

# SUSTAINABILITY REPORT 2016





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	Letter of the Corporate Social Responsibility Officer	4
	Reader's Guide	7
	<b>1 Sustainability</b>	
	<b>1 THINKING RESPONSIBLY. ACTING CONCRETELY</b>	<b>9</b>
	1.1 Group Profile	10
	1.2 Sustainability Highlights	12
	1.3 The Group's Relationship System	15
	1.4 The aspects involved in measuring the capacity to create sustainable value	22
	<b>2 The Group</b>	
	<b>2 ONGOING EVOLUTION BASED ON SHARED VALUES</b>	<b>29</b>
	2.1 The history	30
	2.2 Global footprint	34
	2.3 Target markets and brands	36
	2.4 Stock performance	39
	2.5 The Group's Values	40
	<b>3 Organisational Structure</b>	
	<b>3 TRANSPARENT ARCHITECTURE OF CUTTING-EDGE PROCESSES</b>	<b>43</b>
	3.1 Corporate Governance Model	44
	3.2 The system to ensure integrity in business conduct	48
	3.3 Brembo's organisational journey of social responsibility	53
	3.4 Management of business risks	55
	3.5 The system for the integration and ongoing process improvement	58
	<b>4 Brembo People</b>	
	<b>4 PASSION AND TALENT MULTIPLIED BY 9,042</b>	<b>61</b>
	4.1 A growing Group with talented People	62
	4.2 Different ways of being Brembo People	66
	4.3 Training and development of skills	69
	4.4 Professional growth through recognition of merit	72
	4.5 Safeguarding workers' health and wellbeing	74



	<b>5 Production Process</b>	
	SAFETY: EXCELLENCE, FROM THE CONCEPT TO THE FINISHED PRODUCT	79
	5.1 Designing innovation	80
	5.2 The results of innovation: some distinctive products	84
	5.3 Partnerships to improve the environmental impact of products	86
	5.4 Creativity and method: ensuring product safety	89
	5.5 Efficiency and environmental protection in production processes	92
	<b>6 Suppliers and the Local Area</b>	
	GROWING IN HARMONY, TOGETHER AND WHEREVER	101
	6.1 Creating local development opportunities	102
	6.2 Ancillary companies and supplier network	106
	6.3 Promoting sustainable business models through responsible purchasing practices	109
	6.4 Social and cultural development of local communities	113
	<b>7 APPENDIX</b>	117
	7.1 Methodology used	118
	7.2 Material Topics and Related GRI – G4 Aspects	121
	7.3 GRI Index	124



## LETTER OF THE CORPORATE SOCIAL RESPONSIBILITY OFFICER

Dear All,

I am particularly proud to introduce you all to this first edition of the Brembo Group's Sustainability Report. The commitment to the environment we live in and to all the topics we will discuss in this Report have been firmly rooted in Brembo's DNA ever since we started our operations in Italy and worldwide.

The aim of this Report is to offer all of our stakeholders, from the people we employ over three continents, our shareholders and our suppliers, to any person or entity who has anything to do with Brembo, an exhaustive, thorough and transparent overview of our strategies, the actions we have taken, those we will continue to take and the results achieved in the sustainability field.

This Report is the outcome of impressive team work started at the beginning of 2016. Work that has allowed us to structure a constant and extensive monitoring process for the Group's non-financial performance, creating a document that will always accompany and supplement our Annual Report from now on.


The sustainability values and principles contained in this Report have been an integral part of our daily activities since the Company came into being, but they also represent a concrete response to the community's increasing awareness of the effects of doing business and the rising demand for transparency requested by international laws.

Although the term "sustainability" is for many an almost automatic byword for "environment", and in fact this aspect is one of the key pivots of Brembo's operations, it is certainly not the only one we wish to emphasise: the increase in socially responsible investment, which the entire business world is now being asked to contribute to, includes actions supporting very important social topics. For this reason, as well as for listing and illustrating how much Brembo is doing in terms of product and process innovation in order to improve the environmental impact aspect even more, the Sustainability Report describes the social and cultural development programmes that the Company has launched in Italy and in many countries in which we operate. In fact, we are convinced that it is the duty of those who, like Brembo, receive so much from the local area, to contribute in turn to the growth of the local community.

I believe that the title of the first of the six chapters into which the Report is organised, namely "Thinking responsibly, acting concretely", sums up Brembo's approach on the sustainability issue in a particularly effective way, and also combines well with the other concepts that give the next chapters their titles: ongoing evolution based on shared values, transparent architecture of cutting-edge processes, passion and talent multiplied by 9,042, safety:excellence from the concept to the finished product, growing in harmony with the local area. Together and wherever.

These concepts, principles of conduct and directions make us who we are. This is what we want to convey and share with you also through this publication.

CSR Officer  
Cristina Bombassei

A handwritten signature in black ink, appearing to read 'Cristina Bombassei', written in a cursive style.





# READER'S GUIDE

This **Sustainability Report of the Brembo S.p.A Group** (hereinafter also “**Brembo**”, the “**Group**” or the “**Company**”) is intended to provide an accurate, thorough and transparent view of the Group's strategies, actions and results in its pursuit of economic growth and business development, while taking account of the expectations of the stakeholders involved and seeking constant improvement of the environmental and social impacts of its activities.

In accordance with the G4 **Sustainability Reporting Guidelines** – Core Option of the Global Reporting Initiative (GRI) chosen as the standard of reference for the preparation of this document, the contents of this Report were determined through a **materiality analysis**. This process resulted in the identification of the areas of concentration of the greatest risks and opportunities to develop the company's business from a long-term perspective and to create value for all stakeholders.

