only when there is more than one candidate for a given office.

The minutes of the Shareholders' Meeting are drawn up and signed by the Chairman, secretary, tellers and those shareholders who wish to do so. Minutes of Extraordinary Shareholders' Meetings are notarized.

**3.5.5** The minutes containing the voting results are published on the Company's internet site ([www.solvay.com](http://www.solvay.com)) no later than the 15<sup>th</sup> calendar day after the date of the Shareholders' Meeting. Copies or official extracts may be obtained on request by shareholders, in particular under the signature of the Chairman of the Board.

## 3.6 Documentation

Documentation relating to Shareholders' Meetings (notice of meeting, agenda, proxy and notification of participation forms, annual report, special report of the Board of Directors if any, etc.) is available every year on the internet site ([www.solvay.com](http://www.solvay.com)) from the time of giving notice of the meeting and at least until the holding of the meeting in question.

This documentation is available in French and Dutch (official versions) and in English (unofficial translation).

# 4 Board of Directors

## 4.1 Role and mission

The Board of Directors is the highest management body of the Company.

The law accords to it all powers that are not reserved, by law or by the by-laws, to the Shareholders' Meeting.

In the case of Solvay SA, the Board of Directors has reserved certain key areas for itself and has delegated the remainder of its powers to an Executive Committee (see below).

It has not opted to set up a Management Committee (*Comité de Direction/Directiecomité*) as defined by Belgian law.

The main key areas which the Board of Directors has reserved for itself are:

- 1 matters for which it has exclusive responsibility, either by law or under the by-laws, for example:
  - the preparation and approval of the consolidated periodic financial statements and those of Solvay SA (quarterly – consolidated only, semiannual and annual) and the related communications;
  - adoption of accounting standards (in this case the IFRS standards for the consolidated accounts and Belgian standards for the Solvay SA unconsolidated accounts);
  - convening Shareholders' Meetings and drawing up the agenda and proposals for resolutions to be submitted to them (concerning, for example, Company financial statements, dividends, amendments to the by-laws, etc.);
- 2 setting the general strategies and general policies of the Group;

- 3 approving the reference frameworks for internal control and for risk management;
- 4 adopting the budget and long-term plan, including investments, R&I and financial objectives;
- 5 appointing the Chairman, members of the Executive Committee, General Managers and the Corporate Secretary, and setting their missions and the extent of the delegation of powers to the Executive Committee;
- 6 supervision of the Executive Committee and ratification of its decisions, where required by law;
- 7 appointing from among its members a Chairman and creating from among its members an Audit Committee, a Compensation Committee, a Nomination Committee and a Finance Committee, defining each Committee's mission and determining its composition and its duration;
- 8 major decisions concerning acquisitions, divestitures, the creation of joint-ventures and investments. Major decisions are considered to be those involving amounts of € 50 million or more;
- 9 setting the compensation of the Chairman of the Executive Committee and of Executive Committee members;
- 10 establishing internal Corporate Governance and Compliance rules.

In all matters for which it has exclusive responsibility, the Board of Directors works in close cooperation with the Executive Committee, which in particular is responsible for preparing most of the proposals for decisions by the Board of Directors.

## 4.2 Modus operandi and representation

**4.2.1** Board members have available to them the information needed to carry out their functions in the form of dossiers drawn up under instructions from the Chairman and sent out to them by the Corporate Secretary several days before each session.

They may also receive additional information of any kind that may be of use to them from the Chairman of the Board, the Chairman of the Executive Committee or the Corporate Secretary, depending on the nature of the question. Decisions to obtain outside expertise, when necessary, are taken by the Board of Directors, for those subjects falling within its authority.

**4.2.2** The Company is validly represented with regard to third parties by the joint signature of persons with the following capacities: the Chairman of the Board of Directors and/or directors belonging to the Executive Committee.

In its meeting of October 24, 2014, the Executive Committee adapted the powers of representation for matters delegated to it as follows:

- 1 for daily management of Solvay SA, to each member of the Executive Committee acting alone;
- 2 for other powers delegated by the Board of Directors to the Executive Committee: to each member of the Executive Committee acting together with the Chairman of the Board of Directors or the Chairman of the Executive Committee;
- 3 to each General Manager acting alone for any decision up to a maximum amount of € 10 million within the area assigned to him/her.

This delegation of powers of representation is without prejudice to the existence of special powers conferred by the Board of Directors or the Executive Committee.

**4.2.3** The Directors of the Company were not confronted in 2015 with conflict of interest situations requiring the implementation of the legal procedures provided for by the Companies' Code.

On the other hand, and in a very limited number of cases, one or the other member has preferred, for ethical reasons, to abstain from participating in debates and in voting.

**4.2.4.** The terms of reference for the Board of Directors are published on the Solvay website.

## 4.3 Composition

### 4.3.1 Size & Composition

At December 31, 2015, the Board of Directors consisted of 15 members, as listed on pages 39 and 40.

### 4.3.2 At the Ordinary Shareholders' Meeting on May 12, 2015

- The directorships of Mr. Charles Casimir-Lambert and Mr. Yves-Thibault de Silguy were renewed for a four-year term.

The resignation of Chevalier Guy de Selliers de Moranville was acknowledged and it was decided not to reassign his mandate;

- Mrs. Marjan Oudeman was appointed as a new independent Director for a four-year term.

At the Ordinary Shareholders' Meeting of May 10, 2016, the Board of Directors will propose the renewal of:

- the directorship of Mr. Jean-Marie Solvay for a four-year term.

### Terms of office and age limit

Directors are appointed by the Shareholders' Meeting for four years. They may be reappointed.

The age limit for membership on the Board is the Annual Shareholders' Meeting following the member's 70<sup>th</sup> birthday.

### 4.3.3 Criteria for appointment

The Board of Directors applies the following primary criteria when proposing candidates for election to directorships by the Ordinary Shareholders' Meeting:

- ensuring that a substantial majority of directors on the Board are non-executive. On December 31, 2015, 14 out of 15 directors were non-executive, and only Mr. Jean-Pierre Clamadiou belonged to the Executive Committee;
- ensuring that a large majority of non-executive directors are independent according to the criteria defined by law and further tightened by the Board of Directors (see "criteria of independence" below).  
In this respect, on December 31, 2015 the independent status of 10 out of 14 non-executive directors has been recognized by the Ordinary Shareholders' Meeting;
- ensuring that the members of the Board of Directors together reflect the shareholder structure and possess the wide range of competences and experience required by the Group's activities;
- ensuring that the Board of Directors' international composition appropriately reflects the geographic extent of its activities. At December 31, 2015, the Board included members of seven different nationalities;
- ensuring that the candidates it presents commit to devoting sufficient time to the task entrusted to them. In this respect, attendance at Board meetings was very high in 2015 (99.60%);
- ensuring, finally, that it does not select any candidate holding an executive position in a competing company or who is or was involved in the external audit of the Group.

Belgian law and the by-laws of the Company permit spontaneous candidacies for the post of director, providing that these are addressed to the Company in writing at least 40 days before the Ordinary Shareholders' Meeting.

The Board of Directors, consisting of 10 men and five women on December 31, 2015 already complies with the requirement of the law that will enter into force on January 1, 2017, that at least one-third of the Board be women.

The Chairman of the Board, working together with the Chairman of the Nomination Committee, gathers the information allowing the Board of Directors to verify that the selected criteria have been met at the time of appointment, renewal and during the term of office.

#### 4.3.4 Criteria for independence

Based on Belgian law, the Board of Directors sets the criteria for determining directors' independence. Each director fulfilling these criteria is presented to the Ordinary Shareholders' Meeting for confirmation.

The legal criteria of independence as contained in Article 526 *ter* of the Companies' Code (introduced by the law of December 17, 2008, art. 16) are as follows:

- 1 during a period of five years before appointment, not having acted as an executive member of the management body or a member of the Executive Committee or managing director in the Company or in a company or person affiliated with the same within the meaning of Article 11 of the Companies' Code. The Board of Directors has added to this criterion a minimum one-year waiting period for the Shareholders' Meeting to recognize the independence of a non-executive director of Solvac leaving its Board of Directors to join the Solvay Board of Directors;
  - 2 not having sat on the Board of Directors in the capacity of a non-executive director for more than three successive terms of office or more than 12 years;
  - 3 during three years prior to appointment, not having been part of the senior management, within the meaning of Article 19.2 of the law of September 20, 1948 on the organization of the economy, of the Company or of a company or an affiliated person within the meaning of Article 11 of the Companies' Code;
  - 4 not having received compensation or any other significant benefit of a patrimonial nature from the Company or an affiliated company or person within the meaning of Article 11 of the Companies' Code, with the exception of any profit percentages (*tantièmes*) or fees received in the capacity of non-executive member of the management body or a member of the supervisory body;
  - 5 a) not holding any ownership rights in the Company representing a tenth or more of the capital, or the Company equity, or a category of shares of the Company;
    - b) where the person in question holds ownership rights of under 10%:
      - when these ownership rights are added to those held in the same company by companies over which the independent director has control, these ownership rights may not reach one tenth of the capital, of the Company equity, or a category of shares of the Company,
- or
- the use of these shares or the exercise of the rights attached to the same may not be subject to contract stipulations or to unilateral commitments to which the independent member of the management body has subscribed;
  - c) not representing in any way a Shareholder meeting the conditions of this item;

- 6 not maintaining, or having maintained during the past financial year, a significant business relationship with the Company or with an affiliated company or person within the meaning of Article 11 of the Companies' Code, either directly or in the capacity of partner, shareholder, member of the management body or of member of senior management, within the meaning of Article 19.2 of the law of September 20, 1948 on the organization of the economy, of a company or a person maintaining such relationship;
- 7 not having been, during the past three years, a partner or salaried employee of the current or previous external auditor of the Company or of an affiliated company or person within the meaning of Article 11 of the Companies' Code;
- 8 not being an executive member of the management body of another company in which an executive director of the Company acts as a non-executive member of the management body or member of the supervisory body, nor maintaining other major connections with the executive directors of the Company as a result of functions exercised in other companies or bodies;
- 9 not having, either within the Company or within an affiliated company or person within the meaning of Article 11 of the Companies' Code, a spouse or legally cohabiting partner, or parents or relations up to the second degree of kinship holding the position of member of the management body, of member of the Executive Committee, of a day-to-day executive manager or of member of senior management, within the meaning of Article 19.2 of the law of September 20, 1948 on the organization of the economy, or falling under one of the other cases defined in items 1 to 8.

In this respect, on December 31, 2015, the independent status of 10 out of 15 directors has been recognized by the Ordinary Shareholders' Meeting.

Mr. Jean-Pierre Clamadieu, Chairman of the Executive Committee and CEO, was not recognized as independent at the time of the renewal of his directorship in 2013 (criterion no. 1).

Mr. Bernard de Laguiche, Member of the Executive Committee till September 30, 2013, was not recognized as independent at the time of the renewal of his directorship in 2013 (criterion no. 1).

Mr. Nicolas Boël, Mr. Denis Solvay and Mr. Jean-Marie Solvay, having been Directors of the Company for over 12 years, are not independent for this reason (criterion no. 2).



	Year of birth	Year of first appointment	Solvay SA mandates, and expiry date of directorship	Diplomas and activities outside Solvay	Presence at Board meetings in 2015 as a function of date of appointment
Mr. Nicolas Boël (B)	1962	1998	2017 Chairman of the Board of Directors, Chairman of the Finance Committee and Chairman of the Compensation Committee Member of the Nomination Committee	MA in Economics (Catholic University of Louvain), Master of Business Administration (College of William and Mary - USA). Director of Sofina.	10/10
Mr. Jean-Pierre Clamadieu (F) <sup>(1)</sup>	1958	2012	2017 Chairman of the Executive Committee and CEO, Director and Member of the Finance Committee	Engineering degree from the École des Mines (Paris). Director of Axa, Faurecia. Chairman of Cytec Industries Inc.	10/10
Mr. Bernard de Laguiche (F/BR)	1959	2006	2017 Member of the Executive Committee until September 30, 2013, Director Member of the Finance Committee and Member of the Audit Committee since May 13, 2014	MA in Economics and Business Administration, HSG (University of St. Gallen, Switzerland). Managing Director of Solvac SA, Chairman of the Board Peroxidos do Brasil Ltda, Curitiba.	10/10
Mr. Jean-Marie Solvay (B)	1956	1991	2016 Director Member of the Innovation Board	Advanced Management Programme - Insead. CEO of Albrecht RE Immobilien GmbH & Co. KG., Berlin (Germany), Member of the Board of Directors of Heliocentris Energy Solutions AG. Berlin (Germany), Chairman of the Board of the International Solvay Institutes.	10/10
Chevalier Guy de Selliers de Moranville (B)	1952	1993	Resigned at AGM of May 2015 Director Member of the Finance and Audit Committees	Civil engineering degree in mechanical engineering, and MA in Economics (Catholic University of Louvain). President and Co-Founder of HCF International Advisers, Vice-Chairman of the Board and Chairman of the Risk and Capital Committee of Ageas SA, Chairman of the Board of Ageas UK, Member of the Board of Ivanhoe Mines Ltd. (Canada), Member of the Supervisory Board and Chairman of the Risk Committee of Advanced Metallurgical Group (Netherlands) and, various other mandates in unlisted companies.	3/3
Mr. Denis Solvay (B)	1957	1997	2018 Director Member of the Compensation and Nomination Committees	Business engineering - Solvay Business School (Université Libre de Bruxelles). Director of Eurogentec SA, Abelag Holding, SA, Luxaviation Holding Company. Voluntary Director of the healthcare Institute ANBCT and Queen Elisabeth Musical Chapel.	10/10
Prof. Dr. Bernhard Scheuble (D)	1953	2006	2018 Independent Director Chairman of the Audit Committee	MSc, Nuclear Physics & PhD, Display Physics (Freiburg University - Germany). Former Chairman of the Executive Committee of Merck KGaA, (Darmstadt) and former Member of the E. Merck OHG Board of Directors.	9/10
Mr. Charles Casimir-Lambert (B)	1967	2007	2019 Independent Director Member of the Audit Committee	MBA Columbia Business School (New York)/ London Business School (London), Master's degree (lic.oec.HSG) in economics, management and finance (University of St. Gallen - Switzerland). Management of family's global interests.	10/10
Mr. Hervé Coppens d'Éeckenbrugge (B)	1957	2009	2017 Independent Director Member of the Finance and Audit Committees	MA in Law from the University of Louvain-la-Neuve (Belgium), Diploma in Economics and Business, ICHÉC (Belgium). Until June 30, 2013, Group Director Petercam sa, Director of Vital Renewable Energy Company LLC (Delaware).	10/10

(1) Full-time activity in the Solvay group.

	Year of birth	Year of first appointment	Solvay SA mandates, and expiry date of directorship	Diplomas and activities outside Solvay	Presence at Board meetings in 2015 as a function of date of appointment
Mr. Yves-Thibault de Silguy (F)	1948	2010	2019 Independent director Member of the Compensation Committee and Chairman of the Nomination Committee Member of the Finance Committee	MA in Law from the University of Rennes, DES in public law from the Université de Paris I, graduate of the Institut d'Études Politiques de Paris and the École Nationale d'Administration. Vice-Chairman and Lead Director of the VINCI group, Director of LVMH, Chairman of the Supervisory Board of Sofisport (France), Director of VTB bank (Moscow), and Chairman of YTSuropaconsultants.	9/10
Mrs. Evelyn du Monceau (B)	1950	2010	2017 Independent director Member of the Compensation and Nomination Committees	MA in Applied Economics from the Catholic University of Louvain. Vice Chair of the Board and Chair of the Remuneration and Nomination Committee of UCB SA, Member of the Board of Directors of La Financière de Tubize SA, Director of FBNet Belgium, Member of the Commission Corporate Governance.	9/10
Mrs. Françoise de Viron (B)	1955	2013	2017 Independent Director Member of the Compensation and Nomination Committees	Doctorate of Science (UCL, Louvain-la-Neuve). Master in Sociology (UCL, Louvain-la-Neuve). Professor in the Faculty of Psychology and Education Sciences and Louvain School of Management (UCL). Academic Member of the Center of Research Entrepreneurial Change and Innovative Strategies, of Interdisciplinary Group of Research in Socialization, Education and Training, of the Interdisciplinary Research Group in Adult Education at UCL.	10/10
Mrs. Amparo Moraleda Martinez (ES)	1964	2013	2017 Independent Director Member of the Compensation and Nomination Committees	Degree in Industrial Engineering, ICAI (Spain) MBA, IESE Business School (Spain). Former General Manager for IBM Spain, Portugal, Greece, Israel and Turkey. Former Chief Operating Officer, International Division (Spain) and Acting CEO, Scottish Power (UK) of Iberdrola. Member of the Boards of the following listed companies: Airbus Group, Faurecia (France), Caixabank (Spain). Member of the Consejo rector of Consejo Superior of Investigaciones Cientificas.	10/10
Mrs. Rosemary Thorne (UK)	1952	2014	2018 Independent Director Member of the Audit Committee	Honours Degree in Mathematics and Economics from the University of Warwick. Fellow of Chartered Institute of Management Accountants FCMA and CGMA. Fellow Association of Corporate Treasurers FCT. Former Chief Financial Officer for J. Sainsbury, Bradford & Bingley and Ladbrokes. Member of the Board and Chair of Audit Committee of Santander UK (until end June 2015) and Smurfit Kappa Group (Ireland) First Global Trust Bank (UK).	10/10
Mr. Gilles Michel (F)	1956	2014	2018 Independent Director Member of the Finance Committee	École Polytechnique. École nationale de la statistique et de l'administration économique (ENSAE). Institut d'Études Politiques (IEP). Former CEO "Ceramics & Plastics", Saint-Gobain, France. Former Member of the Management Board, PSA, France. Former CEO, Fonds stratégique d'Investissement (FSI), France. Chairman & CEO, Imerys, France (listed).	10/10
Mrs. Marjan Oudeman (NL)	1958	2015	2019 Independent Director Member of the Audit Committee since May 12, 2015	Member of the Board of SHV Holdings N.V., the Netherlands. Member of the Board of Royal Ten Cate, Netherlands. Member of the Supervisory Board of Koninklijke Concertgebouw, the Netherlands. Chairman of the Board of Ronald McDonald Children's Fund. Member of the Supervisory Board of the Rijksmuseum, the Netherlands.	6/6

### 4.3.5 Appointment, renewal, resignation and dismissal of Directors

The Board of Directors submits directors' appointments, renewals, resignations or dismissals to the Ordinary Shareholders' Meeting for approval. It also submits to it the vote on the independence of the Directors fulfilling the related criteria, after informing the Works' Council of the same. It also first seeks the opinion of the Nomination Committee, which is tasked with defining and assessing the profile of any new candidate using the criteria of appointment and of specific competences it sets.

The Ordinary Shareholders' Meeting decides on proposals made by the Board of Directors in this area by a simple majority. When a directorship becomes vacant during a term of office, the Board of Directors may appoint a new member, subject to ratification by the next following Ordinary Shareholders' Meeting.

### 4.3.6 Frequency, preparation and holding of Board meetings

The Board of Directors met 10 times in 2015. Six ordinary meetings are planned in 2016.

The dates of ordinary meetings are set by the Board of Directors itself, more than one year before the start of the financial year. Additional meetings can, if needed, be called by the Chairman of the Board of Directors, after consulting with the Chairman of the Executive Committee.

The agenda for each meeting is set by the Chairman of the Board of Directors after consulting with the Chairman of the Executive Committee.

The Corporate Secretary is charged, under the supervision of the Chairman of the Board of Directors, with organizing meetings, and sending notices of meetings, agendas and the dossier containing the item-by-item information required for decision-making.

To the extent possible, he ensures that directors receive notices of meetings and complete files at least six days before the meeting. The Corporate Secretary prepares the minutes of the Board meetings, presenting the draft to the Chairman and then to all members.

Finalized minutes that have been approved at the following Board meeting are signed by all Directors having taken part in the deliberations.

The Board of Directors takes its decisions in a collegial fashion by a simple majority of votes. Certain decisions that are considered particularly important by the Company's by-laws require a three-quarters majority of its members. The Board may not validly transact its business unless half of its members are present or represented. Given the very high level of attendance, the Board of Directors has never been unable to transact business.

## 4.4 Evaluation and training

### 4.4.1 Evaluation 2015

In 2015, the Board of Directors undertook an external evaluation, focused primarily on its own composition, *modus operandi*, information and interactions with executive management, and the composition and *modus operandi* of the Committees created by it.

Board members were invited to express their views on these various points during interviews based on a questionnaire and performed by an external consultant.

The evaluation underlines an overall progress of the functioning of the Board and its Committees since previous evaluation in 2013.

The improvements identified at the end of this evaluation are related to the optimisation of the content of meetings, visits and trips programmes, the level of detail of the reports of the various Committees to Board of Directors and the identification of training needs.

### 4.4.2 Training

Information sessions are organized for new Directors, aimed at acquainting them with the Solvay group as quickly as possible. The program includes a review of the Group's strategy and activities and of the main challenges in terms of growth, competitiveness and innovation, as well as finance, research & development, human resources management, the legal context, compliance and the general organization of operations. This program is open to every Director who wishes to participate.

It also includes visiting industrial or research sites.

In 2015, the Board of Directors visited industrial and research sites in the USA.

## 4.5 Committees

### 4.5.1 Rules common to the various Committees

- The Board of Directors has set up on a permanent basis the following specialized Committees: the Audit Committee, the Finance Committee, the Compensation Committee and the Nomination Committee.
- These Committees do not have decision-making powers. They are advisory in nature and report to the Board of Directors, which takes the decisions. They are also called on to give opinions at the request of the Board of Directors or Executive Committee. After presentation to the Board of Directors, the Committees' reports are attached to the minutes of the Board meeting.
- Terms of office on the four Committees are for two years and are renewable. The composition of these Committees is communicated on the Company's internet site.
- Members of the permanent Committees (except for Executive Committee members) receive separate compensation for this task.
- The Board of Directors may set up a temporary *ad hoc* Committee to liaise with the Executive Committee on an important issue. One such Committee was set up at the end of 2009 to examine the reinvestment of the proceeds of the sale of the Group's pharmaceuticals activities.
- The terms of reference of each Committee are published on the Solvay website.

All the terms of members of various Committees, will expire on May 10, 2016 at the date of the Ordinary Shareholder's Meeting. They will be renewed for a period of two years. It will take effect on May 10, 2016, and will end on the date of the Ordinary Shareholder's Meeting to be held in 2018.

#### 4.5.2 The Audit Committee

In 2015, the Audit Committee was composed of Prof. Dr. Bernhard Scheuble (Chairman), Chevalier Guy de Selliers de Moranville (until the Ordinary Shareholders' Meeting on May 12, 2015), Mr. Charles Casimir-Lambert, Mr. Hervé Coppens d'Eeckenbrugge, Mr. Bernard de Laguiche and Mrs. Rosemary Thorne. These are independent non-executive directors, with the exception of Bernard de Laguiche and Chevalier Guy de Selliers de Moranville. After the Ordinary Shareholders' Meeting on May 12, 2015, Mrs. Marjan Oudeman was appointed Member of the Audit Committee. The Secretariat of this Committee is provided by a member of the Group's internal legal staff.

This Committee met five times in 2015 including four times before the Board meeting scheduled to consider the publication of periodic results (quarterly, semiannual and annual).

Participation in Audit Committee meetings was very high (99.8%).

The mission of the Audit Committee is set out in a "Terms of Reference" document (see Annex 1, section 14). It integrates the requirements of Article 526 *bis* of the Corporate law.

The main tasks of the Audit Committee include:

- ensuring the conformity of financial statements and communications of the Company and the Group to generally accepted accounting principles (IFRS for the Group, Belgian accounting law for the parent company);
- monitoring the effectiveness of the Group's internal control system and risk management;
- examining the areas of risk that can potentially have a material effect on the Group's financial situation;
- verifying the scope/programs and results of internal audit;
- making a proposal to the Board of Directors on the appointment of the external auditor;
- examining the scope of the external audit and the way it is implemented;
- monitoring the scope and the nature of the additional services provided by the external auditor.

At each meeting, the Audit Committee hears reports from the Chief Financial Officer, the head of the Group Service Internal Audit and the auditor in charge of the external audit (Deloitte, represented by Mr. Eric Nys). It also examines the quarterly report by the Group General Counsel on significant ongoing legal disputes and reports on tax and intellectual property disputes. It meets alone with the auditor in charge of the external audit whenever it deems such meetings useful. The Chairman of the Executive Committee and CEO (Mr. Jean-Pierre Clamadieu) is invited, once a year, to discuss the major risks to which the Group is exposed.

The Directors belonging to this Audit Committee fulfill the criterion of competence by their training and by the experience gathered during their previous functions (see section 4.3. concerning the composition of the Board of Directors).

#### 4.5.3 The Finance Committee

In 2015 until the Ordinary Shareholders' Meeting on May 12, 2015, the Finance Committee consisted of Mr. Nicolas Boël (Chairman), Mr. Jean-Pierre Clamadieu (Chairman of the Executive Committee and CEO), Mr. Bernard de Laguiche, Chevalier Guy de Selliers de Moranville (until the Ordinary Shareholders' Meeting on May 12, 2015), Mr. Hervé Coppens d'Eeckenbrugge and Mr. Yves-Thibault de Silguy. After the Ordinary Shareholders' Meeting on May 12, 2015, Mr. Gilles Michel was appointed Member of the Finance Committee.

Mr. Karim Hajjar (Executive Committee member and CFO) is invited to attend the Finance Committee meetings.

The Secretary of this Committee is Mr. Michel Defourny.

This Committee met four times in 2015. Participation of the members of the Finance Committee was very high (100%).

The Committee gives its opinion on financial matters such as the amounts of the interim and final dividends, the levels and currencies of indebtedness in the light of interest rate developments, the hedging of foreign-exchange and energy risks, the hedging policy of the long term incentives plans, the content of financial communication, the financing of major investments, etc. It finalizes the preparation of the press releases announcing the quarterly results. It may also be called on to give opinions on Board policies on these matters.

#### 4.5.4 The Compensation Committee

In 2015, the Compensation Committee consisted of Mr. Nicolas Boël (Chairman), Mr. Denis Solvay, Mr. Yves-Thibault de Silguy, Mrs. Evelyn du Monceau, Mrs. Françoise de Viron and Mrs. Amparo Moraleda.

A majority of the members of this Committee have independent Director status within the meaning of the law.

The Chairman of the Executive Committee is invited to meetings, except for matters that concern him personally.

The Secretary of this Committee is Mr. Michel Defourny.

The meetings are prepared by the Group General Manager Human Resources, who attends the meetings.

This Committee met two times in 2015. Participation of the members of the Compensation Committee was very high (100%).

The Compensation Committee fulfils the missions imposed on it by law.

In particular, it advises the Board of Directors on Compensation policy and compensation levels for members of the Board of Directors and the Executive Committee, and is yearly informed about the compensation of General Management. It also gives its opinion to the Board of Directors and/or Executive Committee on the Group's principal compensation policies (including long term incentive plans). It also prepares the report on compensation.

The Compensation Committee has the expertise necessary to perform its missions.

#### 4.5.5 The Nomination Committee

In 2015, the Nomination Committee consisted of Mr. Yves-Thibault de Silguy (Chairman), Mr. Nicolas Boël, Mr. Denis Solvay, Mrs. Evelyn du Monceau, Mrs. Françoise de Viron and Mrs. Amparo Moraleda.

A majority of the members of the Nomination Committee are independent non-executive Directors.

The Chairman of the Executive Committee is invited to meetings, except for matters that concern him personally.

The Secretary of this Committee is Mr. Michel Defourny.

The Committee met two times in 2015. The participation of members of the Nomination Committee was very high (100%).

The Nomination Committee gives its opinion on appointments to the Board of Directors (Chairman, new members, renewals and Committees), to Executive Committee positions (Chairmanship and Members) and to General Management positions.

## 5 Executive Committee

### 5.1 Role and Mission

**5.1.1** The Board of Directors defines the role and mission of the Executive Committee.

The main decision on delegation of powers dates back to November 12, 2014. This decision took effect immediately.

The Board of Directors delegates to the Executive Committee the following powers:

- 1 day-to-day management of the Company;
- 2 overseeing the proper organization and functioning of the Company and the Group companies and ensuring oversight of their activities, in particular the introduction of a process for identification, management and control of the principal risks;
- 3 introduction of a management process to find and retain talent and nominate senior executives for the Group (with the exception of its own members, General Managers and the Corporate Secretary, for which the Board of Directors expressly reserves exclusive power of appointment);
- 4 compensation of the Group's senior executives (other than compensation of its own members);
- 5 decisions regarding acquisitions and divestitures (including of intellectual property), for which the maximum amount is set at € 50 million (debt and other commitments included). The Board of Directors is to be informed of any decision involving amounts over € 10 million;
- 6 decisions on investment expenditures, for which the maximum amount is set at € 50 million. The Board of Directors is to be informed of decisions involving amounts over € 10 million;
- 7 decisions on substantial commercial transactions and financial operations that do not imply any change in the financial structure of the Company and/or the Group;
- 8 proposal to the Board of Directors, for its decision, of the principal policies of the Group, setting of other policies;
- 9 proposals to the Board of Directors for its decision:
  - general strategies (including the effect of these strategies on the budget, the plan and resource allocation) and general policies of the Group, in particular regarding compensation, annual investment program and research,
  - the budget and the plan including investments, R&I and financial objectives,
  - appointment to General Manager positions and the position of Corporate Secretary,
  - general organization of the Company and/or the Group,
  - major financial transactions that modify the financial structure of the Company and/or the Group,
  - consolidated periodic financial statements and financial statements of Solvay SA (quarterly consolidated only, 6-month and annual) as well as related communications;
- 10 implementation of decisions of the Board of Directors;
- 11 submission to the Board of Directors of all questions lying within its competence and regular reports on the exercise of its mission.

**5.1.2** The terms of reference of the Executive Committee are published on the Solvay website.

### 5.2 Delegation of powers

Execution of Executive Committee decisions and following up on its recommendations is delegated to the Executive Committee member (or another General Manager) in charge of the activity or of the function corresponding to the decision or recommendation.

The Board of Directors in its resolution dated November 12, 2014 expanded the right of the Executive Committee to delegate its powers, under its responsibility, and in compliance with procedures and authorization limits set by the Executive Committee, to one or more of its members, the General Managers of the Group and/or heads of Global Business Units and functions. In particular it has delegated to the GBU Managers the power to undertake binding M&A transactions and capital expenditures up to a ceiling of € 10 million.

### 5.3 Composition

#### 5.3.1 Size and composition

At December 31, 2015, the Executive Committee had five members.

#### 5.3.2 Terms of office and age limits

Executive Committee members are appointed by the Board of Directors for two-year renewable terms. The Board of Directors has set an age limit of 65 for Executive Committee membership.

#### 5.3.3 Criteria for appointment

The Executive Committee is a collegial body made up of executives generally coming from the Group's senior management. Each Executive Committee member is in charge of the supervision of a number of Global Business Units/functions; for the CEO and the CFO, this role is assumed in addition to their respective specific responsibilities.

All Executive Committee members have employment contracts with the Solvay group, except for Mr. Jean-Pierre Clamadieu, who has self-employed status.

#### 5.3.4 Appointment and renewal procedure

The Chairman of the Executive Committee is appointed by the Board of Directors based on a proposal by the Chairman of the Board of Directors and with recommendations by the Nomination Committee. The other Executive Committee members are also appointed by the Board of Directors, but on the proposal of the Chairman of the Executive Committee in agreement with the Chairman of the Board of Directors and with the opinion of the Nomination Committee and the Executive Committee.

Executive Committee members' performance is assessed annually by the Chairman of the Executive Committee. This assessment is undertaken together with the Chairman of the Board and with the Compensation Committee whenever proposals are made for setting variable compensation.

The performance of the Chairman of the Executive Committee is assessed annually by the Compensation Committee.

	Year of birth	Year of first appointment	Term of office ends	Diplomas and main Solvay activities	Presence at meetings 2015 (as a function of date of appointment)
Mr. Jean-Pierre Clamadieu (F)	1958	2011	2017	Engineering degree from the École des Mines (Paris). Chairman of the Executive Committee and CEO.	13/13
Mr. Vincent De Cuyper (B)	1961	2006	2016	Chemical engineering degree (Catholic University of Louvain), Master in Industrial Management (Catholic University of Leuven), AMP Harvard. Executive Committee member.	13/13
Mr. Roger Kearns (US)	1963	2008	2016	Bachelor of Science – Engineering Arts (Georgetown College – Georgetown), Bachelor of Science – Chemical Engineering (Georgia Institute of Technology – Atlanta), MBA (Stanford University). Executive Committee member.	13/13
Mr. Karim Hajjar (UK)	1963	2013	2017	BSC (Hons) Economics (The City University, London). Chartered Accountancy (ICAEW) Qualification. Executive Committee member and CFO.	13/13
Mr. Pascal Juéry (F)	1965	2014	2016	Graduate of the European Business School of Paris (ESCP – Europe). Executive Committee member.	13/13

## 5.4 Frequency, preparation and procedure of meetings

**5.4.1** The Executive Committee met 13 times in 2015. Meetings are generally held at the Company's registered office, but can also be held elsewhere at the decision of the Executive Committee Chairman. The Executive Committee sets the dates of its meetings before the start of the financial year. Additional meetings can be convened by the Chairman of the Executive Committee, who sets the agenda based, *inter alia*, on proposals from the Executive Committee members.

**5.4.2** The Corporate Secretary, who acts as secretary to both the Board of Directors and the Executive Committee, is responsible, under the supervision of the Chairman of the Executive Committee, for organizing meetings and sending out notices of meetings and agendas.

Documents and information relating to the agenda items are made available to the members of the Executive Committee prior to the meetings.

The Corporate Secretary drafts minutes consisting of a list of decisions taken during the meeting. These are read and approved at the end of the meeting. They are immediately distributed.

They are not signed, but the Chairman of the Executive Committee and the Corporate Secretary may deliver certified conformed copies of extracts.

It should be noted that the Executive Committee organized certain meetings in tele- or video-conference format.

**5.4.3** The Executive Committee takes its decisions by a simple majority, with its Chairman having a casting vote. If the Chairman of the Executive Committee finds himself in a minority he may, if he wishes, refer the matter to the Board of Directors which will then decide on the matter. In practice, however, almost all Executive Committee decisions are taken unanimously, so that the Chairman has never made use of his casting vote. Attendance at meetings was 100% in 2015.

The topics submitted to the Executive Committee are presented and discussed in the presence of the heads of the involved entities (GBUs, functions). For important projects, it sets up *ad hoc* working teams, led mainly by Executive Committee members chosen on the basis of the competences required.

## 6 Compensation report

### 6.1 Description of the procedure for:

#### 6.1.1 Developing a Compensation policy

**a) For Directors:**

Directorships of Solvay SA are remunerated with fixed emoluments, the common basis of which is set by the Ordinary Shareholders' Meeting, and any complement thereto by the Board of Directors on the basis of Article 27 of the by-laws, which states that "Directors shall receive emoluments payable from overhead costs; the Shareholders' Meeting shall determine the amount and terms of payment."

"That decision shall stand until another decision is taken."

"The Board of Directors shall be authorized to grant directors with special duties (the Chairman, vice-Chairmen, directors charged with day-to-day management, members of the Executive Committee) fixed emoluments in addition to those provided for in the above paragraph."

"Each of the Directors responsible for day-to-day management is also entitled to variable compensation determined by the Board of Directors on the basis of their individual results and of the consolidated results of the Solvay group."

"The sums referred to in the two preceding sub-sections are also paid out of overhead costs."

**b) For Executive Committee members:**

Compensation policy is decided by the Board of Directors based on proposals by the Compensation Committee.

The Group has a Compensation policy that is aligned with market practices which reinforces the link between variable pay and business performance. The Compensation policy is set out in Annex 2.

The Short Term Incentive policy (STI) is partly linked to Group economic performances (REBITDA under cash constraint).

The Group has also a long term incentive program (LTI) which is partially linked to the achievement of pre-defined multi-year Group economic performance indicators (REBITDA and CFROI).

The Board is regularly monitoring the challenging character of the performance thresholds imposed under the Compensation policy in order to ensure a robust alignment of the performance metrics with the Solvay business ambitions. Both performance metrics are also managed dynamically to incorporate the evolving management of Solvay's portfolio and apply mechanically within the span decided by the Board.

#### 6.1.2 Setting individual compensation

**a) For Directors:**

- the Ordinary Shareholders' Meetings of June 2005 and May 2012 (for Board attendance fee) decided to set Directors' pay, starting from the 2005 financial year, and to grant:
  - an annual gross fixed compensation of € 35,000 per Director and, on top of this, an individual attendance fee of € 4,000 gross per Board meeting attended;
  - € 4,000 gross for members of the Audit Committee and € 6,000 gross for its Chairman for each meeting of the Committee;
  - € 2,500 gross per member of the Compensation Committee, Nomination Committee and Financial Committee and € 4,000 gross for the Chairmen of these Committees, for each meeting on the understanding that a Director belonging to both the Compensation Committee and the Nomination Committee does not receive double compensation;
  - the Chairman of the Board, the Chairman of the Executive Committee and the Executive Directors do not receive attendance fees for taking part in these Committees;
- for the Chairman of the Board of Directors, the Board of Directors has made use of the authorization conferred on it by Article 27 of the bylaws to grant an additional yearly fixed compensation of € 250,000 gross in 2015 by reason of the work load and the responsibility attached to this;
- non-executive directors do not receive any variable compensation linked to results or other performance criteria. They are not entitled to Stock Options or Performance Share Units, nor to any supplemental pension scheme;
- the Company reimburses Directors' travel and subsistence expenses for meetings and while exercising their Board and Board Committee functions.

The Chairman of the Board of Directors is the sole non-executive Director having permanent support provided by the Group (office, secretariat, car). The other non-executive directors receive logistics support from the General Secretariat as and when needed. The Company also carries customary insurance policies covering the activities of Board members in carrying out their duties.

**b) For Executive Committee members:**

The compensation of the Chairman and the members of the Executive Committee is set as a global gross amount. This includes not only the gross compensation earned at Solvay SA, but also compensation received, contractually and arm's length directors' fees, from companies throughout the world in which Solvay SA holds majority or other shareholdings.

Individual compensation is set by the Board of Directors based on recommendations by the Compensation Committee.

## 6.2 Declaration concerning Compensation policy for the Chairman and members of the Executive Committee

The Compensation package of the members of the Executive Committee is governed by the Group Compensation policy set out in Annex 2 (section 15).

The compensation package of the Chairman of the Executive Committee is governed by specific arrangements given his self-employed status in Belgium. The level and structure of this compensation package are aligned with market practices for a similar function in a comparable organization and do follow the general design of the Solvay group Compensation policy. It consists of a fixed compensation and an annual incentive target set at 100% of such base salary, with a maximum of 150%.

Such short-term incentive is based on the achievement of pre-defined individual (weighted at 40% of the total short-term incentive) and collective pre-set objectives, themselves divided

into economic (REBITDA under cash constraint, weighted at 50% of the total short-term incentive) and sustainable development (weighted at 10% of the total short-term incentive) objectives (presence of Solvay in extra-financial indexes and progress on internal sustainable development referential Solvay Way). He is finally entitled to a long-term incentive composed out of a 50/50 mix of stock options and so-called Performance Share Units, with an annual economic value target set at 150% of the base salary and a maximum guidance set at 200% of such base salary, in line with the general design of the generic Solvay long-term incentive plan but subject to the final appreciation of the Board. Solvay's commitment to offer a competitive though challenging reward package to its CEO transpires from his pay mix, since his global variable pay target substantially outweighs his base salary.

No major changes in the structure of the compensation package of the Chairman and the members of the Executive Committee are expected in 2016 and 2017. However, in line with the external market, it has been decided to review the short term incentive target from 60% to 70% of base salary for the members of the Executive Committee effective January 1<sup>st</sup>, 2016.

## 6.3 Amount of the compensation and other benefits granted directly or indirectly to Directors (executive and non-executive) by the Company or by an affiliated company

### GROSS COMPENSATION AND OTHER BENEFITS GRANTED TO DIRECTORS

Compensation In €	2014		2015	
	Gross amount	Including Board of Directors and Committees attendance fees	Gross amount	Including Board of Directors and Committees attendance fees
N. Boël				
• Fixed emoluments + attendance fees	59,000	24,000	75,000	40,000
• "Article 27" supplement	250,000		250,000	
D. Solvay	64,000	29,000	82,500	47,500
J-P. Clamadieu	59,000	24,000	75,000	40,000
J-M. Solvay	59,000	24,000	75,000	40,000
G. de Selliers de Moranville <sup>(1)</sup>	85,000	50,000	41,701	29,000
J-M. Folz <sup>(2)</sup>	24,889	12,000		
B. de Laguiche	69,000	34,000	99,500	64,500
B. Scheuble	89,000	54,000	101,000	66,000
A. Van Rossum <sup>(2)</sup>	28,889	16,000		
C. Casimir-Lambert	79,000	44,000	95,000	60,000
H. Coppens d'Eeckenbrugge	89,000	54,000	103,500	68,500
E. du Monceau	64,000	29,000	78,500	43,500
Y-T. de Silguy	75,500	40,500	93,000	58,000
A. Moraleda	64,000	29,000	82,500	47,500
F. de Viron	64,000	29,000	82,500	47,500
G. Michel	32,610	10,500	87,500	52,500
R. Thorne	50,110	28,000	95,000	60,000
M. Oudeman <sup>(3)</sup>			50,298	28,000
	<b>1,306,000</b>	<b>531,000</b>	<b>1,567,500</b>	<b>792,500</b>

(1) Until May 12, 2015.

(2) Until May 13, 2014.

(3) From May 12, 2015.



## 6.4 Amount of compensation and other benefits granted directly or indirectly to the Chairman of the Executive Committee

Compensation and other benefits granted to the Chairman of the Executive Committee In €	2014	2015
Base compensation	1,000,000	1,100,000
Variable compensation (Short Term Incentive)	1,500,000	1,507,000
Pension and death-in-service and disability coverage (costs paid or provided for)	622,899	757,546
Other compensation components <sup>(1)</sup>	17,674	15,279

(1) Company vehicle, correction of 2012 Base Compensation.

Based on the assessment of the achievement of his individual pre-set objectives by the Board of Directors and the achievement of the Group collective economic and sustainable development indicators, the 2015 compensation package of the Chairman of the Executive Committee was set as follows.

The base salary of the Chairman of the Executive Committee, unchanged since 2012, was increased to € 1,1 million in 2015 to match the market median of Solvay's peer group. The Annual Incentive target remained set at 100% of such base salary, with a maximum of 150%. In accordance with the Group Compensation policy, Long Term Incentives are composed of a 50/50 mix of stock options and so-called Performance Share Units. The Long Term Incentive target remained set at 150% of the base salary, with a maximum of 200%.

In 2015, the face value of his overall LTI award added up to € 1,6 million in line with his LTI target being 150% of base salary. The

gain which will eventually be derived on pay-out date will depend upon achievement of the performance thresholds imposed on his PSU's as well as of the performance of the Solvay shares on the stock market. The resulting numbers of stock options and PSU's are calculated according to the Black Scholes model.

The compensation package of the Chairman of the Executive Committee is in full compliance with Art. 520 *ter* of the Companies' Code.

The Chairman of the Executive Committee does not receive shares as part of his compensation package.

In the area of extra-legal pension rights, given his self-employed status in Belgium, he has his own separate contractual regime, with pension, death-in-service and disability rules, which reflect the conditions he had previously at Rhodia.

## 6.5 Global amount of compensation and other benefits granted directly or indirectly to the other members of the Executive Committee by the Company or an affiliated company

Compensation and other benefits granted to the other members of the Executive Committee In €	2014 <sup>(1)</sup>	2015 <sup>(2)</sup>
Base compensation	2,453,117	2,182,396
Variable compensation	2,135,155	1,648,133
Pension and death-in-service and disability coverage (costs paid or provided for)	862,463	936,092
Other compensation components <sup>(3)</sup>	113,107	128,057

(1) J. van Rijckevorsel (until September 30, 2014), V. De Cuyper, R. Kearns, K. Hajjar, P. Juéry.

(2) V. De Cuyper, R. Kearns, K. Hajjar, P. Juéry.

(3) Representation allowance, luncheon vouchers, company car.

Variable compensation consisted of an annual incentive based on the performance achieved towards pre-set collective Group economic and sustainable development performance objectives, and towards the performance of the manager as measured against a set of pre-determined individual objectives.

The law (Art. 520 *ter* of the Companies' Code) provides that from 2011 onwards, in the absence of statutory provisions to the contrary or express approval by the General Meeting of Shareholders, at least one quarter of the variable compensation of Executive Committee members must be based on predetermined criteria of performance that are objectively measurable over a period of at least two years, and another quarter at least should be based on predetermined performance criteria that are objectively measurable over a period of at least three years.

The Compensation policy has been reviewed in 2012. The Compensation policy set out in Annex 2 came into effect in 2013 and is in full compliance with Article 520 *ter* of the Companies' Code.

Executive Committee members receive stock options and so-called Performance Share Units as explained below. They do not, however, receive shares as part of their compensation packages.

Executive Committee members' expenses, including those of its Chairman, are governed by the same rules as apply to all Group management staff that is the justification of all business expenses, item by item. Private expenses are not reimbursed.

In the case of mixed business/private expenses (like cars), a proportional rule is applied in the same way as to all management staff in the same position.

In the area of insurance, the Company subscribes the same type of cover for Executive Committee members as it does for its senior managers.

Pensions and retirement and death-in-service coverage for Executive Committee members are based in principle on the provisions of the schemes applicable to senior executives in their base countries.

## 6.6 Stock options and Performance Share Units

Solvay's Long Term Incentives (LTI) plan is made of two separate components, a plain vanilla stock option plan set in in 1999 on the one hand and a Performance share Unit plan set up in 2013 on the other hand.

The Stock Option program (SO) includes the following basic features:

- options are granted at the money;
- for a duration of eight years;
- options become exercisable for the first time after three full calendar years of restrictions;
- options are not transferrable inter vivos;
- the plan includes a bad leaver clause.

The plan was set up in 1999 to offer a competitive LTI vehicle aligned with Belgian practices. It is aimed at incentivizing Solvay's executive leadership team to work towards achievement of robust sustainable returns for the shareholders while offering a robust retention tool to the Company. All stock option programs set up annually since 1999 that did expire to date, did not expire without offering a payout opportunity to the beneficiaries which is a solid indication of the effectiveness of the program.

The Performance Share Unit program (PSU) was set up in 2013 to seek further alignment with the development of market practices, helping Solvay to remain competitive in the market place in order to attract and retain talents while offering a more performance contingent vehicle to incentivize key executives to pay their tributes towards Solvay's roadmap ambitions.

The PSU includes the following basic features:

- the plan is purely cash based and does not encompass the transfer of shares to beneficiaries whatsoever;

- it contains the following two performance hurdles – 50% based on REBITDA target aligned with Solvay's roadmap and 50% based on CFROI target;
- condition of employment up to achievement of performance hurdles;
- payout in cash based on value of Solvay shares on target date.

In 2015, the Board of Directors, on the proposal of the Compensation Committee, allotted stock options to some 70 Group senior executives. The adjusted exercise price amounts to € 114.51<sup>(1)</sup> per option, with a three-year vesting period. Executive Committee members together were granted 68,991 options in March 2015 compared with 84,535 options in 2014.

In combination with the stock option plan, the Board of Directors granted Performance Share Units to around 450 Group Executives, for a possible pay-out in three years' time if pre-set economic performance objectives (REBITDA and CFROI) are met. Executive Committee members together were granted 14,413 PSU in March 2015 compared with 18,080 PSU in 2014.

Due to the Solvay capital increase in December 2015, the Board of Directors has decided to adjust the exercise price and the number of stock options that were not yet exercised by applying the formula laid down in article 6.2, of the Euronext Derivatives Corporate Actions Policy in order to place the beneficiaries in a situation which is substantially equivalent to the situation that would exist in the absence of capital increase.

This formula is in line with market practices and compensates the dilution impact for the beneficiaries of the stock options and PSU plans following the capital increase which included preferential rights granted to existing shareholders.

Consequently, 24,077 additional options were granted to the Executive Committee members for the existing stock options plans 2005-2015. For the same reason, the existing plans 2013-2015 for the Performance Share Unit program have been adjusted. 2,851 additional PSU were granted to the Executive Committee members.

### I STOCK OPTIONS AND PSU ALLOTTED IN 2015 TO EXECUTIVE COMMITTEE MEMBERS

Country	Name	Function	Number of options <sup>(2)</sup>	Number of PSU <sup>(2)</sup>
Belgium	Clamadieu, Jean-Pierre	Chairman of the Executive Committee	30,663	6,405
Belgium	De Cuyper, Vincent	Member of the Executive Committee	9,582	2,002
Belgium	Kearns, Roger	Member of the Executive Committee	9,582	2,002
Belgium	Hajjar, Karim	Member of the Executive Committee	9,582	2,002
Belgium	Juéry, Pascal	Member of the Executive Committee	9,582	2,002
<b>TOTAL</b>			<b>68,991</b>	<b>14,413</b>

(2) Number of options for plan from 2005 to 2015 and number of PSU for plan 2013 to 2015 have been adjusted according to the Euronext formula (ratio = 0.93984).

(1) Due to capital increase, exercise prices for plan from 2005 to 2015 have been adjusted according to Euronext ratio methodology (ratio = 0.93984) as decided by the Board of Directors on December 2, 2015.

## ADDITIONAL STOCK OPTIONS AND PSU ALLOTTED IN 2015 TO EXECUTIVE COMMITTEE MEMBERS DUE TO ADJUSTMENT FOLLOWING CAPITAL INCREASE<sup>(1)</sup>

Country	Name	Function	Number of options	Number of PSU
Belgium	Clamadieu, Jean-Pierre	Chairman of the Executive Committee	10,249	1,319
Belgium	De Cuyper, Vincent	Member of the Executive Committee	3,899	421
Belgium	Kearns, Roger	Member of the Executive Committee	5,672	421
Belgium	Hajjar, Karim	Member of the Executive Committee	1,273	269
Belgium	Juéry, Pascal	Member of the Executive Committee	2,984	421
<b>TOTAL</b>			<b>24,077</b>	<b>2,851</b>

(1) Number of options for plan from 2005 to 2015 and number of PSU for plan 2013 to 2015 have been adjusted according to the Euronext formula (ratio = 0.93984).

## STOCK OPTIONS HELD IN 2015 BY EXECUTIVE COMMITTEE MEMBERS

Country	Name	Held at 31/12/2014	Granted in 2015	Exercised in 2015	Options		31/12/2015	
					Expired in 2014	Held	Exercisable	Non Exercisable
Belgium	Clamadieu, Jean-Pierre	129,434	40,912		170,346	0	170,346	
Belgium	De Cuyper, Vincent	68,535	13,481	17,200	64,816	13,087	51,729	
Belgium	Kearns, Roger	84,535	15,254	5,500	94,289	44,688	49,601	
Belgium	Hajjar, Karim	10,309	10,855	0	21,164	0	21,164	
Belgium	Juéry, Pascal	37,035	12,566	0	49,601	0	49,601	
<b>TOTAL</b>		<b>329,848</b>	<b>93,068</b>	<b>22,700</b>	<b>400,216</b>	<b>57,775</b>	<b>342,441</b>	

## 6.7 Most important provisions of their contractual relationships with the Company and/or an affiliated company, including the provisions relating to compensation in the event of early departure

Executive Committee members, including the Chairman, have directorships in Group subsidiaries as a function of their responsibilities.

Where such directorships are compensated, they are included in the amounts given above, regardless of whether the position is deemed to be salaried or undertaken on a self-employed basis under local legislation.

No Executive Committee member, including the Chairman, will benefit from any departure indemnity linked to the exercise of their office. If their service ends early, only the legal system applies.

Mr. Jean-Pierre Clamadieu's contract includes a 24-month non-competition clause, but with no more than 12 months' pay.

Executive Committee members' contracts do not contain a clause providing a right of claw-back of variable compensation in case of erroneous financial information.

## 7 Chairmen's roles in achieving coordination between the Board of Directors and the Executive Committee

The Chairman of the Board of Directors and the Chairman of the Executive Committee work together, through constructive dialogue and frequent exchanges, to harmonize the work of the Board of Directors (including its Committees) with that of the Executive Committee.

The following measures have been introduced to achieve this:

- the two Chairmen meet as often as is necessary on matters of common interest to the Board of Directors and the Executive Committee;

- the Chairman of the Board of Directors and the Executive Committee meet every month to discuss financial reporting;
- the Chairman of the Board has access to all information necessary to exercise his functions;
- the Chairman of the Executive Committee is a member of the Board of Directors, where he presents the Executive Committee's proposals.

## 8 Main characteristics of risk management and internal control systems

The Solvay group has set up an internal control system designed to provide a reasonable assurance that (i) current laws and regulations are complied with, (ii) policies and objectives set by General Management are implemented, (iii) financial and non-financial information is reliable, and (iv) internal processes are efficient, particularly those contributing to the protection of its assets.

A reasonable assurance level means a high, but not absolute, level: any internal control system has limitations linked to human error, wrong decisions or to the choices made in terms of cost/benefit of control.

This system has five components: the control environment, a risk assessment process, control activities, information and communication, and the internal control monitoring.

### 8.1 The control environment

The control environment is the foundation of the internal control system, as it promotes the awareness and the compliant behavior of all employees. It is made up of various elements that set up a clear structure of principles, rules, roles and responsibilities, while showing the commitment of General Management.

The **Management Book** explains the organization and governance of the Group: its guiding principles, the roles and responsibilities of the Executive Committee (Comex), Global Business Units and functions are defined, as well as their scope. It also set forth a management framework expressed in the Group's Management and People Models, including accountability and transparency. The Management Book also contains an approval matrix, displaying by which level of authority should major decisions be approved (financial commitments, sales or purchase contracts, capital investments, acquisitions or divestments, legal settlements). Finally, it contains 25 "red lines" that are tackling key risks of the Group. These rules are mandatory for all employees.

The **Code of Conduct** highlights the principles that should guide employees in their daily activities. It is based on a strong tradition of values that are deeply rooted in the Company's culture. As to the financial reporting, the Code states that employees must ensure that it is accurate and compliant with applicable regulations. More information about the Code of Conduct and how it is promoted and implemented by the Legal and Compliance Department can be found in the section 10 of the present report.

An **Ethics Helpline**, managed by a third party, is being made available to employees to enable them to report potential violations of the Code of Conduct, in case they cannot go through their managers or through the Compliance organization, or wish to report anonymously.

All these documents are accessible widely through the Group intranet and regular trainings on the Code of Conduct are provided to all employees.

Standardized Human Resources processes are in place to allow development, training and appraisal of personnel. The job descriptions for key positions are organized consistently by professional family: Finance has its own referential of job descriptions, covering the key positions that ensure the timeliness, compliance and quality of the financial reporting.

### 8.2 The risk assessment process

It is an inherent aspect of the business and operations of the Solvay group to deal with risks, while remaining in compliance with laws, regulations and the Code of Conduct, and pursuing its ambitious sustainable development targets.

The Enterprise Risk Management (ERM) policy of Solvay is explained in the Management Book: it states that the Group will identify, quantify, assess and manage all potentially significant business risks and opportunities by applying systematic risk management integrated with strategy, business decisions and operations. Enterprise Risk Management is seen as an essential management tool and aid in making the decisions needed to achieve the Company's short-, medium- and long-term objectives.

The Comex approves the risk management policies and processes used throughout the Group. The Internal Audit & Risk Management Department (IA/RM) is in charge of setting up a global and consistent system of risk management across the Group.

The process of risk management takes into account the organization's strategic objectives and is structured in following phases:

- risk analysis (identification and evaluation);
- decision on how to manage the critical risks;
- implementation of risk management actions;
- monitoring of those actions.

The enterprise risk management effort is structured around three mains pillars:

- an annual top down exercise initiated at Leadership Council level (Comex, GBU Presidents, Function General Managers, Zone Presidents and Solvay Business Services General Manager). It is complemented by a bottom-up exercise using the risk assessments at GBU/Functions level, and is finalized by a review and validation of a list of Group risks by the Group Risk Committee (Comex and General Manager of Functions HR, Industrial, Legal and Sustainable Development). The Comex receives regularly a Group Risks Dashboard following up on those Group risks and the status of mitigating actions undertaken;
- an exercise covering all GBUs and Functions, with a methodology adapted to their size and embedded in the annual strategic review process. This exercise involves all the senior managers of the GBU or Function to identify and assess the major risks for their unit. Then, the Management team and the President of the GBU (or the Function General Manager) are in a position to assign the ownership of all critical risks to one of the GBU's Managers. A regular follow-up of the actions mitigating critical risks is required from all GBUs;
- specific risk assessments for major projects (investments, acquisitions or major function projects).

Moreover, the approach to design internal controls on major processes includes a step of risk assessment, to define which are the key control objectives to tackle.

This is particularly the case for processes either at subsidiary, shared service, GBU or Corporate level leading to the production of the financial reporting.

More information on risks can be found in the "Management of risks" section of this annual report, in particular with regard to the Group's main risks and the actions taken to avoid or reduce them.

### 8.3 Control activities

Solvay uses a systematic approach to design and implement control activities in the most relevant processes. The key responsibilities in this approach are defined in Solvay's Management Book. The Corporate Process Owner (CPO) is the top management, Function General Manager, sponsor of processes (and sub processes). The Corporate Process Manager (CPM) is responsible for the definition of a standard process for the Group. He should:

- 1 identify risks and assess them;
- 2 set up procedures and control activities relevant to these risks;
- 3 roll-out these controls across the Group.

The Internal Audit and Risk Management Department assists the Corporate Process Managers to identify the most significant risks in the processes and to design control activities in proportion to the stakes inherent to each process. It also assists them to set up their annual internal control plan (indicating which issues and controls shall be a priority for the coming year, as well as the roll-out plan). This plan is validated each year by an Internal Control Steering Committee chaired by the Group CFO, and gathering all Function General Managers. At each level of the Group (Corporate, Shared Services platforms and GBUs) management operating the various processes is responsible for the execution of the controls.

General controls on the information systems cover both the security aspects, aimed at securing the protection of data, and the quality aspects, aimed at ensuring the best suitability of solutions (management of changes and projects) and services (management of IS operations) to the needs of the users.

With regard to the controls on financial data, these controls are implemented all along the Record-to-Report process. Furthermore, a **Financial Reporting Guide** explains how the IFRS rules should be applied throughout the Group.

The financial elements are consolidated monthly and analyzed at every level of responsibility of the Company (such as, for example, Solvay Business Services, the Finance Director of the entity, Group Accounting and Reporting and the Executive Committee) and in various ways such as, for example, variance analysis, plausibility and consistency checks, ratio analysis and comparison with forecasts.

The results are also validated quarterly by the Audit Committee, taking into account the work carried out by the External Auditor.

### 8.4 Information and communication

The Group Communication Function defines and ensures the implementation of an External communication policy and Press relations policy. This function validates the external communications with potential impact at the Group level (it is a red line).

The Group maintains extensive communications channels that allow all relevant information to move fluidly down from top management level and up from operational level.

The communication from top management towards all the employees is supported by a number of tools, such as the Group intranet or electronic newsletters that go along direct presentations by senior management to various teams throughout the world.

Besides the monthly reporting analysis prepared by the Group Controlling, the Comex has quarterly a thorough review of the GBU performance, through the Business Forecast reviews.

The information systems for the whole Group are managed by Solvay Business Services. A large majority of the operations of the Group are supported by a small number of integrated ERP systems. The financial consolidation is supported by a dedicated tool. As to the financial reporting disclosure, Solvay publishes quarterly results. Before each quarterly closing, the Group Accounting and Reporting Department circulates written detailed instructions to all concerned actors.

The publication of the results is subject to various checks and validations carried out in advance:

- publication is carried out under the supervision and control of the Executive Committee;
- the Audit Committee validates it, in particular ensuring that the IFRS accounting principles are complied with and that it gives a fair and relevant picture of the business of the Group;
- the Board of Directors approves it.

### 8.5 Internal control monitoring

The Audit Committee is in charge of monitoring the effectiveness of internal control systems. It supervises the work of the Internal Audit and Risk Management with regard to financial, operational, and compliance monitoring. In particular, it is informed of the scope, programs and results of the internal audit work and receives the assurance that the audit recommendations are properly implemented. The Mission Statement of the Audit Committee is given in annex 1 to this Corporate governance statement.

Internal audit is an independent objective assurance and consulting activity designed to add value and improve the Group operations. It helps the Group to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

The internal audit assignments are planned and defined in terms of content on the basis of a risk analysis; the diligences focus on the areas perceived as having the highest risks. All the consolidated entities within the Group are visited by Internal Audit at least every three years.

The recommendations of Internal Audit are implemented by the management.

Other entities carry out activities of the same type in very specific areas. For example:

- the Health Safety & Environment Department carries out health, safety, and environmental audits;
- the Solvay Business Services Compliance and Risk Management Department conducts IS audit assignments, in coordination with Internal Audit;
- the Ethics and Compliance Department coordinates investigations in case of potential infringement of the Code of Conduct.

## 9 External audit

The audit of the Company's financial situation, its financial statements and the conformance of the statements with respect to the Companies' Code and the by-laws, and of the entries to be recorded in the financial statements, is entrusted to one or more auditors appointed by the Shareholders' Meeting from among the members, either physical or legal persons, of the Belgian Institute of Company Auditors.

The mission and powers of the auditor(s) are those set by the law.

The Shareholders' Meeting sets the number of auditors and fixes their emoluments in accordance with the law. Auditors are also entitled to reimbursement of their travel expenses for auditing the Company's plants and administrative offices.

The Shareholders' Meeting may also appoint one or more alternate auditors. Auditors are appointed for three-year renewable terms, which may not be revoked by the Shareholders' Meeting other than for good reason.

The audit mandate of Deloitte Réviseurs d'Entreprises SC s.f.d. SCRL expires at the Ordinary Shareholders' Meeting of 2016.

The Board of Directors, based on the proposal of the Audit Committee, proposes to the Ordinary Shareholders' Meeting to be held on 10 May 2016 to renew the audit mandate of Deloitte Réviseurs d'Entreprises SC s.f.d. SCRL, represented by Mr. Michel Denayer, for three years. The Board also proposes to appoint Corine Magnin as alternate representative of Deloitte Réviseurs d'Entreprises SC s.f.d. SCRL for three years.

The yearly 2015 audit fees for Solvay SA are € 1,1 million. They include the audit of the statutory and consolidation accounts of Solvay SA. For Solvay SA, supplementary fees of 0,2 million were paid in 2015.

Additional audit fees for Solvay subsidiaries were € 3,9 million. On top of this, fees related to the audit of the Cytec Opening Balance sheet in group accounts at year-end have been accrued for € 3,2 million. Supplementary non audit fees of 1,0 million were paid in 2015 by Solvay Affiliates.

## 10 Code of Conduct

Commencing with a Message from Solvay's Chief Executive Officer, Mr. Jean-Pierre Clamadieu, the Code is identified as the cornerstone of Solvay's Ethics and Compliance Program. The Solvay Code of Conduct sets out how Solvay carries out its business and interacts with its stakeholders in an ethical and compliant manner. It is based on a strong tradition of values that are historically ingrained in the Group's culture. This Code applies to every Solvay employee wherever Solvay operates or conducts its business.

The Solvay Code of Conduct provides general guidance to all employees about how to behave in the workplace, in Solvay's businesses and while representing Solvay in their communities. It is not an exhaustive document anticipating every situation employees may face in their day-to-day business. Rather, the Code highlights the guiding principles that form the basis of the Group's policies.

The current Solvay Code of Conduct received initial executive approval in September 2013 and was the culmination of drafting and vetting by Solvay's Ethics & Compliance Department, review and further input from representatives of Solvay's General Business Unit and function leadership, and final review and input from Solvay's Executive Committee. Upon gaining Board Approval, the Code was presented to and approved by the European Works Councils. In 2014, the approved Code was translated into 14 languages to be directly communicated to Solvay's diverse employee work force. The Code is accessible via the Group's website and is available in booklet form.

The Code of Conduct is part of the Group's constant effort to maintain and strengthen trust both among all its employees and between the Group and its partners, including its employees, their representatives, shareholders, customers and suppliers, government agencies and all other third parties.

To obtain the widest possible involvement of all employees in implementing the Code, the Group will continue to promote a rich and balanced social dialogue between senior management and social partners.

The Solvay group takes various measures to ensure that the Code is applied, including targeted training programs and sanctions in

case of violation. The Ethics & Compliance team is charged with annually implementing training for the employee work force at the management level. Management is charged with cascading the training to their teams. Each year, a specific topic is selected for emphasized training, while training on the entire Code is provided for those employees who have not yet received specific training by their management or who are new to the Group. All training emphasizes the right of every employee to Speak Up.

The Legal & Compliance Function under the authority of the Group General Counsel contributes to the compliance culture. The Ethics and Compliance Department has the more specific objective of strengthening a culture based on ethics and in compliance with the Solvay values and Code of Conduct.

Compliance Officers have been appointed in all four geographic zones where the Group is active. They are assisted by a network of experienced employees tasked, in addition to their other responsibilities, with supporting activities in this area.

The Group encourages its employees to take up any difficulty or question relating to the application of the Code of Conduct with superiors or other identified interlocutors (Compliance Officers, legal staff, and human resource representatives).

The Group also operates, on a worldwide basis, an Ethics Helpline (both phone and web), maintained by a private third party and operated in accordance with local law. The Helpline is available for reporting concerns via the internet in 46 specific regions as well as in the general category "other locations." Thus, anyone may contact the Ethics Helpline from wherever he or she may be located in the world. In addition, the Ethics Helpline web tool is available in more than 40 languages. The phone line has more than 20 languages available by prompt depending on the number dialed. Toll free access is given to Solvay employees and is available 24 hours a day, 365 days a year. In the joint-ventures, Board representatives make every effort to have rules adopted that are in line with the Group's Code of Conduct.

## 11 Preventing insider trading

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The Group has established a policy for preventing insider trading, and a manual containing strict rules of confidentiality and non-use of "inside information" for both regular and occasional insiders. This policy and manual have been widely circulated within the Group.

The interpretation and oversight of compliance with these rules are entrusted to a Transparency Committee composed of the Group Corporate Secretary (Chairman), who is also Group General Manager Communication, the Chief Financial Officer, the Group General Counsel and the Group General Manager Human Resources. In particular, this Committee advises the Board of Directors, the Executive Committee and any employee confronted with a difficult situation.

This policy is applied equally by the Executive Committee and the Board of Directors.

Moreover, in conformity with the law of August 2, 2002, persons exercising managing responsibilities within the Group, and persons who are closely related to them, that is:

- the members of the Solvay SA Board of Directors;
- the members of the Executive Committee;
- the Corporate Secretary;
- the Group General Manager Human Resources; and
- the Group General Counsel;

have been informed and are regularly reminded of their obligation to declare to the Financial Services and Markets Authority every transaction involving Solvay shares.

## 12 Internal organization of the Solvay group

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The internal organization of the Solvay group is described in the Group profile section of this annual report.

## 13 Relations with shareholders and investors

### 13.1 Performance of the Solvay share

Solvay shares are dually listed on Euronext Brussels – the primary listing – and, since January 2012, on Euronext Paris under the unique mnemonic code of SOLB. Furthermore, Solvay joined the CAC 40 stock index on September 21, 2012. Both these events reflect the Group's long history in France as well as its economic weight.

In December 2015, Solvay issued a capital raise with preferential rights to partially finance the acquisition of Cytec. Every existing share was attributed one right and four rights allowed to buy a new share at € 70.83. The coupon related to this right was detached on December 4. Based on the closing price on December 3 of € 101.30 per share, the theoretical value of this right was € 6.09 per right. The detachment thereby resulted in mechanical adjustment of the shareprice, value by 93.98%.

In December 31, 2015, its price was € 98.43, as against € 105.64 at the end of 2014 adjusted from € 112.40, to take into account the bonus factor from the rights issue. During 2015 the average price was € 109.41 on an adjusted basis, while the highest price on an adjusted basis was € 132.47 (€ 140.95 prior to adjustment since December 4, 2015).

Average daily trading volume as reported by Euronext was 325,619 shares in 2015, compared with 193,011 shares in 2014.

### 13.2 Active financial communication

Throughout the year the Investor Relations team has endeavored to communicate in a timely and effectively manner with, and present financial and strategically relevant facts about and developments concerning Solvay to various investor groups, equity and credit analysts and other stakeholders, on a worldwide basis. To that end, in the course of the year, the Investor Relations team members have held regular contacts with financial analysts and institutional and retail investors, including updates with facts regarding financial and strategic trends and have organized selected presentations, visits and roadshows.

The Group is very attentive to the equal treatment of all shareholders.

The Group's Communication policy is to disseminate, as soon as reasonably possible, information that is of material interest to the market in the form of press releases and/or press conferences and public presentations available in the Group internet website.

#### Solvay SA

Investor Relations  
Rue de Ransbeek, 310  
B-1120 Brussels (Belgium)  
e-mail: investor.relations@solvay.com  
Internet: www.solvay.com

### 13.3 Individual investors

For many years the Group has maintained very close relations with individual investors both by taking part in fairs and conferences and by providing regular information on the life of the Group (press releases, the annual report, etc.) on request.

In 2015, the Solvay group actively continued its meetings with individual investors. In April 2015 Solvay took part in an "Investors' Event" organized in Brussels by the Netherlander federation of Investments Clubs and Investors, VFB (Vlaamse Federatie van Beleggingsclubs en Beleggers) and attended every year by more than 1,000 participants. On this occasion, Solvay's CFO presented the Group in the presence of about 400 individual investors.

Furthermore, the Group implemented a campaign including Corporate & financial performance messages on financial internet sites in Belgium and in France.

Since 2014 Solvay published a monthly e-newsletter called "Solvay in Action" available in French, Dutch and English that presents key quarterly financial messages as well as stories, videos and images which illustrate the Group evolution through its key strategic levers. It primarily addresses Solvay's Investors' Club but its entire content is available in the Investors section of [www.solvay.com](http://www.solvay.com). Since the launch of its in September 2014, 1,500 persons are members of the Investors' Club.

### 13.4 Roadshows and meetings for institutional stakeholders

Roadshows and meetings with senior Group managers are organized regularly for international financial professionals (analysts, portfolio managers, press, etc.). Solvay is also developing an active dialogue on its Sustainability policy and parameters and multiplies the opportunities of interaction with investors concerned with Corporate Social Responsibility (CSR) values.

In 2015, some 800 contacts were established at meetings and events organized in Europe (Belgium, France, the United Kingdom, Germany, the Netherlands, Switzerland, Ireland, Italy, Sweden, Finland and Denmark) and on other continents (the United States, Canada, Singapore and China).

Conference telephone calls with management are also systematically organized, every quarter, to comment on Group results.

Furthermore, in June 2015, Solvay held its Capital Markets Day in the headquarters of its Specialty Polymers GBU in Bollate, Italy. This event was attended by 38 sell-side and buy-side analysts, as well fund managers, and was made available by live video webcast.



### 13.5 A specific internet site

Dedicated internet pages, [www.solvay.com/en/investors](http://www.solvay.com/en/investors), provide shareholders and investors with the latest published financial and strategic information from the Group. The site, constantly improved, provides various and valuable services. Furthermore, it is henceforth available in three languages – English, French and Dutch. Based on responsive design, it offers an optimal viewing experience on any devices.

