



coesia

2018

Sustainability Report



Bologna, September 2019

*Coesia's Sustainability Report for 2018 sets out the strategic policies of the Group, which, in line with its mission, are closely associated with a commitment to creating sustainable and long-term economic, social and environmental value for all stakeholders. The data presented in this document therefore describe this commitment in every region where the Group's 21 companies are operating.*

*Diversity is the starting point for laying the foundations of a new culture. With over 7,500 associates of 67 nationalities in 32 countries in 2018, Coesia is a full-blown productive and social ecosystem. Each person is an integral part of the organization, its business and its success.*

*The initiatives focusing on associates are designed to grow skills, enhance the quality of life and improve safety. In pursuing this, account is taken of specific needs, with the aim of consolidating a common culture based on shared values. Training programmes have been activated at every professional level, because the associates are the driving force of innovation. Safety is a crucial theme for the Group: the programmes devoted to Health, Safety and the Environment do not just concern associates, but also outside contractors, clients and stakeholders.*

*Coesia works continually to prevent and reduce the environmental impact of the Group by improving processes and introducing new technologies. Environmental sustainability creates social and economic value, and is one of the areas where we are investing in every office and factory.*

*In a constantly evolving socioeconomic context, Coesia reiterates its wish to pursue a sustainable long-term growth model, focusing on people and on the promotion of a sense of shared responsibility for social and environmental issues.*

**Isabella Seràgnoli**  
President

**Angelos Papadimitriou**  
Chief Executive Officer



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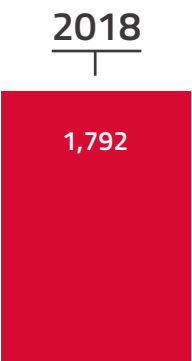
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# Coesia at a glance



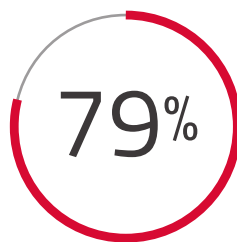
## COESIA WORLDWIDE

### REVENUE

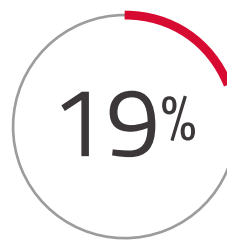


■ million euros

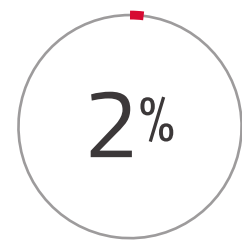
### REVENUE BREAKDOWN BY BUSINESS LINE



Advanced Automated  
Machinery and Packaging  
Materials

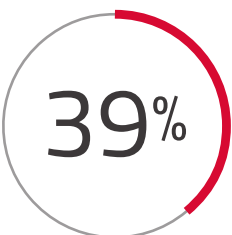


Industrial Process  
Solutions



Precision Gears

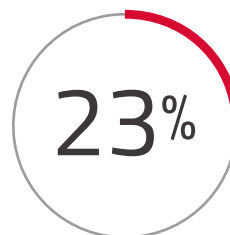
### REVENUE BREAKDOWN BY GEOGRAPHY



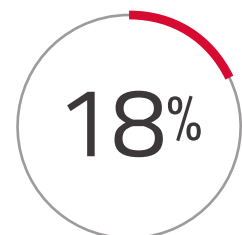
Europe



North America



Asia



Other Countries



## COSTS OF ENGINEERING INCLUDING R&D

2018

140

million euros

## OUR GLOBAL PRESENCE

7,555

PEOPLE

32

COUNTRIES

21

COMPANIES

108

OPERATING UNITS

66

PRODUCTION FACILITIES



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## METHODOLOGY

The aim of the Coesia Sustainability Report is to communicate the Group's Values, strategy and performance related to sustainable development and to give a comprehensive overview of the Company's operations, reporting financial results together with the outcome of Coesia's commitment to environmental and social issues.

The present document provides qualitative and quantitative information about the activities carried out by the Group in recent years on environmental and social aspects, focusing on last year's performance. The data reported have been collected, managed and processed internally.

Unless stated otherwise, all data, information and figures have global coverage: they concern Coesia S.p.A., its 21 Companies and its legal entities as of December 31, 2018\*.

\* During 2018, ATLANTIC ZEISER, TRITRON and COMAS were acquired.

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## MATERIALITY ANALYSIS

The materiality analysis aimed at determining the topics considered most relevant for the Group with reference to their financial, environmental and social impact generated by its businesses, both in the organization and outside, which could substantially influence stakeholders' opinions and decisions.

Material issues have been grouped into three main areas:

- **Who we are:** the Group overview, the Values we believe in and the concept of ethics, which are shared at all organizational levels;
- **Our people:** a key asset for Coesia and the real driving force of the Group;
- **Our future:** the focus on innovation, the relationships with suppliers and the community, the attention to environmental impact.

These issues have been analyzed and assigned a priority in terms of their impact on Coesia, in order to generate the following materiality representation and define the content of the 2018 Sustainability Report. The market and the stakeholders' needs change dynamically: for this reason, material topics have been updated to better represent the current Coesia reality and its ability to evolve over time.

Coesia confirms its commitment to continuously involve its stakeholders in order to develop a mutually beneficial dialogue and a long-lasting and responsible partnership.

**WHO WE ARE**

**OUR PEOPLE**



**OUR FUTURE**

# 1

## WHO WE ARE

*Our responsible approach to business is based on the Coesia Values: respect, responsibility, knowledge and passion result in combining financial achievements and care for social and environmental issues.*



Coesia is a Group of innovation-based industrial and packaging solution Companies



headquartered in  
**BOLOGNA**



fully owned by  
**ISABELLA  
SERÀGNOLI**

Coesia customers are leading players  
in a **BROAD RANGE OF  
INDUSTRIES** including



Coesia identified  
**6 CULTURAL TRAITS**  
to spread, develop and improve.

ACCOUNTABLE

LONG-TERM FOCUSED

EXTERNALLY FOCUSED

COLLABORATIVE

INNOVATIVE

OPEN AND TRANSPARENT



**21**  
COMPANIES

operating in



**19**  
DIFFERENT INDUSTRIES

providing



**19**  
TYPES OF  
TECHNOLOGIES

with more than



**500**  
SOLUTIONS AND  
FULL-SERVICE PACKAGES

## INTERNATIONAL CODE OF ETHICS ANTI-CORRUPTION GUIDELINES

Coesia is committed to fostering  
relations with partners who  
believe in the same high  
standards of business ethics.



## MISSION

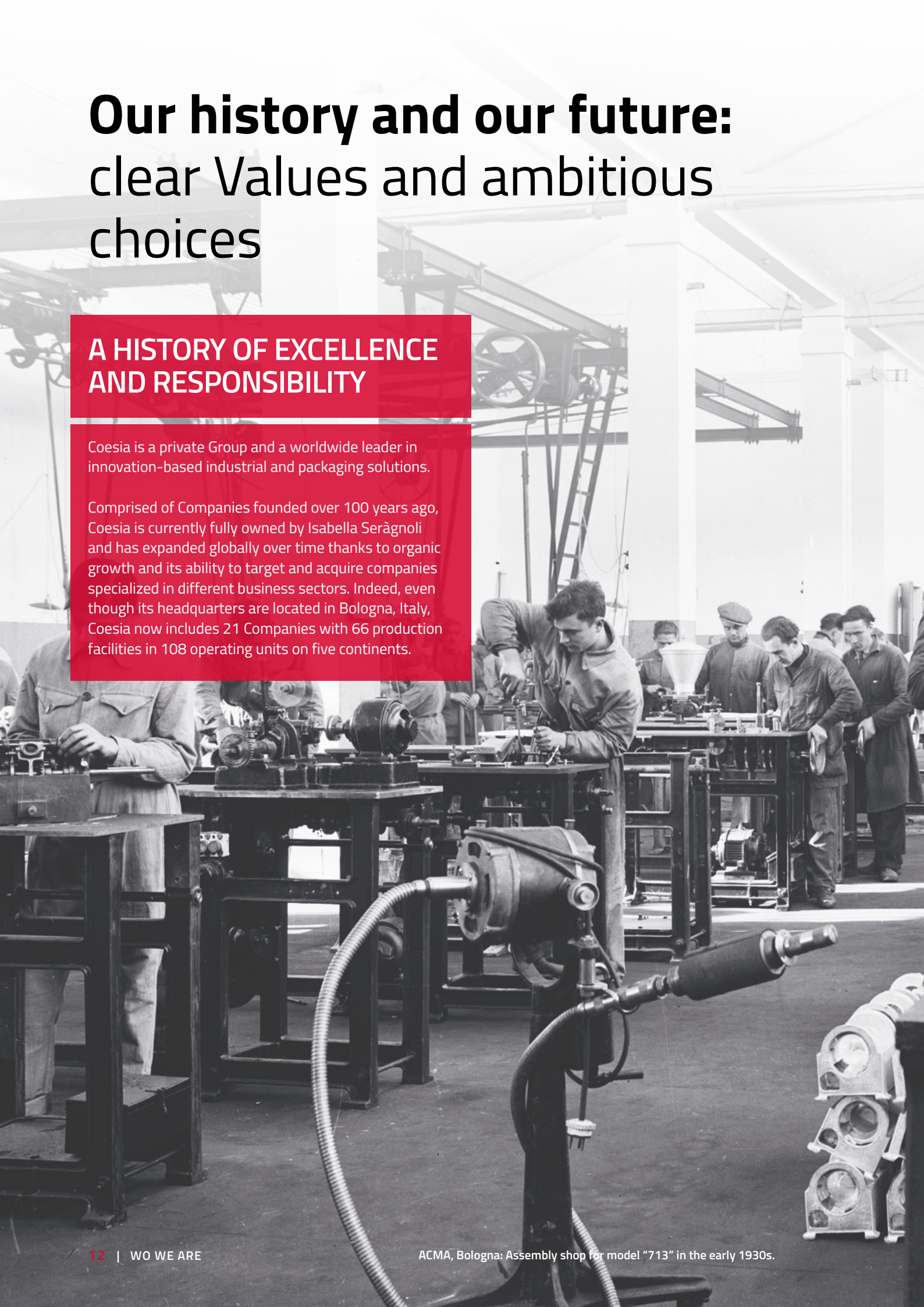
*Creation of long-term sustainable  
economic, social and environmental  
value for our clients, employees,  
shareholder and the communities  
we operate in.*

# Our history and our future: clear Values and ambitious choices

## A HISTORY OF EXCELLENCE AND RESPONSIBILITY

Coesia is a private Group and a worldwide leader in innovation-based industrial and packaging solutions.

Comprised of Companies founded over 100 years ago, Coesia is currently fully owned by Isabella Seràgnoli and has expanded globally over time thanks to organic growth and its ability to target and acquire companies specialized in different business sectors. Indeed, even though its headquarters are located in Bologna, Italy, Coesia now includes 21 Companies with 66 production facilities in 108 operating units on five continents.



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## OUR HISTORY BEGAN AT THE DAWN OF THE 20<sup>th</sup> CENTURY

### 1923 – 1940

G.D, a motorcycle production company founded in 1923, was taken over by Enzo Seràgnoli in the late 1930s.

### 1940 – 1950

The Company shifted its focus to packaging, mainly for the confectionery and soap sectors. The first automatic wrapping machine was launched with the contribution of Ariosto Seràgnoli.

### 1950 – 1960

The G.D brand achieved global success and the Company became a worldwide leader in the highly automated industrial machinery sector.

### 1960 – 1980

G.D entered the tobacco sector with the production of its revolutionary wrapping machine, the 4350/Pack and the Company became the unrivaled leader in the sector.

### 1980 – 2000

Starting in the early 1980s, the Company began to diversify its business by acquiring CIMA, ACMA, GDM and VOLPAK.

### 2000 – 2010

In 2002, Isabella Seràgnoli became the sole owner of the Group, which was renamed Coesia in 2005. In addition, the Group grew thanks to the acquisition of HAPA, LAETUS, ADMV, CITUS, KALIX, NORDEN and SACMO.

### 2010 – 2015

The Coesia expansion accelerated thanks to the acquisition of FLEXLINK, SASIB, R.A JONES and IPI. In 2012, the Coesia Engineering Center (CEC), staffed by a highly skilled team, was created to carry out strategic innovation projects. Another important step for Coesia was the publication of its first Sustainability Report in 2015.

### 2016

Two other Companies, EMMECI and GF, joined the Group.

### 2017

Coesia carried out the acquisition of three new Companies: MOLINS, CERULEAN and MGS.

### 2018

Coesia continues expanding and diversifying with the acquisition of ATLANTIC ZEISER, TRITRON and COMAS. In this same year an agreement was signed to acquire a majority stake of the ceramic business of System, the deal will be closed in January 2019.



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# THE COESIA WAY

The culture we would like to spread in order to achieve our ambitions and build a positive work environment.

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## OUR VALUES

### RESPECT

Respect for people, rules, local communities, environmental and economic resources.

*Respect implies rigor and integrity*

### RESPONSIBILITY

Responsibility for the consequences of one's decisions and actions, responsibility to lead by example, practice fair leadership, reward merit, nurture talent, achieve results and to be committed.

*Even collective responsibility starts with individual accountability*

### KNOWLEDGE

Knowledge as professional and personal growth. Knowledge comes from culture, education, training, research, experience and relationships.

*Sapere Aude: dare to know*

### PASSION

Passion for the product, innovation, excellence, beauty, work and performance.

*Passion allows us to envision results even before achieving them*

## CULTURAL TRAITS

The first Coesia survey on culture was carried out in 2016. It enabled Coesia to identify the six cultural traits that we should spread, develop and improve to contribute to the 2020 strategy and achieve our ambitions.

### ACCOUNTABLE

Foster accountability by granting trust through delegation.

### LONG-TERM FOCUSED

Act to ensure business sustainability over time.

### EXTERNALLY FOCUSED

Look outside to customers and external communities to adopt their points of view.

### COLLABORATIVE

Realize deep integration through diversity.

### INNOVATIVE

Focus on innovation to guarantee the continuous evolution of products, services and business models.

### OPEN AND TRANSPARENT

Share knowledge and ideas to grow as a strong and cohesive Group.

*We invest in laying the foundations for a common culture starting from our diversity.*

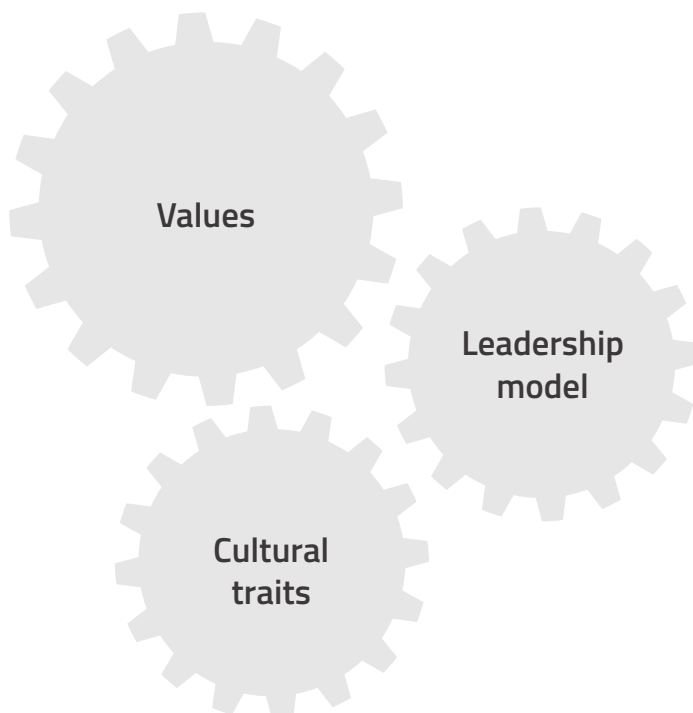
## LEADERSHIP MODEL

The Coesia leadership model seeks to support the Group's strategy in line with our Values. It is like a compass pointing to a common language that identifies the key behaviors that will lead to the success of the individual and the organization.

As such, it:

- Helps increase communication and understanding of the expected results;
- Raises awareness of what is required in the different stages of individual and professional growth;
- Focuses on individual strengths and areas for improvement.

- INNOVATE
- BE CUSTOMER-CENTRIC
- MAKE DECISIONS
- DELIVER RESULTS
- INSPIRE OTHERS
- COLLABORATE
- MANAGE COMPLEXITY



## THE COESIA CULTURE PROGRAM

At the program launch in 2016, around 600 participants took part in different workshops worldwide. We have committed to a five-year plan involving Coesia employees from all over the world in four to five workshops every year. The goal is to ensure the broadest diversity in terms of seniority, function, role, age, gender and professional background.

# Coesia: a sophisticated organization to support our businesses globally

## GOVERNANCE

Coesia's corporate Governance assigns management to the Board of Directors, the Board of Statutory Auditors and an external audit firm.

The Board of Directors, appointed on May 3, 2017, promotes corporate interests, defines strategic orientation and fosters the Group's sustainable growth.

ISABELLA SERÀGNOLI  
PRESIDENT

ANGELOS PAPADIMITRIOU  
CEO



The Board of Directors of Coesia  
consists of the following members:

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ROGER ABRAVANEL

---

LUCA CORDERO  
DI MONTEZEMOLO

---

FABIO GALLIA

---

DAVID GOSSET

---

LEONARDO GUERRA  
SERÀGNOLI

---

LORENZA GUERRA  
SERÀGNOLI

---

MAURIZIO PETTA

---

ROBERTO POLI

---

FRANCESCO TATÒ

The consolidated financial  
statements are annually submitted  
to a third-party audit company for  
an independent assurance process.

