Every day, with all our energy, we work on products that improve your daily life. When you drive a car, take a plane, use a smartphone, a shampoo, our technologies bring you innovative functionalities.

We do this by partnering and innovating with scientists and customers to develop solutions that contribute to ever more sustainable mobility and help optimize the use of natural resources.

Our 2018 Annual Integrated Report explains how our 24,500 employees across the world, through their constant commitment and expertise, strive to achieve the best and serve you, our stakeholders.
“We have a really active partnership with Solvay.”

John Bradfute, Sealed Air

Solvay Executive Committee members discuss with stakeholders to better meet their expectations.

Our two growth engines serve fast-growing markets, primarily focusing on sustainable mobility and resources efficiency.
Solvay continued its transformation to become an advanced materials and specialty chemicals company in 2018, focusing on fast-growing markets related to sustainable mobility and resources efficiency. Here is a selection of ten highlights of the year.

**ILHAM KADRI APPOINTED AS CEO OF SOLVAY**
Ilham Kadri was appointed as Chairman of the Executive Committee and CEO of Solvay. Her priority is to accelerate the Group’s transformation to unleash its full potential.

**A NEW STEP IN SOLVAY’S TRANSFORMATION**
The Group has embarked on a program to simplify its organization and processes to become more agile and more customer-driven. It also aims to transform its culture and ways of working, fostering collaboration and empowering teams to better meet our customers’ needs.

**PICKING UP SPEED ON THE ROAD TO DECARBONIZATION**
Solvay aims to reduce its greenhouse gas emissions by 1Mt in absolute value by 2025. This commitment will be achieved by improving our energy efficiency and energy mix and investing in clean technologies.

**NEW HEADQUARTERS IN BRUSSELS AND AN EXPANDED R&D CENTER IN LYON**
Solvay unveiled plans for a new modern campus in Brussels and the future world-class Innovation & Technology Center in Lyon, France. The new campus will be a vibrant and dynamic workplace, promoting collaboration, innovation, and sustainability.
SOUTH CAROLINA’S BIGGEST SOLAR FARM
Solvay celebrated the opening of its Solvay Jasper County Solar Farm. As the biggest solar farm in South Carolina, it will help to both meet the challenges of decarbonization and manufacture products using renewable energy for world-class customers.

SOLVAY IS JOINING SAFT ALLIANCE OF EUROPEAN BATTERY MANUFACTURERS
Solvay is joining partners along the value chain to accelerate the development of stationary batteries. The alliance between SAFT, Umicore, Manz and Siemens aims to establish a European battery supply chain, with the support of the European Commission and EU Member States.

FUSEPLY™, A BREAKTHROUGH IN BONDING
FusePly™ means reliable, bonded composite structures can be built using conventional processes. Through covalently bonded structures, FusePly™ replaces numerous rivets and fasteners and offers aircraft builders improved performance, build rates and lightweighting.

COLLABORATIVE INNOVATION FOR THE FUTURE OF 3D
Solvay launched an international competition challenging students to print outstanding 3D parts using KetaSpire® PEEK. This high-performance Solvay polymer is used by industries needing complex parts, such as healthcare or aerospace.

AGRHΩ® GS8 GUAR-BASED FORMULATION
A 100% biostimulant seed treatment that enhances the efficiency of production, increases value and reduces waste. Winner of seed producer Limagrain’s 2018 Innovation awards.

DIVESTMENT OF POLYAMIDES ACTIVITIES FINALIZED
The European Commission approved the divestment of Solvay’s Polyamide activities to BASF, a key milestone in the completion of Solvay’s transformation.
Learn more about how Solvay engages with key stakeholders to meet their expectations and create more value.
Last year’s Annual Integrated Report heard from stakeholders through individual interviews. This year we showcase the relationships the Group has built with its stakeholders, highlighting how Solvay engages with them to meet their expectations and create value for the company, its stakeholders and the planet. As part of this ongoing dialog, six of our talents from across the world met with ExCom members Pascal Juéry and Cécile Tandeau de Marsac. They told them what they enjoyed most about working for Solvay and how we could do even better.
“Heritage”, “Caring”, “Innovation”, “Global”, “Family”, “Sustainable”, “Smart risks”. These are some of the key ideas that inspire the people who work for Solvay. They value the Group’s 155-year history and its heritage as a company with a culture of innovation, focused on bringing progress to society as a whole. They are proud of their contribution to that progress and happy to be part of a Group that feels like a family, that cares about its people. They see Solvay as a Group with strong values, investing in its talents and offering opportunities to grow and move into new geographies and new skill sets. They highlight its innovation excellence, its capacity to adapt its Research and Innovation to the changing trends that shape society and its customers’ needs, its ability to question its choices and take smart risks.

“Over all these years, it is innovation that has been motivating people at Solvay to keep making progress and bring added value to society and, in the end, to each one of us.”

Proud to be part of Solvay

“Solvay is an international company that is big enough to offer great opportunities, but small enough for our people to feel that they belong to a family.”

CÉCILE TANDEAU DE MARSAC
Member of the Executive Committee, Group General Manager Human Resources

PETYA TSEKOVA
Export Maritime Logistics Manager EMEA, GBU Soda Ash & Derivatives
They embrace Solvay’s global scope and the unique international mindset that brings it close to its customers across the world. They care that sustainability is a daily reality at Solvay, driving its own transformation and its contribution to changing the wider world.

Empowered to call for change

Solvay’s people also know that their leadership team is open to suggestions on constructive ways for the company to change and grow. They see a need for more diversity as a way of driving the company’s transformation forward. They want to be part of a more agile, solutions-driven Group that moves and takes decisions more quickly, simplifying bureaucracy and implementing sharp frontline thinking to find the best ways to meet customers’ needs.

“We need to encourage people to take smart risks and meet our customers’ needs in a more focused, more agile way, and we need to become more solutions-driven with more frontline thinking from people across the organization.”

XIAOWEI HUANG
Project Management Officer, Comex Organization

“We are rethinking how we can be even better right now. We are not afraid of changing the ways we were doing things before, being courageous, and getting ready for the future.”

MARCELO BURDELIS
Global Key Account Manager, Home & Personal Care, GBU Silica

Employee engagement index

76%
Those needs are also at the heart of their belief that Solvay would benefit from closer collaboration between its Global Business Units. They also feel being part of an international Group should offer them more opportunities to move and grow, allowing them to get to know the different facets of the company and the global markets it serves even better.

**The ExCom responds**

ExCom members Cécile Tandeau de Marsac and Pascal Juéry listened closely to the feedback from the panel of employees and agreed with several of the points they raised.

“I am an engineer, but in many roles, you can start out as an operator and move up into management, because Solvay really invests in its people.”

**STEPHANIE HALVER**
Process & Project Engineer,
Global Business Unit Peroxides

“It’s true that we have a tendency to aim for perfection at Solvay,” says Cécile Tandeau de Marsac, “and that slows down our decision-making. To become truly agile, we need to change that and fully integrate smart risk-taking into our behavior. Simplifying Human Resources processes is another important point and our Solvay Cares program is a great example of how we are aiming to be more employee-centric.”

“We need to simplify the way we work and cut through the red tape to make sure everything we do is focused on innovating for the end-consumer,” adds Pascal Juéry. “In fact, that is exactly what we are aiming to achieve through the transformation launched in 2018. It takes time, but I believe that everyone at Solvay is fully aligned with our objective of making the company easier to deal with, more innovative and more customer-driven.”

<table>
<thead>
<tr>
<th>Countries</th>
<th>Nationalities</th>
<th>83 % employees* feel proud to work at Solvay</th>
</tr>
</thead>
<tbody>
<tr>
<td>62</td>
<td>100</td>
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*from 2018 internal Solvay Employee Survey
Last year’s Annual Integrated Report heard from stakeholders through individual interviews. This year we showcase the relationships the Group has built with its stakeholders, highlighting how Solvay engages with them to meet their expectations and create value for the company, its stakeholders and the planet. As part of this ongoing dialog, four of the investors who follow the Group met with members of the Executive Committee, Karim Hajjar, CFO, and Vincent De Cuyper.
Looking ahead to the challenges of the future

The investors were keen to understand how Solvay is integrating sustainability into its business and investments. One significant part of the Group’s approach is its decision to modify its Capex approval procedure to include an internal CO₂ price that is higher than the market price (€75 per tonne), with the aim of encouraging a shift toward investments in more sustainable activities. “These may offer lower profitability than standard business investments,” says Vincent De Cuyper, “but we do not invest for the sake of reducing CO₂ emissions without profitability. We always maintain financial rigor in our investments.”

The Group has also evaluated the potential impact on investments and business opportunities of its ambitious target of a one million ton reduction in its greenhouse gas emissions by 2025. The move to an absolute reduction approach aims to align the company with efforts to decarbonize the European economy by 2050, and is proof of Solvay’s determination not to grow its business at the detriment of the environment.

“I do not look at this as anything other than enhancing risk-adjusted returns. It is about having the harmony, the right tension between going towards the green solutions and not destroying an inordinate amount of financial capital.”

KARIM HAJJAR
Member of the Executive Committee and CFO

Differentiating Solvay on sustainability

Discussions also focused on Solvay’s Sustainable Portfolio Management (SPM) tool, and how it contributes to reducing CO₂ emissions or consumption of resources. The investors were interested to hear how SPM guides strategic resource allocation and portfolio choices, rigorously assessing each product on sustainability criteria in all applications. “The same product may have a different sustainability profile from one market application to another,” explains Vincent De Cuyper, “so finding an accurate, reliable and relatively simple way to measure that is extremely helpful.” And the tool is dynamic, adapting to future trends, for example in mobility. The catalysts for diesel and gasoline ranked as favorable today will be neutral in the future, when the solutions with a positive impact will be Solvay’s solutions for batteries and electrification of vehicles.

The dialog with investors also raised the need for Solvay to undertake even more transparent communication on the SPM as a tool that explains its strategic decisions and differentiates it from other players in the chemicals industry.

“The SPM tool is a key differentiator. It demonstrates Solvay’s strong commitment to embed sustainability at the heart of its strategy. It is crucial that companies develop this kind of strategic tools to integrate long-term sustainability considerations into their capital allocation strategy.”

ALIX CHOSSON
DNCA-Investment Analyst
IN CONVERSATION WITH...

Greener input, sustainable output

Solvay’s commitment to moving toward green chemistry was another key subject, with a first focus on using renewables for energy supply. At its soda ash plant in Rheinberg, Germany, for example, the Group is investing in a new biomass boiler which will cut CO₂ emissions by 30% or 190 kt/year. Bio-based materials are also being used as raw materials, especially in Solvay’s Advanced Formulations activities. “Using similar raw materials is more complicated in Advanced Materials,” explains Vincent De Cuyper, “and I think there the focus in the years ahead will be on the recyclability of the materials used for high-end polymers, for composites.” In thermoplastic composites for example, the focus will be on the recyclability of the materials used for high-performance applications. The idea is to push innovation in thermoplastic composites including recycled fiber materials which has the ability to create significant value in the industry.

“I think a holistic approach to capturing value is why ESG is so important. It is about the ability to price companies more accurately and to have a more accurate representation of the cost of capital challenges, how the risks might play out in business.”

AN ANALYST

“I believe investors will increasingly reward companies for the work they are doing on integrating more renewable raw materials into their production processes. I think that some companies may accept to pay a premium for products or inputs into their process that actually have a lower carbon or lower environmental footprint.”

ARNAUD LANGLOIS
Lombard Odier Asset Management
Changing mindsets through the circular economy

Another topic of the conversation was the circular economy, including Solvay’s decision to become a Global Partner of the Ellen MacArthur Foundation. As well as offering opportunities to connect with leaders in the field, the Foundation opens up access to training and education.

The Group is also looking for ways of integrating the circular economy into its business model, an endeavor that is still in its early stages, but which is investigating areas such as enhancing the recyclability of composites or the recovery of metals.

“In 2018, about 100 of our people were trained to think about circular economy as a business opportunity and I think this is probably one of the most interesting parts of the program.”

KARIM HAJJAR
Member of the Executive Committee and CFO.

Toward ESG-focused investment

There was also an exchange on the importance for investors of ESG versus short-term business performance indicators. Karim Hajjar mentioned that investors rarely raise the topic at roadshows, but fund manager Arnaud Langlois said he felt sure that they were nevertheless keen to learn more about Solvay’s actions on ESG. “I think of the quarters as milestones that help support an investment thesis, and the objective is certainly longer term whenever we invest,” he said. Emmanuelle Chastenet, Amundi, added: “I think most investors, even if they do not ask questions on ESG, know your business positioning and where you want to go.”

The investors also stressed the importance of quality ESG indicators to bring value and help them understand the company. They encourage Solvay to pursue its current approach and even take it further.
In Conversation with ...