The identification of the indicators on the basis of which to monitor and disclose the Group's sustainability performance is based on the set of **indicators as per the GRI G-4 Guidelines**: the section “Methodology Used” contains a table that shows the pertinent GRI Aspect – from which the KPIs included in the Report are derived – for each material Topic identified by Brembo. The table summarising the GRI indicators specifies the precise point in this document where the indicators as per G-4 GRI standard are illustrated. The reader can thus easily reconstruct the connection between the Topics identified as material, the GRI indicators of reference and the page of the document on which they are described and reported.

All of the information reported in this document refers to the financial year **1 January – 31 December 2016** and to **all Group companies included in the Consolidated Financial Statements at 31 December 2016**, as published in the Annual Report for the same year, unless otherwise indicated. Information for 2015 has been added and indicated appropriately, where useful, for purposes of comparison or contextualisation.

To receive information or comments about this document please send an email to the following address [sustainability@brembo.it](mailto:sustainability@brembo.it).







Sustainability

# THINKING RESPONSIBLY. ACTING CONCRETELY

## chapter 1



## 1.1 GROUP PROFILE

The Brembo Group — a global leader and recognised innovator in braking system technology for vehicles — designs, develops, manufactures, assembles and sells braking systems, vehicle wheels and light alloy and metal castings. It currently operates in 15 countries around the world, with more than 9,000 employees working at four research laboratories, 19 industrial plants and 23 legal entities, through which it sells its products in over 70 countries worldwide.

### FIGURES FOR THE THREE-YEAR PERIOD

2014 – 2015 – **2016**



Employees  
7,690 – 7,867  
**9,042**



Stock value  
**+185%**  
changes in the last three years



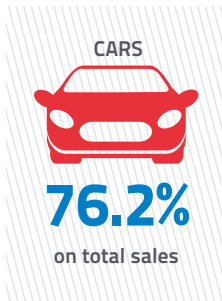
Investments  
127 – 156  
**264**  
€ million



Turnover  
1,803 – 2,073  
**2,279**  
€ million

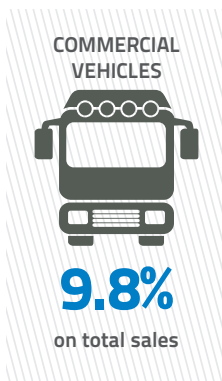


## Main applications



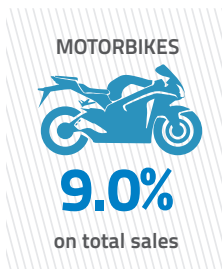
This area includes brake discs, brake calipers, wheel-side modules and, progressively, complete braking systems, inclusive of the integrated engineering services that accompany the development of new models for car manufacturers. The Group offers original equipment for both the most common vehicles on the European, U.S. and Japanese markets and

the most prestigious, exclusive models. In addition to its Original Equipment Manufacturing (OEM) line, Brembo also serves the aftermarket segment, offering a wide range (over 14,000 SKUs) suited to nearly all vehicles on the road in Europe, including brake discs, pads, drums, brake shoes, drum brake kits and hydraulic components.



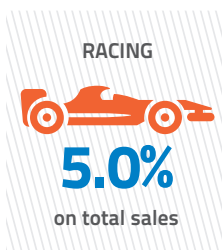
This segment includes components for original equipment brake systems for manufacturers of commercial and industrial vehicles of all kinds (light and medium) and discs for heavy vehicles.

In addition to its OEM line, Brembo offers replacement parts and maintenance products for commercial vehicle brake systems.



This sector includes brake discs and calipers, but also brake pumps, light alloy wheels and complete braking systems, intended for the models offered by the

world's most prestigious manufacturers. Europe, the United States and the Asian countries are the three most important markets for Brembo in this sector.

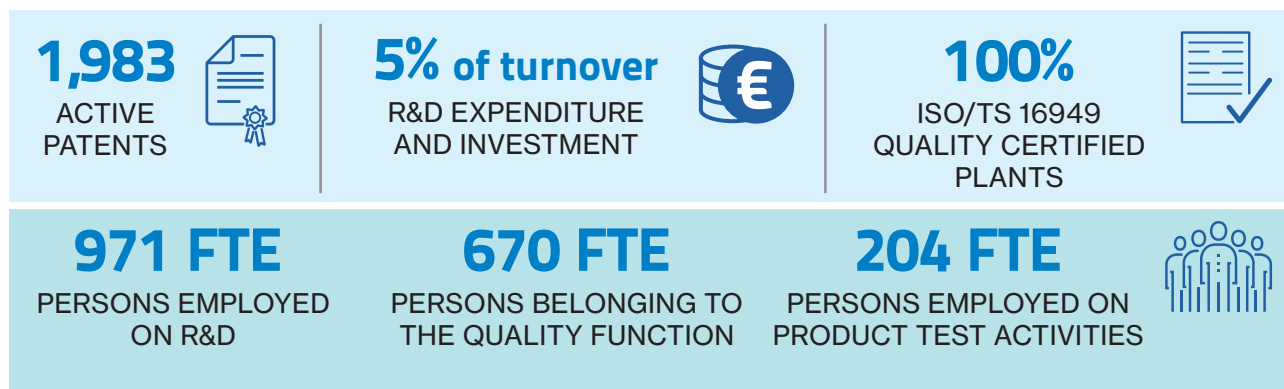


This segment includes the design and manufacture of brake systems and clutches for the racing sector, intended for teams participating in major racing competitions. Despite its limited impact on revenues, it is a market of strategic importance for the Group since it is a frontier sector for innovation by Brembo: the most advanced products, technologies, production concepts and development methods are