It especially provides useful contacts with sell-side analysts who closely track the Group. It further offers the opportunity to join the

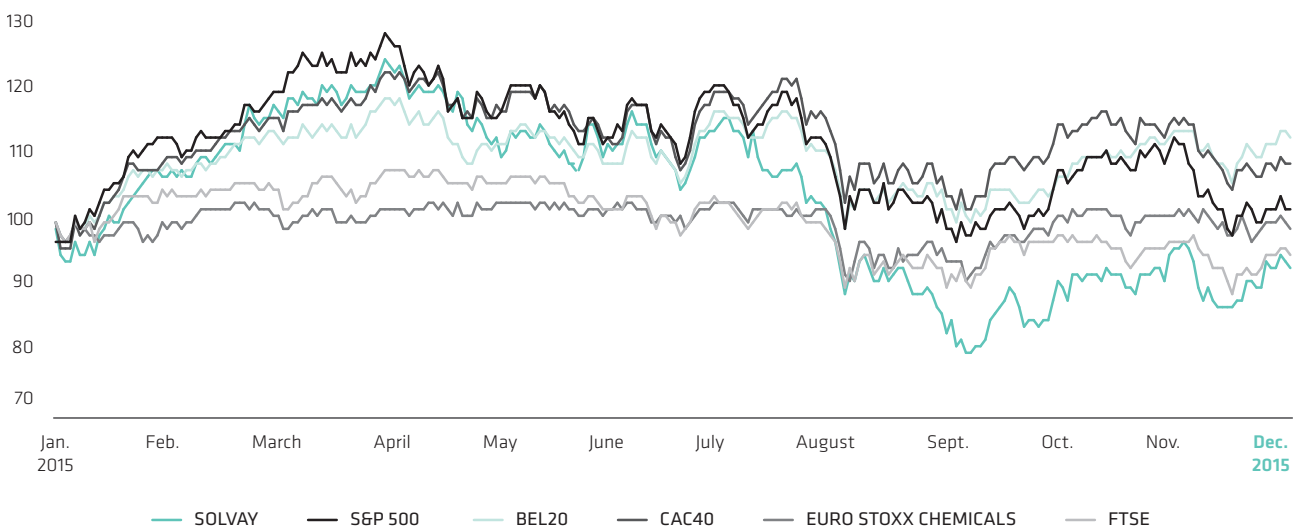
Investors' Club in order to receive email notifications in the three languages concerning information of various kinds: agendas of meetings, including the Annual Shareholders' Meeting, by-laws amendments, special reports of the Board of Directors, publication of the annual report, unconsolidated parent company accounts, payment of dividends, etc. In 2014, a new section dedicated to the shareholders' information has been created. It gathers Solvay in Action, the information program mentioned in the section 13.3 of the present report, practical information concerning shares registration and answers to the most frequent questions.

#### SOLVAY SHARE PRICES AND TRADING VOLUMES FROM JANUARY 1, 2015 TO DECEMBER 31, 2015<sup>(1)</sup>



(1) The Solvay share price prior to December 4, 2015, has been adjusted by a factor of 93.98%, to reflect the value of the rights distributed during the capital increase.

#### THE SOLVAY SHARE COMPARED WITH INDEXES FROM JANUARY 1, 2015 TO DECEMBER 31, 2015<sup>(2)</sup>



(2) The Solvay share price prior to December 4, 2015, has been adjusted by a factor of 93.98%, to reflect the value of the rights distributed during the capital increase.

## 14 Annex 1: Audit Committee Mission Statement

### 1 Members

The Audit Committee is composed of at least four members.

The members of the Audit Committee are all non-executive Board members and at least a majority of them are independent Board members as defined in article 526ter C. Soc.

The members of the Audit Committee collectively are competent in the area of activities of the Company, as well as in financial management, financial reporting, accounting and audit through their training and experience acquired over the course of their careers. At least one of them, who is an independent Board member, has special competence in accounting and audit.

### 2 Guests

The Audit Committee invites the following people to give reports during each of its meetings:

- the Chief Financial Officer;
- the Head of Accounting and Reporting;
- the Head of the Internal Audit and Risk Management;
- the External Auditor for the Group.

The Chairman of the Executive Committee of Solvay SA is invited once a year to discuss the Group's major risks.

### 3 Frequency of meetings

The Audit Committee will meet at least four times per year, before the Board of Directors' meetings that deal with the approval of the annual, semiannual and quarterly results.

Additional meetings may be called to debate year-end closing topics, Risk Management and Internal Control systems, audit costs and to discuss other important financial questions.

### 4 Main tasks of the Audit Committee

a) The Audit Committee ensures that the annual report and the annual accounts, periodic financial statements and all other important financial communications of the Group comply with generally accepted accounting principles (IFRS for the Group, Belgian accounting law for Solvay SA). These documents must reflect a true and relevant image of the Group's business and of the parent company and must satisfy all statutory and regulatory provisions.

b) The Audit Committee regularly examines the strategies and accounting practices applied to prepare the financial statements of the Group and ensures their conformity with good business practices and the appropriate accounting standards.

c) The Audit Committee regularly examines the scope of the external audit by the external auditor and its implementation throughout the Group. The Audit Committee examines the recommendations formulated by the external auditor and the report sent by the external auditor to the Board of Directors.

d) The Audit Committee oversees the effectiveness of the Group's Risk Management and Internal Control systems and in particular the financial, operational and compliance control. The Audit Committee also ensures that the electronic information systems used to generate financial data meet the required standards. The Audit Committee makes sure these systems meet statutory and regulatory requirements.

e) In terms of internal audit, the Audit Committee verifies the scope/ programs/results of the Internal Audit Department's work and ensures that Internal Audit has adequate resources. The Audit Committee ensures proper follow-up to the recommendations made by Internal Audit.

f) The Audit Committee verifies and oversees the independence of the external auditor, in particular concerning additional services requested outside of the legal mission. In this regard, it is the Audit Committee that proposes an external auditor to the Board of Directors, which then will put forward the candidate for approval and appointment by the General Shareholders' Meeting (including compensation). Also, in concert with the CEO and the CFO, the Audit Committee participates in the choice of the Head of Internal Audit and Risk Management.

g) The Audit Committee examines the areas of risk that are likely to have a material influence on the financial situation of the Group. These risks include, for example, the exchange rate risk, significant litigation, environmental issues, questions linked to product liability, etc. During this examination, the Audit Committee studies the procedures in place in order to identify these significant risks and to quantify their possible impact on the Group and the functioning of the control systems.

### 5 Minutes

As a Committee of the Group's Board of Directors, the Audit Committee prepares minutes of each of its meetings and submits them to the Board.

## 15 Annex 2: Compensation policy for General Managers

Solvay group Compensation policy has the following objectives:

- reinforcing the link between mainly variable compensation and both individual and collective performance;
- aligning variable compensation with relevant market practices.

To assess relevant competitive practice, Solvay takes as its frame of reference a selection of European chemical and industrial manufacturing companies with international operations and annual sales revenues and headcount reasonably close to its own. The composition of this group is reviewed on a periodic basis to assure that it continues to reflect the Company's strategic orientation. It is currently composed out of 17 European-based multinational companies headquartered in six different European countries and active in both the Chemical sector and/or Industrial sector.

For executives with a non-European home country, the home country practice (ideally weighted towards the chemicals sector) constitutes the reference. For data relating to the international market, the services of internationally recognized compensation consultants are retained.

Solvay's objective is to provide total compensation levels that are at or around the median of the chosen reference market for normal performance and close to the upper quartile level of the market in case of outstanding collective and individual performance.

The compensation of the General Managers comprises the Base Salary (reviewed on an annual basis), Annual Incentives, Long Term Incentives and Other Benefits.

The Compensation policy covers the Executive Committee members, the General Managers and the Heads of large Global Business Units.

### Compensation policy

The Compensation policy is composed of Short Term Incentive (STI) plan providing for annual bonus linked to the Group business performance and Long Term Incentive (LTI) plan to introduce a link with the global Group performance.

### Short Term Incentives (STI)

STI are partly linked to the Group performance and partly linked to individual performance.

The target annual incentive ranges, according to position level, from 50% (General Managers and Heads of large GBUs) to 70% (members of the Executive Committee) of base salary. The target short-term incentive consists of three components weighted as follows:

- 30% depending on the individual performance of the manager as measured against a set of pre-determined objectives, approved, for Executive Committee members by the Board of Directors;
- 60% linked to the actual performance achieved towards a combination of annual pre-set collective Group economic performance objectives (REBITDA under a specific Free Cash Flow constraint);
- 10% related to a Group Sustainable Development indicator.

The actual annual incentive can vary from 0% in case of poor performance up to 200% of target in case of outstanding collective and individual performance.

### Long Term Incentives (LTI)

The Long Term Incentives consist of a 50/50 mix of Stock Options (SOP) and Performance Share Units (PSU).

With respect to stock options, the Board of Directors determines annually the volume of Stock options available for distribution based on their accounting fair value at grant, using the Black Scholes financial formula. The total volume of options available is then allocated to the top executives of the Company based on the importance of their individual contribution/position to the success of the Solvay group.

With respect to PSUs, it is equally the Board's responsibility to determine the envelope available for distribution based on the closing value of the Solvay share at grant date. The total volume of PSUs available is then allocated to the senior managers of the Company based on their expected ability to substantially contribute to the achievement of Solvay's ambitions.

The SO plan is a plan vanilla plan providing each beneficiary with the right to buy Solvay shares at a strike price corresponding to the fair market value of the shares upon grant. They bear no intrinsic value at that point in time and will only generate a potential gain for the beneficiaries if the stock price rises. This grant is conceded for a duration of eight years. It cannot be exercised for the first three calendar years following the grant. Options are not transferrable except in case of death. The plan contains a so-called bad leaver clause.

The PSU plan, settled in cash, provides for a possible pay-out in three years' time if a combination of pre-set performance objectives are met (REBITDA and CFROI long-term evolution based on this three year period), with a +/-20% adjustment depending on the actual performance *versus* the initial pre-set objective. The minimum pay-out can vary between zero (if the minimum performance required or "threshold" is not met), 80% if the performance minimum "threshold" is met up to 120% for a performance exceeding a pre-defined ceiling performance.

In its sole discretion the Executive Committee (or the Board of Directors for the Executive Committee members) may decide/recommend individual grants of +/-50% of the target to reward special or unique achievements or circumstances or to acknowledge insufficient performance, while respecting the 50/50 split between SOP and PSU grants.

Each annual LTI plan is subject to prior Board approval.

In its sole discretion, the Executive Committee (or the Board of Directors for Executive members) assesses the achievement of the targets and the Executive Committee (or the Board of Directors for Executive members) may also re-evaluate the targets in case of material change of perimeter or other unexpected circumstances.

### Other benefits

The General Managers are entitled to retirement, death-in-service and disability benefits, as a rule, on the basis of the provisions of the plans applicable in their home country. Other benefits, such as medical care and company cars or car allowances, are also provided according to the rules applicable in the host country. The nature and magnitude of these other benefits are largely in line with the median market practice.

## Short Term and Long Term Incentives

### I SHORT TERM INCENTIVES – STI

Comex				Other General Managers & Heads of large GBUs			
Target STI in % of Base Salary	Split in 3 components			Target STI in % of Base Salary	Split in 3 components		
	Individual performance	Group performance	Sustainable Development indicator		Individual performance	Group performance	Sustainable Development indicator
70% <sup>(1)</sup>	30%	60%	10%	50%	30%	60%	10%

(1) From January 1,<sup>st</sup> 2016

Actual STI pay-out can vary between 0 and 200%, according to the level of individual or group performance achieved.

### I LONG TERM INCENTIVES – LTI

	Comex	Other General Managers & Heads of large GBUs
Performance Share Units	Target Grant € 250,000	Target Grant € 200,000

The corresponding number of PSU is determined at grant date based on the fair value of the PSU.

Between 0% and 120% of granted PSU number depending on the actual achievement over a 3 years period of the pre set Group performance targets.

	Comex	Other General Managers & Heads of large GBUs
Stock Options	Target Grant € 250,000	Target Grant € 200,000

The corresponding number of SOP is determined at grant date, based on the accounting fair market value of the SOP.

- Each annual Long Term incentive plan is subject to prior approval by the Board of Directors.
- The Board of Directors may decide individual grants of +/-50% of the target to reward special achievements or circumstances or to acknowledge poor performance, while respecting the split 50/50 between SOP and PSU's grants.

#### Notes

- 1) Excluding Mr. Clamadiou whose compensation is governed by specific agreements.
- 2) The Board of Directors assesses the achievement of the targets and may also re-evaluate the targets in case of material change of perimeter or other unexpected circumstances.

## MANAGEMENT OF RISKS

Risk is the possibility that an event occurs that will have negative impact on people, assets, environment, reputation or strategic objectives of the Group, including foregoing potential opportunities. Taking calculated risks within a pre-established risk appetite endorsed by the Board is an inherent aspect of the business and industrial activities of Solvay. This risk appetite is translated through a number of Group policies approved by the Comex, and specially through the 25 “red lines” set out in the Solvay Management Book.

The Group applies a systematic risk management integrated with strategy, business decisions and operations through the Enterprise Risk Management (ERM) approach, facilitated by the Internal Audit and Risk Management (IA/RM) Department. This approach ensures that Solvay leaders identify, assess and manage all potentially significant business risks and opportunities. Risk management is integrated into strategic and operational decision making; it is seen as an essential management tool and as an important aid in making the decisions needed to achieve the Company’s short, medium and long-term objectives. The ERM methodology, has been revised in 2014, then rolled-out across the whole Group in 2015, to include improvements aiming at allowing a better prioritization of relevant risks and a more focused risk response by each GBU, Function, and at Group level.

In a first series of Risk Management exercises, each GBU and Function, with the assistance of the IA/RM team, reviewed and updated its own risk matrix, and also defined Risk Owners to lead the risk mitigation of their most critical risks.

Then, at a second level, a risk identification was conducted with the Leadership Council (top senior managers of the Group): capitalizing on an analysis made by IA/RM team of GBU/Function transversal or correlated risks, a list of Group risks was generated, and submitted to an assessment phase.

The Group risks are considered as the most critical risks for the group and are closely monitored by the Group Risk Committee (Executive Committee joined by the General Managers of Functions Industrial, Legal & Compliance, Human Resources and Sustainable Development). For each Group risk, a Risk Sponsor member of the Comex is appointed, who ensures that those risks are adequately addressed.

The mitigating actions and their status were followed-up and reported by IA/RM team in a Group Risks Dashboard. This Dashboard was issued and formally reviewed by the Group Risk Committee and updated twice during the year both for progress on mitigating actions and for new developments in the risk environment. The Group Risks were also considered on an annual basis by the Audit Committee of the Board of Directors.

Internal control is one aspect of risk management, being a way to address risks existing in the most significant processes. Please refer to section 8 of the Solvay Corporate Governance report Solvay Annual Report for a detailed description of the risk management and internal control system of the Solvay group.

In a context of global economic and political uncertainty, evolving power balances, different growth dynamics, shortening of market cycles, raw-material and energy volatility and quick technological evolution, Solvay believes that effective monitoring and management of risks is key to achieve its sustainability objectives.

The purpose of this report is to describe the risks relevant for Solvay and to outline the actions undertaken by the Group to reduce those risks. The mitigation efforts described are no guarantee that risks will not materialize but the Group’s efforts to manage risk exposures in a pro-active way.

# 1 Main risks

The Group Risk Committee has assessed Group risks' impact and level of control. Four main types of impact were used: economic impact, impact on people, impact on environment and impact on reputation.

The level of control of the risks was assessed by considering the following questions:

- are the mitigating/controlling actions defined?
- are the actions implemented, fully or partially?
- is the effectiveness of those actions monitored?

Each of these criteria has been rated on a four level scale.

The criticality refers to the combination of both ratings (impact and level of control) of the risk at the time of the assessment.

In the chart hereafter, the trend reflects the evolution of criticality, taking into account the implementation of mitigating actions in 2015.

Criticality	Risk	Trend
High	Innovation failure	↘
	Transport accident	→
	Information protection and cyber-risk	↘
Moderate to high	Ethics and compliance	↘
	Chemical product usage	→
Moderate	Projects selection and management	→
	Industrial safety	↘

## Innovation failure

### Description

The Group spends significant amounts on research and development and depends on its development of new, improved, or more cost-effective materials, methods, and technologies. An important component of its strategy is to innovate continuously in a sustainable manner to prepare tailor-made solutions for customers. Any failure to successfully develop new products, methods or technologies, or delays in development, may lead to the Group's products or technologies becoming superseded and could cause impairments, could reduce the Group's future sales.

Additionally, to support innovation, determinations of capital expenditure are made in a forward-looking manner according to current understanding of trends and customer demand. The Group may commit errors or misjudgments in its planning and misallocate its resources, or any investment may become non-viable, or may be superseded prior to completion. In addition, the market for a newly developed product may unexpectedly cease to exist. The materialization of any of these risks could have a material adverse effect on the Group's business, financial condition, and results of operations.

Furthermore, insufficient protection by Solvay of its innovations could limit its development potential.

### Prevention and mitigation

New products, technologies and activities are developed by R&I activities to address customer needs and attractive opportunities in growing markets like light-weighting materials, crop protection, oil & gas exploration and smart devices. To capture these opportunities Solvay opened its flagship innovation centers in Singapore and Korea in 2014.

Regarding product development, Solvay devotes substantial resources to R&I. Innovation is a cornerstone of the Group's strategy.

A defined process has been implemented in the Group to ensure that best practices for project management are used and that resources are used in an optimal way. This allows moving a new product from idea to market launch in a timely manner.

The New Business Development team within the R&I Function manages the Group investments in internal and external research projects, start-ups and venture capital funds, allowing Solvay to remain engaged at the forefront of emerging businesses such as alternative renewable energies. It also includes risk-sharing through public-private partnerships or other forms of open innovation for developing breakthrough technologies.

Solvay implements a policy to protect its innovations and its know-how, including taking specific precautions through its choice of partners in R&I and through choosing the locations of its research operations.

## Transport accident

### Description

The risk of causing **injury to neighbors or the public** may be a consequence of accident during transport activities.

### Prevention and mitigation

The risk of an accident in connection with hazardous chemicals transportation is reduced by optimizing transport routes, relying on selected and audited haulers and worldwide emergency assistance in case of accidents through the Carechem service. In addition, every effort is made to minimize the number of transportation activities by operating with integrated production units for hazardous intermediates. Solvay follows the safety recommendations of associations like Eurochlor, ECVM (European Council of Vinyl Manufacturers) or CTEF (*Comité Technique Européen du Fluor*) and programs like Responsible Care®.

## Information protection and cyber risk

### Description

Information and cyber risk includes theft, manipulation or destruction of information, inability to ensure continuity of services or to protect confidential, critical or sensitive information.

### Prevention and mitigation

A cyber-security and prevention of loss of confidential information program has been designed. In 2015, this program addressed concrete business requirement around information classification and their appropriate handling, as well as the definition of further actions to increase the ability of the Group to respond to this type of threats.

In the frame of this cyber security program, an external assessment and benchmark has been carried out by independent experts. It included penetration tests on several of Solvay's administrative and business sites. The recognition of cyber security at Corporate level, together with an enforced governance at operational and executive management level, has been noticed as strong points of the program. The program will carry on in 2016 and integrate Solvay's Industrial Function.

As e-mails remain a focal attention point to prevent intrusion of malicious code into the Company, a special phishing campaign has been crafted for selected management employees and has been carried out, accompanied by a special e-learning training program. IT employees have received a more detailed training and e-learning program adapted to their specific needs. Mails from within the Solvay domain are being authenticated in a way that prevents external fraudsters from impersonating as Solvay employees.

In the domain of fraud management, a pilot solution to detect selected fraud scenarios between different IT-systems has been implemented and is currently being tested. Articles about fraud detection and prevention appear regularly in internal e-magazines and increase operators' vigilance. A Fraud management policy has been finalized, formalizing the role a Fraud Committee and a Fraud Officer who analyze and investigate suspicious activities that are being brought to their attention.

Solvay buys insurance to reduce the financial impact of a cyber type of event both for the assets, business interruption and fraud cases.

## Ethics and compliance

### Description

The risk attached to ethics is Solvay's exposure to failure to comply with the Solvay Code of Conduct and supporting policies and procedures as well as compliance with laws and regulations in the jurisdictions in which Solvay operates. (See the regulatory, political and legal risk section below for further information of this particular risk).

Examples of potential risks are: failure to implement good governance in a joint-venture, direct or indirect involvement in human-rights violations, intentional misstatement of financial reporting, corruption and by-passing of internal controls.

### Prevention and mitigation

Group-wide, Solvay has a Code of Conduct and adopts policies and procedures to enhance good governance of the Group.

Solvay's Code of Conduct applies to every Solvay employee wherever Solvay operates or conducts its business. Third parties acting on behalf of Solvay are also expected to act within the framework of the Code. In joint-ventures in which Solvay is a majority partner, the Solvay Code is applied or a separate Code is adopted based on similar principles and values. In joint-ventures in which Solvay holds less than a majority position, Solvay works with its partners to develop acceptable Codes based on principles and values that align with those reflected in the Solvay Code of Conduct as well as its policies and procedures.

Solvay has a compliance organization in place under the leadership of the Group General Counsel to enhance a group-wide ethics- and compliance-based culture and to promote and monitor compliance with applicable laws, the Group Code of Conduct and supporting policies and procedures. Compliance Officers have been appointed in all four zones in which the Group is active and work to ensure that the Code is communicated to employees and business partners.

Training courses facilitated by the Legal Function are organized to ensure that ethical and compliant conduct is embodied in the way business is done at Solvay and to address behavioral risks in certain specific areas such as antitrust, anti-bribery and corruption, human rights, and other aspects of Corporate Social Responsibility. Regular campaigns are organized to train new employees and to maintain the right level of awareness in the whole Group. The Compliance Department, in collaboration with other departments or functions, monitors compliance with applicable laws and Solvay's Code of Conduct. Any violation of the Code will lead to sanctions in accordance with internal regulations and applicable law.

Reporting of violations is encouraged and various avenues are offered to employees including access to internal resources such as management, Human Resources and Legal and Compliance. Employees can also ask questions, raise concerns or file reports through the Solvay Ethics Helpline, an external resource available on the web or by phone and operational via internet in 46 specific regions in more than 40 languages and via the phone line in more than 20 languages 24 hours a day, 365 days a year. This group-wide Speak Up program is overseen by the Audit Committee of the Board of Directors.

## Chemical product usage

### Description

**Product-liability risk** is Solvay's exposure stemming from injury to third parties or damage to their property arising from the use of a Solvay product, as well as the resulting litigation. Product liability may arise from out-of-specification products, inappropriate use, previously unidentified effects, manufacturing errors resulting in defective products, product contamination, altered product quality or inappropriate safety and health recommendations. Consequences of a faulty product could be exposure to liability for injury and damage as well as recall of a product. Product-liability risk is generally higher for products used in healthcare and food & feed applications compared to other applications. Products with significant potential hazards are in general sold to industrial users with the correct specifications and not directly to consumers.

**Product-development risk** is Solvay's exposure to adverse developments while developing new products and technologies or scaling up a process.

### Prevention and mitigation

Solvay controls the quality and purity of its manufactured products through quality-assurance and quality-control programs, by controlling industrial processes and by deploying full composition-data management.

Product liability exposure is reduced by product stewardship programs giving adequate information and technical assistance to customers, ensuring a good understanding of safe use and handling.

First of all, in-house product stewardship experts identify and assess the risks of Solvay products. The Group characterizes and manages risks related to the uses and applications of its products, and prioritizes in relation with the GBUs mitigation actions regarding potential inappropriate uses. Then Solvay manages preparation of Safety Data Sheets (SDS) fully compliant with regulations ensuring a harmonised content of SDS by implementing a common worldwide Environment, Health and Safety SAP system for the Group. Control by SDS shipping allows confirmation that any product marketed by Solvay is accompanied, whatever the mean, by a compliant SDS. Solvay monitors the discrepancies registered during checks and manages the failures of shipping. Solvay pays particular attention to providing complete and clear information about intended use and potential hazards by means of SDS, labels, regulatory-compliance statements and other documentation. For example, conditions of safe use and handling, hazard levels, first aid emergency measures and emergency phone numbers are provided in the language of its customers. Recall procedures, as described in the product stewardship programs, management systems and the health-care management process, are also developed and deployed.

Solvay buys insurance to reduce the financial impact of a product liability risk including for first and third party product recall.

## Projects selection and management

### Description

The allocation of resources to projects (CAPEX, M&A) could be misaligned with Solvay growth strategy, leading to an inefficient use of the Group financial resources. Also, a major project could experience difficulties so that its objectives would not be reached.

### Prevention and mitigation

The model of governance for the major types of projects has been established and is included in the Solvay Management Book. An Investment Committee (since January 2014) challenges marketing, financial and industrial aspects of investment projects. The Approval matrix indicates which major decisions, including M&A projects, investments or restructuring projects, must be approved by the Comex, and which are to be dealt with at GBU level. Functional boards track and monitor major functions' projects.

To increase the likelihood project objectives are met, the Group has set up processes to manage capital investments, as well as acquisitions. These processes include risk identification, assessment and mitigation steps. They also include post-completion reviews that allow to share the lessons learned and the best practices.

## Industrial safety

### Description

Accidents on industrial sites may cause injury to employees, contractors or also to the public neighboring those sites, especially in the context of major releases of chemical substances.

**Accidents to employees or third party individuals on Solvay's sites** are generally linked to failure of safety management relating to risks at the workplace. Employees accidents include contact with chemicals (hot, corrosive or toxic) leaking from a vessel, pump or pipe, as well as accidents caused by explosion or falling objects, falls during work at height or work with mechanical or moving equipment.

Accidents to contractors include falls during work at height, in construction and maintenance activities, use of tools and interaction with equipment during maintenance, as well as accidents due to non-compliance with work permit procedures.

Risks of causing **injury to the neighbors or the public** are mostly a consequence of major process accidents at manufacturing sites or during transport activities.

### Prevention and mitigation

Occupational safety is the highest priority in the management of activities in Solvay. The Group has a long track record of good safety performance, and the sharing of good practices has allowed significant progress.



The Comex set an ambitious target of 0.5 for MTAR (work accidents with medical treatment/one million working hours) in 2025 and asked for reducing drastically serious accidents (including accidents with irreversible consequences and chemical contact accidents) as well as eliminating fatalities. The MTAR reached a record value of 0.78 at the end of 2015. This represents a continuous and important safety improvement trend over the last four years. These results include registered employees but also contractors and temporary workers. The safety results are presented monthly to the Executive Committee and sent to each GBU.

To achieve that, the HSE (Health, Safety and Environment) Department defined a new management system called Solvay Care Management System (SCMS), integrating all the Solvay requirements for HSE and fulfilling the international standards (ISO9001, ISO14001, OHSAS 18001). After the Safety initiative of 2012, the Solvay Safety Excellence Plan was launched to boost safety performance. This plan is focused on three axis: show clearly management level of expectations, customize action plan through site and GBU roadmap and generate a safety excellence mindset. The most famous initiative of this plan is probably the definition and deployment of eight "Life Saving Rules", addressing the eight highest dangerous activities (as working at height), whose purpose is to protect people's lives and applicable to everybody in the whole Group.

HSE Corporate supports sites and GBUs by continuous development and deployment of Corporate procedures, standards, guidelines and tools to improve risk awareness for preventing the risk of accidents. Corporate collects, validates and distributes Return on Experience, Lessons Learning Bulletins on typical accident scenarios and consequences, safety alert messages with rules and recommendations.

The understanding and management of human and organizational factors are important to safety and the Group provides programs for behavioral safety to increase the safety culture of managers, employees and contractors.

Existing internal and external research, academic or inter-company developments are monitored to identify new safety approaches ICSI (*Institut pour une Culture de Sécurité Industrielle*), EPSC (European Process Safety Centre) or CEFIC (European Chemical Industry Council) initiatives.

## 2 Emerging risks

Two new risks were identified in 2015 as becoming potentially significant for the Group. There are presented hereafter.

### Climate change

Climate change increases the occurrences of extreme natural events that could impact significantly Solvay sites and supply chain.

The risk from climate change is a reality, with its potential consequences: sea-level rise, increased frequency and gravity of hurricanes and typhoons, earthquakes, tsunamis and flooding. In addition, a number of manufacturing sites are exposed to water scarcity risk.

As regards water-scarcity risk, mitigation approaches include using alternative water sources, recycling and reducing consumption following an identification of sites possibly at risk.

### Security

A terrorist attack at a site or during transportation could trigger a major industrial disaster impacting the communities where Solvay operates.

The Group took immediate measures to mitigate this risk in 2015, and a more global program is under implementation.

## 3 Other risks

### Market and growth – Strategic risk

Strategic risk refers to Solvay's exposure to developments in its markets or its competitive environment as well as the risk of making erroneous strategic decisions. Examples of risks are technological leaps leading to the development of substitute products or more competitive manufacturing processes, economic downturn, drastic changes in energy and raw-material prices and availability, the lack of success of a new product, reduction of demand in the Group's main markets as a consequence of either new legislation or competitive actions, events affecting its most important customers, new entrants in a market, price war and significant imbalances between supply and demand in its markets.

The diverse businesses within Solvay generate a variety of risks, some of which could potentially affect the Group as a whole. But diversification contributes to the reduction of the overall risk as the Group's different businesses, processes, policies and structures offset some risks against each other merely through a balanced portfolio of products, end-markets, industrial footprint and geographical reach.

### Prevention and mitigation

The potential impact of adverse events is assessed and managed at both GBU and Corporate levels, and involves in particular:

- systematic and formal analysis of markets and marketing challenges in relation to our projects;
- maintenance of a balanced portfolio of products and geographic spread;
- diversification of the customer base in different market segments;
- adaptation of operations to the changing macroeconomic and market environment;
- selective vertical integration and diversified sourcing of raw material and energy;
- strict financial policy and allocation of resources;
- investment and innovation strategy;
- continuous monitoring of mitigation plans' progress;
- business planning and management cycles with both short term and long term horizons.

Sales development is an important driver of opportunities and risks for Solvay. Sales growth in 2015 proved resilient and the Group expects sustainable growth of its sales in the horizon of its strategic planning notably driven by growth from emerging end-markets and fast-developing regions. This creates opportunities that Solvay wants to seize by expanding its presence in these markets and economies. In 2015, the Group started successfully a vanillin unit and a new unit plant in China, a Silica plant in Poland, a alkoxylation plant in Singapore. The Group also progressed in the construction of the announced investments in PVDF and hydrogen peroxide plants in China, a Silica plant in South Korea, a polyether-etherketone (PEEK) and alkoxylation plants in USA, and a hydrogen peroxide joint venture plant in Saudi Arabia. Economic risks in Brazil associated to market trends impacted businesses in the region and motivated the announced streamlining of the Fibras activities.

The acquisition of Cytec enables the Group to expand its presence in North America as well as in fast growing market of composites for Aerospace.

Beyond Cytec, portfolio transformation continued in 2015 reducing cyclical and low-growth businesses - divestment of PCC and Refrigerants and creation of the European joint-venture - Inovyn - and strengthening growth engines - acquisition of EPIC Polymers GmbH and ERCA Emery Surfactant B.V. in Netherlands.

## Supply chain and manufacturing risk

Supply chain and manufacturing risk in production units and transportation refers to risks related to raw materials, energy, suppliers, production, storage units and inbound/outbound transportation. Risks include major equipment failure or damage, natural disasters, strikes and drastic shortages of raw material, utilities or critical equipment.

The geographic distribution of production units around the world reduces the overall impact of one production unit being damaged or interrupted. Some specialty products are, however, produced only in one single plant.

## Prevention and mitigation

Key risk areas are addressed with relevant dedicated policies and risk-control programs such as the property-loss prevention program, process safety management procedures, the supplier qualification and assessment process, integrated resource planning and supply chain optimization systems, ERP (Emergency Response Plans), corporate and local crisis management procedures, business continuity planning (including for pandemic risk), and networking groups for manufacturing and supply chain managers.

The identification of the supply chain risk is an essential part of the strategic category management, which is an in depth analysis establishing selection matrices and risk profiles. Environmental, social, as well as, security of supply and innovation criteria are taken into account. For each specific risk a mitigation action is identified.

These strategic management reviews take place on a regular basis.

Some suppliers are identified as critical based on their strategic importance or because they might represent a business, country or product risk. Those suppliers have to engage themselves in a CSR assessment and in a continuous improvement process of their CSR

practices. All critical suppliers also need to formally confirm that they adhere to principles that are consistent with the principles set out in the Solvay Supplier Code.

To embed CSR in the culture of the buyers, Solvay has set-up the "Every Buyer Every Visit" program. Every buyer during every visit with a supplier will dedicate a part of the discussion to health, safety and environment, CSR, and innovation aspects.

Solvay buys insurance to reduce the financial impact of events potentially causing extensive damage and consequential business interruption. The property-loss prevention program is deployed with the support of a large network of risk engineers assigned by the insurers and focusing on the prevention and mitigation of damage to assets and loss of profit due to fire, explosion, accidental chemical release and other sudden adverse events. The program has been reinforced across the Group since January 2012 and includes:

- annual engineering visits to all locations with a € 100 million worst-case loss scenario;
- monitoring and update on the status of agreed risk improvement actions for all locations;
- meetings with the GBUs on Property and Business Interruption risks improvement;
- road-maps designed to improve the Property and Business Interruption risks on the plant with a € 100 million worst-case loss scenario;
- business impact analysis;
- loss-prevention training of plant employees.

In 2015, a three years Global Property Loss Prevention Road Map - 2015/2018 - has been created. It includes the completion each year of 43% of human element type of recommendations, 15% of physical protection type of recommendations and 15 worldwide large sites targeted to significantly increase in the Chemical Risk Mark Chemical Benchmark of FM Global.

In addition by owning several mines and quarries for extraction of fluor, trona, limestone, salt and celestite, Solvay reduces the risk of disruption of raw material supply (availability, reliability and price) by integration, when possible, of key suppliers in the property loss prevention program.

In the field of energy supply, Solvay has consistently implemented programs to reduce its energy consumption for many years. While Solvay has industrial activities with high energy consumption, mainly in Europe (synthetic soda ash plants, chlorovinyls, polyamides), it also operates a range of industrial activities with a relatively low energy content as a percentage of sales price, particularly in the fluorinated polymers business of the Specialty Polymers GBU and in the Novecare GBU. The Group considers secure and reliable energy supplies to be particularly important and has taken the following strategic initiatives:

- technological leadership in processes and high-performance industrial operations to minimize energy consumption;
- diversification and flexible use of the different types and sources of primary energy;
- upstream integration in steam and electricity generation (gas cogeneration, biomass or secondary fuels cogeneration, etc.);

- periodic review of conditions of industrial sites' energy assets and connections;
- a strategy of supply coverage with long-term partnerships and medium- to long-term contracts with price-hedging protection mechanisms when needed;
- direct access to energy markets when possible (gas hubs, electrical grids, financial spot and futures exchanges);
- regular forecast reports on energy and raw-material price trends sent to business to anticipate sales prices realignments.

Solvay created Energy Services, aiming at optimizing energy cost and CO<sub>2</sub> emissions for the Group and third parties. Energy Services optimizes the energy purchasing and consumption for the Group and assists GBUs in their management of energy and CO<sub>2</sub> emissions. The Solvay group is committed to ambitious CO<sub>2</sub> reduction targets.

Regarding EU ETS<sup>(1)</sup> risk, several mitigation actions have been undertaken:

- the GHG emissions are strictly monitored;
- several energy efficiency projects have been implemented, generating in average 10% of energy savings;
- the Group EUA exposure is dynamically managed with a hedging of the eventual shortage.

## Regulatory, political and legal risk

**Regulatory risk** refers to Solvay's exposure to changes in legislation and regulations. This could include events like governmental price regulations, taxation, tariff policies, trade restrictions or new regulations banning a product or imposing manufacturing, marketing and use restrictions making it unjustifiable to produce. Solvay could be exposed to important cost increases or business interruptions as a consequence of new legislation or regulations, or a more strict interpretation or application of current regulations by courts or authorities.

Solvay must obtain and maintain regulatory approval to operate its production facilities and sell its products. Given the international spread of the Group, these regulatory approvals emanate from authorities or agencies of many different countries. Withdrawal of any previously granted approval or failure to obtain an authorization may have an adverse effect on its business continuity and operating results.

For Europe in particular, all chemical substances manufactured, imported or used by Solvay require registration under the REACH Regulation and must meet the deadlines imposed by this regulation. This is in addition to other already existing requirements. By the second REACH registration deadline of June 1, 2013, 175 files were successfully registered with the European Chemical Agency; of these, 59 files were registered in 2012 and 116 files in 2013. The next REACH registration deadline is May 31, 2018 and around 350 substances will have to be registered.

**Political risk** refers to Solvay's exposure to circumstances where the normal exercise of public authority is disrupted. This could be the consequence of a social crisis, political instability, civil war, nationalization or terrorism in countries where the Group operates or sells products, resulting in delay or failure of delivery of products or unavailability of raw materials, utilities, logistic or transport facilities.

**Legal risk** refers to the exposure to actual and potential judicial and administrative proceedings. The simple fact of doing business exposes Solvay to disputes and litigation. Adverse outcomes of such disputes or litigation are always possible (see note on Important Litigation below). In the normal course of business the Group is or may become a party to judicial or administrative proceedings. See page 69 for an overview of the ongoing legal proceedings involving the Group that are considered to involve potentially significant risks. The Group is exposed to legal risk, particularly in the areas of product liability, contractual obligations, antitrust laws, patent infringement, tax assessments and environmental matters.

The Group's operations depend on the control of its key technologies and on the capacity to innovate. The questioning by third parties of the right of Solvay to use certain technologies could have an impact on its operations.

## Prevention and mitigation

The geographic spread of the Group around the world is a factor reducing the impact from adverse regulatory and political developments.

Proper design and testing of products and their production processes contributes to the management of regulatory and legal risks, as do timely and thorough applications for necessary approvals.

Regulatory and political risk both within and outside the European Union is reduced through the continuous work of, and interactions with public authorities by, the Government and Public Affairs Department and through the local Belgian Embassy.

To manage legal risk Solvay maintains in-house legal, intellectual property and regulatory resources, including technical applications in its Business Services Function and relies on additional external professional resources as appropriate. In addition the Group makes appropriate financial provisions. Awareness of legal risks is raised by dedicated training, sharing of information, self-assessment procedures and internal audits.

In the chemical industry, technological know-how can remain protected by way of trade secret, which is often a good substitute for patent protection. However, Solvay patents new products and processes when appropriate and maintains continuous efforts to protect its proprietary information and its position as leader in technological know-how for its production processes.

In respect of political risks, Solvay's actions include risk-sharing with local or institutional partners as well as monitoring of political developments in sensitive areas.

(1) ETS stands for Emission Trading Scheme. In order to fight global warming and to comply with its commitment under Kyoto Protocol, the European Union has set up a cap and trade system (EU ETS) by which more than 12,000 industrial units must reduce their GHG emissions. Each year, the companies are granted a certain amount of European Unit Allowances (EUA) and should surrender an amount of EUA equivalent to their GHG emissions. In case of shortage, they must buy on the market the missing amount of EUA and pay a penalty.

## Financial risk

Financial risk is Solvay's exposure to liquidity risk, foreign exchange risk, interest-rate risk, counterparty risk (credit risk), failure to fund pension obligations, and tax risk, mainly tax compliance risk and transfer-pricing risk. Financial risks management at Cytec is in line with Solvay financial risks management.

**Liquidity risk** relates to Solvay's ability to service and refinance its debt (including notes issued) and to fund its operations, and depends on its ability to generate cash from operations and not to over-pay for acquisitions.

Solvay is exposed to **foreign-exchange risk** as a consequence of its international activities. In its present structure, the Group's exposure is mainly associated with the euro/US dollar risk, as the Group's overall activities generate a net positive US dollar flow. Consequently, a depreciation of the US dollar will generally result in lower revenues for Solvay. To a lesser extent, the Group is also exposed to euro/Japanese yen and Brazilian real/US dollar. A sensitivity analysis to those currencies is provided in the note 37D Financial risk management to the consolidated financial statements of the present document.

**Interest-rate risk** is Solvay's exposure to fluctuating interest rates.

Solvay is exposed to **counterparty risk** in its cash management and in its foreign-exchange risk and interest-rate risk management as well as in its commercial relationships with customers.

With regard to the **risk of under-funding pension obligations**, Solvay is exposed to a number of defined-benefit plans. Fluctuations in discount rates, salaries and social security, longevity and asset/liability matching can have a major impact on the liabilities of such pension plans. For funded plans, the risks related to investments need to be managed, taking into account the risk-return balance. If plans are under-funded Solvay is mostly exposed to inflation and interest-rate risk. Further information is provided in the note 35A "Financial instruments and financial risk management" to the consolidated financial statements of the present document.

## Prevention and mitigation

Financial risks are analyzed, assessed and managed by the Corporate Finance Function (Treasury and Tax). Loss prevention and mitigating efforts involve a number of activities, such as:

- maintaining a strong liquidity policy;
- maintaining a natural currency hedge;
- fixed interest rates;
- hybrid pension plans, cash balance plans and defined-contribution plans;
- internal controls dedicated to tax and transfer-pricing compliance processes and also aiming to document tax positions in the field of Treasury, Company Restructuring and M&A activities;
- transfer-pricing documentation prepared in line with OECD (Organization for Economic Co-operation and Development) requirements;
- recourse to external tax expertise, should the need arises.

The Group is recognized as historically having a prudent financial profile and a conservative financial discipline. After the acquisition of Cytec in December 2015, the rating agencies confirm the Investment Grade rating of the Group with a Baa2/P2 rating with negative outlook for Moody's and a BBB-/A3 rating with a stable outlook for Standard & Poor's.

The liquidity profile is strong, mainly supported by capital increase, by exception, as it is the case in 2015 and for the first time in the Group's history with the € 1.5 billion rights issue to partly finance the \$ 5.5 billion acquisition of Cytec, by long-term bond issuance (currently € 5.4 billion financial debt of which € 3.7 billion for the financing of the Cytec acquisition and treasury refinancing € 665 million bonds issued by Cytec prior to the acquisition and € 2.2 billion hybrid bonds, treated as equity under IFRS) and substantial liquidity reserves (cash and committed credit lines, including two syndicated credit facilities of € 1.5 billion and € 550 million), as well as approximate € 300 million bilateral credit facilities with key international banking partners. In addition, the Group has also access to a Belgian Treasury Bill program in an amount of € 1 billion or as an alternative a US commercial paper program in an amount of \$ 500 million. The geographic diversification of production and sales provides a natural currency hedge because of the resulting combination of an income stream and an expense base in local currency. Furthermore, Solvay closely monitors the foreign-exchange market and enters into hedging measures for terms usually shorter than one year and not exceeding 18 months whenever deemed appropriate. In practice, Solvay enters into forward and option contracts securing the value (in euro and/or US dollar) of cash flows in foreign currency during the following months. The Group manages its foreign-exchange risk for receivables and borrowings through CICC (Solvay's in-house bank) in Belgium for all affiliates of the Group where it is possible to enter in such hedging transactions and through local financial affiliates for other regions.

In its present structure, the Group has locked in the largest part of its net indebtedness with fixed interest rates. Solvay closely monitors the interest rate market and enters into interest-rate swaps whenever deemed appropriate.

Solvay manages its financial counterparty risk by working with banking institutions of the highest caliber (selection based on major rating systems) and minimizes the concentration of risk by limiting its exposure to each of these banks to a certain threshold, set in relation to the institution's credit rating.

In addition, Solvay places money with highly rated money market funds as well as investing in short term debt securities from highly rated sovereign issuers at the appropriate moments.

Furthermore, Solvay group manages external-customer risk and cash collection through a strong network of credit managers and cash collectors located in operating regions and countries.

Credit management and collection processes are supported by a set of detailed procedures and managed through Corporate and GBU Credit Committees. These loss mitigation measures have led, over the past years, to a record low rate of customer defaults.

Solvay has defined corporate pension-governance guidelines in order to maximize its influence over local pension fund decisions within the limits provided by local law, in particular, decisions related to investment and funding, selection of advisors, appointments of employer-nominated trustees to local pension fund Boards and other cost-management decisions.

The Group has reduced its exposure to defined-benefit plans by converting existing plans into pension plans with a lower risk profile for future services or by closing them to new entrants. Examples of plans with a lower risk profile are hybrid plans, cash-balance plans and defined-contribution plans.

A global ALM (Asset Liability Management) analysis of Group's pension plans representing more than 90% of the Group's pension obligations is performed periodically, the last one being in 2012 to identify and manage corresponding risks on a global basis.

Solvay stresses the importance of tax compliance. It monitors its procedures and systems through internal reviews and through audits performed by reputable external consultants. Internal controls dedicated to tax-compliance processes are in place to limit the occurrence of possible errors or failures.

Solvay has issued transfer-pricing policies and procedures aimed at meeting the requirements of the authorities. Internal controls dedicated to transfer-pricing compliance processes are in place to limit the occurrence of possible errors or failures.

Transfer-pricing documentation is prepared annually for each relevant Group legal entity that requires such documentation in line with local country laws and practices with the assistance of internal or external experts, in order to demonstrate the arm's-length nature of cross-company pricing. The existence and timeliness of the documentation are regularly audited by the Internal Audit Department. Internal transfer-pricing specialists assist the business in setting intra-group prices compliant with the transfer pricing policy.

The prevention and mitigation efforts for the tax litigation risk are based on thorough analysis of internal financing of affiliates, mergers, acquisitions and divestments, or proposed changes in the business organization and operations, with the assistance of external experts or law firms when the amounts at stake warrant it. Changes in laws and regulations are also monitored with the aim of adapting to new situations.

Solvay, like any other corporate taxpayer, currently faces significant growth in tax audit queries and the introduction of many new tax provisions. Solvay Tax Department pays great attention to the correct interpretation and application of new tax rules to avoid future litigation. Solvay Tax Department also follows with great attention all developments pertaining to the implementation at country level of the G20/OECD Base Erosion and Profit Shifting (BEPS) recommendations in order to ensure that tax positions remain consistent with changing requirements.

## Occupational-related diseases and pandemic risk

**Occupational-related diseases** including chronic diseases from exposures to occupational hazards are mostly related to past exposures resulting in health effects after a long period of latency, *e.g.* asbestos-related diseases.

**Pandemic risk** can affect employees, their families and the society at large.

### Prevention and mitigation

Conservative approaches in risk assessment and management reduce real risk exposure when new hazards are revealed. Such conservative approaches are shared and applied by the worldwide toxicology team and also supported by the internal "Solvay Acceptable Exposure Limit" Committee, chaired by the Corporate Medical Adviser.

Solvay has its own experts within the Company and actively cooperates with external networks. High priority is given to nanomaterials and technology, endocrine disruptors and health-related applications of Solvay products.

For decades, Solvay has had in place worldwide occupational-disease monitoring and a strong program in industrial hygiene focusing on a comprehensive assessment of compliance with occupational-hygiene standards. In order to ensure a high standard of occupational-health protection for employees, in 2006 Solvay started rolling out the occupational-hygiene module and in 2008 the health module of the MEDEXIS IH-OH system in order to manage comprehensive hygiene data as well as the data related to medical surveillance, in order to standardize and leverage medical surveillance programs. The principles of the MEDEXIS IH-OH system is progressively extended to the whole Group and shared via a unique and uniform IT tool. It is designed to identify clusters of new possibly occupation-related diseases with multiple underlying causes, with the purpose of improving individual and collective exposure and medical traceability and facilitating the daily work of physicians and hygienists in Solvay.

Solvay has put into place a global pandemic preparedness task force covering all plants and all businesses by means of a sustained network of coordinators prepared to implement regional and local prevention and mitigation activities.

## Environmental risk

Environmental risk is Solvay's exposure stemming from the sudden or long-term release of a chemical substance following plant-equipment failures or transport accidents, as well as from production problems resulting in exceeding permitted emission levels. Several Solvay sites are governed by regulations concerning major-risk installations.

Exceeding permitted emission levels can lead to administrative or criminal sanctions, adverse outcomes in litigation and the risk of the loss of license to operate.

Like most other industrial companies, Solvay has to manage and remediate historical soil contamination at some sites as well as comply with future changes in environmental legislation. In Europe and elsewhere, environmental liability and the "polluter pays" principle are increasingly embedded in environmental legislation, to prevent and remedy environmental damage. For the first time, environmental damage to land, water, natural habitats and protected species has been brought under the umbrella of a single piece of European legislation.

The legislation introduces an increasingly broader scope of soil-remediation legal liabilities than previously seen across Europe, including a requirement for primary remediation, complementary remediation and compensatory remediation. More generally, authorities worldwide are increasingly requiring management of soil and groundwater environmental legacies. The risk for Solvay is in particular that the ELD (European Liability Directive) will lead to increased remediation costs and in this context, a number of administrative proceedings are under way to define the need for and approach to remediation.

Beside the risks mentioned above, Solvay group is exposed to ETS risk in Europe. The same scheme has started in South Korea January 1, 2015.

## Prevention and mitigation

Solvay considers environmental protection a key aspect in the management of its activities. Well-defined measures to prevent pollution and accidents have been in place at Solvay for a long time. Solvay implements ISO 14001 or integrated HSE management systems equivalent to ISO 14001 (Solvay Care Management System) for the environment in all plants concerned. Policies and risk control programs are applied in all production units and other facilities and are progressively implemented in newly acquired plants. The Group has, in particular, taken the necessary steps to comply and even go beyond compliance with regulations concerning major risks, which includes detailed accident-prevention measures.

Sites with historical soil contamination are carefully monitored and managed by a dedicated worldwide team. This team receives training in regulatory awareness and undertakes regular updates of appropriate provisions for monitoring and remediation according to a defined audit process. The Group has developed internal expertise in soil management. It is Solvay's policy to have a risk characterization approach at all concerned sites. Hydrogeological studies and soil characterizations are conducted to diagnose potential problems, evaluate risks to aquifers and discuss relevant remediation or confinement actions with authorities. A number of such actions have been completed or are under way.

Compliance with applicable legislation is fully integrated into environmental management systems and is constantly monitored by all Solvay sites. Corrective actions are implemented whenever necessary in close cooperation with environmental authorities to assure that no adverse effect on the environment is observed.

Solvay monitors the effects of climate change as related risks and opportunities may affect the Group's business objectives. The risk is to an extent hedged through the geographic spread of both production units and markets for its products.

Solvay buys insurance to reduce the financial impact in case a environmental risk materialize.

## IT risk

Information and information services related risks for Solvay is the inability to ensure continuity of services or provide information services adapted to the business needs.

## Prevention and mitigation

The Group uses a dedicated data network and regional internet gateways that are managed by a trusted service provider. The critical data and applications are hosted in a datacenter operating along professional good practices, ensuring recovery capabilities in case of incident.

To ensure that the users of systems do understand and apply the best practices, an end-user information security awareness e-learning is provided to all employees.

In 2015, Disaster Recovery tests have again been realized for the central Solvay datacenter, and Crisis Management tests were carried out for all three global service centers of Solvay's Business Services (SBS) Function, involving different crisis scenarios such as pandemia or social unrest, and in full collaboration with Solvay's Corporate Communication Function.

As an extension to earlier certifications of Solvay's Information Services, the whole of SBS has meanwhile successfully undergone the ISO 9001:2008 quality certification exercise by the end of 2015. An even wider and more demanding certification is being investigated for 2016.

At technical level, a Mobile Device Management (MDM) solution has been designed and is being implemented, strongly improving the remote management capabilities of business-provided smart phones. Laptop encryption is gradually being enforced for top-level management personnel and employees carrying sensitive data.

## Reputational risk

Reputational risk arises from Solvay's exposure to a deterioration of its reputation with its different stakeholders. Damage may occur due to the realization of any of the risks described for the other risk categories in this chapter or any unexpected crisis event, whether real, supposed or alleged, and publication of any unfavorable outcome. It may also arise from the occurrence of any event or action associated with the Solvay name that would be in breach of ethics, law or corporate governance principles and which, more generally speaking, would fall short of stakeholder expectations with regard to Solvay.

Damage to corporate reputation can be accelerated and amplified by the internet and social networking media.

Reputation is a key asset. Loss of reputation can result in competitive disadvantage and value destruction. Reputational risk deals with the subjective, composite perception of a company by its different stakeholders. Trust is a fundamental ingredient of reputation.

## Prevention and mitigation

Besides overall good reputation management under the supervision of the Corporate Communication Function, control practices and systems, including crisis anticipation and preparation, efficient communication (clear, consistent and timely) and long-term solid relationships with key stakeholders, both inside and outside the organization, contribute in the long run to building and consolidating trust, which is a fundamental ingredient of reputation.

In addition to fostering its own good reputation, Solvay participates in specific programs implemented by key trade organizations to improve the reputation of the entire chemical industry. Solvay's CEO is currently active as president of CEFIC (European Chemical Industry Council). Members of the Executive Committee of Solvay have also been active as presidents of ICCA (International Council of Chemical Associations) and Plastics Europe.

Solvay has established communication processes, systems, plans and programs to create, develop and maintain a regular dialogue, including in crisis situations, with its main stakeholders: shareholders and the financial community, employees, customers and suppliers, authorities, local communities and opinion leaders. Tools include a variety of internal and external electronic and printed media tailored for internal and external audiences. Solvay maintains active press relations at the corporate and local levels, through direct contacts, press releases, conferences and visits as well as open-door and other events aimed at local communities around major sites. The Group has also adopted a set of guidelines and advice for employee use of social-networking media.

Clear values and training on practices supported by the Code of Conduct, combined with a high level of Corporate Governance, are instrumental in preventing behavior that could contribute to reputational risk.

Solvay is implementing effective management and communication systems designed to give early warning in case of actual or latent crises and to ensure an adequate response in the case of unexpected and sudden adverse events that can potentially harm the Group's reputation. Dedicated managers and employees are trained to face such situations. Crisis simulations are organized on a regular basis in the different entities of the Group.

## Important litigation

With its variety of activities and its geographic reach, the Solvay group is exposed to legal risks, particularly in the areas of product liability, contractual relations, antitrust laws, patent disputes, tax assessments and HSE matters. In this context litigation cannot be avoided and is sometimes necessary to defend the rights and interests of the Group.

The outcome of proceedings cannot be predicted with certainty. It is therefore possible that adverse final court decisions or arbitration awards could lead to liabilities (and expenses) that are not covered or not fully covered by provisions or insurance and could impact materially the revenues and earnings of the Group.

Ongoing legal proceedings involving the Solvay group currently considered to involve significant risks are outlined below. The legal proceedings described below do not represent an exhaustive list.

The fact that litigation proceedings are reported below is without relation to the merits of the cases. In all the cases cited below, Solvay is defending itself vigorously and believes in the merits of its defenses.

For certain cases, Solvay has created reserves/provisions in accordance with the accounting rules to cover the financial risk and defense costs (see the note 35D "Provisions for litigation to the consolidated financial statements" of the present document).

## Antitrust proceedings

In 2006, the European Commission imposed fines against Solvay (including Ausimont SpA, acquired by Solvay in 2002) for alleged breaches of competition rules in the peroxygens market, amounting after appeal € 139,5 million for Solvay SA and € 12,8 million for Solvay Specialty Polymers Italy SpA. Joint civil lawsuits were filed before the Court of Dortmund (Germany) in 2009 against Solvay and other producers based on the alleged antitrust violation, claiming damages from the producers on a joint and several basis. The value of the claims is approximately € 240 million (excluding interest) against all six defendants. Several questions on the jurisdiction of the Court of Dortmund have been raised to the European Court of Justice and proceedings before the Court of Dortmund are pending.

In Brazil, Solvay is facing administrative claims related to alleged cartel activities in various markets. CADE (the Brazilian antitrust authority) issued fines against Solvay and others in May 2012 related to H<sub>2</sub>O<sub>2</sub> activity (Solvay's share of the fines is € 29,6 million). Solvay has filed a claim contesting these administrative fines before the Brazilian Federal Court.

## HSE related proceedings

In September 2014, the Criminal Court of Appeal of Bologna (Italy) confirmed the decision of the Criminal Court of Ferrara of April 2012 which had dismissed the case concerning four former employees of Solvay accused of alleged criminal conducts before 1975 in relation to two cases of former PVC workers with diseases allegedly due to exposure to vinyl polyvinyl chloride (VCM). No appeal before the Cassation Court of Rome (Italy) was filed by the Public Prosecutors and/or by the Civil Parties. Therefore the judgement of September 2014 definitely became final in the first half of 2015.

In October 2009, the Public Prosecutor of the Criminal Court of Alessandria (Italy) charged several individuals (including employees and former employees of Solvay, and Ausimont SpA, now Solvay Specialty Polymers Italy) in relation to alleged criminal violations of environmental laws (remediation omission) and public health legislation (intentional poisoning of potable waters). Solvay Specialty Polymers Italy - SSPI (formerly Solvay Solexis and Ausimont), a subsidiary of Solvay and legal successor of Ausimont SpA, called in the trial as Civil Liable Party together with Edison SpA, may be exposed to claims for civil liability in case of a negative outcome of the proceedings. The Civil Parties admitted to the trial have provisionally quantified their civil damages claims in about € 105 million. In December 2015 the Assize Court of Alessandria (Egypt) (i) sentenced three SSPI managers to jail for 2.5 years and (ii) awarded civil damages for about € 400k. This judgement, which is not enforceable as it is not final, will be appealed by all the parties in first half of 2016.

In May 2008, the Public Prosecutors of the Criminal Court of Pescara (Italy) charged several individuals (including former employees of Ausimont SpA acquired by Solvay in 2002; no Solvay's employee was charged) in relation to alleged criminal violation of environmental laws (environmental disaster) and to alleged crimes against the public health (intentional poisoning of potable waters) taken place before 2002 (*i.e.*, before Ausimont SpA's acquisition by Solvay). The Assize Court of Chieti dismissed the intentional poisoning charge and found the Ausimont's former employees guilty of culpable environmental disaster, however declared that this matter was time-barred. The Public Prosecutors and the Civil Parties lodged an appeal against this decision and the case is currently pending before the Cassation Court of Rome (Italy).

In February 2014, the Public Prosecutor Office of the Criminal Court of Pescara (Italy) started secret preliminary investigations regarding seven Solvay managers in relation to alleged violations of environmental laws occurred with reference to the Bussi site remediation activity undertaken by Solvay from May 2002 onward. In March 2015 the Judge of the Preliminary Hearing of the Criminal Court of Pescara (Italy) ordered the final dismissal of these charges for all Solvay defendants and recognized that the remediation interventions put in place by Solvay (*i.e.*, the hydraulic barrier) was adequate and that the serious contamination of the Bussi site found in recent times was exclusively imputable to (Mont) Edison's past management of the same.

### **Pharmaceutical activities (discontinued)**

In the context of the sale of the pharmaceutical activities in February 2010, the contractual arrangements have defined terms and conditions for the allocation and sharing of liability arising out of the activities before the sale.

Subject to limited exceptions, Solvay's exposure for indemnifications to Abbott for liabilities arising out of sold activities is limited to an aggregate amount representing € 500 million and is limited in duration.

This includes indemnification against certain potential liabilities for the US hormone replacement therapy (HRT) litigation, re-activated Qui Tam litigation focusing on promotional and marketing practices that allegedly influenced sales of the drugs ACEON<sup>®</sup>, LUVOX<sup>®</sup>, and ANDROGEL<sup>®</sup>, as well as more recently filed testosterone replacement therapy (TRT) litigation also focusing on the drug ANDROGEL<sup>®</sup>. These claims proceed at varying rates of resolution.





# 2

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 **2015** In order to ensure the reliability and credibility of its extra-financial reporting, Solvay commissioned one of its statutory auditors, Deloitte, to verify a selection of sustainability information. This verification process aims at providing a limited assurance report on the targeted sustainable development indicators and assertions.

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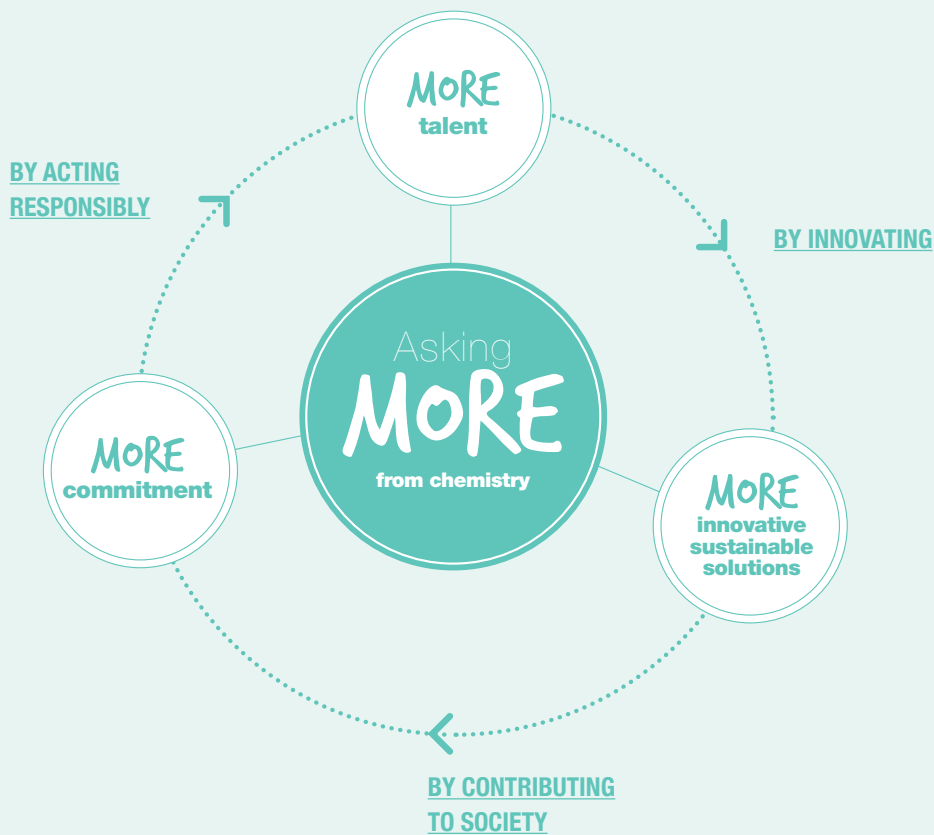
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# SUSTAINABLE VALUE CREATION

## SUSTAINABLE VALUE CREATION

Solvay strategy is a virtuous circle in which positive actions interact to create enriching contributions centered around a single goal: creating a future with more potential.



Solvay believes that innovative chemistry holds solutions for future generations. Throughout Solvay history, sustainable value creation has always included leveraging technologies, continuously innovating and developing ideas that will help solve some of the world's challenges always with a view to secure the future for its people, businesses, the planet and society at large.

To make the seemingly impossible possible, the Group draws its strength from people. One of its key objectives is to ensure that Solvay can attract and develop high-performing talents. Fueled by

agility, collaboration, curiosity and courage, Solvay employees are success-driven and committed to the Group's ambition.

In pursuing its passion for scientific and technical progress, Solvay strives to achieve ever more with less: fewer risks, fewer resources and less waste, in order to deliver more sustainable innovation.

For Solvay, "asking more from chemistry" means responsible success in the way it acts, innovates and contributes to society.

## 1 Towards an integrated thinking, an integrated management and eventually integrated reporting

The Group is looking at how to more effectively integrate and link sustainability into its strategic thinking and the way it manages its businesses and its operations. Solvay is using non-financial metrics in its key decision making processes as well as in performance management processes to evaluate its overall performance in an integrated manner.

Solvay believes the successful company of tomorrow requires an integrated strategic thinking and an integrated management aiming at creating sustainable value, shared with all its stakeholders and society. Solvay is progressively putting in place an integrated management approach, which should lead eventually to an integrated reporting.

Solvay's sustainability reference framework – "Solvay Way" – has defined sustainable value creation for the Group based upon a thorough materiality analysis completed in 2014 and updated in

2015 (please refer to page 102 of the Extra-financial statements section, describing full materiality process, results and feedbacks from Solvay's main stakeholders).

Together with the financial indicators that inform on the operational economic performance of the Group and its comprising businesses, Solvay selected five priorities among the high materiality issues: employee safety, sustainable business solutions, greenhouse gas emissions, employee engagement and wellness as well as societal actions. For each of these material issues, Solvay has long term targets that it is pursuing, and for which it has defined appropriate indicators to monitor performance evolution across businesses and for the whole Group. Those indicators are progressively being integrated as part of the balanced dashboard used by corporate and business managers to steer improvement of the Group's capacity to meet its targets and to generate value in the short, medium and long term.

## 2 Highlights of 2015

Solvay's ambition is to reinforce the connections between the Group's strategy, governance, financial performance and the social, environmental and economic context in which the Group operates.

Solvay is presenting its 2013, 2014 and 2015 sustainable value creation indicators. The indicators in 2013 have been restated for:

- Eco Services business, which was sold on December 1, 2014. Since the 3<sup>rd</sup> quarter of 2014 Solvay restated its 2013 and 2014 income statement and statement of cash flows to reflect the discontinuation of the business;
- the retrospective application of IFRS 11 *Joint Arrangements* on January 1, 2014.

		Adjusted results		
		2015	2014	2013
REBITDA	in € million	1,955	1,783	1,611
REBITDA by Operating Segment				
• Advanced Formulations		378	426	347
• Advanced Materials		836	709	624
• Performance Chemicals	in € million	789	724	682
• Functional Polymers		141	111	89
• Corporate & Business Services		(189)	(188)	(131)
Adjusted Net Income Solvay share	in € million	477	156	378
Free Cash Flow	in € million	387	656	487
CFROI	%	6.9	6.9	6.9
Dividend <sup>(1)</sup>	in €	3.30	3.20	3.01
Occupational accidents (MTAR)	Accident per million hours worked	0.77	0.97	1.06
Greenhouse gas emissions intensity	Kg CO <sub>2</sub> eq. per € REBITDA	7.26	8.08	8.84
SPM: sustainable solutions	% of net sales	33	25	19
Employee engagement index	%	75	-	72
Employees involved in societal actions	%	20	-	-

(1) The 2013 and 2014 dividend have been adjusted for the bonus factor of 0.9398 reflecting the value of the rights following Solvay's capital increase completed on December 21, 2015; the 2015 dividend presented is the one recommended by the Board of Directors at the Ordinary Shareholders' Meeting scheduled on May 10, 2016. Adjusted performance indicators exclusively exclude non-cash Purchase Price Allocation (PPA) accounting impacts related to the Rhodia acquisition. The business scope over the three year period is constant: Solvay's European Chlorovinyls, contributed to Inovyn (50/50 JV with Ineos) with effect as from July 1, 2015 and its Eco Services business, sold in December 1st, 2014, are both presented as discontinued businesses over the corresponding reference periods.

- **REBITDA totaled € 1,955 million, up 9.6% compared to 2014.** The REBITDA increased in three of Solvay's four operating segments. Foreign exchange developments during the year and, in particular the revaluation of the US dollar compared to the euro, were very supportive to the REBITDA expansion, accounting for € 163 million. A strong pricing power reported across all operating segments, for a total impact in REBITDA of € 187 million, was underpinned by the multiple excellence initiatives deployed across the Group's businesses and functions. These two elements more than offset the adverse impact from the decline in sales volumes, primarily due to headwinds in North America's oil and gas industry as well as the destocking on the acetate tow markets, which combined accounted for € (147) million. Solvay also observed an increase in its fixed cost base as a consequence of the new eight sites commissioned in the year. Solvay 2015 REBITDA margin increased to 19% of net sales, a 1.0 percentage point higher than in the prior year.
- **Adjusted net income Solvay share was € 477 million versus € 156 million in 2014.** The increase in REBITDA and lower financial charges more than offset higher taxes, while the contribution from discontinued operations was negative at € (55) million, primarily due to impairments in the chlorovinyls businesses.
- **Free Cash Flow amounted to € 387 million versus € 656 million in 2014,** chiefly reflecting higher capital investments for growth reported high seasonal working capital swings and significant cash inflows from discontinued operations.
- **CFROI of 6.9% (prior to Cytec integration), stable versus 2014,** with improvements in Functional Polymers, supported by excellence programs, offsetting adverse market developments in Advanced Formulations.
- **Dividend proposed of € 3.30 gross per share, a rise of 3.3%<sup>(1)</sup>.**
- **Medical Treatment Accidents Rate (MTAR) was 0.77 versus 0.97 in 2014.** The progress is faster than the average yearly reduction needed to reach our 2025 target. Avoiding all accidents is a prerequisite to improving Solvay's risk profile.
- **Greenhouse gas emissions intensity was 7.26 versus 8.08 in 2014.** Reducing greenhouse gas intensity improves the Group's cost structure and risk profile.
- **Sustainable business solutions represented 33% of Solvay's sales, up 8% from previous year,** matching the stakeholders' sustainability expectations. The progress is faster than the average yearly progress needed to reach the 2025 target. Focusing on sustainable business solutions will support the Group's growth.
- **Employee engagement index at 75%, up 3% since 2011,** and is currently in line with industry general reference benchmarks. Enhancing employee engagement is a prerequisite to improve productivity.
- **Employees involved in societal actions.** Through the Solvay Way approach employees are encouraged to take part in projects that contribute to local development. 20% are already involved in diverse projects worldwide.

<sup>(1)</sup> Compared to a 2014 historical dividend of € 3.40 gross per share or € 3.20 after adjusting for a factor of 0.9398 reflecting the value of the rights following Solvay's capital increase completed on December 21, 2015.

# FINANCIAL MANAGEMENT REPORT

The management report for the accounting period ending on December 31, 2015, consisting of pages 31 to 58 (Corporate governance) and 59 to 70 (Management of risks), has been prepared in accordance with Articles 96 and 119 of the Belgian Companies'

Code and was approved by the Board of Directors on February 24, 2016. It covers both the consolidated accounts of the Solvay group and the statutory accounts of Solvay SA.

## 1 Business performance and analysis

### Management analysis convention

In addition to the consolidated IFRS accounts for 2014 and 2015 provided in pages 127 to 215 (Financial statements) in this report, Solvay is disclosing "Adjusted" Profit & Loss information and analysis in order to provide a more meaningful presentation of the economic and financial performance of the Group and its business segments across periods.

Adjusted Profit & Loss indicators referring to 2014 and 2015 exclude non-cash Purchase Price Allocation (PPA) accounting impacts related to the Rhodia acquisition.

Furthermore, for its analysis and financial communications, Solvay uses non-GAAP<sup>(1)</sup> indicators, the definitions of which are the following:

- The term "Net sales" refers to the sales of goods and value-added services corresponding to Solvay's know-how and core business. Net sales exclude other revenues primarily comprising commodity and utility trading transactions and other revenues deemed as incidental for the Group ;
- REBITDA which consists of EBIT as presented in the income statement, excludes:
  - depreciation and amortization charges;
  - non-recurring items, as defined below, including non-recurring items from equity-method consolidated companies;
  - MGA-related income and expenses, including, but not limited to, the purchase price allocation amortization related to the Rhodia acquisition; and
  - major financing-related income and expenses from equity-method consolidated companies, such as RusVinyl;
- non-recurring items mainly include:
  - gains and losses on the sale of subsidiaries and Solvay's interest in joint operations, joint ventures, and associates that do not qualify as discontinued operations;
  - acquisition costs of new businesses;

- gains and losses on the sale of real estate not directly linked to an operating activity;
- major restructuring charges;
- impairment losses resulting from the shutdown of an activity or a plant;
- impairment losses resulting from testing cash-generating units ("CGUs") for impairment (which may include impairment of tangible assets and allocated goodwill, if any);
- the impact of significant litigation; and
- the remediation costs not generated by ongoing production facilities (such as shutdown of sites, discontinued activities, previous years pollution).
- Free Cash Flow is derived by adding IFRS cash flow from operating activities (including dividends from associates and joint ventures) and IFRS cash flow from investing activities, net of three elements: (i) acquisitions and sales of subsidiaries (ii) acquisitions and sales of other investments and (iii) loans to associates and non-consolidated subsidiaries;
- Adjusted net income is calculated using IFRS net income, which is then adjusted for "PPA amortization". The PPA amortization is the amortization and depreciation charges for the period (after taxes) on intangible assets that were allocated to Solvay's statement of financial position using the purchase price allocation method that was applied to the assets and liabilities of Rhodia;
- Net debt is defined as short and long-term financial debt, minus cash and cash equivalents and minus other current receivables financial;
- CFROI is calculated as the ratio of recurring cash flow over invested capital, where:
  - recurring cash flow means REBITDA plus dividends from joint ventures accounted for using the equity method minus income from such entities plus recurring capex minus tax;
  - capital invested means the value of fixed assets plus working capital plus the value on our balance sheet of joint ventures accounted for using the equity method;

(1) Generally accepted accounting principles.