OUR CUSTOMERS

HOW TO STRENGTHEN RELATIONSHIPS WITH OUR CUSTOMERS TO CREATE MORE VALUE?

Last year’s Annual Integrated Report heard from stakeholders through individual interviews. This year we showcase the relationships the Group has built with its stakeholders, highlighting how Solvay engages with them to meet their expectations and create value for the company, and its stakeholders. As part of this ongoing dialog, three key customers, MuRata, TitanX and Sealed Air explain how Solvay’s solutions help them create value. Members of the Executive Committee Augusto Di Donfrancesco and Hua Du tell more about how the Group strives to be more customer-centric.

The Talk Team

John Bradfute
Global Resin Purchasing Director, Sealed Air.

Augusto Di Donfrancesco
Member of the Executive Committee

Kazunari Okada
Capacitor Division, Murata Manufacturing Co

Bruno Jouannet
Vice President of Operations NA, TitanX Engine Cooling

Hua Du
Member of the Executive Committee
AN ACTIVE PARTNERSHIP WITH SEALED AIR

“We promote a culture of active listening to customer feedback across all frontline teams. It aims to align all the organization around quickly delivering value to our customers and to support the deep transformation of our Group by fostering a much more customer-centric culture.”

Solvay’s close collaboration with packaging specialist Sealed Air dates back many years and has become a true partnership. Together the two companies decided to launch a feedback program by implementing systemic dialog at many levels of the company. This generates improvement action plans that are jointly evaluated at all times to make sure they create value. “We both listen to each other and that means we’ve been able to develop core actions that help both companies, creating win-win solutions,” says John Bradfute, Global Resin Purchasing Director, Sealed Air.

“We are honored to serve Sealed Air and to have a true partnership with them. The feedback program that we launched together triggers tangible action plans to continuously improve our day-to-day operations as well as developing and delivering effective, customized solutions that create value for both companies,” adds Augusto Di Donfrancesco.

“We have a really active partnership with Solvay.”

AUGUSTO DI DONFRANCESCO
Member of the Executive Committee

JOHN BRADFUTE
Global Resin Purchasing Director, Sealed Air
Japan’s MuRata is a world leader in electronics components for smartphones, computing and, increasingly, automotive. Its teams work closely with colleagues at Solvay every day on operational priorities like production planning. Added to that, regular contacts at all levels, right through to senior management, ensure the two organizations are fully aligned. “We very much appreciate Solvay’s continuous cooperation,” says Kazunari Okada, Capacitor Division, Murata Manufacturing Co, “and know we can rely on the group to go even further in quality and reliability to help differentiate our solutions from the competition. Our priority now is zero defects and we will work closely together to achieve that.”

“We are working with MuRata on the continuous improvement and active listening approach that is part of NPS,” explains Hua Du, “so that we can offer them even more effective solutions, including working toward zero defects.”
OFFERING TITANX MORE THAN JUST COMMODITIES

“I’d like to thank TitanX for their trust in us. We always aim to listen to our customers, have a comprehensive understanding of their needs and leverage our expertise to meet them. That way we create value on both sides.”

“We were initially looking for a commodity but Solvay definitely provides more than that. It’s also about service excellence and expertise.”

Solvay has supplied its Aluminium-Brazing-Flux range of products to powertrain cooler manufacturer TitanX for many years. When TitanX’s decision to opt for a cheaper competitor alternative led to a series of quality and supply problems, Solvay stepped up with solutions. “Solvay responded immediately and within days we were back in business and producing at the right quality level,” says Bruno Jouannet, Vice President of Operations NA, TitanX Engine Cooling. “Thanks to their fast reaction and expertise, we have been able to implement a new product and now switched back to Solvay and are looking at extending our relationship.”

“I am proud of the way our teams in the field responded to the challenges facing TitanX,” says Hua Du. “Their expertise ensured TitanX could get back to quality production and truly illustrates how we always aim to understand and meet our customers’ needs.”
WHO WE ARE

Discover Solvay, our ambition voiced through the message from our Presidents, and our integrated management journey.
ABOUT THIS REPORT

For Solvay, 2018 was a year of extensive transformation and growth. We are now ready to unleash our full potential. Our Annual Integrated Report explains how. It also reflects our progress on an integrated management journey that began six years ago.

Our Annual Integrated Report explains how we are completing the ongoing transformation of our portfolio to deliver sustainable solutions created to play their part in meeting the key challenges of caring for our planet. How we continue to deliver through an ever-sharper focus on our customers, through innovation, through collaboration with all our stakeholders to create more sustainable value for them. How in 2018, we have worked to shape an organization and a culture to support a Solvay that is now ready to deliver growth as an advanced materials and specialty chemicals company.

Jean-Pierre Clamadieu has substantially transformed the Group since 2011 and initiated the change in its organization and culture. His successor, Ilham Kadri, will begin a new chapter in this company’s history, building on the potential of its portfolio and its employees, and taking it to the next level.

We are convinced that collaboration makes a real difference and we are continuing to progress in building closer relationships with our stakeholders. In this year’s report, we highlight how much we care about collaboration at Solvay, by sharing direct conversations between stakeholders and members of our Executive Committee on a number of central topics. This too is part of delivering on our commitments.

Moving ahead on our integrated management journey

Solvay’s third Annual Integrated Report reflects our progress on an integrated management journey that began in 2012 when the Group introduced an integrated thinking approach to strengthen the connection between its businesses, sustainability and finance. Since then, our business and product portfolio decisions have been made with both economic value creation and sustainability in mind.

Once again, this report is based on the guiding principles and content elements of Integrated Reporting, as established by the International Integrated Reporting Council (IIRC).

“Integrated thinking at Solvay is not about compliance, it is about the way we are doing business every day. Integrated reporting is a highly demanding approach that adds transparency and, for us, it is becoming the new standard. The Integrated Thinking Award we received in 2018 from the Institut du Capitalisme Responsable is a recognition of our progress. We still have more to do.”

KARIM HAJJAR
Member of the Executive Committee and Chief Financial Officer
**WHO WE ARE**

Key information to help the user understand who we are, our ambition and our journey.

**OUR SUSTAINABLE VALUE CREATION MODEL**

We are an advanced materials and specialty chemicals company, focusing on fast-growing markets such as next generation mobility and resources efficiency, leveraging our talents, technologies and heritage...

**OUR BUSINESS ENVIRONMENT**

...to provide customized sustainable solutions that are aligned with the needs of our customers and the challenges facing the planet.

**OUR STRATEGIC JOURNEY**

We are continuing our strategic journey to unleashing Solvay's full potential, accelerating our cultural transformation to become more agile and more customer-focused....

**OUR PERFORMANCE AND OUTLOOK**

...so that we can continue to innovate and generate superior growth, delivering on our commitments.

**OUR GOVERNANCE**

Our transformation is supported by strong governance with a long-term perspective.

The report details the Group's new, streamlined business model. It also highlights stakeholder engagement, sharing the outcomes of these interactions.

Links in the Understanding Solvay section lead to the Management Report which provides a more detailed analysis of key topics, including a focus on high materiality issues. Information on the materiality assessment process and other reporting guidelines are illustrated in our Extra-financial statements, in the "basis of preparation" and "materiality analysis" sections.

**Driven at the highest level**

From day one, the Board of Directors has supported the Group's integrated management approach, which is fully in line with Solvay's values and culture. All the Group's Governance bodies – the Excom, the CEO and the Board – were involved in preparing, reviewing and approving this Annual Integrated Report, which complies with Belgian legislation and governance code, the 2014/95/EU directive on non-financial reporting, IFRS financial reporting rules and <IR> guiding principles and content elements.

The 2018 Annual Integrated Report builds on last year’s report, and integrates feedback from our stakeholders, including several recognized bodies such as the Global Reporting Initiative (GRI) and the World Business Council for Sustainable Development (WBCSD).

This year, for the first time, we also brought together a panel of employees and asked for their feedback on the report, with the aim of making it clearer and more reader-friendly, and meeting their expectations in terms of content.

It is aligned with GRI Standards and the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Its contents also serve as a progress report on implementation of the ten principles of the UN Global Compact and the Sustainable Development Goals (SDGs).
2018 KEY FIGURES

Solvay is an advanced materials and specialty chemicals company, committed to developing chemistry that addresses key societal challenges. Solvay innovates and partners with customers worldwide in many diverse end markets. Its products are used in planes, cars, batteries, smart and medical devices, as well as in mineral and oil & gas extraction, enhancing efficiency and sustainability. Its lightweighting materials promote cleaner mobility, its formulations optimize the use of resources and its performance chemicals improve air and water quality. In 90% of its portfolio, Solvay ranks among the world’s top three leaders. Solvay is headquartered in Brussels.

Underlying and restated 2016, 2017 & 2018 information (except for CFROI, and for environmental and social figures).

NET SALES
by zone

€ 10.3 bn

EMPLOYEES
by zone

24,500

NUMBER OF COUNTRIES

61
**WHO WE ARE**

**FINANCIAL STRATEGIC OBJECTIVES**

<table>
<thead>
<tr>
<th>UNDERLYING EBITDA</th>
<th>UNDERLYING EARNINGS PER SHARE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>in € million</strong></td>
<td><strong>in €</strong></td>
</tr>
<tr>
<td>2016: 2,075</td>
<td>2016: 8.19</td>
</tr>
<tr>
<td>2017: 2,230</td>
<td>2017: 9.08</td>
</tr>
<tr>
<td>2018: 2,230</td>
<td>2018: 10.57</td>
</tr>
</tbody>
</table>

**FREE CASH FLOW FROM CONTINUING OPERATIONS**

<table>
<thead>
<tr>
<th>CFROI</th>
<th>DIVIDEND</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>in € million</strong></td>
<td><strong>as percentage</strong></td>
</tr>
<tr>
<td>2016: 6.3</td>
<td>2016: 3.45</td>
</tr>
<tr>
<td>2017: 6.9</td>
<td>2017: 3.60</td>
</tr>
<tr>
<td>2018: 6.9</td>
<td>2018: 3.75¹</td>
</tr>
</tbody>
</table>

**SOCIAL AND ENVIRONMENTAL STRATEGIC OBJECTIVES**

<table>
<thead>
<tr>
<th>GREENHOUSE GAS INTENSITY</th>
<th>SUSTAINABLE SOLUTIONS (SPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kg CO₂ eq. per € EBITDA</strong></td>
<td><strong>as percentage of Group sales</strong></td>
</tr>
<tr>
<td>2016: 5.9</td>
<td>2016: 43</td>
</tr>
<tr>
<td>2017: 5.5</td>
<td>2017: 49</td>
</tr>
<tr>
<td>2018: 5.5</td>
<td>2018: 50</td>
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</tbody>
</table>

**OCCUPATIONAL ACCIDENTS AT GROUP SITES**

<table>
<thead>
<tr>
<th><strong>per million hours worked</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>2016: 0.77</td>
</tr>
<tr>
<td>2017: 0.65</td>
</tr>
<tr>
<td>2018: 0.54</td>
</tr>
</tbody>
</table>

**EMPLOYEE ENGAGEMENT INDEX**

<table>
<thead>
<tr>
<th><strong>as percentage of employees</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>2016: 77</td>
</tr>
<tr>
<td>2017: 75</td>
</tr>
<tr>
<td>2018: 76</td>
</tr>
</tbody>
</table>

**EMPLOYEES INVOLVED IN SOCIETAL ACTIONS**

<table>
<thead>
<tr>
<th><strong>as percentage of employees</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>2016: 50</td>
</tr>
<tr>
<td>2017: 49</td>
</tr>
<tr>
<td>2018: 50</td>
</tr>
</tbody>
</table>

¹ Recommended to the Shareholders meeting on May 14, 2019
² Rate of accidents with medical treatment, with or without work stoppage
In 2018, Solvay successfully concluded a cycle in its history, delivering on the mid-term objectives set in 2016, which covered both sustainability and financial performance as integrated signals of progress. Solvay has shifted its position towards advanced materials and specialty chemicals. The Group will now focus on fully unleashing its growth potential.

2018 was a year of growth, as Solvay posted strong organic growth thanks to both good volume dynamics and the ability to manage prices effectively. Cash Flow generation was strong and contributed to further deleveraging the Group’s balance sheet. Solvay’s robust operational performance as well as its ability to optimise financial charges are reflected in the EPS’ double-digit growth. As a consequence, the Group was able to keep duly rewarding the commitment of its shareholders and proposed to increase the 2018 dividend by 4.2%.

On behalf of Solvay, I would like to thank Jean-Pierre Clamadieu for his achievements at the helm of the Group. Thanks to his vision and leadership, we can lean on a strong basis today with Ilham Kadri, who after a rigorous process emerged as the obvious choice to take our Group to the next level and to step up value creation.”