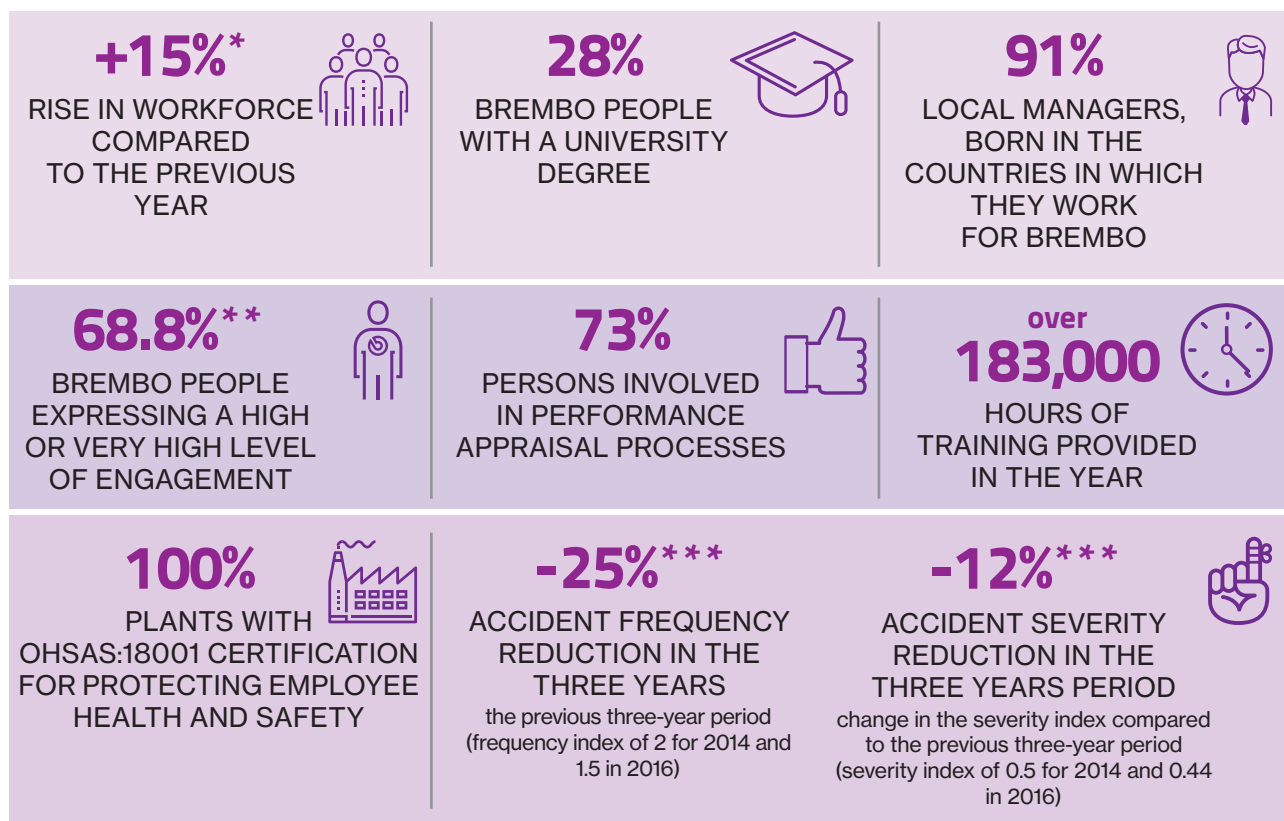
conceived for the racing market and the benefits then trickle down to all of the Group's models and divisions. The racing line is rounded out by a range of products intended for enthusiasts, preparers and, more generally, those who wish to improve the look and performance of their vehicles using parts ready for the track.

## 1.2 SUSTAINABILITY HIGHLIGHTS

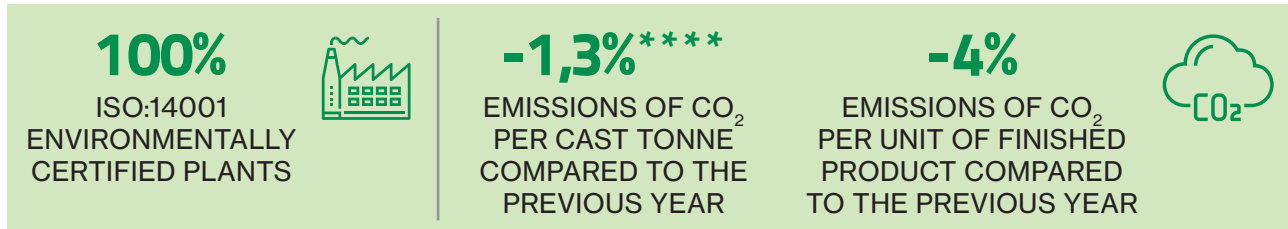
### Commitment to innovation and quality



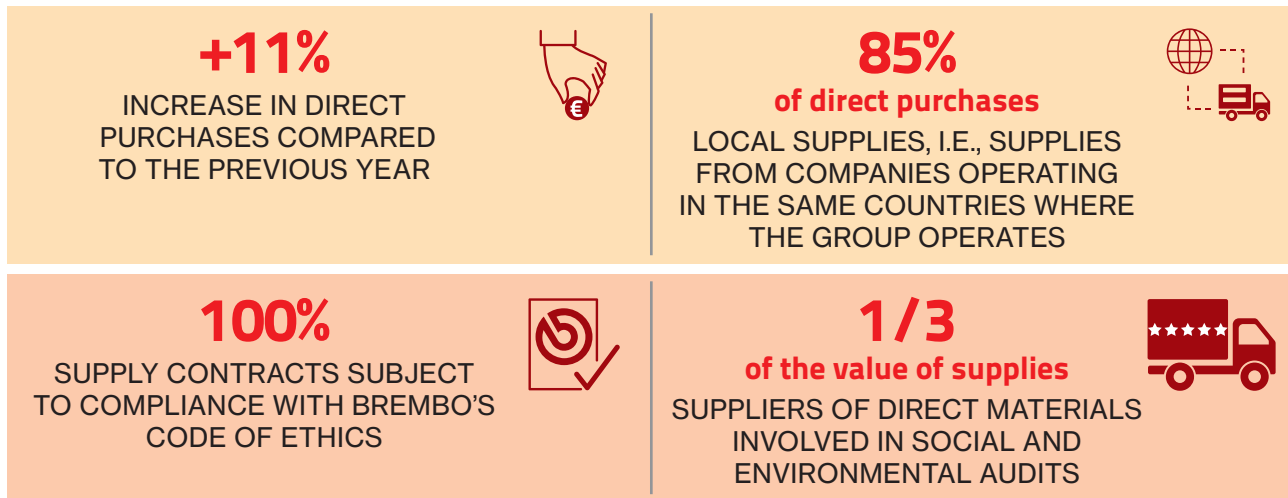
### Our commitment to Brembo People and total safety



