essenscia
where chemistry meets life sciences

Summary

Sustainable development report 2017
of the Belgian chemicals, plastics and life sciences industry

People Planet Prosperity Products

SUSTAINABLE DEVELOPMENT GOALS

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« The innovative chemicals, plastics and life sciences industry delivers sustainable solutions for the worldwide societal challenges »

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Please visit our specialised website to discover the full online report which contains about 40 key indicators and is illustrated with many examples and best practices of our federation and its member companies.
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Leading the way in the shift towards a sustainable future and a circular economy

The innovative products of the chemicals, plastics and life sciences industry play an essential role in the ongoing transition towards a better and more sustainable future for our children and grandchildren, for our companies and for our planet. The chemical and pharmaceutical industry is, and will be, the solution provider to reach most of the ambitious **Sustainable Development Goals** the United Nations have put in place, and remains one of the driving forces behind the movement towards a **circular economy**.

With its fifth biennial Sustainability Report, essenscia wants to highlight the historical progress this industry in Belgium has made within the three traditional pillars of sustainable development: **People, Planet and Prosperity**. In the chapter **Products** numerous examples show that the talented employees in our member companies are constantly developing innovative products that are not only safe to use, but also offer sustainable solutions for the major global challenges our society is facing. Furthermore, every indicator and initiative is linked to one or more of the global goals for sustainable development.

This brochure offers you a concise **overview of the sector's performance and ambitions** in the most important areas of sustainable development. The last decade we have witnessed an increased focus on sustainable innovation within the Belgian chemicals, plastics and life sciences industry. This demonstrates the strong commitment of the sector to strive for maximum consumer safety and minimum environmental impact in order to improve everyone's quality of life.

The journey towards sustainability is still long and challenging, but with the world-class expertise of its workforce and the scientific power of its industry, **the Belgian chemistry and life sciences is undeniably leading the way** by taking decisive steps forward.

Yves Verschueren,
Managing Director essenscia

People

Our progress

Providing nearly
a **quarter of a million**
qualitative jobs

Sectoral share of industrial
employment is **significantly higher than the European average**

Promoting diversity
and gender equality.
Almost **half of all researchers are women**

Almost half of all employees have
a higher degree resulting
in a **highly skilled workforce**

Safety at work index is twice as high
as the industrial average

Investing in sustainable careers.
Nearly **two thirds of all employees follow a training program**

Our ambition

1. **Attract more young and qualified people** into the sector by promoting education in STEM subjects
2. **Reinforce collaboration between industry and education** via dual learning
3. **Invest in continuous learning programmes** to prepare companies and personnel for Industry 4.0 and the jobs of the future

CONTRIBUTING TO THE SUSTAINABLE DEVELOPMENT GOALS

Winning the global battle for talent

Society needs **scientific and technical talents** to invent tomorrow's solutions. Attracting young people to replace departing employees in an ageing workforce and to further enhance knowledge and expertise, are essential to ensure the successful future development of the Belgian chemicals and life sciences industry.

essenscia, in collaboration with its social partners, leads a whole range of initiatives to raise young people's awareness of the importance of choosing to study **Science, Technology, Engineering and Mathematics** (STEM) and of the numerous career opportunities the industry offers.

essenscia is striving to reduce the gap between the education system and the chemicals, plastics and life sciences industry. In close collaboration with several schools and member companies, the industry has been one of **the first to set up a system for dual learning** where students acquire an important part of their education in the workplace. essenscia hopes to extend these programmes in Flanders, Brussels and Wallonia at every level of education.

The **Industry 4.0 revolution** creates new opportunities and also new needs for other types of jobs. A study conducted in collaboration with the Antwerp Management School on the future of jobs in the sector will help companies transition to the industry of the future, by understanding better what competences are needed in the new digitalised environment.

Via **specific training courses**, the sector, in cooperation with Co-valent, aims to keep its employees' knowledge up-to-date and to encourage them to continuously improve their skills. It has set up dedicated training infrastructures in the sectoral training centres ACTA, Cefochim and PlastIQ. A feasibility study on the need for a training centre in biopharma in Flanders is ongoing.

Planet – Energy

Our progress

Continuous and impressive **energy efficiency improvements** since 1990

Strongly **decreasing greenhouse gas emissions** per production volume unit

Delivering high-tech chemicals and materials to **pave the way to a low-carbon economy**

Our ambition

1. Continue to **actively participate in the energy transition** by developing ground-breaking innovations
2. **Support companies to meet the commitments made in energy efficiency agreements** without jeopardizing their prospects for growth
3. **Advocate for a fair ETS to create a win-win** for a competitive European chemicals industry and the climate

CONTRIBUTING TO THE SUSTAINABLE DEVELOPMENT GOALS

Supporting the transition to a competitive low-carbon society

In the world of tomorrow, the use of fossil fuels will decrease and they will gradually be replaced by alternative clean energy. The chemicals, plastics and life sciences industry fully supports this transition and is helping to **pave the way to a low-carbon society** by developing ground-breaking innovations such as energy storage, ultralight materials in transport or high-tech chemicals for use in windmills and solar panels.