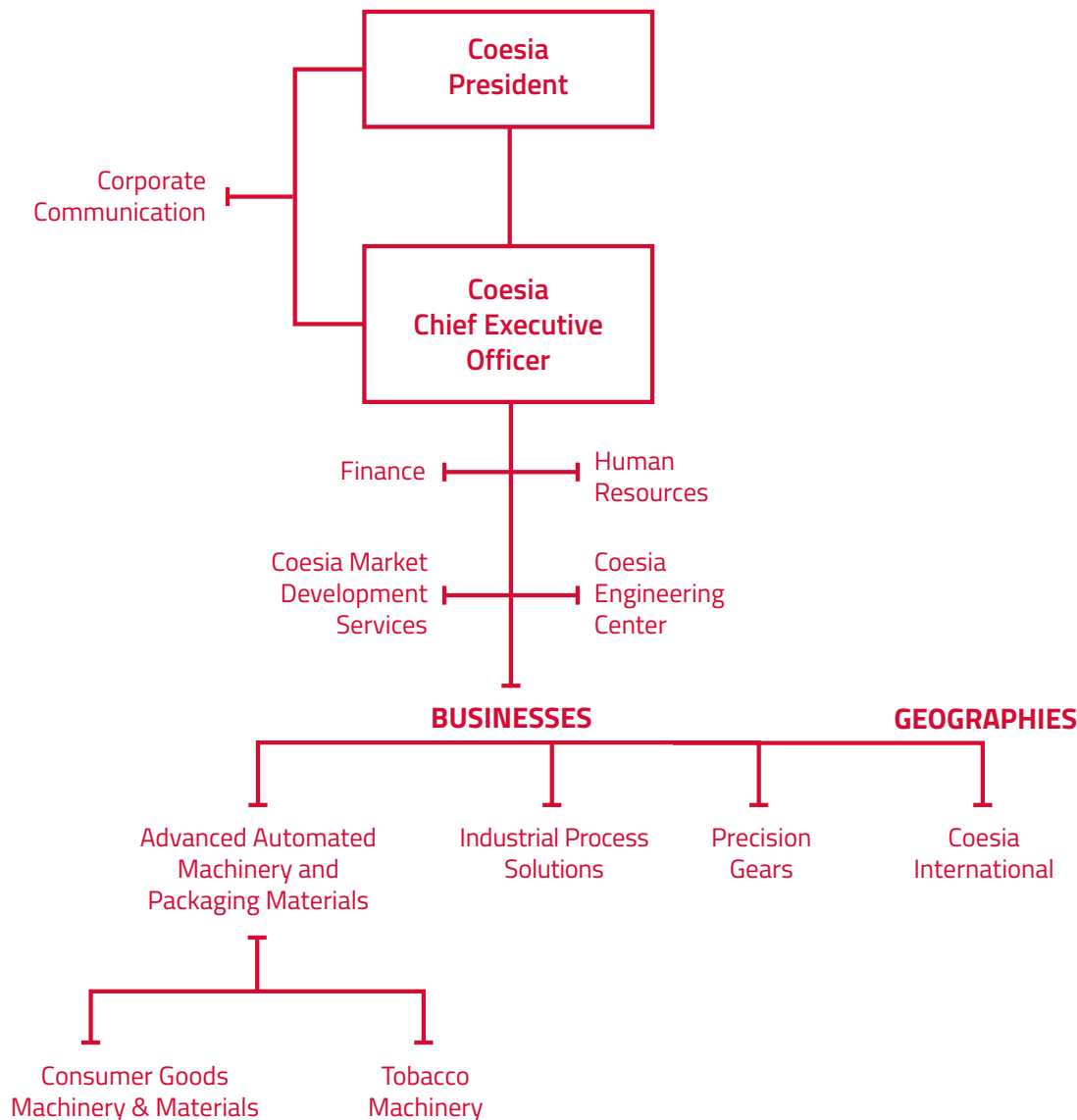
# OUR ORGANIZATION

All the activities carried out at Coesia are managed by the President and the CEO. The Corporate Communication Function reports directly to them, while all other business-related activities are organized in a matrix structure.

On the one hand, the **Group Functions** include: Finance, Human Resources, the Coesia Engineering Center or CEC (our Group's Research and Development center), Coesia Market Development Services, comprising Coesia Marketing and Product Management, Customer Service, Global Key Account Management (GKAM), and Coesia Digital.

On the other hand, there are **three main business lines** in which the 21 Companies operate:

- **Advanced Automated Machinery and Packaging Materials** includes 14 Companies that operate in the tobacco and fast-moving consumer goods industries;
- **Industrial Process Solutions** includes 6 Companies that provide automated solutions to enhance the efficiency of production systems;
- **Precision Gears** provides an integrated manufacturing process that meets the high standards required by the racing, automotive and aerospace industries.



## *Relationships between the Group Functions, Companies and Regions are particularly intense in order to develop synergies and unlock the full potential of the organization's assets.*

Coesia is also organized geographically by **Regions**.

The aim of this structure is to extend and optimize our global footprint by tapping into growth opportunities in emerging markets and improving the Group's ability to localize its products to meet local market demands.

Most of the 21 Coesia Companies are located in Europe.

**In Bologna and surroundings:** ACMA, CIMA, G.D and SASIB

**In Italy:** COMAS, EMMECI, GDM, GF and IPI

**In France:** CITUS KALIX and SACMO

**In Germany:** ATLANTIC ZEISER and TRITRON

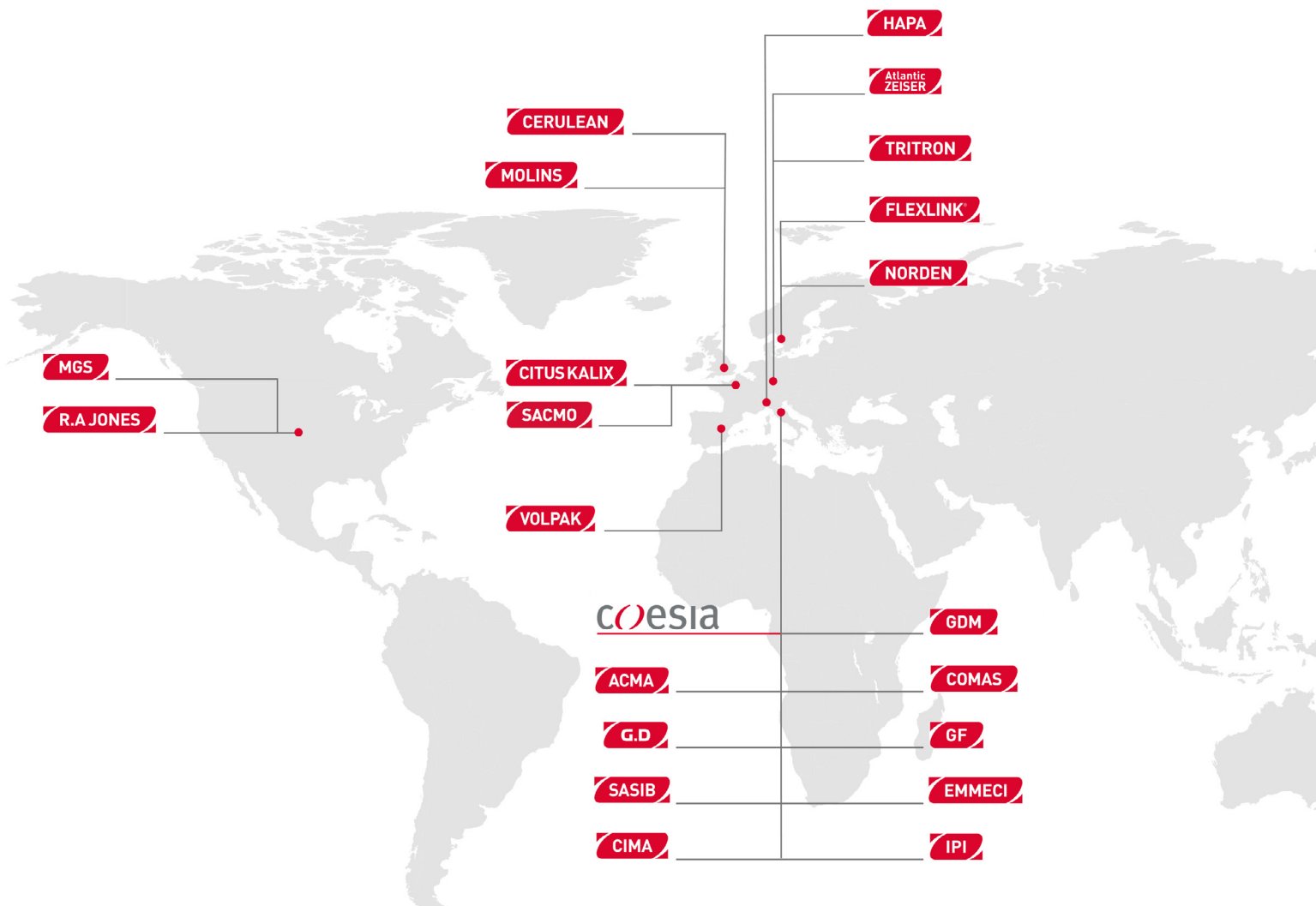
**In Spain:** VOLPAK

**In Sweden:** FLEXLINK and NORDEN

**In Switzerland:** HAPA

**In UK:** CERULEAN and MOLINS

**In USA:** MGS and R.A JONES



## GROUP PROFILE

Coesia offers a wide range of technologies developed by its Companies to meet the demands of customers operating in different industries.

The Coesia Companies are structured according to the following three main business lines.

### TECHNOLOGIES

ASSEMBLY & COMBINING	PACKING & WRAPPING
AUTOMATED PRODUCTION FLOW	POUCHING & BAGGING
CARD PERSONALIZATION & FULFILLMENT	POWDER TREATMENT
CARTONING & EOL	PRIMARY PROCESSING FOR CONVENTIONAL TOBACCO PRODUCTS
EXHAUST AIR TREATING	PRIMARY PROCESSING FOR NGP
FILLING	PRINTING & LABELING
GEARS & SPECIAL PARTS	PRODUCT ANALYSIS
GREEN LEAF THRESHING	ROBOTICS
MAKING & FORMING	SOFTWARE & CONTROLS
MONITORING & INSPECTION	

### INDUSTRIES

AEROSPACE	NEXT GENERATION PRODUCTS
AUTOMOTIVE	PERSONAL CARE
BEVERAGE	PET CARE
CARDS	PHARMA & HEALTHCARE
CHEMICALS	RACING
DAIRY	TEA & COFFEE
ELECTRONICS	TISSUE & HYGIENE
FOOD	TOBACCO
HOME CARE	
INDUSTRIAL GOODS	
LUXURY GOODS	

## ADVANCED AUTOMATED MACHINERY AND PACKAGING MATERIALS

### TOBACCO MACHINERY

Our cooperation with companies operating in the tobacco industry has progressively intensified over the years thanks to Coesia's ability to promptly respond to customer needs by designing and assembling machines for what are known as 'new generation products' or 'reduced-risk products'. Moreover, with the acquisition of COMAS, Coesia is the only supplier for the tobacco industry that provides complete solutions, from primary to secondary.

### CONSUMER GOODS MACHINERY AND MATERIALS

Several Coesia Companies operate in the fast-moving consumer goods sector, the market in which Coesia faces the fiercest competition. These Companies offer a wide range of products, enabling them to provide solutions for different industries and be key partners for large international corporations.

## INDUSTRIAL PROCESS SOLUTIONS

As a cross-sector business line, Industrial Process Solutions (IPS) is crucial for Coesia. It provides customers with solutions for the integration of process lines, automated flow systems, hardware and software monitoring systems as well as printing and labeling systems. Moreover, Coesia has established a dedicated and innovative platform named Digital Printing Solutions to consolidate its presence in digital printing and special inks within the fast-growing market for product customization.

## PRECISION GEARS

Coesia also serves the niche market of Precision Gears. By serving customers operating in different industries, including racing, automotive and aerospace, the Group has steadily improved its performance over the last few years, consolidating its strong reputation for quality excellence.

**ACMA**

Manufactures high and medium speed packaging machinery for confectionery, soap, tea, coffee and liquid products.

**CERULEAN**

For over 70 years, CERULEAN has been synonymous with the manufacture and supply of quality, process control and measuring instrumentation for the Tobacco industry and packing and testing equipment for tube manufacturers.

**CITUS KALIX**

Manufactures lipstick fillers, hot filling machinery for creams and foundations, deodorant and tube fillers, cartoning machinery and feeding equipment.

**COMAS**

World leading supplier of tobacco primary equipment and processing solutions. Thanks to its flexible approach, it is able to provide its customers with a wide range of solutions, also for tobacco Reduced Risk Products.

**G.D**

Leading supplier of high-technology machinery for cigarette making and packing, and new generation products.

**GDM**

Worldwide leader in the Hygiene Disposables industry, committed to providing innovative converting and packing solutions for the manufacturing of baby diapers and pants, adult incontinence briefs and lady sanitary napkins.

**GF**

Leading provider of automated machinery for liquid filling and quality control systems for the pharmaceutical sector.

**IPI**

Provides complete solutions for the aseptic packaging of liquid products in multilayer structure.

**MGS**

Designs and builds state of the art packaging automation solutions with core competencies in secondary packaging and product handling. Industries of focus are pharmaceutical, life sciences, food and cosmetics.

**MOLINS**

A leading company in the tobacco industry, it specializes in the design, development and manufacture of secondary tobacco processing machinery.

**NORDEN**

Leading supplier of high-performance tube filling systems, covering all speeds and applications in cosmetics, pharmaceuticals and personal care.

**R.A JONES**

Produces packaging machinery for food consumer goods: pouch filling and cartoning, chub packaging, cup filling and sealing, aerosol machinery, bottle filling and patented solutions for improving shelf life.

**SASIB**

Manufactures production and packing lines for the tobacco industry.

**VOLPAK**

Produces packaging lines for horizontal form-fill-seal (HFFS) pouches for food, beverage, personal and home care products.

**Atlantic ZEISER**

Provides digital near-line/in-line printing solutions for consumer goods packaging and card personalization systems.

**EMMECI**

Leading provider in the design, production and promotion of automatic machinery and packaging solutions for premium and luxury products.

**FLEXLINK**

A leading factory automation expert and provider of innovative, automated solutions to produce goods smarter and safer at a lower operating cost. It produces conveyor systems, material handling functions and industrial feeders and delivers turn-key solutions including controls and standardized robotics.

**HAPA**

Manufactures market-leading on-demand and late-stage customization printing systems for the pharmaceutical industry, with dynamic growth in fast moving consumer goods, food, cosmetics and medical industries.

**SACMO**

Designs complete lines in the packaging machinery industry, refurbishes and retrofits existing customer machinery.

**TRITRON**

Develops and produces high quality inks for industrial digital printing.

**CIMA**

Has been producing power trains and high-performance gear transmissions for over 50 years, and is a supplier to many racing teams.



# A HUGE VARIETY OF “PACKAGES”

We aim to become a global leader in providing advanced industrial and packaging solutions to leading manufacturers. We want to develop a closer relationship with our stakeholders by providing them with user-friendly tools based on digital technologies, starting with the ones we use ourselves.

In fact, the Coesia website was developed according to this principle and offers each user the possibility to browse all the solutions and services offered by our 21 Companies in an integrated way simply by filtering them by technology or industry.

More than 500 solutions are available online to satisfy any customer request. This powerful suite of solutions enables the production of a huge variety of packages, all different in size, shape, material and intended use.

This architecture relies on an internal digital tool, Compass, developed and maintained by the marketing and portfolio management departments.

\*For more information [click here](#)

## COMPASS

Compass is an internal tool that gathers all information related to Coesia's products and makes it available in an appealing and user-oriented database. Basic product knowledge is thus accessible anytime and anywhere.

Thanks to Compass, users can easily identify 'linkable' and 'related' products across the whole Coesia product portfolio. Linkable products are Coesia products that can be offered to complete the customers' lines either upstream or downstream, enabling the creation of turn-key solutions. Related products are alternative Coesia products that customers might also be interested in for the same market application.

Furthermore, Compass enables users to save all product details in e-brochures that can be either printed or saved then sent via email, thereby reducing Coesia's carbon footprint. Compass works as a Product Information Master, feeding external websites, including coesia.com, with product-related data. This ensures the most-updated information is displayed externally.





# OUR SERVICES

Customer loyalty is the most fruitful investment for the future. This is why Coesia is committed to offering excellent after-sales service, which is a key success factor for all the Companies of the Group\*.

Customer Service means being present at a global level, providing flexibility, simplicity and continuous support.

Today, in fact our customers demand much more than just spare parts or the availability of on-call technicians, which is why we are developing a comprehensive service portfolio to provide customers with a unique and valuable experience based on mutual trust and cooperation.

\*For more information [click here](#)



## PARTS AND MATERIALS

All Coesia Companies ensure a reliable supply of high-quality spare parts and components, especially designed for all equipment types and generations to ensure a smooth, uninterrupted production process.

In 2018 Coesia Webshop was launched. It is a new online platform which allows our customers to place orders of spare parts on a 24/7 basis and with real time access to parts availability thus achieving remarkable time savings.



## MAINTENANCE SERVICES

Our highly specialized field service technicians are equipped with all the tools they need to inspect the equipment and evaluate its condition, quantify the spare parts needed and determine the required level of support for maintenance and/or repair work. In close cooperation with our customers, they can perform regular and preventive maintenance to preserve the equipment's performance and value over time.