- recurring capex defined as 2% of the replacement value of fixed assets net of goodwill values;
- tax is defined as 30% of REBIT;
- replacement value of fixed assets generally uses the IFRS gross values of fixed assets as the relevant indication of replacement values. However for certain businesses, adjustments are made if the book values are not representative, in which case benchmarks are used. In addition, in certain cases, goodwill is included, as it reflects part of the asset acquisition cost, and
- working capital is the sum of inventory, trade receivables (payables) and current net income tax receivables (payables) on Solvay's statement of financial position.

Solvay believes that these measurements are useful tools for analysing and explaining changes and trends in its historical results of operations, as they allow performance to be compared on a consistent basis. However, they are not subject to audit and are not performance measurements with respect to IFRS. The methods of calculating changes used by Solvay may differ from those used by other companies.

## Analysis of the consolidated results for the accounting period ending December 31, 2015

### I ANALYSIS OF GROUP OPERATIONAL PERFORMANCE

In € million	IFRS		Adjusted	
	2015	2014	2015	2014
<b>Sales</b>	<b>11,047</b>	<b>10,629</b>	<b>11,047</b>	<b>10,629</b>
Other non-core revenues	470	416	470	416
<b>Net sales</b>	<b>10,578</b>	<b>10,213</b>	<b>10,578</b>	<b>10,213</b>
Cost of goods sold	(8,289)	(8,070)	(8,289)	(8,070)
<b>Gross margin</b>	<b>2,759</b>	<b>2,559</b>	<b>2,759</b>	<b>2,559</b>
Commercial and administrative costs	(1,327)	(1,225)	(1,327)	(1,225)
Research and development costs	(277)	(247)	(277)	(247)
Other operating gains and losses	(99)	(94)	10	16
Earnings from associates and joint ventures accounted for using the equity method	21	(34)	21	(34)
Non-recurring items	(245)	(308)	(245)	(308)
<b>EBIT</b>	<b>833</b>	<b>652</b>	<b>941</b>	<b>761</b>
<b>Net income</b>	<b>454</b>	<b>13</b>	<b>525</b>	<b>89</b>
Non controlling interests	(48)	67	(48)	67
<b>Net income Solvay share</b>	<b>406</b>	<b>80</b>	<b>477</b>	<b>156</b>
<b>Earnings per share (basic) in €</b>	<b>4.85</b>	<b>0.96</b>	<b>5.70</b>	<b>1.87</b>

### I NET SALES

Change in net sales In € million	Net sales					Net sales 2015
	2014	Scope	Conversion forex	Volume and mix	Price	
<b>Solvay group</b>	<b>10,213</b>	<b>29</b> <b>0.3%</b>	<b>655</b> <b>6.4%</b>	<b>(260)</b> <b>(2.5)%</b>	<b>(59)</b> <b>(0.6)%</b>	<b>10,578</b>
Advanced Formulations	2,854	(14) (0.5)%	260 9.1%	(376) (13)%	(71) (2.5)%	2,652
Advanced Materials	2,762	112 4.1%	256 9.3%	178 6.4%	26 0.5%	3,334
Performance Chemicals	2,944	6 0.2%	115 3.9%	(71) (2.4)%	96 3.3%	3,090
Functional Polymers	1,654	(75) (4.5)%	24 1.4%	(2) (0.9)%	(111) (6.7)%	1,490
Corporate & Business Services	11	-	-	-	-	n.m.

**Net sales** grew 4% year on year to € 10,578 million thanks to the positive net conversion impact of 6% from foreign exchange rate fluctuations, caused mainly by the appreciation of the US dollar *versus* the euro. Volumes were down (3)% overall compared to last year. The sharp contraction of the North American oil and gas exploration industry impacted Advanced Formulations. Furthermore the destocking on the acetate tow market weighed on the volume development of Performance Chemicals. These were only partially offset by robust growth in Advanced Materials, which demonstrate strong demand dynamics for Solvay's innovation-driven products. Prices were only slightly down overall, despite lower raw material prices in Advanced Formulations and Functional Polymers, mainly thanks to price increases in Performance Chemicals. The acquisitions of Ryton and Flux at the end of 2014, and the sale of the refrigerants and PCC businesses in May and November 2015 respectively, had no material effect on scope.

## Operating elements

### Costs of goods sold

The cost of goods sold amounted to € (8,289) million in 2015, up 3% compared to prior year, driven by foreign exchange rates effect on conversion, especially from the US dollar and Asian currencies appreciation *versus* the euro. This increase was partly offset by lower raw material prices with in general deflationary context in most businesses and competitiveness improvement based on excellence initiatives.

### Commercial and administrative costs

Commercial and administrative costs of € (1,327) million in 2015 rose € (102) million or (8)% compared to the prior year. This increase is primarily linked to the foreign exchange rates effect on conversion,

to cost inflation in the different regions where the Group operates and the scope effect from the Ryton acquisition.

### Research and Innovation costs

Research and Innovation costs amounted to € (277) million in 2015, increasing 12% compared to the prior year due to intensified efforts in the major business units, primarily in Solvay's growth engines, with increase in the Advanced Materials segment, entirely from Specialty Polymers with € 12,9 million, and Advanced Formulations. The ratio of Research and Innovation cost on net sales increased to 2.5% from 2.3% in 2014.

### Other operating gains and losses

Other operating gains and losses in 2015 amounted to € 10 million on an adjusted basis, compared to € 16 million in 2014. The variance is essentially due to higher start-up costs in 2015.

On an IFRS basis, other operating gains and losses amounted to € (99) million, or a € (109) million difference with the adjusted accounts and corresponding to the depreciation of PPA on fixed assets relative to Rhodia's acquisition. Please refer to note 5 of the consolidated financial statements.

### Earnings from associates and joint ventures accounted for using the equity method

Earnings from associates and joint ventures accounted for using the equity method amounted to € 21 million in 2015 compared with € (34) million in 2014. This improvement of € 55 million is largely driven by the contribution of the RusVinyl joint venture, which was highly negative in 2014 linked to a Russian ruble exchange loss on euro-denominated debt.

## REBITDA

Changes in REBITDA In € million	2014	Scope	Conversion forex	Volume and mix	Price	Variable costs	Fixed costs	Others including equity earnings	2015
Group	1,783	(1)	163	(147)	(59)	246	(48)	18	1,955
		(0.1)%	9.1%	(8.3)%	(3.3)%	14%	(2.7)%	1.0%	

**REBITDA** increased 10% reaching € 1,955 million. Pricing power more than offset the (8)% impact on REBITDA of lower volumes. Solvay's pricing power delivered € 187 million, raising REBITDA by 11%, and was evident across all operating segments, outweighing negatives such as the inventory write-downs of € (8) million at the year start, linked to the sharply reducing commodity prices. This was particularly the case for Performance Chemicals and Functional Polymers, which benefited from lower raw material and energy prices, which could be maintained in sales prices, and where some prices could even be raised. The transactional forex effect, which is part of the pricing power, was € 70 million. Foreign exchange fluctuations had a 9% effect on conversion and has been gradually

decreasing through the year as the year-on-year delta on the US dollar exchange rate and to a lesser extent the Chinese yuan lessened, while the devaluation of the Brazilian real and the Russian ruble had a negative impact on conversion. Fixed costs were up € (48) million mainly due to the start-up of new sites in the year. Scope changes had no material impact. The REBITDA margin widened to 18% of net sales, up 1.0%. Overall excellence measures covering operational excellence, commercial excellence and innovation contributed more than € 300 million to the 2015 REBITDA, reflected in the innovation-driven volume growth of Advanced Materials, pricing power of Performance Chemicals and Functional Polymers and the mitigation of fixed cost increases, where inflation was fully compensated.



### Depreciation and amortization charges

In 2015, depreciation and amortization charges amounted to € (733) million on an adjusted basis *versus* € (641) million in 2014. This increase is mainly linked to the foreign exchange effects and to the impact of new units coming on stream especially in Novocare and Specialty Polymers.

Depreciation and amortization charges in 2015 IFRS accounts amounted to € (842) million or a € (109) million difference with the adjusted accounts and corresponding to the depreciation of PPA on fixed assets relative to Rhodia's acquisition.

### Non-recurring items

Non-recurring items were € (245) million *versus* € (308) million in 2014. The Cytec acquisition represented € (130) million of this, including professional advisory services for € (48) million, financing and hedging arrangements for € (54) million as well as initial

integration costs for € (19) million. Other restructuring expenses were € (57) million linked to excellence programs in the Corporate and Functions structure, the Latin American businesses and in Novocare. Other costs mainly related to environmental provisions of € (45) million and impairment charges on non-performing investments of € (48) million.

### EBIT

EBIT on an adjusted basis was up 24% to € 941 million. Besides amortization and depreciation charges of € (733) million, it included € (22) million adjustments mostly related to financial charges of the RusVinyl joint venture, and € (13) million adjustments from other than Rhodia PPA effects (Chemlogics, Ryton). EBIT on an IFRS basis totaled € 833 million. The difference between IFRS and adjusted figures reflects the Rhodia non-cash purchase price allocation (PPA) depreciation impact of € (109) million.

## I ANALYSIS OF OPERATIONAL PERFORMANCE BY OPERATING SEGMENT

In € million	Adjusted		Year on year evolution
	2015	2014	
<b>Net sales</b>	<b>10,578</b>	<b>10,213</b>	<b>3.6%</b>
Advanced Formulations	2,652	2,854	(7.1)%
Advanced Materials	3,334	2,762	21%
Performance Chemicals	3,090	2,944	5.0%
Functional Polymers	1,490	1,654	(9.9)%
Corporate & Business Services	11	-	n.m.
<b>REBITDA</b>	<b>1,955</b>	<b>1,783</b>	<b>9.6%</b>
Advanced Formulations	378	426	(11)%
Advanced Materials	836	709	18%
Performance Chemicals	789	724	8.9%
Functional Polymers	141	111	27%
Corporate & Business Services	(189)	(188)	(0.5)%

### Advanced Formulations

The Advanced Formulations' activities are characterized by their high customer - and applications - driven approach and relatively low capital intensity. Their offerings address major societal trends, meeting ever stricter requirements with respect to the environment and energy savings as well as the challenges of the mass consumer markets.

#### Novocare

Novocare develops and produces formulations that alter the properties of liquids. It offers solutions to the oil and gas industry using the world's largest portfolio of chemicals. Novocare also provides specialty solutions for certain industrial applications, agricultural and coatings markets.

- World-class leading producer of specialty surfactants ;
- major player in the polymers, guar and phosphorus derivatives markets ;
- 32 industrial sites and 22 R&I centers and labs.

#### Coatis

Coatis is a provider of glycerine-based sustainable solvents solutions and specialty phenols mainly for the Latin American market. It enjoys an undisputed market leadership position in Brazil for Phenol & Derivatives used in the production of synthetic resins employed in foundries, construction and abrasives.

- Market leader in Latin America in both in oxygenated solvents and phenol derivatives;
- 1 industrial site and 2 R&I centers and labs.

#### Aroma Performance

Aroma Performance is the world's largest integrated producer of vanillin for food, flavors & fragrances industries and synthetic intermediates used in perfumery.

- World number-1 producer of vanilla aromas for food industries; world number-1 producer of diphenol intermediates for monomers with petrochemicals applications; world number-1 producer of diphenols and fluoro-aliphatic derivatives.
- 4 industrial sites and 3 R&I centers and labs.

In € million	Adjusted		Year on year evolution
	2015	2014	
<b>Net sales</b>	<b>2,652</b>	<b>2,854</b>	<b>(7.1)%</b>
Novecare	1,895	2,033	(6.8)%
Coatis	398	484	(18)%
Aroma Performance	360	337	6.6%
<b>REBITDA</b>	<b>378</b>	<b>426</b>	<b>(11)%</b>
REBITDA margin	14%	15%	(0.7) pp

**Net Sales** decreased (7)% to € 2,652 million. With the significant downturn in the North American unconventional oil and gas markets starting in February, volumes were down some (13)% for the segment and close to (20)% for Novecare alone. The market contraction impacted products to the stimulation, drilling and cementing subsectors, while the production subsector was resilient. Business developments in other Novecare end markets were generally satisfactory. Coatis' sales volumes and prices were affected by weak domestic demand in Latin America, where the economy is in recession. Aroma Performance volumes grew, both in performance solutions and in vanillin formulations, demonstrating the progress made following the production outages faced in 2014. On segment level, a favorable 9% impact from foreign exchange rates mitigated the volume drop, while prices were (2)% down.

**REBITDA** fell (11)% to € 378 million, reflecting the severe volume contraction in the unconventional oil and gas markets and the degraded Latin American market. Moreover, sharply reduced raw material prices at the start of the year led to write-downs on inventories. Despite sales price pressure, the pricing power was positive, thanks to lower raw material prices, the positive impact of transactional forex and operational excellence measures put in place in those businesses most affected by the adverse market conditions. Combined with the positive effect of exchange rates on conversion (except for the Brazilian real), these measures helped to mitigate the impact on REBITDA margin, which shrunk by (0.7) pp to 14%.

Products by GBU	Applications	Markets	Trademarks	Competitors
<b>Novecare</b>				
Surfactants	Dispersion, foaming, conditioning, surface modification, intermediate, gelling, rheology	Agro, Feed & Food Consumer Goods & Healthcare Industrial Applications Energy & Environment	AGRHO®, STARGUAR®, AGHRO® N PROTECT®, SOPROPHOR®, RHODOLINE®	AKZO Nobel, BASF, Clariant, Croda, Dow, Koch, Huntsman, Lamberti Grp, Oxiteno, Stepan
Amines			RHODIASOLV®	
Synthetic and natural polymers			SIPOMER®, MIRACARE®, RHEOMER®, JAGUAR®	
Phosphorous chemistry			MACKAM®, PROBAN®, TIGUAR®, TOLCIDE®	
<b>Coatis</b>				
Phenol and derivatives	Synthetic resins & molding compounds (Epoxy, polycarbonate, polyamide, phenolic MMA resins)	Consumer Goods & Healthcare Automotive & Aeronautics Building & Construction Industrial Applications Agro, Feed & Food		Dow, Ineos, Shell
Oxygenated solvents, of which:	Adhesives, cosmetics, mining, coating, print inks, wood coating, oilfield, cleaners, automotive, industrial paints, pharma, solubilization of actives and resins			Arkema, Sasol, Halterman, Celanese, Ineos, Eastman, Dow, Shell, Oxiteno, Oxea, Sopo
Ketonic solvents				
Acetic solvents			SOLSYS™	
Glycerin-based solvents		AUGEO®		

Products by GBU	Applications	Markets	Trademarks	Competitors
<b>Aroma Performance</b>				
Cyclopentanone	Fragrances, building block agro, pharma	Consumer Goods & Healthcare Agro, Feed & Food		BASF, Nippon Zeon
	Electronics	Industrial Applications	RHODIASOLV® XPT	
Natural vanillin	Flavors	Agro, Feed & Food	RHOVANIL® NATURAL	Shanghai apple, Bestally, Safisis, Symrise
Vanillin & ethyl-vanillin, and vanilla flavors	Flavors, fragrances, food crop protection	Agro, Feed & Food Consumer Goods & Healthcare Industrial Applications	RHOVANIL®, RHODIAROME®, RHOVEA®, RHODIAROME®, RHOVEA®, VANILTEK®™, GOVANIL®, GOVANIL™ INTENSE, VANIFOLIA™ VANIFOLIA™ BEAN	Borregaard, Jiaxing, Thrive, Wanglong F&F, Prova
IBCH	Fragrances	Consumer Goods & Healthcare	RHODIANTAL® ORIGINAL, RHODIANTAL® CANDALUM®	Indian & Chinese companies
Pyrocatechol	Building block for agrochemicals	Agro, Feed & Food		Camlin, Sanjili, UBE
	Solvent for electronics	Industrial Applications		
	Building block for drugs synthesis Building block for fragrances	Consumer Goods & Healthcare		
Hydroquinone	Inhibitors Building block for dyes Building block for agrochemicals Building block for polymers Building block for rubber anti-oxidants Photography reagent Building block for food anti-oxidants	Industrial Applications Agro, Feed & Food		Camlin, Eastman, Mitsui, Ube, Sanjili Goodyear
MeHQ	Building block for agrochemicals	Agro, Feed & Food		CST
	Inhibitors	Industrial Applications		CST, Seiko, Kawagushi
TBC	Inhibitors	Industrial Applications	Original TBC, TBC Optima	Camlin, KKPunja, DIC
Veratrole	Building block for agrochemicals	Agro, Feed & Food		Indian companies
	Building block for drugs synthesis	Consumer Goods & Healthcare		
Anisole	Solvent for electronics	Industrial Applications		Indian companies
	Building block for agrochemicals	Agro, Feed & Food		
	Building block for drugs synthesis	Consumer Goods & Healthcare		

## Advanced Materials

A leader in markets with high entry barriers and strong returns on investment, the Advanced Materials is a major contributor to the Group's performance and growth. Innovation, combined with the segment's global presence and long-term partnerships with customers, provide a compelling competitive edge to industries seeking increased energy efficiency and use of less polluting alternatives.

### Specialty Polymers

With over 1,500 products, Specialty Polymers offers the widest range of high performance polymers in the world, allowing tailor-made solutions such as pushing the limits of metal replacement in the electronics, automotive, aircraft and healthcare industries. The GBU has unparalleled expertise in four technologies: aromatic polymers, high barrier polymers, fluoropolymers, and cross-linked high-performance compounds.

- World number-1 producer of specialty polymers and high performance polymers;
- 16 industrial sites and 10 R&I centers and labs.

### Special Chem

Special Chem produces fluor and rare-earth formulations for automotive, semi-conductor and lighting applications. With its industrial know-how, global presence and R&I proximity, Special Chem has positioned itself as a strategic partner for the automotive sector as a producer of materials used in emission control catalysis and aluminum brazing, and as a producer of cleaning and polishing materials for electronics.

- Worldwide leadership positions in fluorine compounds, NOCLOK® brazing application and barium & strontium specialties;
- 16 industrial sites and 10 R&I centers and labs.

### Silica

Silica focuses on highly dispersible silica, primarily used in fuel-efficient and performance tires. It develops innovative solutions for global tire manufacturers, as well as Silica ranges for many other market segments like toothpaste, food, industrial products, and rubber articles.

- Inventor of highly dispersible silica.
- 8 industrial sites and 4 R&I centers and labs.

In € million	Adjusted		Year on year evolution
	2015	2014	
<b>Net sales</b>	<b>3,334</b>	<b>2,762</b>	<b>21%</b>
Specialty Polymers	1,901	1,490	28%
Silica	521	451	16%
Special Chem	912	820	11%
<b>REBITDA</b>	<b>836</b>	<b>709</b>	<b>18%</b>
<i>REBITDA margin</i>	25%	26%	<i>(0.6)pp</i>

**Net sales** grew 21% to € 3,334 million, as a result of 6% higher volumes and 1% higher prices, and supported by the positive effects of forex and scope of 9% and 4% respectively. The latter includes the acquisitions of Ryton and Flux in 2014, and the sale of the refrigerants and PCC businesses in 2015. The primary growth drivers for Specialty Polymers were strong demand from the smart device industry, as well as from the automotive sector and other high-end applications. Solvay's ability to grow faster than these markets illustrates the success of its broad high-performance polymer portfolio. In smart devices, however, the phasing orders depends on the timing and success rate of the launch of specific device, which causes volatility of demand over the quarters. Silica sales benefitted from both price and volume increases, with demand for energy-efficient tires in

Europe and North America growing, whereas businesses conditions in Asia were subdued. Special Chem recorded good volume growth in rare earth compounds, mainly for automotive diesel catalysts, as well as in fluor specialties and electronic materials.

**REBITDA** came at € 836 million a 18% increase, reflecting volume growth in all GBUs and especially in Specialty Polymers. The Segment also benefited from supportive forex and pricing power. New capacity additions in Silica and Specialty Polymers increased fixed costs, but had no material impact on volumes for now as these plants are ramping up gradually following lengthy qualification programs. As a result of the scope effects, which were net negative, the REBITDA margin shrunk (0.6) pp from 26% to 25% year on year.

Products by GBU	Applications	Markets	Trademarks	Competitors
<b>Specialty Polymers</b>				
Biomaterials for implantable devices, sulfone polymers, aromatic polyamides, aromatic polyketones, polyvinylidene chloride	Healthcare	Consumer Goods & Healthcare	SOLVIVA® BIOMATERIALS, RADEL® PPSU, UDEL® PSU, IXEF® PARA, KETASPIRE® PEEK, DIOFAN® PVDC	Invibio, Evonik, Victrex, BASF, Sabic
Sulfone polymers, aromatic polyamides	Consumer goods	Consumer Goods & Healthcare	RADEL® PPSU, VERADEL® PESU, AMODEL® PPA, IXEF® PARA	BASF, Sabic, EMS, Dupont, DSM, Sumitomo
Aromatic polyamides, fluorinated elastomers, aromatic polyketones, fluorinated fluids, polyphenylene sulfide	Automotive	Automotive & Aeronautics	AMODEL® PPA, IXEF® PARA, TECNOFLON® FKM, TECNOFLON® PFR FFKM, KETASPIRE® PEEK, TORLON® PAI, FOMBLIN® PFPE	Dupont, Dyneon, EMS, Victrex, Evonik, Mitsui, Kuraray
Sulfone polymers, fluoropolymers, aromatic polyamides, aromatic polyketones, specialty materials	Aircraft	Automotive & Aeronautics	TEGRACORE™ PPSU RADEL® PPSU AND SOLEF® PVDF FOAMS, RADEL® PPSU, VIRANTAGE® PESU, AJEDIUM™ FILMS, IXEF® PARA, AVASPIRE® PAEK, KETASPIRE® PEEK, TORLON® PAI	Sabic, Victrex, Evonik, Arkema, Chemours, 3M, Daikin, Sumitomo
Aromatic polyamides, sulfone polymers, aromatic polyketones	Mobile electronics	Electrical & Electronics	IXEF® PARA, AMODEL® PPA, KALIX® HPPA, RADEL® PPSU, KETASPIRE® PEEK, AVASPIRE® PAEK, XYDAR® LCP	Dupont, EMS, Evonik, BASF, DSM, Kingfa, Sabic, Mitsubishi
Fluoropolymers, cross-linkable compounds	Wire & cables	Electrical & Electronics	HALAR® ECTFE, HYFLON® PFA/MFA®, SOLEF® PVDF, POLIDAN® PEX, COGEGUM® XLPO-HFFR	DuPont, Daikin, Dyneon, Polyone, AEI, Arkema
Aromatic polyketones, polyvinylidene chloride, fluoropolymers	Industrial and protective coatings	Industrial Applications	TORLON® AI, DIOFAN® PVDC, HALAR® ECTFE, SOLEF® PVDF, HYFLON® PFA/MFA®, KETASPIRE® PEEK	DSM, Lubrizol, Arkema, 3M, Dyneon, Victrex, Kureha, Asahi Glass, 3M
Fluoropolymers, fluorinated fluids	Industrial equipment	Industrial Applications	HALAR® ECTFE, SOLEF® PVDF, HYFLON® PFA/MFA®, FOMBLIN® PFPE	Dupont, Arkema, Dyneon, Daikin, Chemours, Chenguang, Dongyue, AsahiGlass
Fluorinated fluids, fluoropolymers, aromatic polyketones, fluorinated elastomers	Semiconductor	Industrial Applications	GALDEN® PFPE, SOLEF® PVDF, HALAR® ECTFE, KETASPIRE® PEEK, TECNOFLON® PFR FFKM	3M, Victrex, Arkema, Dupont, Dyneon, Daikin
Cross-Linkable compounds, fluoropolymers, sulfone polymers, aromatic polyamides	Plumbing	Building & Construction	POLIDAN® PEX, SOLEF® PVDF, HALAR® ECTFE, RADEL® PPSU, ACUDEL® MODIFIED PPSU, UDEL® PSU, AMODEL® PPA	Basf, Dyneon, Arkema, EMS
Fluoropolymers, fluorinated elastomers, cross-linkable compounds, aromatic polyketones	Oil & gas	Energy & Environment	SOLEF® PVDF, HYFLON® PFA/MFA®, TECNOFLON® FKM, TECNOFLON® PFR FFKM, POLIDAN® PEX, KETASPIRE® PEEK	Arkema, Dupont, Daikin, Victrex, Basell
Fluoropolymers	Li-Ion batteries	Energy & Environment	SOLEF® PVDF	Kureha, Arkema
Specialty Materials	Fuel cells	Energy & Environment	AQUIVION® PFSA	Dupont
Fluoropolymers	Photovoltaics	Energy & Environment	SOLEF® PVDF, HALAR® ECTFE	Dyneon, AGC, Dupont, Arkema
Sulfone polymers, fluoropolymers	Membranes	Energy & Environment	RADEL® PPSU, UDEL® PSU, VERADEL® PESU, SOLEF® PVDF	BASF, Arkema, Kureha, 3F, Lantian

Products by GBU	Applications	Markets	Trademarks	Competitors
<b>Silica</b>				
Highly dispersible silica (HDS)	Energy-efficient tires	Automotive & Aeronautics	ZEOSIL®, ZEOSIL® PREMIUM EFFICIUM®	Evonik, PPG, OSC
	Polymer reinforcement	Automotive & Aeronautics Industrial Applications	ZEOSIL®	Evonik, PPG, OSC
Precipitated silica (conventional)	Oral care (toothpaste)	Consumer Goods & Healthcare	TIXOSIL®	JM Huber, PQ Corporation, WR Grace, Evonik, OSC
	Nutrition	Agro, Feed & Food	TIXOSIL®	JM Huber, PQ Corporation, WR Grace, Evonik, OSC
<b>Special Chem</b>				
Hydrogen fluoride	Refineries, steel & surface treatment, chemical industry	Industrial Applications		Honeywell, Lanxess, DDF, 3F, Mexichem, China Yingpeng, Zhejiang Sanmei, Shandong donuye Group
Fluor-based compounds	High voltage engineering, wet chemicals for chip etching and cleaning, chemicals for Li-batteries	Electrical & Electronics	for C <sub>4</sub> F <sub>6</sub> : SIFREN®	Kemeite, Liming, Henan Huaneng Fluoride and others, HaloPolymer, Asahi Glass, Kanto Denka, Show Denko, Cental Glas, Linde, AirProducts
	Insulation, energy saving	Building & Construction	SOLKANE®, IXOL®	Honeywell, Arkema, DuPont, Albarnali, Chemtura
	Brazing Solvents (precision cleaning)	Automotive & Aeronautics Industrial Applications	NOCOLOK®, SOLVOKANE®	Morita, Honeywell, DuPont, Arkema, Central Glass, Asahi, 3M
TFAC, TFA, TFAH, TFAEt, TFK, ETFBO, Other CF <sub>3</sub>	Building blocks in active ingredients, intermediates	Consumer Goods & Healthcare Agro, Feed & Food		Halocarbon, SRF, Sinochem, Lantian
Precipitated calcium carbonate (PCC)	Sealant	Building & Construction	SOCAL®, WINNOFIL®	Shiraishi-Omya, SMI Schaefer Kalk
	Paint	Automotive	SOCAL®, WINNOFIL®	Cales de Llierca, SMI
	Plastisol	Building & Construction	SOCAL®, WINNOFIL®	Shiraishi-Omya, SMI
	Polymer	Consumer Goods & Healthcare Agro, Food & Feed	SOCAL®	SMI
Electronic grade H <sub>2</sub> O <sub>2</sub> Electronic grade HF and NH <sub>4</sub> F	Semiconductors, displays, photovoltaic, wet chemicals for chip etching and cleaning	Electrical & Electronics	INTEROX® PICO, INTEROX® EG-1, INTEROX® EG10, INTEROX® EG-ST	BASF, MIGAS, Santoku, PeroxChem, Changchun, Dongwoo Finechem Stella Chemifa, Honeywell, Diakin, Morita, Kaisheng

Products by GBU	Applications	Markets	Trademarks	Competitors
Barium compounds	Paints, coatings, batteries, plastics, paper	Automotive & Aeronautics Electrical & Electronics		Sachtleben, Chinese producers
		Building & Construction		
	Ceramic capacitors, display, ceramics and special glasses	Electrical & Electronics		Red Star, Jingshan, Sakai Chemicals, Nippon Chemicals
Strontium compounds	Display and photovoltaic glasses, ferrites	Electrical & Electronics		Red Star, Quimica del Estroncio, Jinshi, Kinglong
Triflic acid (TA)	Intermediate for liquid crystal	Consumer Goods & Healthcare		Central Glass, Peric, Jiangxi Time
	Intermediate for battery electrolyte (LiTA)	Electrical & Electronics		
	Starting raw material for pharma	Consumer Goods & Healthcare		
Triflic acid anhydride (TAA)	Intermediate for liquid crystal	Consumer Goods & Healthcare		
	Starting raw material for pharma	Consumer Goods & Healthcare		
LiTFSI	Antistatic agent			3M, Mitsubishi Materials, Morita
	Electrolyte salt for batteries ionic liquid	Electrical & Electronics		
Trifluoroacetic Acid (TFA)	Intermediate for agro	Agro, Feed & Food		Lantian, SRF, Halocarbon, Asian players
	Intermediate for pharma	Consumer Goods & Healthcare		
Rare earth oxide formulations			ACTALYS®	
	Automotive catalysts	Automotive & Aeronautics	ACTALYS® HSA, EOLYS®POWERFLEX®	DKK, MEL Chemicals, Sasol
			E-SIS®	
			OPTALYS®, STABILYS®	
	High performance polishing for glass solutions	Electrical & Electronics	CEROX®	OST, Treibacher, Ferro
	Energy-efficient lighting	Electrical & Electronics	LUMINOSTAR®	Nichia
Inorganic Pigments for high performance polymers	Electrical & Electronics	NEOLOR®		
Semiconductor polishing	Electrical & Electronics	ZENUS®	Nikki	

## Performance Chemicals

Operating in mature, resilient markets, this Operating Segment's success is based on economies of scale, competitiveness and quality of service. Solidly cash-generating, the Performance Chemicals businesses are engaged in programs of excellence to create additional sustainable value.

### Soda Ash & Derivatives

Soda Ash & Derivatives is the world's largest producer of soda ash and sodium bicarbonate, sold primarily to the flat and container glass industries but also used in detergents, agro and food industries. It provides resilient profitability thanks to good pricing, dynamics growing at mid-single digit rate, underpinned by high-quality assets (with 60% "world-class" assets and 40% addressing local markets).

- World number-1 producer of soda ash and sodium bicarbonate.
- 11 industrial sites and 3 R&I centers and labs.

### Peroxides

Solvay is the market leader in hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>), both in market share and technology as well as leading global supplier of hydrogen peroxide. Hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) is mainly used by the paper industry to bleach pulp. Its properties are also of interest to many markets like chemicals, food, textiles and the environment.

- World number-1 supplier of hydrogen peroxide.
- 11 industrial sites and 4 R&I centers and labs.

### Acetow

Acetow is a global producer of cellulose acetate tow (produced from bio-sourced wood pulp) for cigarette filters, the second major component of cigarettes. It operates in very specific, mature and stable markets where partnerships with customers are built on reliability, quality of service and dependable supply. Acetow manufactures and markets under the ACCOYA® acetylation technology license, a process increasing the resistance of wood used outdoors. It develops as well cellulose acetate bio-plastic easy to mold and used in many common consumer products under the OCALIO™ brand.

- 4 industrial sites and 1 R&I centre.

### Emerging Biochemicals

Emerging Biochemicals is a leading PVC and caustic soda producer in southeast Asia, as well a producer of epichlorohydrin from bio-based glycine, commercialized as EPICEROL® technology. Created to develop environmental-friendly chlor-alkali chemistry, Emerging Biochemicals operates via the Thai subsidiary Vinythai Public Company Ltd., which is responsible for the chlorovinyls and epichlorohydrin activities in Asia.

- Inventor and world leader of bio-sourced epichlorohydrin, or EPICEROL®, an innovative technology based on the conversion of glycerine. It offers a high performance alternative to the conventional method.
- One combined production/R&I site.

In € million	Adjusted		Year on year evolution
	2015	2014	
<b>Net sales</b>	<b>3,090</b>	<b>2,944</b>	<b>5.0%</b>
Soda Ash & Derivatives	1,554	1,377	13%
Peroxides	558	512	8.9%
Acetow	542	641	(16)%
Emerging Biochemicals	437	413	5.6%
<b>REBITDA</b>	<b>789</b>	<b>724</b>	<b>8.9%</b>
<i>REBITDA margin</i>	<i>26%</i>	<i>25%</i>	<i>0.9 pp</i>

**Net sales** grew to € 3,090 million, 5% up year on year, thanks to a 4% favorable impact of forex movements and a 3% overall price increase. This reflects the price increases in most GBUs, in particular at Soda Ash & Derivatives and Acetow. Volumes were overall 2% lower, however, as the destocking in the acetate tow market persisted, although it improved in the second half of the year from the low point in the first half. The total volume and mix effect in Soda Ash & Derivatives as well as Peroxides was largely stable *versus* 2014. Emerging Biochemicals was the exception as prices came down with lower raw material costs, albeit compensated by higher volumes.

**REBITDA** totaled € 789 million, a 9% increase *versus* 2014, underpinned by strong pricing power across the Segment and a positive conversion forex effect, which more than offset the volume decrease. Price increases in Soda Ash & Derivatives and to a lesser extent in Peroxides drove margins up in combination with pursued excellence measures. Acetow was supported by transactional forex effects. The REBITDA margin grew from 25% in 2014 to 26% in 2015, an increase of 0.9 pp.



Products by GBU	Applications	Markets	Trademarks	Competitors
<b>Soda Ash &amp; Derivatives</b>				
Na <sub>2</sub> CO <sub>3</sub> soda ash	Flux in flat glass	Building & Construction Automotive & Aeronautics Energy & Environment	SODA SOLVAY® DENSE	Tata Chemicals, Ciech, Sisecam, Nirma, Bashkim, OCI, Eti-Soda, Novacarb, Tronox
	Flux in container glass	Agro, Food & Feed Consumer Goods & Healthcare	SODA SOLVAY® DENSE	
	Water softener in detergents	Consumer Goods & Healthcare	SODA SOLVAY® LIGHT	
	Metallurgy	Industrial Applications	SODA SOLVAY® DENSE	
	Healthcare	Consumer Goods & Healthcare		
Na <sub>2</sub> CO <sub>3</sub> , NaHCO <sub>3</sub> , 2H <sub>2</sub> O trona	Flue gas cleaning agent	Energy & Environment	SOLVAir®SELECT 200 SOLVAir®SELECT 150	Natronx
	Supplement in animal feed, supplement in food	Agro, Food & Feed	BICAR®Z, BICAR® Food, BI-PROTEC®	
NaHCO <sub>3</sub> sodium bicarbonate	Supplement in animal feed, supplement in food	Agro, Food & Feed	BICAR®Z, BICAR® Food, BI-PROTEC®	Church & Dwight, FMC, Natural Soda, Tata Chemicals, Sisecam, Ciech, Bashkim, Eti- Soda, Novacarb
	Flue gas cleaning agent	Energy & Environment Industrial Applications	BICAR®TEC SOLVAIR® SBO/3 SOLVAir® S300, SOLVAir® S350	
	Active ingredients(API), excipient in effervescent formulations, electrolyte in hemodialysis	Consumer Goods & Healthcare	BICAR® PHARMA	
CaCl <sub>2</sub> calcium chloride	Supplement in food, supplement in animal feed, road treatment (de-icing and de-dusting), de-humidification	Agro, Food & Feed Industrial Applications	CASO®	Tetra, Nedmag, Zirax
Na <sub>2</sub> SO <sub>3</sub> sodium sulfite	Flue gas cleaning agent	Energy & Environment Industrial Applications		INDSPEC
<b>Peroxides</b>				
Hydrogen peroxides	Pulp (bleaching function)	Consumer Goods & Healthcare	INTEROX® MyH <sub>2</sub> O <sub>2</sub>	Arkema, Evonik, Peroxychem, Eka, Kemira, OCI
	Chemical intermediates synthesis (HPPO, caprolactam, caprolactone, ESBO, etc.) & mining	Industrial Applications	INTEROX® MyH <sub>2</sub> O <sub>2</sub> ™	
Sodium percarbonate and hydrogen peroxides	Home care (bleached powder detergent) & personal care (oral & hair care)	Consumer Goods & Healthcare	OXYPER® INTEROX®	Evonik, Kemira, Peroxychem, OCI
Hydrogen peroxides and peracetic acid	Aquaculture, food safety	Agro, Food & Feed	PARAMOVE® INTEROX®, PROXITANE®	Eka
	Water treatment	Energy & Environment	INTEROX®, PROXITANE®, OXYSTRONG®	Evonik, Kemira, Peroxychem
Inorganic peroxides and peracetic acid	Oil & gas	Energy & Environment	IXPER® PROXITANE®	Evonik, Kemira, Peroxychem

Products by GBU	Applications	Markets	Trademarks	Competitors
<b>Acetow</b>				
Cellulose acetate tow	Cigarette filters	Consumer Goods & Healthcare	RHODIA® FILTERTOW	Celanese, Eastman, Daicel/Mitsubishi, Chinese companies (Jinan, Henan, Xinyang)
Cellulose acetate tow			RHODIA DE-TOW® RHODIA COLOURED TOW®	
Cellulose acetate flakes/Silica			RHODIA FILTERSORB®	
Cellulose acetate flakes	Filter tow, yarn, pharma, plastics and cut and tear films		RHODIA ACETOL®	Celanese, Eastman, Daicel/Mitsubishi, Pacetati, Fergana
Nitric Acid	Foams, fertilizers, laundry cleaning & bleaching, disinfectant, coatings, adhesives & elastomers, metal treatment, explosives and blasting agents, cetane improver	Consumer Goods Automotive & Aeronautics Agro, Feed & Food Industrial Applications	TARANIS®	Yara, Borealis, BASF, Radici, Maxam
Cellulose acetate compound	Packaging for cosmetics as well as hair accessories, toys, eyeglass frames, handling tools and consumer electronics	Consumer Goods Electrical & Electronics	OCALIO®	Eastman, DuPont, Braskem, Daicel, Pacetati, Mazzucchelli
Acetylated wood	Outdoor applications like window frames, exterior doors and shutters, decking, exterior cladding and façades etc. as well as for construction work	Building & Construction	ACCOYA® <sup>(1)</sup>	No direct competition in acetylated wood but competing with other materials
<b>Emerging Biochemicals</b>				
PVC	Pipe, fittings, profiles, wires, cables	Building & Construction	SIAMVIC®	Thai Plastic & Chemical PCL
	Film, sheets	Consumer Goods & Healthcare Industrial Applications		
NaOH caustic soda	Multiple applications	Consumer Goods & Healthcare Industrial Applications Agro, Feed & Food		AGC Chemicals (Thailand)
Bio-based epichlorohydrin	Epoxy resins, cationic reagent, surfactants	Building & Construction Electrical & Electronics Consumer Goods & Healthcare Automotive & Aeronautics	EPICEROL®	Samsung Fine Chemicals, Dow

(1) ACCOYA® is a registered trademark of Accsys Technologies.

## Functional Polymers

The Group has refocused the Functional Polymers Operating Segment on the polyamide chain, in line with its optimization strategies and focus on industrial innovation. It gathers polyamide-related businesses grouped under the Polyamide GBU, which produce polyamide compounds used in high-performance plastics, and polyamide yarn, as well as housing Solvay's participation in its chlorovinyls joint ventures RusVinyl (Russia) and Inovyn (Europe).

### Polyamides

The GBU is one of the rare operators in the market to control the entire polyamide chain from upstream (production of intermediates and polymers) to downstream (development of high value-added engineering plastics) serving mainly the automotive, electrical/electronics and different consumer good markets.

It also includes a downstream business activity in Latin America, which manufactures and commercializes textile and industrial yarns and staple fibers, based on polyamide 6.6, for final use in clothing and industrial applications.

- One of the world's leading players in Adipic Acid-based intermediates (n°1 worldwide) and in Polyamide 6.6 (n°2 worldwide).
- Regional n° 1 in polyamide yarns in Latin America.
- 14 industrial sites and 9 R&I centers.

### Chlorovinyls

Chlorovinyls is housing Solvay's remaining PVC and chlor chemicals assets, except for its activities in Thailand which form Emerging Biochemicals within Performance Chemicals. The Latin American chlorovinyls activities are in the process of being sold and are included in discontinued operations since en 2012. The European chlorovinyls activities were also discontinued since mid 2013, and have been integrated in the Inovyn JV since mid 2015, to be exited fully mid 2018. The Russian chlorovinyls activity consists of the RusVinyl JV which started operation in 2014 and is consolidated using the equity method. The net contribution from the Inovyn JV to the Global Business Unit, is however only reflecting the variation of the performance-driven exit value of the JV, which is reported in non-recurring elements.

In € million	Adjusted		Year on year evolution
	2015	2014	
<b>Net sales</b>	<b>1,490</b>	<b>1,654</b>	<b>(9.9)%</b>
Polyamides	1,448	1,536	(5.7)%
Chlorovinyls	41	117	(65)%
<b>REBITDA</b>	<b>141</b>	<b>111</b>	<b>27%</b>
<i>REBITDA margin</i>	<i>9.5%</i>	<i>6.7%</i>	<i>2.8pp</i>

**Net sales** fell (10)% to € 1,490 million. (4)% of the decrease is explained by a scope effect with the sale of the Benvic PVC compounding business in the second quarter of 2014. Lower raw material prices, mainly in Solvay's PA 6.6 upstream business, impacted prices by (7)%, as these were passed through to the customer. Volumes were flat overall. Higher sales of PA 6.6 polymers and intermediates, mostly in Europe, more than offset the significant decrease of yarn sales in the subdued Latin American market. Conversion forex effects were slightly positive at 1%.

**REBITDA** was € 141 million over the year, a 21% increase compared to 2014, despite production issues in its plant in Chalampé (France) and the inventory write-downs in the first quarter. The uplift was primarily the result of a strong positive net pricing reflecting the benefits of the excellence measures implemented in the PA 6.6 upstream businesses, the advantage of lower raw materials prices in the more advanced polyamide Engineering Plastics activity, as well as positive transaction forex effects. The volume and mix impact was overall flat. The ramp-up of RusVinyl joint venture in Russia also contributed positively to the operational result. The REBITDA margin went up 2.8 pp to reach 9.5% over the year.

Products by GBU	Applications	Markets	Trademarks	Competitors	
<b>Polyamides</b>					
Adipic acid	Polyamide 6.6, other products for polyurethane and coating applications, plasticizers	Industrial Applications Automotive & Aeronautics	RHODIACID®	Invista, Ascend, CPEC, CNPC, BASF, Radici, Asahi, Lanxess	
Hexamethylenediamine		Consumer Goods & Healthcare Building & Construction Electrical & Electronics	RHODIAMINE®	Invista, Ascend, BASF, Radici, CPEC	
Polyamide resin: <ul style="list-style-type: none"> <li>• PA 6.6</li> <li>• PA 6.10</li> </ul>	Polymers for engineering, plastics compounds, industrial yarns (tire, cords, airbags), textile and fibers applications	Automotive & Aeronautics Industrial Applications Consumer Goods & Healthcare Building & Construction Electrical & Electronics	STABAMID®	Invista, Ascend, BASF, Radici, Asahi	
Polyamide fibers and polyamide tow	Yarn for textile and carpet markets, flock for clothing and furnishing, automotive, decoration and packaging	Automotive & Aeronautics Consumer Goods & Healthcare Building & Construction	PASSOREA® RHODIA® TOW	Invista, Ascend, EMS, Jiaxing Fuda, Changshu Tehua	
Polyamide 6.6 compounds	Metal replacement, fire protection, thermal management, fluid barrier	Automotive & Aeronautics Electrical & Electronics Consumer Goods & Healthcare Energy & Environment Building & Construction Industrial Applications	TECHNYL® TECHNYL STAR®	DuPont, BASF, Radici, Ascend, Invista	
Polyamide 6 compounds			TECHNYL® TECHNYL STAR®	BASF, Lanxess, DSM, DuPont, Radici	
Long Chain Polyamide compounds			TECHNYL EXTEN®	Arkema, Evonik, EMS, UBE, Dupont	
High temperature Polyamide compounds			TECHNYL® ONE	DuPont, EMS, DSM, BASF	
Recycled Polyamide compounds			TECHNYL® R TECHNYL® ECO TECHNYL® 4EARTH®	Very fragmented competition	
Polyamide powders			3D Printing - Laser sintering	SINTERLINE® TECHNYL® POWDERS	Evonik, Arkema, BASF
Design, simulation, prototyping, part testing services			Metal replacement, fire protection, thermal management, fluid barrier	MMI TECHNYL® SINTERLINE® TECHNYL® APT® TECHNYL® VALIDATION	BASF
Textile yarns, flat and textured	Apparel	Consumer Goods & Healthcare	AMNI® EMANA® RHODIANYL®	Hyosung, Taekwang, Nilit, Acelon, LeaLea, Fujian, Radici, Thailon, Yiwu Huanding Nylon	
Staple fiber	Abrasives, flocking applications	Consumer Goods & Healthcare Industrial Applications		Invista	
Industrial yarns	Sewing threads, tire, MRG	Consumer Goods & Healthcare Automotive & Aeronautics Industrial Applications		Kordsa, Enka, CSM, SRF, Sans Hyosung, Invista	

## Corporate & Business Services

This Segment includes the Energy Services GBU, which provides energy optimization programs for the Group and for third parties. It also includes the Corporate Functions.

### Solvay Energy Services

Solvay Energy Services delivers innovative and sustainable tailor-made services designed to improve energy performance and reduce the CO<sub>2</sub> footprint of the Solvay group and energy-intensive third-

party industrial clients. These services range from energy sourcing and energy efficiency to price risk management and operation of cogeneration plants.

### Other Corporate and Business Services

Business Services covers, in a global shared services organization, all the Group's IT services and its main administrative departments (accounting, credit, customer service, customs, payroll and personnel administration and procurement).

In € million	Adjusted		Year on year evolution
	2015	2014	
<b>REBITDA</b>	<b>(189)</b>	<b>(188)</b>	<b>(0.5)%</b>

Net **REBITDA** costs were € (189) million, in line with 2014. The contribution of Energy Services was € (3) million, € (28) million lower than in 2014, reflecting difficult conditions for investments in biomass-based energy plants as well as the energy and carbon management services in a low commodity price environment. Moreover a € (7) million one-off impairment on outstanding carbon emission rights in Brazil, which are unlikely to be monetized, was booked in the third quarter. Other Corporate & Business Services booked € (186) million, in line with the 2014 overall cost level, if one excludes the one-off benefit of € 30 million booked in the first quarter of 2015, linked to the evolution of the post-employment Medicare insurance policy in the US. This reflects continued excellence measures offsetting the adverse impact of exchange rates and inflation.

## Energy situation

Energy costs are an important part of the Group's cost structure. Net energy costs represented about € 0.85 billion in 2015, slightly lower comparatively to 2014. Energy sources were spread over electricity and gas (circa 74%), coke, coal and anthracite (circa 20%) and steam and others (circa 6%). Fossil fuels represented circa 70%. More than half of the spend was done in Europe (circa 54%) followed by Asia (circa 26%) and the remaining 20% from the Americas and rest of the world.

The Group has pursued an active energy policy for many years. As a major energy consumer, the Group produces its own electricity

through on-site cogeneration plants and steam turbines for a total capacity of circa 1,000 MWe.

Within the Group, Solvay Energy Services focuses on optimizing the Solvay's energy costs and carbon emissions. Furthermore, Solvay Energy Services has continued deploying its operating energy efficiency excellence initiative called SOLWATT®, which aims at reducing energy consumption and optimizing energy production on industrial sites. For more information, see pages 112-113 of the report. By the end of 2015, SOLWATT® has been gradually rolled out and covers almost all the Group's manufacturing sites. As of December 2015, 2,460 actions for a total of € 93 million of savings per annum have been identified after the diagnosis phase. More than half of these actions representing € 40 million and circa 120 kt of CO<sub>2</sub> of annual savings have been implemented. The Soda Ash & Derivatives and Specialty Polymers GBUs are among the top beneficiaries.

The raw materials bill of the Group mounted to circa € 3,230 million in 2015, some 10% lower comparatively to 2014 on lower volumes and prices. The raw materials can be split into several categories: crude oil derivatives circa 43%, minerals derivatives circa 17% (e.g. glass fiber, sodium silica, calcium silicate, phosphorus, sodium hydroxide...), natural gas derivatives (circa 15%), biochemicals circa 14% (e.g. wood pulp, glycerol, guar, fatty alcohol, ethyl alcohol...), others (circa 10%). The Inovyn's creation in July induced a decrease of the Group's exposure to oil.

## ADDITIONAL COMMENTS ON THE GROUP CONSOLIDATED INCOME STATEMENT OF THE FY 2015 (IFRS/ADJUSTED)

In € million	IFRS		Adjusted	
	2015	2014	2015	2014
<b>EBIT</b>	<b>833</b>	<b>652</b>	<b>941</b>	<b>761</b>
Net financial expenses, of which:				
• Cost of borrowings	(111)	(151)	(111)	(151)
• Interest on lending and short term deposits	11	36	11	36
• Other gains and losses on net indebtedness	(46)	(30)	(46)	(30)
• Cost of discontinued operations	(73)	(163)	(73)	(163)
Income/losses from available-for-sale investments	(8)	(1)	(8)	(1)
<b>Result before tax</b>	<b>606</b>	<b>343</b>	<b>715</b>	<b>453</b>
Income tax	(97)	(84)	(135)	(120)
<b>Result from continuing operations</b>	<b>509</b>	<b>259</b>	<b>580</b>	<b>333</b>
Result from discontinued operations	(55)	(246)	(55)	(244)
<b>Net Income</b>	<b>454</b>	<b>13</b>	<b>525</b>	<b>89</b>
Non controlling interests	(48)	67	(48)	67
<b>Net Income Solvay share</b>	<b>406</b>	<b>80</b>	<b>477</b>	<b>156</b>

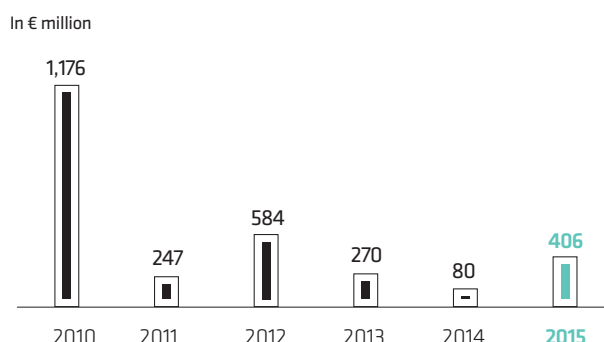
**Net financial charges** fell to € (226) million from € (309) million in 2014. Charges on net debt were stable at € (146) million. 2015 included € (25) million for the effects of hyperinflation in Venezuela, as well as € (8) million of initial accrued interests on the senior bonds raised to finance the Cytec acquisition, whereas in 2014 a € (21) million one-off was booked primarily from the settlement of interest rate swaps.

The cost of discounting provisions for pension and environmental liabilities decreased to € (73) million from € (163) million a year ago, mainly due to the one-off effect from higher discount rates on environmental liabilities of € 14 million in 2015, whereas last year € (35) million of one-offs were booked as discount rates reduced overall. Losses from available for sale investments were € (8) million linked to impairment on certain R&I-related investments.

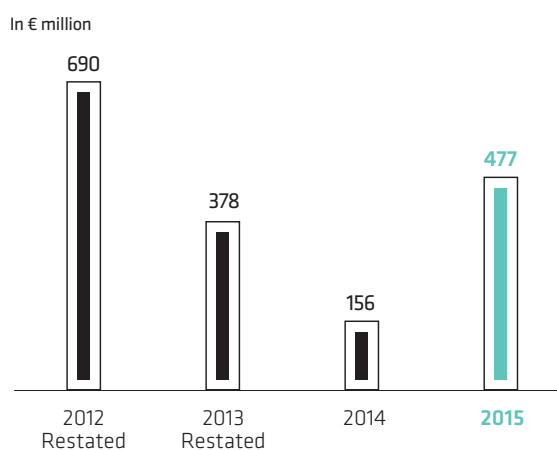
**Income taxes** on an adjusted basis rose to € (135) million, from € (120) million a year ago. The increase is due to higher results before taxes. Tax adjustments related to prior years accounted for € 107 million in 2015, *versus* € 123 million in 2014. The nominal tax rate was thereby 19%. The underlying tax rate decreased to 30%, *versus* 35% for 2014.

**Net result** from continued operations on an adjusted basis was € 580 million against € 333 million in 2014. Discontinued operations reported a net loss of € (55) million against € (244) in 2014. Discontinued operations included Eco Services up to end 2014, when it was sold, and the European chlorovinyls business, which is integrated in the Inovyn joint venture since mid 2015. The remaining activity in discontinued operations is the Indupa chlorovinyls business in Latin America, which was affected by adverse markets. At year end the remeasurement to fair value less costs to sell led to an impairment loss of € (88) million. Discontinued operations also included a € (20) million provision related to the pharma activities divested in 2010. In 2014 losses from discontinued operations included impairments on the European chlorovinyls assets prior to the integration in Inovyn. The net income Solvay share on an adjusted basis thereby came in at € 477 million compared with € 156 million in 2014. Adjusted basic earnings per share amounted to € 5.70. The net income Solvay share on an IFRS basis was € 406 million *versus* € 80 million in 2014. The underlying net income Solvay Share amounted to € 680 million *versus* € 622 million in 2014.

## NET INCOME, GROUP SHARE (IFRS)



## ADJUSTED NET INCOME, GROUP SHARE



## Financing structure

**Gross financial debt increased** from € 2,338 million at the end of 2014 to € 6,520 million at the end of 2015.

The increase is mainly due to the new debt (€ 2.25 billion senior € notes and US\$ 1.6 billion senior US\$ notes before debt issuance costs) issued in December 2015 to partly finance the acquisition of Cytec and for the early refinancing of existing short-term and long-term financial debts maturing in 2016 (~€ 1 billion in cash and cash equivalents), the integration of the net financial debt of Cytec (€ 532 million), the increase in commercial paper issuance (+€ 250 million at the end of 2015 compared to the end of 2014) as well as the financing of projects in emerging countries.

In 2015, Solvay also reimbursed the retail bond (€ 500 million) maturing in June.

The net financial debt grew to € 4,379 million at the end of 2015 from € 778 million at the end of 2014.

**Equity** amounted to € 9,668 million at the end of 2015, compared to € 6,778 million at the end of 2014. It includes the perpetual hybrid bonds, classified as equity under IFRS rules, which grew from € 1.2 billion at the end of 2014, to € 2.2 billion at the end of 2015, following the issuance of € 1.0 billion bonds to partially fund the Cytec acquisition. Solvay also increased its capital through a rights issue of € 1.5 billion to complete this funding.

At the end of 2015, the **net debt to equity ratio** was 45%.

Solvay's ratings by two rating agencies are: BBB-/A3 (stable outlook) at Standard and Poors, and Baa2/P2 (negative outlook) at Moody's following the acquisition of Cytec.

## Free Cash Flow

**Free Cash Flow** from continuing operations was € 391 million *versus* € 511 m last year. The increase in REBITDA was outweighed by higher capital investments of € (969) million, *versus* € (861) million in 2014.

Furthermore, 2015 reported overall cash outflows from working capital needs that compared with significant inflows last year. Free Cash Flow from discontinued operations was € (3) million in 2015, compared to € 145 million in 2014, largely linked to the change in scope, namely pharma disposed activities. The total free cash flow thereby came at € 387 million, lower than the € 656 million in 2014.

**Other cash flow elements** mainly related to the Cytec acquisition and the subsequent financing. These consisted of the total acquisition consideration of € (5,047) million and non-recurring costs of € 130 million, of which respectively € (4,998) million and € (101) million were paid in the period, totaling € (5,099) million. The € 1.5 billion rights and € 1.0 billion hybrid bond issue resulted in a net inflow of € 1,477 million and € 991 million respectively. The issue of senior bonds of € 2.25 billion and US\$ 1.6 billion brought in € 3,693 million net. Other cash flow elements included among others interest and dividend related cash-outs for € (536) million combined.

## INVESTMENTS

In € million	Capital expenditures (continuing operations)		
	2015	2014	% yoy
Advanced Formulations	(214)	(166)	(29)%
Advanced Materials	(340)	(267)	(27)%
Performance Chemicals	(267)	(275)	2.8%
Functional Polymers	(71)	(82)	14%
Corporate & Business Services	(77)	(69)	(11)%
<b>GROUP</b>	<b>(969)</b>	<b>(861)</b>	<b>(13)%</b>

**Total capital expenditures (of continuing operations)** in 2015 amounted to € 969 million.

Besides health, safety & environment and maintenance capital expenditures, the Group selectively invested in a number of strategic projects, with priority given to businesses and geographies with superior and sustainable growth potential. Several growth investments were realized in 2015 in our growth engines and highly resilient businesses. The most significant are:

- the large-scale alkoxylation facility in Singapore to serve the fast-growing Asian market in home & personal care, coatings, industrial, agrochemicals and oil & gas;
- the large-scale alkoxylation unit in the United States (Texas), at an integrated industrial facility of LyondellBasell's Equistar Chemicals affiliate, in order to serve the growing North American market;
- the new vanillin production facility in China representing an increase of 40% of Solvay's global production to serve the growing demand in the region;

- the first phase of the fluoro-polymers plant in China (in Changshu) for Specialty Polymers;
- the new hydrogen peroxide plant in China for Peroxides;
- the new bicarbonate plant (100 kt/year) in Thailand to develop Asian sales.

A number of growth projects represented significant capital expenditures in 2015, but are still under construction:

- the new mega Hydrogen Peroxide for Propylene Oxide (HPPPO) plant (330kt/year) in Saudi Arabia in joint venture with Sadara Aramco and Dow, which was largely finished by end 2015 but due to open in 2016 only;
- the construction of a second PEEK polymers plant in the United States (Georgia) for Specialty Polymers, to start-up in 2016;
- the second phase of the fluoro-polymers plant in China (in Changshu) for Specialty Polymers, to start-up in 2017;
- the new plant of Highly Dispersible Silica (HDS) in South Korea to increase capacity by more than 80,000 tons per year, to start up in 2017.

## RESEARCH & INNOVATION

In € million	Net Research & Innovation costs in 2015
Advanced Formulations	56
Advanced Materials	119
Performance Chemicals	21
Functional Polymers	25
Corporate & Business Services	56
<b>GROUP</b>	<b>277</b>

**Net Research & Innovation** costs in 2015 were € 277 million. The large majority of Solvay's innovation efforts are developed at Solvay's growth engines, Advanced Materials and Advanced Formulations, representing close to 80% of the consolidated costs, excluding Corporate & Business Services

## ANALYSIS OF THE PARENT COMPANY RESULTS (SOLVAY SA)

In € million	2015	2014
Profit for the year available for distribution	1,774	550
Carried forward	4,524	4,262
<b>Total available to the General Shareholders' Meeting</b>	<b>6,298</b>	<b>4,812</b>
Appropriation		
Legal reserve	32	0
Gross dividend	349	288
Carried forward	5,917	4,524
<b>TOTAL</b>	<b>6,298</b>	<b>4,812</b>

Solvay SA is a *société anonyme* created under Belgian law, with its registered office at rue de Ransbeek 310 at 1120 Brussels. Solvay SA has two branches: Solvay SA France (25, rue de Clichy, 75009 Paris, France) and Solvay SA Italie (Via Piave 6, 57013 Rosignano, Italy).

The accounts of Solvay SA are prepared in accordance with Belgian generally accepted accounting principles, and include its French and Italian branches.

The main activities of Solvay SA consist of holding and managing a number of participations in Group companies and of financing the Group from the bank and bond markets. It also manages the research center at Neder-Over-Heembeek (Belgium).

The operating result is made of group services invoicing, industrial and commercial activities not undertaken through subsidiaries, less operating charges related to the head office.

Current profit before taxes amounts to € 1 million in 2015, compared with € 833 million in the previous year. Current profit includes the operating result amounting to € 94 million, compared with € (204) million in 2014; dividends received from its various participations amounting to € 96 million, compared with € 1,226 million in 2014; and the differential between interest paid

and received on its financing activities amounting to € (189) million, compared with an amount of € (190) million in 2014.

The balance of extraordinary gains and losses for 2015 is € 1,754 million, compared with € (307) million in 2014.

The net profit of Solvay SA amounts in 2015 to € 1,774 million, compared with € 550 million in 2014.

In the absence of transfers to untaxed reserves, carried forward net income of € 6,298 million is available for distribution.

## Priorities & Outlook

### Priorities

In 2016 Solvay will focus on executing the Group strategy, continuing to deploy the main levers of its transformation through its portfolio upgrade and delivery on excellence, including innovation. The integration of Cytec is running ahead of schedule and a top priority is to ensure full success and delivery of synergies. In parallel, Solvay will intensify its focus on delivering a markedly improved sustainable Free Cash Flow and deleveraging over time.



## Outlook 2016

Since the end of 2015, the Group has observed increased volatility in commodity markets, and inventory adjustments for smart devices applications that are expected to continue in the first quarter of the year. In this environment, and assuming no further deterioration in market conditions, Solvay expects its REBITDA in 2016 to grow by high-single digit compared to the 2015 *pro forma* REBITDA <sup>(1)</sup> of € 2,336 million (including Cytec).

Growth this year will likely be back-ended, reflecting the relatively strong comparables in the first half of 2015, destocking in smart devices, the phasing of our innovations the benefits from Cytec synergies and from excellence programs. More specifically, growth will be driven by volumes and continued evidence of pricing power as a result of the excellence programs, which are on course to exceed € 800 million cumulative benefits to REBITDA by the end of 2016.

With € 20 million of annual cost savings already achieved by January 1, Solvay is confident that Cytec integration cost synergies alone will exceed € 100 million p.a. by 2018. Revenue synergies will be additional to that delivery.

Solvay anticipates *pro forma* REBITDA growth across all its four operating segments <sup>(2)</sup>:

- Advanced Materials: growth from its diversified end-markets will overcome the impact of first-quarter inventory destocking in smart devices. In aerospace, continued is expected from the ramp-up of aircraft platforms containing more composites;
- Advanced Formulations: growth in health and personal care, agro and Technology Solutions' businesses is expected to offset continuing weakness in oil and gas markets;
- Performance Chemicals: continued delivery in excellence programs is to be complemented by a gradual recovery in acetate tow filter demand;
- Functional Polymers: profit restoration is expected to continue.

REBITDA growth combined with disciplined capital expenditure, should lead to free cash flow in excess of € 650 million, more than 30% higher than the prior year *pro forma* level.

The Group is committed to maintaining its investment grade credit rating.

This 2016 outlook is based on anticipated a number of assumptions, inter alia, world GDP growth of ~3%, on an oil price of US\$ 30/barrel and no recovery in the US oil and gas exploration activities, and on a 1.10 US\$/€ exchange rate.

## Management of Risks

Risk management (processes, risks identified and actions undertaken to reduce them) is described on pages 59 to 70 of this report.

## Financial instruments

The management of financial risks and any use of financial instruments to hedge them are described on 66 to 67 and pages 186 to 196 (Note 37 Financial instruments and financial risk management to the consolidated financial statements) of this report.

## Audit Committee

The mission, composition and modus operandi of the Audit Committee are described on pages 42 and 56 (Point 14, Annex 1: Audit Committee mission statement of the Corporate governance statement) of this report.

## Corporate governance statement

The Corporate governance statement is included on pages 31 to 58 of this report and contains the Compensation policy and the most recent compensation report.

## 2 Complementary financial information

### Unaudited *pro forma* information for full year 2015

In order to provide a reference framework for evaluating the Group's performance going forward, Solvay publishes unaudited *pro forma* information for the year 2015. The figures represent a situation as if the Cytec acquisition had taken place on January 1, 2015. The detailed basis for preparation in the subsequent pages are an integral part of the *pro forma* information.

Three sets of consolidated income statements are presented within this report: "IFRS", "Adjusted" and "Underlying".

From the first quarter of 2016, the Group's results will be presented on an IFRS and Underlying basis only. The current definition of REBITDA will equate to Underlying EBITDA going forward.

(1) The current definition of REBITDA equates to Underlying EBITDA going forward.

(2) Following the acquisition of Cytec, Solvay has re-organized its segment reporting structure to enhance strategic coherence and improve alignment. The segment organization is effective as from January 1, 2016

Had Cytec been consolidated as from January 1, 2015, the Group's *pro forma* consolidated income statement for 2015 would have been as follows:

<i>Pro forma</i> income statement FY 2015 In € million	Solvay			Cytec			<i>Pro forma</i>					
	IFRS	PPA impact	Adjusted	IFRS	PPA impact	Adjusted	Funding Cytec	IFRS	PPA impact	Adjusted	Other adjustments & hybrid coupons	Underlying
<b>Sales</b>	<b>11,047</b>	-	<b>11,047</b>	<b>1,800</b>	-	<b>1,800</b>	-	<b>12,847</b>	-	<b>12,847</b>	-	<b>12,847</b>
Revenues from non-core activities	470	-	470	-	-	-	-	470	-	470	-	470
<b>Net sales [a]</b>	<b>10,578</b>	-	<b>10,578</b>	<b>1,800</b>	-	<b>1,800</b>	-	<b>12,378</b>	-	<b>12,378</b>	-	<b>12,378</b>
Cost of goods sold	(8,289)	-	(8,289)	(1,317)	82	(1,236)	-	(9,606)	82	(9,524)	1	(9,523)
<b>Gross margin</b>	<b>2,759</b>	-	<b>2,759</b>	<b>482</b>	<b>82</b>	<b>564</b>	-	<b>3,241</b>	<b>82</b>	<b>3,323</b>	<b>1</b>	<b>3,324</b>
Commercial & administrative costs	(1,327)	-	(1,327)	(221)	-	(221)	-	(1,548)	-	(1,548)	57	(1,491)
Research & innovation costs	(277)	-	(277)	(47)	-	(47)	-	(324)	-	(324)	-	(324)
Other operating gains & losses	(99)	109	10	(144)	131	(13)	-	(242)	240	(2)	-	(2)
Earnings from associates & joint ventures [b]	21	-	21	-	-	-	-	21	-	21	22	43
<b>REBITDA [c = g-d-e-f]</b>			<b>1,955</b>			<b>381</b>	-			<b>2,336</b>	-	<b>2,336</b>
<i>REBITDA margin [c/a]</i>			18%			21%				19%		19%
Depreciation & Amortization (recurring) [d]	(842)	109	(733)	(311)	213	(98)	-	(1,153)	322	(831)	45	(786)
Other REBITDA adjustment elements [e]			(35)			-	-			(35)	35	-
Non-recurring items [f]	(245)	-	(245)	(11)	-	(11)	-	(256)	-	(256)	256	-
<b>EBIT [g]</b>	<b>833</b>	<b>109</b>	<b>941</b>	<b>59</b>	<b>213</b>	<b>272</b>		<b>892</b>	<b>322</b>	<b>1,213</b>	<b>337</b>	<b>1,550</b>
Financial expenses	(146)	-	(146)	(23)	-	(23)	(66)	(235)	-	(235)	25	(210)
Coupons on perpetual hybrid bonds <sup>(1)</sup>											(112)	(112)
Interests and realized foreign exchange losses on RusVinyl (joint venture) [h]											(27)	(27)
Cost of discounting provisions	(73)	-	(73)	(8)	-	(8)	-	(81)	-	(81)	(14)	(95)
Loss from available-for-sale financial assets	(8)	-	(8)	-	-	-	-	(8)	-	(8)	8	-
<b>Result before taxes [i]</b>	<b>606</b>	<b>109</b>	<b>715</b>	<b>27</b>	<b>213</b>	<b>240</b>	<b>(66)</b>	<b>568</b>	<b>322</b>	<b>889</b>	<b>216</b>	<b>1,105</b>
Income taxes [j]	(97)	(38)	(135)	(3)	(66)	(69)	37	(63)	(103)	(166)	(165)	(331)
<i>Tax rate [j/(i-b-h)]</i>	17%		19%	12%		29%		12%		19%		30,5%
<b>Result from continuing operations</b>	<b>509</b>	<b>71</b>	<b>580</b>	<b>24</b>	<b>147</b>	<b>171</b>	<b>(29)</b>	<b>504</b>	<b>218</b>	<b>723</b>	<b>52</b>	<b>774</b>
Result from discontinued operations	(55)	-	(55)	(2)	-	(2)	-	(56)	-	(56)	115	59
<b>Net income</b>	<b>454</b>	<b>71</b>	<b>525</b>	<b>23</b>	<b>147</b>	<b>170</b>	<b>(29)</b>	<b>448</b>	<b>218</b>	<b>666</b>	<b>167</b>	<b>833</b>
Non-controlling interests	(48)	-	(48)	-	-	-	-	(48)	-	(48)	(17)	(65)
<b>Net income Solvay share</b>	<b>406</b>	<b>71</b>	<b>477</b>	<b>23</b>	<b>147</b>	<b>170</b>	<b>(29)</b>	<b>400</b>	<b>218</b>	<b>618</b>	<b>150</b>	<b>768</b>
Basic EPS from continuing operations (in €)	5.57	0.85	6.42					4.45	2.10	6.55	0.43	6.98
Basic EPS (in €)	4.85	0.85	5.70					3.85	2.10	5.96	1.44	7.40
Diluted EPS from continuing operations (in €)	5.53	0.85	6.38					4.42	2.09	6.51	0.42	6.93
Diluted EPS (in €)	4.81	0.85	5.66					3.83	2.09	5.92	1.43	7.35

(1) These perpetual hybrid bonds are classified as equity under IFRS.

### a) Basis for preparation of the IFRS *pro forma* statements

The *pro forma* financial information combines Solvay's consolidated income statement with Cytec's consolidated income statement, both determined on a stand-alone basis, after alignment of accounting policies and purchase price allocation impacts (i.e. amortization of intangible fair value step-ups and recognition in cost of goods sold of the inventory fair value step-up). The *pro forma* information also takes into account the estimated additional funding costs related to the acquisition.

- The additional interest expense on an IFRS basis is estimated to be € (66) million and takes into account:
  - the annual IFRS interest expense of € (104) million on the € bonds of € 2.25 billion and on the US bonds of US\$ 1.6 billion;
  - a reduced interest expense by € 30 million on the € 1,062 million excess cash raised for existing debt refinancing;
  - of the net interest expense of € (74) million, € (66) million are taken into account as additional funding expenses in the *pro forma* accounts, while € (8) million are already included in the Solvay stand-alone financial expenses for 2015 for the period the financing was in place at year end;
  - the coupons on the € 1.0 billion perpetual hybrid debt are not taken into account, as these bonds are considered as equity according to IFRS. This is however corrected in underlying results.
- The debt capacity in the United States generates a tax credit of € 37 million on the € (66) million Cytec funding expenses.
- Acquisition costs incurred directly by Cytec are already reflected in the 2015 Solvay stand-alone consolidated income statement in non-recurring items which total € (130) million.
- Announced synergies have not been reflected in the 2015 *pro forma* statements.

### b) Basis for preparation of adjusted statements

Besides IFRS accounts, Solvay also presents Adjusted Income Statement performance indicators that exclude non-cash Purchase Price Allocation (PPA) accounting impacts related to the Rhodia acquisition, and now also to the Cytec acquisition.

- Solvay IFRS statements include the non-cash purchase price allocation (PPA) amortization charges relative to the Rhodia PPA for a total amount of € 109 million in 2015. The related tax impact over this period amounted to € (38) million.
- IFRS PPA adjustments for Cytec stand-alone refer to the Cytec purchase price allocation, including € 82 million of inventory step-ups and € 131 million of intangible assets amortization charges. These combined total € 213 million with an associated tax impact of € (66) million.

### c) Basis for preparation of underlying statements

"Underlying" figures aim at adjusting IFRS statements for the non-cash Purchase Price Allocation (PPA) accounting impacts related to the Rhodia and Cytec acquisition, for the coupons of hybrid perpetual bonds, classified as equity under IFRS and for other items that distort the comparability of the Group's underlying performance. Underlying results are deemed to provide a more comparable indication of Solvay's fundamental performance over the reference periods.