## Our commitment to the environment



## Our commitment to the supply chain



\* The rise in the workforce is also due to the integration into the Group of the Chinese company ASIMCO Meilian Braking Systems Co.Ltd., as well as the opening of a new production hub in Mexico and expansion of the Homer plant in the United States.

\*\* The remaining percentage indicates very low, low, but above all neutral engagement. Brembo's engagement index exceeds by 4.02% compared to the 2015 standard of Mercer's "Global Manufacturing".

\*\*\* Frequency and severity rates do not include the figures on the Langfang production facility, which was included in the consolidation scope in 2016.

\*\*\*\* The scope for calculating the change in the emission intensity index for cast iron and aluminium production includes only the Dabrowa, Nanjing and Mapello foundries.







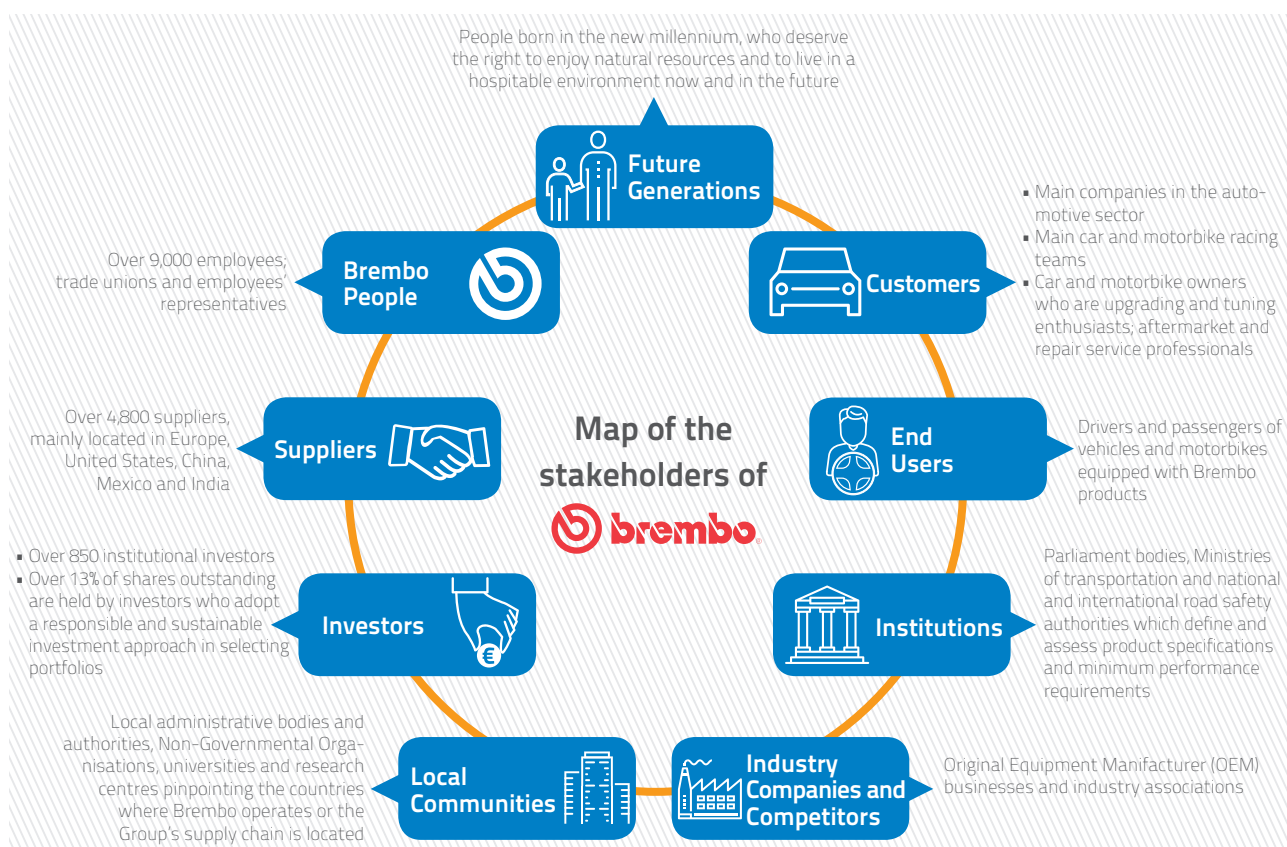
# 1.3 THE GROUP'S RELATIONSHIP SYSTEM

For Brembo, dialogue with its internal and external stakeholders is an important element of its strategy for improving the impact of company activities on the environment and society, since it allows the Group to gather important information about the context in which it operates and to obtain feedback about its actions. Through this process of listening and dialogue, Brembo is able to assess the extent to which it is understanding and satisfying the expectations and interests of its stakeholders by identifying the areas in which to increase its commitment and

those in which to confirm the approach adopted. Establishing ongoing, mutually satisfactory dialogue requires:

- the identification of key stakeholders with which to promote periodic dialogue initiatives;
- the definition of the most appropriate methods of ensuring stakeholder engagement.