NICOLAS BOËL

On a change journey

Solvay also delivered its medium-term extra-financial objectives. Regarding safety at work, the number of accidents decreased overall on Solvay sites, and the Group’s objective over the next years will be to curb the persisting occurrence of severe accidents. Half of the Group’s activities now qualify...
I am honored to join the Solvay community as the Group’s 11th CEO. My excitement is shared by our 24,500 highly engaged employees looking forward to embarking into a new chapter of our company’s transformation. Sharper customer focus, innovation, collaboration, disciplined capital allocation and a clear sense of purpose will drive Solvay’s new growth trajectory.”

I am honored to join the Solvay community as the Group’s 11th CEO. My excitement is shared by our 24,500 highly engaged employees looking forward to embarking into a new chapter of our company’s transformation. Sharper customer focus, innovation, collaboration, disciplined capital allocation and a clear sense of purpose will drive Solvay’s new growth trajectory.”

Solvay will continue to transform

Looking ahead, the Group will continue to transform, as we want to grow in pace with the accelerating needs of the society we serve. We intend to engage our teams, rally behind a single overarching vision and become truly customer-obsessed. Solvay’s key drivers will be technologies, innovation and people, to deliver superior solutions to our clients. Companies with a strong sense of purpose innovate, adapt better and deliver consistent growth. We want our Group to join the ranks of the few highly successful companies that have managed to embed their purpose in all of their actions.

Some uncertainty prevails, with looming trade wars, disturbance in Europe and questions about the solidity of the global economy, but we are confident in our ability to succeed by leveraging our portfolio and innovating with our customers in order to deliver value. Our Group has made bold strategic choices and is well equipped, with solid business solutions and a strong presence in future markets. Let us all move Solvay to the next level, delivering more value for all stakeholders.

1 Based on currently anticipated Soda Ash capacity
HELPING TO CREATE A MORE SUSTAINABLE FUTURE

Solvay believes in a future where innovation means progress for all. Our vision for that future is rooted in our history. 155 years of connecting with the world through science to create a sustainable future for our customers, for our people, for society and for our planet.

At Solvay, we have a strong conviction: growth cannot be sustainable if it is achieved at the expense of our planet and its resources. We aim to be recognized as the preferred partner in creating sustainable innovations that offer our customers the solutions that matter, now and in the future. As a leader in advanced materials and specialty chemicals and a key player in the value chain, we take our responsibilities seriously. We find it very motivating to work alongside organizations such as the Ellen McArthur Foundation, in its efforts to drive the transition to a Circular Economy forward, or the World Alliance for Efficient Solutions founded by Bertrand Piccard, to develop and implement concrete solutions to meet environmental and health objectives.

Achieving all this means building deep relationships with our stakeholders. Partnering with our customers to build sustainable value and innovative, tailored solutions. Partnering with other scientists, with business, with academic leaders to foster open innovation. Always aligning our expertise with the challenges facing our world.

Caring for our people

Our people are the lifeblood of our Group. And in a fast-changing world, disrupted by digital, they are the key enablers of Solvay’s success. In today’s transformed Solvay, we encourage them to champion collaboration among teams. We seek to create a climate of trust and collaboration that fosters empowerment, puts customers at the forefront of our actions, encourages smart risk taking, creates a sense of inclusion. And we take care to build trust and create the best possible environment for each and every one of them, because our people are the architects of our unique and innovative solutions. Through policies that promote a diverse and inclusive company culture, through facilitating mobility, training and development opportunities, through Solvay Cares, a universal benefits package that exceeds local market standards.  

76%  
Employee engagement index

83%  
employees feel proud to work at Solvay*

49%  
e-Learning exposure

72%  
employees say they have the opportunity to continuously learn and grow*

*from 2018 internal Solvay Employee Survey

Committed to well-being at work

Since its creation in 2016, Solvay’s multidisciplinary Well-Being@Work Council has developed dedicated training sessions for managers and for local teams that directly support well-being. It will deploy e-learning trainings in 2019 to raise awareness among all employees.

Its priorities include the development of competencies in stress prevention and the implementation of positive behaviors within the Group, with training for managers extending right through to the members of the Group’s Executive Committee and Leadership Council.

In 2018, the Council held nine training sessions for managers in six countries, with more than 530 participants in Germany and China alone.
Understand our business model, how and where we create value, and the value we create for our stakeholders.
OUR SUSTAINABLE VALUE CREATION MODEL

Resources we use

**PEOPLE**
100 nationalities. 49% of our employees are located in Europe, 18% in Asia and rest of the world, 23% in North America and 10% in South America. 8% work in Research & Innovation.

**FINANCIAL**
We have invested €711 million of Capex from continuing operations and €352 million in our Research & Innovation activities.

**NATURAL RESOURCES**
Our energy costs represented €0.65 bn. Excluding energy, the Group overall raw materials expenses amounted to circa €2.8 bn in 2018.

24,500 Employees
23% of women

2018 Annual Integrated Report

How we create value

Performance Chemicals operates in mature and resilient markets and has leading positions in chemical intermediates.

Advanced Materials offers a unique portfolio of high-performance polymers and composite technologies used primarily in sustainable mobility applications. Our solutions enable weight reduction and enhance performance while improving CO₂ and energy efficiency.

Advanced Formulations provides customized specialty formulations that influence surface chemistry and liquid behavior to optimize efficiency and yield while minimizing environmental impact.

Where we create value

1 Excluding the Polyamide business
We aim to optimize the use of our resources and we leverage our unique Sustainable Portfolio Management (SPM) tool to integrate sustainability into our decision-making process and create more sustainable value for our stakeholders. Our business model focuses on two growth engines, Advanced Materials and Advanced Formulations, that serve fast-growing markets driven by sustainability trends – Next generation mobility and Resources efficiency – and deliver 70% of the Group’s Ebitda. Our resilient Performance Chemicals businesses contribute to support our growth.

How we win

CUSTOMER INTIMACY

• We promote a culture of active listening to customer feedback across all frontline teams, fostering continuous improvement, to quickly create value for our customers.

• Our Sustainable Portfolio Management (SPM) analysis tool allows us to engage with customers on the sustainability profile of value chains, and to initiate discussions on the transition to a Circular Economy.

INNOVATION

• 155 years of scientific and open innovation culture makes them part of our DNA. We have established multiple partnerships with scientific institutes and startups.

• All our R&I projects are assessed through our SPM tool.

TALENTS

• Caring for our people has always been a priority to us. Our Solvay Cares program extends at least minimum level company benefits to all employees worldwide.

• Our robust Solvay Way framework brings all our people with us on our sustainability journey, ensuring that social and environmental matters are part of the Group’s strategy, and decision-making.

Value we create

Providing sustainable solutions to CUSTOMERS

More than 80% of our portfolio has been assessed through our SPM tool.

| 50% | Net sales with Sustainable solutions |

Delivering return & profits to INVESTORS & SHAREHOLDERS

Dividend growth over 30 years and strong cash generation. We are driven by focus on cash returns.

| €2.2 bn | Underlying EBITDA |

| €830 M | FCF from continuing operations |

| 6.9% | CFROI |

| €3.75 | Dividend 2018 recommended |

Empowering our PEOPLE

We are leveraging digital tools to encourage new ways of working that will accelerate our cultural transformation toward more collaboration and empowerment.

| 76% | Employee engagement index |

| 0.542 | Occupational accidents per million hours worked |

| 9% | Employee turnover |

Reducing our ENVIRONMENTAL FOOTPRINT

We are developing initiatives to increase the share of renewables in energy consumption, and promoting energy efficiency through our Solwatt® program.

| 5.5 | Kg CO₂ eq. per € EBITDA |

| 32.4 | thousand tons Industrial hazardous waste |

| 7.4 | thousand tons Nitrogen oxides |

| 3.7 | thousand tons Sulfur oxides |

Supporting our LOCAL COMMUNITIES

We encourage employees to get involved in local projects that focus on the environment, science, youth and education, solidarity and philanthropy.

| 33% | Employees involved in local societal actions |

| 2 Rate of accidents with medical treatment, with or without work stoppage |

| 3 Recommended to the Shareholders meeting on May 14, 2019 |

| 4 Not treated in a sustainable way |
We collaborate with our customers to develop customized sustainable solutions that meet their evolving needs and business trends.
IN TUNE WITH BUSINESS TRENDS

In today’s world, changes are the only constant. Changes that move fast and go deep, triggering major shifts and global trends that redefine market needs and behaviors. Chemistry is a core component of products and solutions used every day, and the advancement of chemical technologies is therefore essential to address these global trends. At Solvay, we are in constant interaction with our stakeholders, constantly listening to our customers. This enables us to understand their needs and develop the right chemical solutions to help them meet their own customers’ needs.

Navigating a complex macro-economic landscape

Volatility, uncertainty, complexity and ambiguity (VUCA) remained a global phenomenon in 2018: volatile exchange rates, uncertain economic cycles and intense competition, and geopolitical complexity and ambiguity with a clear increase in nationalist tendencies in many countries. The trends in the chemicals industry globally have been positive. There has been enhanced profitability and value creation in many geographies, and mature countries are once again seeing growth in production. At the same time, the transformation of the chemicals industry continues. Digitalization offers game-changing new opportunities and the shape of the sector is changing, with consolidation on the one hand and, on the other, refocused portfolios resulting in the emergence, especially in Asia, of new specialized independent players.

Against this backdrop, vigilance and agility are vital for Solvay, and we intend to continue to pursue a coherent, focused strategy that both consolidates our leadership and sets us apart from the field. We are leveraging digital technologies to bring us closer to our customers, accelerate innovation and improve our efficiency.
Evolving Demography and Consumer Behavior

The shape of the world is changing. The global population continues to grow fast, especially in Asia and Africa, and is leaving rural areas for the city. Megalopolis is the watchword as urbanization mushrooms, chiefly in emerging countries. In parallel, new age and gender dynamics are in play. The health and wellness challenges facing an older population open up new markets, as does the shrinking gap between men and women in the workplace.

Solvay’s solutions are set to be woven into this evolving pattern: new materials for smart cities, innovations to drive next generation mobility and ever more connected people.

Next generation mobility, in particular, is an important part of our focus as we seize the major opportunities it holds. This paradigm shift in technology is already a reality and it is moving fast. Solvay is ready to move with it.

4.5% annual growth in passenger traffic

+100% number of aircrafts in 20 years
Our customers’ challenges

Customer demand is unprecedented in the aircraft industry, with more airplanes being built to transport the increasing number of people flying. Aerospace has been a key driver of composites use and today’s aircraft incorporate a much higher level of composite technology. And tomorrow’s aircraft will require even more advanced solutions that will allow our customers to accelerate the build rate and produce lighter, more fuel-efficient aircraft.

Opportunities for Solvay

As an aerospace technology leader, Solvay has a strong hand to play. Our unique portfolio of technologies, including composite materials and polymers, is second to none. Just like our customers, our teams have deep technological expertise. They speak the same language and can scale up the solutions we develop to suit their changing needs. We have forged long-lasting, strategic partnerships with our customers and close, sustainable relationships with players in the aircraft ecosystem as a whole.

Carbon fiber composites are the leading technological solution to the challenges facing the aircraft industry today and tomorrow. Composites make planes lighter and more fuel efficient and offer unique benefits in aerodynamics, design, part integration and corrosion resistance.

Solvay’s composites solutions put us in a strong market position. In 2018, we furthered partnerships and signed four major long-term agreements worth over €1 billion with important customers including Airbus, Bell, Safran and Spirit.

A unique portfolio of composite technologies

Our breakthrough technologies are used in a range of aircraft structures. Our liquid resin infusion technology is used on the LEAP engines fan blades of the Airbus A320neo, but also on the wing box of the Airbus 220. This technology enables our clients to achieve faster build rates and benefit from enhanced efficiencies.

We also partner with UAE Mubadala to bring our advanced prepreg technology to the Boeing 777X, a future aircraft that will integrate Solvay’s materials in its primary structures.

Solvay is also leveraging its best-in-class portfolio of specialty polymers together with composite technologies to develop thermoplastic composites. This combination of core technologies puts us in a unique position to introduce innovative new thermoplastic solutions that can be used to support more cost-effective production and enable customers to achieve higher build rates.
Climate change is arguably the most urgent issue facing our planet. Global warming and climate disruption, fuelled by greenhouse gas emissions and especially CO₂, are set to intensify, and new challenges must be met if this is to be prevented and controlled. In parallel, the demand for essential resources – food, energy, water – will continue to grow, triggering spikes in raw materials prices and making research into alternative solutions and new chemical pathways ever more crucial.

Concern over pollution and biodiversity loss is also escalating. Here too, new solutions are necessary and human behaviors must change.

Solvay’s Advanced Formulations portfolio is strongly focused on resource efficiency. As demand in sectors such as oil and gas, mining and agrochemicals increases, we offer innovative solutions for efficient extraction and use of precious resources.