Over the last 25 years, the chemicals, plastics and life sciences industry has made **impressive energy efficiency improvements and CO_2 reductions**. The sector is doing all it can to contribute to this through the energy efficiency agreements it has reached with regional governments, committing itself to energy efficient manufacturing and reducing CO_2 emissions while meeting Emission Trading System (ETS) requirements.

As an energy-intensive industry competing in a globalized market, the chemicals industry uses energy products such as oil, natural gas and electricity both as a source of energy and as a raw material. Hence, **reliable supplies of competitively priced energy** are of crucial importance. Climate change policies impacting on market prices and adding extra layers of costs to the European energy bill are putting pressure on the competitiveness of the European chemicals industry on the international stage compared to other, non-EU, industrialized countries.

Finding the right balance between competitive and reliable forms of energy and reducing CO_2 emissions on a global scale is a key challenge for the future, in which the chemicals, plastics and life sciences industry is **playing a leading role as an innovative solution provider**.

Planet – Environment

Our progress

-50%

While production has doubled since 2001, **most common emissions have more than halved**

-20%

The **use of quality water has dropped** considerably the last decade

5%

The sector accounts for **only 5% of all industrial waste**

+30%

Resource efficiency has grown remarkably. So the sector is producing more with fewer raw materials

Our ambition

1. Continue to **reduce the industry's environmental impact** while ensuring a level playing field with neighbouring countries
2. Fully **engage in the transition to a circular economy** by further improving resource efficiency

CONTRIBUTING TO THE SUSTAINABLE DEVELOPMENT GOALS

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Boosting the circular economy through innovation

In the industry of the 21st century, reducing environmental impact throughout the life-cycle of a product is a key priority.

The sector invests massively in innovation to strive for minimal emissions from its production sites. As a result, **the environmental impact** of the combined chemicals, plastics and life sciences industry **has dropped to record lows**, achieving a genuine decoupling of industrial growth from emissions in many areas. This has been achieved by implementing the best available techniques, with experts from the sector contributing intensively to the development of these ambitious yet realistic standards.

By **leading by example** and by involving its suppliers, its contractors, and its downstream clients in this process, the sector is striving to secure previous environmental achievements and leverage good innovative practices.

essenscia works to **ensure a level playing field** that enables the industry to continue its operations and attract new investments in Belgium, and thus support and enhance the innovative solutions which the Belgian chemicals and pharmaceutical industries provide.

The sector is **a pioneer of the circular economy** and remains a key actor in this transition. By identifying and promoting synergies, not only within the industry but also across sectors, companies contribute to a more practical circular economy.

essenscia's partnerships with "Circular Flanders" in Flanders and "GreenWin" in Wallonia illustrate this commitment, and the sector aims to **further improve resource efficiency** by increasing the uptake of recycled material, by further investing in industrial symbiosis, by investigating the opportunities for renewable resources, and by working together across supply chains.

Prosperity

Our progress

The **value added** of the chemicals, plastics and life sciences industry is growing strongly and represents almost **one third of Belgium's manufacturing industry**

The sector is the unrivalled **number one** in Belgium for **export, industrial investments and R&D**

A strong focus on innovation leads to nearly **1 patent per day**. R&D expenditures have increased by 65% the last decade

Our ambition

1. Continue innovating to create a sustainable future for our planet and for the Belgian chemicals, plastics and life sciences industry
2. Remain fully committed to develop a strong industrial policy in partnership with the authorities
3. Keep attracting forward-looking and high tech industrial investments to strengthen the position of the industry as an important pillar of the Belgian economy

CONTRIBUTING TO THE SUSTAINABLE DEVELOPMENT GOALS

Making a world-class contribution to Belgium's economy

Belgium hosts **a world-class chemicals and life sciences cluster** that covers the whole value chain from research and development to the manufacturing and export of a wide variety of products that improve our quality of life. The chemicals and life sciences industry is without doubt a leading industrial sector in Belgium, providing high-skilled jobs as well as contributing to a positive trade balance.

Belgium also hosts an internationally recognised biopharma valley and is **one of the leading countries in clinical trials**. The importance of the Belgian chemicals and life sciences industry in Europe is growing year on year. To maintain this and preserve its competitiveness, a favourable and competitive framework that supports innovation is required to enable a sustainable future for the industry, and for the planet.

essenscia has launched several initiatives to **support sustainable innovation** in chemicals and life sciences. In cooperation with the Federal Public Service (FPS) Economy, an **essenscia 'Patent Cell'** has been set up to boost the protection of intellectual assets. essenscia also organises a biennial Innovation Award to highlight companies' most pioneering ideas and encourage Belgian companies to continue innovating.