The chart presented below provides a concise illustration of all of the Group's stakeholders, who represents the various interests that Brembo pursues.



For each type of stakeholder, there are various sources of information and feedback channels through which Brembo can identify the many aspects that it must consider.

Group stakeholders	Feedback and engagement tools	Stakeholders' expectations and interests with regard to Brembo
<p>Investors</p> 	<ul style="list-style-type: none"> <li>- General Shareholders' Meeting</li> <li>- Feedback and support channels offered by the Investor Relations function</li> <li>- Meetings, roadshows and conference calls with analysts</li> <li>- Corporate website and dedicated e-mail accounts</li> </ul>	<ul style="list-style-type: none"> <li>- Increase in the value of the Brembo Group's shares</li> <li>- Reduction of the risks associated with the investment</li> <li>- Transparency of Corporate Governance structures, long-term strategy and objectives, management actions and company performance, as also extended to the environmental and social arena</li> </ul>
<p>Customers</p> 	<ul style="list-style-type: none"> <li>- Daily activities and reports of the Divisions/Business Units: Car and Commercial Vehicle Division, Disc Division, Motorbikes, Aftermarket and Performance Group</li> <li>- Joint development programmes</li> <li>- Supplier assessment questionnaires and qualification processes</li> <li>- Customer support channels</li> <li>- Support and training network for Brembo Expert repair professionals</li> <li>- Surveys to identify customers' needs and expectations for the development of new products</li> </ul>	<ul style="list-style-type: none"> <li>- Product reliability and safety</li> <li>- Reliability and flexibility of production processes to ensure business continuity and delivery times</li> <li>- Constant product innovation, including the improvement of environmental performance and attention to product design</li> <li>- Support for joint development of custom solutions</li> <li>- Technical support for the network of repair and maintenance service professionals in the transfer of know-how</li> <li>- Protection of the value of the Brembo brand as a distinctive element for vehicles and motorbikes</li> </ul>
<p>End Users</p> 	<ul style="list-style-type: none"> <li>- Customer support channels</li> <li>- Monitoring and interaction on social networks</li> <li>- Feedback from vehicle and motorbike manufacturers</li> </ul>	<ul style="list-style-type: none"> <li>- Reliability and safety of Brembo products</li> <li>- Information about proper brake system maintenance</li> <li>- Protection of the value of the Brembo brand as a distinctive element for vehicles and motorbikes</li> </ul>
<p>Brembo People</p> 	<ul style="list-style-type: none"> <li>- Internal climate, job satisfaction and engagement surveys</li> <li>- Trade union roundtables</li> <li>- Daily activities and reports of the Human Resources and Organisation function</li> <li>- Channels for receiving reports of violations of the Code of Ethics, Code of Basic Working Conditions and Policy on non discrimination and diversity</li> <li>- Internal communication activity (Intranet, house organ and notice boards)</li> <li>- Training activities concerning organisational behaviour</li> </ul>	<ul style="list-style-type: none"> <li>- Safe work environment, where the health and mental and physical wellbeing of individuals are protected</li> <li>- Job stability</li> <li>- Opportunities for personal and professional growth</li> <li>- Training and skill development processes</li> <li>- Remuneration policies and merit-based incentive systems</li> <li>- Inclusion and appreciation of diversity</li> <li>- Transparency and engagement with regard to company objectives and performance</li> </ul>

<p>Suppliers</p> 	<ul style="list-style-type: none"> <li>- Daily activities and reports of the Purchasing function</li> </ul>	<ul style="list-style-type: none"> <li>- Timely and proper fulfilment of contractual conditions</li> <li>- Continuity of supply requests</li> <li>- Possibility of developing strategic partnerships to improve activities</li> </ul>
<p>Local Communities</p> 	<ul style="list-style-type: none"> <li>- Orientation and involvement of secondary school and university students and related recruiting programmes</li> <li>- Roundtables and discussions with the Public Administration</li> <li>- Initiatives involving the opening of Brembo's facilities to visits from workers' families ("open door" days) in various countries where the Group is present</li> <li>- Initiatives in support of the social and cultural development of local communities promoted by the Group</li> <li>- Whistleblowing mechanism for alleged violations of the Code of Ethics</li> <li>- Monitoring through the media (press, specialist publications, TV, Web and social networks)</li> </ul>	<ul style="list-style-type: none"> <li>- Support to the world of Schools and Universities, through a willingness to host students on alternating school-work paths, internships, apprenticeships and theses</li> <li>- Collaboration with Universities and research centres in the development and spread of engineering, technical and scientific knowledge and skills</li> <li>- Offering of job opportunities and transparent, merit-based recruitment processes</li> <li>- Creation and protection of employment within the Group and its ancillary businesses</li> <li>- Development of production and logistics processes that safeguard environmental conditions and the health of populations near Brembo's production facilities and those of the suppliers</li> <li>- Participation and support by Brembo in cultural development and social inclusion projects</li> </ul>
<p>Institutions</p> 	<ul style="list-style-type: none"> <li>- Roundtables and initiatives involving discussion with institutions, at national and international level</li> <li>- Hearings before parliamentary committees</li> </ul>	<ul style="list-style-type: none"> <li>- Ensuring full compliance with and observance of applicable legislation</li> <li>- Contributing to the development of regulations concerning the monitoring of polluting emissions in the automotive sector through the sharing of know-how and of specific industry knowledge</li> <li>- Promotion of local development and the achievement of the objectives established by the international agenda</li> <li>- Monitoring of the process to manage social and environmental risks throughout the value chain</li> </ul>
<p>Future Generations</p> 	<ul style="list-style-type: none"> <li>- Focus on the awareness campaigns of environmental associations and on analyses of the scientific community</li> </ul>	<ul style="list-style-type: none"> <li>- Fight against atmospheric pollution and global warming</li> <li>- Conservation of natural resources and circularity of the economy</li> <li>- Protection of ecosystems and natural biodiversity</li> <li>- Contribution to the achievement of the United Nations Sustainable Development Goals</li> </ul>
<p>Industry Companies and Competitors</p> 	<ul style="list-style-type: none"> <li>- Participation in the proceedings and themed committees of trade associations</li> </ul>	<ul style="list-style-type: none"> <li>- Involvement in the analysis of the industry's performance and needs to define common strategies for improving the sector and developing industry-wide policies</li> <li>- Strengthening industrial relations, including in view of pre-competitive collaboration on certain key aspects, such as improving sector sustainability</li> <li>- Protection of freedom of competition</li> </ul>

 more than  
**1.3 million fans**

for the Brembo brand Facebook page, who have left over 2.5 million likes on Brembo posts. 