Thanks to augmented reality and high-quality audio and video equipment, Coesia can provide remote support to its customers. Coesia Remote Assistance guarantees a faster trouble shooting and consequently a reduction in machine downtime and costs.



## EQUIPMENT MODERNIZATION

Coesia offers a wide range of modernization services to enhance equipments' productivity and reliability, improve the quality of products, reduce maintenance costs, meet new regulatory standards and add new functions. Our

modernization services range from standard technical upgrades to complete machine rebuilds in cases in which the equipment has been disassembled or damaged or in which obsolete parts need to be replaced. In either case, performance is brought back to the original high-quality standards.



## TRAINING AND DOCUMENTATION

All Coesia Companies offer tailored training courses and specific documentation in various languages to help customers develop in-depth technical competence, which is required to sustain high levels of performance, quality and productivity. Training programs can take place either at our premises or at the customer's facility.



## CONSULTANCY SERVICES

Thanks to our wide experience in many applications, we can offer our customers our expertise in implementing the best industrial practices to help them achieve world-class levels of productivity and generate added value through production.



## PRODUCTION SUPPORT SERVICES

Coesia is committed to providing its customers all over the world with customized, fast and effective technical support during equipment installation, commissioning, production ramp-up or full-scale operations. Our field service technicians are equipped with remote assistance tools so that support can be guaranteed anywhere in the world.



*Coesia offers comprehensive and flexible service packages to support customers during their day-to-day production activities and extend the lifetime of their equipment, which also contributes to reducing their environmental impact.*



## MACROTRENDS

- INDUSTRIALIZATION AND URBANIZATION IN EMERGING ECONOMIES
- DISRUPTIVE TECHNOLOGIES
- GREATER GLOBAL INTERCONNECTIONS
- AN AGING WORLD

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## OUR BUSINESS MODEL AND 2020 STRATEGY

At the heart of our business model is a Group Governance which has the task of coordinating and guiding a sophisticated organization comprised of 21 Companies, several global Functions and ever-developing Regions.

The organization works as a whole to serve customers and share technologies and best practices.

Since the beginning of the new century, some global macrotrends have emerged, rapidly changing the way we live. Coesia wants to seize the key strategic opportunities this new scenario presents by playing the role of global leader in advanced industrial and packaging solutions. Our goal is to grow through the customer-centric innovation of products and services, creating added value for customers and the Group itself.

*Coesia acts as a strategic enabler to enhance individual Company brands. In other words, it provides a lean, effective infrastructure to help each Company grow.*

## COESIA 2020 STRATEGY

### STRATEGIC DRIVERS

### OBJECTIVE

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#### ***CUSTOMER-CENTRIC INNOVATION***

Leverage Coesia engineering heritage in high-end while improving fit-to-purpose mid-tier solutions.

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#### ***GLOBAL FOOTPRINT***

Complete global footprint with best-in-industry reach and service capabilities.

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#### ***GROWTH PLATFORMS***

Strengthen leadership in current portfolio and grow in promising adjacent segments.

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#### ***SERVICE***

Step change in customer service capabilities across all businesses.

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#### ***IMPLEMENTATION EXCELLENCE***

Extract full impact from Company initiatives and ensure continuous efficiency improvement.

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#### ***BEST GLOBAL TALENT***

Continue to strengthen Coesia management team to sustain growth ambition.

# Business ethics: our day-to-day commitment

## CODE OF ETHICS

Coesia believes that ethical behavior should be the foundation of any entrepreneurial activity and that corporate responsibility should play a cultural role in encouraging and enhancing social relationships. The Group's Companies develop their social and environmental responsibility within the communities where they operate and contribute to improving the communities' prosperity and quality of life.

Based on our Values and our Mission, the Group's Code of Ethics reflects our beliefs and provides a tool to keep encouraging the promotion of our corporate social responsibility project in a shared, structured and continuous way across all the Group's Companies. The Code of Ethics is available on the Coesia website\* and it has been shared on a global scale to make our commitment clear and transparent.

\* For more information [click here](#)

Coesia's Code of Ethics and Anti-Corruption Guidelines define the way we do business. They are available in more than 10 languages to make sure that everybody in the Group understands them fully. Indeed, every new employee receives a copy of both documents when joining the Group.

*Our commitment is to foster relations with partners who believe in the same high standards of business ethics we have set for ourselves.*

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## ANTI-CORRUPTION

Loyalty, fairness, transparency, honesty and integrity are the way we do business; ethics is a cornerstone of our sustainable business activity and inspires us in our day-to-day conduct.

Additionally, as an international organization operating in different economic, institutional, social and cultural contexts, it is our responsibility to act in compliance with national and international laws and regulations.

Therefore, the Group has issued international Anti-Corruption Guidelines to promote the highest standards in all commercial relations throughout the organization.

We have also implemented an Anti-Corruption System that defines roles, responsibilities and initiatives based on the principle that everyone needs to be fully aware of our Anti-Corruption Guidelines. In addition, Coesia developed a management and control program to make sure that the Group is in compliance with the Italian legislative decree 231 issued on June 8, 2001.

In addition to Coesia's Supervisory Body (in Italian, Organismo di Vigilanza), a specific body has been

appointed to manage and control the above-mentioned system: the Anti-Corruption Committee. A whistle-blowing platform has been put in place to protect the privacy of anyone who, in good faith, reports an actual or potential violation of the Anti-Corruption Guidelines. The platform expressly prohibits any form of retaliation.

Moreover, we have developed training and awareness-raising material and initiatives to continuously update the Anti-Corruption requirements, risks and expected conduct.

Coesia is strongly committed to raising awareness of its business ethics standards by feeding a cascading communication system reaching throughout the organization.

Anti-Corruption training is provided to all managers and is also promoted among other people in the Group who can play a key role in this field. An e-learning platform is allowing us to increase the potential reach of the training program to our new employees.

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## RISK MANAGEMENT

The Group's Companies are exposed to risks and uncertainties that are common to international industrial businesses specialized in the design, production and sale of high-tech durable goods. Coesia is actively committed to identifying potential risk factors to minimize their impact and focus on the opportunities that derive from these assessments, which can lead to an increase in the competitive advantage of the Companies.

Coesia has established a risk and opportunity management strategy that has been integrated into the entire operating model of all the Group's Companies. Different strategic and operational risks are covered and involve, among other things, raw material prices, mergers and acquisitions and financial, legal, Health Safety and Environment (HSE), security and human resources issues.

The creation in 2017 of the Group's Privacy Committee provides a perfect example of the strategic risk and opportunity evaluation approach that is being adopted. While ensuring the compliance with the European Regulation 2016/679, the Coesia Privacy Committee

will allow for a higher level of awareness on the data accessible and usable at all levels throughout the organization.

Coesia evaluates specific sustainability risks and opportunities at both the Company and asset level, with a particular focus on aspects that could have a direct impact on the Group's businesses, such as the introduction of new energy regulations.

Reputational risks and opportunities related to aspects that could influence customers' or suppliers' perceptions of Coesia are also taken into account.

In 2018, no significant final ruling was issued against Coesia regarding non-compliance with laws and regulations in matters such as:

- Product safety
- Environmental issues
- Customer privacy and loss of customer data
- Information, labeling, provision and use of products and services.



# 2

## OUR PEOPLE, OUR STRENGTH

*We believe that people are the best work of engineering ever created, with two features that technology cannot replicate: imagination and passion.*



7,555

PEOPLE



from

67

DIFFERENT COUNTRIES

are the driving force behind  
the Company's evolution.

## WELFARE INITIATIVES

provided by Coesia differ from  
country to country to respond to  
specific needs, exceeding the  
requirements of local legislation and  
with the goal of leading among our  
peers.



***OHSAS 18001 certification***  
***covers 50% of our employees.***

## GLOBAL SELF-ASSESSMENT ON HUMAN RIGHTS



99.8%



of our population covered.

Global and local offer of



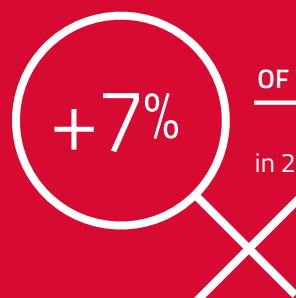
**TRAINING**  
for an average of

**26 HOURS**  
per employee.



819

NEW HIRES



OF WOMEN

in 2018 vs 2017.

# Our people: the engine of our organization

---

## INNOVATION POWERED BY PEOPLE

People are the key to Coesia's strength and success. It is thanks to their talent, dedication, passion and ambition to excel and to create sustainable value that the Group has been able to expand over time and establish itself as a leader in so many industries.

Thanks to its employees' creativity and skills, Coesia has always been able to put forward innovative products to its customers and achieve long-term success.

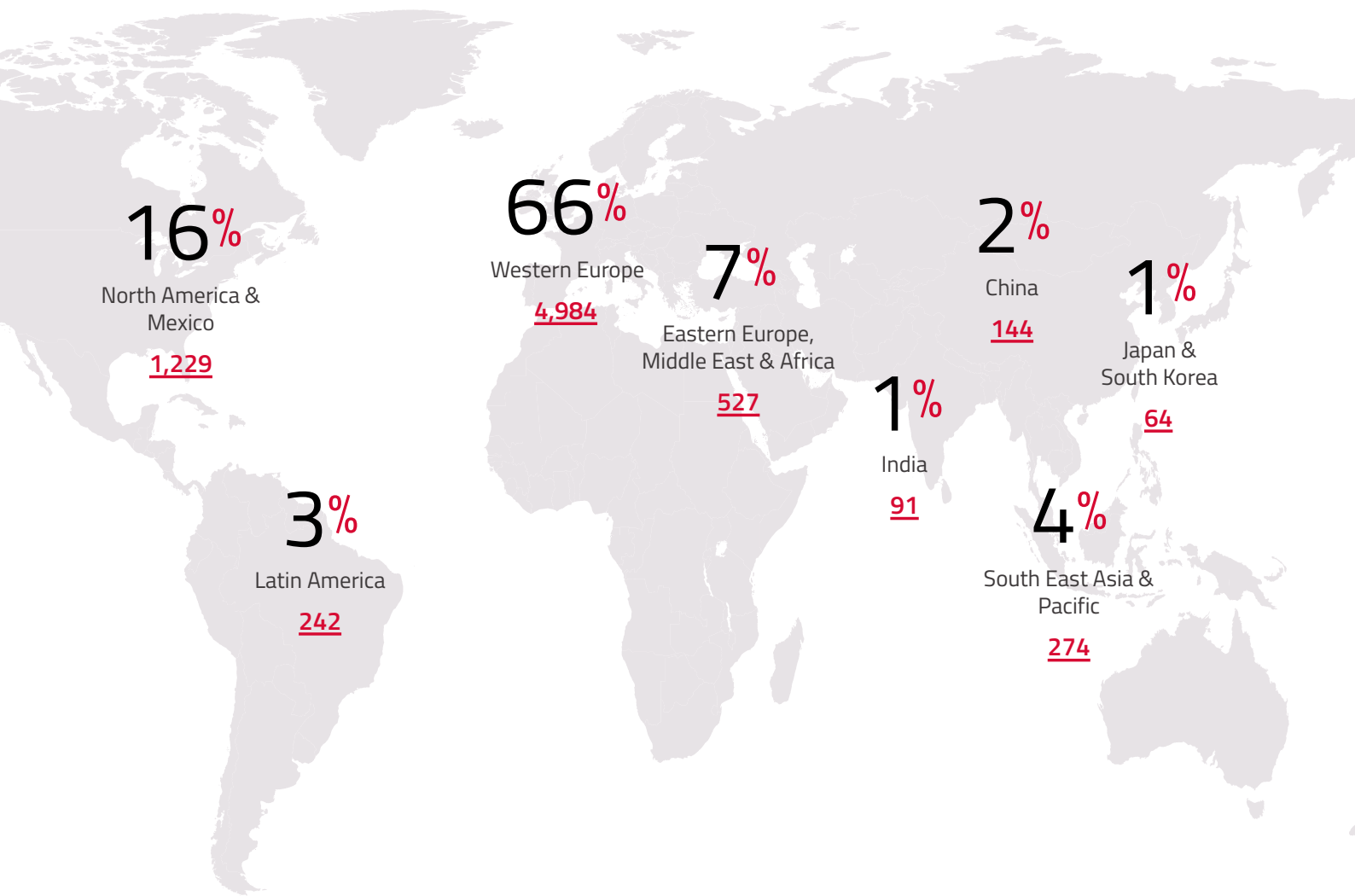
The Group wants to attract and retain the most talented people and develop them into the leaders of tomorrow by offering them the opportunity to work and live in a dynamic environment in which achievements are acknowledged and opportunities to expand their professional horizons are offered. Compared to last year, the Group's internal community has grown, also thanks to the acquisition of ATLANTIC ZEISER, TRITRON and COMAS, comprising 7,555 employees as of December 31, 2018.

The Coesia population is spread all over the world, though the Group's Companies are mostly located in Western Europe. That is the area with the highest percentage of employees (about 66%), followed by the Americas (about 19%) and Asia (about 8%). More than half of Coesia's employees work in the operations area. Their activities, such as procurement, quality control, planning and testing, make it possible for the Group to implement the innovative ideas and projects conceived by the 1,521 people working in the Engineering and R&D areas.

The remaining employees (about 29%) work in Sales, Marketing and Customer Service or in Staff Functions, including Human Resources, IT and Finance.

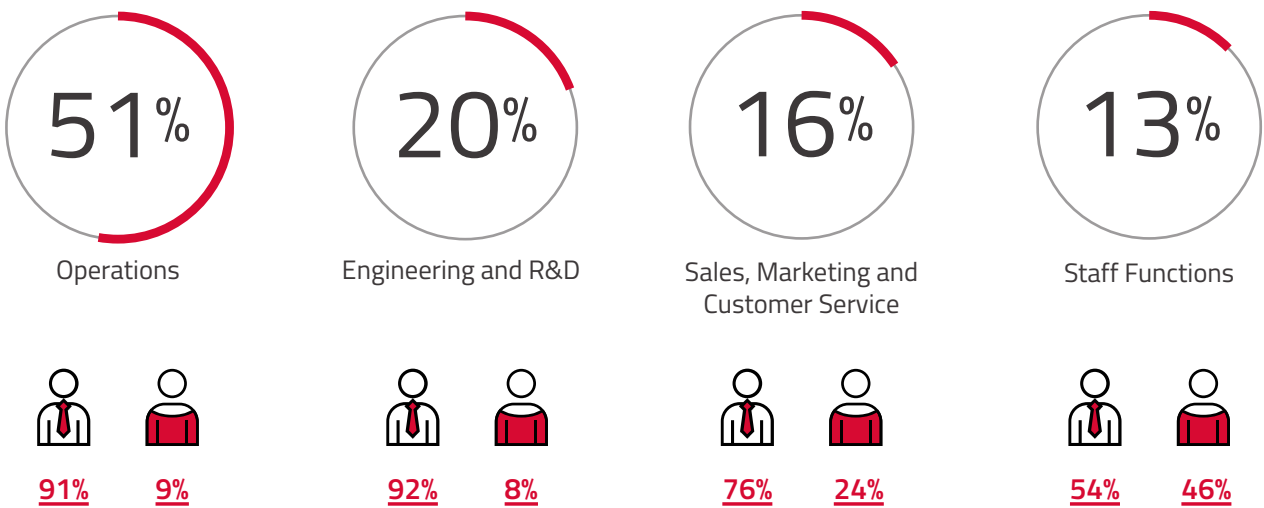
*With over 7,500 employees in 32 countries,  
Coesia invests in its people, who have always been  
the driving force behind the Company's evolution.*

# PEOPLE BREAKDOWN BY GEOGRAPHY



# PEOPLE IN OUR DEPARTMENTS

Male Female





*We believe that diversity in our workforce  
will drive future innovation.*

---

## OUR PEOPLE: DIVERSE, STRONG, VIBRANT

As a far-reaching international organization, Coesia seeks to respect and include every individual regardless of age, gender, religion, ethnicity or nationality. Indeed, diversity requires the availability of many different skills, ideas and points of view that make it possible for Coesia to meet the demands of different markets.

Like many other automated machinery companies, Coesia is facing the challenge of improving gender balance. The Group is committed to raising awareness of the positive impact of gender diversity in a global organization such as ours.

The percentage of women in the Group's workforce has been stable for years at around 15%, in line with the general trend in the automated machinery sector. In 2018, the number of women employed was 1,192, of which 38% were employed in staff functions, where the share of men and women is balanced.

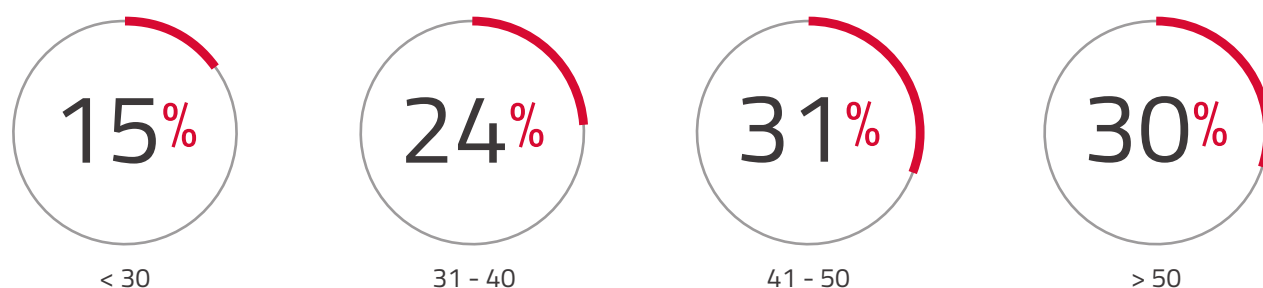
Women and men joining the Group follow the same training path and have the same opportunities for professional growth and career development.