The column "Other adjustments and hybrid coupons" shows a total correction of € 167 million, of which € (112) million for coupons of hybrid perpetual bonds (including € (55) million for the Cytec acquisition) and € 279 million for other adjustments. These other adjustments comprise:

- M&A related impacts of other acquisitions (Chemlogics, Flux, Ryton...) for € 58 million, of which € 57 million in commercial & administrative costs and € 1 million in costs of goods sold;
- non-recurring items of € 245 million for Solvay stand-alone and € 11 million for Cytec stand-alone, totaling € 256 million;
- impact of hyperinflation in Venezuela for € 25 million;
- impacts of changes in discount rate on environmental provision for € (14) million;
- impairment on available-for-sale financial assets for € 8 million;
- tax impacts of the above other adjustments for € (51) million, as well as net income tax benefits related to previous years for € (114) million of which € (107) million for Solvay and € (7) million for Cytec, which combined give total tax on other adjustments of € (165) million;
- a € 22 million net impact on the RusVinyl joint venture related to the total finance expenses and impairments were excluded from REBITDA, while € (27) million were reclassified as underlying finance expenses concerning interests and realized foreign exchange losses on EUR-denominated debt;
- an overall net impact on discontinued operations of € 115 million included:
  - an impairment and other expenses related to Solvay Indupa for € 96 million,
  - post-closing costs related to the Pharma activities divested in 2010 for € 25 million,
  - positive price adjustments related to the disposal of Eco Services for € (7) million;
- the impact on non-controlling interests of these other adjustments items totaled € (17) million.

### d) *Pro forma* free cash flow 2015

The *pro forma* Free Cash Flow would have amounted to € 492 million, of which € 105 million for Cytec stand-alone. The *pro forma* Free Cash Flow from continuing operations would have amounted to € 500 million, of which € 109 million for Cytec stand-alone.

*Pro forma* capital expenditures would have amounted to € 1,160 million, of which € 123 million for Cytec stand-alone. *Pro forma* capital expenditures from continuing operations would have amounted to € 1,092 million, of which € 123 million for Cytec stand-alone.

### 3 Historical financial data

The following table presents the historical figures of the Group as published at the reference date. These data have not been affected by possible subsequent restatements due to perimeter changes, IFRS/IAS standards evolution, etc.

Over the reference periods, the following main changes have intervened:

- 2011: Rhodia consolidated as from September 17;
- 2012: Solvay Indupa activities presented as discontinued;
- 2013: Solvay Indupa and European chlorovinyls activities presented as discontinued and Chemlogics consolidated as from November 1;
- 2014: application of IFRS 11. Solvay Indupa, European Chlorovinyls and Eco Services activities presented as discontinued and Chemlogics fully consolidated;

- 2015: two major changes took place:

- the sale of Solvay chlorovinyls activities to the Inovyn joint venture (50% Solvay, 50% Ineos) on July 1, 2015, reported as discontinued operations,
- the acquisition of 100% of the shares of Cytec Inc. on December 9, 2015. Cytec opening balance sheet has been fully consolidated within the Solvay group as from December 31, 2015. Cytec's results and cash flows for the period between December 9 and December 31 are not material, except for acquisition-related expenses presented as non-recurring items. Consequently, Cytec has not contributed to the Group's IFRS net income or cash flows in 2015.

In € million	IFRS			
	2012	2013 <sup>(1)</sup>	2014 <sup>(1)</sup>	2015 <sup>(1) (2)</sup>
Sales	12,831	10,367	10,629	11,047
Net sales	12,435	9,938	10,213	10,578
REBITDA	2,022	1,663	1,783	1,955
REBITDA as % of sales	16%	17%	17%	18%
Total depreciation and amortization	794	752	751	842
EBIT	1,275	647	652	833
Net income, Solvay share	584	270	80	406
Earnings per share (basic)	7.10	3.25	0.96	4.85
Research expenditures	261	247	247	277
Capital expenditures	826	1,809	1,399	1,037
Free Cash Flow	787	524	656	387
<b>Financial data</b>				
Shareholder's equity	6,596	7,453	6,778	9,668
Net debt	1,125	1,102	778	4,379
Net debt/shareholder's equity	17%	15%	11%	45%
Gross dividend per share (€)	3,20	3,20	3,40	3,30
Gross distribution to Solvay shareholders	271	271	288	349
<b>Personnel data</b>				
Persons employed at December 31	29,103	29,389	29,207	30,900
Personnel costs	2,302	2,143	1,990	2,139

(1) Equity includes perpetual hybrid bonds.

(2) Figures are adjusted for bonus factor.

#### Earnings per share

Adjusted basic earnings per share amounted to € 5.70 in 2015 compared to € 1.87 in 2014.

## Dividend

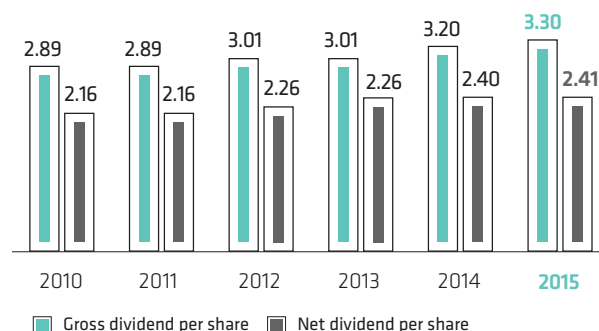
The Board of Directors decided to recommend to the General Shareholders' Meeting of May 10, 2016, payment of a total gross dividend of € 3.30 per share (€ 2.41 net per share).

As customary for transactions of this type, the total amount of the 2015 dividend was adjusted to reflect the distribution of rights during the capital increase completed in December 2015. This adjustment factor is 93.98% according to the Euronext Derivatives Corporate Actions Policy. Thus the recommended 2015 dividend compares with an adjusted 2014 dividend of € 3.20 gross per share (rounded figure, adjusted from € 3.40 gross per share) and represents an increase of 3.3%.

Given the interim dividend of € 1.36 gross per share (€ 0.99 net per share<sup>(1)</sup>; coupon no. 97) paid on January 21, 2016, the balance of the dividend in respect of 2015, equal to € 1.94 gross per share (€ 1.42 net per share<sup>(1)</sup>; coupon no. 98), which will be paid on May 17, 2016, provided prior agreement by General Shareholders Meeting.

## GROSS AND NET DIVIDEND PER SHARE ADJUSTED FOR THE AFOREMENTIONED BONUS FACTOR

In €



## IFRS historical consolidated data per share

In € (as published)	2011	2012	2013 <sup>(1)</sup>	2014 <sup>(1)</sup>	2015 <sup>(1) (2)</sup>
Stockholder's equity	75.79	80.14	85.07	79.10	115.46
REBITDA	14.87	24.57	20.00	21.42	23.34
Net income	3.04	7.10	3.25	0.96	4.85
Net income (from continuing operations)	3.51	7.08	2.47	3.32	5.6
Diluted net income	3.03	7.06	3.22	0.96	4.82
Diluted net income (from continuing operations)	3.49	7.04	2.45	3.30	5.5
Number of shares (in thousands) at December 31	84,701	84,701	83,171	82,982	103,865
Average number of shares (in thousands) (basic) for calculating IFRS earnings per share	81,224	82,305	83,151	83,228	83,738
Average number of shares (in thousands) (basic) for calculating IFRS diluted earnings per share	81,546	82,696	83,843	83,890	84,303
Gross dividend	3.07	3.20	3.20	3.40	3.30
Net dividend	2.30	2.40	2.40	2.55	2.41
Highest price	111.6	109.80	118.90	129.15	132.606
Lowest price	61.50	62.11	97.44	100.15	82.71
Price at December 31	63.7	108.6	115	112.4	98.4
Price/earnings at December 31	21.0	15.30	35.42	116.59	20.3
Net dividend yield	2.9%	2.0%	2.1%	2.3%	2.4%
Gross dividend yield	3.9%	2.7%	2.8%	3.0%	3.4%
Annual volume (thousands of shares)	63,462	77,846	54,437	49,218	83,358
Annual volume (in € million)	5,522	6,796	5,960	5,630	9,294
Market capitalization at December 31 (in € billion)	5.4	9.2	9.8	9.5	10.4
Velocity (%)	78	92	63	58	89
Velocity adjusted by Free Float (%)	111.2	131	94	83	127

(1) Equity includes hybrid bonds.

(2) Figures are adjusted for the 0.9398 bonus factor.

(1) when subject to the Belgian withholding tax.

# EXTRA-FINANCIAL STATEMENTS



## 1 Sustainability management

Solvay's report on high materiality social and environmental issues is now included in the Annual Report. This combined report is a first step in Solvay's evolution towards integrated reporting. A complementary report structured according to the Global Reporting Initiative G4 framework completes the information presented in this annual report.

to workers: internal social security (1878), the eight hours working day (1897), and paid holiday (1913). For the past 150 years Solvay has also been developing a culture of safety and social dialogue. It was one of the first groups to engage in social dialogue at a European and then a global level. This vision is still guiding the way the Group conducts business through Solvay Way, its sustainability approach. Today, its social practices are one of its strengths, positioning the Group as a leading player in Corporate Social Responsibility (CSR).

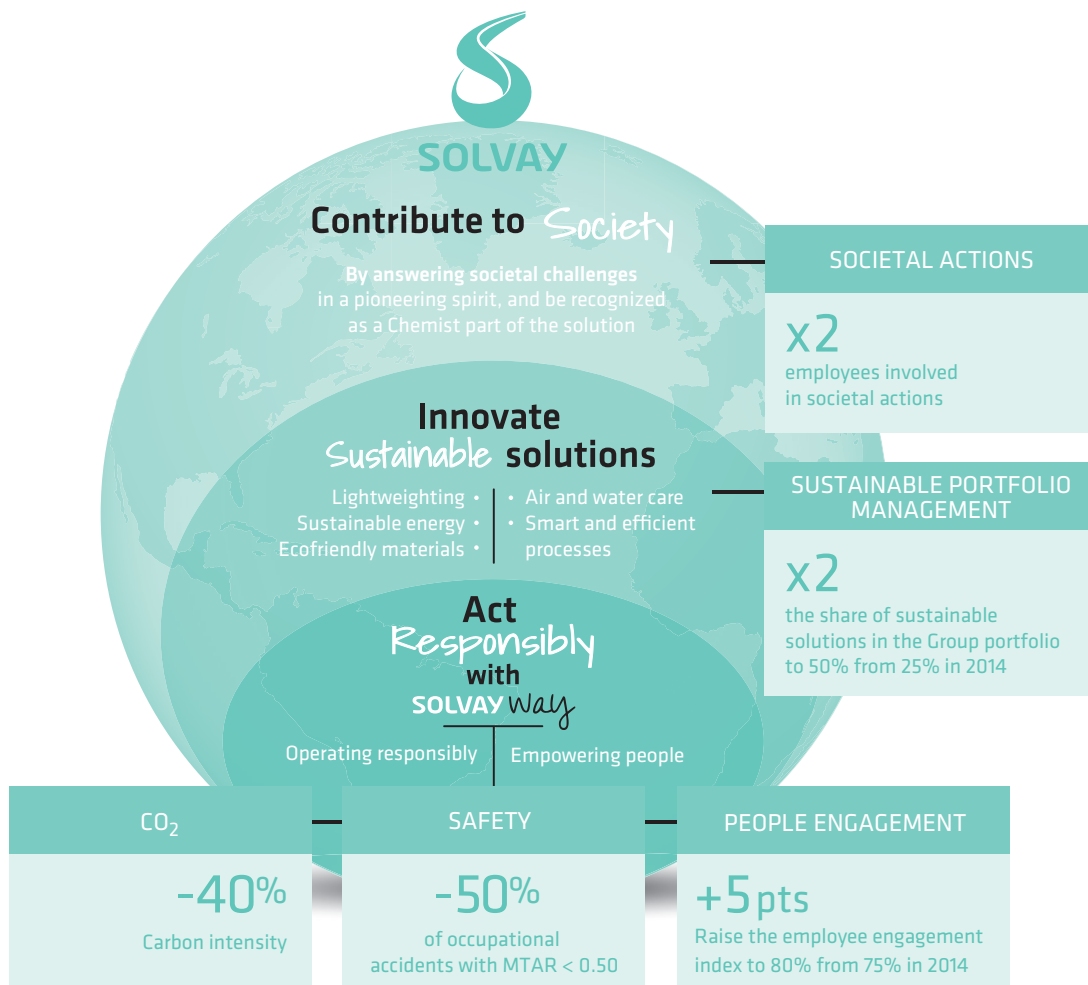
### 1.1 Sustainability at the heart of the Group's culture

#### 1.1.2 Sustainability ambition and priority targets for 2025

#### 1.1.1 150 years of history


Solvay's culture of responsibility is part of its historical identity. The Group has pioneered a number of initiatives that have been beneficial


Solvay has defined five priority targets in order to guide each entity on common objectives to reach the Group's sustainability ambition.




## 1.2 Voluntary external commitments

Solvay has set voluntary external commitments:

- 

**For a responsible chemical industry:** Solvay is committed to the “Responsible Care®” World Charter. This global chemical industry initiative aims to achieve continuous improvement in the safe handling of chemical substances from their initial development to their final use.
- 

**For human rights:** Solvay participates in the UN Global Compact and is committed to upholding its principles, thus contributing to the emergence of a sustainable and inclusive global economy which delivers lasting benefits to people, communities and markets.
- ISO 26000

**For a global standard in sustainability:** Solvay uses the voluntary international standard ISO 26000 on social responsibility as its point of reference. This standard provides guidelines for organizations to operate in a socially responsible manner. Solvay Way incorporates the requirements of this international standard.
- 

**For a responsible dialogue:** on December 17, 2013, Solvay signed a Corporate Social and Environmental Agreement for the whole Group with IndustriALL Global Union. This agreement, one of the first of its kind in the chemical industry, gives tangible expression to Solvay’s determination to ensure that basic labor rights and the Group’s social standards in the areas of health, safety and environmental protection are respected on all of its sites. This agreement applies to all Solvay employees. Every year, a Solvay site is assessed to ensure the commitments made by the Group are being applied correctly at a grassroots level, based on International Labor Organization (ILO) standards and the principles of the United Nations Global Compact (UNGC).

To ensure compliance with the IndustriALL Global Union Agreement by all employees, it has been integrated in the Solvay Way reference framework, as an employee practice, and each year Solvay Way assessment evaluates how well it is deployed and understood.
- European Pact for Youth

**For improving young people’s chances of employment:** at the Enterprise 2020 Summit, the European Commission and business leaders including Mr. Jean-Pierre Clamadieu, CEO of Solvay, launched the “European Pact for Youth” to create 10,000 partnerships between business and education to boost young people’s chances of employment. The initiative aims to improve the quality of training and skills that young people can acquire including transversal, digital, entrepreneurial, green and soft skills.

### FOCUS:



#### Global commitment on climate change

In the frame of COP21, Solvay participated to several initiatives, such as:

- launching the business dialogue, convened by the COP Presidency for high level exchanges between business and governments, and promoting stepped-up climate action in partnership between countries and the private sector in numerous occasions such as the high level event of the UN General Assembly and the Business Climate Summit;
- fostering establishment of carbon pricing worldwide and convergence of emissions trading schemes to stimulate low carbon investment decisions and emission reductions globally, by joining the Carbon Pricing Leadership Coalition and adopting the Business Leadership Criteria on Carbon Pricing of the Global Compact. Solvay has also decided to set an internal carbon price applicable to all investment decisions from January 1, 2016;
- collaborating in the forward-thinking Low Carbon Technology Partnerships initiative led to accelerate the development and large-scale deployment of key low-carbon technologies, led by WBCSD;
- signing the Open Letter from Global CEOs to World Leaders Urging Concrete Climate Action; the open letter to the European Council, European Commission and European Parliament from CEFIC; the message from Belgian stakeholders in support of the COP21, the Paris Pledge; and the French Business Climate Pledge with 38 other business from all sectors operating in France.

### 1.3 Towards integrated reporting

#### 1.3.1 Materiality analysis process

Solvay has fully reviewed its materiality analysis in 2014, using the Sustainability Accounting Standards Board (SASB) approach. The SASB approach has been selected because it offers an initial exhaustive, validated list of material issues and then three tests for issues prioritization: evidence of interest, evidence of financial impact and forward looking impact.

The Sustainable Development Function coordinated the analysis, involving the network of champions in GBUs and Functions. The work was reviewed by experts in the main Corporate Functions; and the full list of material issues was again reviewed with each of the experts. Particular attention was paid to cross-checking the analysis with the work done by the Risk Management Function to ensure consistency with the Group's risk map: effective monitoring and management of risks is key to achieve Solvay's sustainability objectives. The list of high materiality issues was again updated to take this review into account. Lastly, the analysis was compared to the SASB's draft "Chemicals Sustainability Accounting Standard"

published in October 2014 and again to the provisional standard published in March 2015.

As a result of this analysis, 12 issues have been identified as highly material and indicators were selected for each high materiality issue.

#### 1.3.2 2015 update

The materiality analysis was revised in 2015 and one additional high materiality issue has been added to ensure consistency with the Group's vision (Community Engagement). The list of priorities now includes five priorities selected from the high materiality issues. New long-term targets have been defined for each of the five priorities.

The wording of the material issues has been kept consistent with the SASB Materiality Map™, unless the Group's Executive Committee has made a decision to do otherwise with a view to broadening the scope of some material issues. For example, the high materiality issue labelled "Employee Engagement and Wellness" includes issues that are labelled "Labor Relations" and "Fair Labor Practices" in the SASB Materiality Map™.





















#### SOLVAY MATERIALITY ANALYSIS

	ENVIRONMENT	SOCIAL CAPITAL	HUMAN CAPITAL	BUSINESS MODEL AND INNOVATION	LEADERSHIP AND GOVERNANCE
Priority topics	Greenhouse gas emissions	Community development	Employee health and safety	Sustainable business solutions	
			Employee engagement and wellness		
High materiality topics	Air quality	Customer satisfaction			Management of the legal, ethics and regulatory framework
	Energy management				
	Environmental accidents and remediation				
	Water and wastewater management				
	Hazardous materials management				Process safety, emergency preparedness and response
Moderate materiality topics	Fuel management	Access and affordability	Diversity and inclusion	Environmental, social impacts on assets and operations	Systemic risk management
	Waste management and effluents	Data security and customer privacy	Recruitment, development and retention	Product packaging	Regulatory capture and political influence
	Biodiversity impacts	Fair disclosure and labelling	Compensation and benefits	Product quality and safety	Materials sourcing
		Fair marketing and advertising			Supply chain management



### 1.3.3 How Solvay supports the UN Sustainable Development Goals

As a member signatory of the UN Global Compact, the Group is already implementing the UN Sustainable Development Goals (SDGs) in its daily business with its products and solutions. Solvay's high materiality issues are in line with the SDGs. The SDGs icons indicate important information for the reader. The sections with SDG icons show how they are implemented by Solvay.

SOLVAY'S HIGH MATERIALITY ISSUES	ARE CONSISTENT WITH	SUSTAINABLE DEVELOPMENT GOALS
<ul style="list-style-type: none"> <li>Community development</li> <li>Customer satisfaction</li> <li>Employee health and safety</li> <li>Employee engagement and wellness</li> </ul>	 <p><b>PEOPLE</b></p>	      
<ul style="list-style-type: none"> <li>Greenhouse gas emissions</li> <li>Air quality</li> <li>Energy management</li> <li>Environmental accidents and remediation</li> <li>Water and wastewater management</li> <li>Hazardous materials management</li> </ul>	 <p><b>PLANET</b></p>	     
<ul style="list-style-type: none"> <li>Sustainable business solutions</li> <li>Management of the legal, ethics and regulatory framework</li> <li>Process safety, emergency preparedness and response</li> </ul>	 <p><b>PROFIT</b></p>	   

### 1.3.4 Stakeholders' engagement

In 2015 Solvay focused on stakeholders' engagement, using the Group's existing stakeholders' engagement channels.

#### Investors

The materiality analysis was presented to a specific group of investors: descendants of the founding families of the Solvay group,

who currently represent the largest group of investors. Solvay used a dedicated social media platform to present the analysis, submitting a questionnaire that asked them to rank material issues (priority-high-moderate-low) as listed by the SASB in their materiality approach. Based on this feedback, the most important materiality issues for this specific group of investors are as follows:

#### HIGH MATERIALITY ISSUES FOR THE FOUNDING FAMILIES

Category	High materiality issues
<b>Environment</b>	Energy management Environmental accidents and remediation Water and wastewater management Hazardous materials management Waste management and effluents
<b>Social Capital</b>	Customer satisfaction Customers health and safety
<b>Human Capital</b>	Employee health and safety Child and forced labor
<b>Business Model and Innovation</b>	Sustainable business solutions Product quality and safety Product life cycle use impact
<b>Leadership and Governance</b>	No high materiality issues

Most of the issues listed as high materiality by this group of investors are already included in our own analysis. This feedback will be compared to the feedback from other stakeholders, before being used as input for the annual updates to the Group's materiality analysis.

The questionnaires received from investment funds in 2015 were related to the Group's position on climate and energy policies and to the management of endocrine disruptors. Both topics are already included in the priority issues selected by the Group.

#### FOCUS:

##### Regarding Solvay's sustainability reporting

In 2015, the Belgian Association of Financial Analysts ranked Solvay first in both "Best Non-Financial Information 2015" and "Best Financial Information 2015". The Belgian Institute of Registered Auditors awarded Solvay "Best Belgian Sustainability Report" in the "large corporations" category.

**Employees**

The materiality analysis of the Group has been presented to the Sustainable Development Commission for the Group's European Works Council. Analysis is still going on at the time of publication of this report.

**Planet**

Feedback from the "Planet" stakeholders (governments and non-governmental organizations) has been dominated by two main events in 2015: preparation for the COP21 conference and publication of the United Nations Sustainable Development Goals.

**Communities**

The "Community Development" chapter of this report, includes examples of actions initiated locally, around our sites, within the framework of local community engagement.

**Customers**

No engagement actions specific to the materiality analysis have been initiated in 2015.

**Suppliers**

No engagement actions specific to the materiality analysis have been initiated in 2015.

Company's management and strategy, with the objective of creating value. It takes into account society's changing expectations, requiring industry to develop technologies, processes, products, applications and services that are in line with the objectives of sustainable development.

Solvay's commitment to sustainable development and social responsibility applies to all life cycle stages of its products - including design, manufacturing, product applications, end-of-life and use of resources - and the social consequences of their manufacture or use.

Solvay develops and maintains a permanent dialogue with its stakeholders and their representatives, on issues of sustainable development. The discussions are based on the will to innovate and move forward together as well as to develop specific partnerships. Contracts are prepared, negotiated and executed by Solvay to reflect the Group's sustainable development policy. Solvay Way practices are reviewed each year by external partners and the Sustainable Development Function implements the findings and conclusions to achieve progress. Progress of maturity in Enterprise Risk Management is one of the Solvay Way practices.

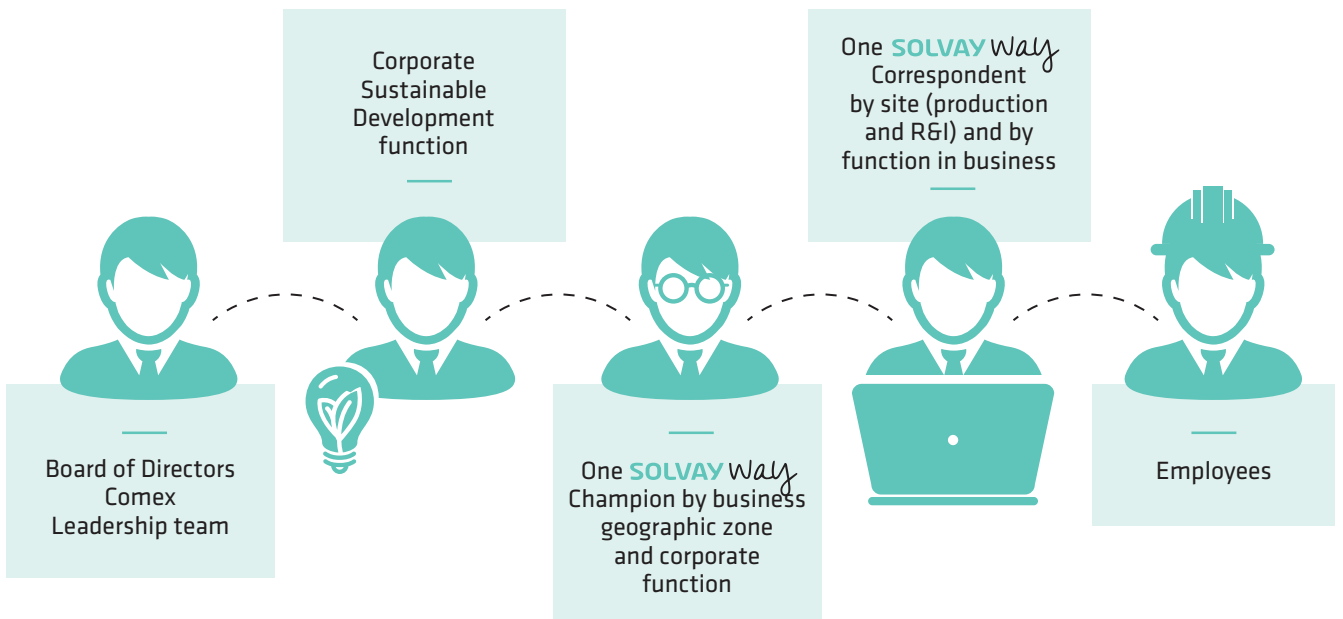
Coordinated by the Sustainable Development Function, Solvay Way is monitored by a global network of more than 200 "Champions" and "correspondents" who ensure its active deployment within the GBUs and the functions. The Sustainable Development Function is responsible for supervising the approach on behalf of the Group. It coordinates the work carried out by this global network and reports directly to the CEO.

**1.4 Solvay Way's approach and management**

**1.4.1 Solvay Way: the way of doing business**

Solvay Way is the Group's approach to sustainability. It integrates social, societal, environmental and economic aspects into the

**I SOLVAY WAY NETWORK**



### 1.4.2 Solvay Way: driving improvement

The Solvay sustainability commitments and objectives are reviewed based on progress, the evolution of standards and the needs of stakeholders and lessons learned from self-assessments, internal and external audits and exchanging ideas about best practices.

Solvay Way is based on a reference framework divided into six stakeholders (customers, employees, investors, suppliers, communities and the planet), to whom the Group has made 22 commitments broken down into 49 associated practices. This reference framework helps each Solvay entity to conduct yearly self-assessments of its practices in order to identify its strengths and weaknesses and to develop an appropriate improvement plan.

#### SOLVAY WAY: OUR SUSTAINABILITY APPROACH



Each year, all Solvay production sites, Business Units and research centers, purchasing, finance, legal, public affairs, strategy and human resources departments assess their practices in terms of Corporate Social Responsibility. The network of Solvay Way champions and correspondents play a key role by ensuring deployment of the process, by motivating their colleagues to fulfill precise objectives, and by setting action plans to improve their processes and practices.



The annual self-assessment results, using the Solvay Way analysis grid and scoring system, enable every entities to measure the progress achieved. The Sustainable Development Function consolidates this assessment data and presents the results to the Executive Committee and the Board of Directors.

To learn more, please refer to the 2015 Complementary annual report on Sustainable Development informations

### 1.4.3 Solvay Way integrated in the management processes

To ensure rapid progress, the Group has integrated the goals of a more sustainable development into all its managerial processes. This is the best approach to ensure the commitment of every employee to fulfill the Group's commitment at every stage of the business cycle and in all stakeholder relationships.

HOW SUSTAINABILITY IS INTEGRATED INTO SOLVAY DECISIONS PROCESSES

	Group dimensions structured by policies or processes	Integrating sustainability in this way:
 <b>PEOPLE MANAGEMENT</b>	<b>GROUP CULTURE</b> <ul style="list-style-type: none"> <li>• People and Management model</li> <li>• Code of Conduct</li> </ul>	Is integrated in <b>SOLVAY Way</b> practices
	<b>COMPENSATION POLICY</b> <ul style="list-style-type: none"> <li>• 10% of the variable remuneration for the CEO and the 7500 managers of the Group</li> <li>• 10% of the Plan named "Global Profit Sharing" for every employee</li> </ul>	Is linked to <b>SOLVAY Way</b> results
 <b>BUSINESS CYCLE</b>	<b>1 YEAR OUTLOOK</b> <ul style="list-style-type: none"> <li>• Current products (portfolio and processes)</li> <li>• Future spending (innovation, acquisitions)</li> </ul>	Are analyzed by <i>Spm</i> and results are challenged Sustainability integration level is assessed through <b>SOLVAY Way</b>
	<ul style="list-style-type: none"> <li>• Control &amp; monitoring</li> </ul>	<b>SOLVAY Way</b> assessments & <i>Spm</i> analysis are audited
	<b>5 TO 10 YEARS OUTLOOK</b> <ul style="list-style-type: none"> <li>• 5-year business strategic plan</li> </ul>	The <i>Spm</i> target and Group's priority targets performance are challenged
	<ul style="list-style-type: none"> <li>• Risk management</li> <li>• Integrated reporting &amp; thinking</li> </ul>	Are integrated in <b>SOLVAY Way</b>

**Legend:** The CSR bonus structure reflects both individual and external recognition. The first part is linked to the improvement of the Solvay Way profile in each entities. The other part depends of the Group's level of recognition by extra-financial rating agencies.

## 2 Sustainability performance

### 2.1 Social and environmental consolidation scope

Unless otherwise stated, all social and environmental indicators are reported at the financial perimeter. The extra-financial reporting is fully consistent with the Group's financial consolidation scope which includes 145 sites and 26,350 employees (25,540 full time equivalent). CYTEC is not included in this consolidation scope. The 2015 financial consolidation scope is available from page 202 to 203 of this report. The Chemlogics entity, acquired in 2013 (3.3% of the turnover in 2015) has not been integrated in the reporting of environment and Energy & CO2 indicators.

#### Remark on historical emission figures

For past years (2012-2014), figures related to environmental emissions may differ from figures published in Solvay's 2014 reports. This is due to corrections aimed at improving the fit with the financial perimeter. In particular, environmental data from SolVin and Chlorchemicals were re-introduced in the 2012 totals, and consolidation of the two plants in Devnya (Deven, Sodi, Bulgaria), were slightly modified for all years.

Where relevant, data are also reported at the operational perimeter, which consolidates all activities under operational control even if not financially consolidated.

Unless specifically stated, CYTEC is not included in the indicators reported.

Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain".

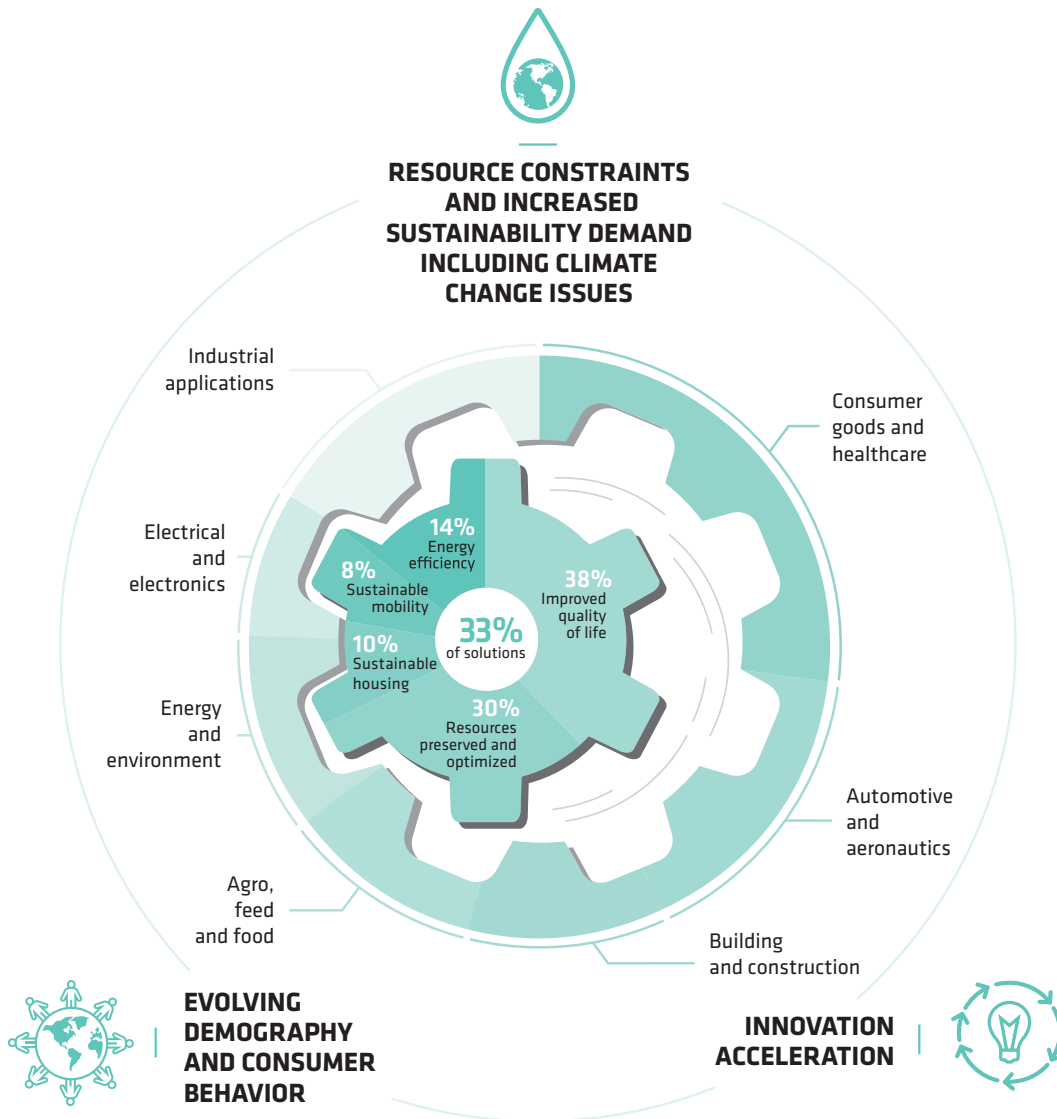
Greenhouse gas (GHG) emissions are reported in accordance with the World Business Council for Sustainable Development "Guidance for

Emissions type	Scope	Definition
Direct emissions	Scope 1	Emissions from operations that are owned or controlled by the reporting company.
Indirect emissions	Scope 2	Emissions from the generation of purchased or acquired energy such as electricity, steam, heating or cooling, consumed by the reporting company.

## 2.2 Sustainable business solutions performance

The Sustainable Portfolio Management (SPM) tool is the compass of the Group to set target for more sustainable business, measure the progress, steer the portfolio and inform businesses and top management in their decision making.

### FROM GLOBAL MEGATRENDS TO SUSTAINABLE BUSINESS SOLUTIONS



■ Solvay markets ■ SPM benefits ○ In 2015, 33% of Solvay turnover brings sustainable solutions to the market.

For more details on SPM benefits, the reader is referred to the 2015 Complementary annual report on Sustainable Development informations.

### 2.2.1 How the methodology works

The SPM methodology was designed in-house in 2009 and developed further with the support of two recognized consultancies, Arthur D. Little and TNO. This methodology provides a fully consistent assessment of the sustainability contribution of our products in their specific applications, with a strong Life Cycle Thinking focus. SPM relies on Life Cycle Assessment, with a cradle-to-gate scope measuring the environmental footprint of the manufacturing, and on a detailed and precise questionnaire, with a cradle-to-cradle scope, measuring the alignment with market expectations.

The uniqueness of the SPM tool is to consider both axis:

- the environmental manufacturing footprint and its correlated business risks and opportunities, and;
- the marketplace and how a product faces in its specific applications the sustainability challenges.

The first aspect is pondered through the environmental footprint indicator. It evaluates any potential financial risk posed by the “polluter pays for the damage” principle. The basic evaluation begins with a classic eco-profile calculation (ISO 14040 to 44). The environmental impacts are monetized, using “shadow prices” reflecting the long term cost to society of each environmental

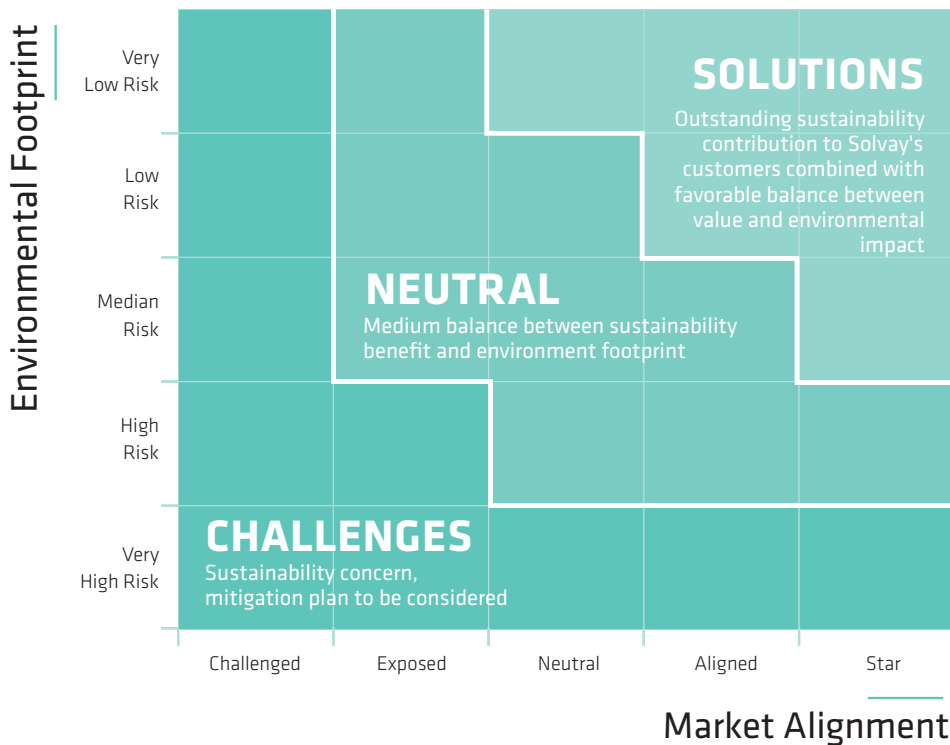
impact, as communicated by authoritative sources (TNO, International Energy Agency). The monetized environmental impact of each product is compared to the average sales price in that application. These ratios are then classified by increasing risk, from Very Low Risk to Very High Risk, relative to the average of the Group in 2013.

The other aspect is evaluated through the market alignment indicator. It addresses the sustainability dimension of megatrends in the marketplace. The approach is to anticipate accelerated growth for a product because it is an active component of the sustainable solutions, as the market demands.

To be considered as a part of the “solutions”, products must serve in an application that demonstrates a direct, significant and measurable benefit to the society at large. They must not exhibit any sustainability concern and have a low environmental manufacturing footprint. If a sustainability roadblock is identified, or if its environmental manufacturing footprint is too high, then, the Product-Application Combination (PAC) will be ranked in “challenges”.

The result of the SPM analysis are presented by a heatmap showing the revenue breakdown by Solutions, Neutral and Challenges categories.

#### SPM HEATMAP



### 2.2.2 SPM closely embedded in key Group processes

The Sustainable Portfolio Management methodology is owned by the Corporate Sustainable Development Function, managed by a small team of experts and deployed in close cooperation with Business and other functions. It serves as a strategic tool to develop fact-based information required for more robust strategies because they incorporate the sustainability dimension in business activities:

- the SPM methodology is integrated into the Solvay Way framework and serves as a tool to measure the maturity of organizations with regard to integrating sustainability in business practices;
- the SPM profile is an integral part of the strategic discussions that each of the GBUs holds with the Executive Committee. The SPM bridge, integrated in the GBU's Business Strategic Review, is consistent with the Financial bridge, including timeframe;
- decisions about investments (capital expenditure above € 10 million and acquisitions) made by the Executive Committee or the Board of Directors include a sustainability challenge that encompasses an exhaustive SPM analysis of the contemplated investment;
- the SPM work plan is discussed each year between each GBU and the Sustainable Development Function. Priorities and workloads are defined based on the results of the SPM evaluation of the previous year and include any new elements in the marketplace, regulations, etc. The evaluations are carefully prepared in close consultation with the Solvay Way champion of the GBU and are carried out during workshops with GBU experts in strategy, industrial, product stewardship, marketing and technical services.

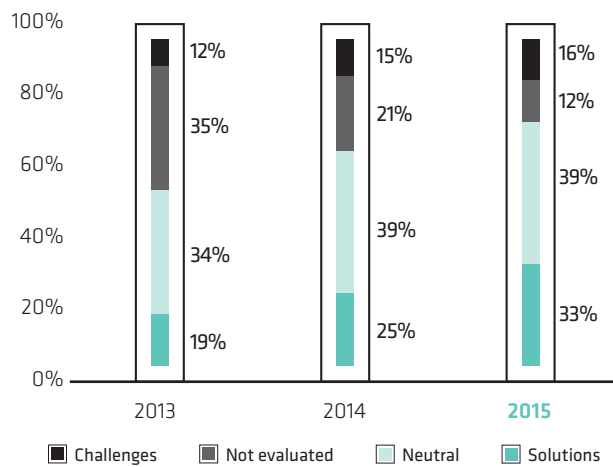
### Assessment results per category – Product portfolio

Solvay has defined new targets for the five priorities selected within high materiality issues, including SPM. The former target was only focusing on the market alignment axis. This new target requires progress on both axis: market alignment and environmental footprint from manufacturing.

#### Solvay's 2025 priority target:

- Generate at least 50% of the Group consolidated revenue in Sustainable Solutions.

### REVENUE BREAKDOWN BY SPM HEAT MAP CATEGORIES



**Legend:** Revenue breakdown by SPM Heat Map categories. All figures expressed in line with Solvay perimeter on December 31<sup>st</sup> of the given year.

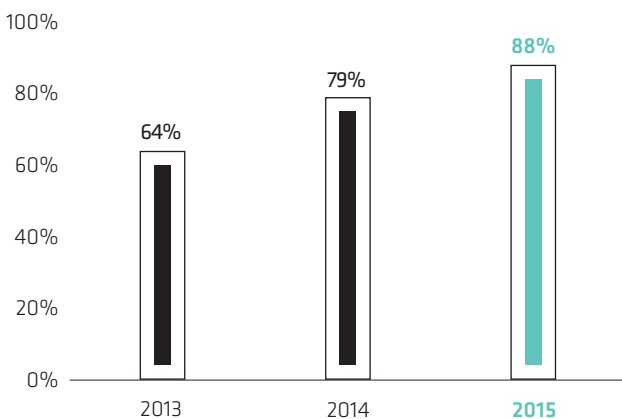
**Perimeter:** The perimeter considered by SPM encompass all companies detained by Solvay, at their detention rate.

### 2.2.3 Results of the SPM analysis

#### Assessment scope and planning – Product portfolio

By the end of 2015, 88% of the Solvay group's turnover had been assessed with SPM methodology.

#### SOLVAY'S TURNOVER ASSESSMENT



**Legend:** SPM penetration rate expressed as the ratio of the turnover assessed with the SPM methodology to the total turnover in perimeter at the given year.

**Perimeter:** The perimeter considered by SPM encompass all companies detained by Solvay, at their detention rate.

By end 2015, the assessed portfolio encompasses 33% of Product-Application Combinations in the "Solutions", in significant progress in comparison to the previous year (up 8%).

This improvement consists in:

- 3%, from change in perimeter (Inovyn);
- 2%, from non-recurring quick wins;
- 3%, from innovation programs aiming at developing more sustainable business.

This objective balances the ambitious transformation program of the Group on one hand, and anticipated increasingly more sustainable regulations and buying behaviors from our customers and the consumers, on the other hand.

Solvay's former SPM target, set in 2012, was to achieve 20% of revenue with "Product-Application Combinations" (PACs) in the "Star" category by 2020. The star category, in the Market Alignment axis, represents the PAC for which there are positive signals, in line with sustainability trends in the marketplace, with anticipated double-digit growth. In 2015, the assessed portfolio encompasses 10% of this category.

#### External validation

Over the last two years, in-depth verification of the Market Alignment results covering 291 Product-Applications Combinations (PACs) has been carried out by Arthur D. Little, our partner in



developing and improving the SPM methodology. Arthur D. Little reaches:

- the same conclusion for 225 PACs;
- a more negative conclusion for 10 PACs, which has been endorsed by Solvay;
- a more positive conclusion for 6 PACs, which has been endorsed by Solvay;
- no final conclusion for 50 PACs, still under review.

Agreed results are integrated in the following year. The impact of the correction is negligible.

### FOCUS:

#### Towards a reference framework for Active Portfolio Management

**Solvay co-chairs two coalitions that are instrumental in setting the industry reference framework for Active Portfolio Management:**

- WBCSD's Portfolio Sustainability Assessment initiative aims at creating a high standards and common framework for the steering of product portfolio on sustainability criteria;
- TNO's joint research program on Sustainable Chemical Product Performance aims at setting a reference methodology for measuring product performance, with a strong scientific background.

## 2.2.4 Business cases

### FOCUS:

#### Promoting sustainable salmon farming with PARAMOVE®

The human population of the world is expected to reach 8 billion by 2024. One of the biggest challenges society faces is to feed more people with limited resources. To meet the growing demand for food, many consider aquaculture to be the most sustainable way to produce animal protein. Around half of the fish consumed in the human food chain today is grown on fish farms and this figure is expected to grow to 75 percent by 2025.

In salmon farming, there are a number of diseases that can kill the fish if left untreated. Solvay offers the PARAMOVE® system, a solution for the control of sea lice, the main concern of farmers. The main benefits of PARAMOVE® are that it quickly removes the parasites leaving only oxygen and water in the environment, and leaves no residue in the fish itself. The Aquaculture Stewardship Council (ASC) certified farms are therefore not limited in the number of treatments that can be given, unlike other non-peroxide medicines. Salmon producing companies covering more than 50% of global production have already committed to get their farms ASC certified by 2020 through the Global Salmon Initiative (GSI).

For more details about the ASC, see <http://www.asc-aqua.org/>



### FOCUS:

#### Soda ash in double window glazing

Addressing the climate change issue goes along with a lower demand for energy that still is nowadays massively from fossil origin.

Soda ash use decreases massively the energy that is required to produce glass by lowering significantly the temperature of the melting point. Soda ash is used in the manufacturing of the most prevalent type of glass (90% of glass), namely the soda-lime glass, which is relatively inexpensive, chemically stable, reasonably hard, and extremely workable. This soda-lime glass is capable of being resoftened and remelted numerous times, making it the best choice for glass recycling too.

Soda ash halves the demand for energy in glass manufacturing, and glass itself serves as energy saver for housing: until it will be recycled, emission of millions of tonnes of CO<sub>2</sub> will have been avoided during the lifetime of double and triple glazing windows (source TNO Report 2008-DR1240/B by TNO Built Environment and Geosciences, Delft, The Netherlands: "... more than 100 million tonnes of CO<sub>2</sub> could be achieved annually if all Europe's buildings were fitted with advanced energy saving glass").



### FOCUS:

#### OPTALYS® in Gasoline Depollution

Vehicles are major contributors to air pollution. The largest part of combustion gas is neither toxic nor noxious: nitrogen (N<sub>2</sub>), water vapor (H<sub>2</sub>O), and carbon dioxide (CO<sub>2</sub>), although the later contributes to global warming. A relatively small but still too high part of combustion gas (about 1%) is noxious or toxic: carbon monoxide (CO), unburnt hydrocarbons (HC), nitrogen oxides (NO<sub>x</sub>) and particulate Matter.

Solvay's OPTALYS® products comprise Cerium (a rare earth) & Zirconium oxides, which enhance the destruction of those pollutants in three-way catalytic converters.

Internal combustion engines cannot be optimized for highest fuel efficiency and lowest emissions, at the same time. Modern cars operating conditions of the engine are optimized for fuel efficiency and air pollutants are neutralized in three-way catalytic converters, where OPTALYS® products play their role for the air quality.



## 2.3 Environment performance



### 2.3.1 Greenhouse gas emissions

In November 2015, Solvay has set a new long-term objective regarding greenhouse gas emissions: to reduce its carbon intensity by 40% by 2025. Furthermore, as of January 1, 2016, Solvay will apply an internal price for CO<sub>2</sub> emissions at € 25 per tonne, to take into account climate challenges in its investment decisions.

An externally verified and structured greenhouse gas emission reporting system and the response to rating agencies such as the Carbon Disclosure Project helps the Group to align its efforts on the effectiveness of its greenhouse gas challenges.

#### Definition of indicators for greenhouse gases (GHG)

The greenhouse gases emissions reported by Solvay correspond to the scope of the Kyoto Protocol and comprise the following compounds or compound families: CO<sub>2</sub>/N<sub>2</sub>O/CH<sub>4</sub> /SF<sub>6</sub>/HFCs and PFCs. To calculate the impact on climate change, the greenhouse

gas emissions are converted from tonnes to the CO<sub>2</sub> equivalent using the Global Warming Potential (GWP) of each gas as published by the Intergovernmental Panel on Climate Change (IPCC) in its fifth Assessment Report.

The indicator takes into account:

- the direct emissions for each GHG released from Solvay's industrial activities (Scope 1 of Kyoto Protocol);
- for CO<sub>2</sub>, the reporting of direct emissions, including emissions from the combustion of all fossil fuels as well as process emissions (*e.g.* thermal decomposition of carbonated products, chemical reduction of metal ores);
- the indirect CO<sub>2</sub> emissions related to the steam and electricity purchased from third parties (Scope 2 of Kyoto Protocol);
- the convention adopted for CO<sub>2</sub> emissions related to acquired electricity, as specified in the contract with the supply chain, or power supplier; or the national CO<sub>2</sub> factor published by the International Energy Agency or for the USA, the state's CO<sub>2</sub> factor as published by the United States Environmental Protection.

### GREENHOUSE GAS EMISSIONS (SCOPE 1 AND 2)

		2015	2014	2013	2012
Direct and indirect CO <sub>2</sub> emissions (Scope 1 & 2)	Mt CO <sub>2</sub> eq.	11.6	11.7	12	11.8
Other greenhouse gas emissions according to Kyoto Protocol (Scope 1)	Mt CO <sub>2</sub> eq.	2.6	2.7	2.7	2.6
Total greenhouse gas emissions (Kyoto protocol)	Mt CO <sub>2</sub> eq.	14.2	14.4	14.7	14.4
Other greenhouse gas emissions not according to Kyoto Protocol (Scope 1)	Mt CO <sub>2</sub>	0.1	0.1	0.1	0.1

**Perimeter:** related to the manufacturing activities of the companies that are currently consolidated (fully or proportionately), Chemlogics excluded.

### Greenhouse gas intensity

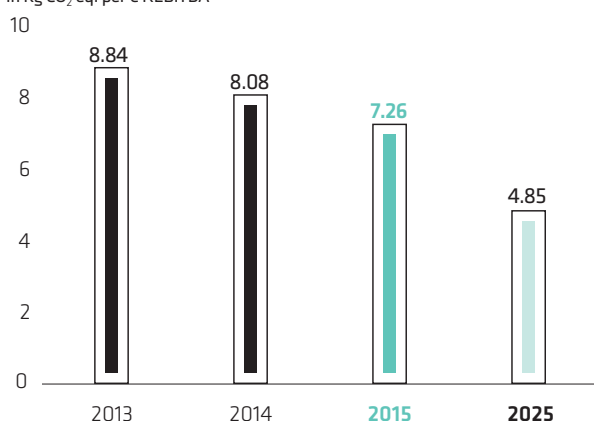
#### Solvay's 2025 priority target:

- to reduce its greenhouse gas emissions intensity by 40%.

Solvay commits by 2025 to reduce CO<sub>2</sub> intensity of its operations by 40%, that is, its greenhouse gas emissions per added value euro (using the REBITDA as proxy of added value).

### GREENHOUSE GAS INTENSITY

in Kg CO<sub>2</sub> eq. per € REBITDA



**Perimeter:** related to the manufacturing activities of the companies that are currently consolidated (fully or proportionately), Chemlogics excluded. The REBITDA does not take into account CYTEC.

Solvay's former greenhouse gas reduction target was to reduce greenhouse gas emissions by 10% for 2020 at a constant perimeter and volume (baseline 2012). Since 2012, the Group has reduced its GHG emissions by 5% at a constant activity perimeter.

Key achievements:

- in the trona mine at Green River (United States), partial recovery of the methane emitted during extraction of the trona and its combustion has avoided emissions equivalent to 100,000 tonnes of CO<sub>2</sub> eq. per year since 2011. Since 2012 a portion of the heat from the combustion of the recovered methane has been used in the manufacturing process, bringing additional energy and CO<sub>2</sub> savings;
- in Brazil, Solvay has developed and operates a biomass-fired cogeneration unit using sugar cane bagasse.



## 2.3.2 Energy management

### Solvay's 2020 target\*:

- to reduce the energy consumption by 10% (1.3% per year on average).

\* Base 2012 at constant activity perimeter.

To achieve this ambitious objective, Solvay will step up its SOLWATT® energy efficiency program, continuously optimise its industrial processes, develop clean technologies and increase the share of renewables in its energy production and supply.

Ensuring long-term energy supply is also a constant concern. Diversifying energy sources and developing alternatives to fossil fuels wherever sustainable in ecological, economic, industrial, and social terms is a strategic goal. Concrete steps have been taken in the form of large technical investments such as the recent purchases of two cogeneration units, one in Spinetta (Italy) and one in Massa Carrara (Italy) or the construction of the cogeneration unit in Oldbury (United Kingdom).

### ENERGY CONSUMPTION (PETAJOULES LOW HEATING VALUE)

	2015	2014	2013	2012
Energy consumption	175	179	181	179

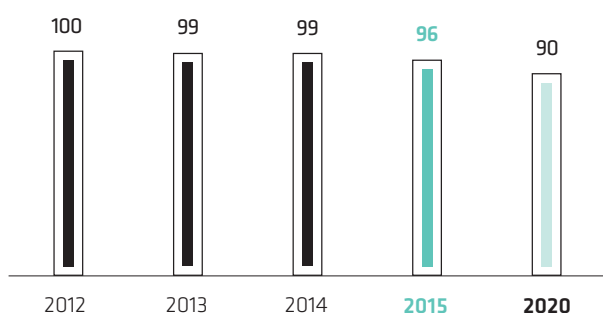
**Perimeter:** this indicator shows the primary energy consumption over a given year related to the manufacturing activities of the companies that are currently consolidated (fully or proportionately).

### Energy intensity

The energy intensity covers primary energy from fuels (coal, natural gas, fuel oil, etc.) and from purchased steam and electricity.

### ENERGY EFFICIENCY INDEX

Baseline 100% in 2012



**Legend:** energy index at constant activity perimeter reflects the change in energy consumption on a comparable basis after adjusting the historical perimeter to take into account perimeter changes and making adjustments for changes in production volumes from one year to the next.

### Definition of indicators for energy

Energy consumption is made up of three components:

- primary fuels (coal, natural gas, fuel oil, etc.). The primary fuels are used for internal production of steam, electricity and mechanical energy; and in manufacturing processes (coke in lime kiln, gas in dryers, etc.);
- purchased steam;
- purchased electricity.

These three components are converted into primary energy, with the following conventions:

- fuels, using the net calorific values;
- steam purchased assuming an efficiency of 90% based on the net calorific value of the fuels used for its generation;
- electricity purchased assuming an average efficiency of 39.5% for all types of power production except for nuclear power (33%), based on net calorific value (source IEA).

### Reduction of energy consumption

In 2015, within the SOLWATT® project, energy performance contracts were signed between Solvay Energy Services and the other GBUs to ensure that the findings of the energy audits are implemented. Three parallel approaches are being followed:

- improving the generation efficiency of secondary energies like steam and electricity by developing the use of high efficiency cogeneration plants. In 2015, a new cogeneration unit based on a gas-fired engine was put into operation in Oldbury (United Kingdom) to replace conventional boilers. New cogeneration projects are now being considered in Europe, in the United States and in India;
- SOLWATT® program aims to identify and implement energy savings in existing manufacturing units, through technological improvements and management behavior. By the end of 2015, SOLWATT® has been gradually rolled out and covers almost all the Group's manufacturing sites;
- new or remodeled plants are optimized for energy consumption and generation.

For example, in 2015, the Soda Ash & Soda Ash & Derivatives GBU significantly enhanced the energy performances of soda ash plant in Devnya, Bulgaria with its breakthrough competitiveness plan. New cogeneration units as those in Map Tha Phut (Thailand), Ospiate (Italy) and Porto Marghera (Italy) are also being studied.



### 2.3.3 Air quality

Solvay has committed to improve the air quality at local and regional levels, in close relation with local stakeholders. The monitoring and targets focus on standard pollutants (acidifying gases, Volatile Organic Compounds (VOC), particulates, heavy metals, etc.).

#### Solvay's 2020 targets\*:

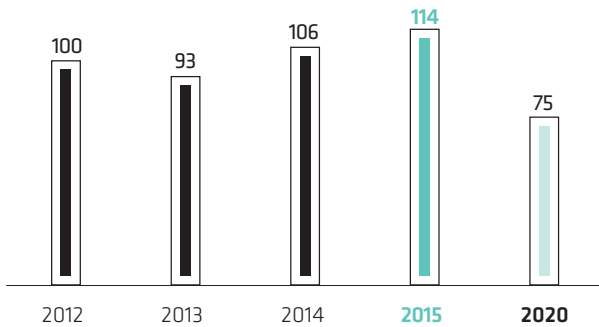
- to reduce airborne emissions of substances with acidification potential measured in SO<sub>2</sub> equivalents by further 25% (3.1% per year);
- to reduce airborne emissions of substances with Photochemical Oxidant Formation potential measured in Non Methane Volatile Organic Compounds (NMVOC) equivalents by further 10% (1.3% per year).

\* Base 2012 at constant activity perimeter.

### Air emissions

#### ACIDIFICATION EMISSIONS INDEX

Baseline 100% in 2012

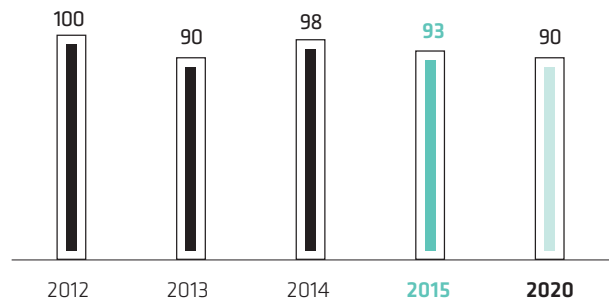


**Legend:** acidification emissions index at constant activity perimeter, according to ReCiPe v 1.08 - 2013.

**Perimeter:** Acidification emissions index at constant activity perimeter reflects the changes in acidification on a comparable basis after correcting the historical perimeter to take into account sites movements and introducing corrections for changes in production volumes from year to year.

#### PHOTOCHEMICAL OXIDANT FORMATION INDEX

Baseline 100% in 2012



**Legend:** photochemical oxidant formation index at constant activity perimeter, according to ReCiPe v 1.08 - 2013.

**Perimeter:** Photochemical oxidant formation index at constant activity perimeter (See definition above).

Absolute emissions	2015	2014	2013	2012
Acidification (tons equ. SO <sub>2</sub> )	27,330	25,405	26,848	29,852
Photochemical oxidant formation (tons equ. NMVOC)	19,329	20,360	18,745	19,980

The main impact categories (acidification emissions, Photochemical oxidant formation) are internationally recognized and calculated using the characterization factors published by ReCiPe, which is a compendium of legally recognized databases from the International Panel on Climate Change (IPCC), the World Meteorological Organization (WMO) and elsewhere.

#### Progress to targets

A large part of acidifying emissions stem from energy generation. The acidification impact is 114% of the 2012 baseline, against 106 % of the baseline in 2014. The increase during 2014 is mainly caused by the energy intensive Soda Ash & Derivatives activities, with increases in absolute emissions by + 2557 teq SO<sub>2</sub>, + 13.4% while production volumes increased by only 3.9%.

Notwithstanding the recent index increases, significant reductions are expected for 2017 and 2018 due to the scheduled start-up of

DeSO<sub>x</sub> and DeNO<sub>x</sub> units on the boilers of Tavaux (France) and Torrelavega (Spain). These projects should allow to catch up on the foreseen 2020 targets.

Progress since 2012 of the Photochemical oxydant formation index is dominated by the contribution of the Soda Ash & Derivatives business which decreased by - 1518 teq NMVOC (- 14.3%). By 2020, the index should be brought down to 90% of the 2012 baseline as several DeNO<sub>x</sub> units are planned to start-up by end 2018 with targeted NO<sub>x</sub> cuts by around 2000 t/y (equivalent to 2000 teq NMVOC).

#### Other air parameters

Sites have continued to improve other air quality parameters. For example, local prevention programs targeting nuisances like dust and odors are in place at 99 sites.



### 2.3.4 Water management

The Group's water policy consists of protecting the quality of water resources and limiting the need for fresh water withdrawals as much as possible. A Group 2020 overall target is being pursued that encompasses the site-specific targets in water areas. This target focuses on reducing the abstraction of groundwater because such abstraction is not returned to its original environmental source. This target also focuses on reducing the dependency on drinking water still used too often due to the absence of an alternative, lower quality, water source.

#### Water intake

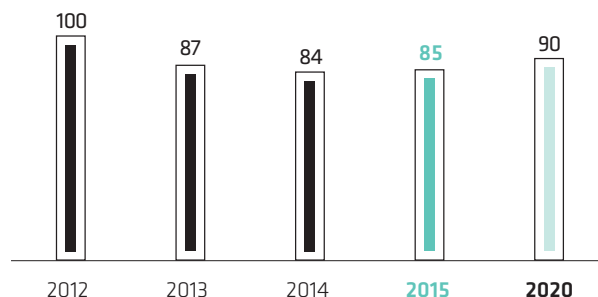
##### Solvay's 2020 target\*:

- to reduce by 10% withdrawal of groundwater and drinking water (1.3% per year).

\* Base 2012 at constant activity perimeter.

#### WATER CONSUMPTION INDEX

Baseline 100% in 2012



Legend: water consumption index at constant activity perimeter.

#### ABSOLUTE INTAKE

In 1,000 m<sup>3</sup>

	2015	2014	2013	2012
Groundwater and drinking water	194,330	186,726	198,386	242,136
Total water intake	616,274	626,757	654,617	762,638

Water management translates into numerous water-saving and recycling programs. The index for the intake of groundwater and drinking water stands at 84.7 % of the 2012 baseline. By the end of 2013, the achieved performance indicator for the "sum of drinking and groundwater" used had already reached the level of the Group's 2020 target.

However, progress were largely due to exceptional events such as temporary or permanent shutdowns of production units or small plants and requirements from authorities impacting on the water needs. More structural improvements are expected in the years to come due to water saving programs or business rationalizations. A new target will be defined in 2016

#### Sustainable management in water scarcity locations

##### Solvay's 2020 target:

- to implement sustainable water management at 100% of sites under water scarcity risk.

Particular efforts are being made to reduce freshwater withdrawals where there is a risk to water access either for Solvay or for other needs (domestic, agricultural, industrial or environmental). An internal study found there are currently 12 Solvay sites confronted with water scarcity risk.

	2015
Sites with a detailed water accounting	122
Sites with a confirmed water scarcity risk	12
<i>Sustainable water management in place in sites with water scarcity risk</i>	4 (33%)

Perimeter: Solvay financial perimeter plus all additional manufacturing sites under operational control.

#### Water saving programs continue

The following sites have programs underway that alleviate water consumption and reduce the dependency of operations on water at times when water is scarce. In particular, there is an action plan:

- to reduce water withdrawal in 20 sites;
- to use a water storage tank in 11 sites;
- to recycle wastewater from external companies' or third parties' wastewater treatment plants in 5 sites.

### 2.3.5 Environmental accidents and remediation



#### Preventing spills and protecting the subsoil

##### Solvay's 2020 target:

- 100% of sites with a Process safety management system corresponding to their risk hazard.

All the 132 industrial and R&I sites have or are developing an *ad hoc* Process Safety Management system (PSM) adapted to their risk level: classified from level 1 (low) to 3 (high), depending on their potential hazards. 96 sites already have a dedicated PSM system corresponding to their risk level, fully in place, representing a 84% compliance level.

#### Adapted risk analysis

Solvay has developed tiered risk analysis method for processes, adapted to the levels of potential hazard. This encompasses in particular a simplified method for conducting risk analysis on sections of chemical processes with low potential hazards. This method has been successfully implemented for soda ash processes with identification of low risks with at least seven sites within Solvay. This achievement is due to the high efficiency of the method, which was thus recognised and implemented by the Soda Ash & Derivatives GBU.

#### Incidents with environmental consequences

Since 2014, Solvay has classified and reported all process safety incidents resulting in environmental consequences according to a scale based on various criteria (volume of spills, nature of substances, etc.).

#### INCIDENTS WITH ENVIRONMENTAL CONSEQUENCES BY SEVERITY

	2015
Medium	54
High	0
Catastrophic	0

**Perimeter:** Solvay group manufacturing and R&I sites under operational control. The consolidated data for process safety incidents cover 99 sites out of a total of 132 operational sites, including R&I sites.

No significant spills at high level occurred in 2015. Reported incidents were mainly due to events that resulted in exceeding the operating permit limit, with non significant or limited effects restricted to the immediate vicinity of the sites.

Using the CEFIC definition of reportable Process Safety Incidents, which also includes events where the release did not reach the natural environment (events with "Loss of Primary Containment (LoPC)"), 169 incidents took place in 2015.

The corrective actions and more generally the prevention of accidents are undertaken as an intrinsic part of the site's PSM systems. In application of the PSM practices, lessons stemming from the analysis of all serious (or potentially serious) process safety incidents have been shared across the Group in a dedicated monthly newsletter distributed in 15 languages.

#### Soil contaminations

Solvay's policy aims to prevent soil contamination, to characterize soil conditions whenever needed in both active and closed sites, to manage past soil contamination from historical or acquired activities, and to manage soil and/or groundwater contamination in the surroundings. Assessing soil conditions and risk is always taken as a key step in selecting the most appropriate management measures.

There are two ongoing Research and Innovation projects with universities, research institutes and other companies:

- in Tavaux (France), the Silphes project on the recovery of water-insoluble chlorinated compounds has delivered results: the pumped contaminants are then destroyed in the site incinerator. The next step will be to evaluate technologies to remediate residual contamination that cannot be removed by pumping;
- Solvay takes part in the collaborative European Nanorem project, on the use of nano-iron particles to chemically reduce contaminants (such as chlorinated solvents or Chromium VI). Interesting results were obtained on chlorinated solvents when tested on one of Solvay site. Nanorem is aimed at taking nanotechnological remediation processes from lab scale to end user applications for the restoration of a clean environment. It is funded through the European Commission. It focuses on facilitating practical, safe, economic and exploitable nanotechnology for *in situ* remediation.

Both projects will provide more insight on technological performance, under a variety of conditions thus providing guidance for optimal application.

## ENVIRONMENTAL PROVISIONS

In € million	2015	2014	2013	2012
	723	713	636	800

**Legend:** the provisions are reviewed on a quarterly basis in accordance with the IFRS norms. The Chemlogics provisions are included.

Solvay manages environmental financial provisions, mainly dedicated to the management of soil contaminations, using a long-term vision. Financial provisions have increased by € 10 million in 2015 compared to 2014. This is mainly due to financial factors (discount and exchange rates) and perimeter changes. The increase from 2013 to 2014 was mainly due to the development of new and ongoing projects, some of which were impacted by a change in regulations.

### 2.3.6 Hazardous materials management



#### Hazardous waste

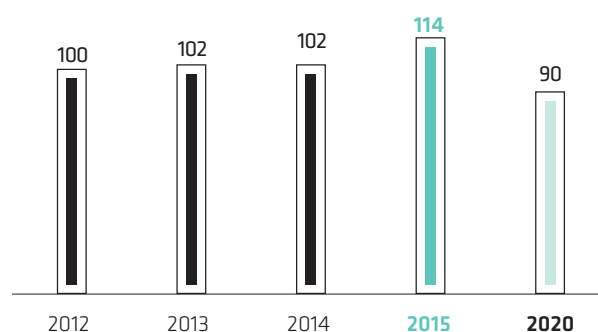
##### Solvay's 2020 target:

- to further reduce hazardous waste going to landfill by 10%.

The Group is committed to further reducing the volumes of industrial waste and in particular hazardous industrial waste. Only 7 % of hazardous waste goes to landfill. 65 % of waste is now either recycled or recovered by means of incineration with energy recovery.

#### LANDFILLED INDUSTRIAL HAZARDOUS WASTE

Baseline 100% in 2012



**Legend:** Landfilled industrial hazardous waste index at constant activity perimeter. Industrial waste is waste generated by the industrial activity on a site, including the packaging and maintenance and excluding construction and demolition waste, waste from mine and quarry activity, domestic and municipal waste.

#### LANDFILLED INDUSTRIAL HAZARDOUS WASTE

	2015	2014	2013	2012
Landfilled Industrial Hazardous waste (Tons)	14,591	12,327	13,283	10,743

The landfilled hazardous industrial waste increased between 2014 and 2015 by 2264 tons (+ 31.6%). This is the resultant effect of increases for Specialty Polymers (+ 2064 t) and Performance Polyamides (+ 1343 t) and improvements for Special Chem (- 699 t) and Soda Ash and Derivatives (- 675 t). Smaller improvements or deteriorations were reported for the other businesses.

#### Products and raw materials

##### Products put on the market: adapting to a Globally Harmonized System and full REACH compliance

Solvay currently manages over 12,000 product grades that are placed in the market. Solvay is committed to get a comprehensive understanding of the hazards, risks and impacts related to products put on the market, from production stage until end of use.

**Hazardous substances: extending shared rules on safety information**

Solvay centrally manages product safety information for all hazardous substances. This is key to ensure that hazardous substances are managed adequately both in Solvay operations and along value chains. The following has been in effect since September 2015:

- standardized Product Safety Data Sheet, using shared rules and models across the Group;
- automatic processes for Safety Data Sheet authoring and distribution (rules for GHS classification, automatic distribution according to the countries of sale, Global Labeling System...);
- consistent product labels to be compliant with regulatory guidelines worldwide;
- common regulatory data, toxicological and ecotoxicological data and phrases library.

**Substances of Very High Concern (SVHCs)**

Solvay implements a global voluntary approach for “substances of very high concern”. The policy regarding SVHCs includes to:

- keep an updated list of all substances of very high concern;
- handle SVHCs under strictly-controlled conditions;
- update risk studies and where possible to substitute SVHCs with safer alternatives.

A group-wide reference list for SVHCs was established in 2015. 95 manufacturing sites (78%) have cross-checked their inventory to date. Solvay's SVHC list includes all substances that are either:

- Carcinogenic, Mutagenic or Toxic to Reproduction (CMR), that meet the criteria for classification in accordance with the new Regulation on the Global Harmonized System, known as the “GHS” Regulation;
- Persistent, Bioaccumulative and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB);

- identified, on a case-by-case basis and through scientific evidence as probably causing serious effects to human health or the environment that is of an equivalent level of concern as those above.

**Management of Substances of Very High Concern (SVHCs)****Solvay's 2020 target:**

- to complete 100% of risk assessments and analysis of possible safer alternatives when available for marketed products containing SVHC by 2020.

New dedicated rules specific to SVHCs define how they are handled in Solvay's industrial operations and how they must be handled by third parties when placed on the market. As regards Solvay's operations, SVHCs are subject to standardized risk assessments.

GBUs are defining strategies to ensure proactive management of the SVHCs put on the market, ensuring business continuity while respecting legal duties, Responsible Care® commitment and sustainable development.

In order to anticipate the need to substitute some SVHCs, three categories (black, red and yellow) are used to characterize the level of risk management:

- Black list: SVHCs already undergoing a regulatory process of phasing-out or restriction with a known deadline in at least one given country or zone;
- Red list: SVHCs currently included in regulatory lists of SVHCs that could be introduced into a process of authorization or restriction in the medium term;
- Yellow list: substances requiring specific attention, under scrutiny by authorities, NGOs, scientists and industries due to their current hazard properties or potential effects.