 More than  
**112,000 fans**

for Brembo's Instagram profile

 More than  
**40,000 followers**

for Brembo's LinkedIn profile

 More than  
**22,000 followers**

for Brembo's Twitter profile

## Listening to Customers for product improvement

Brembo works to improve its products through daily contact with customers who manufacture vehicles fitted with Brembo brake systems. It does this in a spirit of maximum collaboration and joint development.

To continue to improve Brembo's offer, particularly regarding perceived quality and comfort, it is just as essential to talk to users of vehicles fitted with Group products, in order to understand the extent to which Brembo solutions meet their expectations and which are the aspects that can be improved further.

The annual analyses of data relating to issues encountered by drivers in certain key markets during brake use are particularly important tools in this context. To conduct these analyses the Group uses, among others, the "Initiative Quality Study" and "Vehicle Dependability Study" monitoring research, published by Jdpower. These studies cover drivers in the first few months after buying a new vehicle, as well as those using vehicles from one to three years old, and reveal the main brake system issues.

In addition to monitoring the quality and comfort perceived by users of Brembo solutions, the Group also involves End Users in its processes to develop new products: new design concepts for the composite disc were presented during various trade fairs — including the Frankfurt IAA (2015), NAIAS (2016) and Auto China (2016), and visitors were asked to choose which one they preferred.

\*Updated February 2017



## Dialogue with the key players in the automotive industry

With a view to promote constructive dialogue with institutions and encourage discussion between the industry's key players, Brembo is a member of various associations and takes part in working groups at both local and international level.

It is committed to working in partnership with an industry-oriented approach that allows the automotive and motoring sector to grow, innovation to be stepped up and progress achieved in the general interest. At international level the Group collaborates with the following associations/ organisations:

Association	Main objectives
<b>CLEPA - European Association of Automotive Suppliers</b>	Brings together the automotive suppliers at European level, representing their interests in dealings with the European institutions, the United Nations and related organisations, including ACEA, JAMA and MEMA. Brembo is currently holding the Presidency of CLEPA.
<b>CAEF - European Foundry Association</b>	Brings together and represents the foundry sector's operators at European level.
<b>SAE - Society of Automotive Engineers</b>	SAE International is a global association of engineers and technical experts employed in the automotive, aerospace and commercial vehicle production industry, which aims to promote collaboration, sharing of expertise and professional development of its members.
<b>UNECE – United Nations Economic Commission for Europe</b>	Its main aim is to promote economic integration amongst the 56 member states in Europe, North America and Asia.

At national level the Group collaborates with the following associations/organisations:

Country	Associations/organisations and main objectives
<p>■ Italy</p>	<ul style="list-style-type: none"> <li>➔ <b>CONFINDUSTRIA:</b> represents manufacturers and services operating in Italy, promoting the protection of their legitimate interests in relations with institutions, public administrations and economic, political, trade union and social organisations. Brembo is one of the 20 members forming the Association's General Council.</li> <li>➔ <b>ANFIA:</b> brings together more than 260 Italian enterprises operating in the motor vehicle construction, conversion and equipment sectors for the individual and collective transport of people and goods.</li> <li>➔ <b>ANCMA:</b> represents manufacturers of motorbikes and their components operating in Italy, safeguarding their interests and promoting the resolution of economic, technical and regulatory issues in the industry.</li> <li>➔ <b>ASSOFOND:</b> represents the Italian foundry sector in its relations with national, European and international economic, political and social institutions, administrations, and organisations.</li> <li>➔ <b>ASSONIME:</b> represents Italian joint stock companies; it studies and discusses issues concerning the Italian economy's interests and development.</li> <li>➔ <b>AODV:</b> association of Regulatory Body members pursuant to Legislative Decree 231/2001.</li> </ul> <p>Brembo subscribes to various partnerships that facilitate industrial research in the automotive field, including AIRI (Italian Industrial Research Association), ATA (Automobile Technical Association), Automotive SPIN Italy and the Lombardy Mobility Cluster.</p> <ul style="list-style-type: none"> <li>➔ <b>ACI:</b> with more than one million members, the Italian Automobile Club (ACI) is the largest free association in Italy that represents and safeguards the interests of the Italian automobile sector, and promotes the sector's development through dissemination of a new mobility culture.</li> <li>➔ <b>Italian-Chinese Chamber of Commerce:</b> fosters the development of economic and commercial relations between Italy and China through information and training initiatives, seeking opportunities for Italian enterprises interested in the Chinese market and Chinese enterprises wishing to operate in Italy.</li> <li>➔ <b>Italian-Russian Chamber of Commerce:</b> contributes to the development of economic, commercial, technical, legal, scientific and cultural collaboration between Italy, Russia and other CIS states.</li> <li>➔ <b>Italian Chamber of commerce and industry for Spain:</b> promotes economic and commercial relations between Spain and Italy.</li> </ul>
<p>■ Spain</p>	<ul style="list-style-type: none"> <li>➔ <b>SERNAUTO:</b> brings together enterprises operating in the sector of motor vehicle spare part equipment production, looking after their relations with key national and international organisations.</li> <li>➔ <b>ANCERA:</b> includes independent equipment retailers for vehicles, spares, tyres and accessories operating in Spain with the aim of encouraging collaboration and innovation in the automotive sector in order to reinforce safety and improve productivity.</li> </ul> <p>Brembo also subscribes to the Automotive Cluster of Aragon Region.</p>