Gender balance is only one of many important aspects Coesia is focusing on to make sure that its employees continue to enjoy an excellent work environment, which is the only way to establish strong, long-standing relationships with its people.

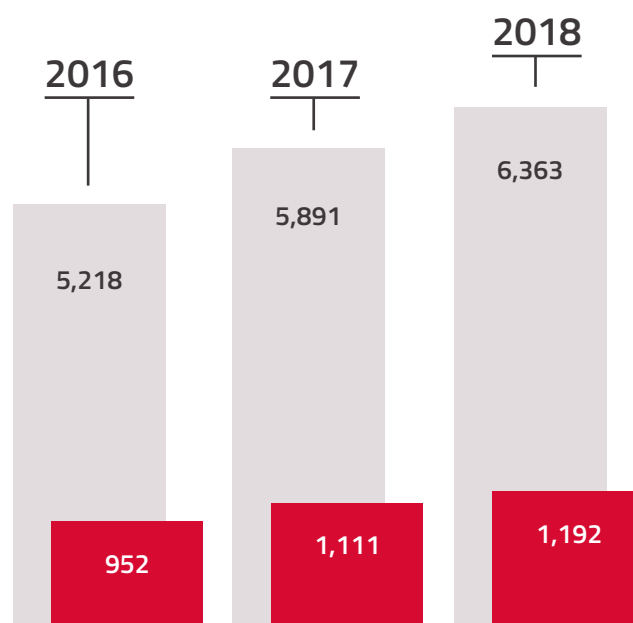
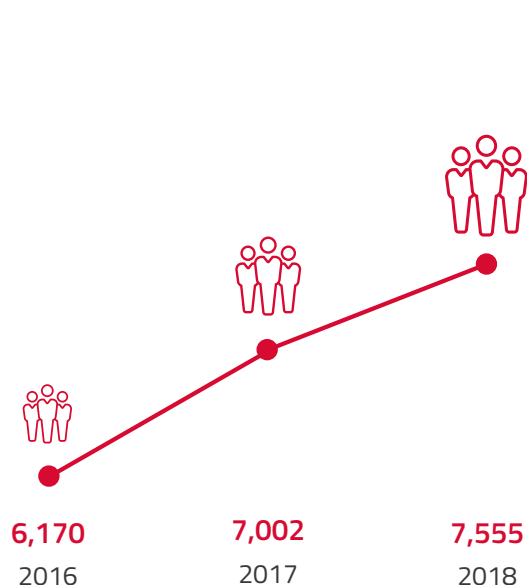
We also benefit from a balanced breakdown of employees by age. On the one hand, we rely on the solid knowledge base acquired by people with extensive working experiences, as shown by the fact that 61% of our population is over 40. On the other hand, we invest heavily in young people willing to grow professionally and contribute to the development of the Company.

We are convinced that constructive dialogue between generations is the only way they can learn from each other and strengthen Coesia's leadership.

## PEOPLE BREAKDOWN BY AGE



## EMPLOYEES



Numbers of male employees  
Numbers of female employees

Speaking of young people, it is important to underline that, besides complying with all local and national laws and regulations in terms of age employment, we only employ people over 18 years of age, regardless of the country in which we are operating. The only exceptions are France and Brazil, where young students can be hired as apprentices to perform no-risk activities in compliance with the law.

The global self-assessment survey on human rights has been conducted again to collect information on the new entities in the Group, reaching a coverage of 99.8% of the Coesia population for 2018.

The aim is to make sure that aspects related to human rights, such as the absence of a child, or forced labor and discrimination, as well as freedom of association are preserved and guaranteed in all countries where we operate.

***Coesia's population includes people of 67 different nationalities.***

# Improving everyday: as a Group, as professionals, as people

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## BEST GLOBAL TALENT

Coesia is committed to attracting, developing and retaining the best people at an international level to ensure long-term managerial continuity and economic performance by always keeping a keen eye on the market's best practices.

Recruitment is coordinated centrally and involves not only the selection process but also employer branding activities that keep Coesia attractive and competitive on the labor market.

New employees are offered on-boarding programs so that they can seamlessly integrate into the Group and become familiar with our business.

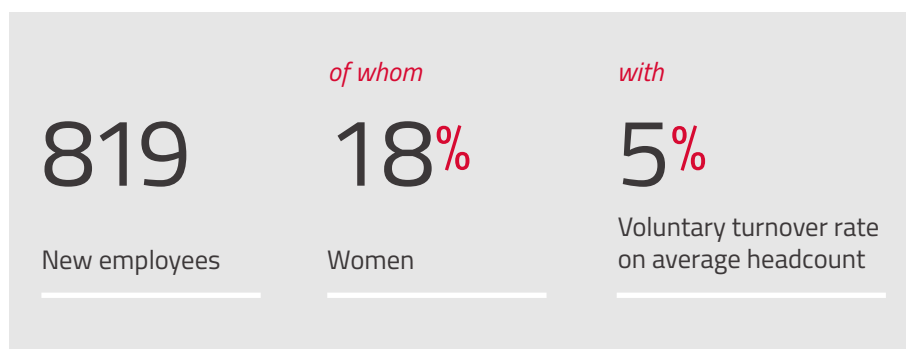
Employees are then progressively offered training programs to develop their potential, skills and leadership in line with Coesia's strategic focus as well as collective and individual needs.

Coesia has also introduced a Performance Management system (People Performance Dialogue) with the aim of guaranteeing opportunities for professional growth and promoting motivation and engagement by defining and monitoring performances and individual development plans.

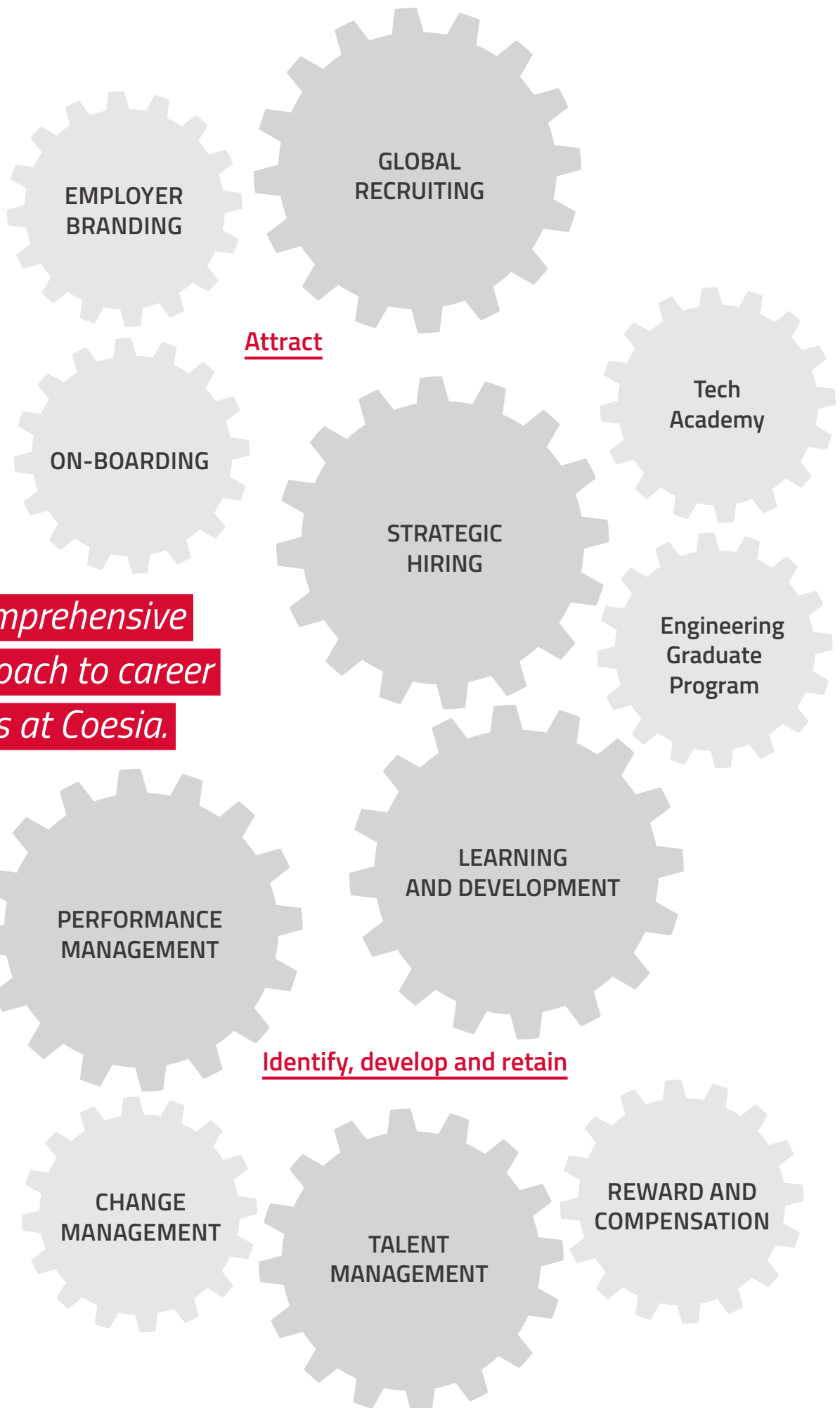
Furthermore, a system for remuneration, evaluation and the attribution of professional titles has been introduced at a global scale to guarantee internal fairness and external competitiveness so that talented new employees can be attracted and retained.

In 2018, Coesia hired almost 819\* new employees, 18%\* of which are women.

In the same period, the voluntary turnover rate within the Group equalled 5%\*.



\* These numbers do not include the employees of the new Companies: ATLANTIC ZEISER, TRITRON and COMAS.



*A comprehensive approach to career paths at Coesia.*

*The main goal is to identify and hire talent in line with Coesia's Values and leadership model.*

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## BEGINNING THE JOURNEY

The global recruiting strategy focuses on different kinds of stakeholders, in particular students, graduates and professionals.

With regard to students and graduates, our goal is to provide them with an educational experience in the workplace to let them put their academic knowledge to the test in a real business environment. Examples include pre-graduation internships and collaboration on company-based dissertations.

Furthermore, professionals are offered the chance to discover opportunities in a very challenging and fast-growing global group like Coesia.

Finding and selecting the best candidates requires a complex combination of local and global integrated experience.

A dedicated, in-house team based in strategic geographical clusters, operating with a deep understanding of our business, culture and leadership attributes creates this unique blend of expertise.

This approach allows Coesia to have an edge in the competition for global talents and access to key skills and competencies.

In this way, all selections can be managed through the same recruiting channels and with the same tools, providing highly increased visibility throughout these steps:

- 1. Application**
- 2. Research and recruitment process**
- 3. Preliminary interview**
- 4. Technical interview**
- 5. Job proposal**

Each step is fundamental for two reasons: first, it enables Coesia to use a common database of profiles to improve the candidate's experience; and second, the human resources function can manage the selection process in a structured way in terms of communication, outcome and the like.

We also have global employer branding activities targeting both businesses and students. They include recruitment days and meetings at universities for students and trade fairs events for businesses and professions.

In this way, it is possible for us to build a pool of the "Best Global Talent" to support Coesia's needs at an international level.

In 2017 we received more than 21,000 CVs and 919 new employees were hired, while in 2018 we received more than 38,000 CVs and 819 new employees were hired.





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# PERFORMANCE MANAGEMENT

Performance management drives the organization to high performance by leveraging the contribution of each person at Coesia and by creating a link between performance, reward systems and development paths.

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## PEOPLE PERFORMANCE DIALOGUE (PPD)

The People Performance Dialogue is a process that aims to strengthen the link between the performance of the business and the contribution by every individual.

Through PPD, Coesia leads its employees toward the achievement of individual, team and Company results, while fostering people development.

Through PPD, Coesia also provides employees with an objective and structured process in which meritocracy and, consequently, internal equity are guaranteed.

The very name of the process sums up its three main objectives:

### PEOPLE

*Leading people in their professional growth within the organization.*

### PERFORMANCE

*Aligning individual goals with the corporate strategy, so that overall performance incorporates clear and measurable goals.*

### DIALOGUE

*Facilitating and promoting dialogue between employees and supervisors.*

PPD is focused on both quantitative and qualitative objectives in line with the business needs and behaviors that reflect the Coesia leadership model. The entire process is characterized by a continuous dialogue between supervisors and employees and includes a feedback session at the end of the year aimed at increasing individual self-awareness and defining a suitable development plan.

The coverage of PPD is constantly increasing, aiming at gradually involving the entire population regardless of their job and role. At the start, in 2013, more than 900 people were involved in PPD, whereas in 2018 around 5,150 employees took part in the process.

In particular, following the new supplementary agreement which was signed in G.D Spa in 2018, the 'PPD Easy' process has been implemented, with the aim of including every employee in the performance management process, including the ones with more operative roles. PPD Easy extension to all the organizational units within the group is ongoing and has involved around 500 employees overall during 2018.

Our investment on communication and involvement of employees and supervisors is continuous.

### PERCENTAGE OF EMPLOYEES PARTICIPATING IN PPD

66%

in 2016

67%

in 2017

72%

in 2018\*

\*ATLANTIC ZEISER, TRITRON and COMAS are not included.





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## PEOPLE DEVELOPMENT

Coesia has always focused on strengthening the link between business results and the contribution that each employee can provide to the organization.

With the goal of creating and strengthening a one-group approach in terms of systems and processes, several development initiatives are carried out in order to identify, develop and retain our people. The focus of these programs is the increase of self-awareness, knowledge and skills of the people within the Group.

In particular, technical and professional training programs and leadership development programs have a great value within the Group. Their importance is

further fostered thanks to the strategic partnerships with the best Business Schools, Universities and consulting companies.

The intensive dialogue with the market favors the introduction of learning methodologies and approaches that are always innovative and consistent with reference framework and business strategy. This sustained comparison allows employees' training needs to be satisfied in order to promote professional development, positive working environment and everyone's contribution to the achievement of business objectives.

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## LEADERSHIP DEVELOPMENT PROGRAMS

### LEADERSHIP SANDBOX

Leadership Sandbox is an initiative seeking to foster the long-term development of Coesia's junior population. It involves participants in different activities in specific focus areas, including creativity and innovation, managing relationships through diversity, coaching and team building. It provides visibility to Senior Management.

### INNOVATION MINDSET

Innovation Mindset aims at developing technical potential in order to foster personal growth and create powerful experiences that enable people to experiment with new approaches, tools, behaviors and actions.

### LEADERSHIP LAB

Coesia organizes an international Leadership Lab, involving a number of people, to mobilize the participants' collective intelligence to address issues that are relevant to the Group. The program is structured to develop strategic out-of-the-box thinking, support teamwork in a multicultural environment and foster self-leadership in order to make sure that people become effective agents of change. It includes opportunities to get visibility with Coesia's Top Management.

## BE LEADER and BE SUPERVISOR

BeLeader@Coesia and BeSupervisor@Coesia are aimed at strengthening the managerial skills of the supervisors within the Group, supporting them in properly cover their role. The goal is to foster a common and recognizable managerial culture by sharing effective people management behaviors and tools.

Both programs, focused on different targets, support the theoretical and practical development of the main managerial skills, along a contents architecture which begins with Giving Direction, progresses through Insight on Motivation and Delegation, and culminates in Valuing People.

## LEADING IN THE MATRIX

Leading in the Matrix addresses key roles in complexity and aims to foster the current and future efficacy of Coesia leaders, with specific reference to the matrix organization and the challenges raised by the Coesia 2020 Strategy. Significant stakeholders within Coesia have contributed to the definition of its goals, which are:

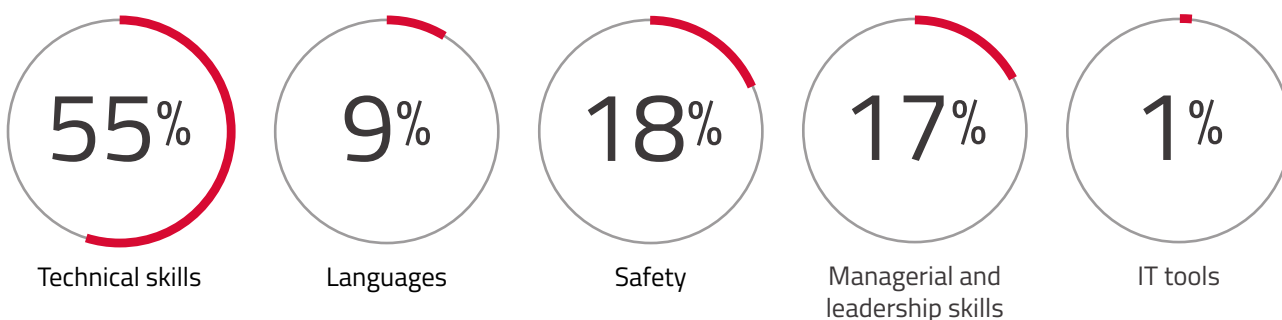
- Foster key skills, from a 360° perspective that considers both external and internal stakeholders as well as peers and teams, to be effective in the Coesia organization;
- Explore the benefits and characteristics of matrix teams;
- Embrace roles as leaders in a matrix environment;
- Use influence and accountability, rather than authority, to achieve results with others;
- Coordinate to help team members contribute at their best.

The project was launched in mid 2017.