**SOLVAY'S SUBSTANCES OF VERY HIGH CONCERN PLACED ON THE MARKET<sup>(1)</sup>**

	Number of substances (2015, world perimeter) <sup>(2)</sup>		Management
	SVHCs in products on the market	for which the SVHCs come from raw materials	
SVHC (list according to REACH regulation – EU Authorization process)	6	3	Updating risk studies and assessing substitution alternatives for substances put on the market in Europe and extending risk studies for uses outside of Europe
SVHC (list according to REACH regulation – EU Candidate list) <sup>(3)</sup>	14	7	
All SVHCs (according to REACH criteria)	20	10	
% of SVHCs analysed for safer alternatives - world <sup>(4)</sup>		5%	

(1) **Perimeter:** all Solvay products – except Chemlogics – put on the market, that are either manufactured by Solvay or form part of the composition of the products sold.

(2) SVHCs manufactured by or forming part of the composition of products sold by Solvay worldwide, currently in Europe's “Candidate List” or “Authorization list” of the REACH process.

(3) The Candidate List includes substances that are also present in the EU restriction process (annex XVII).

(4) Percentage of products containing SVHCs reviewed for potential substitution or safer alternatives through Solvay internal dossiers.



## 2.4 Social performance



### 2.4.1 Employee Health and Safety

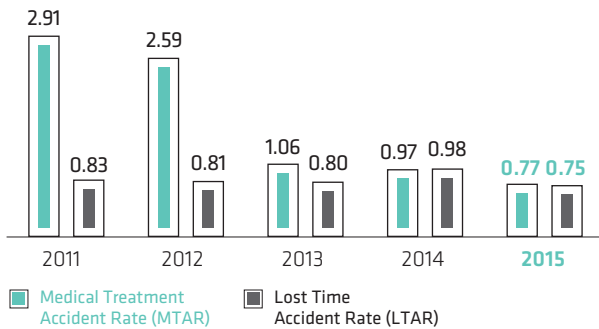
#### The challenge to improve further

**Solvay's 2025 priority target:**

- continue improving Solvay's employees safety by dividing by two the number of accidents recorded on our sites and reaching the MTAR inferior to 0.5.

Currently, Solvay's safety results rank in the top 25% of the global industry. The MTAR already decreased by 70% between 2012 and 2015. In order to keep its ranking and commit to safety for its employees, Solvay defined a new safety target. To reach this ambitious objective, Solvay plan to manage safety in a responsible way, based on people involvement with the internal Safety Excellence Program, and a continuous improvement plan.

#### OCCUPATIONAL ACCIDENTS AT GROUP SITES



**Perimeter:** All sites under Solvay's operational control for which the Group manages and monitors safety performance. This represent 180 sites, incl manufacturing, R&I, administrative sites - Solvay employees and contractors working on sites.

**Legend:**

**Medical Treatment Accident Rate (MTAR) :** number of work accidents leading to medical treatment other than first aid per million working hours.

**Lost Time Accident Rate (LTAR) :** number of work accidents with lost time (away from work) more than 1 day per million working hours.

The occupational safety performance for employees and contractors working on the Group's sites has significantly improved in the past five years. The MTAR improved to 0.77 in 2015 compared to 0.98 in 2014. MTAR is used as an internal performance indicator because it takes into account the actual severity of the accident, independent of the local legal context or the local practices of adapted work which influence the LTAR classification.

The LTAR improved in 2015 reaching 0.75, the lowest level ever for Solvay's operations. The Group's LTAR performance is better than the industry's performance in general and also better than the chemical industry's track record in particular. The chemical industry is generally recognized as safe, with an LTAR of around 4.5 in Europe in recent years.

In particular Solvay succeeded in reducing accidents involving contact with chemicals, from 14 in 2014 to nine accidents in 2015.

The number of "accidents with irreversible consequences" remains stable at two in 2015.

No fatal accidents have occurred in 2015.

#### Safety Excellence Plan

With a view to further preventing accidents, a new Safety Excellence Plan is being deployed by GBU and sites over the 2015-2016 period. It relies on three key action lines:

- clear communication of management expectations;
- development of Health Safety Environment (HSE) roadmaps in the GBUs and on their respective sites;
- development of a safety mindset.

All GBUs and sites have defined an HSE roadmap and implemented good safety practices such as: safety days (114 sites in 2015), a behavioral safety program (102 sites), systematic analysis of near misses, the engagement of all managers in promoting safety, modeling exemplary behavior and visibly implementing safety measures, safety tours, involvement of the entire workforce in all improvement actions, recognition, personal objectives tied to leading indicators, etc.

#### FOCUS:



#### Preventing fatal accidents: Solvay Life-Saving Rules

The "Solvay Life Saving Rules" program has been deployed in 2015 in all sites.

1. **Work at height:** protect yourself and your tools from falling when working at height.
2. **Work on powered systems:** isolate and de-energize mechanical and electrical equipment before starting the work.
3. **Line breaking:** obtain authorization before starting line or vessel opening.
4. **Work in confined spaces:** be sure that atmospheric conditions are continuously monitored and a safety attendant is standing by before entering a confined space.
5. **Work in explosive atmosphere:** do not enter any area that has a potentially explosive atmosphere with objects which could generate a spark or ignition.
6. **Lifting:** do not stand or move under or in the vicinity of a lifted load.
7. **Excavation:** stay out of the line of fire of excavators, trucks and non-stabilized earth.
8. **Traffic:** respect the traffic rules.

## Health and industrial hygiene program

### I 2012-2020 ROADMAP PROGRESS

	2015	2014	2013
<b>Industrial Hygiene:</b> number of sites trained to new IH standards	102	33	4
<b>Health Monitoring:</b> number of sites with health monitoring based on individual exposure profiles according to Solvay standard	39	36	36

**Perimeter:** Solvay financial perimeter 2015 plus additional sites under operational control.

#### Solvay's 2020 target:

- all working units and workstations are controlled and recorded in accordance with Solvay's new Industrial Hygiene standards for all operational employees.

The program is based on four pillars:

1. For all chemicals handled in Solvay's operations, as a minimum an Occupational Exposure Band (OEB) must be defined and observed, or a voluntary Solvay Acceptable Exposure Limits (SAEL) in the absence of recognized official OEL (Occupational Exposure Limit).
2. A consistent and efficient risk assessment process, Critical Tasks Exposure Screening (CTES), enabling the efficient detection of exposure to dangerous agents requiring attention or additional controls.
3. Special attention to Substances of Very High Concern (SVHCs) that have an effect on health and for the highest identified potential risks of exposure.
4. A worldwide user-friendly industrial hygiene database (SOCRATES) embedding corresponding processes, tools and databases.

### 2.4.2 Employee Engagement and Wellness



#### Solvay's 2025 priority target:

- to increase the Engagement Index at 80%.

Engagement of Solvay's workforce was assessed using the "Solvay Employee Survey 2015". More than 22,000 employees from all geographical locations, businesses and levels answered a set of standardized questions regarding their views on employment, management and the activities of the Group as a whole. The rate of engagement, which measures the energy devoted to Solvay's success by the workforce, reached 75% in line with industry general reference benchmarks.

Comprehensive initiatives have been launched at a Group level focusing on:

- Personal Development;
- Reward & Recognition;
- Inclusive Culture;
- Work-Life Balance.

### Social Dialogue

Engagement is also fostered by regular dialogue between the managers of the Group and the employees. It is part of Solvay culture. Solvay considers that maintaining trusting and constructive relations with employees and their representatives forms the basis for such dialogue. This relationship is built on the Group's commitment to respect employees' fundamental human rights and guarantee their social rights. The agreement with IndustriALL formalises the Group's commitment.

For more details about IndustriALL, the reader is referred to page 101.

#### FOCUS:

##### European Works Council (EWC)

A permanent dialogue on sustainability issues has been established for years between Solvay and its European Works Council (EWC). In 2015, the EWC met in a plenary session for one week, the sustainable development EWC commission met twice and the EWC Secretariat met 10 times with senior Group management, allowing these representative bodies to be part of the evolution of the Group. Subject matters receiving particular attention were: Cytec acquisition, evolution of employment in the Group, strategy of the Group and sustainable development issues.

#### FOCUS:

##### Employee Representation Indicator

Trade unions are present on a majority of Solvay sites around the world. Union membership is estimated at 20% in Europe, 30% in South America, 10% in North America and 30% in Asia. In the majority of cases collective agreements are extended to all employees even if not members of a union. Coverage by collective agreements has decreased to 77% worldwide due to perimeter changes. This indicator was established for 2015 without data about the newly acquired company Cytec. It will be updated in 2016 after the integration of Cytec. These data indicate that freedom of association is ensured within the Group and that its practical application provides mutually agreed working conditions for our employees.



### 2.4.3 Customer Satisfaction

#### Customer Relationship Management

**Solvay's 2020 target:**

- improve customer satisfaction to reach a Net Promoter Score of 35%.

Within the framework of the commercial excellence program, a systematic biennial assessment of customer satisfaction and loyalty has been rolled out across the entire Group since 2014.

Several GBUs such as Specialty Polymers, Novocare, Acetow, Silica and Performance Polyamides have already been conducting "Voice of the Customer" surveys for more than four years, with the aim of assessing overall customer satisfaction. These initiatives have triggered action plans supported by close monitoring as well as the implementation of regular follow up sessions with business partners.

One single corporate indicator has been selected (NPS: Net Promoter Score) for internal and external benchmarking through consolidation of NPS performance at a Group level.

Although the biennial frequency of the Voice of Customer inquiries is mandatory for all entities, each GBU is empowered to choose the appropriate approach. This ranges from a light survey focusing on a limited number of key accounts to determine the level of satisfaction to an in-depth analysis of customer satisfaction through the distribution of a comprehensive questionnaire covering all aspects of customer experience. The information is gathered either by individual interviews conducted by external advisers or by using an e-survey based on the quality management of the GBU. Those surveys are conducted on either a global or a regional basis.

Each GBU designs its own questionnaire using corporate guidelines but focusing on their specific area of business. A chapter dedicated to sustainable development is included in the study.

	2015	2014
Group Net Promoter Score	24%	14%

In 2014, Solvay published a Group NPS of 14% which was compared to a geographically weighted manufacturing industry benchmark of 25%.

In 2015, the Group's performance improved substantially reaching an NPS of 24%. This was thanks to more robust GBU-driven action plans as well as direct involvement of the Executive Committee in monitoring. The Group launched several initiatives to reinforce our customer intimacy (such as Customer Tech Days: a presentation of the Group's activities in one specific market) and to foster collaborative innovation.

In parallel with the NPS, a second indicator related to customer loyalty was also put in place (Churn rate: % of Group revenue from customers who had already made a purchase in the preceding year). In 2015, the Group achieved a score of 97%, this remained stable from 2014 translating it into a long-lasting relationship based on reliable services and our capacity for innovation.

Finally, the Group is also deploying a new, state-of-the-art Customer Relationship Management (CRM) cloud-based system across all GBU's to capture and integrate customer insights better in our major decision-making processes and to foster cross-fertilization.



### 2.4.4 Community Development

**Solvay's 2025 priority target:**

- double the number of employees involved in a societal action from 20% to 40%.

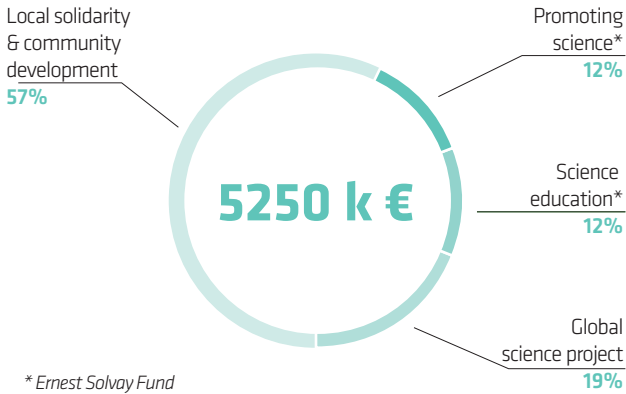
Solvay dedicates time and financial resources at a local and a global level that contribute to improving people's living environment through scientific solutions and science education or through solidarity at a local level.

The Group ensures Solvay's entities are integrated within their territories, has open discussions with local communities and aims to contribute to their societal issues and more widely, to offer solutions to society as a whole. This is the Group's sustainability ambition, communicated through Solvay Way to every employee in their day to day work.

#### Local involvement

Through the Solvay Way approach employees are encouraged to take part in projects that contribute to local development. They are involved in diverse projects worldwide that provide indirect and direct added value for the local economy and employment, as well as supporting local associations and initiatives. Solvay Way correspondents and employees manage their societal approach locally, independently choosing and funding initiatives that meet the needs of their surrounding communities.

2015 SOLVAY GROUP DONATIONS, SPONSORSHIPS AND OWN PROJECTS



Examples of local initiatives

Currently these activities are not always documented at corporate level, but an internal survey was conducted in 2015 to start referencing Solvay’s societal actions. The main findings showed that a large majority of the societal actions benefit people as a result of donating employee’s time donating equipment, through financial donations or organized local events. In the Asia and Latin America zones, there are more donations of the employee time, while on European and North American sites there are more financial donations.

China (Zhenjiang)

FOCUS:



Helping orphans

Zhenjiang Children’s Charity House is a place accommodating orphans. Most of them are disabled or have a serious mental disorder, or learning difficulties. Many will stay in the Charity House until they are 18 or 19 years old. They then have to relocate to a Youth Charity House or have to work in the community. A professional team helps them by offering psychological guidance.

Solvay Zhenjiang site volunteered to join the professional team providing assistance, when the children get older and are being prepared to leave. 10 Solvay employees volunteered once a month from January to April 2015 to help the children in the Charity House. Under the guidance of the professional team, they talk to the children who are going to leave the charity house and start work. They participate in a wide range of activities including cooking and gardening. The aim of the volunteers is to help the young people become accustomed to the outside world. Last year, thanks to the involvement of the professional team and all of the volunteers, two of these young people were able to find a job outside of the Charity House.

United States

FOCUS:



Contributing to local development

A range of activities have taken place across the 40 sites in the United States. In Alpharetta, Georgia, employees participate in “Habitat for Humanity,” helping to build homes for low-income families. In Houston, Solvay is a major supporter of Junior Achievement, contributing funds and sending an average of about 20 employees per semester to teach six-week business-related courses to school children. In Cranbury and many other sites, Solvay employees provide a great deal of support to United Way, a national system of volunteers and contributors to local charities. In addition, Solvay’s Chemistry Connection® sends employee volunteers to local schools to give science demonstrations using hands-on experiments.

Europe (France - Belgium)

FOCUS:



Driving science education forward

Solvay has noticed there is an ongoing issue with the recruitment of scientists for the public sector and industry. Children need to get excited about science again. The Royal Belgian Institute of Natural Sciences has joined forces with Solvay to develop a tool that can reach young people in all parts of the country and renew their interest in science.

XperiLab is a truck in which an entire school class can carry out real experiments. The truck visits schools across Belgium, hosting more than 10,000 young chemists every year. This initiative has been a great success and is already booked up a full year in advance.

Solvay wanted children to understand the key elements of our environment with a view to developing the right mindset to meet future challenges. This concept has been operating successfully for the past five years and is still going strong.

These initiatives, among many others, help build the strong community relationships enjoyed by our sites across the globe.

Global involvement

The Group aims to connect its philanthropic efforts in keeping with the Group’s areas of expertise and where its products or activities can deliver added value.

In 1923, Solvay created the Ernest Solvay Fund to honor the founder of the Company who had died the year before. Today, the majority of Solvay’s corporate philanthropy goes through the Ernest Solvay Fund. This Fund is managed by the independent King Baudouin Foundation.

Solvay concentrates its philanthropic or funding efforts at a corporate level through science promotion; science education; and in some circumstances, support to humanitarian initiatives in reaction to certain disasters and/or where our products or services are of particular value.

## Examples of Group science promotion projects

### At a worldwide level



#### Inspiring the chemists of the future

The Chemistry for the Future Solvay Prize rewards a major scientific discovery that could shape tomorrow's chemistry and aid human progress.

The prize perpetuates the strong support for scientific research that was always given by Ernest Solvay. It is intended to endorse basic research and underline the essential role of chemistry, both as a science and an industry, in helping to solve some of the most pressing issues the world is facing.

The € 300,000 prize is awarded every second years.

In 2015, the Chemistry for the Future Solvay Prize was given to Professor Ben Feringa. Professor Feringa's work on unidirectional molecular motors has opened up a new field of research which, for example, paves the way for the development of new therapeutic and technological applications. Within the next twenty to thirty years, his research is likely to lead to the introduction of nanorobots – microscopic robots that can accurately target specific molecules during therapeutic treatment. It may also enable a new generation of scientists to design artificial muscles or further optimize the storage of information on a molecular scale.

The next Chemistry for the Future Solvay Prize will be awarded in 2017.



#### The International Solvay Institutes for Physics and Chemistry

Following the legendary 1911 Conseil Solvay on "Radiation and the Quanta" chaired by Nobel Laureate Hendrik Lorentz, the International Solvay Institute for Physics was founded by Ernest Solvay in 1912. The International Solvay Institute for Chemistry was founded a year later, in 1913. The two Institutes merged in 1970 as the International Solvay Institutes for Physics and Chemistry, founded by Ernest Solvay.

The mission of the Solvay Institutes is to support and develop curiosity-driven research in physics, chemistry and associated fields with the purpose of "enlarging and deepening the understanding of natural phenomena".

The central activity of the Institutes is the periodic organization of the celebrated Solvay Conferences on Physics and Chemistry ("Conseils de Physique Solvay" and "Conseils de Chimie Solvay"). This support for fundamental science is complemented by the organization of open workshops on specific selected topics, international chairs, colloquia and an international doctoral school.

In addition to these activities, the Solvay Institutes also promote the popularization of science through the organization of the annual Solvay public lectures devoted to today's big scientific challenges.



#### Examples of Group science educational projects

- UNISTRA, creation at the University of Strasbourg of "bourses de doctorat d'excellence en chimie". For 2015, they received more than 50 applications. Amongst them candidates from Imperial College of London, University of Cambridge, Saint Andrews University;
- the Chair for Eco-processes for Sustainable Chemical and Biochemical Engineering at the University of Louvain and the Chair for Technological Innovation at the same university;
- the annual grant to the Queen Elisabeth Medical Foundation (QEMF), which encourages laboratory research and contact between researchers and clinical practitioners, with a particular focus on neurosciences. The QEMF supports 17 university teams throughout Belgium;
- The International IUPAC/Solvay Award for Young Chemists, which will reward five young chemists and researchers from top universities all over the world;
- the "Solvay Awards", which have been recognizing students from two major universities in Belgium for more than 20 years;
- Solvay is supporting the newly created "Fondation pour l'enseignement", which aims to develop education in Belgium to bring it more in line with the needs of the business world;
- From 2014, Solvay supports VOCATIO scholarships, which are granted to talented young people to enable them to achieve or start pursuing their dream.

## 2.4.5 Leadership and Governance

### Management of the legal and regulatory environment

Management of the legal, ethical and regulatory framework has been identified as a high materiality issue in the complete revision of the materiality analysis performed in 2014. In the past, Solvay has reported on the cost of major litigation; work is going on to establish better developed indicators.

The cost of major litigation is developed in the Management of Risks section of the present report.

The Solvay Code of Conduct and other elements relating to compliance are developed in the Corporate Governance section of the present report.

### Process safety, emergency preparedness and response

In addition to site-specific objectives, the Group's overall 2020 targets aim to ensure the integrity of operating systems and processes. Process Safety ensures the integrity of operating systems and processes by applying good design principles alongside best engineering and operating practices. It deals with the prevention



and control of Process Safety Incidents (PSI) that have the potential to release hazardous materials or energy into the environment.

In practice the prevention of industrial incidents means:

- implementing Process Safety Management systems at sites according to the risks from their processes in line with local requirements and certifications;
- performing consistent hazard identification and risk analysis for existing, new or modified installations using methods and procedures in line with Group standards and resolving risk situations.

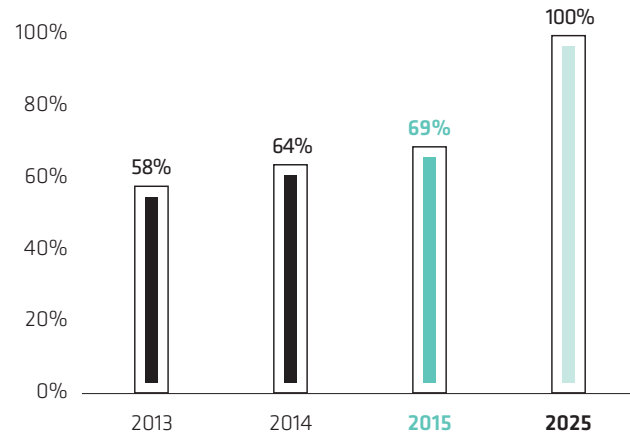
#### Solvay's 2020 target:

- 100% of our sites have a risk analysis for every production line updated in the last five years.

This target aims to ensure the integrity of operating systems and processes at all sites. Regular risk analysis is now undertaken according to a new risk scale. This analysis forms the backbone of risk control. Risk scenarios have been defined using the Group's standardized matrix in order to identify all potential Risk Sheet 1 situations.

Risk Sheet 1 refers to a technically plausible scenario of explosion, fire or loss of containment of hazardous material on a manufacturing or storage facility which is not acceptable for Solvay in terms of the severity of its consequences for people and the environment and its probability of occurrence.

#### SITES WITH RISK ANALYSIS UPDATED IN THE LAST FIVE YEARS FOR EVERY PRODUCTION LINE



**Legend:** Based on the self-declarations made by the sites

**Perimeter:** Solvay group manufacturing perimeter under operational control. The consolidated data for process safety risk analysis cover 111 sites out of a total of 132 operational sites.

#### Solving Risk Sheet 1 situations

A key element of Solvay's new program that is now fully underway is the handling of Risk Sheet 1 situations, as prescribed by Solvay's red line on health, safety and environmental risk management. Red lines are essential Solvay rules that must be respected to the extent that they cover issues which constitute major risks for the Group. Employees or organizations not complying with the red lines are liable to be penalized. Requirement was fulfilled in 2015, with no Risk Sheet 1 situation remaining at the end of 2015 that was over one year old.

- At the end of 2014, 217 Risk Sheet 1 situations were identified. They were all mitigated during 2015. Most of the 217 "Risk Sheet 1" situations concerned one site in China.
- At the end of 2015, 94 Risk Sheet 1 situations were identified. They are to be mitigated in 2016.

### 3 Sustainability performance summary

	Unit	2025 targets	2020 targets	2015	2014	2013	2012
<b>Sustainable business solutions</b>							
✓ <sup>2015</sup> Product portfolio assessed	%	-	-	88	79	64	-
✓ <sup>2015</sup> Sustainable solutions	%	50	-	33	25	19	-
<b>Greenhouse gas emissions</b>							
✓ <sup>2015</sup> Greenhouse gas intensity	Kg CO <sub>2</sub> eq. per EUR REBITDA	4.85	-	7.26	8.08	8.84	7.12
✓ <sup>2015</sup> Direct and indirect CO <sub>2</sub> emissions (Scope 1 & 2)	Mt CO <sub>2</sub> eq.	-	-	11.6	11.7	12.0	11.8
✓ <sup>2015</sup> Other greenhouse gas emissions according to Kyoto Protocol (Scope 1)	Mt CO <sub>2</sub> eq.	-	-	2.6	2.7	2.7	2.6
✓ <sup>2015</sup> Total greenhouse gas emissions (Kyoto protocol)	Mt CO <sub>2</sub> eq.	-	-	14.2	14.4	14.7	14.4
✓ <sup>2015</sup> Other greenhouse gas emissions not according to Kyoto Protocol (Scope 1)	Mt CO <sub>2</sub> eq.	-	-	0.1	0.1	0.1	0.1
<b>Energy management</b>							
✓ <sup>2015</sup> Energy consumption	Petajoules Low Heating Value	-	-	175	179	181	179
Energy efficiency index	%	-	90	96	99	99	100
<b>Air quality</b>							
✓ <sup>2015</sup> Acidification emissions in absolute	Teq SO <sub>2</sub>	-	-	27,330	25,405	26,848	29,852
Acidification emissions index	%	-	75	114	106	93	100
✓ <sup>2015</sup> Photochemical oxidant formation in absolute	Teq NMVOC	-	-	19,329	20,360	18,745	19,980
Photochemical oxidant formation index	%	-	90	93	98	90	100
<b>Water management</b>							
✓ <sup>2015</sup> Intake of groundwater and drinking water	1,000 m <sup>3</sup>	-	-	194,330	186,726	198,386	242,136
✓ <sup>2015</sup> Total water intake	1,000 m <sup>3</sup>	-	-	616,274	626,757	654,616	762,639
Water consumption index	%	-	90	85	84	87	100
Sites with detailed water balance accounting	Number	-	-	122	79	-	-
✓ <sup>2015</sup> Sites for which the water scarcity risk was confirmed	Number	-	-	12	13	-	-
✓ <sup>2015</sup> Sites with water scarcity risk and a sustainable water management	%	-	100	33	31	-	-
<b>Environmental accidents and remediation</b>							
Medium incidents	Number	-	-	54	53	-	-
High incidents	Number	-	0	0	2	4	0
Catastrophic incidents	Number	-	0	0	0	0	1
✓ <sup>2015</sup> Environmental provision	€ Million	-	-	723	713	636	800

	Unit	2025 targets	2020 targets	2015	2014	2013	2012
<b>Hazardous materials management</b>							
	%	-	90	114	102	102	100
	Landfilled industrial hazardous waste index						
✓ <sup>2015</sup>	Tons	-	-	14,591	12,327	13,283	10,743
	Landfilled industrial hazardous waste						
	Number	-	-	6	8	6	-
	Substance of very high concern present in product put on the market according to REACH regulation - EU Authorization process						
	Number	-	-	3	6	10	-
	Substance of very high concern present in product put on the market for which this presence is due to raw materials according to REACH regulation - EU Authorization process						
	Number	-	-	14	17	17	-
	Substance of very high concern present in product put on the market according to REACH regulation - EU Candidate list						
	Number	-	-	7	12	29	-
	Substance of very high concern present in product put on the market for which this presence is due to raw materials according to REACH regulation - EU Candidate list						
	Number	-	-	20	25	23	-
	All substance of very high concern according to reach criteria present in products put on the market						
	Number	-	-	10	18	39	-
	All substance of very high concern according to reach criteria present in products put on the market for which this presence is due to raw materials						
✓ <sup>2015</sup>	%	-	100	5	0	0	0
	Products containing SVHCs reviewed for potential substitution or safer alternatives through Solvay internal dossiers						
<b>Employee health and safety</b>							
✓ <sup>2015</sup>	Accident per million hours worked	0.5	-	0.77	0.97	1.06	2.59
	Medical Treatment Accident Rate - Employee, contractors and temporary workers (MTAR)						
✓ <sup>2015</sup>	Accident per million hours worked	-	-	0.75	0.98	0.80	0.81
	Lost Time accident Rate - Employee, contractors and temporary workers (LTAR)						
✓ <sup>2015</sup>	Number	-	-	0	2	2	0
	Fatal accidents						
	Number	-	-	39	36	36	-
	Sites with health monitoring based on individual exposure profiles according to Solvay standard						
	Number	-	-	102	33	4	-
	Sites trained to new hygiene standards						
<b>Employee engagement and wellness</b>							
	%	80	-	75	-	72	-
	Solvay engagement index						
✓ <sup>2015</sup>	%	-	-	77	82.2	85	85
	Coverage by collective agreement						
<b>Societal actions</b>							
	%	40	-	20	-	-	-
	Employees involved in societal actions						
<b>Customer satisfaction</b>							
	%	-	35	24	14	-	-
	Net Promoter Score						
<b>Process safety, emergency preparedness and response</b>							
	%	-	100	69	64	58	-
	Sites with risk analysis updated in the last 5 years for every production line						
✓ <sup>2015</sup>	%	-	-	100	100	100	-
	Sites with "Risk Sheet 1" situations resolved within one year						
✓ <sup>2015</sup>	Number	-	-	94	217	11	111
	"Risk Sheet 1" situation at the end of the year						
✓ <sup>2015</sup>	Number	-	-	232	23	111	111
	"Risk Sheet 1" resolved at the end of the year						



# FINANCIAL STATEMENTS

## 1 Consolidated financial statements

Solvay (the "Company") is a public limited liability company governed by Belgian law and quoted on Euronext Brussels and Euronext Paris. The principal activities of the Company, its subsidiaries, joint operations, joint ventures and associates (jointly the "Group") are described in note 1 on segment information.

The consolidated financial statements were authorized for issue by the Board of Directors on February 24, 2016. They have been prepared in accordance with IFRS accounting policies, which are described on the following pages.

### Preliminary note – main changes in consolidation scope

In 2015, two major changes took place.

On July 1, 2015, Solvay sold its chlorovinyls activities to the INOVYN joint venture (50% Solvay, 50% INEOS) (see note 10 Discontinued Operations).

On December 9, 2015, Solvay acquired 100% of the shares of Cytec Industries Inc.

The main impacts of this acquisition are described below:

- Cytec opening balance sheet has been fully consolidated within the Solvay group as from December 31, 2015 – see note 26 Goodwill and business combinations - and is based on the following:
  - the consideration for Cytec (€ 5,047 million),
  - the identifiable assets acquired and liabilities assumed after remeasurement to fair value at acquisition date (€ 2,449 million), and
  - the goodwill (€ 2,598 million) corresponding to the difference between consideration and net assets acquired, measured at fair value;
- Cytec's results and cash flows for the period between December 9 and December 31 are not material, except for acquisition-related expenses presented as non-recurring items. Consequently, Cytec has not contributed to the Group's IFRS net income or cash flows in 2015;
- the acquisition was funded through a capital increase and perpetual hybrid bonds issuance (see note 21 Proceeds from bond issuance classified as equity and capital increase) and debt issuance (see note 36 Net indebtedness);
- in order to provide a reference frame for the results going forward, Solvay publishes unaudited *pro forma* income statement and main cash flow metrics for the year 2015. The figures represent a situation as if the acquisition had taken place on January 1, 2015 – see Financial Management Report.

## Consolidated income statement

In € million	Notes	2015	2014
<b>Sales</b>	(1) (2)	<b>11,047</b>	<b>10,629</b>
Revenue from non-core activities		470	416
<b>Net sales</b>		<b>10,578</b>	<b>10,213</b>
Cost of goods sold		(8,289)	(8,070)
<b>Gross margin</b>		<b>2,759</b>	<b>2,559</b>
Commercial and administrative costs		(1,327)	(1,225)
Research and development costs		(277)	(247)
Other operating gains and losses	(5)	(99)	(94)
Earnings from associates and joint ventures	(6)	21	(34)
Non-recurring items	(7)	(245)	(308)
<b>EBIT</b>		<b>833</b>	<b>652</b>
Cost of borrowings	(8)	(111)	(151)
Interest on lendings and short term deposits	(8)	11	36
Other gains and losses on net indebtedness	(8)	(46)	(30)
Cost of discounting provisions	(8)	(73)	(163)
Income/loss from available-for-sale financial assets	(8)	(8)	(1)
<b>Result before taxes</b>		<b>606</b>	<b>343</b>
Income taxes	(9)	(97)	(84)
<b>Result from continuing operations</b>		<b>509</b>	<b>259</b>
Result from discontinued operations	(10)	(55)	(246)
<b>Net income for the year</b>	(11)	<b>454</b>	<b>13</b>
Non-controlling interests		(48)	67
<b>Net income (Solvay share)</b>		<b>406</b>	<b>80</b>
Basic earnings per share from continuing operations (€)		5.57	3.32
Basic earnings per share from discontinued operations (€)		(0.72)	(2.36)
Basic earnings per share (€)	(13)	4.85	0.96
Diluted earnings per share from continuing operations (€)		5.53	3.30
Diluted earnings per share from discontinued operations (€)		(0.72)	(2.34)
Diluted earnings per share (€)	(13)	4.81	0.96
<b>RATIOS</b>			
Gross margin as a % of sales		25.0%	24.1%
Interest coverage ratio		7.4	6.6
Income taxes/Result before taxes (%)		16.1%	24.5%

Interest coverage ratio = (EBIT excluding non-recurring items)/Charges on net indebtedness.

## NON IFRS METRICS

In € million	Notes	2015	2014
REBITDA	(3)	1,955	1,783
Adjusted net income	(12)	525	89

## Consolidated statement of comprehensive income

In € million	Notes	2015	2014
<b>Net income for the year</b>		<b>454</b>	<b>13</b>
<b>Other comprehensive income</b>			
<b>Recyclable components</b>			
Hyperinflation	(14)	42	(11)
Gains and losses on available-for-sale financial assets	(14)	3	1
Gains and losses on hedging instruments in a cash flow hedge	(14)	15	(60)
Currency translation differences	(14)	186	231
<b>Non recyclable components</b>			
Remeasurements of the net defined benefit liability	(14)	279	(497)
<b>Income tax relating to recyclable and non recyclable components</b>			
Income tax relating to components of other comprehensive income	(14)	(20)	72
<b>Other comprehensive income, net of related tax effects</b>		<b>505</b>	<b>(264)</b>
<b>Comprehensive income for the year</b>		<b>959</b>	<b>(251)</b>
attributed to:			
• Solvay share		892	(167)
• non-controlling interests		67	(84)

## Consolidated statement of cash flows

The amounts below include the effect of the discontinued operations.

In € million	Notes	2015	2014
Net income		454	13
Adjustments to net income			
• Depreciation, amortization and impairments	(15)	978	1,430
• Earnings from associates and joint ventures		(21)	34
• Net financial charges and income/ loss from available-for-sale financial assets		257	356
• Income taxes expense	(16)	134	314
Changes in working capital	(17)	(99)	236
Changes in provisions	(18)	(302)	(213)
Dividends received from associates and joint ventures		14	19
Income taxes paid (excl. income taxes paid on sale of investments)	(16)	(250)	(217)
Other non operating and non cash items	(19)	223	(351)
<b>Cash flow from operating activities</b>		<b>1,388</b>	<b>1,621</b>
Acquisition (-) of subsidiaries	(20)	(4,934)	(304)
Acquisition (-) of investments - Other	(20)	(28)	(107)
Loans to associates and non consolidated companies	(20)	11	5
Sale (+) of investments	(20)	70	721
Income taxes paid on sale of investments	(20)	(232)	0
Acquisition (-) of tangible assets	(20)	(952)	(923)
Acquisition (-) of intangible assets	(20)	(85)	(64)
Sale (+) of tangible and intangible assets	(20)	31	21
Dividends from available-for-sale financial assets		1	0
Changes in non-current financial assets		4	1
<b>Cash flow from investing activities</b>		<b>(6,113)</b>	<b>(650)</b>
Capital increase (+)/redemption (-)	(21)	1,477	0
Proceeds from perpetual hybrid bond issuance classified as equity	(21)	991	0
Acquisition (-)/sale (+) of treasury shares	(24)	(59)	(41)
Increase in borrowings	(36)	4,628	151
Repayment of borrowings	(36)	(1,219)	(1,365)
Changes in other current financial assets	(36)	225	134
Interests paid		(156)	(234)
Perpetual hybrid bonds dividends paid	(21)	(57)	(41)
Dividends paid		(323)	(291)
Other	(22)	(31)	(3)
<b>Cash flow from financing activities</b>		<b>5,475</b>	<b>(1,690)</b>
<b>Net change in cash and cash equivalents</b>		<b>750</b>	<b>(718)</b>
Currency translation differences		13	21
Opening cash balance		1,275	1,972
Closing cash balance <sup>(1)</sup>	(36)	2,037	1,275

(1) Including cash in assets held for sale (€ 7 million in 2015 and € 24 million in 2014).

## Free Cash Flow

In € million	Notes	2015	2014
<b>Free Cash Flow from continuing operations<sup>(2)</sup></b>		<b>391</b>	<b>511</b>
<b>Free Cash Flow from discontinued operations<sup>(2)</sup></b>		<b>(3)</b>	<b>145</b>
<b>TOTAL FREE CASH FLOW</b>		<b>387</b>	<b>656</b>

(2) Free Cash Flow = Cash flow from operating activities (including dividends from associates and joint ventures) + cash flow from investing activities (excluding acquisitions and disposals of subsidiaries and other investments and excluding loans to associates and non-consolidated companies).

## Consolidated cash flows from discontinued operations

In € million	Notes	2015	2014
Cash flow from operating activities		64	272
Cash flow from investing activities		(68)	(127)
Cash flow from financing activities		(33)	(21)
<b>NET CHANGE IN CASH AND CASH EQUIVALENTS</b>	(23)	<b>(36)</b>	<b>124</b>

## Consolidated statement of financial position

In € million	Notes	2015	2014
<b>Assets</b>			
<b>Non-current assets</b>		<b>18,716</b>	<b>11,529</b>
Intangible assets	(25)	3,919	1,543
Goodwill	(26)	5,840	3,151
Tangible assets	(27)	6,946	5,386
Available-for-sale financial assets	(29)	34	43
Investments in associates and joint ventures	(30)	398	380
Other investments	(31)	92	121
Deferred tax assets	(9)	1,059	710
Loans and other non-current assets	(37)	427	194
<b>Current assets</b>		<b>6,613</b>	<b>6,365</b>
Inventories	(32)	1,867	1,420
Trade receivables	(37)	1,615	1,418
Income tax receivables		158	52
Other current receivables – Financial instruments	(37)	111	309
Other current receivables – Other	(33)	655	500
Cash and cash equivalents	(36)	2,030	1,251
Assets held for sale	(34)	177	1,414
<b>Total assets</b>		<b>25,329</b>	<b>17,894</b>
<b>Equity &amp; liabilities</b>			
<b>Total equity</b>		<b>9,668</b>	<b>6,778</b>
Share capital	(21)	1,588	1,271
Reserves		7,835	5,293
Non-controlling interests		245	214
<b>Non-current liabilities</b>		<b>11,330</b>	<b>6,088</b>
Long-term provisions: employee benefits	(35)	3,133	3,166
Other long-term provisions	(35)	831	854
Deferred tax liabilities	(9)	1,456	378
Long-term financial debt	(36)	5,628	1,485
Other non-current liabilities		282	204
<b>Current liabilities</b>		<b>4,331</b>	<b>5,029</b>
Other short-term provisions	(35)	310	308
Short-term financial debt	(36)	892	853
Trade liabilities	(37)	1,559	1,461
Income tax payable		130	355
Dividends payable		144	114
Other current liabilities	(38)	1,022	776
Liabilities associated with assets held for sale	(34)	275	1,162
<b>TOTAL EQUITY &amp; LIABILITIES</b>		<b>25,329</b>	<b>17,894</b>
<b>Ratios<sup>(1)</sup></b>			
Net debt to equity ratio		45.3%	11.5%

(1) Net debt to equity ratio = net debt/total equity.

Net debt = short and long-term financial debt less cash and cash equivalents and other current receivables – Financial instruments.

## Consolidated statement of changes in equity

In € million	Equity attributable to equity holders of the parent											
	Share capital	Share premiums	Treasury shares	Perpetual hybrid bonds	Retained earnings	Currency translation differences	Revaluation reserve (Fair value)		Defined benefit pension plan	Total reserves	Non-controlling interests	Total equity
							Available-for-sale financial assets	Cash flow hedges				
<b>Balance at December 31, 2013</b>	<b>1,271</b>	<b>18</b>	<b>(132)</b>	<b>1,194</b>	<b>5,985</b>	<b>(768)</b>	<b>(6)</b>	<b>6</b>	<b>(494)</b>	<b>5,804</b>	<b>378</b>	<b>7,453</b>
Net income for the year					80					80	(67)	13
Items of Other Comprehensive Income <sup>(1)</sup>					(9)	241	1	(49)	(433)	(249)	(17)	(266)
<b>Comprehensive income</b>					<b>71</b>	<b>241</b>	<b>1</b>	<b>(49)</b>	<b>(433)</b>	<b>(169)</b>	<b>(84)</b>	<b>(252)</b>
Perpetual hybrid bonds issuance <sup>(2)</sup>				0						0		0
Cost of stock options					11					11		11
Dividends					(266)					(266)	(26)	(292)
Perpetual hybrid bonds dividends					(42)					(42)		(42)
Acquisition/sale of treasury shares			(39)		(2)					(41)		(41)
Increase (decrease) through changes in ownership interests in subsidiaries that do not result in loss of control					(7)					(7)	(54)	(61)
<b>Balance at December 31, 2014</b>	<b>1,271</b>	<b>18</b>	<b>(171)</b>	<b>1,194</b>	<b>5,753</b>	<b>(527)</b>	<b>(4)</b>	<b>(43)</b>	<b>(927)</b>	<b>5,293</b>	<b>214</b>	<b>6,778</b>
Net income for the year					406					406	48	454
Items of Other Comprehensive Income <sup>(1)</sup>					35	169	3	15	264	486	19	505
<b>Comprehensive income</b>					<b>441</b>	<b>169</b>	<b>3</b>	<b>15</b>	<b>264</b>	<b>892</b>	<b>67</b>	<b>959</b>
Capital increase	318	1,151								1,151		1,469
Perpetual hybrid bonds issuance <sup>(2)</sup>				994						994		994
Cost of stock options					11					11		11
Dividends					(313)					(313)	(40)	(354)
Perpetual hybrid bonds dividends					(57)					(57)		(57)
Acquisition/sale of treasury shares			(59)		3					(56)		(56)
Increase (decrease) through changes in ownership interests in subsidiaries that do not result in loss of control					(118)	5		(1)	32	(82)	5	(77)
<b>Balance at December 31, 2015</b>	<b>1,588</b>	<b>1,170</b>	<b>(230)</b>	<b>2,188</b>	<b>5,720</b>	<b>(353)</b>	<b>(2)</b>	<b>(28)</b>	<b>(630)</b>	<b>7,835</b>	<b>245</b>	<b>9,668</b>

(1) Impact on retained earnings following the application of IAS 29 *Financial Reporting in Hyperinflationary Economies*, resulting mainly from the restatement of non-monetary assets (as property, plant and equipment) to reflect current purchasing power as at year-end using a general price index from the date when they were first recognized.

(2) Following the acquisition of Cytac and to strengthen Solvay's capital structure, perpetual hybrid bonds have been issued for a worth of € 1.0 billion. Those bonds qualify as equity instruments.

## 2 Notes to the consolidated financial statements

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## IFRS main accounting policies

The main IFRS accounting policies used in preparing these consolidated financial statements are set out below:

### 1 Basis of preparation

This information was prepared in accordance with European Regulation (EC) 1606/2002 on the application of international accounting standards dated July 19, 2002. The Group's consolidated financial statements for the year ended December 31, 2015 were prepared in accordance with IFRS (International Financial Reporting Standards) as published by the International Accounting Standards Board (IASB), and endorsed by the European Union.

The accounting standards applied in the consolidated financial statements for the year ended December 31, 2015 are consistent with those used to prepare the consolidated financial statements for the year ended December 31, 2014.

### Standards, interpretations and amendments applicable as from 2015

No new standards, Interpretations or amendments have become applicable as from 2015, which have a material impact on the Group's consolidated financial statements.

### Standards, interpretations and amendments applicable as from 2016

No new standards, interpretations or amendments are applicable as from 2016, which are expected to have a material impact on the Group's consolidated financial statements.

### Standards, interpretations and amendments applicable after 2016

- IFRS 9 *Financial Instruments* (applicable for annual periods beginning on or after January 1, 2018, not yet endorsed in EU).
- IFRS 15 *Revenue from Contracts with Customers* (applicable for annual periods beginning on or after January 1, 2018, not yet endorsed in EU).
- IFRS 16 *Leases* (applicable for annual periods beginning on or after January 1, 2019, not yet endorsed in EU).

The impact from the application of those Standards and amendments is currently being assessed.

Other standards, interpretations and amendments applicable after 2016 are not expected to have a material impact on the Group's consolidated financial statements.

### 2 Basis of measurement and presentation

The consolidated financial statements are presented in millions of euros, which is also the functional currency of the parent company.

The preparation of the financial statements requires the use of estimates and assumptions that have an impact on the application of accounting policies and the measurement of amounts recognized in the financial statements. The areas for which the estimates and assumptions are material with respect to the consolidated financial statements are presented in the section *Critical accounting judgments and key sources of estimation uncertainty*.

### 3 Principles of consolidation

The consolidated financial statements incorporate the financial statements of the Company, and:

- entities controlled by the Company (including through its subsidiaries) and that hence qualify as subsidiaries;
- arrangements over which the Company (including through its subsidiaries) exercises joint control, and that qualify as joint operations (see *IFRS main accounting policies - 7. Interests in joint operations*);
- arrangements over which the Company (including through its subsidiaries) exercises joint control, and that qualify as joint ventures (see *IFRS main accounting policies - 6. Investments in associates and joint ventures*);
- entities over which the Company (including through its subsidiaries) has significant influence and that hence qualify as associates (see *IFRS main accounting policies - 6. Investments in associates and joint ventures*).

Where necessary, adjustments are made to the financial statements of the investees so as to align their accounting policies with those of the Group.

### 4 Investments in subsidiaries

A subsidiary is an entity over which the Group has control. Control is achieved when the Group has (a) power over an investee, (b) exposure, or rights, to variable returns from its involvement with the investee, and (c) the ability to use its power over the investee to affect the amount of the investor's returns. To assess whether the Group has control, potential voting rights are taken into account. Subsidiaries are fully consolidated. The results of subsidiaries acquired or disposed of during the year are included in the consolidated income statement from the effective date of acquisition and up to the effective date of disposal.

All intra-group transactions, balances, income and expenses are eliminated on consolidation.

Non-controlling interests in subsidiaries are presented separately from the Group's equity. Non-controlling interests are initially measured, either at fair value (full goodwill method), or at the non-controlling interests' proportionate share in the recognized amounts of the acquiree's identifiable net assets (proportionate goodwill method). The choice of measurement is made on an acquisition-by-acquisition basis. Subsequent to the acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in the Group's equity interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiary. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity.



When the Group loses control of a subsidiary, the profit or loss on disposal is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest, and (ii) the previous carrying amount of the assets (including goodwill) and liabilities of the subsidiary and any non-controlling interests. Amounts previously recognized in other comprehensive income in relation to the subsidiary are accounted for (*i.e.* reclassified to profit or loss or transferred directly to retained earnings) in the same manner as would be required if the relevant assets or liabilities were disposed of. The fair value of any investment retained in the former subsidiary at the date when control is lost is considered to be the fair value on initial recognition for subsequent accounting in accordance with IAS 39 *Financial Instruments: Recognition and Measurement* or, when applicable, the cost on initial recognition of an investment in an associate or joint venture in accordance with IAS 28 *Investments in Associates and Joint Ventures*.

## 5 Business combinations

### General

Acquisitions of subsidiaries are accounted for using the acquisition method. The consideration for each acquisition is measured at the aggregate of the fair values (at the date of acquisition) of assets transferred and liabilities incurred or assumed, and equity instruments issued by the Group in exchange for control of the acquiree. Acquisition-related costs are recognized in profit or loss as incurred.

Where applicable, the consideration for the acquisition includes any asset or liability resulting from a contingent consideration arrangement, measured at its acquisition-date fair value. Subsequent changes in such fair values are adjusted against the cost of acquisition where they qualify as measurement period adjustments (see below). All other subsequent changes in the fair value of contingent consideration classified as an asset or liability are accounted for in accordance with relevant IFRSs, generally through profit or loss.

Where a business combination is achieved in stages, the Group's previously held interests in the acquired entity are remeasured to fair value at the acquisition date (*i.e.* the date the Group obtains control) and the resulting gain or loss, if any, is recognized in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognized in other comprehensive income are reclassified to profit or loss, where such treatment would be appropriate if that interest were disposed of.

The acquiree's identifiable assets, liabilities and contingent liabilities that meet the conditions for recognition under IFRS 3 *Business Combinations* are recognized and measured at their fair value at the acquisition date, except that:

- deferred tax assets or liabilities, and liabilities or assets related to employee benefit arrangements are recognized and measured in accordance with IAS 12 *Income Taxes*, and IAS 19 *Employee Benefits*, respectively;
- liabilities or equity instruments related to the replacement by the Group of an acquiree's share-based payment awards are measured in accordance with IFRS 2 *Share-based Payment*; and

- assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* are measured in accordance with that Standard.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see paragraph below), or additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amounts recognized as of that date.

The measurement period is the period from the date of acquisition to the date the Group obtains complete information about facts and circumstances that existed as of the acquisition date, and does not exceed twelve months.

### Goodwill

Goodwill arising in a business combination is recognized as an asset at the date that control is obtained (the acquisition date). Goodwill is measured as the excess of the sum of:

- (a) the consideration transferred;
- (b) the amount of any non-controlling interests in the acquiree; and
- (c) in a business combination achieved in stages, the acquisition date fair value of the previously held equity interest in the acquiree,

over the share acquired by the Group in the fair value of the entity's identifiable net assets at the acquisition date.

Goodwill is not amortized but is tested for impairment on an annual basis, and more frequently if there are any impairment triggers identified.

For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units (or groups of cash-generating units) in accordance with IAS 36 *Impairment of Assets*.

A cash-generating unit (CGU) is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other group(s) of assets.

These tests consist of comparing the carrying amount of the assets or (groups of) CGUs with their recoverable amount. The recoverable amount of an asset or a (group of) CGU(s) is the higher of its fair value less costs to sell and its value in use. If the recoverable amount of the CGU is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata on the basis of the carrying amount of each asset in the unit. An impairment loss recognized on goodwill shall not be reversed in a subsequent period.

On disposal of an operation within a CGU to which goodwill has been allocated, the goodwill associated with the operation disposed of is included in the determination of the profit or loss on disposal. It is measured on the basis of the relative values of the operation disposed of and the portion of the CGU retained, unless another method better reflects the goodwill associated with the operation disposed of.

## 6 Investments in associates and joint ventures

An associate is an entity over which the Group has significant influence and that is neither a subsidiary, nor an interest in a joint arrangement. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about relevant activities require the unanimous consent of the parties sharing control.

The results, assets and liabilities of associates and joint ventures are incorporated in the consolidated financial statements using the equity method of accounting, except when the investment is classified as held for sale, in which case it is accounted for in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*. Under the equity method, on initial recognition, investments in associates and joint ventures are recognized in the consolidated statement of financial position at cost, and the carrying amount is adjusted for post-acquisition changes in the Group's share of the net assets of the associate or joint venture, less any impairment of the value of individual investments. Losses of an associate or joint venture in excess of the Group's interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate or joint venture) are recognized only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture.

Any excess of the cost of acquisition over the Group's share of the net fair value of the identifiable assets and (contingent) liabilities of the associate or joint venture recognized at the date of acquisition is goodwill. The goodwill is included within the carrying amount of the investment and is assessed for impairment as part of that investment. Any excess of the Group's share of the net fair value of the identifiable assets and (contingent) liabilities over the cost of acquisition, after reassessment, is recognized in profit or loss in the period in which the investment is acquired.

Where a Group entity transacts with an associate or joint venture of the Group, profits and losses are eliminated to the extent of the Group's interest in the relevant associate or joint venture.

## 7 Interests in joint operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about relevant activities require the unanimous consent of the parties sharing control. In its consolidated financial statements, the Group recognizes its share of the joint operations' assets, liabilities, revenue and expenses, based on its ownership interest in the joint operations.

## 8 Foreign currencies

The individual financial statements of each Group entity are prepared in the currency of the primary economic environment in which the entity operates (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of each Group entity are expressed in euros (EUR), which is the functional currency of the Company and the presentation currency of the Group's consolidated financial statements.

In preparing the financial statements of the individual entities, transactions in currencies other than the entities' functional currency are recognized at the exchange rates prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are translated at the closing rate.

Non-monetary items carried at fair value that are denominated in foreign currencies are translated at the rate when the fair value was measured. Non-monetary items that are measured in terms of historical cost in a foreign currency are not translated at the closing rate.

Exchange differences are recognized in profit or loss in the period in which they arise except for:

- exchange differences on foreign currency borrowings relating to assets under construction for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings;
- exchange differences on transactions entered into in order to hedge certain foreign currency risks (see *IFRS main accounting policies – 23. Hedge accounting* below for hedge accounting policies); and
- exchange differences on monetary items receivable from or payable to a foreign operation for which settlement is neither planned nor likely to occur in the foreseeable future (therefore forming part of the net investment in the foreign operation), which are recognized initially in other comprehensive income under "currency translation differences".

For the purpose of presenting consolidated financial statements at the end of each reporting period, the assets and liabilities of the Group's foreign operations are expressed in euros using closing rates. Income and expense items are translated at the average exchange rates for the period except when the impact of applying the average rate is materially different from applying the spot rate at the respective transactions' dates, in which case the latter is applied. Exchange differences arising, if any, are recognized in other comprehensive income as "currency translation differences".

Currency translation differences are reclassified from equity to profit or loss, on:

- a disposal of the Group's entire interest in a foreign operation, or a partial disposal involving loss of control over a subsidiary that includes a foreign operation. In this case, all of the accumulated exchange differences in respect of that operation attributable to the Group are reclassified to profit or loss. Any exchange differences that have previously been attributed to

non-controlling interests are derecognized, but they are not reclassified to profit or loss;

- a partial disposal of an interest in a joint arrangement or an associate that includes a foreign operation, when the retained interest is a financial asset. In this case, the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

In the case of a partial disposal of a subsidiary (*i.e.* no loss of control) that includes a foreign operation, the proportionate share of accumulated exchange differences is reattributed to non-controlling interests and is not recognized in profit or loss.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated into the Group's presentation currency at the closing rate.

The main exchange rates used are:

		Year-end rate		Average rate	
		2015	2014	2015	2014
1 Euro =					
Argentine Peso	ARS	14.1601	10.3879	10.2349	10.7730
Brazilian Real	BRL	4.3117	3.2207	3.7014	3.1211
Yuan Renminbi	CNY	7.0608	7.5358	6.9729	8.1876
Pound Sterling	GBP	0.7340	0.7789	0.7259	0.8062
Japanese Yen	JP¥	131.0700	145.2300	134.3069	140.3130
Russian Ruble	RUB	80.6736	72.3370	68.1152	50.9460
Thai Baht	THB	39.2480	39.9100	38.0270	43.1534
US Dollar	USD	1.0887	1.2141	1.1094	1.3287
Venezuelan Bolivar Fuerte	VEF	6.8626	7.6526	6.9901	8.3740

## 9 Provisions for post-employment and other long-term employee benefits

The Group's employees are offered various post-employment and other long-term employee benefits as a result of legislation applicable in certain countries, contractual agreements entered into by the Group with its employees or constructive obligations.

The post-employment benefits are classified as defined contribution or defined benefit plans.

### Defined contribution plans

Defined contribution plans involve the payment of fixed contributions to a separate entity, and release the employer from any subsequent obligation, as this separate entity is solely responsible for paying the amounts due to the employee. The expense is recognized when an employee has rendered service to the Group during the period.

### Defined benefit plans

Defined benefit plans concern all plans other than defined contribution plans, and include:

- post-employment benefits: pension plans, termination benefits, other retirement obligations and supplemental benefits;
- other long-term employee benefits: long-service benefits granted to employees according to their seniority in the Group;
- other post-employment benefits: medical care.

Taking into account projected final salaries on an individual basis, post-employment benefits are measured by applying a method

(projected unit credit method) using assumptions involving discount rate, life expectancy, turnover, wages, annuity revaluation and medical cost inflation. The assumptions specific to each plan take into account the local economic and demographic contexts.

The discount rates are interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension obligation.

The amount recognized under post-employment obligations corresponds to the difference between the present value of future obligations and the fair value of the plan assets funding the plan. If this calculation gives rise to a deficit, an obligation is recognized in liabilities. Otherwise, a net asset limited to the lower of the surplus in the defined benefit plan and the present value of any future plan refunds or any reduction in future contributions to the plan is recognized.

The defined benefit cost consists of service cost and net interest (based on discount rate) on the net liability or asset, both recognized in profit or loss, and remeasurements of the net liability or asset, recognized in other comprehensive income.

Service cost consists of current service cost, past service cost resulting from plan amendments or curtailments and settlement gains or losses.

The interest expenses arising from the reverse discounting of the benefit obligations, the financial income on plan assets (determined by multiplying the fair value of the plan assets by the discount rate) as well as interest on the effect of the asset ceiling are recognized on a net basis in the net financial charges.

Remeasurements of the net liability or asset consist of:

- actuarial gains and losses on the benefit obligations arising from experience adjustments and/or changes in actuarial assumptions (including the effect of changes in the discount rate);
- the return on plan assets (excluding amounts in net interest) and changes in the limitation of the net asset recognized.

Other long-term benefits such as long service awards are accounted for in the same way as post-employment benefits but remeasurements are fully recognized in the net financial charges during the period in which they occur.

The actuarial calculations of post-employment obligations and other long-term benefits are performed by independent actuaries.

## 10 Non-recurring items

Non-recurring items mainly include:

- gains and losses on the sale of subsidiaries, joint operations, joint ventures, and associates that do not qualify as discontinued operations;
- acquisition costs of new businesses;
- gains and losses on the sale of real estate not directly linked to an operating activity;
- major restructuring charges;
- impairment losses resulting from the shutdown of an activity or a plant;
- impairment losses resulting from testing of CGUs;
- the impact of significant litigations;
- the remediation costs not generated by on-going production facilities (shut-down of sites, discontinued activities, previous years' pollution).

## 11 Income taxes

### Current taxes

The current tax payable is based on taxable profit of the year. Taxable profit differs from profit as reported in the consolidated income statement because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

### Deferred taxes

Deferred tax is recognized for temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and their corresponding tax bases used in the computation of taxable profit.

Deferred tax assets are generally recognized for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred taxes are calculated at local level. Deferred tax liabilities are generally recognized for all taxable temporary differences.

No deferred tax liabilities are recognized following the initial recognition of goodwill.

In addition, no deferred tax assets or liabilities recognized with respect to the initial recognition of an asset or liability in a transaction which is not a business combination and affects neither accounting profit nor taxable profit.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries, joint operations, joint ventures, and associates, except where the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

### Current and deferred taxes for the period

Current and deferred taxes for the period are recognized as an expense or income in profit or loss, except when they relate to items that are recognized outside profit or loss (whether in other comprehensive income or directly in equity), in which case the tax is also recognized outside profit or loss, or when they arise from the initial accounting for a business combination. In the case of a business combination, the tax effect is taken into account in the accounting for the business combination.

## 12 Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards incidental to ownership. All other leases are classified as operating leases.

Agreements not in the legal form of a lease contract are analyzed in accordance with IFRIC 4 *Determining whether an Arrangement contains a Lease* to determine whether or not they contain a leasing contract to be accounted for in accordance with IAS 17 *Leases*.

### Finance leases – lessee

Assets held under finance leases are initially recognized as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the consolidated statement of financial position as a finance lease obligation.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets or, where shorter, the term of the lease.

Lease payments are apportioned between finance expenses and reduction of the lease obligation so as to produce a constant periodic rate of interest on the remaining balance of the liability. Finance expenses are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalized in accordance with the Group's general policy on borrowing costs (see *IFRS main accounting policies – 17. Capitalized borrowing costs*). Contingent rentals arising under finance leases are recognized as expenses in the periods in which they are incurred.

### Operating leases – lessee

Operating lease payments are recognized as an expense on a straight-line basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognized as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognized as a liability. The aggregate benefit of incentives is recognized as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

## 13 Intangible assets

### General

An intangible asset is an identifiable non-monetary asset without physical substance. It is identifiable when it is separable, *i.e.* is capable of being separated or divided from the Group, or when it arises from contractual or other legal rights. An intangible asset shall be recognized if, and only if:

- (a) it is probable that the expected future economic benefits that are attributable to the asset will flow to the Group; and
- (b) the cost of the asset can be measured reliably.

Intangible assets acquired or developed internally are initially measured at cost. The cost of an acquired intangible asset comprises its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates, and any directly attributable cost of preparing the asset for its intended use. Subsequent expenditure on intangible assets is capitalized only if it is probable that it will increase the future economic benefits associated with the specific asset. Other expenditure is expensed as incurred.

After initial recognition, intangible assets are measured at cost less accumulated amortization and impairment losses, if any.

Intangible assets are amortized on a straight-line basis over their estimated useful lives, which do not exceed the contractual period, if any. The estimated useful lives, residual values and amortization methods are reviewed at each year-end, and any changes in estimates are accounted for prospectively.

Patents and trademarks	2-20 years
Software	3-5 years
Development expenditures	2-5 years
Other intangible assets – Customer relationships	5-29 years
Other intangible assets – Technology	5-20 years

Amortization expense is included in the consolidated income statement within cost of goods sold, commercial and administrative costs, and research and development costs.

The asset is tested for impairment if there is a trigger for impairment, and annually for projects under development (see *IFRS main accounting policies – 16. Impairment of tangible and intangible assets (excluding goodwill), and equity method investees*).

Intangible assets are derecognized from the consolidated statement of financial position on disposal or when no future economic benefits are expected from their use or disposal. The gain or loss arising from the derecognition of an intangible asset is recognized in profit or loss at the moment of derecognition.

### Research and Development costs

Research costs are expensed in the period in which they are incurred.

Development costs are capitalized if, and only if, all the following conditions are fulfilled:

- the cost of the asset can be reliably measured;
- the technical feasibility of the product has been demonstrated;
- the product or process will be placed on the market or used internally;
- the assets will generate future economic benefits (a potential market exists for the product or, where it is to be used internally, its future utility has been demonstrated);
- the technical, financial and other resources required to complete the project are available.

Development costs comprise employee expenses, the cost of materials and services directly attributable to the projects, and an appropriate share of directly attributable fixed costs including, and where applicable, borrowing costs. They are amortized as from the moment they are available for use, *i.e.* when they are in the location and condition necessary for them to be capable of operating in the manner intended by management. Development costs which do not satisfy the above conditions are expensed as incurred.

### Other intangible assets

Other intangible assets mainly include customer lists, technologies and other intangible commercial assets, such as brand names, acquired separately or in a business combination.

## 14 CO<sub>2</sub> emission rights

With respect to the mechanism set up by the European Union to encourage manufacturers to reduce their greenhouse gas emissions, the Group was granted carbon dioxide (CO<sub>2</sub>) emission rights for some of its installations. The Group is also involved in Clean Development Mechanism (CDM) under the Kyoto protocol. Under these projects, the Group has deployed facilities in order to reduce greenhouse gas emissions at the relevant sites in return for Certified Emission Reductions (CER).

In the absence of any IFRS regulating the accounting treatment of CO<sub>2</sub> emission rights, the Group applies the Trade/Production model, according to which CO<sub>2</sub> emission rights are presented as inventories if they will be consumed in the production process or as derivatives if they are held for trading. Energy Services is involved in developing CO<sub>2</sub> instrument trading, arbitrage and hedging activities, and developing the "Origination" activity. The net income or expense from these activities is recognized in other operating income for the industrial component, where Energy Services sells the CO<sub>2</sub> emission rights generated by Solvay, as well as for the trading component, where Energy Services acts as a trader/broker with respect to those CO<sub>2</sub> emission rights.

## 15 Tangible assets

### General

Property, plant and equipment are tangible items that:

- are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and
- are expected to be used during more than one period.

The items of property, plant and equipment owned by the Group are recognized as tangible assets when the following conditions are satisfied:

- it is probable that the future economic benefits associated with the asset will flow to the Group;
- the cost of the asset can be measured reliably.

Items of property, plant and equipment are initially measured at cost. The cost of an item of property, plant and equipment comprises its purchase price and any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. If applicable, the cost comprises borrowing costs during the construction period.

After initial recognition, items of property, plant and equipment are measured at cost less accumulated depreciation and impairment losses, if any.

Items of property, plant and equipment are depreciated on a straight-line basis over their estimated useful lives. The components of an item of property, plant and equipment with different useful lives are depreciated separately. Land is not depreciated. The estimated useful lives, residual values and depreciation methods are reviewed at each year-end, and any changes in estimates are accounted for prospectively.

Buildings	30-40 years
IT equipment	3-5 years
Machinery and equipment	10-20 years
Transportation equipment	5-20 years

Depreciation expense is included in the consolidated income statement within cost of goods sold, commercial and administrative costs, and R&D costs.

The asset is tested for impairment if there is trigger for impairment (see *IFRS main accounting policies - 16. Impairment of tangible and intangible assets (excluding goodwill), and equity method investees*).

Items of property, plant and equipment are derecognized from the consolidated statement of financial position on disposal or when no future economic benefits are expected from their use or disposal. The gain or loss arising from the derecognition of an item of property, plant and equipment is recognized in profit or loss at the moment of derecognition.

### Subsequent expenditure

Subsequent expenditure related to items of property, plant and equipment is capitalized only if it is probable that it will increase the future economic benefits associated with the specific asset. Other expenditure is expensed as incurred. Subsequent expenditure incurred for the replacement of a component of an item of property, plant and equipment is only recognized as an asset when it satisfies the recognition criteria mentioned above. The carrying amount of replaced items is derecognized.

Repair and maintenance costs are recognized in the consolidated income statement as incurred.

Regarding its industrial activity, Solvay incurs expenditure for major repairs over several years for most of its sites. The purpose of this expenditure is to maintain the proper working order of certain installations without altering their useful life. This expenditure is considered as a specific component of the item of property, plant and equipment and is depreciated over the period during which the economic benefits are expected to be obtained, *i.e.* the major repairs' interval.

### Dismantling costs

Dismantling and restoration costs are included in the cost of an item of property, plant and equipment if the Group has a legal or constructive obligation to dismantle or restore. They are depreciated over the useful life of the items to which they pertain.

Generally, Solvay's obligation to dismantle and/or restore its operating sites is only likely to arise upon the discontinuation of a site's activities. A provision for dismantling of discontinued sites or installations is recognized when there is a legal obligation (due to a request or injunction from the relevant authorities), or when there is no technical alternative than to dismantle, so to ensure the safety compliance of the discontinued sites or installations.

## 16 Impairment of tangible and intangible assets (excluding goodwill), and equity method investees

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the CGU to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are allocated to individual CGUs, or otherwise they are allocated to the smallest group of CGUs for which a reasonable and consistent allocation basis can be identified.

The recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount. An impairment loss is recognized immediately in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or CGU) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined (net of amortization or depreciation) had no impairment loss been recognized for the asset (or CGU) in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

## 17 Capitalized borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

## 18 Government grants

Government grants are not recognized until there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants relating to the purchase of property, plant and equipment are deducted from the cost of those assets. They are recognized in the consolidated statement of financial position at

their expected value at the time of initial government approval. The grant is recognized in profit or loss over the depreciation period of the underlying assets as a reduction of depreciation expense.

Other government grants are recognized as income on a systematic basis over the periods in which the related costs, which they are intended to compensate, are recognized. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognized in profit or loss in the period in which they become receivable.

## 19 Inventories

Cost of inventories includes the purchase, conversion and other costs incurred in bringing the inventories to their present location and condition. The cost of inventories is determined by using the weighted average cost or first-in, first-out (FIFO) method. Inventories having a similar nature and use are measured using the same cost formula.

Inventories are measured at the lower of purchasing cost (raw materials and merchandise) or production cost (work in progress and finished goods) and net realizable value. Net realizable value represents the estimated selling price, less all estimated costs of completion and the estimated costs necessary to make the sale.

## 20 Financial assets

Financial assets include available-for-sale securities, loans and receivables, and derivative financial instruments. All financial assets are recognized and derecognized on trade date where the purchase or sale of a financial asset is under a contract whose terms require delivery of the financial asset within the timeframe established by the market concerned, and are initially measured at fair value, plus transaction costs, except for financial assets classified as at fair value through profit or loss, which are initially measured at fair value.

A financial asset is classified as current when the cash flows expected to flow from the instrument mature within one year.

At initial recognition, Solvay classifies financial assets into one of the four categories provided in IAS 39 *Financial Instruments: Recognition and Measurement*. This classification determines the method for measuring financial assets at subsequent reporting dates: amortized cost or fair value.

Amortized cost is the amount at which the financial asset is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, minus any reduction for impairment or uncollectibility. The effective interest method is a method of calculating the amortized cost of a debt instrument and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees on points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the debt instrument, or, when appropriate, a shorter period, to the net carrying amount on initial recognition.

Income is recognized on an effective interest basis for debt instruments other than those financial assets classified as at fair value through profit or loss.

For instruments quoted in an active market, the fair value corresponds to a market price (level 1). For instruments that are not quoted in an active market, the fair value is determined using valuation techniques including reference to recent arm's length market transactions or transactions involving instruments which are substantially the same (level 2), or discounted cash flow analysis including, to a maximum extent, assumptions consistent with observable market data (level 3). However, if the fair value of an equity instrument that does not have a quoted price in an active market cannot be reliably estimated, it is measured at cost.

### Financial assets at fair value through profit or loss

Financial assets are measured at fair value with any resulting gains or losses recognized in profit or loss if they are held for trading. A financial asset is classified in this category if acquired principally for the purpose of selling in the short term. Derivatives are also classified as held for trading. In this case, resulting gains and losses are recognized in profit or loss unless they are designated and effective as hedging instruments in a cash flow hedge.

### Available-for-sale financial assets

Available-for-sale financial assets include equity investments in entities, which were not acquired principally for the purpose of selling in the short term, and which are not subsidiaries, joint operations, joint ventures, or associates. Assets classified in this category are measured at fair value, with any resulting gains or losses recognized in other comprehensive income. If there is objective evidence that the asset is impaired, any cumulative loss that had been recognized in other comprehensive income is reclassified from equity to profit or loss.

### Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments which are not quoted in an active market. The Group's loans and receivables category comprises cash and cash equivalents, trade receivables and other non-current receivables except pension fund surpluses. Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash, have original maturities of three months or less from the date of acquisition, and are subject to insignificant risk of change in value. Loans and receivables are measured at amortized cost using the effective interest method, less any impairment.

### Impairment of financial assets

The impairment loss of a financial asset measured at amortized cost equals the difference between the carrying amount and the estimated future cash flows, discounted at the initial effective interest rate. The impairment of an available-for-sale financial asset is calculated with reference to its current fair value.

An impairment test is performed, on an individual basis, for each material financial asset. Other assets are tested as groups of financial assets with similar credit risk characteristics.

Impairment losses are recognized in the consolidated income statement.

The impairment loss is reversed if the reversal can be objectively related to an event occurring after the impairment was recognized. For financial assets measured at amortized cost, the reversal is recognized in profit or loss. After reversal, the carrying amount of the financial asset measured at amortized cost shall not exceed what the amortized cost would have been, had the impairment not been recognized. Impairment losses with respect to an equity instrument classified as available for sale are not reversed through profit or loss. Impairment losses with respect to debt instruments classified as available for sale are recognized in profit or loss to the extent of the impairment loss previously recognized in profit or loss. Impairment losses relating to assets measured at cost cannot be reversed.

## 21 Financial liabilities

Financial liabilities are classified as either "financial liabilities at fair value through profit or loss" or "financial liabilities measured at amortized cost".

### Financial liabilities at fair value through profit or loss

Financial liabilities are measured at fair value with any resulting gains or losses recognized in profit or loss if they are held for trading. A financial liability is classified in this category if acquired principally for the purpose of selling in the short term. Derivatives are also classified as held for trading. In this case, resulting gains and losses are recognized in profit or loss unless they are designated and effective as hedging instruments in a cash flow hedge.

### Financial liabilities measured at amortized cost using the effective interest method

Financial liabilities measured at amortized cost, including borrowings, are initially measured at fair value, net of transaction costs. They are subsequently measured at amortized cost using the effective interest method, with interest expense recognized on an effective yield basis.

The effective interest method is a method of calculating the amortized cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

The Group's financial liabilities measured at amortized cost comprise long-term financial debt, other current and non-current liabilities, short-term financial debt, trade liabilities and dividends payable.



## 22 Derivative financial instruments

Derivative financial instruments are financial instruments with all three of the following characteristics:

- their value changes in response to the change in a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, etc.;
- they require no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors; and
- they are settled at a future date.

The Group enters into a variety of derivative financial instruments (forward, future, option, and swap contracts) to manage its exposure to interest rate risk, foreign exchange rate risk and commodity risk (mainly energy and CO<sub>2</sub> emission rights price risks). Further details of derivative financial instruments are disclosed in note 37.