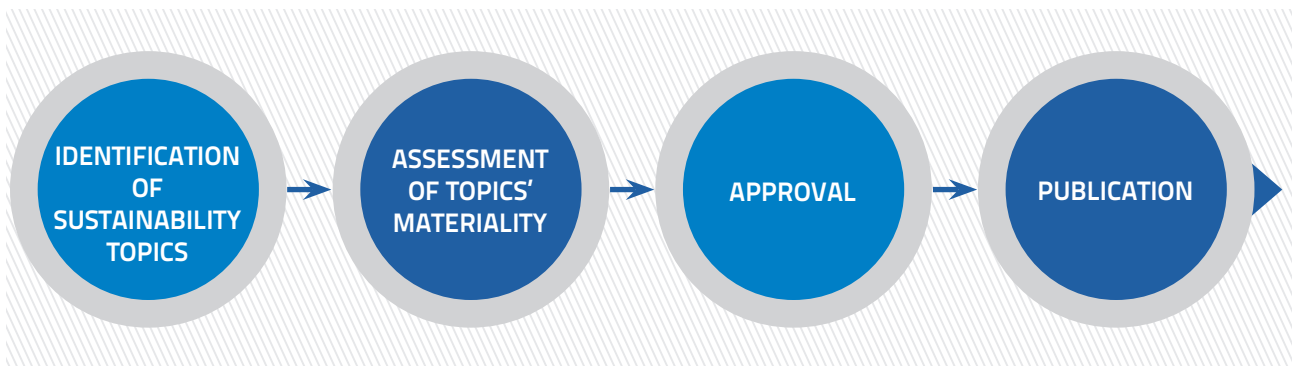
Country	Associations/organisations and main objectives
■ Poland	<ul style="list-style-type: none"> <li>➤ <b>PKPP Lewiatan:</b> brings together enterprises operating in the country, encouraging the protection of their legitimate interests in relations with public institutions and trade union organisations.</li> </ul>
■ India	<ul style="list-style-type: none"> <li>➤ <b>SOCIETY OF INDIAN AUTOMOBILE MANUFACTURERS:</b> brings together and represents the main motor vehicle and component manufacturers.</li> <li>➤ <b>CONFEDERATION OF INDIAN INDUSTRY:</b> promotes industrial development in India, representing the interests of the business community and fostering collaboration with the government and civil society.</li> <li>➤ <b>MAHARATTA CHAMBER OF COMMERCE &amp; INDUSTRIES:</b> association for the industrial and economic development of the Pune region.</li> </ul>
■ China	<ul style="list-style-type: none"> <li>➤ <b>ITALY-CHINA FOUNDATION:</b> brings together the Italian business world operating in China and Chinese companies operating in Italy with the aim of facilitating flows of people, capital, goods and services between Italy and China, improving Italy's presence in China and in Chinese institutions so as to foster commercial trade and strengthen cultural and business relations between the two countries.</li> </ul>
■ United States	<ul style="list-style-type: none"> <li>➤ <b>OESA - ORIGINAL EQUIPMENT SUPPLIER ASSOCIATION:</b> brings together the main enterprises operating in the United States automotive sector with the aim of promoting industry supply chain collaboration and safeguarding mutual interests.</li> </ul> <p>The Group is also a member of various local Chambers of Commerce that encourage the development of economic activities in the state of Michigan, including the Plymouth Chamber of Commerce and Michigan Chamber of Commerce.</p>
■ Mexico	<ul style="list-style-type: none"> <li>➤ <b>CAINTRA:</b> represents and promotes the interests of the industrial community in the Nuevo Leon region.</li> </ul>
■ Brazil	<ul style="list-style-type: none"> <li>➤ <b>SINDIPEÇAS:</b> brings together operators in the motor vehicle components industry operating in Brazil, promoting the sector's industrial development.</li> </ul>

## 1.4 THE ASPECTS INVOLVED IN MEASURING THE CAPACITY TO CREATE SUSTAINABLE VALUE

**Brembo has completed a materiality analysis process to define the Sustainability Report's structure and content, in order to identify the areas in which the Group's activities may have the greatest impact on protecting natural ecosystems, as well as on the wellbeing of the community, individuals and all of the Group's stakeholders.**

When applying the sustainability reporting standard issued by the GRI's Global Sustainability Standard Board, the material sustainability aspects were evaluated in terms of their capacity to have a significant influence on stakeholder decisions and opinion, as well as in relation to their impact on Group performance.

The analysis process, conducted by the internal team coordinating Corporate Social Responsibility policies, with the involvement of top management and supported by an external consultancy firm specialised in the analysis, monitoring and reporting of the business activity's social, environmental and economic impact, was organised into four main phases:



The identification of sustainability Topics that are significant for the Group and the industry was based on an analysis of various information sources such as:

- corporate documents, including, among others, the Group's Annual Report, the Organisation, Management and Control Model according to Legislative Decree No. 231/2001, presentations, press releases and transcriptions of conference calls with analysts, minutes of the Shareholders' General Meeting, the Code of Ethics, the Policy on non discrimination and diversity, the Code of Basic Working Conditions, as well as the Anti-bribery Code of Conduct, the "My Brembo" house organ, and Safety, Environment and Quality performance monitoring reports;
- external documents such as reports analysing scenario changes, prepared by the World Economic Forum and the GRI amongst others (Sustainability Topics - What Do Stakeholders Want to Know?), questionnaires evaluating Brembo's sustainability performance sent by the main Customers, benchmarking analysis carried out on the main competitors, Internet searches, as well as Brembo's press releases;
- international standards and multi-stakeholder initiatives, including the Sustainable Development Goals, the UN Global Compact, the United Nations "Protect, Respect and Remedy" framework, the OECD Guidelines for Multinational Enterprises, the European Commission's CSR Agenda for Action,