*26 hours of training and development per employee*

## TRAINING AND DEVELOPMENT

As evidence of our commitment to the development of our employees, in 2018 we provided 191,767 hours of training. This means that we provided an average of 26 hours of training per employee.





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## LEARNING PROGRAMS

### JOB FAMILY PROGRAMS

Coesia supports the development of key Job Families to enable employees to work at their best in contributing to Coesia's business goals. Our programs are customized and focus on skills and capabilities that are consistent with the requirements of specific roles. Coesia, in collaboration with the best training suppliers worldwide, constantly implements the most effective tools and methodologies in line with the challenges faced by our business.

### COESIA PILLARS

Coesia designs and delivers learning initiatives to ensure that its people are professionally effective. All training content, tools and methodologies are identified with our leadership model, culture and Values in mind, as well as the main challenges and scenarios our Companies face. We spread cross-skills, capabilities, information and competencies with the goal of enabling our people to "live" their roles in the best possible way and to grow professionally within the Group.

### ENGINEERING GRADUATE PROGRAM

The Engineering Graduate Program is organized by the Coesia Learning Center and it targets talented new graduates in mechanical and electronic engineering from the best international universities.

The program seeks to:

- Select talented new graduates to be placed into the various Coesia Companies and Functions;
- Ensure, before hiring, complete training consistent with the main tools and processes of Coesia;
- Develop an overall culture in industrial automation and process solutions;
- Favor the proper placement within the different business areas in line with the interests, skills and competencies of the new graduate.

The Group's managers act as trainers, tutors and mentors during the whole period and provide the students with a real overview of the everyday life and work environment in all of Coesia's departments.

Engineering Graduate Program next edition will take place in 2020.

## TECH ACADEMY

Tech Academy targets new graduates in mechanical and electrical areas selected through a worldwide recruitment process. With the goal of training the future Coesia Field Technicians, the initiative consists of a tailored learning experience aimed at developing both technical abilities and soft skills useful to cover effectively the role.

The path splits into two phases for a total duration of 15 months. The first step, conducted in the Coesia HQs in Bologna, is focused on the fundamental knowhow thanks to a real experience hands on G.D technological excellence. As a conclusion of this first trimester, an exam is held in order to certify the acquired skills and opens the next phase, during which every participant takes part in a one year on the job training in his/her Coesia organizational unit.

Tech Academy not only highlights the specific knowledge of Coesia machines and lines, but also offers learning opportunities designed to foster a wider awareness on the Field Technician role, from problem solving courses to reflection on multicultural professional contexts.

During the whole experience, teachers and tutors are mostly managers and professionals from the Group, aiming at a tangible sharing of applied competencies and working experiences.

Tech Academy next edition will take place in 2019.



2

Waves



7

Companies



11

Participants



4,900

Training hours in Bologna  
(of which 3,400 on the job)

# How we take care of our people

## WELFARE

We take care of our employees and their wellbeing by promoting initiatives at all our different sites with the aim of maintaining a good state of health as well as a balance between work and private life.

The initiatives provided by Coesia differ from country to country to respond to the specific needs of each. They are available to all employees and include social healthcare services and prevention plans, insurance (to be intended as the refund of medical fees) and periodical medical examinations.

To encourage a proactive approach to wellness, some Group Companies offer access to gyms or leisure centers and provide canteens or restaurant vouchers. The promotion of equal opportunity in maternity, paternity and adoption matters shows the Group's commitment to encouraging both female and male employees to find a balance between work and family.

Coesia provides parental leave to all its employees in compliance with local regulations.

### COESIA SUMMER CAMP

The Coesia Summer Camp is an initiative for the children of employees working in the Bologna area. It was launched in 2016 in cooperation with the MAST Foundation and LGS SportLab. Activities include playing sports and participating in creative workshops to support the emotional and social development of children.

*Our welfare initiatives differ from country to country to respond to specific needs, exceeding the requirements of local legislation and with the goal of leading among our peers.*

## A COMMITMENT TO THE WELLBEING OF PEOPLE: MAST

Coesia's commitment to the wellbeing of its employees is exemplified by welfare services provided by the MAST Foundation. MAST is an international cultural and philanthropic institution that focuses on arts, technology and innovation. It coordinates a multifunctional center adjacent to the G.D and Coesia headquarters in Bologna.

The **MAST Foundation**, in addition to several projects and activities for the community, provides corporate welfare services for Coesia employees, creating synergy between the Group and the city.

The **Academy** is a training center for the development of a technical and managerial culture. For example, the Company's employees contribute to the Academy's external training project for young people attending schools in the community, thereby taking technological and managerial knowhow beyond the Company.

The **Daycare Center**, which is divided into three nursery and two kindergarten sections, hosts children from three

months to five years. It is mainly open to our employees' children and also welcomes children from the local community in accordance with Bologna City council.

The **Company Restaurant** for Coesia employees goes beyond simply providing meals, by offering a place where the quality of the food, the free-flow service, the ingredients used and the culinary process comply with the latest guidelines and quality indicators developed in cooperation with nutritionists of the Gruber Center in Bologna.

The **Wellness Center** is supplied and managed by Technogym, a world leader in fitness equipment, and offers a wide range of services based on a model of integrated and holistic wellbeing.

Among other services, the Company's Restaurant and its Wellness Center are designed as part of a unified project in which nutrition and physical activity are deeply connected.

### COESIA FOR ME

"Coesia Welfare and Engagement" is a program that was launched in 2014 with the purpose of mapping the state of Coesia's corporate welfare worldwide by collecting employees' opinions and feedback.

It includes a global survey, "Coesia For Me", that launched its second edition in 2017. The results highlighted several improvements compared to 2014.

Our employees emphasized Coesia's strengths in the areas of customer focus, diversity and welfare, while identifying communication, people development and leadership as the main areas to keep investing in.

The implementation of the action plan, comprised of roughly 300 improving initiatives based on suggestions by our employees, was carried out during 2018 and will continue in 2019.

"Coesia For Me" third edition will take place in 2020.





*Safety is a key driver.*

## SAFETY

Health, Safety and Environment (HSE) programs are essential expressions of Coesia's Values not only for employees, but also for contractors, customers and stakeholders.

During 2018, Coesia has been focused on consolidating the implementation of the HSE Policy requirements, in order to strengthen the management of health, safety and environmental provisions in all Group Companies and contexts.

In particular, in 2018 - apart from pursuing the dissemination of the HSE Policy - the Group HSE auditing program was launched, with the aim of supporting the Group continuous improvement, ensuring compliance with all applicable laws and standards, and increasing the involvement and awareness of all corporate functions in risk prevention and protection activities.

In order to ensure a suitable level of knowledge and skills, Coesia pays the utmost attention to HSE training topics, which, in 2018, also concerned the management of task-specific risks.



## THE HSE POLICY STRUCTURE

In line with our Values, Coesia states its commitment to the implementation of the HSE Policy to improve Health, Safety, Environment\* and programs:



\*The section dedicated to the environment is dealt with at the end of Chapter 3.

## THE GROUP'S HSE MANAGEMENT

Based on the HSE Policy, several projects were launched, with the purpose of strengthening the HSE structure of the Group and its Companies. This has increased the participation and involvement of all functions, leading to a significant increase in safety and improvement notifications, with consequent implementation of action and preventative plans in 2018.

## SAFE WORKPLACES

With this Policy, Coesia also sets out the requirements for workplaces, making sure that all its facilities and buildings are safe and comfortable, thereby ensuring the employees' health and welfare. Particular attention is paid to the design and maintenance of workplaces and workstations.

## SAFE WORK SYSTEM

The Group's Companies have developed their own procedures to ensure safe ways to work based on risk assessment and legal requirements. The programs that are connected with the HSE Policy focus on the continuous improvement of such methods.

In addition, the Group fosters the application of international standards: in 2018, OHSAS 18001 certified safety management systems cover 50% of the total population (+25% compared to 2017).

*Coesia devotes time and resources to increase the safety knowhow and the skills of its workforce.*

## SAFE PEOPLE

Trained and competent workers are the key to effective safety management within the Group.

Training is essential to ensure that all task-related risks and dangers are understood, and to secure a suitable commitment to safety management practices by all employees.

This is why Coesia invests time and money in training its employees on safety-related topics; in 2018, HSE training courses were held, for a total of 33,771 man hours of training, equal to 4.82 hours for each employee.

## SAFE PLANTS AND EQUIPMENT

As a designer and manufacturer of high-tech machines, Coesia pays considerable attention to the use of safe equipment in its Companies.

Safety is a key driver for the Group, which is why specific measures complying with the HSE Policy and international and national regulations are applied to the entire lifetime of equipment.

## SUPERVISORY BODY

In order to provide an effective link between safety management and the requirements of the Italian Legislative Decree 231/01, a Supervisory Body (in Italian, Organismo di Vigilanza) has been established in each Italian Company.

The activity of each Supervisory Body focuses on third-party surveillance of safety management, performance and compliance with applicable laws. The results are periodically reported to the Board of Directors and the Statutory Board.

## SAFETY PERFORMANCE

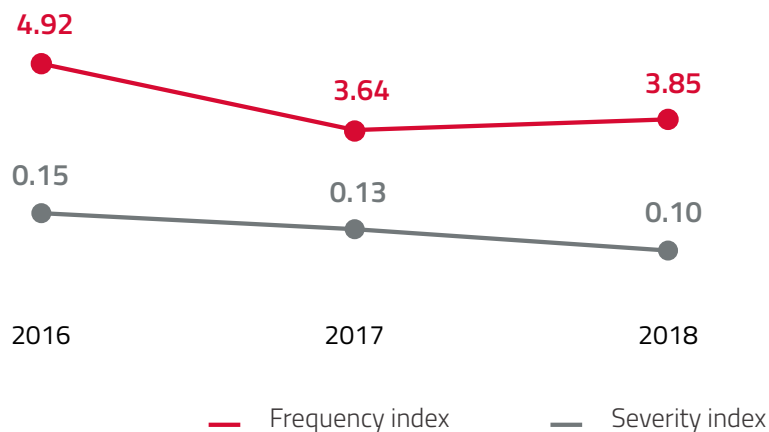
Coesia has developed a specific set of indicators to measure its safety performance, monitor the effectiveness of the actions implemented so far and plan future improvement actions.

The key indicators are:

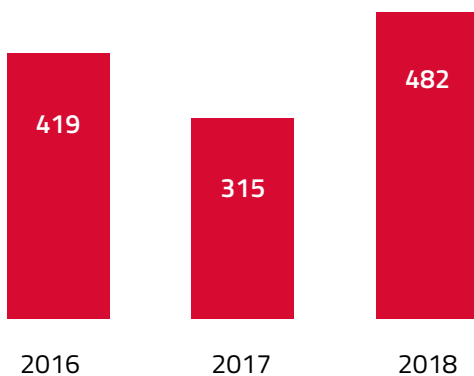
- Frequency index: the number of injuries on worked hours normalized over one million worked hours;
- Severity index: the number of lost days on worked hours normalized over 1,000 worked hours.

Structured tools to monitor, manage and plan corrective actions are in place in the whole organization.

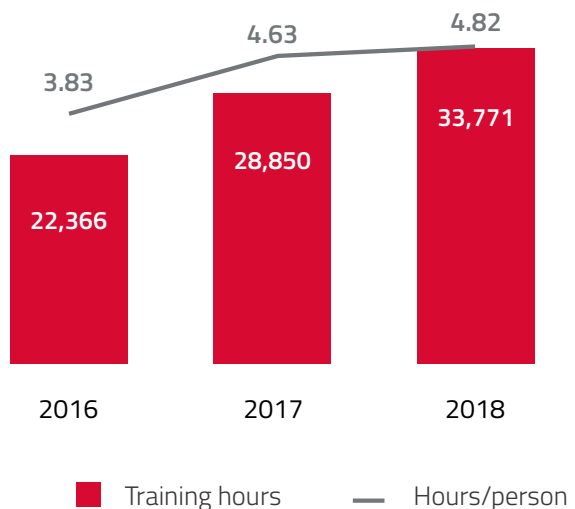
## SAFETY PERFORMANCE



## NUMBER OF IMPROVEMENT SAFETY NOTIFICATIONS



## HSE TRAINING



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## SECURITY

The security function is committed to regulating the aspects concerning the safeguard of people, as well as the tangible and intangible resources of Coesia. This is pursued by defining the operating rules for all security activities and identifying the roles and responsibilities of the subjects involved in this process.

Misconduct and negligence may result in the loss of tangible, intangible and organizational assets, or cause injury to employees, which would damage the Company's competitiveness in the short, medium and long term.

Coesia's security risk management model is based on elements of a logical sequence that aims at:

- Identifying the context and threats by defining possible disastrous/harmful events and their frequency;
- Outlining the vulnerabilities and situations that allow events to become damaging;
- Calculating the expected loss in relation to the value of the assets at risk;
- Setting priorities for prevention according to the expected damage and the importance of the various system components;
- Determining the effectiveness/cost of the different possible measures and selecting the prevention strategy to adopt.

---

## PHYSICAL SECURITY

Physical security is often the first concern in facilities with high asset concentration, especially of those assets used in systems critical for business processes.

Protecting data, confidential information, networks, software, equipment, facilities, company's assets, and personnel is what physical security is about, and it requires multiple countermeasures:

- Security guards with wireless communication devices;
- Security lighting;
- Security cameras.

Performing regular physical security assessments is also crucial in safeguarding corporate resources and improving existing security measures.

*At Coesia, security measures include physical, cyber and travel initiatives in order to reach the target of all-round safety.*

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## CYBERSECURITY

As most enterprises have been accelerating the pace of their digital transformation, the rapid adoption of new technologies and business processes has dramatically increased the attack surface and the number of entryways into a network.

To ensure protection of corporate digital assets in such a challenging context, in 2018 Coesia has set up a Global Security Operation Center (GSOC).

The GSOC is designed to operate on a 24-hour basis and continuously monitors cyberattacks and other digital threats.

Multiple Indicators of Compromise (IOCs) are collected and correlated in real time to identify security incidents that may have gone undetected and to provide the necessary resources to perform incidents analysis and investigation.

In case of recurrence of specific attack trends, the Incident Response team update security tools and policies to protect against future attacks.

By implementing effective incident management, Cybersecurity actively contributes to comply with the GDPR regulation and improve overall privacy processes.

A detailed, high-contrast black and white photograph of an aircraft engine's internal components, specifically focusing on the compressor section. The image shows various metal parts, including a large central compressor wheel with multiple blades, surrounded by other mechanical structures and fasteners. The lighting creates strong highlights and shadows, emphasizing the metallic textures and complex geometry of the engine parts.

## TRAVEL SECURITY

People are Coesia's most important asset. Their security is, therefore, of paramount importance, especially when they are travelling for business purposes in high-risk countries.

In order to keep our personnel timely informed of any potential issues that could jeopardize their security abroad, Coesia is engaged in a number of different activities, which include:

- Daily risk assessment of different variables (terrorism, crime, ethical and socio-political risk) in countries of operation;
- Intelligence gathering;
- Media monitoring;
- Site surveys;
- Implementation of security countermeasures in risky environments.

Thanks to a combination of skills, sources and trusted partners, we have developed a strong mechanism that allow us to prevent threats, minimize exposure to potential security risks and to define appropriate security responses when needed.



# 3

## OUR FUTURE: building a vision starting from today

*We believe that the future belongs to those who can look at the world with a broader vision that goes beyond pure technology and is based on values and founding principles of the Group.*

21 new products  
were successfully  
launched in 2018.



## COESIA'S AMBITION

*is to continually improve technologies, products, solutions and processes to always be able to exceed expectations of both stakeholders and customers.*



*A complex network of global suppliers, all different in size and nature, makes up the Group's supply chain.*

A precise and complex process leads to ensure that each machine is built according to the desired QUALITY and SAFETY.



*The Lean Six Sigma community at Coesia included*

650

Belt in 2018

~200

more Belts vs. 2017

*We promote the wellbeing of the communities where we operate.*



of our waste production is non-hazardous, with around



going to recycling.

***ISO 14001 environmental management system covers 44% of Coesia population.***

# Innovation: our way of thinking and acting, our way of making the difference

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## KEEPING UP WITH THE TIMES

Industrial research and innovation have always been the beating heart of Coesia and its Companies. Indeed, the aim of the Group is to continually improve technologies, products, solutions and processes to always be able to exceed the expectations of both stakeholders and customers.

The way innovation is generated has significantly changed over the last decades. Today, the market is driven by both customers' and consumers' needs, and innovation relies on sustainability and digitalization.

---

## SUSTAINABLE INNOVATION

Coesia is strongly committed to integrating sustainability into each stage of design and production to deliver increasingly efficient solutions. This multidisciplinary approach is a valuable asset for Coesia and an important catalyst for the effective use of resources within the Group's Companies.

For Coesia, sustainable innovation brings many advantages: less waste, less scrap, a lower specific energy consumption, a lower footprint, an improved work environment, more environmentally-friendly packaging materials, new packaging shapes to minimize both material consumption and logistic costs, unique technical solutions for production and packaging processes and more flexibility in format and brand changeover to optimize time and consumption at production plants.