*Source: McKinsey*

**OUR BUSINESS ENVIRONMENT**

**SOLVAY**

- Copper consumption by 2035*
- Lithium demand by 2025*
Our customers’ challenges

Enhanced productivity and operational efficiency are paramount in the mining industry. New approaches to separating metals and minerals from ore, that mitigate impact on the environment and on mine workers, are essential to meeting this challenge. And, as demand for metals increases – copper in electrification, alumina in lightweight materials, lithium, nickel and cobalt in electric vehicle batteries – the need for improved productivity and yield become more critical.

Opportunities for Solvay

Solvay aims to outgrow its competitors in mining and related sectors by continuing to bring high-productivity and sustainable innovations to the industry, where we are already a major player.

The Group holds a key position in the mining industry value chain, where our innovations help our customers to optimize the amount of metal extracted from the ore. We offer innovations in surface chemistry, solvent extraction and alumina refining that help customers improve their productivity and enhance yield and also help us extend into new geographies including China, Africa and Latin America.

We are also bringing our innovations to new markets, including lithium and cobalt to name but a few.

Targeted solutions

Metal recovery is ever more challenging as ore grades decline and ore bodies become more complex, with significant presence of penalty elements and gangue minerals. Mining companies therefore need more selective, tailored reagents and ongoing expert support. Solvay meets these needs through a newly developed process offering optimum reagent selection and custom formulations for specific operations. Our range of collectors includes industry-critical innovations that significantly enhance our customers productivity and so support strong growth in the industry.

Cobalt demand by 2025*
INNOVATION ACCELERATION

Ever-changing and disruptive, digital has brought the world into the Information Age. With huge amounts of information on every topic available to all, it has created a knowledge society and, in parallel, businesses and researchers are increasingly leveraging big data to help them achieve breakthrough innovations. Increased connectivity and mobility are also driving groundbreaking new business models that are transforming the way we work and how we behave as consumers.

At the same time, innovation cycles are adapting to the new, faster pace and growing shorter. So too are product lifetimes, as new technologies reach the market faster and are quickly adopted. This acceleration is supported by a growing trend in Research & Development toward open innovation and cooperative partnerships.

+30% annual growth in the electrical vehicle segment that is set to make up 80% of the Lithium-ion (Li-ion) battery market by 2022

+26% expected growth in the global Li-ion battery market between 2017 and 2025
Opportunities for Solvay

Solvay is at the cutting edge of battery innovation. Together, our recognized expertise in fluorine chemistry, robust portfolio of fluorinated products and Lithium salts, and dedicated Battery Application Development Center in Seoul, South-Korea make us a leader in new solutions for next generation batteries that meet the challenges facing our customers, with technologies that offer enhanced safety, energy density and power at lower cost.

We have joined our peers in the European SAFT initiative to research, develop and industrialize solid-state batteries. And in parallel, we have developed proprietary technology to make a solid electrolyte and support the transition to solid-state batteries.

The market has welcomed our LiTFSI solution, a widely used additive that extends battery life by enhancing extreme temperature performance.

Our sales in battery components are already growing fast and stood at over €50m in 2017. And we expect our performance on this high-barrier-to-entry market to accelerate even further.

Our customers' challenges

The electrical vehicles and consumer electronics markets are driving strong growth in Li-ion batteries, but are also highly demanding. They need advanced technology for faster charging, enhanced battery pack design and higher energy density. To meet these needs, suppliers must offer quality products, stable supply and sufficient production capacity. Reducing cost per kWh is also key, as electrical vehicles strive to compete with conventional automobiles.

High energy solutions

Our Energain® technologies allow next generation Li-ion batteries to operate at higher voltage for higher energy density and are now being validated for both electrical vehicles and consumer electronics. Our customers are sampling these technologies and other fluorinated compounds to improve the cycle life of next generation silicon based anodes.

Solef® PVDF is a high-performance polymer for Li-ion batteries with excellent thermomechanical and chemical properties. Partially fluorinated, it is particularly stable, so that batteries can work at higher voltages in complete safety.
Solvay’s portfolio has been refocused on specialized solutions that serve fast-growing markets driven by strong sustainability trends - Next Generation Mobility and Resources Efficiency. Our unique portfolio of high performance polymers and composite technologies solutions are used primarily in sustainable mobility applications such as Automotive and Aerospace. And our Advanced Formulations provide customized specialty formulations that influence surface chemistry and liquid behavior to optimize efficiency and yield while minimizing environmental impact. They serve markets such as Mining, Oil & Gas and Agro. Half of the Group’s sales are generated on markets related to sustainable mobility and resources efficiency. Our Advanced Materials are also used on Electronics, Healthcare and Industrial markets and our Advanced Formulations serve Food and Consumer goods markets as well. Our Performance Chemicals activities serve Consumer goods, Food, Industrial and Construction markets.
AUTOMOTIVE & AEROSPACE

Cleaner mobility
24% OF NET SALES

Growing concerns about sustainability and stringent regulations on CO₂ and particulate emissions are driving the automotive and aerospace industries to develop more sustainable mobility systems. We help make transportation cleaner, safer, and more energy-efficient.

Lightweighting
For lighter vehicles with lower fuel consumption and emissions, composite materials are an innovative alternative to metal and solid plastic structures. Solvay is uniquely positioned in thermoplastic composites with the best-in-class portfolio in specialty polymers and composite technologies.

Specialty polymers like KetaSpire® PEEK, with excellent mechanical properties at high temperatures, can replace metal. These polymers enhance the efficiency of composite manufacturing, making them cost-effective for high-volume production.

Among our aerospace solutions, PR® 520 is a structural resin used to manufacture engine blades and fan cases with lower fuel consumption, CO₂ emissions, noise levels and maintenance costs. And Solvay’s breakthrough adhesive technology FusePly™ offers improved bonding of composite structures for more reliable aircraft structures.

Electrification
Batteries with higher energy density enabling faster charge with greater power and lower cost are vital to the future of electromobility. Our solutions meet the highest safety, temperature and chemical resistance requirements, and so address the needs of the entire battery system. Our fluorinated materials for advanced lithium-ion (Li-ion) batteries and our Energain® technologies enable the operation of next generation Li-ion batteries at higher voltage for higher energy density.

A high-performance material for Li-ion batteries, Solef® PVDF is a polymer with excellent thermomechanical and chemical properties. As a partially fluorinated material, it is particularly stable, for enhanced safety performance.

Powertrain efficiency
In all types of powertrains, the engine and transmission system offer significant potential for energy efficiency improvements. Our specialty polymers like Amodel® PPA and Ryton® PPS help to build more fuel-efficient internal combustion engines, manage the intense heat of down-sized engines, and develop hybrid electric vehicles that combine gasoline engines and electric motors in order to achieve the best balance of fuel economy and demand on batteries. Nocolok® Flux, a high-quality fluxing agent used for brazing aluminum components, is an industry standard for aluminum heat exchangers.

Green technologies
Our silica products designed for tire manufacturers can reduce rolling resistance by up to 25%, for 7% lower fuel consumption. Our latest innovative grade, Premium SW, offers high performances for truck tires. This is the first Solvay silica to surpass Carbon Black capacity in rolling resistance, while maintaining equivalent tire durability. Catalytic converters minimize pollutant emissions and their performance is boosted by several Solvay products, including Optalys®, for modern engines like hybrids or GDiS, making them a key contributor to meeting increasingly stringent emissions targets.

Less fuel, more efficiency
Replacing metal and solid plastic structures by composite materials in car manufacturing makes vehicles lighter, reducing their fuel consumption and thus their emissions. SolvaLite™ composites are up to 40% lighter than metal and cure much faster than traditional composites. That also means more efficient production and enhanced cost-effectiveness in high-volume production runs.
RESOURCES & ENVIRONMENT

Affordable resources and environmental protection

14% OF NET SALES

Solvay’s sustainable solutions for the oil & gas, mining, energy generation and energy storage sectors help its customers offer energy-efficient and environmentally-friendly products and services to end-consumers.

Energy solutions

Solvay has developed various products and technologies for renewable energy production. In solar power, our innovations include protective films for photovoltaic panels, and our wind power solutions range from seals and cables to epoxy compounds for wind turbine blades. We also offer solutions for biomass & gas co-generation and are developing technologies that meet the specific needs of battery manufacturers, with a number of R&I projects underway.

Environmental Protection

To address the requirements of more challenging regulations, our solutions support air and water treatment and soil remediation, using filtration, gas separation, absorption, and chemical reactions.

Oil & Gas

Solvay’s broad portfolio offers more efficient, sustainable products that reduce the overall cost of operations and use fewer resources, including fresh water, and we also design personalized solution packages to meet the challenging needs of our customers. Examples include Solvay’s line of high-performance friction reducers and Tiguar® guar derivatives, a sustainable solution that allows customers to stimulate wells with recycled waters and in extreme conditions. Our Rhodibloc® cement additives provide superior fluid loss and gas migration control to ensure well integrity, while Solvay’s Clearbreak® demulsifiers help separate produced water from oil to allow for recycling.

Mine & Chemicals

Today’s mining operations face the dual challenge of maintaining or increasing production and reducing consumption of resources like water and energy. In parallel, the reagents used to extract metals and minerals must meet stringent safety and environmental requirements. Solvay’s specialty mining reagents help our customers meet these challenges and reduce operating costs in the recovery of many metals and minerals, including copper, alumina, gold, silver, uranium, nickel/cobalt and polymetallic ores. Our specialty reagents for mining separations ensure enhanced recovery of metals, and our Interox® hydrogen peroxide detoxifies water elements after metal extraction. Our Cyanex® reagents, for example offer improved separation in solvent extraction for cobalt and more efficient processing for lithium, at a time when demand for copper, lithium, nickel & cobalt for batteries is high and as the trend toward electrification continues to grow.
CONSUMER GOODS & HEALTHCARE
Improving the quality of life

17% OF NET SALES

Consumer behavior is changing as populations in mature economies age and the middle classes in Africa, Asia, and Latin America grow. Consumers want easy-to-use, multifunctional solutions that are tailor-made, safe and sustainable, offer an enhanced consumer experience, a positive impact on health and well-being and a low impact on the environment. They also want to benefit from the best of digital and enhanced connectivity.

Consumer Goods
From smart textiles and pulp paper to personal & home care, our broad portfolio offers innovative, sustainable and competitive solutions. These include Amni Soul Eco®, the world’s first biodegradable polyamide yarn, a major sustainable breakthrough for the whole textile industry, decomposing quickly when disposed of in landfills. Another example is ReGen-oPhyt®, derived from pure, colorless phytoene found in jojoba oil. This innovative skin care solution enhances regeneration and repair, using a unique process inspired by nature. In home care, the bio-based line Augeo® offers solvents that are non-toxic to humans and the environment and have high solubility power in cleaner formulations and fragrances.

Healthcare
Our broad selection of high-performance polymers is used in orthopedics, medical devices and equipment, surgical instruments and implantable devices. Radel® PPSU and Kalix® HPPA polymers are used for medical equipment housings and components. They have exceptional properties that readily withstand the strong disinfectants now used to prevent the spread of hospital acquired infections. Our RhodaPhos® Phos Reagent is a high-purity, phosphorus-based chemistry used to manufacture oligonucleotides, an essential component of antisense drugs prescribed in severe genetic disorders such as Huntington’s disease, Crohn’s disease and cancer.
AGRO, FEED & FOOD
Sustainable living and environmental protection
11% OF NET SALES

The growing global population requires greater agricultural yields and better resource management. Solvay’s portfolio of innovative solutions supports customers from farmers to food processors, helping them operate responsibly and sustainably.

Agriculture

Agriculture and the crop protection sector are facing the challenge of using greener solutions to build the future of farming. They must integrate seed treatments and nutrients to boost germination, adding biologicals as a new tool and leveraging data and digital technology as enablers. Demanding regulations and crop resistance issues are also impacting this sector. Agrho® N50 Protect treats urea fertilizers cost effectively and sustainably and helps European growers meet regulations limiting volatilization due to urea. We also offer pioneering automation and digital technology, including on-target drift control adjuvants for agricultural spray drones, with Agrho® Aero-mate 320 available on China’s main e-commerce platforms.

Feed

Solvay offers a range of highly efficient feed supplements for livestock used for the prevention and control of diseases. They also optimize the flow of nutrients that are essential for animal health. Tixosil® 38A is a silica product that enhances the flow of powders incorporating vitamins such as vitamin E and so makes them easier to process and transport. Adding a natural source of sodium, Bicar® Z, into the feed ration to continuously regulate the pH of the rumen can improve the productive performance of animals by maintaining a suitable acid-base equilibrium. In the aquaculture industry, where parasitic diseases can seriously affect production, we have developed a solution made of oxygenated water, Paramove®, that removes sea lice from salmon, leaving only oxygen and water in the environment. The Aqualisan® program has been launched in Asia to improve shrimp survival rate and enables farmers to achieve a higher harvest weight.