Derivatives are initially recognized at fair value at the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in income or expense, unless the derivative is designated and effective as a hedging instrument (see *IFRS main accounting policies – 23. Hedge accounting*). The Group designates certain derivatives as hedging instruments of the exposure to variability in cash flows with respect to a recognised asset or liability or a highly probable forecast transaction (cash flow hedges).

A derivative with a positive fair value is recognized as a financial asset whereas a derivative with a negative fair value is recognized as a financial liability. Derivative instruments (or portions of them) are presented as non-current assets or non-current liabilities if the remaining maturity of the underlying settlements is more than twelve months after the reporting period. Other derivative instruments (or portions of them) are presented as current assets or current liabilities.

## 23 Hedge accounting

The Group designates certain derivatives and embedded derivatives, in respect of foreign currency risk, interest rate risk, energy price risk and CO<sub>2</sub> emission rights price risk, as hedging instruments in a cash flow hedge relationship.

At the inception of the hedge relationship, the entity documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking the hedge transaction. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument is highly effective in offsetting changes in cash flows of the hedged item.

Note 37 sets out details of the fair values of the derivative instruments used for hedging purposes.

## Cash flow hedges

The effective portion of changes in the fair value of hedging instruments that are designated in a cash flow hedge is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss.

Amounts previously recognized in other comprehensive income are reclassified to profit or loss in the periods when the hedged item is recognized in profit or loss, in the same line of the consolidated income statement as the recognized hedged item. When the hedged forecast transaction results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously recognized in other comprehensive income are transferred from other comprehensive income and included in the initial measurement of the cost of the non-financial asset or non-financial liability.

Hedge accounting is discontinued when the Group revokes the hedging relationship, the hedging instrument expires or is sold, terminated, or exercised, or no longer qualifies for hedge accounting. Any gain or loss accumulated in other comprehensive income at that time remains in other comprehensive income and will affect profit or loss as described in the paragraph above. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in other comprehensive income is recognized immediately in profit or loss as a reclassification adjustment. If all or a portion of a loss recognized in other comprehensive income will not be recovered in one or more future periods, the amount that is not expected to be recovered is immediately reclassified into profit or loss.

## 24 Shareholders' equity

### Share capital

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issuance of new share capital are directly recognized in equity as a deduction, net of tax, from the equity issuance proceeds.

### Reserves

The reserves include:

- treasury shares;
- perpetual hybrid bonds that qualify as equity absent any unavoidable contractual obligation to repay the principal and interest of the perpetual hybrid bonds (no maturity, interest is payable annually but can be deferred indefinitely at the issuer's discretion);
- retained earnings;
- impact of hyperinflation accounting;
- currency translation differences from the consolidation process relating to the translation of the financial statements of foreign operations prepared in a functional currency other than the euro;

- the impacts of the fair value remeasurement of available-for-sale financial assets;
- the impacts of the fair value remeasurement of financial instruments documented as hedging instruments in cash flow hedges;
- actuarial gains and losses related to defined benefit plans.

### Non-controlling interests

Those represent the share of non-controlling interests in the net assets and comprehensive income of subsidiaries of the Group. This share represents the interests in subsidiaries that are not held by the Company or its subsidiaries.

### 25 Provisions

Provisions are recognized when (a) the Group has a present obligation (legal or constructive) as a result of a past event, (b) it is probable that the Group will be required to settle the obligation, and (c) a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. Where the effect of the time value of money is material, the amount is the present value of expenditures required to settle the obligation. Impacts of changes in discount rates are generally recognized in the financial result.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is virtually certain that reimbursement will be received if the Group settles the obligation.

### Onerous contracts

An onerous contract is a contract in which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it. Present obligations arising from onerous contracts are recognized and measured as provisions.

### Restructurings

A restructuring provision is recognized when the Group has developed a detailed formal plan for the restructuring and has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement the plan or announcing its main features to those affected by it. The measurement of a restructuring provision includes only the direct expenditures arising from the restructuring, which are those amounts that are both necessarily entailed by the restructuring and not associated with the ongoing activities of the entity.

### Environmental liabilities

Solvay analyzes twice a year all its environmental risks and the corresponding provisions. Solvay measures these provisions to the best of its knowledge of applicable regulations, the nature and extent of the pollution, clean-up techniques and other available information.

### 26 Reporting in hyperinflationary economies

The Venezuelan economy being considered as a hyperinflationary economy, the Group has applied the hyperinflationary accounting requirements of IAS 29 *Financial Reporting in Hyperinflationary Economies* to its Venezuelan operations. The financial statements are based on the historical cost basis and have been restated to take into account the effects of hyperinflation.

The index used to reflect current values is based on the inflation rate published by Banco Central de Venezuela for the nine first months of 2015 and extrapolated for the last quarter.

In € million	At 31/12/2015	At 31/12/2014
Index at year end (2002 = 100)	5,929	2,118
Movement of the year	180.0%	67.5%

### 27 Segment information

An Operating Segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, whose operating results are regularly reviewed by the entity's chief operating decision maker and for which discrete financial information is available. The Solvay group's chief operating decision maker is the Chief Executive Officer. Segment information is further detailed in note 1.

### 28 Revenue recognition

Net sales and other revenue are measured at the fair value of the consideration received or receivable, net of returns, rebates and trade benefits granted and sales tax.

Net sales comprise the sales of goods and value-added services corresponding to Solvay's know-how.

Revenue from non-core activities primarily includes commodity and utility trading transactions and other revenue deemed as incidental by the Group.

Net sales and other revenue are recognized when all the following conditions have been satisfied:

- the Group has transferred to the buyer the significant risks and rewards of ownership of the goods or, with respect to the rendering of services, the stage of completion can be measured reliably;
- the Group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- the amount of revenue can be measured reliably;
- it is probable that the future economic benefits associated with the transaction will flow to the Group; and
- the costs incurred or to be incurred in respect of the transaction can be measured reliably.

## 29 Non-current assets held for sale and discontinued operations

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset (or disposal group) is available for immediate sale in its present condition. For a sale to be highly probable, management should be committed to a plan to sell the asset (or disposal group), an active program to locate a buyer and complete the plan should be initiated, the asset (or disposal group) should be actively marketed at a price which is reasonable in relation to its current fair value, the sale should be expected to be completed within one year from the date of classification, and actions required to complete the plan should indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

A discontinued operation is a component of the Group which the Group has disposed of or which is classified as held for sale, and:

- represents a separate major line of business or geographical area of operations;
- is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations; or
- is a subsidiary acquired exclusively with a view to resale.

A component of the Group consists of operations and cash flows, which can be clearly distinguished operationally and for financial reporting purposes, from the rest of the Group.

When the Group is committed to a sale plan involving loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Group will retain a non-controlling interest in its former subsidiary after the sale.

Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell. Any excess of the carrying amount over the fair value less costs to sell is recognized as an impairment loss. Depreciation of such assets is discontinued as from their classification as held for sale. Prior period statements of financial position are not restated to reflect the new classification of a non-current asset (or disposal groups) as held for sale.

In the consolidated statement of comprehensive income, the consolidated statement of cash flows, and disclosures, discontinued operations are re-presented for prior periods presented.

## 30 Finance income and expense

Finance income and expense are detailed in note 8.

Net foreign exchange gains or losses on financial items and the changes in fair value of derivative financial instruments are presented respectively in finance income or expense, with the exception of changes in fair value of derivative financial instruments that are hedging instruments in a cash flow hedge relationship, and which are recognized on the same line as the hedged item, when the latter affects profit or loss.

Interest on borrowings is recognized in costs of borrowings as incurred, with the exception of borrowing costs directly attributable to the acquisition, construction and production of qualifying assets (see *IFRS main accounting policies - 17. Capitalized borrowing costs*).

## 31 Share-based payments

Solvay has set up compensation plans, including equity-settled and cash-settled share-based compensation plans.

In its equity-settled plans, the Group receives services as consideration for its own equity instruments (share options). The fair value of services rendered by employees in consideration for the granting of equity-instruments represents an expense. This expense is recognized on a straight-line basis in the consolidated income statement over the vesting periods relating to these equity-instruments with the recognition of a corresponding adjustment in equity. The fair value of services rendered is measured in reference to the fair value of the equity-instruments on the grant date. It is not subsequently remeasured. At each reporting date, the Group re-estimates the number of share options likely to vest. The impact of the revised estimates is recognized in profit or loss against a corresponding adjustment in equity.

In its cash-settled plans, the Group acquires services by incurring a liability to transfer to its employees rendering those services amounts that are based on the price (or value) of equity instruments (including shares or share options) of the Group. The fair value of services rendered by employees in consideration for the granting of share-based payments represents an expense. This expense is recognized on a straight-line basis in the consolidated income statement over the vesting periods relating to these share-based payments with the recognition of a corresponding adjustment in liabilities. At each reporting date, the Group re-estimates the number of options likely to vest, with the impact of the revised estimates recognized in profit or loss. The Group measures the services acquired and the liability incurred at the fair value of the liability. Until the liability is settled, the Group remeasures the fair value of the liability at the end of each reporting period and at the date of settlement, with any changes in fair value recognised in profit or loss for the period.

## 32 Consolidated statement of comprehensive income

In accordance with IAS 1 *Presentation of Financial Statements*, the Group elected to present two statements, i.e. a consolidated income statement immediately followed by a consolidated comprehensive income statement.

The components of other comprehensive income (OCI) are presented before related tax effects with one amount shown for the aggregate amount of income tax relating to those components. Tax impacts are further disclosed in note 14.

## 33 Contingencies

Contingent assets are not recognized in the consolidated financial statements. They are disclosed if an inflow of economic benefits is probable.

Contingent liabilities are not recognized in the consolidated financial statements, except if they arise from a business combination. They are disclosed unless the possibility of an outflow of economic benefits is remote.

## 34 Events after the reporting period

Events after the reporting period which provide evidence of conditions that existed at the end of the reporting period (adjusting events) are recognized in the consolidated financial statements. Events indicative of conditions that arose after the reporting period are non-adjusting events and are disclosed in the notes if material.

### 35 Non IFRS metrics

Financial communication puts emphasis on two non IFRS metrics:

- a. REBITDA which consists of EBIT as presented in the consolidated income statement, excluding:
  - recurring amortization and depreciation;
  - non-recurring items (see *IFRS main accounting policies - 10. Non-recurring items* and note 7);
  - material financing related costs and non-recurring items for companies consolidated using the equity method of accounting;
  - operating revenues/expenses not taken into account by management when assessing segment performances.
- b. adjusted net income which corresponds to IFRS net income adjusted for amortization and depreciation resulting from the Rhodia Purchase Price Allocation;
- c. intended changes in non IFRS metrics:
  - new non IFRS metrics will be implemented in 2016, so to enhance the clarity of supplementary information to further facilitate

the understanding of the Group's performance. To prepare this implementation, the unaudited *pro forma* information including Cytec's financial statements discloses these new non IFRS metrics with the related glossary (see Financial Management Report and glossary);

- Underlying results are IFRS results that take into account other adjustments. It is intended to extend other adjustments (below REBITDA) to financial charges, taxes and to discontinued operations. Such will impact Underlying Net Income and Underlying earning per share (EPS). This will better align Solvay's practice with market standards;
- other adjustments are "income and expenses that are considered by Management as distorting the comparability over time of the Group underlying performance";
- Solvay's current definition of REBITDA (or Underlying EBITDA) remains unchanged and is in line with market practice;
- the Group will provide a more transparent reconciliation between both metrics.

## Critical accounting judgments and key sources of estimation uncertainty

### Impairment

The Group performs annual impairment tests on (groups of) CGUs to which goodwill has been allocated, and each time there are indicators that their carrying amount might be higher than their recoverable amount. This analysis requires management to estimate the future cash flows expected to arise from the CGUs and a suitable discount rate in order to calculate present value.

Further details are provided in note 28.

### Deferred tax assets

The carrying amount of the deferred tax assets is reviewed at each reporting date. The carrying amount of a deferred tax asset is reduced to the extent that it is no longer probable that the Group will earn sufficient taxable profits against which the deductions can be utilized. Any such reduction is reversed to the extent that it becomes probable that sufficient taxable profits will be available.

The corporate tax reporting team, which has the overview of the Group deferred tax positions, is involved in assessing deferred tax assets.

Deferred tax assets for tax loss carryforwards are based on five-year revenue forecasts, except with respect to financial companies where ten-year financial revenue forecasts are highly predictable and are consequently used.

Further details are provided in note 9.B.

### Employee benefits obligations

The actuarial assumptions used in determining the defined benefit obligations at December 31 as well as the annual cost can be found in note 35. All main employee benefits plans are assessed annually by independent actuaries. Discount rates and inflation rates are defined centrally by management. The other assumptions (such as future salary increases and expected rates of medical care cost increases) are defined at a local level. All plans are supervised by the Group's central Human Resources Department with the help of a central actuary to check the acceptability of the results and ensure consistency in reporting.

Further details are provided in note 35.

### Environmental provisions

Environmental provisions are managed and coordinated jointly by the Environmental Rehabilitation Department and the Finance Department.

The forecasts of expenses are discounted to their present value.

The discount rates fixed by geographical area correspond to the average risk-free rate on 10-year government bonds. These rates are set annually by the Finance Department and can be revised based on the evolution of economic parameters of the country involved.

To reflect the passage of time, the provisions are increased each year at the discount rates described above.

Further details are provided in note 35.

### Provisions for litigations

Any significant litigations (tax and other, including threat of litigation) are reviewed by Solvay's in-house lawyers with the support, when appropriate, of external counsels at least every quarter. This review includes an assessment of the need to recognize provisions and/or remeasure existing provisions together with the Finance Department and the Insurance Department. The resulting report is submitted to the Executive Committee by the Group's General Counsel and thereafter to the Audit Committee and to the Board of Directors.

Further details are provided in note 35.

### Fair value adjustments for business combinations

In accordance with IFRS 3 *Business Combinations*, the Group measures the identifiable assets acquired and (contingent) liabilities assumed in a business combination at fair value. Fair value adjustments are based on external appraisals or valuation models, e.g. for contingent liabilities and intangible assets which were not recognized by the acquirer. Internal benchmarks are often used for valuing specific production equipment. All of these valuation methods rely on various assumptions such as estimated future cash flows, remaining useful economic life, etc.

Further details are provided in note 26.

### Classification as held for sale

Assets are classified as held for sale if their carrying amount will be recovered through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset is available for immediate sale in its present condition. Amongst other conditions, management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification. However, in some cases, an asset may remain classified as held for sale for a period exceeding one year if it remains unsold due to events or circumstances beyond the Group's control.

### Inovyn

Chlorovinyls business was classified as a disposal group held for sale in 2013. The transaction closed on July 1, 2015.

### Solvay Indupa

On November 12, 2014, the Brazilian competition authority (CADE) notified its decision to reject the intended acquisition of Solvay's 70.59% majority stake in Solvay Indupa by Brazilian chemical producer Braskem. Solvay confirms that its strategic direction remains unaffected and that it is examining alternative options to sell its participation in Solvay Indupa. As a disposal within 12 months is considered highly probable, Solvay Indupa remains classified as non-current assets held for sale and discontinued operations at December 31, 2015.

Further details are provided in note 34.

### Fair value level 3 assessment

#### Inovyn

Solvay contributed its chlorovinyls business in the joint venture Inovyn on July 1, 2015.

Solvay's exit from Inovyn against receipt of an additional, performance-based payment qualifies as a derivative financial instrument, of which the fair value amounts to € 244 million at December 31, 2015. Its fair value is largely based on level 3 inputs, namely REBITDA multiples, comparing the expected exit price against the fair value of Solvay's 50% equity share held in Inovyn. Any future changes of estimates of REBITDA multiples will impact the fair value of the derivative financial instrument.

Further details are provided in note 37.

#### Solvay Indupa

At December 31, 2015, the carrying amount of the Group's interest in Solvay Indupa has been measured based on last indicative offers.

## General description of the segments

Solvay is organized into five Operating Segments:

**Advanced Formulations:** As one of Solvay's growth engines, the businesses grouped under Advanced Formulations stand out for their innovation capacity and relatively low capital intensity. Their offerings address major societal trends, meeting ever stricter requirements to respect the environment and to save energy, and challenges of the mass consumer markets.

**Advanced Materials:** A leader in markets with high entry barriers and strong returns on investment, the Advanced Materials Segment is a major contributor to the Group's performance and growth. Innovation, its global presence feature and long-term partnerships with customers provide a compelling competitive edge with industries seeking increasingly energy efficiency and less polluting functionalities.

**Performance Chemicals:** Operating in mature resilient markets, this segment's success is based on economies of scale, competitiveness and quality of service. Solidly cash-generating, the Performance Chemicals businesses are engaged in programs of excellence to create additional sustainable value.

**Functional Polymers:** The key success factors of this segment, which primarily groups the Polyamide activities, are continuous manufacturing optimization and innovation. Solvay is one of few players to operate across the entire polyamide 6.6 chain.

**Corporate & Business Services:** This segment includes the Solvay Energy Services business which delivers energy optimization programs within the Group as well as for third parties. It also includes the Corporate Functions.

## Notes to the consolidated income statement

### NOTE 1 Financial data by segment (consolidated income statement per segment after reclassification in discontinued operations for Chlorovinyls, Solvay Indupa, and Eco Services)

Information per segment for 2015 is presented below:

2015 In € million Income statement items	Advanced Formulations	Advanced Materials	Performance Chemicals	Functional Polymers	Corporate & Energy	Cytec	Group Total
Net sales (including the inter-segment sales)	2,656	3,341	3,126	1,541	11		10,676
• Inter-segment sales	(4)	(7)	(36)	(52)	0		(98)
Net sales	2,652	3,334	3,090	1,490	11		10,578
Gross margin	608	1,107	819	219	5		2,759
Depreciation and amortization	194	265	216	102	64		842
Adjustments for KPI monitored by Management	13			22			35
<b>REBITDA</b>	<b>378</b>	<b>836</b>	<b>789</b>	<b>141</b>	<b>(189)</b>		<b>1,955</b>
<i>Earnings from associates and joint ventures</i>	<i>9</i>	<i>8</i>	<i>20</i>	<i>(14)</i>	<i>(2)</i>		<i>21</i>
<b>EBIT</b>	<b>184</b>	<b>517</b>	<b>564</b>	<b>106</b>	<b>(539)</b>		<b>833</b>
Net financial charges							(226)
Income taxes							(97)
Result from discontinued operations							(55)
<b>Net income</b>							<b>454</b>

Statement of financial position and other items	Advanced Formulations	Advanced Materials	Performance Chemicals	Functional Polymers	Corporate & Energy	Cytec	Group Total
Capital expenditures (continuing operations)	214	340	267	71	77		969
Capital expenditures (discontinued operations)				68			68
Investments (continuing operations)	23	22		13		4,901	4,960
Working capital							
• Inventories	310	651	317	190	19	381	1,867
• Trade receivables	308	378	468	174	54	233	1,615
• Trade liabilities	277	336	342	189	259	156	1,559

Investment Cytec of € 4,901 million includes the total consideration plus acquisition-related expenses of € 5,099 million less cash acquired from Cytec of € 198 million.

Cytec is presented as a separate segment at December 31, 2015.

Information per segment for 2014 is presented below:

<b>2014</b> In € million						
<b>Income statement items</b>	<b>Advanced Formulations</b>	<b>Advanced Materials</b>	<b>Performance Chemicals</b>	<b>Functional Polymers</b>	<b>Corporate &amp; Energy</b>	<b>Group Total</b>
Net sales (including the inter-segment sales)	2,859	2,770	2,970	1,756	0	10,355
• Inter-segment sales	(5)	(8)	(26)	(103)	0	(142)
Net sales	2,854	2,762	2,944	1,654	0	10,213
Gross margin	639	958	733	181	48	2,559
Depreciation and amortization	172	200	206	116	57	751
Adjustments for KPI monitored by Management	12			60		72
<b>REBITDA</b>	<b>426</b>	<b>709</b>	<b>724</b>	<b>111</b>	<b>(188)</b>	<b>1,783</b>
<i>Earnings from associates and joint ventures</i>	13	12	15	(71)	(2)	(34)
<b>EBIT</b>	<b>236</b>	<b>457</b>	<b>459</b>	<b>(191)</b>	<b>(309)</b>	<b>652</b>
Net financial charges						(308)
Income taxes						(84)
Result from discontinued operations						(246)
<b>Net income</b>						<b>13</b>

<b>Statement of financial position and other items</b>	<b>Advanced Formulations</b>	<b>Advanced Materials</b>	<b>Performance Chemicals</b>	<b>Functional Polymers</b>	<b>Corporate &amp; Energy</b>	<b>Group Total</b>
Capital expenditures (continuing operations)	166	267	275	82	69	861
Capital expenditures (discontinued operations)			26	101		127
Investments (continuing operations)	50	231	0	107	23	411
Working capital						
• Inventories	334	561	298	206	21	1,420
• Trade receivables	342	359	436	186	95	1,418
• Trade liabilities	344	272	363	214	267	1,461

The reconciliation between REBITDA and EBIT is shown in note 3.

Capital expenditures are related to tangible and intangible assets.

External net sales by cluster are presented below:

In € million	2015	2014
<b>Advanced Formulations</b>	<b>2,652</b>	<b>2,854</b>
Novelcare	1,895	2,033
Aroma Performance	360	337
Coatis	398	484
<b>Advanced Materials</b>	<b>3,334</b>	<b>2,762</b>
Specialty Polymers	1,901	1,490
Silica	521	451
Rare Earth Systems	0	266
Special Chemicals	912	554
<b>Performance Chemicals</b>	<b>3,090</b>	<b>2,944</b>
Soda Ash & Derivatives	1,554	1,377
Peroxides	558	512
Acetow	542	641
Emerging Biochemicals	437	413
<b>Functional Polymers</b>	<b>1,490</b>	<b>1,654</b>
Polyamides	1,448	1,536
Chlorovinyls	41	117
<b>Corporate &amp; Business Services</b>	<b>11</b>	<b>0</b>
Energy Services	11	0
CBS	0	0
<b>TOTAL</b>	<b>10,578</b>	<b>10,213</b>

## NOTE 2 Sales by country and region (continuing operations)

Group sales by country and region are as follows:

In € million	2015	%	2014	%
Belgium	155	1%	142	1%
Germany	893	8%	877	9%
Italy	456	4%	456	4%
France	448	4%	494	5%
Great Britain	229	2%	226	2%
Spain	253	2%	259	3%
European Union - other	704	7%	687	7%
<b>European Union</b>	<b>3,138</b>	<b>30%</b>	<b>3,141</b>	<b>31%</b>
<b>Other Europe</b>	<b>247</b>	<b>2%</b>	<b>300</b>	<b>3%</b>
United States	2,311	22%	2,231	22%
Canada	102	1%	127	1%
<b>North America</b>	<b>2,413</b>	<b>23%</b>	<b>2,358</b>	<b>23%</b>
Brazil	750	7%	828	8%
Mexico	126	1%	110	1%
Latin America - other	191	2%	183	2%
<b>Latin America</b>	<b>1,066</b>	<b>10%</b>	<b>1,121</b>	<b>11%</b>
Russia	125	1%	151	1%
Turkey	71	1%	65	1%
China	1,008	10%	823	8%
India	216	2%	195	2%
Japan	352	3%	321	3%
South Korea	385	4%	349	3%
Thailand	514	5%	455	4%
Egypt	55	1%	57	1%
Other	989	9%	875	9%
<b>Asia and Rest of the World</b>	<b>3,715</b>	<b>35%</b>	<b>3,292</b>	<b>32%</b>
<b>TOTAL</b>	<b>10,578</b>	<b>100%</b>	<b>10,213</b>	<b>100%</b>



## Invested capital, capital expenditures and investments by country and region

Invested capital, capital expenditures and investments by country and region for continuing operations are shown below:

In € million	Invested capital				Capital Expenditures and investments			
	2015	%	2014	%	2015	%	2014	%
Belgium	2,838	14%	2,668	22%	(17)	0%	(76)	6%
Germany	746	4%	742	6%	(59)	1%	(101)	8%
Italy	762	4%	758	6%	(86)	1%	(70)	6%
France	1,952	10%	2,282	19%	(160)	3%	(169)	13%
Great Britain	205	1%	95	1%	(8)	0%	(8)	1%
Spain	147	1%	224	2%	(17)	0%	(13)	1%
European Union - other	678	3%	172	1%	(63)	1%	(71)	6%
<b>European Union</b>	<b>7,328</b>	<b>37%</b>	<b>6,939</b>	<b>57%</b>	<b>(410)</b>	<b>7%</b>	<b>(509)</b>	<b>40%</b>
<b>Other Europe</b>	<b>4</b>	<b>0%</b>	<b>3</b>	<b>0%</b>	<b>(15)</b>	<b>0%</b>	<b>0</b>	<b>0%</b>
United States <sup>(1)</sup>	9,075	46%	2,600	21%	(5,126)	86%	(332)	26%
Canada	212	1%	3	0%	0	0%	0	0%
<b>North America</b>	<b>9,287</b>	<b>47%</b>	<b>2,603</b>	<b>21%</b>	<b>(5,126)</b>	<b>86%</b>	<b>(332)</b>	<b>26%</b>
Brazil	447	2%	447	4%	(49)	1%	(97)	8%
Argentina	20	0%	35	0%	0	0%	0	0%
Latin America - other	91	0%	164	1%	(1)	0%	(1)	0%
<b>Latin America</b>	<b>559</b>	<b>3%</b>	<b>645</b>	<b>5%</b>	<b>(50)</b>	<b>1%</b>	<b>(97)</b>	<b>8%</b>
Russia	141	1%	154	1%	(14)	0%	(99)	8%
Thailand	424	2%	435	4%	(21)	0%	(25)	2%
China	869	4%	651	5%	(165)	3%	(90)	7%
South Korea	230	1%	180	1%	(31)	1%	(18)	1%
India	230	1%	204	2%	(16)	0%	(10)	1%
Singapore	80	0%	50	0%	(24)	0%	(18)	1%
Japan	87	0%	69	1%	(2)	0%	(3)	0%
Egypt	111	1%	113	1%	(1)	0%	(1)	0%
Other	229	1%	149	1%	(54)	1%	(69)	5%
<b>Asia and Rest of the World</b>	<b>2,402</b>	<b>12%</b>	<b>2,005</b>	<b>17%</b>	<b>(327)</b>	<b>6%</b>	<b>(332)</b>	<b>26%</b>
<b>TOTAL</b>	<b>19,579</b>	<b>100%</b>	<b>12,195</b>	<b>100%</b>	<b>(5,927)</b>	<b>100%</b>	<b>(1,272)</b>	<b>100%</b>

(1) The amounts reported include the acquisition of Cytec (see note 26).

Invested capital includes the non-current assets (excluding the deferred taxes), inventories and trade receivables and payables. Capital expenditures and investments include tangible and intangible assets and investments in subsidiaries and other investments.

### NOTE 3 REBITDA (non IFRS metrics)

REBITDA for continuing operations is the non IFRS metrics used by management to monitor segment performance and to allocate resources.

REBITDA is computed as follows:

In € million	2015	2014
<b>EBIT IFRS</b>	<b>833</b>	<b>652</b>
Non-recurring items	245	308
RusVinyl adjustments (in equity earnings)	22	65
Adjustment of Chemlogics retention plan	12	8
Adjustment of Chemlogics and Ryton inventories at fair value (PPA)	0	3
Other adjustments	1	-5
Recurring IFRS depreciation and amortization	842	751
<b>REBITDA (INCOME STATEMENT KPI MONITORED BY MANAGEMENT)</b>	<b>1,955</b>	<b>1,783</b>

Year on year improvement is mainly driven by volumes growth, operational excellence programs offsetting fixed costs inflation and protecting pricing power.

Non-recurring items are detailed in note 7.

## NOTE 4 Personnel expenses

In € million	2015	2014
Wages/salaries and direct social benefits	(1,486)	(1,338)
Employer's contribution for social insurance	(330)	(305)
Pensions & insurance benefits	(172)	(240)
Other personnel expenses	(151)	(107)
<b>TOTAL</b>	<b>(2,139)</b>	<b>(1,990)</b>

The 11% increase of wages and salaries includes a negative impact of 6% due to USD/EUR exchange rate evolution.

## NOTE 5 Other operating gains and losses

In € million	2015	2014
Start-up, formation and preliminary study costs	(32)	(22)
Recurring capital gains/losses on sales of fixed assets	19	8
Net foreign exchange gains and losses	(5)	(6)
Amortization of intangible resulting from PPA Rhodia	(109)	(110)
Balance of other gains and losses	29	36
<b>Other operating gains and losses</b>	<b>(99)</b>	<b>(94)</b>

## NOTE 6 Earnings from associates and joint ventures

The net income of the associates and joint ventures amounts to € 21 million in 2015 against € (34) million in 2014. The improvement is mainly due to the RusVinyl operating and financial performance.

## NOTE 7 Non-recurring items

Non-recurring items have been defined in section *IFRS main accounting policies - 10. Non-recurring items*.

Non-recurring items for continuing operations include the following:

In € million	2015	2014
Restructuring	(57)	(49)
Costs related to non-ongoing activities	(45)	(52)
M&A costs and capital gains and losses	27	(19)
Cytec acquisition costs	(130)	0
Major litigations	8	(29)
Impairment	(48)	(160)
<b>Non-recurring items</b>	<b>(245)</b>	<b>(308)</b>

In 2015, the non-recurring items relate to:

- restructuring costs (€ (57) million) slightly higher than in 2014;
- M&A costs mainly impacted by a partial reversal of the holdback (€ 25 million) included in the Chemlogics purchase price and subject to performance conditions not reached in 2015;
- Cytec acquisition-related expenses (€ (130) million) mainly composed of advisory services (see note 26);
- impairment mainly related to non-performing Special Chem's assets of (€ (26) million) and Plextronics (€ (8) million).

In 2014, the non-recurring items related to:

- restructuring costs (€ (49) million) mainly related to Rhodia integration (€ (11) million), Okorusu (€ (8) million) and changes in portfolio (€ (9) million);
- impairment mainly related to RusVinyl (€ (110) million) and EPICEROL® (€ (34) million).

## NOTE 8 Net financial charges

In € million	2015	2014
Net interest expense	(100)	(115)
Other gains and losses on net indebtedness	(46)	(30)
<b>Charges on net debt</b>	<b>(146)</b>	<b>(145)</b>
Cost of discounting provisions	(73)	(163)
Income/loss from available-for-sale financial assets	(8)	(1)
<b>Net financial charges</b>	<b>(226)</b>	<b>(308)</b>

Details are included in note 36.

The decrease of net interest expense is mainly explained by the following:

- in 2014, cost of borrowings included interest expenses on EMTN bond and high yield bonds of Rhodia (repaid in 2014);
- mid 2015, the retail bond was repaid.

The issuance of new bonds (€ 2,250 million senior € notes and US\$ 1,600 million senior US\$ notes) in December 2015 for the financing of the acquisition of Cytec generated additional financial charges (€ 7 million in December 2015).

The other gains and losses on net indebtedness increased from € (30) million in 2014 to € (46) million in 2015, which is explained by the following:

- in 2015, the Venezuelan hyperinflation expense amounts to € 25 million, compared to € 11 million in 2014;
- 2015 other gains and losses include a charge of € 17 million in connection with the economic hedge of an intercompany USD financing of a Brazilian entity;
- 2014 other gains and losses include the high yield bond accretion (€ (9) million) and the discontinuance of an interest rate swap hedge (€ (20) million).

The lower cost of discounting provision is mainly related to the increase in discount rate which results in a lower present value of the environmental provisions.

## NOTE 9 Income taxes

### 9.A. Income taxes

#### Components of the income tax expense

The income tax expense includes the following:

In € million	2015	2014
Current taxes related to current year	(146)	(272)
Current taxes related to prior years	46	2
Deferred income taxes	1	189
Deferred tax impact of changes in the nominal tax rates	2	(3)
<b>TOTAL INCOME TAXES RECOGNIZED IN THE INCOME STATEMENT</b>	<b>(97)</b>	<b>(84)</b>

In € million	2015	2014
Income tax on items recognized in other comprehensive income	(20)	72
<b>TOTAL</b>	<b>(20)</b>	<b>72</b>

The current taxes related to current year (€ (146) million) include the reversal of provisions for tax risks (€ 66 million).

The current taxes related to prior year (€ 46 million) include mainly true-ups in the United States after significant changes in portfolio.

## Reconciliation of the income tax expense

The effective income tax expense has been reconciled with the theoretical tax expense obtained by applying to the pre-tax profit of each Group entity the nominal tax rate prevailing in the country in which it operates.

In € million	2015	2014
Earnings before taxes	606	343
Earnings from associates and joint ventures	21	(34)
<b>Earnings before taxes excluding earnings from associates and joint ventures</b>	<b>585</b>	<b>377</b>
<b>Reconciliation of the tax charge</b>		
Total tax charge of the Group entities computed on the basis of the respective local nominal rates	(212)	(145)
Weighted average nominal rate	36%	38%
Tax effect of permanent differences	135	49
Tax effect on distribution of dividends	(4)	(25)
Tax effect of changes in tax rates	2	(3)
Tax effect of current and deferred tax adjustments related to prior years	4	13
Changes in unrecognized deferred tax assets	(23)	27
<b>Effective tax charge</b>	<b>(97)</b>	<b>(84)</b>
<b>Effective tax rate</b>	<b>16%</b>	<b>24%</b>

The weighted average nominal rate decreased by 2% in 2015 (compared to 2014) due to the lower weight of earnings before tax in countries with a higher tax rate.

The effective tax rate decreased from 24% to 16% mainly due to the positive impact of permanent differences (€ 86 million) including the reversal of provisions for tax risks (€ 66 million).

## 9.B. Deferred taxes in the consolidated statement of financial position

The recognized deferred taxes (net of valuation allowances) in the consolidated statement of financial position include the following:

2015 In € million	Opening balance	Recognized in income statement	Recognized in OCI	Exchange rate effect	Cytec acquisition	Other acquisition/ Disposal	Transfer asset held for sale	Other	Closing balance
<b>Temporary differences</b>									
Employee benefits obligations	234	(13)	(13)	7	97	(2)	6	11	328
Provisions other than employee benefits	136	(19)	1	3	59	7	13	(1)	199
Tangible and intangible assets	(521)	29	(7)	(6)	(862)	1	4	1	(1,361)
Goodwill	31	(8)							23
Tax losses	386	1		(6)	2	0	(12)	0	373
Tax credits	11	29		1	44		2		86
Assets held for sale		8				3	(14)	3	
Other	57	(28)	(1)	3	(76)	(2)	0	3	(44)
<b>TOTAL (NET AMOUNT)</b>	<b>333</b>	<b>0</b>	<b>(20)</b>	<b>2</b>	<b>(735)</b>	<b>7</b>	<b>0</b>	<b>17</b>	<b>(396)</b>
Deferred tax assets in statement of financial position	710								1,059
Deferred tax liabilities in statement of financial position	(378)								(1,456)

In 2015, the total of deferred tax assets amounts to € 4,129 million of which € 3,070 million are not recognized.

The unrecognized deferred tax assets result from (i) losses carried forward (€ 7,070 million in holding companies, namely Rhodia SA since 2011) for which relative deferred tax assets (€ 2,283 million) were not recognized and (ii) deferred tax assets on other temporary differences (€ 787 million across the Group), mainly on employee benefits obligations (€ 502 million mainly in Belgium (€ 70 million), France (€ 333 million) and the United Kingdom (€ 82 million)).

The deferred taxes on tangible and intangible assets relating to the Cytec acquisition are mainly related to the step-up to fair value on intangible assets. The other deferred tax liabilities relating to Cytec acquisition are mainly relative to the recognition of deferred tax liabilities on unremitted earnings (€ 68 million).

The deferred tax liabilities, included in Other, and related to unremitted earnings from Solvay affiliates (excluding Cytec), amount to € 23 million in 2015 (€ 17 million in 2014):

- based on the total temporary differences associated with investments in subsidiaries, branches and associates and interests in joint arrangements that amount to € (80) million (€ (67) million in 2014);
- excluding from the total of € (80) million the deferred tax liabilities not recognized for an amount of € 57 million (€ 55 million in 2014) considering that the Group controls the timing of the reversal of the temporary differences and that it is probable that they will not reverse in the foreseeable future.

2014 In € million	Opening balance	Recognized in income statement	Recognized in OCI	Exchange rate effect	Acquisition/ Disposal	Transfer asset held for sale	Other	Closing balance
<b>Temporary differences</b>								
Employee benefits obligations	172	7	59	9	0	(14)	2	234
Provisions other than employee benefits	119	23	0	8	0	(15)	0	136
Tangible assets	(613)	53	2	(30)	28	39	0	(521)
Goodwill	39	(8)						31
Tax losses	273	107		4		4	(2)	386
Tax credits	12	0		1		(2)		11
Assets held for sale	0	(9)			31	(15)	(6)	
Other	25	15	12	2	0	3	1	57
<b>TOTAL (NET AMOUNT)</b>	<b>27</b>	<b>186</b>	<b>72</b>	<b>(6)</b>	<b>59</b>	<b>0</b>	<b>(5)</b>	<b>333</b>
Deferred tax assets in statement of financial position	501							710
Deferred tax liabilities in statement of financial position	(473)							(378)

In 2014, the total of deferred tax assets amounts to € 3,588 million of which € 2,878 million are not recognized.

The unrecognized deferred tax assets result from (i) losses carried forward (€ 6,785 million in holding companies, namely Rhodia SA

since 2011) for which relative deferred tax assets (€ 2,180 million) were not recognized and (ii) deferred tax assets on other temporary differences (€ 698 million across the Group), mainly on employee benefits obligations (€ 562 million mainly in Belgium (€ 72 million), France (€ 364 million) and the United Kingdom (€ 97 million)).

## Other information

For the majority of the Group's tax loss carryforwards, no deferred tax assets have been recognized. The tax loss carryforwards generating deferred tax assets are given below by expiration date.

In € million	2015	2014
Within 1 year	8	14
Within 2 years	16	20
Within 3 years	28	27
Within 4 years	32	21
Within 5 or more years	174	136
No time limit	937	1,013
<b>Total of losses carried forward which have generated recognized deferred tax assets</b>	<b>1,194</b>	<b>1,231</b>
Losses carried forward for which no deferred tax assets were recognized	7,070	6,785
<b>TOTAL OF LOSSES CARRIED FORWARD</b>	<b>8,263</b>	<b>8,016</b>

The tax losses carryforwards (€ 1,194 million) have generated deferred tax assets for € 373 million.

## NOTE 10 Discontinued operations (Chlorovinyls, Solvay Indupa and Eco Services)

In € million	2015	2014
Sales	1,494	2,680
Breakdown discontinued operations		
Loss recognized as result of remeasurement to fair value less costs to sell	(88)	(476)
EBIT	106	159
EBIT Eco Services (capital gain)		349
Financial charges	(36)	(49)
Tax	(38)	(40)
Tax Eco Services (mainly on capital gain)		(190)
<b>TOTAL RESULT FROM DISCONTINUED OPERATIONS</b>	<b>(55)</b>	<b>(246)</b>
attributed to:		
• Solvay share	(60)	(196)
• non-controlling interests	6	(50)

## Chlorovinyls

From September 30, 2013, until June 30, 2015, Solvay presented the associated activities in discontinued operations, following Solvay's and INEOS' intention to combine their European Chlorovinyls activities in a 50-50 joint venture. In June 2014, Solvay remeasured to fair value less costs to sell its European Chlorovinyls activities which led to a loss of € 476 million. On July 1, 2015 Solvay and INEOS created their joint venture Inovyn, which explains the decrease of assets held for sale and liabilities associated to assets held for sale in the consolidated statement of financial position. The joint venture pools both groups' assets across the entire chlorovinyls chain, including PVC, caustic soda and chlorine derivatives. RusVinyl, Solvay's Russian joint venture in chlorovinyls with Sibur, has been excluded from the transaction. The finalized terms of the joint venture agreement remain materially unchanged from those announced in June 2014. Solvay received upon closing an upfront cash payment of € 150 million – subject to customary adjustments such as actual working capital levels. In addition to contributing their entire European chlorovinyls business, Solvay has transferred liabilities estimated at € 260 million into the joint venture. Three years after its creation, Solvay will exit Inovyn and receive an additional, performance-based payment targeted to be € 280 million, with a minimum of € 95 million. Thereafter, INEOS will be the sole owner of the business.

## Solvay Indupa

On November 12, 2014, the Brazilian competition authority's (CADE) notified its decision to reject the intended acquisition of Solvay's 70.59% majority stake in Solvay Indupa by Brazilian chemical producer Braskem. Solvay confirms that its strategic direction remains unaffected and that it is examining alternative options to sell its participation in Solvay Indupa. As a disposal within 12

months is considered highly probable at December 31, 2015, Solvay Indupa remains classified as non-current assets held for sale and discontinued operations at December 31, 2015. The remeasurement to fair value less costs to sell of Solvay Indupa leads to an additional impairment loss of € 88 million in 2015.

## Eco Services

On July 30, 2014 Solvay has signed a binding agreement to sell its sulfuric acid virgin production and regeneration Eco Services business to affiliates of CCMP Capital Advisors, LLC. As from the 3<sup>rd</sup> quarter of 2014, Solvay reports Eco Services businesses under assets held for sale and discontinued operations. The transaction was completed in the fourth quarter of 2014, which led to a capital gain of € 177 million after taxes (€ 349 million before taxes).

## NOTE 11 Net income

Net income amounts to € 454 million compared to € 13 million in prior year. This increase in net income results mainly from:

- higher REBITDA (€ 171 million) and higher current depreciation and amortization (€ (91) million);
- non-recurring items (€ (245) million in 2015 compared to € (308) million in 2014);
- lower discounting costs in financial expenses (€ 90 million) mainly due to changes in discount rates;
- higher result from discontinued operations (€ 191 million) due to:
  - impairment Inovyn 2014 (impact of € 476 million),
  - exit Eco Services 2014 (impact of € (212) million),
  - lower contribution of Solvay Indupa (impact of € (76) million).

## NOTE 12 Adjusted net income (non IFRS metrics)

Adjusted net income excludes from the IFRS net income the main impact of the Rhodia Purchase Price Allocation related to the amortization of intangible assets (after taxes).

Adjusted net income is computed as follows:

In € million	2015	2014
<b>NET INCOME IFRS</b>	<b>454</b>	<b>13</b>
<b>Adjustments to IFRS net income</b>		
Amortization of PPA on intangible assets	109	110
Tax on adjustments	(38)	(36)
PPA amortization on discontinued operations	0	2
<b>ADJUSTED NET INCOME</b>	<b>525</b>	<b>89</b>

In 2016, the Group intends to exclude certain items from Adjusted net income, and to extend those other adjustments (below REBITDA) to financial charges, taxes and to discontinued operations. Such will impact Underlying Net Income and Underlying EPS. This will better align Solvay's practice with market standards.

Other adjustments are “income and expenses that are considered by Management as distorting the comparability over time of the Group underlying performance”. These items are listed below:

(In € million)	2015	2014
IFRS Net income, Solvay share	406	80
Rhodia PPA (after tax)	71	75
<b>Adjusted Net income, Solvay share</b>	<b>477</b>	<b>156</b>
Coupons on perpetual hybrid bonds	(57)	(57)
<b>Other adjustments</b>		
Non-recurring items	245	308
M&A related impacts (Chemlogics, Flux, Ryton)	58	46
Net financial charges (e.g. discount rate changes, debt management impacts)	19	57
Results on disposals (in discontinued operations)		(177)
Adjustments RusVinyl	(5)	53
Discontinued operations	114	514
Prior years tax and tax related to adjustments	(154)	(175)
Non-controlling interests on adjustments	(17)	(104)
<b>ADJUSTED NET INCOME, SOLVAY SHARE, EXCLUDING OTHER ADJUSTMENTS AND INCLUDING INTERESTS ON PERPETUAL HYBRID BONDS</b>	<b>680</b>	<b>622</b>

## NOTE 13 Earnings per share

Number of shares	2015		2014	
Weighted average number of ordinary shares (basic) (in thousands)	83,738		83,228	
Dilution effect of subscription rights	565		662	
Weighted average number of ordinary shares (diluted) (in thousands)	84,303		83,890	
	Basic	Diluted	Basic	Diluted
Net income of the year (Solvay share) including discontinued operations (in thousands)	405,835	405,835	80,239	80,239
Net income of the year (Solvay share) excluding discontinued operations (in thousands)	466,232	466,232	276,665	276,665
Earnings per share (including discontinued operations) (in EUR)	4.85	4.81	0.96	0.96
Earnings per share (excluding discontinued operations) (in EUR)	5.57	5.53	3.32	3.30

The weighted average number of shares takes into account the shares issued on December 21, 2015 (and that were outstanding for a period of 10 days).

The basic earnings per share are obtained by dividing net income by the number of shares.

The diluted earnings per share is obtained by dividing net income by the number of shares, increased by the number of potentially diluting shares attached to the issuance of share options. For the

purpose of calculating diluted earnings per share, there were no adjusting elements to net income of the year (Solvay share).

Full data per share, including dividend per share, can be found in the management report.

The average closing price during 2015 was € 115.08 per share (2014: € 114.84 per share). Based on this average closing price all share options were in the money, and therefore dilutive, for the presented period (see note 24).

## Notes to the consolidated statement of comprehensive income

### NOTE 14 Consolidated statement of comprehensive income

#### Presentation of the tax effect relating to each item of other comprehensive income

In € million	2015			2014		
	Before-tax amount	Tax expense(-)/benefit (+)	Net-of-tax amount	Before-tax amount	Tax expense(-)/benefit (+)	Net-of-tax amount
Gains and losses on remeasuring hyperinflation	42	(7)	35	(11)	2	(9)
<b>Hyperinflation</b>	<b>42</b>	<b>(7)</b>	<b>35</b>	<b>(11)</b>	<b>2</b>	<b>(9)</b>
Gains and losses on remeasuring available-for-sale financial assets	3	0	3	1	0	1
<b>Available-for-sale financial assets (see note 29)</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>1</b>
Effective portion of gains and losses on hedging instruments in a cash flow hedge	(42)	0	(42)	(59)	11	(48)
Recycling to the income statement	134		134	(1)		(1)
Basis adjustment	(77)		(77)			
<b>Cash flow hedges (see note 37)</b>	<b>15</b>	<b>0</b>	<b>15</b>	<b>(60)</b>	<b>11</b>	<b>(49)</b>
Currency translation differences arising during the year	185		185	232		232
Recycling of currency translations differences relating to foreign investments disposed of in the year	1		1	(1)		(1)
<b>Currency translation differences on foreign operations</b>	<b>186</b>	<b>0</b>	<b>186</b>	<b>231</b>	<b>0</b>	<b>231</b>
<b>Unrecognized actuarial gains and losses on defined benefit pension plans (see note 35.A)</b>	<b>279</b>	<b>(13)</b>	<b>266</b>	<b>(497)</b>	<b>59</b>	<b>(438)</b>
<b>Other comprehensive income</b>	<b>525</b>	<b>(20)</b>	<b>505</b>	<b>(336)</b>	<b>72</b>	<b>(264)</b>

#### Hyperinflation

The Venezuelan economy being considered as a hyperinflationary economy, since 2013, the Group applies the hyperinflationary accounting requirements of IAS 29 *Financial Reporting in Hyperinflationary Economies* to its Venezuelan operations. The financial statements are based on the historical cost basis and have been restated to take into account the effects of inflation (2015: € 35 million after taxes in other comprehensive income, 2014: € (9) million after taxes in other comprehensive income).

#### Currency translation differences

The total currency translation differences decrease from € (549) million at the end of 2014 to € (314) million at the end of 2015, due to:

- € 186 million currency translation differences in 2015, of which € 169 million for the Group's share;
- the transfer of € 44 million currency translation differences in non-controlling interests to Group reserves after the purchase of BASF minority interests in SolVin.

The main variances are linked to:

- the depreciation of the Brazilian Real (€ (80) million), the British Pound Sterling (€ (41) million) and the Swiss Franc (€ (16) million) compared to the euro;
- the appreciation of the US Dollar (€ 295 million) compared to the euro.



## Notes to the consolidated statement of cash flows (continuing and discontinued operations)

### NOTE 15 Depreciation, amortization and impairments

In 2015 total depreciation, amortization and impairment losses amount to € 978 million, of which:

- straight-line depreciation and amortization of € 842 million for continuing operations including:
  - cost of goods sold (€ 573 million),
  - administrative and commercial costs (€ 98 million),
  - research and development costs (€ 40 million),
  - other (€ 131 million), including € 109 million for PPA Rhodia amortization (see note 5);
- net impairment loss of € 48 million for continuing operations; and
- impairment loss of Solvay Indupa of € 88 million at year-end.

In 2014 total depreciation, amortization and impairment losses amounted to € 1,430 million, of which:

- straight-line depreciation and amortization of € 751 million for continuing operations including:
  - cost of goods sold (€ 514 million),
  - administrative and commercial costs (€ 89 million),
  - research and development costs (€ 29 million),
  - other (€ 119 million), including € 110 million for PPA Rhodia amortization (see note 5);
- net impairment loss of € 152 million for continuing operations; and
- € 525 million for discontinued operations, including € 3 million for PPA Rhodia.

### NOTE 16 Income taxes

#### In 2015

Income tax expense (€ 135 million) includes € 38 million for discontinued operations.

Income tax paid amounts to € 250 million of which € 6 million for discontinued operations.

#### In 2014

Income tax expense (€ 314 million) includes € 230 million for discontinued operations (including tax on capital gain Eco Services € 171 million).

Income tax paid amounts to € 217 million of which € 13 million for discontinued operations.

### NOTE 17 Changes in working capital

In 2015, the changes in working capital amounted to € (99) million, of which € (49) million for continuing operations and € (50) million for discontinued operations, mainly due to Chlorovinyls business (€ (42) million).

In 2014 the changes in working capital amounted to € 236 million, of which € 105 million for continuing operations and € 131 million for discontinued operations, mainly due to Pharma.

### NOTE 18 Changes in provisions

In 2015 the amount (€ (302) million) includes:

- the cash-out for € (372) million of which € (33) million for discontinued operations, mainly Chlorovinyls;
- the additions (€ 282 million) and reversals (€ (212) million) presented in note 35.

In 2014 the amount (€ (213) million) includes:

- the cash-out for € (398) million of which € (35) million for discontinued operations, mainly Chlorovinyls;
- the additions (€ 345 million) and reversals (€ (158) million).

### NOTE 19 Other non operating and non cash items

The other non operating and non cash items for 2015 (€ 223 million) mainly include the non-recurring costs related to the Cytec acquisition (€ 130 million) and the profit or loss impact from reversals of tax litigations provisions (€ 84 million). In 2014 the other non operating and non cash items amounted to € (351) million and mainly included the gross capital gain on Eco Services.

**NOTE 20 Cash flows from investing activities – acquisition/disposal of assets and investments**

<b>2015</b> In € million	<b>Acquisitions</b>	<b>Disposals</b>	<b>Total</b>
Subsidiaries	(4,934)	70	(4,864)
Associates and joint ventures	(13)		(13)
Other	(15)	(232)	(247)
<b>Total investments</b>	<b>(4,961)</b>	<b>(162)</b>	<b>(5,123)</b>
Tangible/intangible assets	(1,037)	31	(1,006)
<b>TOTAL</b>	<b>(5,998)</b>	<b>(131)</b>	<b>(6,129)</b>

<b>2014</b> In € million	<b>Acquisitions</b>	<b>Disposals</b>	<b>Total</b>
Subsidiaries	(304)	732	428
Associates and joint ventures	(107)		(107)
Other		(11)	(11)
<b>Total investments</b>	<b>(411)</b>	<b>721</b>	<b>310</b>
Tangible/intangible assets	(988)	21	(967)
<b>TOTAL</b>	<b>(1,398)</b>	<b>742</b>	<b>(657)</b>

**In 2015**

The acquisition of subsidiaries (€ 4,934 million) is mainly related to the acquisition of Cytec (€ 4,901 million – see note 26).

The acquisition of associates and joint ventures (€ 13) million relates to the capital increase in RusVinyl.

The disposal cash-out (€ 232 million) is related to the tax cash-out on Eco Services capital gain.

The other disposal (€ 70 million) relates mainly to Inovyn net cash in (€ 58 million): up front net proceeds from Inovyn of € 150 million adjusted for cash transfers and other financial flows with the joint venture, as well as divestment costs, totalling € (92) million.

The acquisition of tangible and intangible assets (€ 1,037 million) relates to various projects:

- Aroma Performance: vanillin production new plant in Zhenjiang (China), boosting its production capacities by 40%;
- Novacare: expansion of ethoxylation capacity in Asia and the United States;
- Novacare: expansion and rationalisation of its production capacity in Brazil;
- Peroxides: build-up of a megaplant H<sub>2</sub>O<sub>2</sub> joint venture in the Kingdom of Saudi Arabia with Sadara (joint venture Dow-Aramco);
- Peroxides: build-up of a 60Kt H<sub>2</sub>O<sub>2</sub> plant at Zhengiang (China);
- Soda Ash and Derivatives: build-up of a large sodium bicarbonate plant (Thailand);
- Specialty Polymers: investment in Changshu (China);
- Specialty Polymers: investment in PEEK capacity in the United States.

**In 2014**

The acquisition of subsidiaries (€ 304 million) is mainly related to the acquisition of Ryton® PPS (€ 198 million). Other acquisitions are Erca Quimica Brazil, Flux Schweiß- und Lötstoffe GmbH and Solvay Biomass Energy.

The acquisition of associates and joint ventures (€ 107 million) mainly relates to the capital increase in RusVinyl (€ 98 million).

The acquisition of tangible and intangible assets (€ 988 million) relates to various projects:

- Novacare's expansion of ethoxylation capacity in Asia and the United States;
- Aroma Performance: vanillin production new plant in Zhenjiang (China), boosting its production capacities by 40%;
- The investment in Specialty Polymers in Changshu (China);
- Silica: build-up of a new Highly Dispersible Silica plant in Wloclawek (Poland);
- Peroxides: build-up of a megaplant H<sub>2</sub>O<sub>2</sub> joint venture in Saudi Arabia with Sadara (joint venture Dow-Aramco);
- Peroxides: Eagle (60 Kt H<sub>2</sub>O<sub>2</sub> plant at Zhengiang (China));
- Soda Ash and Derivatives: build-up of a large sodium bicarbonate plant in Thailand;

The acquisition of tangible and intangible assets related to discontinued operations amounts to € (127) million.

## NOTE 21 Proceeds from bond issuance classified as equity and capital increase

To strengthen its capital structure, Solvay issued undated deeply subordinated perpetual bonds ("perpetual hybrid bonds") of respectively € 1.2 billion in 2013 following the acquisition of Chemlogics and € 1.0 billion (net of issuance costs € 991 million) in December 2015 for the financing of the acquisition of the Cytec group.

Both perpetual hybrid bonds are classified as equity absent any unavoidable contractual obligation to repay the principal and interest of the perpetual hybrid bonds, specifically:

- no maturity, yet the issuer has a call option at every reset date to redeem the instrument;
- at the option of the issuer, interest payments can be deferred indefinitely.

### I NUMBER OF SHARES (IN THOUSANDS)

	2015	2014
Shares issued and fully paid in at January 1	84,701	84,701
Capital increase	21,175	0
Shares issued and fully paid in at December 31	105,876	84,701
Treasury shares held at December 31	2,106	1,719

## NOTE 22 Other cash flows from financing activities

In 2015 the other cash flows from financing activities (€ (31) million) include the payments for the liquidity clause related to share-based payments signed as part of the Rhodia acquisition (€ (39) million).

In 2014 the other cash flows from financing activities (€ (3) million) include a various number of non significant cash inflows and outflows.

## NOTE 23 Cash flow from discontinued operations

The 2015 cash flow from discontinued operations (€ (36) million) results from the total cash flow of the Solvay Indupa business in Latin America (€ (53) million), Chlorovinyls (€ 41 million) and Pharma (€ (24) million).

The 2014 cash flow from discontinued operations (€ 124 million) results from the cash in of the ANDROGEL® milestone, related to the disposal of the pharma business (€ 100 million) and the total cash flow of the Solvay Indupa business in Latin America (€ (2) million), Chlorovinyls (€ (9) million) and Eco Services (€ 44 million).

The coupons related to the perpetual hybrid bonds are recognized as equity transactions and are presented as dividends upon declaration (see consolidated statement of changes in equity):

- amounting to € 57 million in 2015 (€ 42 million in 2014) for the 2013 € 1.2 billion issuance (€ 700 million NC5.5 at 4.199% and € 500 million NC10 at 5.425%);
- amounting to € 0 in 2015 for the December 2015 € 1.0 billion issuance, the first payment of coupon starting in June 2016 (€ 28 million) and € 55 million every payment date in June thereafter until first call options (€ 500 million NC5.5 at 5.118% and € 500 million NC8.5 at 5.869%).

In December 2015, Solvay has increased its capital by € 1.5 billion (net of equity issuance costs paid at December 31, 2015 € 1,477 million), issuing 21,175,283 new shares at € 70.83 per share with preference rights. This rights issue was launched to complete the financing of the Cytec acquisition.

## NOTE 24 Share-based payments

### Stock Option Plan

As every year since 1999, in 2015, the Board of Directors renewed the share option plan offered to executive staff (about 70 persons) with a view to involving them more closely in the long-term development of the Group. The plan is an equity-settled share-based plan. The majority of the managers involved subscribed the options offered them in 2015 with an adjusted exercise price of € 114.51, representing the average stock market price of the share for the 30 days prior to the offer. The 3-year vesting period is followed by a 5-year exercise period, at the end of which any unexercised options expire. The settlement method is in equity.

In 2015, to compensate dilution impact of the capital increase, an adjustment (based on the Euronext ratio of 0.93984) was made for each plan on the spot reference, on the exercise price and on the number of options. Such is reflected in the tables below and did not impact the Group's profit or loss.

At the end of December 2015, the Group held 2,105,905 treasury shares, which have been deducted from consolidated shareholders' equity. At the end of 2014, the Group held 1,719,208 treasury shares. Treasury shares are intended to cover the share options offered to Group executives.

Share options	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Number of share options granted and still outstanding at 31/12/2014		362,436	405,716	779,847	413,250	222,200	182,900	98,750	212,850	124,200	87,540
Granted share options	328,106										
Granted share options due to capital increase	21,002	22,870	25,745	49,541	9,189	8,539	9,186	4,257	5,371	5,761	4,327
Forfeitures of rights and expiries		(5,155)	(3,518)	(5,900)					(33,200)	(15,500)	(3,000)
Share options exercised					(269,700)	(88,800)	(40,400)	(33,250)	(96,250)	(18,700)	(16,940)
Number of share options at 31/12/2015	349,108	380,151	427,943	823,488	152,739	141,939	151,686	69,757	88,771	95,761	71,927
Share options exercisable at 31/12/2015	0	0	0	0	152,739	141,939	151,686	69,757	88,771	95,761	71,927
Exercise price (EUR)	114.51	101.14	104.33	83.37	61.76	71.89	67.99	55.27	90.97	102.53	91.45
Fair value of options at measurement date (EUR)	26.09	24.25	21.32	22.53	13.54	15.58	19.85	14.95	18.68	21.20	10.12

	2015		2014	
	Number of share options	Weighted average exercise price	Number of share options	Weighted average exercise price
At January 1	2,889,689	89.65	3,259,353	87.97
Granted during the year	493,894	106.54	362,436	107.61
Forfeitures of rights and expiries during the year	(63,273)	94.52		0
Exercised during the year	(564,040)	70.65	(732,100)	91.06
At December 31	2,756,270	96.45	2,889,689	89.65
Exercisable at December 31	772,580		928,440	

The share options resulted in a charge in 2015 of € 11 million calculated by third parties according to the Black-Scholes model and recognized in the consolidated income statement under commercial and administrative costs.

The model places a value on the options taking into account the fact that some of them will be exercised before the option maturity.

The value of the option is based on:

- the price of the underlying asset (Solvay share): € 125.95 at February 25, 2015;

- the time outstanding until the option maturity: exercisable from January 1, 2019, until February 24, 2023;
- the option exercise price: € 114.51 after adjustment following Solvay SA capital increase in December 2015;
- the risk-free return: 0.57% (in average);
- the volatility of the underlying yield, implies from option price: 23.50%;
- a dividend yield of 2.5%.

Weighted average remaining contractual life:

In years	2015	2014
Share option plan 2005	3.0	2.8
Share option plan 2006	4.0	1.4
Share option plan 2007	5.0	2.5
Share option plan 2008	1.0	2.0
Share option plan 2009	1.9	2.9
Share option plan 2010	3.0	4.0
Share option plan 2011	4.0	5.0
Share option plan 2012	4.1	5.1
Share option plan 2013	5.2	6.2
Share option plan 2014	6.2	7.2
Share option plan 2015	7.2	

The exercise period for share option plans granted from 2005 to 2007 has been extended in 2015.

### Performance Share Units Plan (PSU)

Since 2013, the Board of Directors renewed a yearly Performance Share Unit Plan, offered to executive staff with the objective of involving them more closely in the development of the Group, making this part of the long term incentive policy. All the managers involved subscribed the PSU offered them in 2015 with an adjusted grant price of € 117.39. The Performance Share Units is a cash-settled share-based plan through which beneficiaries will obtain cash benefit based upon the Solvay share price, as well performance conditions.

In 2015, to compensate dilution impact of the capital increase, an adjustment (based on the Euronext ratio of 0.93984) was made for each plan on the spot reference and on the number of PSUs. Such did not impact the Group's profit or loss.

Each plan has a 3-year vesting period, after which a cash settlement will take place, if vesting conditions are met.

Performance share units	Plan 2015	Plan 2014
Number of PSU	184,352	219,713
Grant date	25/03/2015	24/02/2014
Acquisition date	01/01/2018	01/01/2017
Vesting period	31/03/2015 to 31/12/2017	24/02/2014 to 31/12/2016
Performance conditions	50% of the initial granted PSU are subject to the REBITDA yoy growth % over 3 years (2015, 2016, 2017)	50% of PSU Granted depending upon the level of REBITDA at closing Financial Year 2016
	50% of the initial granted PSU are subject to the yoy CFROI % variation over 3 years (2015, 2016, 2017)	50% of PSU Granted depending upon the level of CFROI at closing Financial Year 2016
Validation of performance conditions	By the board of Directors, subject to confirmation by Solvay Statutory Auditors	By the board of Directors, subject to confirmation by Solvay Statutory Auditors

In 2015 the impact on the consolidated income statement regarding PSU amounts to € 18 million, compared to € 19 million in 2014.

## Notes to the consolidated statement of financial position

### NOTE 25 Intangible assets

In € million	Development costs	Patents and trademarks	Other intangible assets	Total
<b>Gross carrying amount</b>				
<b>At December 31, 2013</b>	<b>206</b>	<b>907</b>	<b>1,199</b>	<b>2,310</b>
Additions	38	5	22	64
Disposals and closures	(5)	(46)	(71)	(122)
Increase through business combinations	0	39	23	62
Currency translation differences	5	31	58	94
Other	5	21	(5)	21
<b>At December 31, 2014</b>	<b>249</b>	<b>956</b>	<b>1,226</b>	<b>2,430</b>
Additions	51	15	20	85
Disposals and closures	(5)	(5)	(1)	(11)
Increase through business combinations	0	1	2,458	2,460
Currency translation differences	3	5	51	60
Other	0	16	(12)	4
<b>AT DECEMBER 31, 2015</b>	<b>298</b>	<b>989</b>	<b>3,742</b>	<b>5,029</b>
<b>Accumulated amortization</b>				
<b>At December 31, 2013</b>	<b>(58)</b>	<b>(383)</b>	<b>(248)</b>	<b>(690)</b>
Amortization	(27)	(65)	(115)	(207)
Disposals and closures	3	19	15	38
Currency translation differences	(1)	(13)	(11)	(25)
Other	0	0	(3)	(4)
<b>At December 31, 2014</b>	<b>(83)</b>	<b>(442)</b>	<b>(362)</b>	<b>(887)</b>
Amortization	(25)	(72)	(126)	(223)
Disposals and closures	5	5	1	11
Currency translation differences	0	(3)	(11)	(14)
Other	(1)	(7)	12	4
<b>AT DECEMBER 31, 2015</b>	<b>(105)</b>	<b>(518)</b>	<b>(487)</b>	<b>(1,110)</b>
<b>Net carrying amount</b>				
At December 31, 2013	147	523	951	1,621
At December 31, 2014	165	514	864	1,543
<b>AT DECEMBER 31, 2015</b>	<b>193</b>	<b>471</b>	<b>3,255</b>	<b>3,919</b>

In 2015, the increase through business combinations relates mainly to Cytec for € 2,451 million (customer relationships € 1,721 million and technologies € 730 million). The average useful life of these assets is 17 years.

In 2014 the carrying amount of other intangible assets consisted mainly of acquired customer relationships and of technologies related to Rhodia. The average useful life of these assets is 11 years.

In 2014, the acquisitions of Ryton® PPS and Flux Schweiß- und Lötstoffe GmbH included intangible assets for € 62 million.

## NOTE 26 Goodwill and business combinations

### Goodwill – overview

In € million	<b>Total</b>
<b>Net carrying amount</b>	
<b>At December 31, 2013</b>	<b>3,095</b>
Additions	29
Disposals and closures	(51)
Currency translation differences	76
<b>At December 31, 2014</b>	<b>3,150</b>
Additions	2,610
Disposals and closures	(4)
Currency translation differences	62
Other	23
<b>AT DECEMBER 31, 2015</b>	<b>5,840</b>

The goodwill increased by € 2,690 million mainly due to Cytec acquisition (€ 2,598 million).

### Goodwill by CGU

Goodwill acquired in a business combination is allocated to the CGU or groups of CGUs (Operating Segments) that are expected to benefit from that business combination.

In € million	2014				2015					
	At the beginning of the period	Acquisitions and Transfer divestments	Currency translation differences	At the end of the period	Transfer	Adjustments	Acquisitions and divestments	Currency translation differences	At the end of the period	
<b>Groups of CGUs (Operating Segments)</b>										
Advanced Formulations	221			221	8		(2)		227	
Advanced Materials	485			485	8				493	
Performance Chemicals	166		(9)	157	7				164	
Cytec							2,598		2,598	
<b>Cash generating units</b>										
Novecare	1,001		13	71	1,085		11	61	1,157	
Special Chem				0	231			(3)	228	
Polyamides	170			170					170	
Rare Earth Systems	161			161	(161)				0	
Specialty Polymers	185			3	188		2	4	194	
Acetow	120			120					120	
Soda Ash and Derivatives EMEA	120	(120)		0					0	
Soda Ash and Derivatives NAFTA	42	(42)		0					0	
Soda Ash and Derivatives	0	162		162					162	
Coatis	82			82					82	
Silica	72			72					72	
Aroma Performance	49			49					49	
Energy Services	49		1	50					50	
Fluorochemicals	53		16	1	70	(70)			0	
Eco Services	42		(42)	0					0	
Hydrogen Peroxide Europe	20			20					20	
Emerging Biochemicals	20			20					20	
Hydrogen Peroxide Mercosul	14			14					14	
Hydrogen Peroxide NAFTA	7			1	8				8	
Hydrogen Peroxide Asia	10			10					10	
Precipitated Calcium Carbonate	4			4			(4)		0	
PVC Mercosur	2			2				0	1	
<b>TOTAL GOODWILL</b>	<b>3,095</b>	<b>0</b>	<b>(22)</b>	<b>76</b>	<b>3,150</b>	<b>0</b>	<b>23</b>	<b>2,606</b>	<b>62</b>	<b>5,840</b>

In 2015, the CGUs Fluorochemicals and Rare Earth Systems have been merged into the new CGU Special Chem. The goodwill resulting from the acquisition of Cytec closed on December 9, 2015 is allocated to a separate group of CGUs (Cytec) in the above table as of December 31, 2015. As of January 1, 2016, following the acquisition of Cytec, Solvay has re-organized its segment set-up to enhance strategic coherence and improve alignment. Cytec's former Aerospace Materials and Industrial Materials activities are included in Advanced Materials and its In Process Separation and Additive Technologies activities in Advanced Formulations. Solvay's GBU Coatis is transferred to Performance Chemicals and the GBU Emerging Biochemicals is moved to Functional Polymers.

In 2014, the CGUs Soda Ash and Derivatives EMEA and NAFTA have been merged due to (i) the globalization of export management into one Global Business Unit and to (ii) the implementation of one global management which leads to more interdependent cash flows.

## Business combinations

### Cytec Industries Inc.

#### 1. Purchase consideration and other impacts on cash flows

On July 29, 2015, Solvay SA entered into a definitive merger agreement with U.S.-based Cytec Industries Inc. to acquire 100% of its share capital and of the voting rights, for US\$ 75.25 per share in cash, subject to customary closing conditions, including regulatory

approvals and Cytec's shareholders' approval. Following those approvals, the closing of the acquisition took place on December 9, 2015.

The total consideration for the acquisition amounted to € 5,047 million, and was based on the following:

- (i) the outstanding number of Cytec shares (other than those shares held by Cytec as treasury stock) as of December 9, 2015, namely 71,568,528, multiplied by the share price of US\$ 75.25 that Solvay agreed to pay in cash pursuant to the Merger Agreement entered into between Solvay SA and Cytec Industries Inc. on July 28, 2015, equalling US\$ 5,385 million (€ 4,947 million); and
- (ii) the fair value of Cytec's outstanding share-based payment transactions that have been cancelled and converted into a right to receive cash on the acquisition date. This was included in the consideration in accordance with IFRS 3 *Business Combinations* for an amount of US\$ 193 million (€ 177 million);
- (iii) in addition, on July 29, 2015, Solvay entered into a foreign exchange forward contract to hedge US\$ 1,880 million of the expected purchase price, contingent upon the realization of the acquisition. The effect of this hedging contract was a € 77 million decrease of the consideration, which has been deducted from goodwill as a basis adjustment.

The acquisition-related expenses amounting to € 130 million have been recognized as a non-recurring expense in 2015.

Non-recurring charges on the Cytec acquisition In € million	2015
<b>Professional services</b>	<b>(48)</b>
Financial and brokerage advice	(36)
Legal advice	(8)
Accounting advice	(4)
<b>Financing and hedging arrangements</b>	<b>(54)</b>
<b>Restructuring charges</b>	<b>(19)</b>
<b>Other costs</b>	<b>(10)</b>
<b>TOTAL</b>	<b>(130)</b>

The total cash-out amounts to € 5,099 million in 2015, of which € 5,082 million in the fourth quarter and € 17 million in the third quarter.

- Out of the total consideration of € 5,047 million, € 4,998 million was paid in the fourth quarter of 2015.
- Out of the total acquisition-related expenses of € 130 million, € 101 million was paid in 2015, of which € 84 million in the fourth quarter and € 17 million in the third quarter.

Taking into account the cash acquired from Cytec (€ 198 million), which is deducted from the acquisition cash out, € 4,901 million has been paid in 2015. The balance is to be paid over the next years.

#### 2. Funding

Solvay raised € 6.2 billion to finance the acquisition as detailed below. Out of this € 6.2 billion, more than € 1 billion was raised, anticipating refinancing needs.

In € million	Gross amount funded	Total amount paid in 2015	Cash flow financing 2015
USD Bonds (US\$ 1.6 bn)	1,470	(7)	<b>1,463</b>
EUR Bonds	2,250	(20)	<b>2,230</b>
Perpetual hybrid bonds	1,000	(9)	<b>991</b>
Capital increase	1,500	(23)	<b>1,477</b>
<b>Total net amount funded (a)</b>	<b>6,220</b>	<b>(59)</b>	<b>6,161</b>
<b>Total cash out for Cytec acquisition (b)</b>			<b>(5,099)</b>
<b>Excess cash available for refinancing in 2016 (a-b)</b>			<b>1,062</b>

Solvay also assumed Cytec gross debt for € 730 million at December 31, 2015. With the cash acquired of € 198 million, this corresponds to a net debt of € 532 million.



### 3. Purchase price allocation

Cytec's opening balance sheet has been fully consolidated within the Solvay group as from December 31, 2015.