IMPROVED WORK ENVIRONMENT

LESS SCRAP

FLEXIBILITY

LESS ENERGY CONSUMPTION

NEW PACKAGING MATERIALS

LOWER FOOTPRINT

NEW TECHNICAL SOLUTIONS

LESS WASTE

NEW SHAPES



## COESIA DIGITAL

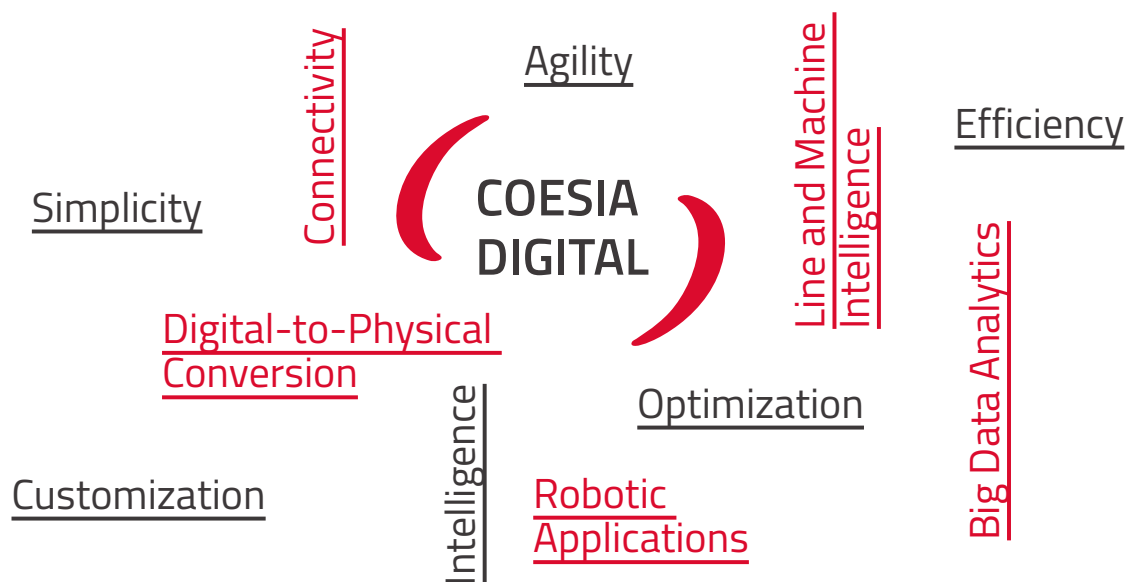
More efficient and reliable solutions can also be achieved by taking advantage of the newest digital technologies.

To continue offering customers cutting-edge products and services, Coesia is exploring the fields of connectivity, big data analytics, artificial intelligence applied to machines and lines, digital-to-physical conversion and robotics, while prioritizing cybersecurity.

In order to fast-track the digital transformation plan and develop stronger partnerships with customers and suppliers, Coesia has set up an inter functional team to leverage internal strengths and existing synergies.

Four areas of intervention have been identified:

- Edge analytics and artificial intelligence, to improve machine performance and predictive maintenance;
- Access to online services, as Remote Assistance and Webshop (our online platform that allows customers to order spare parts autonomously);
- Development of new digital services, made available to our customers;
- Content marketing, to communicate our competencies easily and share them with our customers.



## OUR IDEA OF INNOVATION

Innovation at Coesia means a really creative and interactive mechanism that involves many players: Customers, Marketing, Engineering and R&D.

It is an integrated process embracing all aspects from concept development and the design process to the supply of the finished product or service.

This process is applied to all New Product Development (NPD) projects that may include, among other things:

- **Disruptive innovations** that create a new market;
- **New product lines** that enable Coesia to enter an established market for the first time;
- **Line extensions** that supplement an established product line;
- **Product improvements** that improve the performance of and replace existing products;
- **Cost reductions** that provide similar performance at a lower cost;
- **Repositioning** that takes existing products and targets them to new markets or segments.

This process leads to New Product Launches every year.

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# FROM THEORY TO PRACTICE

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## OUR R&D CENTERS

At Coesia, each Company has its own R&D center with industry-specific competencies. The centers customize machines and processes, which encourage personal development and our employees' commitment.

Projects classified as NPD are reviewed by the central functions to reinforce synergies and optimize costs. In this way, all Companies interact and cooperate constantly, enabling development of common approaches and sharing of specific technological knowhow.

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## COESIA SOFTWARE INNOVATION (CSI)

Research and innovation are part of our DNA. To strengthen our commitment even further, Coesia established the CSI in 2017.

CSI is a center of expertise, spreading innovation and knowledge in software technology within the Group. Working both long and short term, CSI drives the development of new digital business models, collaborating with all Coesia Companies to ensure a consistently high level of software novelty.

The work of the CSI team helps to build a Group where customers find a high level of software products and services, in all of the Coesia Companies.

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## COESIA ENGINEERING CENTER (CEC)

The Coesia Engineering Center (CEC) is a corporate function founded in 2012 with the important purpose to assist the Group Companies in strategic projects with high innovation content.

The organizational structure of the Coesia Engineering Center ensures flexibility and focus on the targets. The work teams are in contact with all Coesia Companies to promote innovative methods, transfer technological knowhow and assist them in the execution of projects requiring a high use of resources and having a high innovative content.

Moreover, the Coesia Engineering Center dedicates much attention to packaging sustainability in order to meet both market trends and customer's requirements. Most customers operate on international markets and pay particular attention to environmental issues.

The team works both on packaging solutions with reduced environmental impact and technological solutions to enable their implementation on packaging machines.

Given the strategic role of the CEC, the number of its employees has increased significantly in the last few years: from 12 people in 2012 to 67 people in 2018, including executive manager, project managers, mechanical and electrical engineers, testing engineers.



## INNOVATION NUMBERS IN 2018

1,521

People in Engineering  
and R&D departments

21

New products  
successfully launched

7.8%

Of our revenue invested in  
Engineering including R&D

## THE CHALLENGE OF INDUSTRY 4.0: EMMECI'S DIGITAL TECHNOLOGY

Since 2016, Emmeci has responded to the requests of the new Industry 4.0 trends by investing in the development of an innovative digital platform. In 2018 a new digital line has been launched: the MC2018 DIGITAL.

Such as the MC2016 DIGITAL, the MC2018 DIGITAL is able to automatically produce luxury wrapped rigid cardboard boxes – close to perfect, thanks to a high-precision visual spotter and top-quality wrapping.

Thanks to its reliability and to the quality of the finished product, the digital platform allows highly reduced material waste, with the aim being zero. This result can be achieved not just during the product manufacturing process, but also in set-up phase for new sizes: in fact, the number of sheets used during this specific phase is 70% lower than the quantity needed with a non-digital machine.

Furthermore, digital lines are user-friendly and easy to operate. In fact, the format change can be controlled directly from the HMI system. Moreover, Emmeci digital machines offer video tutorials which represent an additional assistance tool for the operators, showing how to perform optimal assembly and maintenance operations and how to install kits for special boxes.

Another important aspect is the possibility to get remote assistance via a touchscreen HMI system and HD video-cameras, which brings remarkable time and cost savings to customers.

## FLEXLINK: ENERGY EFFICIENT CONVEYOR SYSTEMS

FLEXLINK has continuously worked with reducing the energy consumption of their conveyor systems and material flow solutions. The system design has a great impact on the number of motors used and, with the specific line control systems, conveyors will only run when needed.

An example of an energy efficient conveyor system is the X45 platform. The system includes a wide range of compact conveyor modules to handle small products, both directly on the chain and in standard

pucks. The smart conveyor motors developed by FLEXLINK run with 24 Volt and the same technology is used for function modules like diverters and stoppers, eliminating the use of compressed air. The intelligent motors also permit data collection for consumption monitoring and predictive maintenance.

## SC+: A BREAKTHROUGH TECHNOLOGY FROM VOLPAK

In 2018, Volpak launched the SC+ a real technological breakthrough intended to reshape standards in the horizontal form-fill-seal (HFFS) machinery sector, also thanks to its sustainable design.

The SC+ allows highly efficient productions by increasing plant capacity by 30% as a result of compact and accessible footprint, while reducing operational costs, thanks to its OEE, low maintenance required and low spares consumption. The machine is easy-to-run: a single operator is able to double productivity, while reducing energy expenses and waste.

Its precise, continuous and smooth movements allow to get rid of any seal- or cut-misalignments and are key to minimize material waste (-70% vs.

standard technology), thanks to the unique "No stop No waste" feature.

Those continuous and smooth movements also allow package optimization (of 5% on pouch format), eliminating product waves in the pouches during transport, and thus reducing the risk of seal contamination. The machine configuration ensures full cleanliness and accessibility. The filling turret is designed for cleaning with complete pouch stations that are easy to clean even by rinsing. Revolutionary technology paired with simple design make the SC+ a forgiving machine that does not require skilled operators, and specifically intended to operate trouble-free for years.

## AN INNOVATIVE SOLUTION FROM CERULEAN: CELSIUS 20

The year 2018 saw the development of the latest product in the Celsius range: the Celsius 20. This machine range adopts an innovative non-destructive temperature measuring technology aimed at, but not limited to, chilled and frozen food markets.

Celsius machines allow fast and accurate, non-destructive, temperature measurements of packaged foods to be taken by detecting the microwave radiation emanating from a sample placed in the machines' cavity.

Temperature measurement is a crucial requirement in these markets' quality assurance process. However, traditional tools used in this process such as standard probes or infrared systems suffer from generation of excessive waste and large measurement uncertainty respectively.

The Celsius technology enables 100% reduction in waste that results from the temperature measurement process. In the UK food manufacturing industry, this waste exceeds 3000 tons per year excluding packaging waste. Furthermore, in addition to the sustainability advantage, many customers see an investment payback period shorter than a year.

In essence, the Celsius technology enables more efficient quality control processes, fully digitized traceability of records, reduced operational costs as well as lower carbon footprint through food and packaging waste reduction. The technology also lends itself to integration into value added end-to-end temperature-controlled logistics systems.

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# THE COESIA WAY TO EXCELLENCE

A systematic and structured approach to continuous improvement is fundamental to guarantee business sustainability and high-quality standards over time.

For this reason, Coesia launched a multi-generation program under the umbrella of Operational Excellence.

## LEAN SIX SIGMA (LSS)

In 2014, Coesia launched a Lean Six Sigma program, adopted globally, with the aim of providing a common platform and language for Operational Excellence in all businesses, functions and processes.

The deployment strategy of the LSS program is led by the LSS Executive Council and implemented in each organization by the 'champions'. The latter define a program deployment plan for their organization and identify both the improvement initiatives to be launched and the right resources to be involved as project leaders (the Belts).

All LSS projects have a sponsor, the process owner, who is responsible for the project's success and is called upon to act as a change agent within their business area. This ensures that the necessary resources are made available and speeds up the improvement implementations.

Based on the LSS training and the time dedicated to continuous improvement activities, the Belts are classified as follows:

- *Master Black Belts (MBB)*
- *Black Belts (BB)*
- *Green Belts (GB)*
- *Yellow Belts (YB)*

The number of Belts has steadily grown as a result of the increasing program deployment within the organization and also thanks to the internalization of the LSS Academy, which has managed all LSS training sessions delivered by our MBBs and BBs since the beginning of 2016.

In 2018, 247 new Belts were trained by the LSS Academy, for a total of 650 active Belts: 4 Master Black Belts, 28 Black Belts, six of which focused on Customer Service, 309 Green Belts and 309 Yellow Belts.

Furthermore, 361 people across Coesia, not involved in the LSS program, have been trained about the basics of the LSS methodology during sessions of LSS Awareness training.

During this past year 367 LSS projects were closed, and 317 new projects were initiated.

These improvement initiatives are driven by a customer-centric focus while strengthening the internal operational efficiency.

## INDIRECT COSTS (INCO)

InCo is a global initiative targeted at supporting Company growth by leveraging on the control, analysis and reduction of indirect costs. Given the competitive environment and continuous business evolution, the main objective is to free up resources in order to evaluate and implement new investments, innovative projects and process improvements.

Within this challenging context, the InCo program aims at eliminating or reducing non-value-adding activities, therefore decreasing those expenses that are not providing an effective contribution to the sustainability of the business.

To maintain and extend the success of InCo, Coesia promotes improvement projects and is constantly committed to supporting Companies and Regions sharing competencies and best practices in order to facilitate local initiatives.

Growing a sustainable, cost-efficient culture within the whole Group and encouraging new and innovative ideas are the major goals of the program moving forward to the next challenges.

## CORE BUSINESS PROCESS REDESIGN (CBPR)

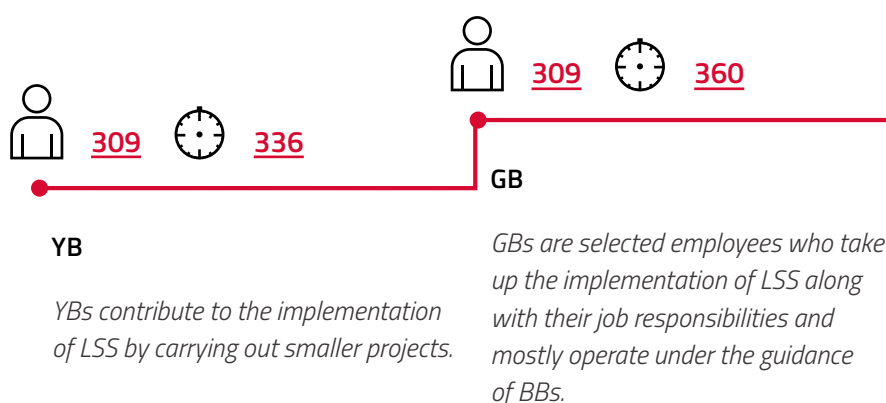
CBPR has equipped the Group with strengthened processes that generate and protect our value proposition to the Customers.

An improved New Product Development process enables deep assessment of the opportunity in Market and Customers, and exploits the Group and Company capabilities to offer the best solution and profitably allocate the needed resources.

In addition, CBPR has identified a roadmap of actionable processes and organization enhancements to support the local organizations into identification, evaluation and deployment of the Intellectual Property protection levers.

CBPR is also involved in the design and evaluation of technological solutions (e.g. CRM) that enable, sustain and standardize internal processes.

## THE COESIA LSS COMMUNITY



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## DATA SCIENCE

Data science is the new Coesia practice of Artificial Intelligence (AI) applied to the internal processes.

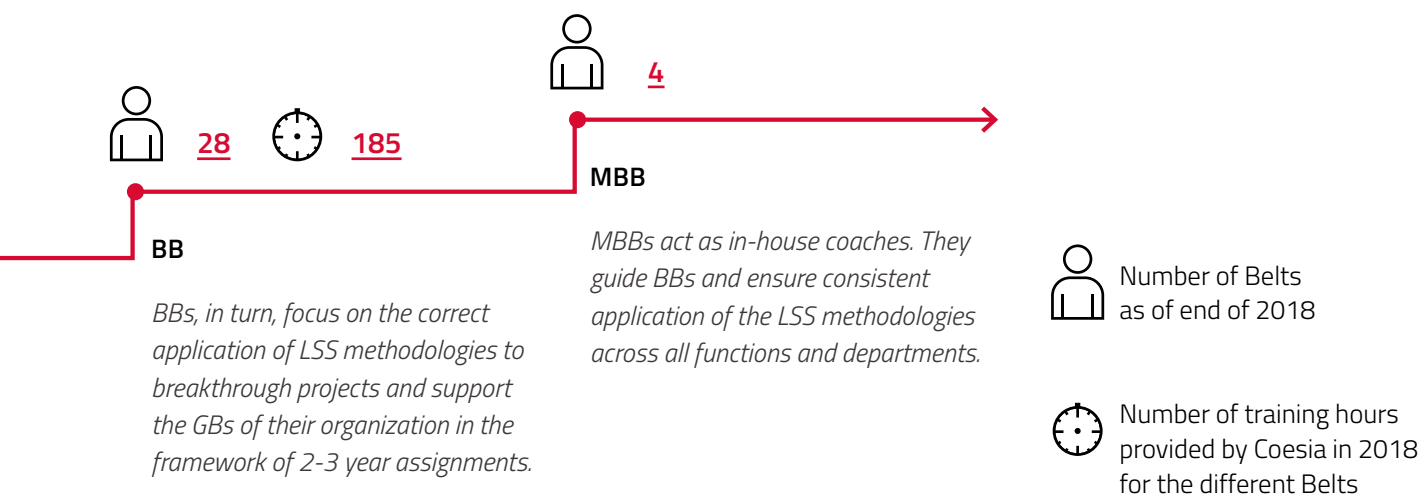
A dedicated Center of Expertise applies the AI methods to develop 'Intelligent Systems' that leverage on Big Data to:

- Empower Decision Makers with data-driven support system able to give directions and recommendations;
- Automatize and/or speed up lower value-added operative tasks so as to fully employ people in higher value-added activities.

In 2018, the Data Science team has developed SHAPE, a Coesia owned methodology to translate informative needs into tailored AI solutions.

Data science and SHAPE fundamentals have been spread across the organization through training sessions properly designed.

*In 2018, the Operational Excellence programs helped Coesia reach its targets, further strengthening the focus and impact on the Coesia 2020 strategic drivers.*





# Coesia: a universe to be protected

## OUR SUPPLY CHAIN

A strong and qualified supply chain is an important strategic factor in Coesia's growth and development. The Group has always preferred to develop longstanding partnerships with its suppliers and generate a higher level of quality through a targeted improvement process.