The sector has driven the creation of Catalisti, the first competitiveness cluster in Flanders for chemicals and plastics, and Wallonia also hosts two competitivity clusters: GreenWin, for sustainable chemistry, and BioWin, for pharma. These clusters aim at **catalysing innovation through cooperation**, thereby developing sustainable solutions for the broad chemicals ecosystem. The sector is also investing in an incubator for sustainable chemistry where start-up companies, SMEs, R&D departments of large companies and knowledge institutions can come together to build the path to a sustainable future.

Products

Our progress

Saving energy and climate by providing the main building blocks for sustainable construction and smart mobility

Saving water and guaranteeing better water quality thanks to plastic piping and wastewater treatment

Saving natural resources by reinventing production processes, encouraging biotechnology and enabling a circular economy

Securing food supply by supporting sustainable agriculture and offering high quality packaging for enhanced food conservation

Saving lives by producing innovative healthcare solutions and personal care products

Our ambition

1. Create the right ecosystem to enable companies to develop innovative solutions to tackle the global societal challenges
2. Develop new products that help reach the sustainable development goals and hereby guarantee a better quality of life for everyone

CONTRIBUTING TO THE SUSTAINABLE DEVELOPMENT GOALS

Pioneering products for a sustainable future

The world is facing numerous challenges due to a growing population and rising living standards. This puts pressure on the environment, the availability of natural resources, the viability of cities, and the health and well-being of citizens.

Creative and **innovative solutions are required to tackle these global challenges**.
The Belgian chemicals, plastics and life sciences sector has a long-standing reputation as a pioneering industry, be it in petrochemicals, plastics, biotechnology or pharmaceuticals. The sector also sees these challenges as unique opportunities to deliver new products, new technologies and new business models and, in doing so, to remain a frontrunner and strong supporter of the Belgian economy.

essenscia's ambition is to create the right ecosystem to enable companies to play this leading role successfully. Saving the climate, saving natural resources, securing the food supply and saving lives is the foundation of the chemicals, plastics and life sciences industry, which is a **key enabler of the transition towards a sustainable future**.

Product safety

Our progress

A majority of Belgians are convinced that the **safety of chemicals has improved** over the last ten years

Belgium is a **frontrunner in the REACH regulation** for a safe and responsible use of chemicals. Ranking 6th in Europe with 3520 registrations

essenscia is a certified training provider for product policy with **4700 training hours** provided in the past 2 years

Our ambition

1. Remain committed to placing safe products on the market through risk-based regulation and hazard communication
2. Increase transparency in the supply chain on substances of concern
3. Improve the dissemination of science-based information to the public

CONTRIBUTING TO THE SUSTAINABLE DEVELOPMENT GOALS

Encouraging a risk- and science-based approach for products safety

In a modern open society, chemicals require a thorough risk assessment before reaching the market. This goes hand in hand with improved safety communications throughout the supply chain.

essenscia is actively cooperating with regulators and other industry players in developing and implementing **a risk-based regulatory framework for product safety**. It is working hand-in-hand with authorities such as the European Chemicals Agency (ECHA) to put the ambitious legislation on hazard assessment & communication (CLP) and risk assessment & management (REACH) into practice. The sharing of experience and best practice between all industry players, and especially SMEs, through the VLARIP and WALRIP training programmes, is a perfect example of this commitment.

Health and safety information is not only shared with direct customers through the CLP label on products and safety data sheets. essenscia's product groups Detic and Phytofar are engaged in **various programmes to better inform consumers** as well. The dissemination of REACH registration hazard data and risk analysis on the ECHA website further increases transparency, not only within the supply chain but also to the general public. essenscia also has a strong partnership with the Belgian Antipoison Centre, a crucial organisation supporting citizens in the event of a chemicals-related emergency.

The transition to a circular economy will require even more transparency, especially in relation to substances of concern in articles. essenscia is already actively involved in finding practical solutions to the challenge of providing the information required without jeopardising confidential business information or creating additional administrative burdens.
To improve the **dissemination of science-based information to the public**, essenscia supports the translations of GreenFacts summaries of existing scientific reports on chemicals related to health, environment and sustainable development arenas.

A strong commitment to the Sustainable Development Goals

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essenscia and the companies of the chemicals, plastics and life sciences industry in Belgium are strongly committed to play their part in reaching the Sustainable Development Goals developed by the United Nations. Together with governments, social partners, NGOs and civil society we are determined to make a large contribution to a better and more sustainable future.

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