Food

Consumers are demanding healthier, more natural and more convenient food. Solvay offers the food industry a wide range of products for food preparation, food preservation, healthier living, improved food quality, food safety, and taste enhancement. One key example is Rhovanil® Natural CW, the reference in natural vanillin. Bio-sourced from ferulic acid in non-GMO rice bran, it meets all global regulations on natural flavoring substances and offers both the vanillin note characteristic of vanilla and the advantage of a natural flavor labeling.

A 100% biostimulant seed treatment

Our Agrho® GSB guar-based formulation offers farmers enhanced production efficiency and reduced use of other agricultural products. It also increases nutritional value and reduces waste. It ensures rapid plant growth and health, for yields of over 20-30%. Macromolecules influence soil properties in the seed and root zone to enhance water and nutrient uptake, boost germination, root development and plant vigor and increase yield per acre. Solvay now has a strategic partnership with seed producer Limagrain and received its 2018 Innovation Award for this breakthrough seed treatment design.
ELECTRICAL & ELECTRONICS

Connectivity and high performance

6% OF NET SALES

Solvay works closely with electrical and electronic equipment manufacturers to ensure that its advanced materials are fully geared to their needs, enabling them to develop new miniaturization technologies and offering them new perspectives in design, safety and energy performance.

Electronic components

The increased miniaturization, conductivity and complexity of electronic components means greater demands on materials, especially for high temperature operation and dimensional stability.

Our broad range of high-purity phosphorus-based chemistries – such as those within the Cytop® family of products – are used in the manufacture of quantum dots for displays and other applications, such as general lighting and solar and medical imaging.

Semiconductors

The semiconductors market is growing fast. The pace is driven by data centers, IOT and mobile technology, and customers require materials offering high levels of purity, temperature resistance and chemical resistance. As device geometries grow smaller, production of next generation semiconductors requires ever more advanced cleaning solutions and our Interox® Pico hydrogen peroxide is the reference on this market. Chip manufacturers need to ensure clean rooms stay clean and prefer to use our high temperature resistant materials.

Smart devices

Today, smart sensing is driving market growth in smart devices and components, including premium smartphones with advanced functionalities such as infinity display, AI, or 5G. The higher demand for miniaturization, multi-function, enhanced performance is creating opportunities for specialty materials, like Solvay’s Kalix® HPPA. Designed for structural components used in smart mobile electronic devices, this high-performance polyamide provides high strength, rigidity and a high-quality surface finish along with improved processing. Another example is Solmyra™, which is ideal for haptic applications and offers UV and stain resistance and enhanced productivity for wearables OEMs looking for rapid time to market for premium quality wearable brands.

Purer raw materials for semiconductors

Phosphine gas is essential in the manufacture of products from computers to LED lights. As the world-leading phosphine supplier, Solvay faces increasing demand and stringent requirements, including the need for high purity. Our two grades of phosphine, CypureE® and CypureE® Ultra, offer purity levels close to 100%, achieved by rigorous attention to detail at every stage, from manufacturing to transportation.
INDUSTRIAL APPLICATIONS

Efficiency and value

20% OF NET SALES

Manufacturers must comply with ever stricter regulations and rely on innovations for more efficient processes and more competitive products. They are also facing constraints on resources, including reduced energy and water consumption, and increased demand for sustainability.

Our materials and solutions help them operate more responsibly and give their products longer lifetimes, creating more sustainable value.

Industrial & protective coatings

Solvay offers a wide range of binders, solvents, pigments and additives and is constantly developing formulations to provide benefits based on surface modifications: enhanced surface wetting, improved adhesion to substrates, better color development, strong corrosion protection, and resistance to aggressive fluids.

Metal & surface treatment

We create ingredients and formulated products that modify and clean the surface of several metallic and organic substrates, improving the performance of finished products and enhancing their shelf life. With Rhodoclean® we have expanded our range of low foam and low temperature industrial cleaners, while Addibond™ is a new product line for adhesive bonding and adhesion of paint to metal.

Industrial equipment protection

The high demands of industrial equipment require resistance to corrosion, temperature and aggressive chemicals. Solvay has created and formulated specific polymer products that can even replace certain metals under particularly harsh conditions of use. Our solutions offer excellent resistance to UV irradiation, chemicals, fire and abrasion, and have applications in many industries. They are widely used in anti-corrosion applications, such as linings, or in self-supporting constructions like piping.

Sustainability and efficiency combined

Fluxing agents are an essential part of road construction, temporarily reducing the viscosity of the bitumen to improve ease of use. Solvay’s InnRoad™ Protect meets the road paving industry’s need for greener, safer technologies, combining sustainability and efficiency like no other fluxing agent on the market and offering a tighter boiling range for faster evaporation, faster recovery of bitumen properties and quicker cohesion build up.

Solvay has won the prestigious Grand Prize in the Vinci Innovation Awards for developing this breakthrough fluxing agent. This prize reflects our technical expertise, our teams’ dedication to finding the appropriate solution and our way of energizing the partnership.
BUILDING & CONSTRUCTION

Sustainability and energy efficiency

8% OF NET SALES

Demand is growing for longer-lasting buildings that consume less energy, include safe water management and enhance their users’ well-being. Our solutions focus on increasingly stringent environmental performance certification systems in passive residential and commercial buildings.

**Energy Savings**

Buildings represent 40% of the world’s energy consumption and CO₂ emissions. We help develop solutions for energy-saving triple-glazed windows with soda ash, and for foam wall coverings to maintain comfortable temperatures in near-zero-energy housing. Our Alve-One™ sustainable foaming solutions help producers of thermoplastics and elastomers achieve the specific properties they are seeking for their plastics, including insulation, strength, and light weight. We also offer easy-to-use and very long-lasting products for cooling and heating systems.

**Resource efficiency**

Drinking water is becoming increasingly scarce in many countries, and so the watering of plants, trees, and green facades in cities often relies on reused rainwater, creating a growing need for our plastic piping and fittings for water and drainage.

**Protection & Safety**

Urbanization is a megatrend that continues to create increasing demand for high quality, sustainably produced paints and coatings throughout the world. Increased sustainability and added functionality are the big themes in the coatings industry. Solvay offers APE̊1-free and VOC̊2-free and Ecolabel products, enabling customers to convert from solvent-borne coatings systems to waterborne formulations, in full compliance with regulatory requirements.

Our Sipomer® PAM and WAM range of additives offers excellent corrosion resistance and exceptional adhesion to difficult substrates, such as aluminum, cold steel, glass, concrete, aged alkyd, wood, and plastic in waterborne systems.

1 Alkyl Phenol Ethoxylate  
2 Volatile Organic Compounds

Thermal and UV protection excellence

Buildings represent 40% of the world’s energy consumption and CO₂ emissions, and demand is growing for more sustainable residential and commercial buildings that consume less energy and enhance their users’ well-being. Our Cyasorb Cynergy Solutions® UV stabilizers prolong the life of construction materials and ensure durability. They also provide optimal performance under severe UV and thermal conditions.
Solvay’s risk assessment process is thorough and comprehensive, involving all Global Business Units (GBUs). Key risks are reviewed periodically by the Audit Committee and the effectiveness of the risk management process is assessed annually by the Audit Committee with other Board members present. Key risks also form part of the annual strategic review. Sustainability considerations and the views of our stakeholders are central to our risk management approach, ensuring we anticipate and adapt to risks and opportunities in a volatile global marketplace.

Tracking trends in our main risks

At Solvay, risk is the responsibility of teams at all levels of the Group. Our dynamic and highly decentralized process tasks key players with assessing the risks that fall within their areas of authority and expertise. Progress made on mitigation actions, as well as changes in the risk and opportunities environment, are charted on a dedicated dashboard, updated twice a year.

The table opposite lists the main risks affecting Solvay, their criticality and status. More information on our risk management process and main risks can be found in the dedicated section in the Management Report.

Robust risk management is key to supporting business performance. In today’s world, Solvay must address economic and political uncertainty, evolving power balances, new growth dynamics, shorter market cycles, a sharper focus on climate change and energy transition, and fast-paced technological change. The Group’s annual risk review allows it to meet its strategic objectives and comply in full with laws, regulations, and the Solvay Code of Conduct.

<table>
<thead>
<tr>
<th>Criticality</th>
<th>Risk</th>
<th>Trend</th>
<th>Link with sustainable development high materiality aspects</th>
<th>Link to Stakeholders</th>
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</thead>
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| High       | Security | • Data security and customer privacy  
• Critical incident risk management | • Employees  
• Local Communities  
• Customers |
|            | Ethics and Compliance | • Management of the legal, ethics & regulatory framework | • Suppliers  
• Employees  
• Planet  
• Investors |
|            | Industrial safety | • Critical incident risk management  
• Employee health and safety | • Employees  
• Local Communities |
|            | Transport accident | • Critical incident risk management  
• Waste and hazardous material management | • Suppliers  
• Employees  
• Local communities |
|            | Climate transition risk * | • Greenhouse gas emissions  
• Energy management  
• Sustainable business solutions  
• Water and wastewater management | • Customers  
• Local Communities  
• Employees  
• Planet  
• Investors |
|            | Cyber-risk | • Data security and customer privacy | • Customers  
• Employees |
|            | Chemical product usage | • Waste and hazardous materials management  
• Sustainable business solutions | • Employees  
• Customers |

* emerging risk - newly developing or changing risk that may have, in the long term, a significant impact which will need to be assessed in the future.
Increasing sustainability, decreasing risks

At Solvay, we have developed a unique tool to guide our portfolio towards more sustainable solutions. Our Sustainable Portfolio Management (SPM) tool measures the alignment of our businesses with sustainability megatrends. It is a reference framework that is a helpful complementary tool to guide strategic resource allocation and portfolio choices. The tool rigorously assesses each of Solvay’s products in all its applications and our R&I, CAPEX and M&A projects, evaluating their environmental impact and their benefit or challenge to society. As a result, it also enables strategic de-risking, reducing negative impact on performance and freeing up resources for new sustainable opportunities.

Committed to climate-friendly growth

As concerns over climate change reach unprecedented levels, companies must adapt to increasing regulatory, environmental, and consumer pressure. Solvay is no exception and has long been committed to taking action on the climate transition risk.

We are determined to be part of the transition to a climate-friendly economy. In 2018 we took an important step in that direction, pledging a 1MT cut in absolute GHG emissions from operations by 2025 - in CO₂ equivalent on a like-for-like basis compared to 2017. Switching our target from a GHG intensity reduction to an absolute GHG reduction clearly demonstrates our commitment to refuse growing our business at the cost of environmental impact.

To meet our ambitious 2025 target, we will leverage energy transition levers to reduce our energy-related emissions, increasing the share of renewables in energy production and supply along with promoting energy efficiency through our Solwatt® program, to reduce consumption altogether. We will also focus on continuously optimizing our industrial processes and developing clean technologies.

“Transition to a more sustainable economy opens up exciting business opportunities and, by cutting our emissions even further, we are also committing to accelerating the move towards a better society.”

VINCENT DE CUYPER
Member of the Executive Committee
Solvay has built solid relationships with its stakeholders, bonds that shape our insight into the challenges facing our customers and the trends forging new consumer needs. Customers, employees, investors, suppliers, local communities, the planet (through the governments and NGOs that represent it). The connections developed with these six stakeholder groups, and especially our people, form the foundation of our strategy and – through Solvay Way - the framework for our operations. Without them, Solvay could not develop the innovative solutions that help care for the planet and create value for all.

Solvay is constantly interacting with its stakeholders to understand and answer their expectations.

In 2018, their expectations confirmed a trend already observed in 2017: increasing focus on addressing climate change, offering customers innovative solutions with low environmental impact, and further increasing collaboration and transparency with stakeholders.

In response to stakeholders’ priorities, Solvay focused on three main areas in 2018:

- Our new greenhouse gas absolute emissions reduction target of 1 million tons by 2025 was published on September 24, 2018.
- Transitioning to circular economy is a key area for Solvay. In that context, our partnership with the Ellen MacArthur Foundation took its first steps, raising awareness of this challenge among our employees.
- Solvay Way was fully updated. The new version of our sustainability reference framework focused on stakeholders’ expectations is available to all employees online. It highlights each Global Business Unit’s most material aspects.