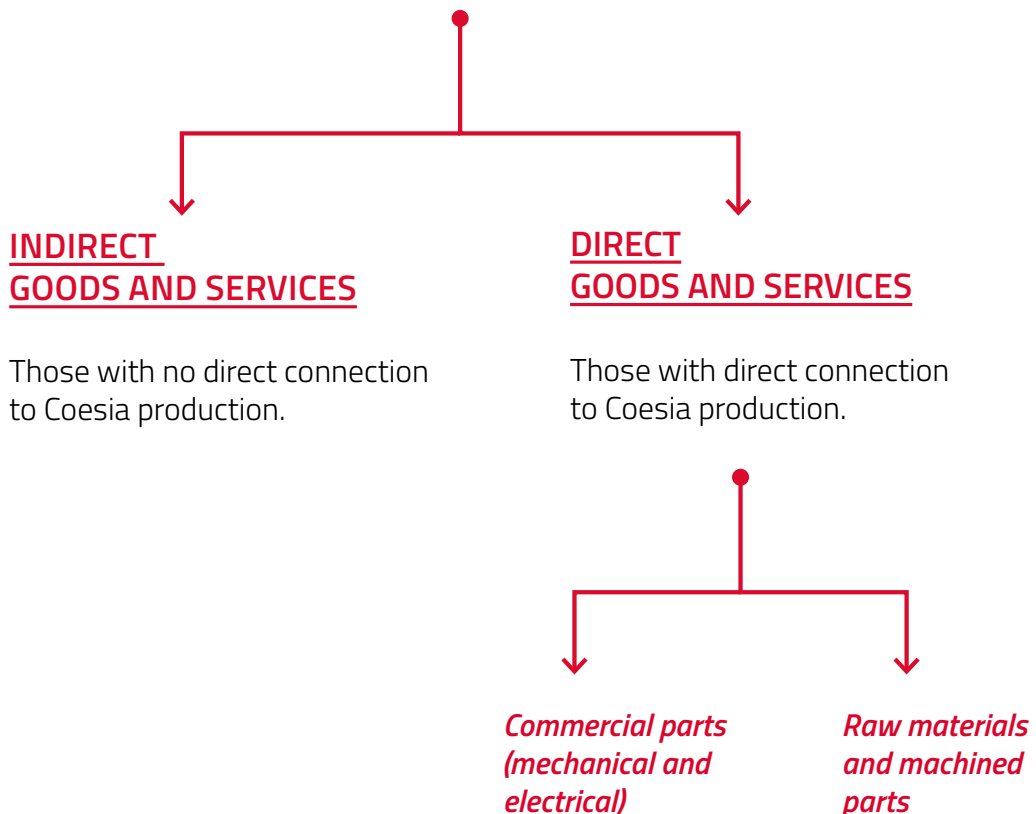
Our commitment to suppliers, especially local ones, is to support their skills and improve their performance and economic stability. Indeed, a highly connected supply chain helps us detect and respond quickly to challenges, while enabling enhanced mutual collaboration.

Coesia purchases goods and services either directly or indirectly, depending on their connection with production.

Direct purchasing involves two categories of goods: commercial parts, both mechanical and electrical, as well as raw materials and machined parts. Each has a direct connection to Coesia's production. Commercial parts are the beating heart of our machines, enabling the motion of the entire system.

For this reason, suppliers must ensure the highest quality and safety standards.

Raw materials and machined parts form our knowhow. The machined parts, designed by our engineering departments, and the raw materials, we purchase for internal manufacturing, guarantee the high performance and reliability of our machines.



## A COMPLEX GLOBAL NETWORK

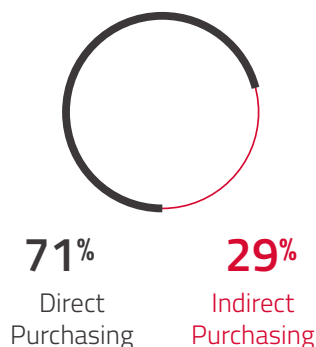
The Group's supply chain embraces many global suppliers of all different sizes and types.

Direct purchasing has working relationships with roughly 8,700 suppliers, while indirect purchasing coordinates with over 6,000 more. Coesia's purchasing department manages the strategic suppliers included in the Group's vendor list while other suppliers are managed at local level.

The Group uses standardized tools to evaluate new and existing suppliers. In particular, a vendor rating process has been developed to map the suppliers' performances. Quality, manufacturing and equipment management systems are some of the technical and quality parameters considered in this process. Corrective actions are identified to start a dialogue with suppliers for the improvement of their score and, as a consequence, the growth of the supply chain.

To standardize the purchasing procedures of the Companies, a series of general purchasing conditions have been defined and are under implementation throughout the Group.

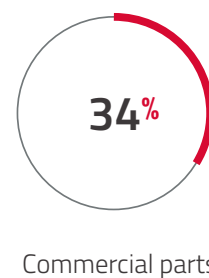
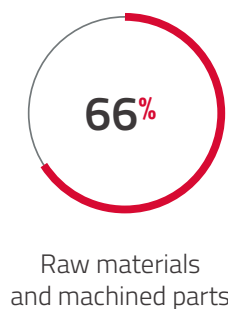
## PURCHASING TURNOVER AND DISTRIBUTION



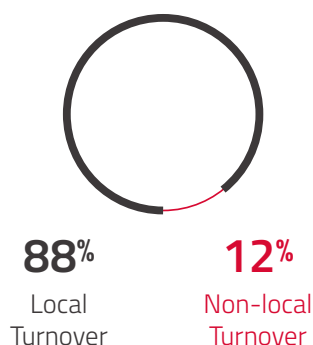
In 2018, 71% of the total purchasing turnover was connected to production (direct purchasing).

## DIRECT PURCHASING DISTRIBUTION

Raw materials, machined and custom parts accounted for 66% of total direct purchasing.



## LOCAL PURCHASING



Coesia is committed to fostering the growth of its suppliers and communities by buying locally. In 2018, about 88% of the Group's direct spending on goods and services was with local suppliers.

## METHODOLOGICAL NOTE

The percentage of products purchased locally has been calculated based on the total turnover. The data shown represents roughly 90% of the direct purchase turnover, without considering intercompany transactions. A product is considered 'local' if the supplier is based in the same country as the Company that acquired the product.





*For Coesia, sustainability in the value chain means looking beyond corporate boundaries to promote strategic, shared responsibility for social and environmental issues.*

The challenges we face are increasingly complex and require collaboration with our partners to create added value. Our commitment to sustainability is one of these challenges.

The Suppliers' Code of Ethics clearly states our commitment to the high ethical standards we have set for ourselves in areas like labor practices, human rights, health, safety and environmental protection.



*We promote employee volunteer initiatives all around the world.*

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## COESIA: DIFFERENT REALITIES, ONE COMMUNITY

All Coesia Companies are committed to promoting the wellbeing of the communities they are based in by creating cooperative relationships and partnerships.

As a Group, we provide financial and in-kind support to not-for-profit organizations whose missions address social inclusion, gender issues, support for homeless people, adults and children with disabilities, older people, immigrants and refugees and aid for areas hit by environmental disasters, as well as promote scientific research, health, arts, sports, culture and education.

In particular, in 2018, many of our organizations provided financial support to cancer research, the protection of children and their education.

We also promote local employee volunteer initiatives all around the world. For example, in 2018, FLEXLINK has helped immigrants integrate into Swedish life and has participated in various initiatives, in different countries, including the distribution of gifts to less privileged children, the participation in a running race to collect money for the promotion of blood banks, the sponsorship of foundations active in cancer treatment and rehabilitation.

*An innovative collaboration between for-profit and not-for-profit organizations.*

### FARE IMPRESA IN DOZZA (FID) MAKING BUSINESS IN BOLOGNA'S PRISON

Since 2010, the Coesia Company G.D has supported FID, a social enterprise that supports detainees' work training and their subsequent integration. The project was launched in collaboration with the IMA and Marchesini Group, other companies operating in the same sector and area, and the FAV (Fondazione Aldini Valeriani), an organization focusing on mechanical training.

FID has also funded the creation of a mechanical workshop where detainees work together with volunteer retirees to supply products to the companies that founded the social enterprise. This unique private initiative is an example of exchange of skills and promotion of human dignity.

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## CARING FOR OUR FUTURE

### *Education and training for younger generations.*

#### EXPEDITIONS AND SUMMER SCHOOL

Expeditions and the Summer School are two projects promoted by the MAST Foundation that involve employees from Coesia's Companies.

**Expeditions** is a project that teaches young students from schools of the Bologna area about packaging design, industrial automation, marketing, smart objects and artificial intelligence.

It provides them with a unique learning experience in technological innovation and entrepreneurship.

Starting in December 2015 with 230 students, the project expanded rapidly; about 700 students from six schools took part in the project in early 2017. The edition between 2017 and 2018 involved more than 1,000 students belonging to eight schools.

Moreover, about 60 of our employees play a role in each session, acting as trainers, by assisting with the design and delivery of technical content and as mentors by organizing and guiding participants' visits at our Companies.

Launched in 2016, the **Summer School** is a training project organized by MAST Foundation and Coesia in collaboration with the Regional School Office, targeted at high school students. Each session involves a maximum of 30 people and consists of a full immersion week of innovative workshops, classes and working groups and team-building activities. The third edition, dedicated to Artificial Intelligence and Internet of Things, took place in July 2018 and involved students from different schools in the Emilia Romagna region.

The Summer School next edition will take place in 2019.

Find out more information at  
[www.academy.mast.org](http://www.academy.mast.org)

#### ITS MAKER

ITS MAKER is a corporate project for high school graduates in collaboration with the Italian government, the Emilia Romagna region and other companies and training foundations.

Operating on behalf of Coesia, G.D is a founding member of the Foundation ITS MAKER, the Higher Institute for Mechanics, Mechatronics, Motoristics and Packaging for "Made in Italy" solutions.

ITS MAKER promotes technical and scientific knowhow for the growth of the industrial network of the territory. These two-year post diploma courses deliver cutting-edge professional training mainly through laboratory and practical learning, with the aim of churning out highly skilled technicians for the strategic industrial sectors of the region.



# ENVIRONMENTAL IMPACT: IMPROVED PROCESSES AND CUTTING-EDGE TECHNOLOGIES

Coesia is committed in preventing and mitigating its environmental impact by continuously improving its process performance and developing new technologies.

The environmental sustainability of Coesia's operations covers several business initiatives, such as energy saving programs and related investments, car fleet management, Company mobility, requalification interventions and waste management.

To verify its environmental progress, Coesia monitors its impact by collecting data related to energy consumption, emissions, water consumption and waste production.

Thanks to these systems, Coesia can define priorities and ways to intervene to guarantee its environmental sustainability over time.

Coesia's sophisticated nature is reflected in a heterogeneous system of small and medium-sized sites located in different countries around the world, though mostly in Western Europe.

Moreover, the ISO 14001 environmental management system covered 44% of Coesia's population in 2018.

*Coesia seeks to maintain the high environmental efficiency of its sites around the world while improving the wellbeing and quality of life of its employees.*

## HSE POLICY STRUCTURE

As shown in Chapter 2, since 2017 Coesia has adopted the Group's Health, Safety and Environment (HSE) Policy.

In addition to health and safety requirements, the policy includes a specific section on environmental requirements such as waste management, air emissions, wastewater and fresh water, energy and natural resources.

The most significant environmental data for Coesia are provided in the following sections.

## METHODOLOGICAL NOTE

The current monitoring system involves all sites with surfaces larger than 100 square meters. All data are collected as absolute values; however, since Coesia is characterized by the sites' heterogeneity, the indicators were normalized to allow comparison of 'equivalent conditions'\* and evaluation of the environmental performance trends. This normalization was made on the production level (revenue).

\*The reporting scope changed during 2018 following the acquisition of ATLANTIC ZEISER, TRITRON and COMAS. Other minor refinements have been made in the footprint mapping.

# ENERGY: INNOVATIVE SOLUTIONS AND BEST PRACTICES FOR PERFORMANCE IMPROVEMENT

Energy consumption is one of the most significant environmental impacts generated by Coesia.

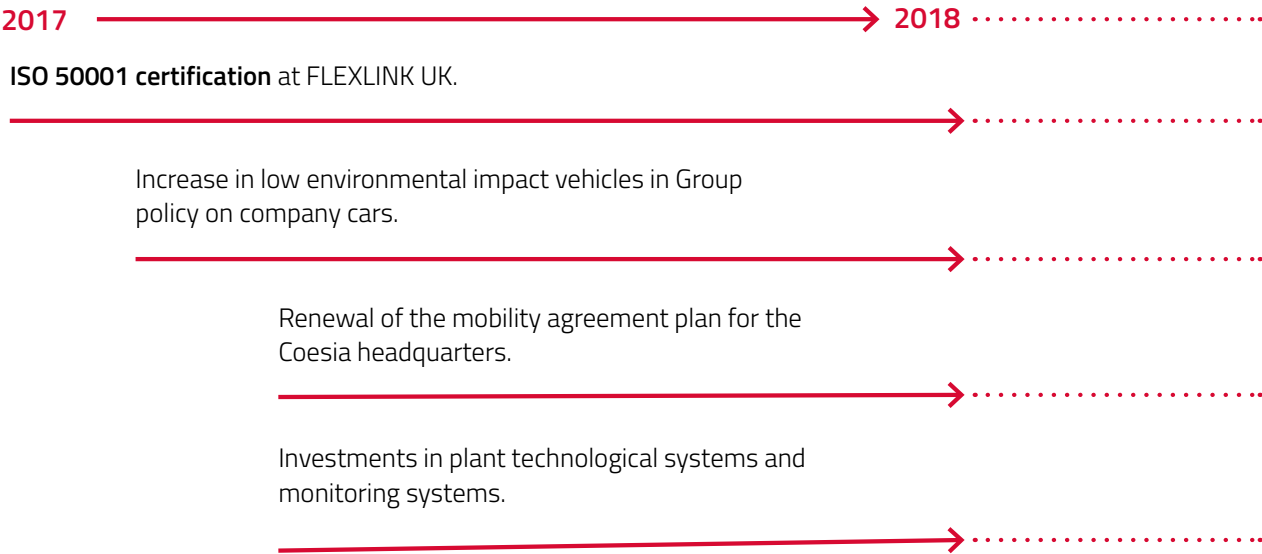
For this reason, over the last few years, the Group has worked to find innovative ways and best practices to improve the energy performance of its buildings.

In some cases, architectural renovation interventions were performed on the external structure, using new high-performance materials (roofing, windows, external insulation), while in other cases, latest-generation high-performance systems were installed (such as photovoltaic systems, LED lighting systems, solar heating systems).

In addition to these initiatives, the Energy Management System also deals with the implementation of assessment processes and investment analysis, in order to guarantee that Coesia Companies are always compliant with all legislative requirements on energy conservation and efficiency.

To this end, we have installed monitoring and measuring systems that allow us to manage and optimize the use of energy resources.

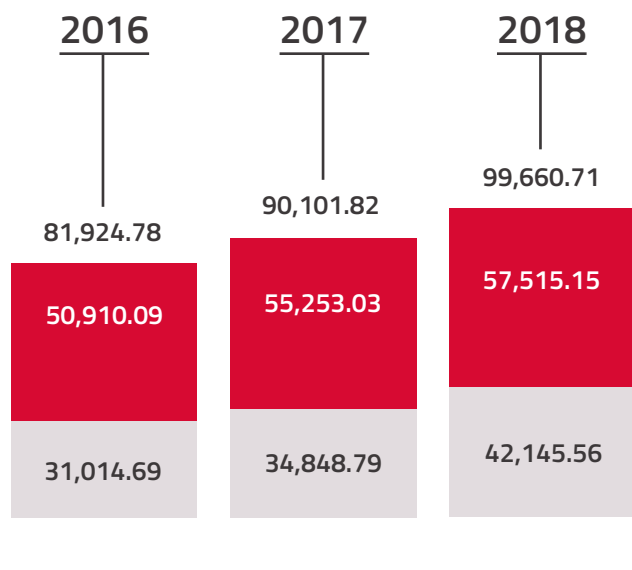
## MAJOR INITIATIVES



Three-year trends of 'total energy demand' and 'energy normalized by revenue' are shown in the next page.

All the data have been converted into MWh (Megawatthour) with the help of the appropriate national converting factors (Lower Heating Value, LHV).

## TOTAL ENERGY CONSUMPTION

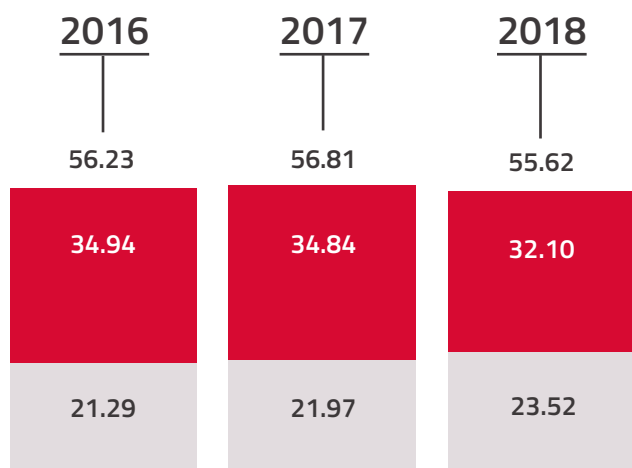


Coesia is strongly committed to making energy conservation investments, such as our progressive transition to LED lighting systems, the adoption of built-in IT solutions for plant management and control, the implementation of automatic consumption measuring systems and the replacement of traditional heating systems with high-performance systems and air inlet and compression systems with energy-efficient systems.

In 2018, our total energy consumption increased compared to 2017, due to the enlargement of the industrial perimeter and to the adverse weather conditions, which, in some areas, lead to an increased quantity of fuel used for heating purposes.