Accordingly, a provisional valuation of identifiable assets acquired and liabilities assumed has been made as at December 31, 2015.

The following table summarizes:

- the consideration for Cytec of € 5,047 million;

- identifiable assets acquired less liabilities assumed after remeasurement to fair value at acquisition date of € 2,449 million; and
- the goodwill of € 2,598 million corresponding to the difference between the consideration and the net assets acquired, measured at fair value.

In € million	Total consideration	Fair values	Fair value adjustments to the carrying amount of acquired identifiable assets and assumed liabilities
<b>TOTAL CONSIDERATION</b>	<b>5,047</b>		
<b>Net assets acquired at fair value</b>		<b>2,449</b>	
<b>Non-current assets</b>		<b>4,076</b>	<b>2,385</b>
Intangible assets		2,451	2,283
Tangible assets		1,136	102
Investments in associates		11	
Other investments		7	
Deferred tax assets		447	
Loans and other non-current assets		24	
<b>Current assets</b>		<b>926</b>	<b>83</b>
Inventories		380	83
Trade receivables		233	
Income tax receivables		57	
Other current receivables - Other		58	
Cash and cash equivalents		198	
<b>TOTAL ASSETS</b>		<b>5,002</b>	<b>2,468</b>
<b>Non-current liabilities</b>		<b>2,189</b>	<b>751</b>
Long-term provisions: employee benefits		215	
Other long-term provisions		81	
Deferred tax liabilities		1,182	768
Long-term financial debt		664	(17)
Other non-current liabilities		47	
<b>Current liabilities</b>		<b>364</b>	<b>0</b>
Other short-term provisions		37	
Short-term financial debt		65	
Trade liabilities		156	
Income tax payable		8	
Other current liabilities		98	
<b>TOTAL LIABILITIES</b>		<b>2,553</b>	<b>751</b>
<b>GOODWILL</b>		<b>2,598</b>	

The provisional adjustment to fair value of € 2,283 million of intangible assets has resulted in the recognition of acquired customer relationships for a total of € 1,721 million and acquired technologies for a total of € 730 million. Tangible assets have been remeasured to fair value for € 102 million. Inventories have been remeasured to fair value for € 83 million. Assets were fair valued with the assistance of an external independent expert.

The fair value of the trade receivables acquired approximates their gross contractual amounts. Contingent liabilities in connection with environmental risks have been recognized for € 7 million.

A net deferred tax liability of € 768 million on the above adjustments to fair value has been recognized, based on the statutory tax rates when the asset or liability could be allocated to a specific legal entity, and on a normalized effective tax rate of 30.8% otherwise.

During the 12-month measurement period, the fair values of identifiable assets acquired and liabilities assumed will be further refined, however management does not expect any significant adjustments to the values recognized at December 31, 2015.

The resulting provisional goodwill of € 2,598 million arises mainly from business opportunities in advanced light-weighting materials for the aerospace and automotive industries and in specialty chemicals for mining, synergies (estimated at a minimum of € 100 million in annual synergies within three years after the

acquisition), as well as skilled work force. These benefits have not been recognized separately from goodwill because they do not meet the definition of identifiable intangible assets.

The goodwill is not expected to be deductible for income tax purposes.

Cytec's results and cash flows for the period between December 9 and December 31 are not material, except for non-recurring charges. Consequently, Cytec has not contributed to the Group's IFRS net income or cash flows in 2015.

Had Cytec's business been consolidated from January 1, 2015, the consolidated income statement of comprehensive income would have included revenue of € 1,800 million and net income of € 23 million. Detailed *pro forma* information for the full year 2015 can be found in the Financial Management Report.

### Ryton® PPS (asset deal)

On December 31, 2014 Solvay completed the acquisition of the Ryton® PPS business from U.S.-based Chevron Phillips Chemical Company. The purchase aims at further strengthening unmatched leadership in Specialty Polymers' solutions.

The following table summarizes the consideration paid for Ryton® PPS and the amounts of identifiable assets and liabilities assumed recognized provisionally at the acquisition date.

In € million

<b>TOTAL CONSIDERATION TRANSFERRED (CASH)</b>	<b>198</b>
<b>Recognised amounts of identifiable assets acquired and liabilities assumed</b>	<b>198</b>
Tangible assets	116
Intangible assets	44
Inventories	38
Non industrial working capital and pension liabilities	0
<b>GOODWILL</b>	<b>0</b>

The fair value of intangible assets mainly corresponds to trade name and patents.

Had Ryton® PPS business been consolidated from January 1, 2014, the consolidated statement of comprehensive income would have included revenue of € 111 million and operational profit for € (11) million.

Acquisition costs amounted to € 4 million and are presented in the non-recurring items.

### Other business combinations

On April 15, 2015 Solvay has completed the acquisition of Erca Emery Surfactant B.V. alkoxylation asset, a facility jointly owned by Emery Oleochemicals and ERCA Group in the Moerdijk integrated industrial park in the Netherlands, strengthening its strategy of securing sustainable, large-scale surfactant assets worldwide, for a cash amount of € 23 million in 2015. The transaction generated a total amount of goodwill of € 1 million. The identifiable net assets

acquired amount to € 42 million and mainly consist of tangible assets.

On November 5, 2015 Solvay acquired EPIC Polymers' long-fiber thermoplastics (LFT) technology to complement its offering of high performance lightweighting materials and gain access to metal replacement of larger automotive semi-structural parts for a total cash amount of € 7 million. The transaction generated a total amount of goodwill of € 2 million. The identifiable net assets acquired amount to € 5 million and mainly consist of intangible assets.

During 2014 Solvay completed the acquisition of Erca Química in Brazil, Solvay Biomass Energy in the United States and Flux Schweiß- und Lötstoffe GmbH in Germany for a total cash amount of € 96 million. The transactions generated a total amount of goodwill of € 33 million. The identifiable net assets acquired amounted to € 63 million and mainly consisted of tangible and intangible assets and inventories.

## NOTE 27 Tangible assets

In € million	Land and Buildings	Fixtures and Equipment	Other tangible assets	Tangible assets under construction	Total
<b>Gross carrying amount</b>					
<b>At December 31, 2013</b>	<b>2,776</b>	<b>10,139</b>	<b>387</b>	<b>600</b>	<b>13,902</b>
Additions	17	161	10	756	945
Disposals and closures	(113)	(691)	(40)	(30)	(875)
Increase through business combinations	18	108	1	0	127
Currency translation differences	96	442	17	48	605
Other	69	362	49	(458)	22
<b>At December 31, 2014</b>	<b>2,863</b>	<b>10,521</b>	<b>424</b>	<b>916</b>	<b>14,725</b>
Additions	63	309	20	619	1,011
Disposals and closures	(44)	(253)	(16)	(3)	(315)
Increase through business combinations	277	566	21	320	1,183
Currency translation differences	21	14	2	27	64
Other	151	560	29	(632)	110
<b>AT DECEMBER 31, 2015</b>	<b>3,332</b>	<b>11,718</b>	<b>480</b>	<b>1,248</b>	<b>16,778</b>
<b>Accumulated depreciation</b>					
<b>At December 31, 2013</b>	<b>(1,398)</b>	<b>(7,186)</b>	<b>(303)</b>	<b>0</b>	<b>(8,887)</b>
Depreciation	(79)	(332)	(64)		(475)
Impairment		(288)	(2)		(290)
Reversal of impairment	4				4
Disposals and closures	60	531	30		621
Currency translation differences	(40)	(269)	(14)		(323)
Other	0	4	5		8
<b>At December 31, 2014</b>	<b>(1,452)</b>	<b>(7,540)</b>	<b>(348)</b>	<b>0</b>	<b>(9,339)</b>
Depreciation	(85)	(522)	(32)		(640)
Impairment	(1)	(21)	(2)		(23)
Reversal of impairment					0
Disposals and closures	31	237	15		283
Currency translation differences	(16)	14	(2)		(4)
Other	(6)	(104)	2		(109)
<b>AT DECEMBER 31, 2015</b>	<b>(1,530)</b>	<b>(7,935)</b>	<b>(367)</b>	<b>0</b>	<b>(9,832)</b>
<b>Net carrying amount</b>					
At December 31, 2013	1,378	2,953	84	600	5,015
At December 31, 2014	1,412	2,982	77	916	5,386
<b>AT DECEMBER 31, 2015</b>	<b>1,801</b>	<b>3,783</b>	<b>113</b>	<b>1,248</b>	<b>6,946</b>

See also note 20 with respect to capital expenditures.

## Finance leases

In € million	Land and buildings	Fixtures and equipment	Total
Net carrying amount of finance leases included in the table above	2	51	53

## Finance lease obligations

In € million	Minimum lease payments	
	2015	2014
Amounts payable under finance leases:		
• within one year	10	1
• in years two to five inclusive	33	3
• beyond five years	84	0
Less: future finance charges	(74)	(3)
<b>Present value of minimum lease payments of finance leases</b>	<b>53</b>	<b>1</b>
<b>Amount due for settlement within 12 months</b>	<b>10</b>	<b>1</b>
<b>Amount due for settlement after 12 months</b>	<b>117</b>	<b>3</b>

## Operating lease obligations

In € million	2015	2014
Total minimum lease payments under operating leases recognized in the income statement of the year	81	86
In € million	2015	2014
Within one year	87	85
In years two to five inclusive	261	242
Beyond five years	125	97
<b>TOTAL OF FUTURE MINIMUM LEASE PAYMENTS UNDER NON-CANCELLABLE OPERATING LEASES</b>	<b>474</b>	<b>424</b>

Operating leases are mainly related to offices and warehouses.

## NOTE 28 Impairment

### Assets other than non-current assets held for sale

In accordance with IAS 36 *Impairment of Assets* (see *IFRS main accounting policies - 7. Goodwill*, and *16. Impairment of tangible and intangible assets (excluding goodwill)*, and *equity method investees*), the recoverable amount of property, plant and equipment, intangible assets, CGUs or groups of CGUs, including goodwill, and equity method investees corresponds to the higher of their fair value less costs of disposal, and their value in use. The latter equals the present value of the future cash flows expected to be derived from each asset, CGU or group of CGUs, and equity method investees and is determined using the following inputs:

- business plan approved by management based on growth and profitability assumptions, taking into account past performances, forecast changes in the economic environment and expected market developments. Such business plan generally covers five years, unless management is confident that projections over a longer period are reliable;
- consideration of a terminal value determined based on the cash flows obtained by extrapolating the cash flows of the last year

of the business plan referred to above, affected by a long-term growth rate deemed appropriate for the activity and the location of the assets;

- discounting of expected cash flows at a rate determined using the weighted average cost of capital formula.

### Discount rate

The discount rate is estimated based on an extensive benchmarking with peers, for it to reflect the return investors would require if they were to choose an investment in the underlying assets. The weighted average cost of capital used to discount future cash flows was set at 7.7% in 2015 (7.7% in 2014).

### Long-term growth rates

The long-term growth rate was set between 1% and 3% depending on the CGU. The growth rates are consistent with the long-term average market growth rates for the respective CGUs, and the countries in which they operate.

Other key assumptions are specific to each CGU (energy price, volumes, margin, etc.).

## General

Except as disclosed below, the impairment tests performed at December 31, 2015 and 2014 did not lead to any impairment of assets, as the recoverable amounts of the (groups of) CGUs were significantly higher than their carrying amounts. More specifically, the difference between the (groups of) CGUs' carrying amount and their value in use (excess value) represents in all cases more than 10% of their carrying amount. As such, for those (groups of) CGUs, a reasonable change in a key assumption on which the recoverable amount of the (groups of) CGUs is based, would not result in an impairment loss for the related (groups of) CGUs. In this respect, we note the following:

- in 2014, the group of CGUs Polyamide & Intermediates included a goodwill of € 170 million. Its recoverable amount had been determined to equal its value in use, calculated as explained above. An increase of the discount rate with 50 basis points decreased the positive difference between the recoverable amount and the carrying amount from € 337 million to € 215 million. A decrease of the growth rate with 100 basis points decreased the positive difference between the recoverable amount and the carrying amount from € 337 million to € 198 million. At the end of 2015, the group of CGUs Polyamide & Intermediates' excess value exceeds 10% of its carrying amount, as a consequence of the REBITDA growth expected from the business reorganization;
- in 2014, the CGUs Rare Earth Systems included goodwill of € 161 million. Its recoverable amount had been determined to equal its value in use, calculated as explained above. An increase of the discount rate with 50 basis points decreased the positive difference between the recoverable amount and the carrying amount from € 50 million to € 11 million. A decrease of the growth rate with 100 basis points decreased the positive difference between the recoverable amount and the carrying amount from € 50 million to € 21 million. In 2015, the group of CGUs Rare Earth Systems was merged into the CGU Special Chem. At December 31, 2015 Special Chem's excess value exceeds 10% of its carrying amount.

Impairment losses are recognized as non-recurring items (see note 7).

## RusVinyl

RusVinyl is a Russian joint venture in chlorovinyls (Operating Segment: Functional Polymers) in which Solvay holds a 50% equity interest, together with Sibur who holds the remaining 50% equity interest. After application of the equity method, the equity investment has been tested for impairment in 2014, based on projections prepared by Solvay. The impairment loss recognized during 2014 amounted to € 110 million.

In 2015 a new business plan provided by RusVinyl to its lenders led to a positive adjustment of RusVinyl equity earnings amounting to € 19 million. The recoverable amount of the investment has been estimated based on a dividend discount model taking into account this new business plan.

The recoverable amount is highly sensitive to the RUB/€ exchange rate. This rate impacts the carrying amount of the investment, the foreign currency losses on the euro denominated debt, and consequently the distributable earnings potential. Sensitivities on exchange rate RUB/€ and inflation in Russia lead to a range of outcomes varying between € 90 million above and below the recoverable amount.

## Other

An impairment charge of € 26 million related to non-performing Special Chem's assets (Operating Segment: Advanced Materials) has been recognized in 2015.

Following conditions specific to the Chinese market, during 2014, the Group decided to put on hold the construction of a production asset in Solvay Biochemical (Taixing) (Operating Segment: Performance Chemicals). The resulting impairment test led to the recognition of an impairment loss on property, plant and equipment in the amount of € 34 million in 2014.

## Non-current assets held for sale

### Chlorovinyls

This paragraph should be read together with note 34. The impairment loss recognized during 2014 on non-current assets held for sale relates to the discontinued operations of the chlorovinyls contributed to the 50/50 joint venture with INEOS in 2015. The joint venture pools both groups' assets across the entire chlorovinyls chain, including PVC, caustic soda and chlorine derivatives. The assets classified as held for sale were measured at the lower of their carrying amount and their fair value less costs of disposal. This fair value less costs of disposal has been calculated based on the agreement signed with INEOS at the end of the second quarter of 2014. It considered the upfront payment to be received at closing, the transfer of liabilities into the joint venture, as well as Solvay's exit conditions after three years, when it will receive additional cash proceeds adjusted based on the joint venture's average REBITDA performance during this three-year period. As a result the fair value is categorized in level 3 and the key assumption is the average REBITDA performance in the next three years. Based on this, at June 30, 2014, an impairment loss of € 477 million, allocated to goodwill (€ 143 million), and property plant and equipment and accruals for costs of disposal (€ 335 million) has been recognized. The impact on net income/loss Group share amounted to € (422) million, after taking into account the portion attributable to non-controlling interests.

### Solvay Indupa

Solvay confirms that its strategic direction to sell its participation in Solvay Indupa remains unaffected and that it is examining all options to achieve this objective. As a disposal within 12 months is considered highly probable at December 31, 2015, Solvay Indupa remains classified as non-current assets held for sale and discontinued operations at December 31, 2015. The remeasurement to fair value less costs to sell of Solvay Indupa leads to an additional impairment loss of € 88 million in 2015.

## NOTE 29 Available-for-sale financial assets

In € million	2015	2014
<b>CARRYING AMOUNT AT JANUARY 1</b>	<b>43</b>	<b>38</b>
Acquisition of New Business Development ('NBD')	4	4
Impact of capital reimbursement	(8)	
Gains and losses on remeasuring available-for-sale financial assets	2	1
Available-for-sale financial assets impaired in the year	(9)	(1)
Other	1	1
<b>CARRYING AMOUNT AT DECEMBER 31<sup>(1)</sup></b>	<b>34</b>	<b>43</b>
Of which recognized directly in equity	(2)	(4)

(1) See also note 37B.

The amounts reported in the table above only include equity instruments classified as available-for-sale.

## NOTE 30 Investments in associates and joint ventures

### I INVESTMENTS IN ASSOCIATES<sup>(1)</sup>

In € million	2015	2014
<b>CARRYING AMOUNT AT JANUARY 1</b>	<b>30</b>	<b>19</b>
Acquisition/Disposal		11
Increase through business combination	11	
Net income from associates	2	0
Dividends received from associates	(3)	(2)
Currency translation differences	1	1
Other	0	1
<b>CARRYING AMOUNT AT DECEMBER 31</b>	<b>41</b>	<b>30</b>

(1) See note 42.

### I INVESTMENTS IN JOINT VENTURES<sup>(1)</sup>

In € million	2015	2014
<b>CARRYING AMOUNT AT JANUARY 1</b>	<b>350</b>	<b>563</b>
Capital increase/decrease	13	97
Net income from joint ventures	1	(34)
Dividends received from joint ventures	(11)	(15)
Impairment (loss)/reversal of RusVinyl	19	(110)
Transfer from other investments	9	
Currency translation differences	(20)	(154)
Other	(3)	2
<b>CARRYING AMOUNT AT DECEMBER 31</b>	<b>357</b>	<b>350</b>

(1) See note 42.

The capital increase in joint ventures mainly relates to the investment in RusVinyl (2015 € 13 million, 2014 € 96 million).

The currency translation difference in joint ventures mainly relates to the depreciation of the Russian ruble and the Brazilian real compared to the euro.

## NOTE 31 Other investments

In € million	2015	2014
<b>CARRYING AMOUNT AT JANUARY 1</b>	<b>121</b>	<b>114</b>
Additions	1	16
Disposals	(13)	(5)
Increase through business combination	7	
Capital increase/decrease	33	3
Changes of consolidation method	(9)	(1)
Changes in consolidation scope	(14)	
Impairments	(32)	(8)
Reversal of impairments	4	2
Other	(6)	1
<b>CARRYING AMOUNT AT DECEMBER 31</b>	<b>92</b>	<b>121</b>

In accordance with the concept of materiality, certain companies which are not of significant size have not been included in the consolidation scope. For more information, refer to *2015 consolidation scope*.

## NOTE 32 Inventories

In € million	2015	2014
Finished goods	1,172	854
Raw materials and supplies	702	591
Work in progress	63	45
<b>Total</b>	<b>1,937</b>	<b>1,490</b>
Write-downs	(71)	(70)
<b>NET TOTAL</b>	<b>1,867</b>	<b>1,420</b>

## NOTE 33 Other current receivables – Other

In € million	2015	2014
VAT and other taxes	290	249
Advances to suppliers	52	30
Financial instruments – operational	90	52
Insurance premiums	22	18
Other	202	151
<b>OTHER CURRENT RECEIVABLES – OTHER</b>	<b>656</b>	<b>500</b>

Financial instruments – operational include held for trading and cash flow hedge derivatives (see note 37.A).

## NOTE 34 Assets held for sale

In € million	2015		2014		Total
	Solvay Indupa	Chlorovinyls	Solvay Indupa		
Property, plant and equipment	55	635	145		780
Goodwill	0	0	1		1
Other intangible assets	0	4	0		4
Investments	8	0	11		11
Inventories	44	166	55		221
Trade and other receivables	62	315	57		372
Cash and cash equivalent	7	0	24		24
<b>Assets held for sale</b>	<b>177</b>	<b>1,120</b>	<b>294</b>		<b>1,414</b>
Non-current liabilities	3	111	5		116
Trade and other payables	271	765	281		1,047
<b>Liabilities associated with assets held for sale</b>	<b>275</b>	<b>876</b>	<b>286</b>		<b>1,162</b>
<b>NET ASSETS DIRECTLY ASSOCIATED WITH DISPOSAL GROUP</b>	<b>(98)</b>	<b>244</b>	<b>7</b>		<b>251</b>
Included in other comprehensive income					
Currency translation differences <sup>(1)</sup>	(56)	0	(63)		(63)
Defined benefit plans	(3)	(49)	(3)		(52)
<b>OTHER COMPREHENSIVE INCOME</b>	<b>(59)</b>	<b>(49)</b>	<b>(65)</b>		<b>(114)</b>

(1) Including € (48) million for the Solvay share in Solvay Indupa CTA in 2015 (€ (53) million in 2014).

In 2015, the fair value of Solvay Indupa has been reviewed, resulting in an additional impairment loss of € 88 million.

In 2014, assets held for sale at year-end include Chlorovinyls net assets held for sale for € 244 million, and result from the difference

between the fair value of the net assets contributed (€ 404 million), the estimated adjustments (€ (137) million based on year-end balance) for target working capital, excluded assets and liabilities (of which financial debts) and other costs to sell (€ (22) million).

## NOTE 35 Provisions

In € million	Employee benefits	Restructuring	Environment	Litigation	Other	Total
<b>At December 31, 2014</b>	<b>3,166</b>	<b>77</b>	<b>713</b>	<b>285</b>	<b>87</b>	<b>4,328</b>
Additions	84	53	56	60	30	282
Reversals of unused amounts	(23)	(15)	(33)	(128)	(13)	(212)
Uses	(191)	(50)	(88)	(18)	(25)	(372)
Increase through discounting	64		11	2	1	78
Remeasurements	(279)					(279)
Currency translation differences	60		(14)	(10)	2	38
Acquisitions and changes in consolidation scope	215	33	74	23		345
Disposals	(16)		(2)			(17)
Transfer from/to liabilities associated with assets held for sale	14	(1)	7	1	32	53
Other	38				(8)	30
<b>AT DECEMBER 31, 2015</b>	<b>3,133</b>	<b>97</b>	<b>723</b>	<b>214</b>	<b>106</b>	<b>4,273</b>
Of which current provisions	0	95	111	51	52	310

In total, provisions decreased by € 55 million.

The main events of 2015 are:

- the acquisition of Cytec which lead to an increase of Solvay provisions by € 345 million;
- the increase in discount rates and other financial assumptions used for the computation of employee benefits obligations in

Eurozone, Great Britain and United States with a positive impact in equity of € 242 million;

The transfer of liabilities from held for sale to continuing mainly corresponds to the reclassification of provision related to adjustment of purchase price for Inovyn. The balance as of December 31, 2015 related to provisions resulting from the closing of the joint venture Inovyn amounts to € 33 million.



Management expects provisions (other than employee benefits) to be used (cash outlays) as follows:

In € million at December 31, 2015	up to 5 years	between 5 and 10 years	beyond 10 years	Total
Total provisions for environment	336	125	262	723
Total provisions for litigation <sup>(1)</sup>	169	7		176
Total other provisions	149	21	33	203
<b>TOTAL</b>	<b>654</b>	<b>153</b>	<b>295</b>	<b>1,102</b>

(1) Excluding provisions with cash deposit to guarantee the liabilities (€ 38 million).

## 35.A. Provisions for employee benefits

### Overview

The provisions for employee benefits include the following:

In € million	2015	2014
Post-employment benefits	2,964	3,015
Other long-term benefits	115	111
Termination benefits	53	41
<b>EMPLOYEE BENEFITS</b>	<b>3,133</b>	<b>3,166</b>

Post-employment benefit plans are classified into defined contribution and defined benefit plans.

### Defined contribution plans

Defined contribution plans are those for which the company pays fixed contributions into a separate entity or fund in accordance with the provisions of the plan. Once these contributions have been paid, the company has no further obligation.

For defined contribution plans, Solvay pays contributions to publicly or privately administered pension funds or insurance companies. For 2015, the expense amounted to € 20 million compared to € 18 million for 2014.

### Defined benefit plans

All plans which are not defined contribution plans are deemed to be defined benefit plans. These plans can be either funded via outside pension funds or insurance companies ("funded plans") or financed within the Group ("unfunded plans"). All main plans are assessed annually by independent actuaries.

### Multiemployer Plans

Solvay contributed in the USA to two multiemployer pension plans under collective bargaining agreements that cover certain of its union-represented employees. During 2014 Solvay has withdrawn from the PACE Industry Union-Management pension fund effective as of May 1, 2014, pursuant to a collective bargaining agreement. Also, following the divestiture of Eco Services business Solvay no longer contributes to the Western Conference of Teamsters pension fund.

Each of the Multiemployer plans is a defined benefit pension plan. None of the Multiemployer plans provide an allocation of its assets, liabilities, or costs among contributing employers. None of the Multiemployer plans provides sufficient information to permit Solvay, or other contributing employers, to account for the Multiemployer plan as a defined benefit plan. Accordingly, the company accounts for its participation in each of the Multiemployer plans as if it were a defined contribution plan.

For multiemployer plans, during 2015 and 2014, Solvay paid as yearly contributions less than € 1 million.

### Provisions for post-employment benefits

The net liability results from the net of the provisions and the capitalized pensions assets.

In € million	2015	2014
Provisions	2,964	3,015
Asset plan surplus	(9)	(1)
<b>Net liability</b>	<b>2,955</b>	<b>3,014</b>
Operational expense	30	57
Finance expense	66	94

## A. Management of risk

Over recent years, the Group has reduced its exposure to defined benefit plan obligations stemming from future services by converting existing plans into pension plans with a lower risk profile (hybrid plans, cash balance plans and defined contribution plans) or by closing them to new entrants.

Solvay continuously monitors its risk exposure, focusing on the following risks:

### Asset volatility

Equity instruments, though expected to outperform corporate bonds in the long-term, create volatility and risk in the short-term. To mitigate this risk, the global objective for funded schemes is to invest in a balanced portfolio of debt and equity instruments. The allocation to equity instruments is monitored using Assets and Liabilities Management techniques, to ensure it remains appropriate given the respective schemes' and Group's long term objectives.

### Changes in bond yields

A decrease in corporate bond yields will increase the carrying amount of the plan's liabilities. For funded schemes this impact will be partially offset by an increase in the fair value of the plan assets.

### Inflation risk

The defined benefit obligations are linked to inflation, and higher inflation will lead to higher liabilities (although, in most cases, caps on the level of inflationary increases are in place to protect against extreme inflation). A limited part of the assets are either unaffected

by or only loosely correlated with inflation, meaning that an increase in inflation will also increase the deficit.

### Life expectancy

The majority of the schemes' obligations are to provide benefits for the life of the member. Increases in life expectancy will therefore increase the plans' liabilities.

### Currency risk

This risk is limited, as major plans in foreign currency are funded and most of their assets are denominated in the currency in which benefit payments will take place.

### Regulatory risk

For partly or fully unfunded plans, the Group is exposed to the risk of external funding following regulatory constraints. This should not impact the defined benefit obligation but could expose the Group to a potential significant cash outlay.

For more information about Solvay group risk management, please refer to the "Management of risks" section of the present document.

## B. Description of obligations

The provisions have been set up primarily to cover post-employment benefits granted by most Group companies in line, either with local rules and customs, or with established practices which generate constructive obligations.

The largest post-employment plans in 2015 are in the Great Britain, France, the United States, Germany and Belgium. These five countries represent 94% of the total defined benefit obligation.

In € million	2015	2014
Great Britain	30%	33%
France	19%	25%
United States	27%	15%
Germany	12%	14%
Belgium	6%	8%
Other countries	6%	5%

### Great Britain

Solvay sponsors a few defined benefit plans in the Great Britain. The largest one is the Rhodia Pension Fund. This is a final salary funded pension plan, with entitlement to accrue a percentage of salary per year of service. It was closed to new entrants in 2003 and replaced by a defined contribution plan.

Broadly, about 7% of the liabilities are attributable to current employees, 26% to former employees and 67% to current pensioners.

The Fund functions and complies with British legislation under a large regulatory framework. The Pensions Regulator has a risk based approach to regulation and a code of practice which provides practical guidance to trustees and employers of defined benefit schemes on how to comply with the scheme funding requirements. In accordance with British legislation, the Fund is subject to Scheme Specific Funding which requires that pension plans are funded.

The Rhodia Pension Fund is subject to a triennial valuation cycle for funding purposes. This valuation is performed by the scheme actuary in line with British regulations and is discussed between the Trustees and the sponsoring employer to agree the valuation assumptions and a funding plan. The last completed valuation was as at January 1, 2015 which established a fixed contribution rate of pensionable pay for active members plus a deficit recovery plan which aims to fund the scheme to technical provisions over a period of time. Future contributions were kept at same level as on the previous valuation.

The British Rhodia Pension Fund is governed by a Board of Trustees. They manage the Fund with prudent and fair judgment. The Trustees determine the liabilities used for Statutory Funding Objectives based on prudent actuarial and economic assumptions. Any shortfall or deficit must be repaired by additional contributions and in a time frame that fits with the employer's ability to pay and the strength of covenant or contingent security being offered.

### France

Solvay sponsors different defined benefit plans in France: the French compulsory retirement indemnity plan but also two closed and one open top hat plans.

The main plan is for all former Rhodia current and retired employees who contributed to the plan prior to its closure in the 1970s. It offers a full benefit guarantee based on the end-of-career salary. This plan is unfunded and broadly, about 95% of the liabilities are attributable to current pensioners.

Solvay does not expect to have any cash out impact in France due to the changes in legislation regarding minimum funding requirements.

### United States

Till end 2014 Solvay sponsored three different defined benefit pension plans in the US of which two were closed to new entrants since 2003, and one was still open, being a cash balance plan. Since end 2015 this cash balance plan was closed and an opportunity has been given to all plan participants to move from the existing plan to a new defined contribution plan. At this moment all defined benefit plans are closed and all these plans are funded.

Solvay's plans are in compliance with local laws regarding audited financial statements, governmental filings, and PBGC insurance premiums where applicable. The plans are reviewed and monitored locally by fiduciary committees for purposes of plan investments and administrative matters.

For the US plans, Solvay's contributions take into account minimum (tax-deductible) funding requirements as well as maximum tax deductible contributions, both regulated by the IRS.

Eligible participants may also elect to receive their pension in a single lump sum payment in lieu of a monthly payment.

Broadly, about 29% of the liabilities are attributable to current employees, 14% to former employees for whom benefit payments have not yet commenced and 57% to current pensioners.

Solvay's acquisition of Cytec leads to an increase of € 207 million of net defined benefit obligations in the United States.

Cytec legacy sponsored three different defined benefit plans in the United States (one qualified plan and two non-qualified plans). The largest one was the qualified plan "Cytec Retirement Plan" which makes up 96% of Cytec's pension liability as of December 31, 2015. All of these plans are closed to new entrants and accruals are frozen. The Cytec Retirement Plan is funded while the two non-qualified plans are unfunded.

Cytec's plans are in compliance with local laws regarding audited financial statements, government filings, and Pension Benefit Guaranty Corp insurance premiums where applicable.

Cytec's contributions take into account minimum (tax-deductible) funding requirements as well as maximum tax deductible contribution rules, both regulated by the Internal Revenue Service.

A lump sum payment option is not available in any plans except for statutory small benefit cashouts.

Broadly, about 24% of the Cytec liabilities are attributable to current employees, 9% to former employees for whom benefit payments have not yet commenced and 65% to current pensioners.

### Germany

Solvay sponsors four different defined benefit plans in Germany, of which two are closed to new entrants and two are open. As commonly in Germany, all these plans are unfunded. Under these plans, employees are entitled to annual pensions on retirement based on their service and final salary.

Broadly, about 58% of the liabilities are attributable to current pensioners.

### Belgium

Solvay sponsors two defined benefit plans in Belgium. These are funded pension plans which are closed for future accrual since end of 2006 for the one in favor of the executives and since end of 2004 for the one in favor of the White and Blue collars. The past service benefits provided under these plans continues to be adapted each year considering annual salary increase and inflation ("Dynamic management"). As often in Belgium, because of favorable retirement lump sum taxation, most benefits are paid as lump sum.

Furthermore, Solvay sponsors two open defined contribution plans. These are funded pension plans which are open since beginning of 2007 for the one in favor of the executives and since beginning of 2005 for the one in favor of the White and Blue collars. Participants may choose to invest their contributions amongst four different investment funds (from "Prudent" to "Dynamic"). However, regardless of their choices, the Belgian law foresees that the employer must guarantee a return on employer contribution and on personal contribution, creating that way a potential liability for the Company. The return until December 31, 2015 is 3.25% on the employer contribution and 3.75% on the personal contribution. As from January 1, 2016 the return is set on an annual basis with a minimum of 1.75% and a maximum of 3.75%. For 2016 the return is fixed at 1.75% for both types of contributions. For these plans Solvay has € 104 million of plan assets at December 31, 2015, and paid € 9 million of contributions during 2015. At the end of 2015 there is no material net liability recognized in the balance sheet concerning these plans.

Solvay's plans are administered through two Solvay Pension Funds that operate in compliance with local laws regarding minimum funding, investments principles, audited financial statements, governmental filings, and governance principles. Pension Funds are managed through a General Assembly and a Board of Directors delegating day-to-day activities to an operational Committee.

### Other Plans

The majority of the obligations relate to pension plans. In some countries (mainly the United States), there are also post-retirement medical plans, which represent 5% of the total defined benefit obligation.

### C. Movements of the year

#### Net expense

The amounts charged to income in respect of these plans are:

In € million	2015	2014
<b>Service costs</b>	<b>18</b>	<b>48</b>
Current service cost	51	46
Past service cost (including curtailments)	(32)	2
<b>Net interest</b>	<b>66</b>	<b>94</b>
Interest cost	149	188
Interest income	(83)	(94)
<b>Administrative expenses paid</b>	<b>11</b>	<b>9</b>
<b>NET EXPENSE RECOGNIZED IN P&amp;L - DEFINED BENEFIT PLANS</b>	<b>96</b>	<b>151</b>
Remeasurements	(279)	508
<b>REAMEASUREMENTS RECOGNIZED IN OCI</b>	<b>(279)</b>	<b>508</b>

The service costs and administrative expenses of these benefit plans are charged variously to cost of sales, commercial and administrative costs, research & development costs or operating gains and losses and non-recurring items, and the net interest is reported as a finance expense.

In 2015 the Group current service costs amounted to € 51 million, of which € 33 million related with funded plans and € 18 million related

with unfunded plans. Past service costs include favorable impacts reflecting the evolution of the post retirement Medicare insurance policy in the United States (€ 30 million).

In 2014 the Group current service costs amounted to € 46 million, of which € 29 million related with funded plans and € 17 million related with unfunded plans.

#### Net liability

The amounts recognized in the consolidated statement of financial position in respect of defined benefit plans are:

In € million	2015	2014
Defined benefit obligations - funded plans	3,648	2,907
Fair value of plan assets at end of period	(2,940)	(2,102)
<b>DEFICIT FOR FUNDED PLANS</b>	<b>708</b>	<b>805</b>
Defined benefit obligations - unfunded plans	2,223	2,197
<b>DEFICIT/SURPLUS (-)</b>	<b>2,931</b>	<b>3,002</b>
Amounts not recognized as assets due to asset ceiling (recognized in OCI)	24	12
<b>NET LIABILITY (ASSET)</b>	<b>2,955</b>	<b>3,014</b>
Provision recognized	2,964	3,015
Asset recognized	(9)	(1)

The decrease of the net liability of € 59 million between 2014 and 2015 is mainly explained by the net effect of:

- remeasurements mainly due to the increase of discount rates for Eurozone, Great Britain and United States;
- the acquisition of Cytec activities (€ 207 million).

The increase of assets recognized is mainly due to the Cytec acquisition.

Defined benefit obligations evolved as follows:

In € million	2015	2014
<b>DEFINED BENEFIT OBLIGATION AT BEGINNING OF PERIOD</b>	<b>5,103</b>	<b>4,443</b>
Current service cost	51	46
Interest cost	149	188
Employee contributions	4	6
Past service costs (including curtailments)	(32)	2
Settlements	1	0
Acquisitions/disposals (-)	986	(62)
Remeasurements in OCI	(324)	583
<i>Actuarial gains and losses due to changes in demographic assumptions</i>	(77)	5
<i>Actuarial gains and losses due to changes in financial assumptions</i>	(242)	570
<i>Actuarial gains and losses due to experience</i>	(5)	8
Actual benefits paid	(270)	(261)
Currency translation differences	158	199
Reclassification and other movements	38	(1)
Transfer from/to (liabilities associated with) assets held for sale	9	(40)
<b>DEFINED BENEFIT OBLIGATION AT END OF PERIOD</b>	<b>5,871</b>	<b>5,103</b>
Defined benefit obligations – funded plans	3,648	2,907
Defined benefit obligations – unfunded plans	2,223	2,197

In 2015 the major variation on Solvay defined benefit obligation is the acquisition of Cytec activities which lead to an increase of € 992 million. In 2014 the classification as “held for sale” of Chlorovinyls activities leads to a decrease of € 40 million. Also in 2014 the disposal of Eco Services activities led to a decrease of the defined benefit obligation by € 62 million.

The fair value of plan assets evolved as follows:

In € million	2015	2014
<b>FAIR VALUE OF PLAN ASSETS AT BEGINNING OF PERIOD</b>	<b>2,102</b>	<b>1,907</b>
Finance income	83	94
Remeasurements in OCI	(33)	87
<i>Return on plan assets (excl. amounts in net interests)</i>	(33)	87
Employer contributions	168	180
Employee contributions	4	6
Acquisitions/disposals (-)	797	(43)
Administrative expenses paid	(11)	(9)
Settlements	1	0
Actual benefits paid	(270)	(261)
Currency translation differences	97	142
Reclassification and other movements	7	5
Transfer from/to (liabilities associated with) assets held for sale	(4)	(7)
<b>FAIR VALUE OF PLAN ASSETS AT END OF PERIOD</b>	<b>2,940</b>	<b>2,102</b>
Actual return on plan assets	50	181

In 2015 the total return on plan assets amounts to € 50 million. 2015 instable market conditions lead to considerable lower returns than in previous years.

The acquisition of Cytex led to an increase of plan assets by € 785 million.

In 2014 the classification as "held for sale" of Chlorovinyls activities led to a decrease of plan assets by € 7 million. Also in 2014 the disposal of Eco Services activities led to a decrease of plan assets by € 43 million.

The Group cash contributions (including direct benefit payments) for 2015 amounted to € 168 million, of which € 63 million of contributions to funds and € 105 million of direct benefits payments.

The Group cash contributions (including direct benefit payments) for 2014 amounted to € 180 million, of which € 75 million of contributions to funds and € 105 million of direct benefits payments.

Except for significant changes in the regulatory environment (see "Regulatory risk" above), the Group cash contributions in 2016 are expected to approximate € 182 million.

The main categories of plan assets are:

	2015		2014	
	Quoted % of total	Non quoted % of total	Quoted % of total	Non quoted % of total
Equity	40%	0%	51%	0%
Bonds				
<i>Bonds Investment Grade</i>	55%	0%	44%	0%
<i>Bonds Non Investment Grade</i>	2%	0%	1%	0%
Properties	0%	0%	1%	0%
Cash and cash equivalents	2%	0%	3%	0%
Derivatives				
<i>Structured debt (LDI)</i>	0%	0%	0%	0%
<i>Other Derivatives</i>	1%	0%	0%	0%
Others	0%	0%	0%	0%
<b>TOTAL</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>	<b>0%</b>

With respect to the invested assets, it should be noted that these assets do not contain any direct investment in Solvay group shares or in property or other assets occupied or used by Solvay. This does not exclude Solvay shares being included in mutual investment fund type investments.

Changes in net liability during the period:

In € million	2015	2014
<b>Net amount recognized at beginning of period</b>	<b>3,014</b>	<b>2,536</b>
Net expense recognized in P&L - Defined benefit plans	96	151
Actual employer contributions/direct actual benefits paid	(168)	(180)
Acquisitions/disposals	189	(18)
Remeasurements	(279)	508
Reclassifications	30	(6)
Currency translation differences	61	57
Transfer to (liabilities associated with) assets held for sale	12	(33)
<b>Net amount recognized at end of period</b>	<b>2,955</b>	<b>3,014</b>

Changes in assets ceiling during the period:

In € million	2015	2014
<b>Effect of the asset ceiling limit at beginning of year</b>	<b>12</b>	
Variation of the effect of the asset ceiling limit	12	12
<b>Effect of the asset ceiling limit at end of year</b>	<b>24</b>	<b>12</b>

The impact of changes in asset ceiling recognized through OCI amounts to € 12 million compared to € 12 million in 2014. These impacts concern the plans of Brazil, Great Britain, Portugal and Switzerland.

### Actuarial assumptions

These assumptions are not related to a specific segment.

In %	Eurozone		Great Britain		United States	
	2015	2014	2015	2014	2015	2014
Discount rates	2.25	1.75	3.75	3.50	4.25	4.00
Expected rates of future salary increases	1.75 - 4.00	2.25 - 4.25	2.15 - 3.25	3.35 - 3.50	3.00 - 3.75	2.75 - 4.25
Inflation rates	1.75	1.75	3.25	3.00	2.25	2.25
Expected rates of pension growth	0.00 - 1.75	0.00 - 1.75	3.25	3.00	NA	NA
Expected rates of medical care cost increases	1.75	1.75	5.5	5.5	4.50 - 7.50	4.25 - 7.75

### Actuarial assumptions used in determining the annual cost

These assumptions are not related to a specific segment.

In %	Eurozone		Great Britain		United States	
	2015	2014	2015	2014	2015	2014
Discount rates	1.75	3.25	3.50	4.50	4.00	4.75
Expected rates of future salary increases	1.75 - 4.00	2.50 - 4.50	1.90 - 3.00	3.60 - 3.75	3.00 - 3.75	2.75 - 4.25
Inflation rates	1.75	2.00	3.00	3.25	2.25	2.50
Expected rates of pension growth	0.00 - 1.75	0.00 - 2.00	3.00	3.25	NA	NA
Expected rates of medical care cost increases	1.75	2.00	5.5	5.5	4.50 - 7.50	4.50 - 8.00

Actuarial assumptions regarding future mortality are based on recent country specific mortality tables. These assumptions translate at December 31, 2015 into an average remaining life expectancy in years for a pensioner retiring at age 65:

In years	Great Britain	United States	Belgium	France	Germany
<b>Retiring at the end of the reporting period:</b>					
Male	21.2	20.1	18.1	23.9	19.5
Female	23.7	21.9	21.5	27.4	23.6
<b>Retiring 20 years after the end of the reporting period:</b>					
Male	22.8	20.7	18.1	26.7	22.1
Female	25.6	22.5	21.5	30.3	26.1

In some countries such as Great Britain and United States, the mortality assumptions reflect actual scheme experience and/or Solvay's expectations in terms of future mortality improvements.

The actuarial assumptions used in determining the benefit obligation at December 31 are based on the following employee benefits liabilities durations:

	Eurozone	Great Britain	United States
Duration in years	13.1	16.4	11.6

### Sensitivities

Sensitivity to a change of percentage in the discount rates on the defined benefits obligation is as follows:

In € million	0.25% increase	0.25% decrease
Eurozone	(72)	75
Great Britain	(68)	71
United States	(41)	42
Others	(5)	5
<b>TOTAL</b>	<b>(186)</b>	<b>193</b>

Sensitivity to a change of percentage in the inflation rates on the defined benefits obligation is as follows:

In € million	0.25% increase	0.25% decrease
Eurozone	68	(66)
Great Britain	50	(49)
United States	0	0
Others	1	(1)
<b>TOTAL</b>	<b>119</b>	<b>(116)</b>

Sensitivity to a change of percentage in salary growth rate on the defined benefits obligation is as follows:

In € million	0.25% increase	0.25% decrease
Eurozone	22	(21)
Great Britain	4	(4)
United States	1	(1)
Others	1	(1)
<b>TOTAL</b>	<b>28</b>	<b>(27)</b>

Sensitivity to a change of one year on mortality tables on the defined benefits obligation is as follows:

In € million	Age correction +1 year	Age correction -1 year
Eurozone	(81)	83
Great Britain	(59)	59
United States	(54)	55
Others	(5)	5
<b>TOTAL</b>	<b>(199)</b>	<b>202</b>

### 35.B. Restructuring provisions

These provisions amount to € 97 million, compared with € 77 million at the end of 2014.

The main provisions at the end of 2015 relate to:

- the reorganization of Corporate Functions following Group portfolio review (€ 36 million);
- Cytec (€ 33 million).

### 35.C. Environmental provisions

These provisions amount to € 723 million, compared with € 713 million at the end of 2014, and pertain to:

- mines and drilling operations to the extent that legislation and/or operating permits in relation to quarries, mines and drilling operations contain requirements to pay compensation to third parties. These provisions, based on local expert advice, can be expected to be used over a 1-20 year horizon and amount to € 146 million;
- the discontinuation of mercury electrolysis activities: forecast expenditure is staggered over time as a result of the expected reutilization of the sites, national regulations on the management of contaminated soils and the state of contamination of soils and groundwater. Most of these provisions can be expected to be used over a 10-20 year time horizon;

- dikes, dump sites and land: the provisions relate mainly to soda plant dikes, old lime dikes and land and dump sites linked to activities at certain industrial sites. These provisions have a horizon of 1 to 20 years;
- various types of pollution (organic, inorganic) coming from miscellaneous specialty chemical productions; these provisions mainly cover discontinued activities or closed plants. Most of these provisions have a horizon of 1 to 20 years.

The estimated amounts are discounted based on the probable date of settlement, and are periodically adjusted to reflect the passage of time.

### 35.D. Provisions for litigation

Provisions for litigation amount to € 214 million at the end of 2015 compared with € 285 million at the end of 2014. The decrease is mainly explained by the reversal of a provision for tax litigations (€ 84 million).

The main provisions at the end of 2015 relate to tax risks (€ 108 million) and legal claims (€ 105 million).

### 35.E. Other provisions

Other provisions relate to the shutdown or disposal of activities and amount to € 106 million, compared with € 87 million at the end of 2014.



## NOTE 36 Net indebtedness

The Group's net indebtedness is the balance between its financial debts and other current receivables – financial instruments, and cash and cash equivalents.

In € million	2015	2014
Financial debt	6,520	2,338
• Other current receivables – Financial instruments	(111)	(309)
• Cash and cash equivalents	(2,030)	(1,251)
<b>NET INDEBTEDNESS</b>	<b>4,379</b>	<b>778</b>

Liabilities (+)/Assets (-)

Solvay's ratings by two rating agencies are: BBB-/A3 (stable outlook) at Standard and Poors, and Baa2/P2 (negative outlook) at Moody's following the acquisition of Cytec.

### Financial debt

In € million	2015	2014
Subordinated loans	500	499
Bonds	4,837	491
Long-term finance lease obligations	51	2
Long-term debts to financial institutions		300
Other long-term debts	240	193
Amount due within 12 months (shown under current liabilities)	308	505
Other short-term borrowings (including overdrafts)	584	348
<b>TOTAL FINANCIAL DEBT (SHORT AND LONG-TERM)</b>	<b>6,520</b>	<b>2,338</b>

Gross debt increased from € 2,338 million at the end of 2014 to 6,520 million at the end of 2015.

The increase of the gross debt in 2015 is mainly due to the new debt (€ 2,250 million senior € notes and US\$ 1,600 million senior US\$ notes before debt issuance costs) issued in December 2015 to partly finance the acquisition of Cytec and for the early refinancing of existing short-term and long-term financial debts maturing in 2016 (resulting in an increase in cash and cash equivalents approximating € 900 million), the acquisition of the net financial debt of Cytec (€ 531 million), the increase in commercial paper issuance (€ 250 million at the end of 2015 compared to the end of 2014) as well as the financing of projects in emerging countries. In 2015, Solvay also reimbursed the retail bond (€ 500 million) maturing in June.

It should be also noted that in the context of the acquisition of Cytec, Solvay has arranged committed bridge financing for the transaction that has been partially used (€ 600 million) as from the closing of the acquisition early December and fully repaid just after the € 1.5 billion rights issue later in December.

In 2014, Solvay reimbursed the € 500 million EMTN bond maturing in January and in May, the two Rhodia high yield bonds of respectively € 500 million (first call option) and US\$ 400 million (early redemption).

In addition, as from April 2014, Solvay successfully issued Belgian Treasury Notes (€ 75 million at the end of 2014 and € 324 million at the end of 2015) under its available program of € 1 billion.

## Borrowings and credit lines

The largest borrowings maturing after 2015 are:

In € million (except where indicated)	Nominal amount		Coupon	Maturity	Secured	2015		2014	
						Amount at amortized cost	Fair value	Amount at amortized cost	Fair value
Retail	500		5.01%	2015	No			500	510
European Investment Bank	300		3.90%	2016	No	300	312	300	320
Floating rate notes €	1,000		Euribor 3m + 82 bps	2017	No	995	1,004		
EMTN bonds issued by Solvay SA (Belgium)	500	300	4.75%	2018	No	493	551	491	571
		200	(tap) 5.71%						
Senior US\$ notes (144A)	735		3.40%	2020	No	731	730		
Senior € notes	750		1.625%	2022	No	741	751		
Senior US\$ notes (144A)	735		4.45%	2025	No	730	730		
Senior € notes	500		2.75%	2027	No	494	505		
Deeply subordinated debt issued by Solvay Finance SA (France) with support from Solvay SA (Belgium)	500	(1)	6.375%	2104	No	500	507	499	525
Senior US\$ note Cytec Industries Inc (US\$ 82.2 m)	76		8.95%	2017	No	82	82		
Senior US\$ note Cytec Industries Inc (US\$ 400 m)	367		3.5%	2023	No	347	347		
Senior US\$ note Cytec Industries Inc (US\$ 250 m)	230		3.95%	2025	No	224	224		
<b>TOTAL</b>	<b>6,192</b>					<b>5,637</b>	<b>5,743</b>	<b>1,790</b>	<b>1,926</b>

(1) Rating agencies Moody's and Standard & Poors have treated this issue partially as equity (50%) and partially as debt (50%). In accordance with IFRS, however, it must be treated 100% as debt. This debt is subordinated to the other debts of the Group and is listed in Luxembourg. The coupon carries a fixed rate for the first ten years. In 2016 the coupon converts to a floating rate (3-month Euribor +335 basis points) until maturity in 2104. Solvay has an option to redeem this issue at par from 2016 onward. The issuer has a coupon nonpayment option governed by the rules of the coupon carry-forward mechanism.

There is no default on the above-mentioned financial debt. There are no financial covenants, neither on Solvay SA, nor on any of the Group's holding companies.

### Other current receivables – financial instruments and cash and cash equivalents

The total cash available, cumulating the "Other current receivables – financial instruments" and "Cash and cash equivalents", amounts to € 2,141 million at the end of 2015 compared to 1,560 million at the end of 2014.

Solvay used part of the available treasury to reimburse in January 2014 the € 500 million EMTN bond, in May 2014 the two Rhodia high yield bonds of respectively € 500 million (first call option) and US\$ 400 million (earlier redemption) and in June 2015 the € 500 million.

Cash also includes the extra financing issued in December 2015 for the early refinancing of existing short-term and long-term financial debts maturing in 2016 (resulting in an increase in cash and cash equivalents approximating € 900 million) as well as the cash of Cytec (€ 198 million).

### Other current receivables – Financial instruments

In € million	2015	2014
Money Market Funds	0	300
Currency Swaps	49	
Other marketable securities >3 months	21	
Other current financial asset	41	9
<b>OTHER CURRENT RECEIVABLES – FINANCIAL INSTRUMENTS</b>	<b>111</b>	<b>309</b>

The “Other current receivables – financial instruments” amount to € 111 million at the end of 2015 and include currency swaps, other marketable securities > 3 months (Chinese bank drafts), and other current financial assets (mainly margin calls of Solvay Energy Services). At the end of 2014, it mainly included Money Market Funds.

The decrease from € 309 million to € 111 million largely explains “changes in other current financial assets” in the cash flow from financing activities (€ 225 million).

### Cash and cash equivalents

Cash and cash equivalents amount to € 2,030 million at the end of 2015 compared to € 1,251 million at the end of 2014.

In € million	2015	2014
Cash	1,214	754
Term deposits	815	485
Others	0	12
<b>CASH AND CASH EQUIVALENTS</b>	<b>2,030</b>	<b>1,251</b>

By their nature, the carrying amount of cash and cash equivalents is equal to, or a very good approximation of, their fair values.

## NOTE 37 Financial instruments and financial risk management

The following table presents the financial instruments by category, split by current and non-current assets and liabilities.

In € million	Classification	2015 Carrying amount	2014 Carrying amount	
<b>Non-current assets – Financial instruments</b>		<b>452</b>	<b>237</b>	
Available for sale financial assets	Available-for-sale	34	43	See note 29
Loans and other non-current assets (except pension fund surpluses)		418	193	
• Inovyn derivative financial instrument	Held for trading	244	0	
• Others	Loans and Receivables	174	193	
<b>Current assets – Financial instruments</b>		<b>3,846</b>	<b>3,030</b>	
Trade receivables	Loans and Receivables	1,615	1,418	
Other current receivables – Financial instruments		111	309	See note 36
• Other marketable securities >3 months	Loans and Receivables	21	0	
• Money Market Funds	Available-for-sale	0	300	
• Currency swaps	Held for trading	49	0	
• Other current financial asset	Loans and Receivables	40	6	
• Other current financial asset	Available-for-sale	0	3	
Financial instruments – Operational		90	52	See note 33
• Held for trading	Held for trading	76	42	
• Derivative financial instruments designated in cash flow hedge relationship	Cash flow hedges	14	10	
Cash and cash equivalents	Loans and Receivables	2,030	1,251	See note 36
<b>TOTAL ASSETS – FINANCIAL INSTRUMENTS</b>		<b>4,298</b>	<b>3,267</b>	
Non-current liabilities – Financial instruments		5,911	1,690	
Long-term financial debt		5,628	1,485	See note 36
• Subordinated loans and bonds	Financial liabilities measured at amortized cost	5,337	990	
• Other long-term debts	Financial liabilities measured at amortized cost	240	493	
• Long-term finance lease obligations	Financial lease liabilities measured at amortized cost	51	2	See note 27
Other non-current liabilities	Financial liabilities measured at amortized cost	282	204	
<b>Current liabilities – Financial instruments</b>		<b>2,730</b>	<b>2,516</b>	
Short-term financial debt		891	853	See note 36
• Short-term financial debt (excluding finance lease obligations)	Financial liabilities measured at amortized cost	890	853	
• Short-term finance lease obligations	Financial liabilities measured at amortized cost	2	0	
Trade liabilities		1,559	1,461	
Financial instruments – Operational		135	88	See note 38
• Held for trading	Held for trading	90	32	
• Derivative financial instruments designated in cash flow hedge relationship	Cash flow hedges	45	57	
Dividends payable		144	114	
<b>TOTAL LIABILITIES – FINANCIAL INSTRUMENTS</b>		<b>8,640</b>	<b>4,206</b>	

### 37.A. Overview of financial instruments

The following table gives an overview of the carrying amount of all financial instruments by class and by category as defined by IAS 39 *Financial Instruments: Recognition and Measurement*.

In € million	2015	2014
	Carrying amount	Carrying amount
Fair value through profit or loss		
<i>Held for trading</i>	369	42
Derivative financial instruments designated in cash flow hedge relationship	14	10
Loans and receivables (including cash and cash equivalents, trade receivables, loans and other current/non-current assets except pension fund surpluses)	3,881	2,868
Available for sale financial assets	34	347
<b>TOTAL FINANCIAL ASSETS</b>	<b>4,298</b>	<b>3,267</b>
Fair value through profit or loss		
<i>Held for trading</i>	(90)	(32)
Derivative financial instruments designated in cash flow hedge relationship	(45)	(57)
Financial liabilities measured at amortized cost (including long-term financial debt, other non-current liabilities, short-term financial debt, trade liabilities)	(8,308)	(4,001)
Dividends payable	(144)	(114)
Finance lease obligations measured at amortized cost	(53)	(2)
<b>TOTAL FINANCIAL LIABILITIES</b>	<b>(8,640)</b>	<b>(4,206)</b>

The category "Held for trading" only contains derivative financial instruments that are used for management of foreign currency risk, interest rate risk, energy and CO<sub>2</sub> emission rights price risks, but which are not documented as hedging instruments. They also include the Inovyn derivative financial instrument (see detail in section 37.B).

Available-for-sale financial assets pertain to Solvay's New Business Development (NBD) activity: the Group has built a Corporate Venturing portfolio which is made of direct investments in start-up companies and of investments in venture capital funds. The available-for-sale financial assets are measured at fair value according to the valuation guidelines published by the European Private Equity and Venture Capital Association.

In addition, at December 31, 2014, Money Market Funds (debt instrument) were held (€ 300 million).

### 37.B. Fair value of financial instruments

#### Valuation techniques and assumptions used for measuring fair value

Quoted market prices are available for financial assets and financial liabilities with standard terms and conditions that are traded on active markets. The fair values of derivative financial instruments are equal to their quoted prices, if available. In case such quoted

prices are not available, the fair value of the financial instruments is determined based on a discounted cash flow analysis using the applicable yield curve derived from quoted interest rates matching maturities of the contracts for non-optional derivatives. Optional derivatives are fair valued based on option pricing models, taking into account the present value of probability weighted expected future payoffs, using market reference formulas.

Solvay's exit from Inovyn against receipt of an additional, performance-based payment qualifies as a derivative financial instrument, of which the fair value amounts to € 244 million at December 31, 2015. Its fair value is largely based on level 3 inputs, namely REBITDA multiples, comparing the expected exit price against the fair value of Solvay's 50% equity share held in Inovyn. Any future changes of estimates of REBITDA multiples will impact the fair value of the derivative financial instrument. A decrease of REBITDA by 10% decreases the fair value of the derivative financial instrument by € 39 million. An increase of REBITDA by 10% increases the fair value of the derivative financial instrument by € 54 million. A decrease/increase of the discount rate by 10% increases/decreases the fair value of the derivative financial instrument by € 6 million.

The fair values of other financial assets and financial liabilities (other than those described above) are determined in accordance with generally accepted pricing models based on discounted cash flow analysis.

## Fair value of financial instruments measured at amortized cost

In € million	2015		2014		
	Carrying amount	Fair value	Carrying amount	Fair value	Fair value level
<b>Non-current assets – Financial instruments</b>	<b>174</b>	<b>174</b>	<b>193</b>	<b>193</b>	
Loans and other non-current assets (except pension fund surpluses)	174	174	193	193	2
<b>Non-current liabilities – Financial instruments</b>	<b>(5,911)</b>	<b>(6,005)</b>	<b>(1,690)</b>	<b>(1,817)</b>	
Subordinated loans and bonds	(5,337)	(5,431)	(990)	(1,097)	1
Other long-term debts	(240)	(240)	(493)	(513)	2
Other non-current liabilities	(282)	(282)	(204)	(204)	2
Long-term finance lease obligations	(51)	(51)	(2)	(2)	2

The carrying amounts of current financial assets and liabilities are estimated to reasonably approximate their fair values, such in light of short terms to maturity.

### Financial instruments measured at fair value in the consolidated statement of financial position

The table “Financial instruments measured at fair value in the consolidated statement of financial position” provides an analysis of financial instruments that, subsequent to their initial recognition,

are measured at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable (see *IFRS main accounting policies - 20. Financial assets*).

In accordance with the Group internal rules, the responsibility for measuring the fair value level resides with (a) the Treasury Department for the non-energy derivative financial instruments, and the financial liabilities, (b) Energy Services business unit for the energy derivative financial instruments and (c) the Finance Department for non-derivative financial assets.

## Financial instruments measured at fair value in the consolidated statement of financial position

In € million	2015			
	Level 1	Level 2	Level 3	Total
<b>Held for trading</b>	<b>2</b>	<b>123</b>	<b>244</b>	<b>369</b>
• Foreign currency risk		49		49
• Energy risk		55		55
• CO <sub>2</sub> risk	2	19	0	22
• Inovyn derivative financial instrument			244	244
<b>Cash flow hedges</b>	<b>6</b>	<b>8</b>		<b>14</b>
• Foreign currency risk		8		8
• Energy risk		1		1
• CO <sub>2</sub> risk	6			6
<b>Available-for-sale financial assets</b>			<b>34</b>	<b>34</b>
• New Business Development			34	34
<b>TOTAL</b>	<b>8</b>	<b>131</b>	<b>278</b>	<b>417</b>
<b>Held for trading</b>		<b>(90)</b>	<b>0</b>	<b>(90)</b>
• Foreign currency risk		(12)		(12)
• Energy risk		(46)		(46)
• CO <sub>2</sub> risk		(28)	0	(28)
• Solvay share price		(4)		(4)
<b>Cash flow hedges</b>	<b>0</b>	<b>(45)</b>		<b>(45)</b>
• Foreign currency risk		(23)		(23)
• Interest rate risk		(1)		(1)
• Energy risk		(16)		(16)
• Solvay share price		(5)		(5)
<b>TOTAL</b>	<b>0</b>	<b>(135)</b>	<b>0</b>	<b>(135)</b>

In € million	2014			
	Level 1	Level 2	Level 3	Total
<b>Held for trading</b>	<b>1</b>	<b>41</b>	<b>0</b>	<b>42</b>
• Foreign currency risk		11		11
• Energy risk		22		22
• CO <sub>2</sub> risk	1	1	0	1
• Solvay share price		7		7
<b>Cash flow hedges</b>	<b>3</b>	<b>8</b>		<b>10</b>
• Foreign currency risk		7		7
• CO <sub>2</sub> risk	3			3
• Solvay share price		1		1
<b>Available-for-sale financial assets</b>	<b>300</b>		<b>43</b>	<b>343</b>
• New Business Development			43	43
• Other current receivables - financial instruments (Money Market Funds)	300			300
<b>Cash and cash equivalents</b>	<b>3</b>			<b>3</b>
• Marketable securities	3			3
<b>TOTAL</b>	<b>306</b>	<b>49</b>	<b>43</b>	<b>398</b>
<b>Held for trading</b>	<b>(5)</b>	<b>(26)</b>	<b>(1)</b>	<b>(32)</b>
• Foreign currency risk		(5)		(5)
• Energy risk	(3)	(18)		(21)
• CO <sub>2</sub> risk	(3)	(3)	(1)	(6)
<b>Cash flow hedges</b>	<b>(1)</b>	<b>(56)</b>		<b>(57)</b>
• Foreign currency risk		(41)		(41)
• Interest rate risk		(1)		(1)
• Energy risk		(13)		(13)
• CO <sub>2</sub> risk	(1)			(1)
• Solvay share price		(1)		(1)
<b>TOTAL</b>	<b>(6)</b>	<b>(82)</b>	<b>(1)</b>	<b>(88)</b>

## Movements of the period

### Reconciliation of level 3 fair value measurements of financial assets and liabilities

In € million	2015		
	At fair value through profit or loss	Available-for-sale	Total
	Derivatives	Shares	
<b>Opening balance at January 1</b>	(1)	43	<b>43</b>
Total gains or losses			
• Recognized in the income statement	0	(9)	(9)
• Recognized in other comprehensive income		3	3
Acquisitions	244	4	248
Disposals		(8)	(8)
<b>Closing balance at December 31</b>	<b>244</b>	<b>34</b>	<b>277</b>

In € million	2014		
	At fair value through profit or loss	Available-for-sale	Total
	Derivatives	Shares	
<b>Opening balance at January 1</b>	0	38	<b>38</b>
Total gains or losses			
• Recognized in the income statement	0	(1)	(1)
• Recognized in other comprehensive income		2	2
Acquisitions		4	4
<b>Closing balance at December 31</b>	<b>(1)</b>	<b>43</b>	<b>43</b>



### Income and expenses of financial instruments recognized in the consolidated income statement and in other comprehensive income

In € million	2015	2014
<b>Recognized in the income statement</b>		
Recycling from OCI of derivative financial instruments designated in cash flow hedge relationship		
• Foreign currency risk	(112)	1
• Energy risk	(19)	(6)
• CO <sub>2</sub> risk	(3)	0
Changes in the fair value of financial instruments held for trading		
• Energy risk	(2)	(2)
• CO <sub>2</sub> risk	4	1
<b>Recognized in the gross margin</b>	<b>(132)</b>	<b>(6)</b>
Recycling from OCI of derivative financial instruments designated in cash flow hedge relationship		
• Foreign currency risk	0	5
Changes in the fair value of financial instruments held for trading		
• Solvay share price	(4)	0
Ineffective portion of derivative financial instruments designated in cash flow hedge relationship		
• Foreign currency risk	7	2
Operating exchange gains and losses	(5)	(6)
<b>Recognized in other operating gains and losses</b>	<b>(2)</b>	<b>1</b>
Changes in the fair value of financial instruments held for trading		
• Solvay share price	5	1
Ineffective portion of derivative financial instruments designated in cash flow hedge relationship		
• Foreign currency risk	(33)	0
<b>Recognized in non-recurring gains and losses</b>	<b>(27)</b>	<b>1</b>
Net interest expense	(100)	(115)
Other gains and losses on net indebtedness (excluding gains and losses on hyperinflation and other items not related to financial instruments)		
• Foreign currency risk	(2)	2
• Interest element of swaps	(18)	(21)
• Others	2	2
<b>Recognized in charges on net indebtedness</b>	<b>(117)</b>	<b>(132)</b>
Income/loss from available-for-sale financial assets investments	(8)	(1)
<b>TOTAL RECOGNIZED IN THE INCOME STATEMENT</b>	<b>(286)</b>	<b>(136)</b>

The foreign currency expense recognized in gross margin of € 112 million is the result of the settlement of derivative financial instruments designated in cash flow hedge relationship. Their purpose was to offset a portion of the foreign exchange differences on sales. The main currencies hedged by the Group are US dollar, Japanese yen, Brazilian real and South-Korean won.

The foreign currency expense recognized in non-recurring gains and losses of € 33 million is the ineffective portion (time value) of the derivative financial instrument related to the acquisition of Cytec.

Income and expenses on financial instruments recognized in other comprehensive income include the following:

In € million	2015	2014
Net change in the fair value of available-for-sale financial assets	2	1
<b>Total available-for-sale financial assets</b>	<b>2</b>	<b>1</b>
Recycling from OCI of derivative financial instruments designated in cash flow hedge relationship		
• Foreign currency risk	112	(7)
• Energy risk	19	6
• CO <sub>2</sub> risk	3	
Basis adjustments		
• Foreign currency risk	(77)	
Effective portion of changes in fair value of cash flow hedge		
• Foreign currency risk	(15)	(42)
• Energy risk	(19)	(14)
• CO <sub>2</sub> risk	(3)	
• Solvay share price	(5)	(3)
Total cash flow hedges	15	(60)
<b>TOTAL</b>	<b>17</b>	<b>(59)</b>

The recycling from OCI (foreign currency risk) of € 112 million is explained above. The amount of € (77) million is the designated portion of the derivative financial instrument (intrinsic value) related to the acquisition of Cytec that has been reclassified to goodwill at acquisition date as a basis adjustment.

### 37.C. Capital management

See the item 2.1 Policy in respect of capital in the Corporate governance statement section of this report.

### 37.D. Financial risk management

The Group is exposed to market risks from movements in foreign exchange rates, interest rates and other market prices (energy prices, CO<sub>2</sub> emission rights prices and equity prices). The Solvay group uses derivative financial instruments to hedge clearly identified foreign exchange, interest rate, energy price and CO<sub>2</sub> emission rights price risks (hedging instruments). However, the required criteria to apply hedge accounting are not met in all cases.

Furthermore, the Group is also exposed to liquidity risks and credit risks.

The Group does not enter into, nor does trade financial instruments (including derivative financial instruments) for speculative purposes.

#### Foreign currency risks

The Group's foreign exchange risk hedging policy is based essentially on the principles of financing its activities in local currency, systematically hedging transactional exchange risk at the time of invoicing (risks which are certain) as well as monitoring and hedging where appropriate exchange rate positions generated by the Group's activities, based on expected cash flows. See the item 5 Financial risk in the Management of risks section of this report for additional information on the foreign currency risks management.

The Group undertakes transactions denominated in foreign currencies. Consequently, exposures to exchange rate fluctuations arise. Exchange rate exposures are managed within approved policy parameters utilizing forward foreign exchange contracts or other derivatives like currency options.

In 2015, the currency risk of the Cytec acquisition was partially hedged (see note 26).

The Group's currency risk can be split into two categories: translation and transactional risk.

#### Translation risk

The translation exchange risk is the risk affecting the Group's consolidated financial statements related to investees operating in a currency other than the EUR (the Group's presentation currency). The main other currencies are the US Dollar, Chinese Yuan, Brazilian Real and Russian Ruble.

Exchange rate fluctuations, particularly of the US Dollar, can affect earnings. In the course of 2015 the EUR/USD exchange rate moved from 1.2141 at the start of January to 1.0887 at the end of December. In the course of 2014 the EUR/USD exchange rate moved from 1.3791 at the start of January to 1.2141 at the end of December. During 2015 and 2014, the Solvay group did not hedge the currency risk of foreign operations.

#### Transactional risk

The transactional risk is the exchange risk linked to a specific transaction, such as a Group company buying or selling in a currency other than its functional currency.

To the largest extent possible, the Group manages the transactional risk on receivables and borrowings at the level of Solvay CICC in Belgium and locally for other affiliates.

The choice of borrowing currency depends mainly on the opportunities offered by the various markets. This means that the selected currency is not necessarily that of the country in which the funds will be invested. Nonetheless, operating entities are financed essentially in their own local currencies, with this currency being obtained, where appropriate, by currency swaps against the currency held by the financing company. The cost of these currency swaps is included within the cost of borrowing. These enable the Group to limit the exchange risk both in the financial company and in the company finally using the funds.

In emerging countries it is not always possible to borrow in local currency, either because funds are not available in local financial markets, or because the financial conditions are too onerous. In such a situation the Group has to borrow in a different currency. Nonetheless the Group considers opportunities to refinance its borrowings in emerging countries with local currency debt.

The Group's foreign exchange position is centralized at Solvay CICC. This centralized exchange position is then managed under rules and specific limits which have been set by the Group.

The main financial instruments used are the spot and forward purchase and sale of currencies, and the purchase of options.

The following table details the forward exchange contracts outstanding at the end of the period:

#### NOTIONAL AMOUNTS NET<sup>(1)</sup>

In € million	Notional amount		Fair value assets		Fair value liabilities	
	2015	2014	2015	2014	2015	2014
Held for trading	(1,174)	298	49	11	(12)	(5)
Cash flow hedges	(683)	(668)	8	7	(23)	(41)
<b>TOTAL</b>	<b>(1,857)</b>	<b>(370)</b>	<b>57</b>	<b>18</b>	<b>(34)</b>	<b>(46)</b>

(1) Long/(short) positions.

In comparison to 2014 where the trading position was long by € 298 million, 2015 is short by € (1,174) million mainly due to financing constraints (of which currency swaps held to create a US\$ 900 million synthetic financing with respect to the Cytec acquisition).

There is no material sensitivity for the Group in profit or loss and equity to variations in exchange rates.

- Hedging aims to limit the fluctuation of the Group's forecast gross margin. Exchange rates variations could lead to changes in the value of financial instruments and adverse changes in future cash flows from planned transactions.
- Group Treasury acts to mitigate the transactional risk at Group level in order to avoid impact of foreign exchange rates fluctuations on profit or loss. The translation at the closing rate of financial receivables, loans, cash and financial liabilities into the functional currency of the respective Group company is mitigated by financial instruments.

#### Cash flow hedge

The Group uses derivatives to hedge identified foreign exchange rate risks. It documents those as hedging instruments unless it hedges a recognized financial asset or liability when generally no cash flow hedge relationship is documented.

At the end of 2015 for future exposure, the Group had mainly hedged forecast sales (short position) in a nominal amount of US\$ 665 million (€ 595 million) and JP¥ 11,753 million (€ 88 million).

At the end of 2014 for future exposure, the Group had mainly hedged forecast sales in a nominal amount of US\$ 743 million (€ 594 million) and JP¥ 12,332 million (€ 90 million).

#### Held for trading

The daily management of the transactional risk is mainly done at Solvay CICC either via spot or forward contracts. Unless documented as hedging instruments (see above), those forward contracts are classified as held for trading.