Solvay’s priority SDGs

The United Nations’ 17 Sustainable Development Goals (SDGs) set the sustainability agenda for the governments and NGOs that Solvay has defined as our “Planet” stakeholder. The Group focuses on the seven SDGs where it believes it has the most impacts, positive or negative. These are SDGs:
### Engaging with our stakeholders

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>How we connect</th>
<th>Main areas of interest</th>
<th>KPI</th>
<th>Internal links in the report</th>
</tr>
</thead>
</table>
| **Customers** | • Rating questionnaires (CDP, Ecovadis)  
• SPM profiles  
• Respective materiality analysis  
• Tech days  
• Direct contacts with Global Business Units’ sales & marketing teams | • Steady increase in the number of customers assessing Solvay’s performance using the Ecovadis, CDP or other specific questionnaires, confirming an increasing focus on risks and opportunities in the supply chain  
• Strong focus on the need for innovative solutions in line with circular economy principles noted during interviews and direct contacts with customers | • Solvay’s Net Promoter Score (NPS): 42%  
• 50% Sustainable solutions in Group net sales | • In conversation with...  
Our Customers  
• Scorecard  
• Management report – Business model and innovation |
| **Employees** | • IndustriAll agreement  
• Global Forum, work councils, employee representatives  
• Annual Solvay employee survey | • Steady increase in the number of customers assessing Solvay’s performance using the Ecovadis, CDP or other specific questionnaires, confirming an increasing focus on risks and opportunities in the supply chain  
• Strong focus on the need for innovative solutions in line with circular economy principles noted during interviews and direct contacts with customers | • Solvay’s Net Promoter Score (NPS): 42%  
• 50% Sustainable solutions in Group net sales | • In conversation with...  
Our Customers  
• Scorecard  
• Management report – Business model and innovation |
| **Planet** | • Dialog with governments and NGOs  
• Participation in global and regional trade associations (e.g. WBCSD, ICCA, Business Europe, and Cefic)  
• Membership of industry federations | • Steady increase in the number of customers assessing Solvay’s performance using the Ecovadis, CDP or other specific questionnaires, confirming an increasing focus on risks and opportunities in the supply chain  
• Strong focus on the need for innovative solutions in line with circular economy principles noted during interviews and direct contacts with customers | • Solvay’s Net Promoter Score (NPS): 42%  
• 50% Sustainable solutions in Group net sales | • In conversation with...  
Our Customers  
• Scorecard  
• Management report – Business model and innovation |
| **Investors** | • Engagement by Board of Directors  
• Direct contacts with investors and shareholders (Capital markets days, roadshows, shareholders meetings)  
• Rating agency questionnaires | • Growing focus on sustainable development principles and interest in existing systems for professional development (Solvay’s annual employee survey)  
• Emphasis by employee representatives on the need to keep Solvay’s workforce engaged on sustainability principles, from top management to the shop floor | • In conversation with...  
Our Customers  
• Scorecard  
• Management report – Business model and innovation |
| **Communities** | • Varied engagement channels depending on location and local configuration, e.g. isolated plant or industry complex | • Outcomes of the 2018 special report from the International Panel on Climate Change (IPCC)  
• United Nations Sustainable Goals (SDGs) confirmed as the new reference in reporting on impacts on society  
• Chemicals Industry an important enabler in the move towards a restorative and regenerative circular economy | • Greenhouse gas intensity: 5.5 kg CO\text{2} eq. per € EBITDA  
• 7 SDGs on which the Group decided to focus | • In conversation with...  
Our Customers  
• Scorecard  
• Management report – Business model and innovation |
| **Suppliers** | • Rating questionnaires (TfS, Ecovadis) | • Outcomes of the 2018 special report from the International Panel on Climate Change (IPCC)  
• United Nations Sustainable Goals (SDGs) confirmed as the new reference in reporting on impacts on society  
• Chemicals Industry an important enabler in the move towards a restorative and regenerative circular economy | • Underlying EBITDA: €2,230 M  
• 5 extra-financial objectives, aligned with the financial agenda | • In conversation with...  
Our Customers  
• Scorecard  
• Management report – Business model and innovation |

*rate of accidents with medical treatment, with or without work stoppage
We are continuing our strategic journey to create more value for our stakeholders, accelerating our transformation to become more agile and customer-focused, and leveraging our key assets, among which innovation.
Solvay’s strategic journey has a constant focus: a step-by-step transformation towards unleashing potential. First, an in-depth overhaul of our portfolio that made us an advanced materials and specialty chemicals group. Next, a reshaped organization and culture to focus firmly on our customers. Now, a strong position to continue our journey, delivering on growth as we travel.

2012-2017
A refocused portfolio delivering synergies & growth

In 2012, we began a strategic journey to comprehensively redefine our business model. We transformed our portfolio and, in doing so, transformed Solvay. We moved from being a commodity chemicals company to become an advanced materials and specialty chemicals group.

We are a solutions provider and have refocused our business on high-growth markets that now account for the majority of our sales, and many new names stand out among our top customers.

Our business transformation has allowed us to generate substantial synergies. We have moved away from a largely diversified portfolio, reliant on cyclical markets, to a focused portfolio of highly specialized products and solutions that are tailor-made.
to solve our customers’ challenges. This means we are creating
more value for our customers and for Solvay. Sustainability
is central to our business, our ambition and our strategy.
Far-reaching sustainability targets, and our Integrated Thinking
approach, Sustainable Portfolio Management tool and Solvay
Way program embed sustainability in all of our decision-making,
from innovation to investment projects. As a result, it is now a
key driver of our business growth.

2018

Customers at the heart of our organization
& culture

2018 was decisive in simplifying and streamlining our orga-
nization and processes to make Solvay more agile, more outward-
looking, with a sharper focus on our customers’ needs across
the Group, from the Board to the shop floor. Solvay builds on
its ability to understand its customers and forge long-lasting
relationships to co-create innovative solutions that meet their
challenges.

We also began an in-depth cultural transformation to support
growth and unlock our potential. By introducing new working
practices and encouraging three behaviors – I trust, I take smart
risks, I focus on customer needs – we aim to take customer-
focus and collaboration ever further, empower our people and
accelerate innovation in 2019 and beyond. We are seizing the
opportunities of digitalization to build on the excellence that
has always been one of Solvay’s features, enhance employee
experience, support us as we transform our culture, and bring
innovation to our industrial processes.

Fostering connections and creativity
on the new Solvay Brussels headquarters

Innovating, working together, acting sustainably for society,
being open and connected with the world - this is the spirit
guiding the transformation of Solvay and the reinvention
of the 22-hectare site which has housed many of its
activities since 1953.

Solvay’s ambition is to bring its employees together in
one modern building and to turn the site into a buzzing
campus that showcases the new Solvay and expresses
the Group’s humanist vision of science, fosters innovation,
attracts talent and makes its people proud.

The site will be dedicated to high-technology innovations
in chemistry and advanced materials. From there, Solvay’s
mission is to grow its own Research & Innovation activities,
as well as those with its partners: startups, universities
and research institutions creating solutions for a rapidly
advancing society.
Unleashing Solvay’s full potential

Today and tomorrow, Solvay is committed to maximizing organic growth. Unflagging customer focus and sustainable innovation will be its dual drivers, supported by our new culture and our committed people. We aim to be the lead provider of sustainable solutions for our customers. We have confirmed our 2025 extra-financial targets. Regarding GHG, we switched to a commitment in absolute terms, aiming at reducing our emissions by 1 million tons.

We are leveraging our key assets:

Innovation

We will innovate faster by embedding new, collaborative ways of working and leveraging internal and external connections. Innovation is a key enabler of customer-intimacy and we will step up collaboration with customers at our 21 major research centers. In Brussels, we have decided to build a unique Advanced Material Science Applications Center, where we will co-develop with our customers, designing and testing prototypes, mainly in the aerospace and automotive industries. With 1,000 scientists and engineers, our new Research & Innovation Center in Lyon will be world-class and Solvay’s largest. Its digital expertise will accelerate and enhance the quality of our research.

We will continue to ensure all our innovation projects meet sustainability targets, leveraging our SPM methodology. We will also champion collaborative innovation to accelerate the transition to a Circular Economy, an increasingly strategic priority for customers.

Customer-intimacy

We drive customer-intimacy right across the Group, investing in and training our frontline teams, ensuring researchers and marketing colleagues work together to develop solutions that create value for the customer. We are developing feedback programs between our frontline teams and our customers, to drive continuous improvement, changes in behaviors and differentiation for priority accounts. Our new integrated Excellence Center will also coordinate all our key competencies and support GBUs in getting the best from our assets. Our Sustainable Portfolio Management (SPM) analysis tool allows us to engage with customers on the sustainability profile of value chains, and to initiate discussions on the transition to a Circular Economy.

Talents

We will continue to ensure our talents make the difference to the quality of our projects. We empower them by supporting an entrepreneurial and collaborative mindset. As increasing the diversity of our teams is a priority, we are seeking out the profiles that will continue to drive innovation and building the skills that our growth businesses need. Composed of both change agents and specialists, the Excellence Center will also act as a talent incubator to spread the excellence culture across the Group.

Developing our Talents

May 2018 saw the launch in Europe of a pilot program on entrepreneurial leadership for Solvay’s “Leaders of the Future”. The pilot, developed in partnership with Ashoka, one of the world’s top 10 most influential NGOs, invited five Solvay Talents to work with five Ashoka Fellows Social Entrepreneurs. The Talents said the program helped them to be responsible, effective leaders and create an entrepreneurial mindset. Building on the first pilot, a second one was launched in North America in November 2018 for six Solvay Talents.

LinkedIn Talents Award 2018

Solvay has also been awarded the LinkedIn Talent Awards 2018 - Best Employer Brand in recognition of its communication strategy to attract talents worldwide.
ACCELERATING INNOVATION

The seeds of Solvay’s passion for innovation were sown by our founder, Ernest Solvay, and continue to flourish across the Group today. Our customers trust us for our scientific excellence and our extensive, yet balanced, portfolio of technologies. These are just two of the assets that enable us to create and innovate, bringing society sustainable solutions that address the issues of the future, with a focus on internal and external teamwork that facilitates breakthrough innovation.

Dynamic innovation portfolio management

A healthy innovation pipeline is a priority for Solvay and we use verifiable data to assess all projects on sustainability, probability of success, value and availability of internal resources. That means our innovations are aligned with market needs from Proof of Concept on.

We use our Sustainable Portfolio Management (SPM) tool to carry out a full analysis of all R&I projects at every one of their key stages. That ensures we select only those that offer proven sustainability.

We have decided to put in place a process to enhance our ability to deliver breakthrough innovation, focusing on exploring new territories in clean mobility and resource efficiency to create options for future growth, being jointly governed by R&I and businesses.”

<table>
<thead>
<tr>
<th>2,200</th>
<th>€352 M</th>
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<tbody>
<tr>
<td>Employees</td>
<td>R&amp;I effort</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>75%</th>
<th>19%</th>
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<tbody>
<tr>
<td>More than 75% expected revenue of the R&amp;I pipeline that should come from “Sustainable Solutions”</td>
<td>New sales ratio*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>264</th>
<th>1,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patent applications</td>
<td>Intellectual Property agreements with customers and academic bodies</td>
</tr>
</tbody>
</table>

NICOLAS CUDRE-MAUROUX
Group General Manager Research & Innovation
Teaming up for innovation

We champion collaboration. The increasing complexity of technologies means we can no longer innovate alone. Collaboration is key to innovation at Solvay, within our teams and beyond. We encourage our teams to work together across entities, sharing best practices to build synergies. We undertake open innovation projects in cooperation with external research institutes and academia, startups or customers.

Investment in or close collaboration with startups allows Solvay to widen its portfolio and accelerates its solution delivery. In some cases, external teams take novel technologies right through to late-stage development, allowing us to focus our expertise on swiftly finalizing development and bringing the solution to market. Our recent investment in Solid Power (USA), a leader in solid-state battery, and NOHMs Technologies (USA), a provider of solutions for safer batteries, are examples of this approach focused on electrical vehicles.

We get closer to our customers. Solvay’s researchers work closely with their marketing colleagues to sharpen their understanding of customer needs and so develop solutions that feature the expected functionalities.

We empower our teams and foster diversity. Successful innovation also depends on motivated and diverse teams. As well as pure chemists, Solvay’s research teams feature physicists and mathematicians, for example, because scientists with different profiles take different pathways to new ideas. And we empower our R&I teams to take an entrepreneurial approach, encouraging scientists to undertake short term missions that enhance their work and share their expertise across entities and geographies.