■ Electricity (MWh)  
■ Heating Fuel (MWh)

## ENERGY NORMALIZED BY REVENUE

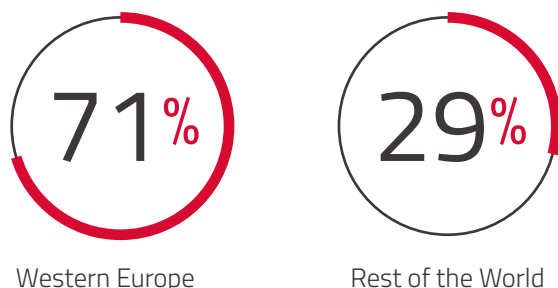


The energy consumption normalization - and power consumption in particular - shows a moderate reduction (-2.1%) versus 2017.

This proves that the energy conservation and efficiency interventions carried out - such as the adoption of new technologies and replacement of obsolete or power-consuming technologies with more efficient systems - was successful.

■ Electricity (MWh/M€)  
■ Heating Fuel (MWh/M€)

## ELECTRICITY GEOGRAPHICAL BREAKDOWN IN 2018



71% of electricity consumption is in Western Europe where most Groups's sites are located.

# EMISSIONS

Coesia monitors its greenhouse gas emissions on a yearly basis, by classifying them in Scope 1 and Scope 2, according to the GHG international standards. During 2018, we voluntarily improved the quantification process of Scope 3 emissions.

## SCOPE 1:

*Greenhouse gas emissions from sources that are owned or controlled by an organization. For Coesia, this category includes emissions from fuel consumption for heating purposes, refrigerant refilling and owned diesel, gasoline and hybrid-powered vehicles.*

## SCOPE 2:

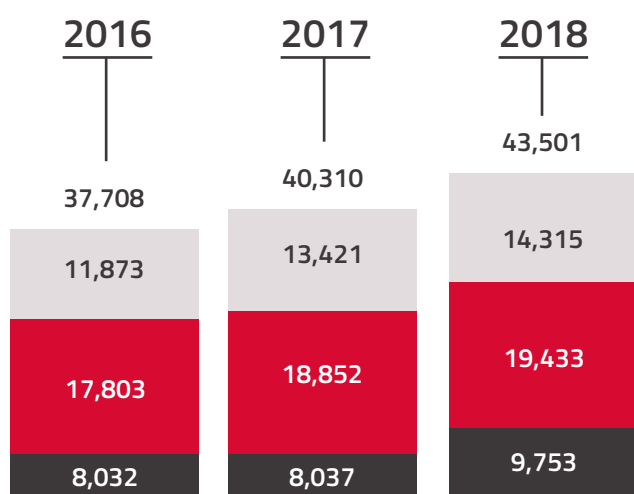
*Greenhouse gas emissions that result from the generation of purchased or acquired electricity, heating, cooling and steam consumed by an organization.*

## SCOPE 3:

*Greenhouse gas emissions resulting from all indirect upstream and downstream emissions not included in Scope 2, occurring in the value chain of the accounting company. For Coesia, this category includes consumption linked to flights and rental vehicle fuel, and consumption of office paper.*

The GHG protocol ([www.ghgprotocol.org](http://www.ghgprotocol.org)) was used to report scope 1, scope 2 and scope 3 emissions.

## TOTAL EMISSIONS



Following the increase in absolute energy consumption, in 2018 the level of total emissions has increased by 7.5%, with 43,501 tons of CO<sub>2</sub>eq emissions.

Scope 3 (t CO<sub>2</sub>eq)

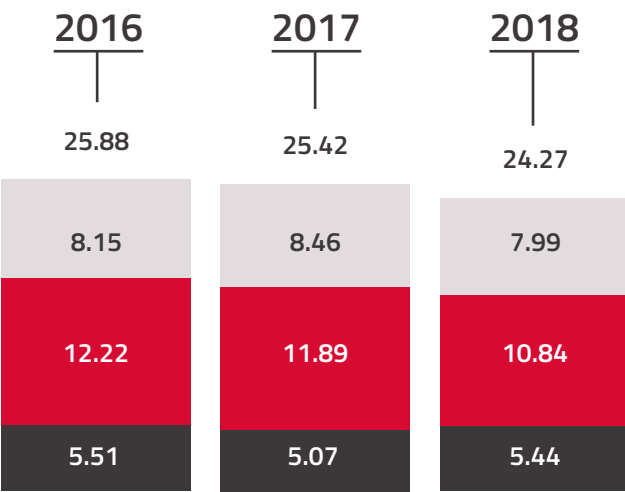
Scope 2 (t CO<sub>2</sub>eq)

Scope 1 (t CO<sub>2</sub>eq)

Concerning Sustainable Mobility, in 2018, in Bologna - where four of our companies are based - Coesia renewed the agreement with the Municipal Administration and the local public transport company, to implement sustainable mobility measures.

In regards to corporate vehicle fleet management, we have included new low-impact vehicles, and have encouraged employees to choose sustainable transportation solutions.

## EMISSIONS NORMALIZED BY REVENUE

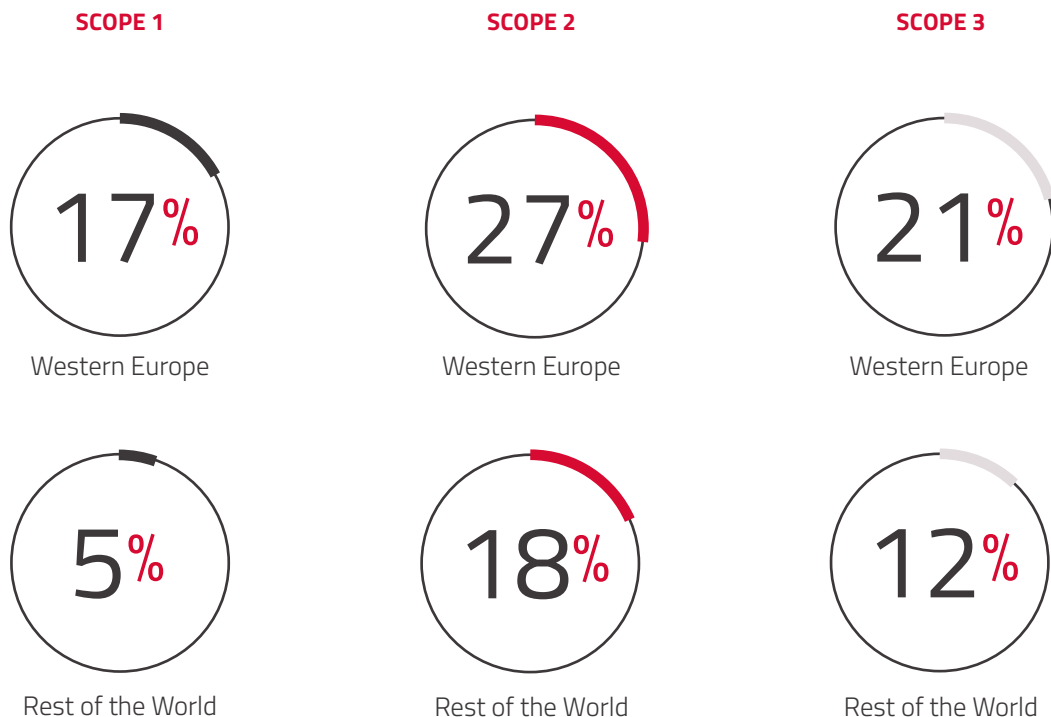


Similar to energy consumption, emissions normalized in the financial statements show a slight reduction, by registering a value of 24.27 tons of CO<sub>2</sub>eq emissions/million Euro generated in 2018.

Scope 3 (t CO<sub>2</sub>eq/M€)  
 Scope 2 (t CO<sub>2</sub>eq/M€)  
 Scope 1 (t CO<sub>2</sub>eq/M€)

## EMISSIONS GEOGRAPHICAL BREAKDOWN IN 2018

The emissions geographical breakdown shows 65% of emissions (scope 1, scope 2 and scope 3) being linked to Western European sites, which is in line with the energy demand.





# WASTE

Coesia considers waste management activities as integrated into the production process of the facilities because they are strictly related to efficiency optimization.

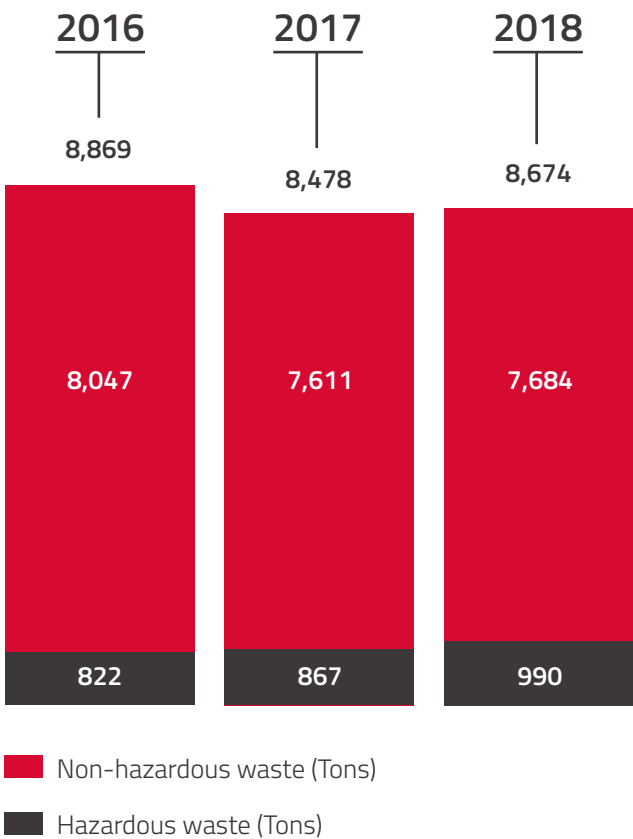
Waste is classified and divided into hazardous and non-hazardous waste, after specific technical and chemical analysis and consequently disposed in accordance with national legislation.

Every year, the production of hazardous waste is significantly lower than non-hazardous waste; in 2018, it accounted for about 11% of the total waste.

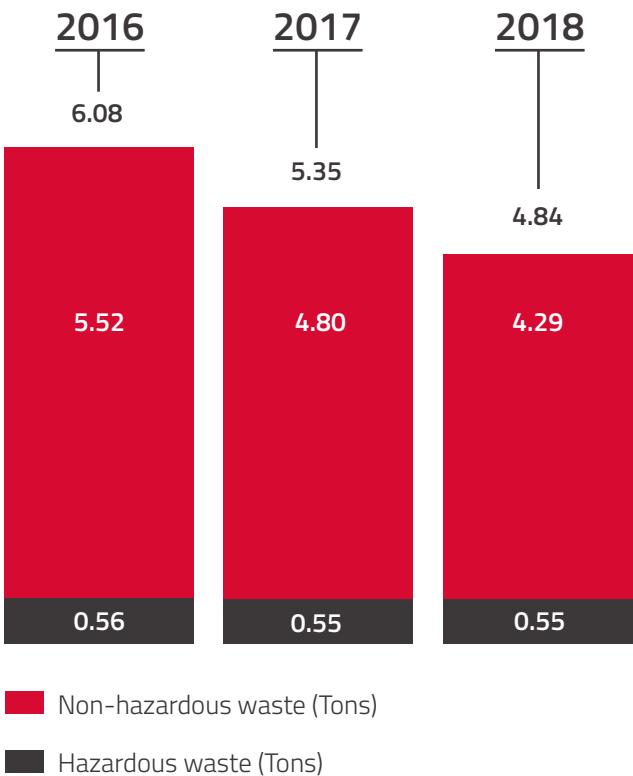
In 2018, the overall waste production has slightly increased (2.3%). However, if we take into account the economic value generated, this apparent increase actually means a significant 9.5% reduction compared to the previous year.

This positive trend can be credited to good practices applied and the increasing efficiency of processes.

## TOTAL WASTE PRODUCTION



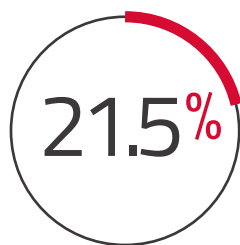
## WASTE NORMALIZED BY REVENUE



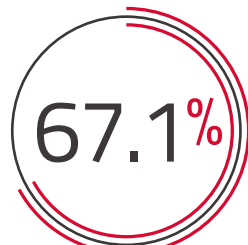
*In Coesia only 11% of the waste produced is hazardous due to the type of production, the materials used and the processes implemented.*

## WASTE CATEGORY BREAKDOWN IN 2018

Over the years, Coesia has striven to improve its production and waste sorting processes, in order to recycle materials and minimize the impact on the environment caused by waste production. In 2018, about 68% of waste has been recycled.



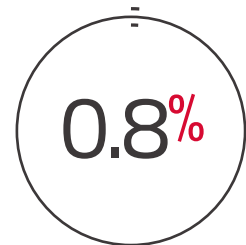
Non-hazardous waste sent to disposal



Non-hazardous waste sent to recycling (Aluminium/steel swarf included)



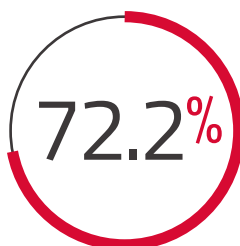
Hazardous waste sent to disposal



Hazardous waste sent to recycling

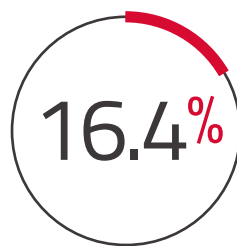
## WASTE GEOGRAPHICAL BREAKDOWN IN 2018

### WESTERN EUROPE



Non-hazardous waste

### REST OF THE WORLD



Non-hazardous waste



Hazardous waste



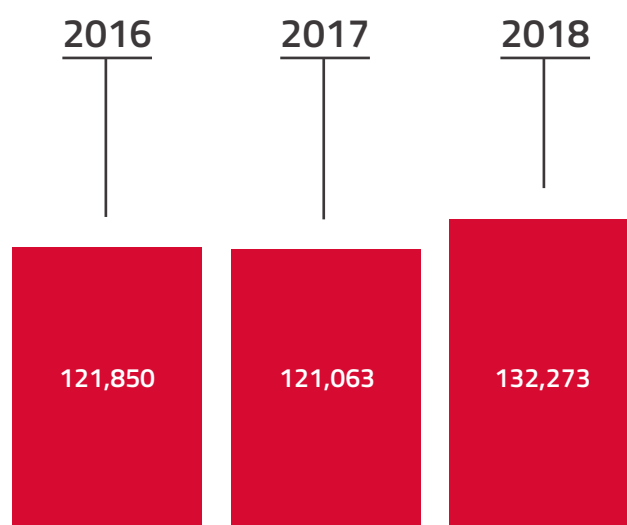
Hazardous waste

Looking at the geographical breakdown, in 2018 about 82% of total waste was produced by Western European sites. This slightly higher result, compared to other environmental figures, is due to the high concentration of production facilities in Western Europe.

## WATER: CONSUMPTION MONITORING AND IMPACT REDUCTION

Water consumption has a less significant impact for Coesia compared to other environmental aspects. Nonetheless, we regularly monitor water consumption and work to reduce our impact on this fundamental natural resource. Water consumption at Coesia is mainly connected to production, building hydraulics and thermal plants and, to a lesser extent, to canteens and irrigation. Wastewater deriving from all the activities is managed and sent to a dedicated treatment plant, as required by national law.

## TOTAL WATER CONSUMPTION



Water consumption (m³)

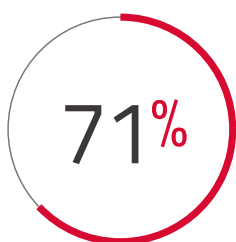
In 2018, total water consumption has increased, compared to the previous year; however, if we consider the normalized value, we see a constant trend with respect to 2017.

This result should be considered as positive, if we take into account the increase in employees and the introduction of new processes and products that require water.

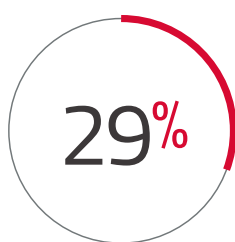
## WATER GEOGRAPHICAL BREAKDOWN IN 2018

Taking into account our regional distribution, the water consumption, is balanced between Western Europe (71%) and the rest of the world (29%).

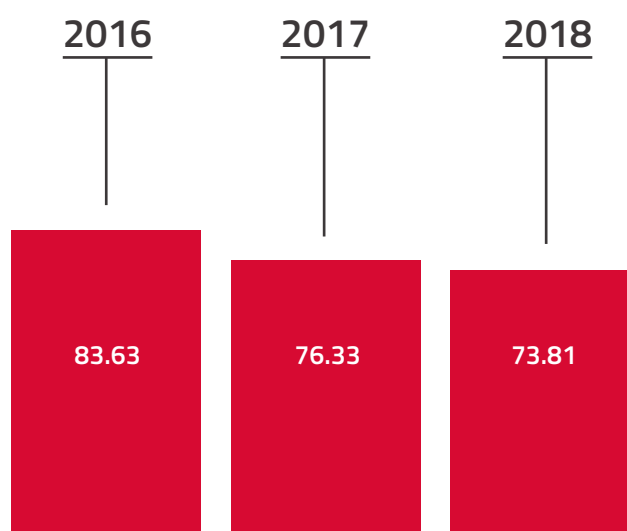
WESTERN EUROPE



REST OF THE WORLD



## WATER CONSUMPTION NORMALIZED BY REVENUE



Water consumption (m³/M€)



This Sustainability Report is the outcome of the contribution of our employees.  
All information and data have been centrally collected, managed and integrated.

Feedback from readers is extremely welcome in the continuous improvement of our commitment to sustainability.

For additional information: [communication@coesia.com](mailto:communication@coesia.com)

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this document will only be available in digital format.  
Printed copies can be provided upon request.*







# coesia

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