#### Interest rate risks

See the Financial risk in the Management of risks section p. 66 of this report for additional information on the interest rate risks management.

Interest rate risk is managed at Group level.

The Group is exposed to interest rate risk because entities in the Group borrow funds at both fixed and floating interest rates. Interest rate risk is managed at Group level by maintaining an appropriate mix between fixed and floating rate borrowings.

Interest rate exposure by currency is summarized below:

In € million	At December 31, 2015			At December 31, 2014		
	Fixed rate	Floating rate	Total	Fixed rate	Floating rate	Total
<b>Financial debt</b>						
EUR	(2,539)	(1,461)	(4,000)	(1,869)	(138)	(2,008)
USD	(2,170)	(74)	(2,244)	0	(53)	(53)
THB	(43)	(61)	(104)	(41)	(94)	(135)
BRL	(20)	(4)	(24)	(30)	(5)	(35)
CNY	(103)	0	(103)	0	(30)	(30)
Other	(22)	(23)	(45)	(39)	(39)	(77)
<b>Total</b>	<b>(4,897)</b>	<b>(1,623)</b>	<b>(6,520)</b>	<b>(1,978)</b>	<b>(359)</b>	<b>(2,338)</b>
<b>Cash and cash equivalents</b>						
EUR		1,083	1,083		281	281
USD		455	455		525	525
THB		99	99		69	69
BRL		74	74		90	90
CNY		40	40		82	82
Other		279	279		204	204
<b>Total</b>		<b>2,030</b>	<b>2,030</b>		<b>1,251</b>	<b>1,251</b>
<b>Other current receivables – financial instruments</b>						
EUR		29	29		306	306
Other		83	83		3	3
<b>Total</b>		<b>111</b>	<b>111</b>		<b>309</b>	<b>309</b>
<b>TOTAL</b>	<b>(4,897)</b>	<b>518</b>	<b>(4,379)</b>	<b>(1,978)</b>	<b>1,200</b>	<b>(778)</b>

At the end of 2015, around € 4.9 billion of the Group's gross debt was at fixed-rate, including mainly:

- the EMTN bond issuance of € 500 million maturing in 2018 (carrying amount € 493 million);
- the deeply subordinated bond of € 500 million placed on the market in 2006 maturing in 2104 (carrying amount € 500 million) carries a fixed coupon until 2016 and floating thereafter;
- senior € notes for a total of € 1,250 million (carrying amount of € 1,235 million);

- European Investment Bank € 300 million maturing in 2016;
- senior US\$ notes for a total of US\$ 1,600 million (nominal amount of € 1,470 million, carrying amount of € 1,461 million); and
- senior US\$ notes assumed through the acquisition of Cytec of US\$ 732 million (nominal amount of € 673 million; carrying amount € 653 million) debt at fixed rate (mainly three bonds maturing in 2017, 2023 and 2025).

The increase of the floating rate debt is explained by the € 1 billion senior notes (carrying amount of € 995 million) maturing in 2017 (Euribor plus 82 bps of margin).

The impact of interest rate volatility at the end of 2015 compared to 2014 is the following:

In € million	Sensitivity to a +100 bp movement in EUR market interest rates		Sensitivity to a -100 bp movement in EUR market interest rates	
	2015	2014	2015	2014
Profit or loss	(15)	(1)	15	1

In addition, in 2015, the MTP HP joint venture (joint operation 50/50 between Dow and Solvay) in Thailand (HPPO project) has entered into an interest rate swap for hedging purpose (notional amount € 64 million at the end of 2015, 100%); its fair value was € (1) million (compared to € (1) million in 2014), included in the net financial charges (only 50%, Solvay share).

In € million	Notional amount		Fair value assets		Fair value liabilities	
	2015	2014	2015	2014	2015	2014
Cash flow hedge	32	38	0	0	(1)	(1)
<b>TOTAL</b>	<b>32</b>	<b>38</b>	<b>0</b>	<b>0</b>	<b>(1)</b>	<b>(1)</b>

## Other market risks

### Energy price risks

The Group purchases a large portion of its coal, gas and electricity needs in Europe and the United States based on fluctuating liquid market indices. In order to reduce the cost volatility, the Group has developed a policy for exchanging variable price against fixed price through derivative financial instruments. Most of these hedging instruments can be documented as hedging instruments of the underlying purchase contracts. Purchases of physical energy at fixed price contracts qualified as "own use" contracts (not derivatives) constitute a natural hedge, and are not included in this note. Similarly the Group's exposure to CO<sub>2</sub> price is partly hedged by forward purchases of European Union Allowance (EUA), which either can be documented as hedging instruments, or qualify as own use contracts.

Finally some exposure to gas-electricity or coal-electricity spreads may arise from the production of electricity on Solvay sites (mostly from cogeneration units in Europe), which can be hedged by forward purchases and forward sales or optional schemes. In this case, cash flow hedge accounting is applied.

### Energy Services

Financial hedging of energy and CO<sub>2</sub> emission rights price risks is managed centrally by Energy Services on behalf of the Group entities.

Energy Services also carries out trading transactions with respect to energy and CO<sub>2</sub>, for which the residual price exposure is maintained close to zero.

The following tables detail the notional principal amounts and fair values of energy and CO<sub>2</sub> derivative financial instruments outstanding at the end of the reporting period:

In € million	Notional amount		Fair value assets		Fair value liabilities	
	2015	2014	2015	2014	2015	2014
Held for trading	624	559	76	24	(75)	(26)
Cash flow hedge	73	100	6	3	(16)	(14)
<b>TOTAL</b>	<b>697</b>	<b>659</b>	<b>82</b>	<b>26</b>	<b>(91)</b>	<b>(40)</b>

## Credit risk

See the Financial risk in the Management of risks section, p.66 of this report for additional information on the credit risk management.

There is no significant concentration of credit risk at Group level to the extent that the receivables risk is spread over a large number of customers and markets.

The ageing of trade receivables, financial instruments - operational, loans and other non-current assets is as follows:

2015 In € million	Total	Of which receivables without write-down					
		With write-down	Not past due	Less than 30 days past due	Between 30 & 60 days past due	Between 60 & 90 days past due	More than 90 days past due
Trade receivables	1,615	102	1,389	95	13	2	14
Financial instruments - operational	90		90				
Loans and other non-current assets	427	35	392	1			
<b>TOTAL</b>	<b>2,133</b>	<b>137</b>	<b>1,871</b>	<b>95</b>	<b>13</b>	<b>2</b>	<b>14</b>

2014 In € million	Total	Of which receivables without write-down					
		With write-down	Not past due	Less than 30 days past due	Between 30 & 60 days past due	Between 60 & 90 days past due	More than 90 days past due
Trade receivables	1,418	77	1,229	73	21	4	14
Financial instruments - operational	52		52				
Loans and other non-current assets	194	26	167	1			
<b>TOTAL</b>	<b>1,665</b>	<b>103</b>	<b>1,449</b>	<b>74</b>	<b>21</b>	<b>4</b>	<b>14</b>

## Liquidity risk

See the Financial risk in the Management of risks section p.66 of this report for additional information on the liquidity risk management.

Liquidity risk relates to Solvay's ability to service and refinance its debt (including notes issued) and to fund its operations.

This depends on its ability to generate cash from operations and not to over-pay for acquisitions.

The Finance Committee gives its opinion on the appropriate liquidity risk management for the Group's short, medium and long term funding and liquidity management requirements.

The Group manages liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously

monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

The Group staggers the maturities of its financing sources over time in order to limit amounts to be refinanced each year.

The following tables detail the Group's remaining contractual maturity for its financial liabilities with contractual repayment periods. The tables have been prepared using the undiscounted cash flows of financial liabilities, based on the earliest date on which the Group can be required to pay. The tables include both interest and principal cash flows. To the extent that interest flows are based on a floating rate, the undiscounted amount is derived from interest rate curves at the end of the reporting period.

2015 In € million	Total	on demand or within one year	in year two	in years three to five	beyond five years
<b>Outflows of cash related to financial liabilities:</b>	<b>8,640</b>				
Other non-current liabilities	282	282			
Short-term financial debt	891	891			
Trade liabilities	1,559	1,559			
Dividends payables	144	144			
Financial instruments - operational	135	135			
Long-term financial debt	5,628		1,101	1,334	3,193
<b>TOTAL FINANCIAL DEBT (SHORT AND LONG-TERM)</b>	<b>6,520</b>	<b>891</b>	<b>1,101</b>	<b>1,334</b>	<b>3,193</b>

2014 In € million	Total	on demand or within one year	in year two	in years three to five	beyond five years
<b>Outflows of cash related to financial liabilities:</b>	<b>4,206</b>				
Other non-current liabilities	204	204			
Short-term financial debt	853	853			
Trade liabilities	1,461	1,461			
Dividends payables	114	114			
Financial instruments - operational	88	88			
Long-term financial debt	1,485		811	572	102
<b>TOTAL FINANCIAL DEBT (SHORT AND LONG-TERM)</b>	<b>2,338</b>	<b>853</b>	<b>811</b>	<b>572</b>	<b>102</b>

In addition to the above mentioned financing sources, the Group also has access to the following instruments:

- a Belgian Treasury Bill program in an amount of € 1 billion, of which € 324 million had been issued at the end of 2015 (€ 75 million at the end of 2014), and alternatively a US commercial paper program in an amount of US\$ 500 million, unused at the end of
- 2015 and 2014. The two programs are covered by back-up credit lines;
- a € 1.5 billion and a € 550 million multilateral credit lines, maturing respectively in 2020 and in 2018; as well as bilateral credit lines (~€ 300 million). They were all unused at the end of 2015 and 2014.

## NOTE 38 Other current liabilities

In € million	2015	2014
Wages and benefits debts	322	287
VAT and other taxes	136	112
Social security	87	94
Financial instruments - operational	135	88
Insurance premiums	11	12
Advances from customers	23	25
Other	308	157
<b>OTHER CURRENT LIABILITIES</b>	<b>1,022</b>	<b>776</b>

## Miscellaneous notes

### NOTE 39 Commitments to acquire tangible and intangible assets

In € million	2015	2014
Commitments for the acquisition of tangible and intangible assets	104	131

### NOTE 40 Dividends proposed for distribution but not yet recognized as a distribution to equity holders

The Board of Directors will propose to the “General Shareholders’ Meeting” a gross dividend of €3.30 per share, which takes into

account the adjustment for the value of the rights distributed following Solvay’s recent € 1.5 billion capital increase completed in December 2015, the adjustment factor being 93.98%.

Taking into account the dividend advance payment distributed in January 2016 of € 1.36 per share, the dividends proposed for distribution, but not yet recognized as a distribution to equity holders amount to € 205 million.

### NOTE 41 Contingent liabilities

In € million	2015	2014
Liabilities and commitments of third parties guaranteed by the Company	881	1,027
Environmental contingent liabilities	313	246
Litigation and other major commitments	27	35

The liabilities and commitments of third parties guaranteed by the Company relate mainly to guarantees given in the framework of:

- RusVinyl, the joint venture with SIBUR for the construction and operation of a PVC plant in Russia. A guarantee of € 292 million at December 31, 2015 (€ 344 million at the end of 2014) has been provided on a several basis by each sponsor, SolVin/Solvay and Sibur, for the benefit of the lenders and which corresponds for each to 50% of the amount in principal of RusVinyl project finance plus interests and costs;
- VAT payment (€ 318 million at December 31, 2015, € 355 million at December 31, 2014).

- the joint operation Saudi Hydrogen Peroxide Co with Sadara for the construction and operation of a hydrogen peroxide plant in the Kingdom of Saudi Arabia. We note that the construction funding guarantee provided by Solvay to its partner Sadara since 2011 is decreasing progressively over time and is close to zero at the end of 2015. The similar guarantee for the funding obligations of the project by the partners granted to Solvay was equally reduced.

Within the framework of the annual review of contingent liabilities, environmental contingent liabilities for a total amount of € 313 million have been identified at December 31, 2015 (€ 246 million at December 31, 2014).

### NOTE 42 Associates and joint ventures

The associates and joint ventures not classified as held for sale/discontinued operations are consolidated by applying the equity method of accounting.

In € million	2015			2014		
	Associates	Joint ventures	Total	Associates	Joint ventures	Total
Investments in associates and joint ventures	41	357	398	30	350	380
Earnings from associates and joint ventures	2	19	21	0	(34)	(34)

The tables below present the summary of the statement of financial position and income statement of the material associates and joint ventures as if they were proportionately consolidated.

## Associates

In € million	2015	2014
<b>Statement of financial position</b>		
<b>Non-current assets</b>	<b>67</b>	<b>53</b>
<b>Current assets</b>	<b>35</b>	<b>29</b>
Cash and cash equivalents	8	4
<b>Non-current liabilities</b>	<b>22</b>	<b>19</b>
Long-term financial debt	18	16
<b>Current liabilities</b>	<b>39</b>	<b>33</b>
Short-term financial debt	16	10
<b>Investments in associates</b>	<b>41</b>	<b>30</b>
<b>Income statement</b>		
Sales	90	83
Depreciation and amortization	(4)	(3)
Cost of borrowings	(1)	0
Interest on lendings and short term deposits	0	0
Income taxes	(1)	0
<b>Result from continuing operations</b>	<b>2</b>	<b>(1)</b>
Result from discontinued operations	0	0
<b>Net income for the year</b>	<b>2</b>	<b>(1)</b>
Other comprehensive income	(2)	(1)
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>0</b>	<b>(1)</b>
<b>Dividends received</b>	<b>2</b>	<b>2</b>

## Joint ventures

In € million	2015					
	RusVinyl 000	Peroxidos do Brasil Ltda	Solvay & CPC Barium Strontium	Shandong Huatai Interlox Chemical Co. Ltd	Hindustan Gum & Chemicals Ltd	Other
Ownership interest	50%	69.40%	75%	50%	50%	
Operating Segment	Functional Polymers	Performance Chemicals	Advanced Materials	Performance Chemicals	Advanced Formulations	
<b>Statement of financial position</b>						
<b>Non-current assets</b>	<b>406</b>	<b>32</b>	<b>12</b>	<b>11</b>	<b>9</b>	<b>6</b>
<b>Current assets</b>	<b>31</b>	<b>40</b>	<b>37</b>	<b>3</b>	<b>146</b>	<b>20</b>
Cash and cash equivalents	7	21	6	1	135	3
<b>Non-current liabilities</b>	<b>275</b>	<b>6</b>	<b>10</b>	<b>1</b>	<b>1</b>	<b>1</b>
Long-term financial debt	256	3	0	1	0	0
<b>Current liabilities</b>	<b>51</b>	<b>19</b>	<b>13</b>	<b>3</b>	<b>9</b>	<b>8</b>
Short-term financial debt	35	5	1	0	0	1
<b>Investments in joint ventures</b>	<b>112</b>	<b>47</b>	<b>26</b>	<b>10</b>	<b>145</b>	<b>17</b>
<b>Income statement</b>						
Sales	114	69	68	11	48	56
Depreciation and amortization	(24)	(3)	(1)	(1)	(1)	(1)
Reversal of impairment	19					
Cost of borrowings	(28)	(1)	0	0	0	0
Interest on lendings and short term deposits	0	2	0	0	7	0
Income taxes	10	(7)	(1)	0	(3)	0
<b>Result from continuing operations</b>	<b>(16)</b>	<b>16</b>	<b>7</b>	<b>3</b>	<b>8</b>	<b>1</b>
Result from discontinued operations	0	0	0	0	0	0
<b>Net income for the year</b>	<b>(16)</b>	<b>16</b>	<b>7</b>	<b>3</b>	<b>8</b>	<b>1</b>
Other comprehensive income	20	(9)	(1)	0	7	(8)
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>(7)</b>
<b>Dividends received</b>	<b>0</b>	<b>7</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>0</b>



In € million	2014					Other
	RusVinyl 000	Peroxidos do Brasil Ltda	Solvay & CPC Barium Strontium	Hindustan Gum & Chemicals Ltd		
Ownership interest	50%	69.40%	75%	50%		
Operating Segment	Functional Polymers	Performance Chemicals	Advanced Materials	Advanced Formulations		
<b>Statement of financial position</b>						
<b>Non-current assets</b>	<b>428</b>	<b>36</b>	<b>11</b>	<b>8</b>		<b>9</b>
<b>Current assets</b>	<b>27</b>	<b>43</b>	<b>39</b>	<b>136</b>		<b>30</b>
Cash and cash equivalents	3	22	8	103		6
<b>Non-current liabilities</b>	<b>284</b>	<b>8</b>	<b>11</b>	<b>1</b>		<b>1</b>
Long-term financial debt	266	5	0	0		0
<b>Current liabilities</b>	<b>47</b>	<b>22</b>	<b>17</b>	<b>12</b>		<b>15</b>
Short-term financial debt	35	7	8	0		1
<b>Investments in joint ventures</b>	<b>124</b>	<b>50</b>	<b>23</b>	<b>131</b>		<b>23</b>
<b>Income statement</b>						
Sales	24	68	66	96		76
Depreciation and amortization	(8)	(4)	(1)	(1)		(1)
Cost of borrowings	(25)	0	0	0		0
Interest on lendings and short term deposits	1	2	0	7		0
Income taxes	22	(7)	(1)	(6)		(2)
<b>Result from continuing operations</b>	<b>(74)</b>	<b>14</b>	<b>11</b>	<b>12</b>		<b>3</b>
Result from discontinued operations	0	0	0	0		0
<b>Net income for the year</b>	<b>(74)</b>	<b>14</b>	<b>11</b>	<b>12</b>		<b>3</b>
Other comprehensive income	(163)	1	0	12		(1)
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>(237)</b>	<b>15</b>	<b>11</b>	<b>24</b>		<b>2</b>
<b>Dividends received</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>4</b>		<b>1</b>

## NOTE 43 Joint operations

The list of joint operations is available in the *List of Companies included in the consolidation (List of joint operations)*.

- Soda Ash & Derivatives operations/interests in Devnya (Bulgaria), 75% held by Solvay and comprising the following legal entities:
  - Deven AD;
  - Solvay Sodi AD;
  - Solvay Sisecam Holding AG.
- Hydrogen Peroxide Propylene Oxide (HPPO) operations/interests in Zandvliet (Belgium), Map Ta Put (Thailand) and the HPPO plant that is being constructed in the Kingdom of Saudi Arabia, all 50% held by Solvay and comprising the following legal entities:
  - BASF Interox H<sub>2</sub>O<sub>2</sub> Production NV;
  - MTP HPJV C.V.;
  - MTP HPJV Management B.V.;
  - MTP HPJV (Thailand) Ltd.;
  - Saudi Hydrogen Peroxide Co.
- Polyamides operations/interests in Butachimie (France), 50% held by Solvay.
- Acetow operations/interests of 50% held by Solvay in Primester (United States), and 49.9% held by Solvay in Warmeverbundkraftwerk Freiburg (Germany).

## NOTE 44 Non-controlling interests (continuing operations)

The following subsidiaries, other than those classified as held for sale have material non-controlling interests.

The amounts disclosed below are fully consolidated amounts and do not reflect the impacts from elimination of intragroup transactions.

In € million	2015				
	Zhejiang Lansol	Vinythai	ANAN Kasei	Solvay Biomass Energy LLC	Solvay Soda Ash
Non controlling ownership interest	45%	41%	33%	35%	20%
<b>Statement of financial position</b>					
Non-current assets	24	244	19	10	337
Current assets	15	145	30	7	34
Non-current liabilities	0	47	1	0	14
Current liabilities	15	43	15	4	16
<b>Income statement</b>					
Sales	32	404	83	11	350
Net income for the year	0	24	8	(12)	176
Other comprehensive income	1	(18)	3	0	(15)
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>1</b>	<b>6</b>	<b>11</b>	<b>(12)</b>	<b>162</b>
Dividends paid to non controlling interests	0	1	3	0	34
Share of non controlling interest in the net result	0	10	3	(4)	35
Accumulated non controlling interest	11	123	11	5	67

In € million	2014				
	Zhejiang Lansol	Vinythai	ANAN Kasei	SolVin's interest in RusVinyl	Solvay Soda Ash
Non controlling ownership interest	45%	41%	33%	25%	20%
<b>Statement of financial position</b>					
Non-current assets	18	260	15	124	291
Current assets	10	128	41		18
Non-current liabilities	0	77	0		14
Current liabilities	6	24	21		17
<b>Income statement</b>					
Sales	22	378	68		274
Net income for the year	0	21	9		119
Other comprehensive income	2	2	0		(17)
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>2</b>	<b>23</b>	<b>8</b>		<b>101</b>
Dividend paid to non controlling interests	0	1	0		23
Share of non controlling interest in the net result	0	9	3	(45)	24
Accumulated non controlling interest	10	133	10	32	58

## NOTE 45 Related parties

Balances and transactions between Solvay SA and its subsidiaries, which are related parties of Solvay SA, have been eliminated on consolidation and are not disclosed in this note. Details of transactions between the Group and other related parties are disclosed below.

### Sale and purchase transactions

In € million	Sale of goods		Purchase of goods	
	2015	2014	2015	2014
Associates	16	16	8	8
Joint ventures	164	18	78	31
Other related parties	27	18	77	53
<b>TOTAL</b>	<b>207</b>	<b>51</b>	<b>163</b>	<b>92</b>

In € million	Amounts owed by related parties		Amounts owed to related parties	
	2015	2014	2015	2014
Associates	0	3	0	10
Joint ventures	36	2	21	2
Other related parties	8	2	7	14
<b>TOTAL</b>	<b>44</b>	<b>7</b>	<b>28</b>	<b>26</b>

### Loans to related parties

In € million	2015	2014
Loans to associates	2	16
Loans to joint ventures	2	0
Loans to other related parties	1	12
<b>TOTAL</b>	<b>4</b>	<b>28</b>

### Compensation of key management personnel

Key management personnel is composed of all members of the Board of Directors and members of the Executive Committee.

Amounts due in respect of the year (compensation) and obligations existing at the end of the year:

In € million	2015	2014
Wages, charges and short-term benefits	2	2
Long-term benefits	10	15
Cash-settled share-based payments liability	16	13
<b>TOTAL</b>	<b>28</b>	<b>31</b>

Expenses of the year:

In € million	2015	2014
Wages, charges and short-term benefits	9	8
Long-term benefits	1	1
Share-based payments expenses	5	5
<b>TOTAL</b>	<b>14</b>	<b>13</b>

Excluding employer social charges and taxes

## NOTE 46 Policy in respect of capital

See the item 2.1 Policy in respect of capital in the Corporate governance statement section of this report.

## 2015 consolidation scope

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The Group consists of Solvay SA and a total of 469 investees in 59 countries.

The Group fully consolidates an investee when it controls the investee. Such means that the Group (a) is exposed, or has rights, to variable returns from its involvement with the investee, mainly through its equity interest in the investee, and (b) has the ability to affect those returns through its power over the investee.

For a number of investees, the Group holds a majority equity interest, and the majority of the voting rights. However, as key relevant decisions require unanimous consent, the Group exercises joint control and not control over those investees. Vice versa, for a number of investees, the Group holds between 20% and 50% of the voting rights, but as key relevant decisions require unanimous consent, the Group exercises joint control, and not significant influence over those investees. Those investees are qualified as joint arrangements.

Of these 469 investees, 235 are fully consolidated (of which an increase of 55 following Cytec acquisition), 11 are proportionately consolidated and 22 are accounted for under the equity method, whilst the other 201 do not meet the criteria of significance.

In accordance with the principle of materiality, certain companies which are not of significant size have not been included in the consolidation scope. Companies are deemed not to be significant when, during two consecutive years, they do not exceed any of the three following thresholds in terms of their contribution to the Group's accounts:

- sales of € 30 million;
- total assets of € 15 million;
- headcount of 150 persons.

Companies that do not meet these criteria are, nevertheless, consolidated where the Group believes that they have a potential for rapid development, or where they hold shares in other companies that are consolidated under the above criteria.

In the aggregate, the non-consolidated companies have an immaterial impact on the consolidated data of the Group.

The full list of companies is filed with the National Bank of Belgium as an attachment to the Annual Report, and can be obtained from the Company head office.

## List of companies included in the consolidation

### List of companies entering or leaving the Group

#### Companies entering the Group

Country	Company	Comments
<b>AUSTRALIA</b>	Cytec Asia Pacific Holdings Pty Ltd, Baulkham Hills	new company
	Cytec Australia Holdings Pty Ltd, Baulkham Hills	new company
<b>BELGIUM</b>	Cytec Belgium bvba, Diegem	new company
<b>BRAZIL</b>	Cytec Comercio de Materiais Compostos E Produtos Quimicos do Brasil Ltda, Sao Paulo	New company
	Dhaymers Industria E Comércio de Produtos Quimicos Ltda, Sao Paulo	new company
<b>CANADA</b>	Cytec Canada Inc, Niagara Falls Welland	new company
<b>CHINA</b>	Cytec Engineered Materials Co. Ltd, Shanghai	new company
	Cytec Industries Co. Ltd, Shanghai	new company
	Shandong Huatai Interox Chemical Co. Ltd, Dongying	meets the consolidation criteria
	Suzhou Interox Sem Co. Ltd, Suzhou	meets the consolidation criteria
<b>CHILE</b>	Cytec Chile Ltda, Santiago	new company
<b>FRANCE</b>	Cytec Process Materials Sarl, Toulouse	new company
<b>GERMANY</b>	Cytec Engineered Materials GmbH, Oestringen	new company
	EPIC Technologies GmbH, Schotten	new company
<b>GREAT BRITAIN</b>	Advanced Composites Group Holdings Ltd, Heanor	new company
	Advanced Composites Group Investments Ltd, Heanor	new company
	Cytec Engineered Materials Ltd, Wrexham	new company
	Cytec Industrial Materials (Derby) Ltd, Heanor	new company
	Cytec Industrial Materials (Manchester) Ltd, Heanor	new company
	Cytec Industries UK Holdings Ltd, Wrexham	new company
	Cytec Industries UK Ltd, Wrexham	new company
	Cytec Med-Lab Ltd, Heanor	new company
	Cytec Process Materials (Keighley) Ltd, Keighley	new company
	Inovyn Limited, Runcorn	new company
Med-Lab International Ltd, Heanor	new company	
	Urmeco Composites Ltd, Heanor	new company
	Urmeco Ltd, Heanor	new company
<b>INDIA</b>	Cytec India Specialty Chemicals & Materials Private Ltd, Nagpur	new company
<b>INDONESIA</b>	PT. Cytec Indonesia, Jakarta	new company
<b>IRELAND</b>	C.I.I. Luxembourg Sarl - Irish Branch, Dublin	new company
<b>ITALY</b>	Cytec Process Materials S.r.l., Mondovi	new company
<b>JAPAN</b>	Cytec Industries Japan LLC, Tokyo	new company
<b>LATVIA</b>	Cytec Latvia SIA, Riga	new company
<b>LUXEMBOURG</b>	C.I.I. Luxembourg Sarl, Strassen	new company
	Cytec Luxembourg International Holdings Sarl, Strassen	new company
	Solvay Chlorovinyls Holding S.a.r.l., Luxembourg	new company
<b>MEXICO</b>	Cytec de Mexico S.A. de C.V., Jalisco	new company
<b>NETHERLANDS</b>	Cytec Industries B.V., Vlaardingen	new company
	Cytec Industries Europe C.V., Vlaardingen	new company
	Cytec Netherlands Holdings B.V., Vlaardingen	new company
	Onecarbon International B.V., Utrecht	meets the consolidation criteria
	Solvay Solutions Nederland B.V., Klundert	new company
<b>PERU</b>	Cytec Peru S.A.C., Lima	new company
<b>SINGAPORE</b>	Cytec Industries PTE Ltd, Singapore	new company
<b>SOUTH KOREA</b>	Cytec Korea Inc, Seoul	new company
<b>THAILAND</b>	Cytec Specialty Chem (Thailand) Ltd, Bangkok	new company

Country	Company	Comments
UNITED STATES	Cytec Acrylic Fibers Inc., New Jersey	new company
	Cytec Aerospace Materials (ca) Inc., New Jersey	new company
	Cytec Carbon Fibers LLC, New Jersey	new company
	Cytec Engineered Materials Inc., Arizona	new company
	Cytec Global Holdings Inc., New Jersey	new company
	Cytec Industrial Materials (ok) Inc., New Jersey	new company
	Cytec Industries Inc, New Jersey	new company
	Cytec Korea Inc., New Jersey	new company
	Cytec Olean Inc., New Jersey	new company
	Cytec Overseas Corp., New Jersey	new company
	Cytec Plastics LLC, New Jersey	new company
	Cytec Process Materials (ca) Inc., New Jersey	new company
	Cytec Technology Corp., New Jersey	new company
	D'Aircraft Products Inc., California	new company
	Garret Mountain Insurance Co., New Jersey	new company
	IMC Mining Chemicals LLC, New Jersey	new company
	Netherlands Cytec GP Inc., New Jersey	new company

## Companies leaving the Group

Country	Company	Comments
<b>BELGIUM</b>	Solvic S.A., Brussels	sold to Inovyn
	Solvay Nafta Development and Financing S.A., Brussels	merged into Solvay Luxembourg S.a.r.l.
	SolVin S.A., Brussels	sold to Inovyn
	Solvay Chlorchemicals S.A., Brussels	sold to Inovyn
	Chlorchemicals Trade Services S.A., Brussels	sold to Inovyn
<b>BRAZIL</b>	Erca Quimica Brasil, Itatiba	merged into Rhodia Poliamida e Especialidades Ltda
	Solvay do Brasil Ltda, Sao Paulo	merged into Rhodia Poliamida e Especialidades Ltda
	Dhaymers Industria E Comércio de Produtos Quimicos Ltda, Sao Paulo	merged into Rhodia Poliamida e Especialidades Ltda
<b>GERMANY</b>	Solvay Chlorovinyls GmbH, Hannover	sold to Inovyn
	Solvay Holding GmbH , Freiburg	merged into Solvay P&S GmbH
	Solvay Energy Services Deutschland GmbH, Hannover	merged into Solvay P&S GmbH
	SolVin GmbH & Co KG, Hannover	merged into Solvay Chlorovinyls GmbH
<b>GREAT BRITAIN</b>	Solvay Speciality Chemicals Ltd, Warrington	sold to Imerys
<b>FRANCE</b>	PVC Tavaux S.A.S.	sold to Inovyn
	Solvay – Olefines – France S.A.S., Paris	sold to Inovyn
	Solvay – Spécialités – France S.A.S., Paris	sold to Imerys
	Solvay – Electrolyse – France S.A.S., Paris	sold to Inovyn
<b>ITALY</b>	SolVin Italia S.p.A., Ferrara	sold to Inovyn
	Societa Italiana Del Cloro S.R.L., Bollate	sold to Inovyn
	Società Elettrochimica Solfuri e Cloroderivati (ELESO) S.p.A., Bollate	merged into Societa Italiana del Cloro S.R.L.
	SIS Italia S.p.A., Bollate	merged into Solvay Chimica IT
<b>LUXEMBOURG</b>	Caredor S.A., Strassen	merged into Solvay Hortensia S.A.
<b>MEXICO</b>	Solvay Quimica Y Minera Servicios SA de CV, Monterrey	merged into Solvay Mexicana S. de R.L. de C.V.
	Solvay Quimica Y Minera Ventas SA de CV, Monterrey	merged into Solvay Mexicana S. de R.L. de C.V.
	Rhodia de Mexico SA de CV, Mexico	merged into Solvay Mexicana S. de R.L. de C.V.
	Rhodia Especialidades SA de CV, Mexico	merged into Solvay Mexicana S. de R.L. de C.V.
<b>PORTUGAL</b>	Quimicos Da Leziria Unipessoal Lda, Povoá	sold to Inovyn
<b>SPAIN</b>	SolVin Spain S.L., Martorell	sold to Inovyn
	Chloro Vinyls Spain S.L.	sold to Inovyn
<b>SWITZERLAND</b>	Sopargest – Société de participation et de gestion S.A., Fribourg	merged into Rhodia S.A.
<b>UNITED STATES</b>	American Soda LLP, Parachute, CO	merged into Solvay Chemicals Inc.
	Heat Treatment Services Inc., Cranbury NJ	merged into Solvay USA Inc.
<b>URUGUAY</b>	Fairway Investimentos SA, Montevideo	merged into Rhodia Poliamida Brasil Ltda

## List of subsidiaries

Indicating the percentage holding.

The percentage of voting rights is very close to the percentage holding.

<b>ARGENTINA</b>	
Solvay Argentina SA, Buenos Aires	100
Solvay Indupa S.A.I.C., Bahia Blanca	70.6
Solvay Quimica SA, Buenos Aires	100
<b>AUSTRALIA</b>	
Cytec Asia Pacific Holdings Pty Ltd, Baulkham Hills	100
Cytec Australia Holdings Pty Ltd, Baulkham Hills	100
Solvay Chemicals Pty Ltd , Sydney	100
Solvay Interox Pty Ltd, Banksmeadow	100
<b>AUSTRIA</b>	
Solvay Österreich GmbH, Wien	100
<b>BELGIUM</b>	
Carrières les Petons S.P.R.L., Walcourt	100
Cytec Belgium bvba, Diegem	100
Financière Solvay S.A., Brussels	100
Solvay Chemicals International S.A., Brussels	100
Solvay Chimie S.A., Brussels	100
Solvay Coordination Internationale des Crédits Commerciaux S.A., Brussels	100
Solvay Energy S.A., Brussels	100
Solvay Participations Belgique S.A., Brussels	100
Solvay Pharmaceuticals S.A. - Management Services, Brussels	100
Solvay Specialty Polymers Belgium SA/NV	100
Solvay Stock Option Management S.P.R.L., Brussels	100
<b>BRAZIL</b>	
Cogeracao de Energia Electrica Paraiso SA, Brotas	100
Cytec Comercio de Materiais Compostos E Produtos Quimicos do Brasil Ltda, Sao Paulo	100
Rhodia Brazil Ltda, Sao Paolo	100
Rhodia Energy Brazil Ltda, Paulinia	100
Rhodia Poliamida Brasil Ltda , Sao Paolo	100
Rhodia Poliamida e Especialidades Ltda, Sao Paolo	100
Rhoptart-Participacoes Servidos e Comercio Ltda, Sao Paolo	100
Solvay Indupa do Brasil SA, Sao Paulo	70.6
<b>BULGARIA</b>	
Solvay Bulgaria EAD, Devnya	100
<b>CANADA</b>	
Cytec Canada Inc, Niagara Falls Welland	100
Solvay Canada Inc, Toronto	100
<b>CAYMAN ISLANDS</b>	
Blair International Insurance (Cayman) Ltd, Georgetown	100



<b>CHINA</b>	
Baotou Solvay Rare Earths Company Ltd, Baotou	55
Beijing Rhodia Eastern Chemical Co., Ltd , Beijing	60
Cytec Industries Co. Ltd, Shanghai	100
Cytec Engineered Materials Co. Ltd, Shanghai	100
Liyang Solvay Rare Earth New Material Co., Ltd, Liyang City	96.3
Rhodia Hong Kong Ltd , Hong Kong	100
Solvay (Beijing) Energy Technology Co., Ltd , Beijing	100
Solvay (Shanghai) Engineering Plastics Co., Ltd	100
Solvay (Shanghai) International Trading Co., Ltd, Shanghai	100
Solvay (Shanghai) Ltd, Shanghai	100
Solvay (Zhangjiagang) Specialty Chemicals Co. Ltd, Suzhou	100
Solvay (Zhenjiang) Chemicals Co., Ltd, Zhenjiang New area	100
Solvay Biochemical (Taixing) Co. Ltd, Shanghai	58.7
Solvay Chemicals (Shanghai) Co. Ltd, Shanghai	100
Solvay China Co., Ltd , Shanghai	100
Solvay Fine Chemical Additives (Qingdao) Co., Ltd, Qingdao	100
Solvay Hengchang (Zhangjiagang) Specialty Chemical Co., Ltd, Zhangjiagang City	70
Solvay High Performance Materials R&D (Shanghai) Co., Ltd. , Shanghai	100
Solvay Silica Qingdao Co., Ltd , Qingdao	100
Solvay Speciality Polymers (Changshu) Co. Ltd, Changshu	100
Suzhou Interox Sem Co. Ltd, Suzhou	100
Zhejiang Lansol Fluorchem Co., Ltd, Zhejiang	55
Zhuhai Solvay Specialty Chemicals Co Ltd, Zhuhai City	100
<b>CHILE</b>	
Cytec Chile Ltda, Santiago	100
<b>EGYPT</b>	
Solvay Alexandria Sodium Carbonate Co, Alexandria	100
<b>FINLAND</b>	
Solvay Chemicals Finland Oy, Voikkaa	100
<b>FRANCE</b>	
Cogénération Chalampe S.A.S., Puteaux	100
Cytec Process Materials Sarl, Toulouse	100
RHOD V S.N.C. , Courbevoie	100
RHOD W S.N.C. , Courbevoie	100
Rhodia Chimie S.A.S. , Aubervilliers	100
Rhodia Energy GHG S.A.S. , Puteaux	100
Rhodia Finance S.A.S. , Courbevoie	100
Rhodia Laboratoire du Futur S.A.S. , Pessac	100
Rhodia Operations S.A.S. , Aubervilliers	100
Rhodia Participations S.N.C. , Courbevoie	100
Rhodia S.A. , Courbevoie	100
Rhodianyl S.A.S. , Saint-Fons	100
Solvay – Carbonate – France S.A.S., Paris	100
Solvay – Fluorés – France S.A.S., Paris	100
Solvay Energie France S.A.S., Paris	100
Solvay Energy Services S.A.S. , Puteaux	100
Solvay Finance France S.A., Paris	100
Solvay Finance S.A., Paris	100
Solvay Participations France S.A., Paris	100
Solvay Speciality Polymers France S.A.S., Paris	100
Solvay Tavaux S.A.S.	100
SolVin France S.A., Paris	100

<b>GERMANY</b>	
Cavity GmbH, Hannover	100
Cytec Engineered Materials GmbH, Oestringen	100
EPIC Technologies GmbH, Schotten	100
Girindus AG, Hannover	83.1
Horizon Immobilien AG, Hannover	100
Salzgewinnungsgesellschaft Westfalen GmbH & Co KG, Epe	65
Solvay Acetow GmbH, Freiburg	100
Solvay Chemicals GmbH, Hannover	100
Solvay Fluor GmbH, Hannover	100
Solvay Flux GmbH, Hannover	100
Solvay GmbH, Hannover	100
Solvay Infra Bad Hoeninggen GmbH, Hannover	100
Solvay Organics GmbH, Hannover	100
Solvay P&S GmbH, Freiburg	100
Solvay Specialty Polymers Germany GmbH, Hannover	100
SolVin GmbH & Co. KG – PVDC, Rheinberg	100
SolVin Holding GmbH, Hannover	100
<b>GREAT BRITAIN</b>	
Advanced Composites Group Holdings Ltd, Heanor	100
Advanced Composites Group Investments Ltd, Heanor	100
Cytec Engineered Materials Ltd, Wrexham	100
Cytec Industrial Materials (Derby) Ltd, Heanor	100
Cytec Industrial Materials (Manchester) Ltd, Heanor	100
Cytec Industries UK Holdings Ltd, Wrexham	100
Cytec Industries UK Ltd, Wrexham	100
Cytec Med-Lab Ltd, Heanor	100
Cytec Process Materials (Keighley) Ltd, Keighley	100
Holmes Chapel Trading Ltd, Watford	100
McIntyre Group Ltd, Watford	100
Med-Lab International Ltd, Heanor	100
Rhodia Holdings Ltd, Watford	100
Rhodia International Holdings Ltd, Oldbury	100
Rhodia Limited, Watford	100
Rhodia Organique Fine Ltd, Watford	100
Rhodia Overseas Ltd, Watford	100
Rhodia Pharma Solutions Holdings Ltd, Cramlington	100
Rhodia Pharma Solutions Ltd, Cramlington	100
Rhodia Reorganisation, Watford	100
Solvay Chemicals Ltd, Warrington	100
Solvay Interox Ltd, Warrington	100
Solvay Solutions UK Ltd, Watford	100
Solvay UK Holding Company Ltd, Warrington	100
Umeco Composites Ltd, Heanor	100
Umeco Ltd, Heanor	100

<b>INDIA</b>	
Cytec India Specialty Chemicals & Materials Private Ltd, Nagpur	100
Rhodia Polymers & Specialties India Private Limited, Mumbai	100
Rhodia Specialty Chemicals India Limited, Mumbai	99
Solvay Specialties India Private Limited, Mumbai	100
Sunshield Chemicals Limited, Mumbai	62.4
<b>IRELAND</b>	
C.I.I. Luxembourg Sarl – Irish Branch, Dublin	100
Solvay Finance Ireland Unlimited, Dublin	100
<b>INDONESIA</b>	
PT. Cytec Indonesia, Jakarta	100
<b>ITALY</b>	
Cytec Process Materials S.r.l., Mondovi	100
Solvay Bario e Derivati S.p.A., Massa	100
Solvay Chimica Bussi S.p.A., Rosignano	100
Solvay Chimica Italia S.p.A., Milano	100
Solvay Energy Services Italia S.r.l., Bollate	100
Solvay Solutions Italia S.p.A., Milano	100
Solvay Specialty Polymers Italy S.p.A., Milano	100
<b>JAPAN</b>	
Anan Kasei Co Ltd, Anan City	67
Cytec Industries Japan LLC, Tokyo	100
Nippon Solvay KK, Tokyo	100
Solvay Japan K.K., Tokyo	100
Solvay Nicca Ltd, Tokyo	60
Solvay Specialty Polymers Japan KK, Minato Ku-Tokyo	100
<b>LATVIA</b>	
Cytec Latvia SIA, Riga	100
<b>LUXEMBOURG</b>	
C.I.I. Luxembourg Sarl, Strassen	100
Cytec Luxembourg International Holdings Sarl, Strassen	100
Solvay Chlorovinyls Holding S.a.r.l., Luxembourg	100
Solvay Finance (Luxembourg) SA, Luxembourg	100
Solvay Hortensia S.A., Luxembourg	100
Solvay Luxembourg S.a.r.l., Luxembourg	100
<b>MEXICO</b>	
Cytec de Mexico S.A. de C.V., Jalisco	100
Solvay Fluor Mexico S.A. de C.V., Ciudad Juarez	100
Solvay Mexicana S. de R.L. de C.V., Monterrey	100
<b>NAMIBIA</b>	
Okorusu Fluorspar (Pty) Ltd, Otjiwarongo	100
Okorusu Holdings (Pty) Ltd, Windhoek	100

<b>NETHERLANDS</b>	
Cytec Industries B.V., Vlaardingen	100
Cytec Industries Europe C.V., Vlaardingen	100
Cytec Netherlands Holdings B.V., Vlaardingen	100
Onecarbon International B.V., Utrecht	100
Rhodia International Holdings B.V., Den Haag	100
Solvay Chemicals and Plastics Holding B.V., Linne-Herten	100
Solvay Chemie B.V., Linne-Herten	100
Solvay Solutions Nederland B.V., Klundert	100
SolVin Holding Nederland B.V., Linne-Herten	100
<b>NEW ZEALAND</b>	
Solvay New Zealand Ltd, Auckland	100
<b>PERU</b>	
Cytec Peru S.A.C., Lima	100
<b>POLAND</b>	
Solvay Engineering Plastics Poland Sp z.o.o. , Gorzow Wielkopolski	100
Solvay Advanced Silicas Poland Sp. z o.o.	100
<b>PORTUGAL</b>	
Solvay Business Services Portugal Unipessoal Lda, Carnaxide	100
Solvay Portugal – Produtos Quimicos S.A., Povoia	100
<b>RUSSIA</b>	
Solvay Vostok OOO, Moscow	100
Sertow OOO, Serpukhov Khimi	100
<b>SINGAPORE</b>	
Cytec Industries PTE Ltd, Singapore	100
Rhodia Amines Chemicals Pte Ltd , Singapore	100
Solvay Fluor Holding (Asia-Pacific) Pte. Ltd., Singapore	100
Solvay Singapore Pte Ltd, Singapore	100
Solvay Specialty Chemicals Asia Pacific Pte. Ltd., Singapore	100
Vinythai Holding Pte Ltd., Singapore	58.8
<b>SOUTH KOREA</b>	
Cytec Korea Inc, Seoul	100
Daehan Solvay Special Chemicals Co., Ltd, Seoul	100
Solvay Chemicals Korea Co. Ltd , Seoul	100
Solvay Energy Services Korea Co. Ltd , Seoul	100
Solvay Korea Co. Ltd, Seoul	100
Solvay Silica Korea Co. Ltd , Incheon	100
Solvay Specialty Polymers Korea Company Ltd, Seoul	100
<b>SPAIN</b>	
Solvay Energy Services Iberica, S.L., Madrid	100
Solvay Ibérica S.L., Barcelona	100
Solvay Quimica S.L., Barcelona	100
Solvay Solutions Espana S.L. , Madrid	100
<b>SWITZERLAND</b>	
Solvay (Schweiz) AG, Bad Zurzach	100
Solvay Vinyls Holding AG, Bad Zurzach	100

<b>THAILAND</b>	
Advanced Biochemical (Thailand) Company Ltd, Bangkok	58.8
Cytec Specialty Chem (Thailand) Ltd, Bangkok	100
Solvay (Bangpoo) Specialty Chemicals Ltd, Bangkok	100
Solvay Asia Pacific Company Ltd, Bangkok	100
Solvay Peroxythai Ltd, Bangkok	100
Vinythai Public Company Ltd, Bangkok	58.8
<b>UNITED STATES</b>	
Cytec Industries Inc, New Jersey	100
Garret Mountain Insurance Co., New Jersey	100
D'Aircraft Products Inc., California	100
Cytec Plastics LLC, New Jersey	100
Cytec Overseas Corp., New Jersey	100
Netherlands Cytec GP Inc., New Jersey	100
Cytec Engineered Materials Inc., Arizona	100
Cytec Carbon Fibers LLC, New Jersey	100
Cytec Olean Inc., New Jersey	100
Cytec Acrylic Fibers Inc., New Jersey	100
Cytec Industrial Materials (ok) Inc., New Jersey	100
Cytec Aerospace Materials (ca) Inc., New Jersey	100
Cytec Process Materials (ca) Inc., New Jersey	100
Cytec Korea Inc., New Jersey	100
Cytec Global Holdings Inc., New Jersey	100
Cytec Technology Corp., New Jersey	100
IMC Mining Chemicals LLC, New Jersey	100
Alcolac Inc., Cranbury NJ	100
Ausimont Industries, Inc., Wilmington, DE	100
Girindus America Inc., Cincinnati, OH	83.1
Rhodia India Holding Inc., Cranbury NJ	100
Rocky Mountain Coal Company, LLC, Houston, TX	100
Solvay America Holdings, Inc., Houston, TX	100
Solvay America Inc., Houston, TX	100
Solvay Biomass Energy LLC, Quitman MI	65
Solvay Chemicals, Inc., Houston, TX	100
Solvay Energy Holding LLC, Wilmington DE	100
Solvay Finance (America) LLC, Houston, TX	100
Solvay Financial Services INC., Wilmington DE	100
Solvay Fluorides, LLC., Greenwich, CT	100
Solvay Holding INC., Cranbury NJ	100
Solvay Soda Ash Expansion JV, Houston, TX	80
Solvay Soda Ash Joint Venture, Houston, TX	80
Solvay Specialty Polymers USA, LLC, Alpharetta, GA	100
Solvay USA INC., Cranbury NJ	100
<b>URUGUAY</b>	
Alaver SA, Montevideo	100
Zamin Company S/A, Montevideo	100
<b>VENEZUELA</b>	
Rhodia Silices de Venezuela C.A., Barquisimeto	100

## List of joint operations

<b>AUSTRIA</b>	
Solvay Sisecam Holding AG, Wien	75
<b>BELGIUM</b>	
BASF Interox H <sub>2</sub> O <sub>2</sub> Production N.V., Brussels	50
<b>BULGARIA</b>	
Deven AD, Devnya	73.4
Solvay Sodi AD, Devnya	73.5
<b>FRANCE</b>	
Butachimie S.N.C. , Courbevoie	50
<b>GERMANY</b>	
Warmeverbundkraftwerk Freiburg GmbH, Freiburg	49.9
<b>NETHERLANDS</b>	
MTP HP JV C.V., Weesp	50
MTP HP JV Management bv, Weesp	50
<b>SAUDI ARABIA</b>	
Saudi Hydrogen Peroxide Co, Jubail	50
<b>THAILAND</b>	
MTP HP JV (Thailand) Ltd, Bangkok	50
<b>UNITED STATES</b>	
Primester, Kingsport TN	50

## List of companies consolidated by applying the equity method of accounting

### Joint ventures

<b>BRAZIL</b>	
Dacarto Benvic SA, Santo André	50
Peroxidos do Brasil Ltda, Sao Paulo	69.4
<b>CHINA</b>	
Shandong Huatai Interox Chemical Co. Ltd, Dongying	50
<b>GERMANY</b>	
Solvay & CPC Barium Strontium GmbH & Co KG, Hannover	75
Solvay & CPC Barium Strontium International GmbH, Hannover	75
<b>GREAT BRITAIN</b>	
Inovyn Limited, Runcorn	50
<b>INDIA</b>	
Hindustan Gum & Chemicals Ltd, New Delhi	50
<b>MEXICO</b>	
Solvay & CPC Barium Strontium Monterrey S. de R.L. de C.V., Monterrey	75
Solvay & CPC Barium Strontium Reynosa S. de R.L. de C.V., Reynosa	75
<b>RUSSIA</b>	
Poligran OAO, Tver	50
RusVinyl OOO, Moscow	50
Soligran ZAO, Moscow Aptekars	50
<b>VIETNAM</b>	
Rhodia Nuoc Trong Biogas LLC, Ho Chi Minh City	75

## Associates

<b>ARGENTINA</b>	
Solalban Energia S.A., Bahia Blanca	40.9
<b>CHINA</b>	
Qingdao Hiwin Solvay Chemicals Co. Ltd , Qingdao	30
<b>FRANCE</b>	
GIE Chime Salindres , Salindres	50
Gie Osiris, Roussillon	34.8
<b>GREAT BRITAIN</b>	
Penso Holdings Ltd, , Coventry	20
<b>INDONESIA</b>	
Solvay Manyar P.T. , Gresik	50
<b>MEXICO</b>	
Silicatos y Derivados S.A. DE C.V.	20
<b>POLAND</b>	
Zaklad Energoelctryczny Energo-Stil Sp. z o.o., Gorzow Wielkopolski	25
<b>UNITED STATES</b>	
BTH Quitman Hickory LLC, Quitman Mississippi	41.4

### 3 Summary financial statements of Solvay SA

The annual financial statements of Solvay SA are presented in summary format below. In accordance with the Belgian Companies Code, the annual financial statements of Solvay SA, the management report and the statutory auditor's report will be filed with the National Bank of Belgium.

These documents are also available free of charge on the internet or upon request from:

Solvay SA  
rue de Ransbeek 310  
B - 1120 Brussels

The balance sheet of Solvay SA for the year 2015 presented below is based on a dividend repartition of € 3.30 per share.

#### Balance sheet of Solvay SA (summary)

In € million	2015	2014
<b>ASSETS</b>		
<b>Fixed assets</b>	<b>15,974</b>	<b>11,769</b>
Start-up expenses and intangible assets	128	131
Tangible assets	57	60
Financial assets	15,789	11,578
<b>Current assets</b>	<b>3,742</b>	<b>772</b>
Inventories	3	1
Trade receivables	219	138
Other receivables	110	595
Short-term investments and cash equivalents	3,396	11
Accruals	15	27
<b>TOTAL ASSETS</b>	<b>19,716</b>	<b>12,541</b>
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>		
<b>Shareholders' equity</b>	<b>10,688</b>	<b>7,764</b>
Capital	1,588	1,271
Issue premiums	1,200	18
Reserves	1,982	1,950
Net income carried forward	5,917	4,524
Investment grants	0	1
<b>Provisions and deferred taxes</b>	<b>331</b>	<b>385</b>
<b>Financial debt</b>	<b>8,040</b>	<b>3,748</b>
• due in more than one year	5,251	2,499
• due within one year	2,789	1,249
<b>Trade liabilities</b>	<b>143</b>	<b>153</b>
<b>Other liabilities</b>	<b>429</b>	<b>391</b>
<b>Accruals and deferred income</b>	<b>86</b>	<b>100</b>
<b>TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES</b>	<b>19,716</b>	<b>12,541</b>




## Income statement of Solvay SA (summary)

In € million	2015	2014
<b>Operating income</b>	<b>1,030</b>	<b>956</b>
• Sales	126	305
• Other operating income	904	651
<b>Operating expenses</b>	<b>(936)</b>	<b>(1,160)</b>
<b>Operating profit/loss</b>	<b>94</b>	<b>(204)</b>
Financial gains/losses	(93)	1,037
<b>Current profit before taxes</b>	<b>1</b>	<b>833</b>
Extraordinary gains/losses	1,754	(307)
<b>Profit before taxes</b>	<b>1,755</b>	<b>526</b>
Income taxes	19	24
<b>Profit for the year</b>	<b>1,774</b>	<b>550</b>
Transfer to (-)/from (+) untaxed reserves	0	0
<b>Profit available for distribution</b>	<b>1,774</b>	<b>550</b>

## AUDITOR'S REPORTS

### Limited assurance report of the Statutory Auditor on a selection of social, environmental and other sustainable development information for the year ended 31 December 2015

Pursuant to your request and in our capacity of Statutory Auditor of Solvay SA / NV, we hereby present you our limited assurance report on a selection of social, environmental and other sustainable development information disclosed in section "Governance and financial and extra-financial information", chapter "2. Financial & extra-financial information", sub-section "Extra-financial statements" of Solvay Group Annual Report for the year ended 31 December 2015 (the "2015 Annual Report"), identified by the symbol .

#### Responsibility of the Company


This selection of information (the "Information") extracted from the 2015 Sustainable Development Report has been prepared under the responsibility of Solvay Group management, in accordance with internal measurement and reporting principles used by Solvay Group (the "Reporting Framework"). The Reporting Framework consists of specific definitions and assumptions that are summarized in section "Extra-financial statements" of the 2015 Annual Report.

#### Responsibility of the Statutory Auditor

It is our responsibility, based on the procedures performed by us, to express limited assurance on whether the Information identified by the symbol  in the 2015 Annual Report is prepared, in all material respects, in accordance with the Reporting Framework.

We conducted our procedures in accordance with the international standard as defined in ISAE (International Standard on Assurance Engagements) 3000. With respect to independence rules, these are defined by the respective legal and regulatory texts as well as by the professional Code of Ethics, issued by the International Federation of Account ("IFAC").

#### Nature and scope of procedures


We have carried out the following procedures to obtain limited assurance on whether the Information selected by Solvay and identified by the symbol  in the 2015 Annual Report does not contain any material errors that would question its preparation, in all material respects, in accordance with the Reporting Framework. A higher level of assurance would have required more extensive procedures.

(1) ISAE 3000 – Assurance engagements other than audits or reviews of historical information.

We performed the following procedures:

- We assessed the appropriateness of the Reporting Framework with respect to its relevance, completeness, neutrality, clarity and reliability, by taking into consideration, when relevant, the sector reporting practices.
- We have verified the set-up within Solvay Group of the process to obtain, consolidate and check the selected Information with regard to its completeness and consistency. We have familiarized ourselves with the internal control and risk management procedures relating to the compilation of the information. We have conducted interviews with individuals responsible for social, environmental and other sustainable development reporting.
- Concerning the selected Information <sup>(1)</sup> :
  - For the entity in charge of their consolidation, as well as for the controlled entities, we have designed analytical procedures and verified, using sampling techniques, the calculations as well as the consolidation of this information.
- At the sites that we have selected based on their activity <sup>(2)</sup>, their contribution to consolidated indicators, their location and a risk analysis, we have:
  - Conducted interviews to verify the proper application of procedures and obtained information to perform our verifications;
  - Conducted substantive tests, using sampling techniques, to verify the calculations performed and reconcile data with supporting evidence.

## Conclusion

On the basis of the procedures performed by us nothing came to our attention that causes us to believe that the Information identified by the symbol  2015 as included in Solvay Group Annual Report for the year ended 31 December 2015, is not prepared, in all material respects, in accordance with the Reporting Framework.

## Observations

Without questioning the conclusions of our work, expressed hereinabove, we would like to draw attention to the fact that, as explained in the subsection "Social and environmental consolidation scope" (section "Extra-financial statements"), the entity Chemlogics, acquired in 2013, has not been included in the reporting perimeter for the indicators related to environment, energy and GHG emissions.

Diegem, 15 March 2016

**The Statutory Auditor**

**DELOITTE Bedrijfsrevisoren / Reviseurs d'Entreprises**

**BV o.v.v.e. CVBA / SC s.f.d. SCRL**

**Represented by Eric Nys**



(1) *Employee health and safety: Lost Time Accident Rate – Employee, contractors and temporary workers (LTAR), Medical Treatment Accident Rate - Employee, contractors and temporary workers (MTAR), Number of fatal accidents.*

**Environmental information:** *Greenhouse gas intensity, Direct and indirect CO2 emissions (Scope 1 & 2), Other greenhouse gas emissions according to Kyoto Protocol (Scope 1), Total greenhouse gas emissions (Kyoto Protocol) emissions, Other greenhouse gas emissions not according to Kyoto Protocol (Scope 1), Energy consumption, Acidification emissions in absolute, Photochemical oxidant formation in absolute, Total water intake, Intake of groundwater and drinking water, Sites for which the water scarcity risk was confirmed, Sites with water scarcity risk and a sustainable water management, Landfilled Industrial Hazardous waste, Products containing SVHCs reviewed for potential substitution or safer alternatives through Solvay internal dossiers.*

**Process safety, emergency preparedness and response:** *Sites with "Risk Sheet 1" situations resolved within one year, "Risk level 1" situation at the end of the year, "Risk level 1" situation resolved during the year.*

**Sustainable business solutions:** *Product portfolio assessed (% of turnover), % of sustainable solutions.*

**Environmental accidents and remediation:** *Environmental provision.*

**Employee engagement and wellness:** *Coverage by collective agreement.*

(2) *Tavaux (France), Rosignano (Italy), Green River (United States), Augusta (United States), Paulinia (Brazil), Torrelavega (Spain), Liyang (China), Zhangjijagang Feixang (China), Chalampé (France) for COD, underground water consumption, Nitrogen, and Hazardous industrial waste only, Spinetta Marengo (Italy) for CF4 and R22 emissions only.*

## Statutory auditor's report to the shareholders' meeting on the consolidated financial statements for the year ended 31 December 2015

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To the shareholders

As required by law, we report to you in the context of our appointment as the company's statutory auditor. This report includes our report on the consolidated financial statements together with our report on other legal and regulatory requirements. These consolidated financial statements comprise the consolidated statement of financial position as at 31 December 2015, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, as well as the summary of significant accounting policies and other explanatory notes.

### Report on the consolidated financial statements – Unqualified opinion

We have audited the consolidated financial statements of Solvay SA/NV ("the company") and its subsidiaries (jointly "the group"), prepared in accordance with International Financial Reporting Standards as adopted by the European Union and with the legal and regulatory requirements applicable in Belgium. The consolidated statement of financial position shows total assets of 25,329 million EUR and the consolidated income statement shows a consolidated profit (group share) for the year then ended of 406 million EUR.

### Board of directors' responsibility for the preparation of the consolidated financial statements

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The board of directors is responsible for the preparation and fair presentation of consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and with the legal and regulatory requirements applicable in Belgium, and for such internal control as the board of directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

### Statutory auditor's responsibility

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Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing (ISA). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the statutory auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the statutory auditor considers internal control relevant to the group's preparation and fair presentation of consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the group's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the board of directors, as well as evaluating the overall presentation of the consolidated financial statements. We have obtained from the group's officials and the board of directors the explanations and information necessary for performing our audit.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Unqualified opinion

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In our opinion, the consolidated financial statements of Solvay SA/NV give a true and fair view of the group's net equity and financial position as of 31 December 2015, and of its results and its cash flows for the year then ended, in accordance with International Financial Reporting Standards as adopted by the European Union and with the legal and regulatory requirements applicable in Belgium.

## Report on other legal and regulatory requirements

The board of directors is responsible for the preparation and the content of the directors' report on the consolidated financial statements.

As part of our mandate and in accordance with the Belgian standard complementary to the International Standards on Auditing applicable in Belgium, our responsibility is to verify, in all material respects, compliance with certain legal and regulatory requirements. On this basis, we make the following additional statement, which does not modify the scope of our opinion on the consolidated financial statements:

- The directors' report on the consolidated financial statements includes the information required by law, is consistent with the consolidated financial statements and is free from material inconsistencies with the information that we became aware of during the performance of our mandate.

Diegem, 4 March 2016

### The statutory auditor

**DELOITTE Bedrijfsrevisoren / Reviseurs d'Entreprises**

**BV o.v.v.e. CVBA / SC s.f.d. SCRL**

**Represented by Eric Nys**



## DECLARATION BY THE PERSONS RESPONSIBLE

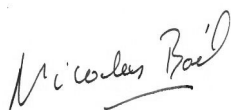
The Board of Directors hereby declares that, to the best of its knowledge:

- a) the financial statements, prepared in accordance with International Financial Reporting Standards ("IFRS"), give a true and fair view of the assets, liabilities, financial position and earnings of the issuer and the entities included in the consolidation;
- b) the management report includes an accurate review of the business developments, earnings and financial position of the issuer and the entities included in the consolidation, as well as a description of the main risks and uncertainties that these entities face.

**For the Board of Directors,**

**Nicolas Boël**

Chairman of the Board of Directors



**Jean-Pierre Clamadieu**

Chairman of the Executive Committee and CEO  
Director



# GLOSSARY

**Adjusted:** Adjusted performance indicators exclusively exclude non-cash Purchase Price Allocation (PPA) accounting impacts related to the Rhodia (and Cytec) acquisition.

- Adjusted basic earnings per share: Adjusted net income (Solvay share) divided by the weighted average number of shares, after deducting own shares purchased to cover stock option programs.
- Adjusted net income (Solvay share): Net income (Solvay share) excluding non-cash Purchase Price Allocation (PPA) accounting impacts related to the Rhodia (and Cytec) acquisition.
- Adjusted net result: Net result excluding non-cash Purchase Price Allocation (PPA) accounting impacts related to the Rhodia (and Cytec) acquisition.

**Basic earnings per share:** Net income (Solvay's share) divided by the weighted average number of shares, after deducting own shares purchased to cover stock options program.

**Carechem:** Carechem 24 is a multilingual telephone advice service providing access to a team of trained responders 24-hours-a-day, 365-days-a-year. Carechem 24 provides companies all over the world with emergency product support during a hazardous materials incident.

**CEFIC:** European Chemical Industry Council.

**CEO:** Chief Executive Officer.

**CFO:** Chief Financial Officer.

**CFROI:** Cash Flow Return On Investment.

**CGU:** Cash-generation unit.

**Code of Conduct:** Solvay expresses its commitment to responsible behavior and integrity, taking into account the sustainable growth of its business, and its good reputation in the communities in which it operates.

**Comex:** Executive Committee.

**CSR:** Corporate Social Responsibility.

**Diluted earnings per share:** Net income (Solvay's share) divided by the weighted average number of shares adjusted for effects of dilution.

**Dividend yield (net):** Net dividend divided by the closing share price on December 31.

**Dividend yield (gross):** Gross dividend divided by the closing share price on December 31.

**DJ Stoxx:** Dow Jones Stoxx is a European stock index composed of the most important 665 European values.

**DJ Euro Stoxx:** Dow Jones Euro Stoxx is a pan European stock index which includes the most important 326 values of the general Dow Jones index, belonging to eleven countries of the Eurozone.

**EBIT:** Earnings before interest and taxes.

**Environmental Protection Agency:** The U.S. Environmental Protection Agency (EPA or sometimes USEPA) is an agency of the United States federal government which was created for the purpose of protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.

**Equity per share:** Equity (Solvay share) divided by the number of outstanding shares at year end (issued shares - treasury shares).

**Euronext:** Global operator of financial markets and provider of trading technologies.

**Free Cash Flow:** Cash flow from operating activities (including dividends from associates and joint ventures) and cash flow from investing activities (excluding acquisitions and sales of subsidiaries and other investments and excluding loans to associates and non-consolidated entities).

**FTSEurofirst 300:** The FTSEurofirst 300 Index tracks the equity performance across the region of the 300 largest companies ranked by market capitalisation in the FTSE Developed Europe Index.

**GBU:** Global Business Unit.

**GHG:** Greenhouse gas.

**GRI:** The Global Reporting Initiative (GRI) is a leading organization in the sustainability field. GRI promotes the use of sustainability reporting as a way for organizations to become more sustainable and contribute to sustainable development.

**HBP:** High-barrier polymer.

**HDS:** Highly Dispersible Silica.

**HPPA:** Polyamide High Performance.

**IFRS:** International Financial Reporting Standards.

**Integrated reporting:** it is a process founded on integrated thinking that results in a periodic integrated report by an organization about value creation over time and related communications regarding aspects of value creation.

**ISO 9001:** The ISO 9001 standard defines a set of requirements for the establishment of a system of quality management in an organization, whatever its size and activity.

**ISO 14001:** The ISO 14001 family addresses various aspects of environmental management. It provides practical tools for companies and organizations looking to identify and control their environmental impact and constantly improve their environmental performance.

**ISO 14040:** The ISO 14040 standard covers life cycle assessment (LCA) studies and life cycle inventory (LCI) studies.

**ISO 26000:** The ISO 26000 is a global standard which provides guidelines for organizations to operate in a socially responsible manner. The standard was published in 2010 after five years of negotiations among a large number of stakeholders worldwide. Representatives of governments, NGOs, industry, consumer groups and the world of work were involved in its development. It represents therefore an international consensus.

**Loss prevention process:** Loss prevention aims at maintaining production flow and profitability of the plants by providing risk mitigation. It also contributes to increase the protection of people and the environment.

**LTAR:** Lost Time Accident Rate.

**LTI:** Long Term Incentive.

**M&A:** Mergers and Acquisitions.

**M&A related impacts:** It mainly includes non-cash Purchase Price Allocation impacts (eg. inventory step-up and amortization of intangibles other than for PPA Rhodia) and retention bonuses relative to Chemlogics and other acquisitions.

**Materiality:** Organizations are faced with a wide range of topics on which they could report. The relevant topics are those that may reasonably be considered important for reflecting the organization's economic, environmental and social impacts, or influencing the decisions of stakeholders, and, therefore, potentially merit inclusion in an annual report. Materiality is the threshold at which aspects become sufficiently important that they should be reported.

**MTAR:** Medical Treatment Accident Rate.

**Natural Currency Hedge:** A natural currency hedge is an investment that reduces the undesired risk by matching cash in and outflows.

**Net Financial Expenses:** Net financial charges comprise net interest expense, plus other gains (losses) on net indebtedness, costs of discounting provisions (namely, related to post-employment benefits and HSE liabilities) and income / loss from available-for-sale financial assets.

**Net Interest Expense:** Net interest expense comprises cost of borrowings minus interest income on cash and cash equivalents and other current receivables - financial instruments.

**OCI:** Other Comprehensive Income.

**OECD:** Organization for Economic Co-operation and Development.

**OHSAS 18001:** OHSAS 18001 is an international occupational health and safety management system specification.

**OLED:** Organic Light-Emitting Diode.

**Open Innovation:** Innovation that is enriched with outside expertise, through partnerships with the academic world and by shareholdings in start-ups, either directly or via investment funds.

**Other adjustments:** Adjustments made for elements distorting comparability over time of the Group underlying performance. They include non-recurring items, M&A related impacts that include PPA impacts of acquisitions other than Rhodia and Cytec and retention bonus granted at closing date, net financial expense or income related to change in discount rates, hyperinflation financial results and debt refinancing, adjustments of equity earnings for impairment gains or losses and unrealized foreign exchange gains or losses on debt, tax effects related to the items listed before, tax expense or income of prior years, all adjustments listed before for continuing operations and impacting discontinuing operations.

**PEEK:** Polyetheretherketone.

**PPA:** Purchase Price Allocation (PPA) accounting impacts related to acquisitions.

**PSU:** Performance Share Unit.

**PO:** Propylene oxide.

**PPS:** Polyphenylene sulfide.

**PPSU:** Polyphenylsulfone.



**Product Stewardship:** A responsible approach in managing risks throughout the entire life cycle of a product beginning at the design stage to the end of life.

**PVC:** Polyvinyl chloride.

**PVDF:** Polyvinylidene fluoride.

**R&I:** Research & Innovation.

**REBITDA:** Recurring earnings before interest and taxes depreciation and amortization. It is defined as EBIT before depreciation and amortization charges, non-recurring items (including from equity-consolidated companies), M&A related impacts (including but not limited to Purchase Price Allocation elements,) and major financing-related impacts from equity-consolidated companies (e.g. RusVinyl's).

**REACH:** REACH is the European Community Regulation on chemicals and their safe use (EC 1907/2006). It deals with the Registration, Evaluation, Authorisation and Restriction of Chemical substances. The law entered into force on June 1, 2007.

**Responsible Care®:** Responsible Care® is the global chemical industry's unique initiative to improve health, environmental performance, enhance security, and to communicate with stakeholders about products and processes.

**ROE:** Return on equity.

**Safety Data Sheets:** Safety Data Sheets are the main tool for ensuring that manufacturers and importers communicate enough information along the supply chain to allow safe use of their substances and mixtures.

**SASB:** Sustainability Accounting Standards Board. SASB's mission is to develop and disseminate sustainability accounting standards that help public corporations disclose material, decision-useful information to investors. That mission is accomplished through a rigorous process that includes evidence-based research and broad, balanced stakeholder participation.

**Seveso Regulations:** The Control of Major Accident Hazards Involving Dangerous Substances Regulations. These regulations (often referred to as "COMAH Regulations" or "Seveso Regulations") give effect to European Directive 96/82/EC. They apply only to locations where significant quantities of dangerous substances are stored.

**Solvay Way:** Launched in 2013 and aligned with ISO 26000, Solvay Way is the sustainability approach of the Group. It integrates social, societal, environmental and economic aspects into the Company's management and strategy, with the objective to create value shared by all of its stakeholders. Solvay Way is based on an ambitious and pragmatic framework serving as a tool of both measurement and progress. Solvay Way lists 49 practices, practices that reflect the Solvay Way's 22 commitments and are structured on a four level scale (launch, deployment, maturity, performance).

**SOP:** Stock Option Plan.

**SPM:** The Sustainable Portfolio Management tool is integrated into the Solvay Way framework (linked to 5 practices). It serves as a strategic tool to develop information on our portfolio and analyze the impacts of sustainability megatrends on our businesses.

**STI:** Short Term Incentive.

**SVHC:** Substance of Very High Concern (SVHC) is a chemical substance which utilization within the European Union has been proposed to become subject to legal authorization under the REACH regulation.

**Underlying:** Underlying figures aim at adjusting IFRS statements for the non-cash Purchase Price Allocation (PPA) accounting impacts related to the Rhodia and Cytec acquisition, for the coupons of hybrid perpetual bonds, classified as equity under IFRS, and for other items that distort the comparability of the Group's underlying performance. Underlying results are deemed to provide a more comparable indication of Solvay's fundamental performance over the reference periods.

**Velocity:** Total number of shares traded during the year divided by the total number of listed shares, using the Euronext definition.

**VCM:** Vinyl chloride.

**Velocity adjusted by free float:** Velocity adjusted as a function of the percentage of the listed shares held by the public, using the Euronext definition.

**WBCSD:** World Business Council for Sustainable Development.

**WCF:** World Class Factory.

# SHAREHOLDER'S DIARY

**May 3, 2016**

Announcement of the 1<sup>st</sup> quarter 2016 results.

**May 10, 2016**

Annual Shareholders' Meeting.

**May 17, 2016**

Payment of the balance of 2015 dividend of € 1.42 <sup>(1)</sup> (coupon no.98).

**July 29, 2016**

Announcement of the 2nd quarter and of the six months 2016 results.

**November 8, 2016**

Announcement of the 3rd quarter and the nine months 2016 results and the interim dividend for 2016.

*(1) net dividend €1.42, when subject to the Belgian withholding tax.*

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