We leverage digital. Digital technologies are also key to developing better, faster industrial processes. Artificial intelligence, machine learning or molecular modelling enhance processes and so both improve productivity, safety, cost efficiency and return on capital, and reduce CO₂ and resource consumption. To support our efforts in molecular modelling, we have decided to set up new teams of developers hosted with our chemists in our R&I centers. We are using molecular modeling, for example, to speed up the design of new supramolecular polymers for advanced materials.

 allocated to evergreen funds and startups

More than $100M

Solvay and the Ecole polytechnique fédérale de Lausanne (EPFL) are partnering to use atomic-scale modeling to increase understanding of key chemical reactions and optimize the properties of the composites involved. For EPFL, pooling expertise in chemistry, quantum modeling and machine learning, makes it possible to study complex chemical reactions from a whole new angle, while for Solvay, modeling helps both identify the best potential composites and manage costs. “Innovation is about more than transferring technology from laboratory to industry and can be enhanced by bringing the challenges of industry into the equation,” says Marc Gruber, Vice President for Innovation at EPFL. Other projects are likely to follow.
Networking at the highest level

Solvay’s internal network of Fellows scientists is a vehicle for sharing technologies, best practices, recruitment, and contacts. “My primary role as a Fellow is to develop competencies and technology platforms to support the development of products that meet the future needs of our customers”, say Rob Maskell, Solvay’s R&I Fellows Network expert in molecular structure. After a year as a Fellow, he acknowledges he has a much better understanding of the underlying science and technology at a fundamental level available within Solvay as a whole. The Solvay Fellows are all world-renowned external scientific experts who challenge Solvay’s research directions and connect the Group with high-potential external partners.

Extending this networking policy at the highest level, Solvay’s Science Advisory Board is another team of world-renowned external scientific experts, including Pr. Ben Feringa (University of Groeningen, Netherlands), Nobel Prize in Chemistry 2016, Pr. Avelino Corma (University of Valencia, Spain), Pr. Zhenan Bao (Stanford University, USA) and Pr. Juan J. de Pablo (University of Chicago, USA). Their key mission is also to challenge Solvay’s long-range research directions and to help us detect new challenges or breakthrough opportunities in the chemistry of the future.
OUR PERFORMANCE AND OUTLOOK

Discover how we performed our strategic objectives and how rating agencies recognized Solvay
SCORECARD

In 2018, we delivered on all our objectives, financial, social and environmental. We have confirmed our 2025 extra-financial targets related to Sustainable solutions, Employee engagement, Safety and Employees involved in local actions. And we have updated our greenhouse gas emissions strategic objective with a commitment to reduce absolute emissions by 1 million tons by 2025.

Underlying and restated 2016, 2017 & 2018 information (except for CFROI and for environmental and social figures).

Underlying EBITDA \(^1\)

Our 2018 performance
- Underlying EBITDA grew organically +7.5% in the last three years, meeting our mid-term targets.
- Adverse forex conversion and scope effects reduced underlying EBITDA by -2.0% and -0.4% respectively, resulting into a +5.0% growth.
- Performance was mainly driven by volume growth across the three segments of the upgraded portfolio.

Key levers to achieve our objectives
- Volume growth was driven by innovation and increased demand in our key end-markets, including aerospace, automotive, electronics, batteries and healthcare as well as supportive production levels in mining and modest peroxides growth.
- Excellence initiatives aiming at offsetting fixed costs inflation supported pricing power.

\(^1\) at constant scope and forex

Free Cash Flow

Our 2018 performance
Solvay exceeded its mid-term free cash flow objective, achieving €2.7 billion cumulatively, despite several divestments relative to the scope on which the target was based, which generated €0.9 billion of proceeds. Free cash flow to Solvay shareholders was €1.7 billion, exceeding the dividend pay-out of €1.1 billion. The remainder allowed to further deleverage operationally net debt by €0.6 billion.

Key levers to achieve our objectives
- Stronger EBITDA underpinned by sustained organic growth
- Reduced capital expenditure
- Disciplined working capital management

\(^1\) at constant scope

Strategic objectives: Economic, Environmental, Social
Our 2018 performance

- In 2018, the impact of organic growth on our greenhouse gas emissions and intensity has been offset by emission reductions achieved under renewable energy initiatives (0.2 Mt CO₂) such as Solvay’s Jasper County Solar Farm and the in-house Solwatt® energy efficiency program.
- Over the last three years, we have achieved a 24% reduction in GHG intensity, exceeding our target of 20% by end of 2018.

Our challenge

- Climate change and energy transition are high on the business and political agenda. It is important that future growth doesn’t come at the expense of the planet.
- In 2018, we have set a new ambitious goal to reduce our absolute emissions by 1 million tons CO₂ by 2025 at constant scope.

Key levers to achieve our objectives

- Continuously improve energy efficiency.
- Improve the CO₂ footprint of our energy mix through initiatives such as conversion to biomass and renewable electricity sourcing (e.g.: investment in the new biomass boiler in Rheinberg, Germany).
- Reduce GHG emissions released from our chemical processing operations.
- Apply an internal carbon price (€25/metric ton of CO₂ eq.) to GHG emissions in all our investment decisions.
- Include GHG emissions metric in senior management compensation.

*achieved over 3 years

Greenhouse Gas Intensity

Our 2018 performance

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Cash Flow Return on Investment (CFROI)

Our 2018 performance

CFROI improved from 6.1% to 6.9% over the three-year period and exceeds the cost of capital, which firmly positions the Group in the value creation zone.

Key levers to achieve our objectives

- Focus on growth in higher margin and less capital-intensive activities
- Disciplined capital allocation

2018 achievement

"Killing two birds with one stone…"
Solvay is investing in a new biomass boiler at its soda ash plant in Rheinberg (Germany). This initiative will cut the plant’s CO₂ emissions by more than 30% (minus 190 kt/year) while improving its competitiveness. The new boiler, to come on stream in May 2021, will burn recycled wood waste. This project follows earlier energy transition initiatives launched at the soda ash sites in Bernburg (Germany) and Rosignano (Italy), thus helping the Group to meet its commitment of reducing its CO₂ emissions by 1 million tons in absolute terms by 2025.
Sustainable solutions (SPM)\(^1\)

Our 2018 performance

- At the end of 2018, 50% of our net sales were classified as “Sustainable Solutions”.
- Changes in our portfolio (divestment of less aligned businesses) explain most of the progress; innovation initiatives aimed at developing more sustainable solutions also contributed.

Our challenge

- Maintain 50% of Group sales in solutions through innovation, organic growth, investment, etc.
- Circular Economy principles bring new challenges. Solvay’s use of renewable raw materials and renewable energy needs to increase.

Key levers to achieve our objectives

- The Sustainable Portfolio Management (SPM) analysis is embedded in key business processes at Group and GBU level. It helps analyze the portfolio and allocate resources to upgrade its sustainability.

![Image of Ellen MacArthur Foundation]

2018 achievement

**Trained by the Ellen MacArthur Foundation**

More than 100 Solvay employees were trained on the principles of the circular economy in 2018, while 20 of our experts participated in the Ellen MacArthur Foundation master classes focused on redesigning business models and product life cycles. Launched in 2018 to raise awareness of the circular economy within Solvay, this educational program continues, aiming to foster concrete business projects. One example is how we can redesign our molecules through bio sourcing to help the circularity of the end product: we have developed Amni\(^\circledR\) Soul Eco, our biodegradable polyamide yarn, with a keen focus on the development of eco-friendly clothing.

\(^1\) To be considered a sustainable solution, a product must serve in an application that demonstrates a lower environmental impact during its production phase together with a better social and environmental contribution along the value chain.

**Strategic objectives:**
- Economic
- Environmental
- Social
Occupational accidents at Group sites

Our 2018 performance

- The number of medical treatment accidents decreased significantly from 50 in 2017 to 42 in 2018, thanks notably to the lessons drawn in the area of contractor management after the fatal accident in 2017 and the rollout of safety leadership training sessions.
- In 2018, the number of hand and finger injuries was down 20% on the two previous years, thanks to an awareness campaign and best practice sharing.
- Solvay has made progress on its journey toward “Creating Safety”, an innovative approach introduced in 2017 at top management level. 17 sites have carried out assessments to understand the status of their safety culture. Employees and contractors are being trained on risk awareness and safety leadership.

Our challenge

- Eliminate all fatal and life-altering accidents.

Key levers to achieve our objectives

- Focus maintained on engagement and safety culture as a way of reducing the number of people injured. This, through Safety Leadership or Safety Climate diagnostics in which we assess the onsite safety culture and discuss with employees.
- Develop a shared understanding of risks and mitigation measures for the Solvay Life Saving Rules.

2018 achievement

Solvay and Bridgestone share best practices on safety

Pushing relationships beyond business is also a way to better understand our customers’ needs. That’s what Solvay and its customer Bridgestone have done, sharing best practices on safety. “Bridgestone helped us progress. This positive experience helped enrich and strengthen our relationship”, says Bruno Jestin, Global Business Director at Solvay Silica. Openness and trust were the main keywords here. “I wanted to combine the visits with meetings between our safety managers, to create a local network and encourage exchanges on all levels. We found we have a lot in common with Solvay on these subjects – not just regarding safety, but for business in general” explains Fabrizio Paletta, Head of Health & Safety at Bridgestone EMEA.

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Employee engagement index

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>75%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>76%</td>
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</tr>
</tbody>
</table>

Our 2018 performance

- Employees express engagement and satisfaction at work through the annual “Solvay Employee Survey”. Record participation rate of 87% in 2018 (vs. 81% in 2017); survey recognized by leaders as a valuable management tool to engage their team. Satisfaction and pride remain high: top scoring items are sustainability, innovation and safety, showing that they are embedded in Solvay’s culture. Key areas for additional attention are digital transformation, agility and people recognition.
- To strengthen collaboration and empowerment, new ways of working have been implemented, leveraging digital tools such as the new YOU HR tool that allows employees to manage their profile, development and performance appraisal.
- Work-life balance and stress prevention is a key area of attention: the Group is implementing a Well-being@Work program across sites or entities.
- Diversity & Inclusion, still high on the Group’s agenda, focus on three areas of action: fostering awareness through workshops and local actions; developing an inclusive culture; challenging HR processes.

Our challenge

- Drive cultural change across the Group to increase customer focus and collaboration.
- Improve the Group’s methodology in recognizing employees’ performance.
- Increase inclusion and wider diversity in our teams.

Key levers to achieve our objectives

- Commitment by Businesses, Functions and Sites to take action in relevant areas.
- Stress prevention and management: more extensive support will be available on sites.
- Acceleration of Digital transformation.

2018 achievement

Fast-tracking talents in Asia-Pacific

With the aim of accelerating the development of Asian talents, the Asian Talent Council (ATC) was formed some four years ago as a collaborative platform, sponsored by Hua Du, member of the Executive Committee, and driven by the GBU operating within the Asia-Pacific region. The ATC has identified and assessed high potential employees nominated by GBU and Functions, creating a talent pipeline within the region. Recognizing that talents are a Group asset, the aim of this pipeline is to feed candidates into the Group’s global senior leadership development programs and at the same time to further develop strong local leadership to drive growth in Asia. Various initiatives have been developed, e.g. dedicated workshops, mentoring programs.
Employees involved in local societal actions

Our 2018 performance

- 87% of Solvay industrial sites have a working group that defines the relevant societal actions to be undertaken to respond to the major issues in the region.
- Solidarity and Youth employability are the main areas for these local initiatives with no significant differences across the regions.

Our challenge

- Measure the real impact of Solvay’s local societal approach without excessive reporting burden.
- Embark and focus Solvay’s employees on the four key topics: science, youth employability and education, environment and solidarity.

Key levers to achieve our objectives

- As part of the Solvay Way practices, all sites self-assess annually their progress with regards to their approach to societal actions.
- In 2019, we will launch a Solvay Award for outstanding societal actions to recognize, share and promote best practices.

2018 achievement

US employees mentor local children
27 Solvay employees in Princeton (USA) have become mentors for local school children through the Big Brothers Big Sisters non-profit organization. The “Bigs” (Solvay people) aim to help the “Littles” (the students) learn life skills, avoid risky behaviors, gain greater confidence through a positive, strong and enduring relationship with an adult mentor, and so recognize their own potential and build their future. 24 Littles visit the Solvay site twice a month during the school year, spending one hour on learning a life skill and a second hour on individual mentoring with their Big.

2025 objective

<table>
<thead>
<tr>
<th>Year</th>
<th>Employees involved in local societal actions as percentage of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>23</td>
</tr>
<tr>
<td>2017</td>
<td>33</td>
</tr>
<tr>
<td>2018</td>
<td>33</td>
</tr>
</tbody>
</table>

Strategic objectives: Economic, Environmental, Social
TURNING RATINGS INTO LEARNING

At Solvay, we care about performing strongly on both financial and extra-financial indexes. Positive ratings help us create a long-term trusting relationship with our stakeholders, and the feedback from the agencies has a real impact on the Group’s priorities, as it connects directly with our stakeholders’ key concerns.

Our main indexes

**BEL 20 Index**
Solvay is a long-time component of the Brussels-based BEL 20 Index.

**EcoVadis supplier sustainability ratings**
Solvay ranks Gold, with a score of 80/100 and is in the top 1% of companies rated by EcoVadis in the manufacture of basic chemicals, fertilizers and nitrogen compounds, plastics and synthetic rubber in industry.

**Carbon Disclosure Project**
Solvay was rated “D” in the CDP climate change questionnaire and “C” in the water security and forests questionnaires.

**Belgian Sustainability Index (ESI)**
Solvay has been a constituent of Ethibel Sustainability Index (ESI) Excellence in Europe since September, 2017.

**FTSE Russell**
FTSE Russell confirmed that Solvay has been independently assessed according to the FTSE-4Good criteria, and has satisfied the requirements to become a constituent of the FTSE4Good Index Series.

**ISS Oekom**
Solvay is rated as a “Prime Company” with a score of B by the German Ethical Ratings Agency, ranking among the leaders in chemicals.

**MSCI World Index**
In 2018, Solvay received a rating of AAA (on a scale of AAA-CCC) in the MSCI ESG Ratings assessment.

**RobecoSAM Dow Jones Sustainability Index (DJSI)**
Solvay is confirmed as a component of the DJSI World index. It performs particularly strongly in customer relationship management, innovation management, social and environmental reporting and operational eco-efficiency, while areas for improvement include Genetically Modified Organisms, product stewardship, water related risks and tax strategy.

**Vigeo Eiris**
Solvay is a constituent of the Euronext Vigeo 120 World Index. Its performance is considered to be strong and stable.

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1 FTSE International Limited and Frank Russell Company

2 An international organization, CDP analyzes how companies integrate climate change in their strategies.
Solvay wins the Michelin Supplier Award 2018

Solvay has won the Michelin Supplier Award 2018 for supplier excellence in quality, innovation and corporate social responsibility, illustrating the strong partnership between the two groups. Solvay, which manufactures and supplies highly dispersible silica for energy saving tires, was selected from 40,000 companies worldwide. The Group received the Award from Jean-Dominique Sénard, Michelin’s CEO. It recognizes suppliers that are exemplary in meeting Michelin's high standards and in their commitment to building a genuine partnership.
OUR OUTLOOK FOR 2019

In line with fourth quarter trends, Solvay anticipates supportive market conditions to continue in most key markets, though growth is likely to be moderated by conditions in automotive, electronics and oil & gas. In this context we remain focused on further developing our growth platforms.

Solvay thereby currently expects 2019 EBITDA to grow modestly and to be back-ended, with organic growth in the first quarter broadly flat, relative to the strong 2018 performance. Meanwhile, we will continue to focus on cost discipline and on deleveraging the balance sheet with continued solid operational free cash flow delivery.
We are supported by strong Governance and embedded sustainability, key to our success in this year of transition.
EFFECTIVE GOVERNANCE
IN PRACTICE

Together, our two governance bodies – the Board of Directors and the Executive Committee – are responsible for setting out the Group’s long-term strategy, upholding the vision of Solvay’s founder and implementing our transformation strategy.

The Board of Directors is entrusted with challenging and supporting the executives in the development of strategies. The Executive Committee, in turn, oversees the Group’s business operations. End 2018, the Board announced that Ilham Kadri would be taking over from Jean-Pierre Clamadieu as Chairman of the Executive Committee and Chief Executive Officer in March 2019.

Solvay’s Governance Bodies reflect the culture of collaboration that the Group aims to reinforce across its teams. The Chairman of the Board of Directors and the Chairman of the Executive Committee and CEO maintain regular and constructive dialog, sharing information and embodying this culture at the highest level.

A robust process to appoint the new CEO

2018 marked an important step in Solvay’s history with the appointment of a new CEO to lead the company from March 2019. This followed a rigorous six-month process, steered by the Nomination Committee (led by an independent Director) with the support of an ad hoc committee called the “search committee”, in compliance with our Charter of Corporate Governance and incorporating 4 key steps:

1. Definition of the required profile for the new CEO, in line with Solvay’s main current and future challenges and with the Group’s sustainable growth strategy;
2. Identification of suitable internal and external candidates, with the support of an external consultant;
3. Discussion and assessment of the selected profiles;
4. Assessment of the shortlisted profiles by the full Board.

As a result, Solvay’s Board of Directors appointed Ilham Kadri as CEO of the Group, Chairman of the Executive Committee and member of the Board of Directors. Ms Kadri began a two-month transition period with Jean-Pierre Clamadieu before taking on the leadership role and continuing Solvay’s transformation from March 1, 2019.

Solvay’s Board of Directors unanimously approved the selection of Ilham Kadri to head Solvay. Her experience, her knowledge of Solvay’s strategic markets, her leadership qualities and ability to build an inspiring vision will guide Solvay as it takes the next step in its transformation by focusing on the cultural journey and customer centricity. They will allow the Group to unleash its full growth potential.”

NICOLAS BOËL
Chairman of the Board of Directors
1. Board of Directors – steers Solvay’s strategy

Solvay’s Board of Directors promotes good governance practices that create transparent dialog with the Group’s stakeholders. It makes overall strategy and policy decisions and supervises their implementation. Its members collaborate as a team with a shared vision and purpose and are fully aligned behind the company’s strategy.

Solvay’s 16 Board members have diverse and complementary expertise and high-level experience, including knowledge of the chemical industry and competencies in general management (finance, investments and accounting, international business, management, corporate governance, etc.), research & innovation, sustainable development, and in areas relevant to Solvay’s strategy, its key markets, and the major challenges of its business environment. Board members do not only bring the Group their experience in operational business management, but also their skills in developing collaborative leadership and coordinating innovation and customer-centricity, as well as a broader perspective on society as a whole, an essential asset in a transformation period.

Four specialized committees (Nomination Committee, Audit Committee – both led by an independent Director –, Finance Committee and Compensation Committee) provide the Board with advisory opinions in their individual areas of competence. The full Board works on topics such as Innovation, Strategy and Sustainability, receiving training through dedicated sessions and workshops. One Board session a year focuses on trends in global sustainable development, including climate change and risks and opportunities.

In 2018, the Board was involved in major M&A and Capex projects, in the divestment of the Polyamides activities and in the appointment of new ExCom members and the new CEO. Its members visited the Tavaux plant and the R&I center in Lyon (France). The Board specifically endorsed the new objective for absolute reduction of greenhouse gas emissions. It also held a joint workshop with all members of the Executive Committee on Solvay’s strategy.

Sustaining a long-term vision

The Group’s reference shareholder, Solvac, has a holding of over 30%. 80% of its capital is owned by descendants of Solvay’s founding families: 2,400 people who have no individual influence on the Group’s strategic decisions, but who provide strong support for that strategy, having almost doubled their holding since the creation of Solvac in 1983.

This shareholding structure is a key asset for the Group. It ensures both clarity and permanence for its long-term strategic ambition and vision, with Sciences as a driver of progress, and stability for its Governance, especially at a time of management transition.

The structure and the composition of the Board of Directors is available in the Governance section of the Management Report.
2. The Executive Committee – oversees business operations

Solvay’s Executive Committee on April 5, 2019

As Solvay’s principal executive organ of governance, the Executive Committee plays an entrepreneurial role and fosters operational agility.

The Executive Committee is collectively responsible for Solvay’s overall performance, protecting the Group’s interests and ensuring that it is looking to the long term. It gives shape to the strategy, steers the Group’s business portfolio, and ensures that value creation targets are met. Each member is responsible for overseeing a number of Global Business Units (GBUs), Functions, or Zones.

Although Solvay’s GBUs have a high level of autonomy, the Executive Committee is responsible for optimizing the allocation of human, financial, and material resources to achieve the highest possible level of sustainable performance and value creation.

In 2018, the Executive Committee focused on key milestones in the Group’s transformation strategy, including the completion of the divestment of the Polyamides business and the implementation of the transformation program that aims to make Solvay faster, simpler, and more customer-focused.

Ilham Kadri joined the Executive Committee on January 1, 2019, prior to taking over as Chief Executive Officer on March 1, 2019.
EMBEDDING SUSTAINABILITY

Sustainability is a key asset for the Group, driving the success of Solvay’s strategy and performance, and a top priority for our leadership and all of our people. It is firmly embedded in our strategy and our decisions, every day. This puts us in a strong position to seize the new opportunities that arise as the move towards a more sustainable economy continues.

Driving sustainability

The Board is the leading sponsor of Solvay’s sustainability approach:
- CSR risks are an integral part of the company’s risk management process and reviewed by the Risk Committee
- The Audit Committee now reviews all data, both financial and extra-financial

The Executive Committee:
- Determines strategy, approves targets (including the new 2018 CO₂ objective)
- Monitors execution, including the results of the annual Solvay Way self-assessment
- Karim Hajjar, CFO, was appointed to supervise sustainability at the Executive Committee level in 2018, reinforcing the integration of sustainability into financial value creation
- The Climate Supervisor, Vincent De Cuyper, ensures that climate issues are factored into all key strategic decisions taken by the Group

- Reports to the CFO
- Consolidates the Solvay Way self-assessment
- Presents the results to the Board of Directors and the Executive Committee

Deployment to GBUs in 2018 with the identification of Heads of Sustainability in GBU leadership teams:
- A single point of contact for the leadership team and the GBU President on sustainability topics
- With power of decision and a 360° view of the GBU’s strategy and activities, they are responsible for integrating sustainability into the decision-making process

Solvay Way: Champions and correspondents ensure the deployment of the process in all Solvay sites, GBUs and Corporate Functions:
- Motivate their colleagues to meet specific targets
- Set action plans to improve their processes and practices

- Assess their own progress
- Identify areas for improvement for each stakeholder group
- Design improvement plans to enhance integration of sustainability in their entities
Solvay Way, sustainability embedded in every decision

The Solvay Way is the Group’s Corporate Social Responsibility program. It upholds our commitment to making sustainability a fundamental part of our business, ensuring that our stakeholders’ expectations are always integrated into our strategy, operations and decision-making.

Aligned with the ISO 26000 standard, Solvay Way is a tool for both measurement and progress, translating our sustainable development ambitions into concrete actions and clear responsibilities. It lists the practices that ensure we respect our commitments to our stakeholders, so that our managers can assess their progress and identify where they need to improve and how to do so.

“There is a clear conviction at Solvay that our growth cannot be achieved at the expense of the planet. As part of our transformation, this conviction has strengthened and sustainability has become an even more fundamental part of Solvay’s corporate culture and of the way our teams work, day by day. One example of how we achieved this is the digital version of the Solvay Way tool. Launched in 2018, it is now easier to access and encourages enhanced collaboration and exchange on sustainability right across the Group.”

— PASCAL CHALVON-DEMERSAY
Group Chief Sustainability Officer
COMPENSATION TO REWARD AND CREATE VALUE

Solvay is committed to a balanced compensation policy for all its people, from our CEO and Executive Committee members to our teams worldwide. Our policy encourages sustainable value creation and reflects the essential balance between long and short-term. Variable elements of compensation depend on implementing the Group’s strategy and meeting our targets, both financial and extra-financial.

Solvay’s compensation policy is closely linked to the Group’s overall performance. Packages incorporate both business and sustainability objectives, including demanding targets for senior managers on greenhouse gas emissions. This dual approach both encourages sustainable value creation and delivers on short-term business goals.

Because we believe that each one of our people contributes to driving Solvay’s performance on both fronts, compensation for all employees includes a variable component. For managers, this involves short-term incentives, while other employees are all part of our Global Performance Sharing Plan, based on financial and extra-financial targets. This annual program was deployed for the fourth consecutive year in 2018.

A robust approach to CEO compensation

Compensation is a powerful tool to communicate on the way we work and on our priorities, as well as on the alignment between the Group’s values and actions. Compensation must be fair and well positioned in our market ecosystem in order to attract and retain the top talents.

“Compensation is a powerful tool to communicate on the way we work and on our priorities, as well as on the alignment between the Group’s values and actions. Compensation must be fair and well positioned in our market ecosystem in order to attract and retain the top talents.”

AMPARO MORALEDA
Board Member
CEO remuneration

CEO total compensation at target for 2018

**SHORT TERM (THIS YEAR)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base salary</td>
<td>28.5%</td>
</tr>
<tr>
<td><strong>STI (Short-term incentives)</strong></td>
<td><strong>28.5%</strong></td>
</tr>
<tr>
<td><strong>LTI (Long-term incentives)</strong></td>
<td><strong>43%</strong></td>
</tr>
</tbody>
</table>

**Purpose:** The base salary reflects the individual’s experience, skills, duties, and responsibilities, and the contribution of the individual and role within the Group.

**Purpose:** Short-term incentives are linked partly to Group performance and partly to individual performance to drive and reward the overall annual performance of executives.

**Purpose:** A 50/50 mix of stock options (SOP) and performance share units (PSU) offering a performance-contingent vehicle to incentivize executives to help deliver Solvay’s long-term strategic objectives.

**Target STI: 100% of Base Salary**

- Group performance – Underlying EBITDA under cash constraint
- Individual objectives
- Sustainable development indicators

**Target LTI: 150% of Base Salary**

- Underlying EBITDA growth
- CFROI improvement
- Greenhouse Gas intensity reduction

1 new criteria applicable with effects from LTIs granted in 2018