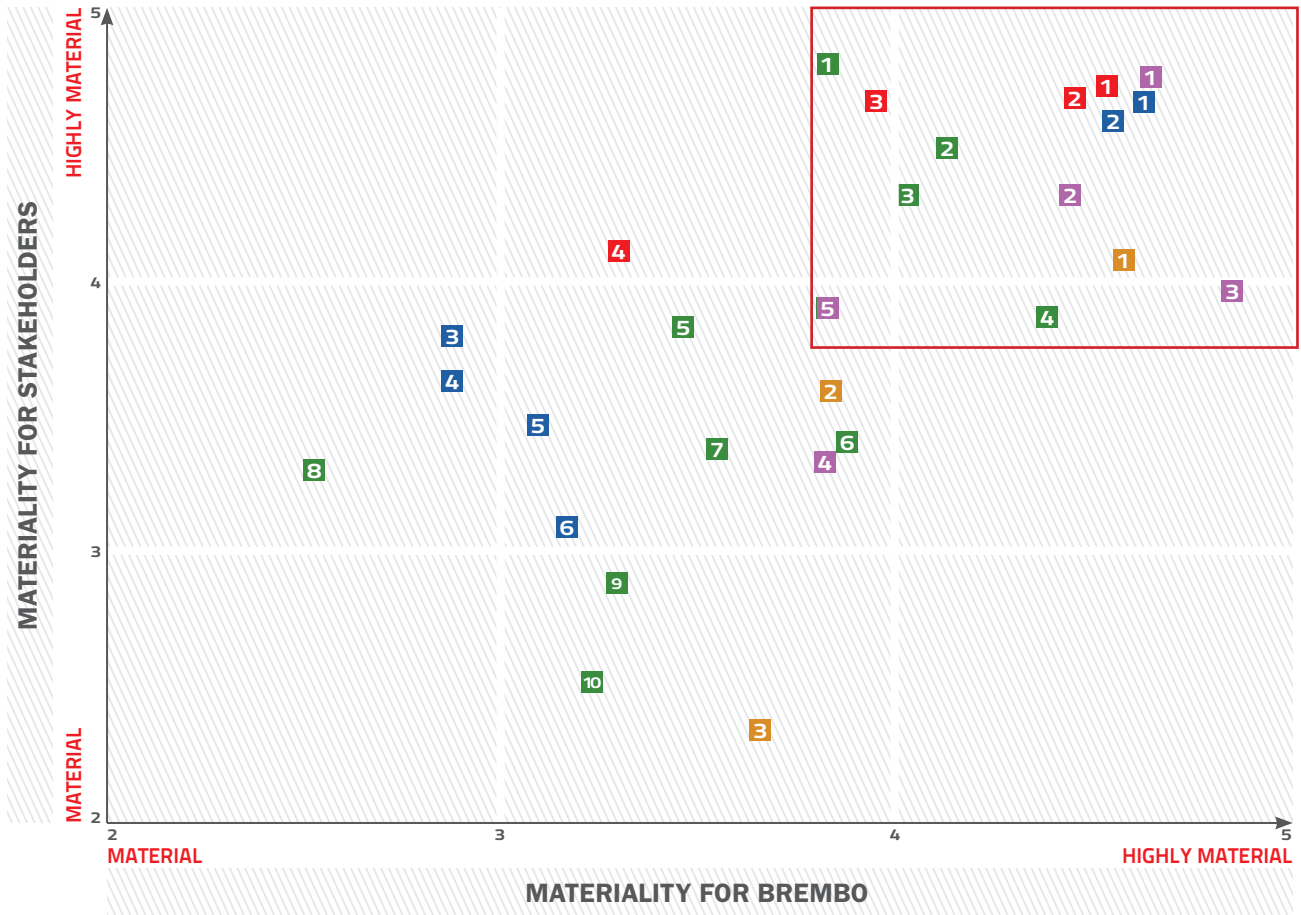
GRI standards 101, 102, 103, 200, 300 and 400, the SASB standard, UNI ISO 26000 Guidance on Social Responsibility of Organisations and the CDP Climate Change and Water questionnaires.

The mapping process has led to the identification of about **65** Topics that are potentially significant for the Group. The internal team has selected the **28** most significant ones based on its own professional judgement and these were then submitted to the company's top management for their assessment. Three Aspects were considered to be a prerequisite at the base of Brembo's sustainability model and so were not subject to further materiality analyses:

- the creation of economic value sustainable in the long term;
- the adoption of an effective and transparent governance system;
- the constant focus on compliance regarding standards and regulations.

The Group's top management was then involved in organising the 28 most material Topics on a priority scale depending on their economic, financial, reputational and operating impact for the Group, as well as in terms of their importance for stakeholders. The external perspective was examined by requesting a critical assessment from top management in contact with the Group's key stakeholders.

The materiality matrix, which was presented to and discussed by top management, is the result of this assessment.



**HUMAN RESOURCE-RELATED TOPICS**

- 1 Occupational health and safety
- 2 Brembo People Development
- 3 Benefits and work-life balance for Brembo People
- 4 Protection of freedom of association and workers' rights
- 5 Promotion of diversity and equality of opportunities
- 6 Attention to and strategic alignment of Brembo People

**CUSTOMER-RELATED TOPICS**

- 1 Total product quality and safety
- 2 Partnerships with customers and co-design model
- 3 Product design and style
- 4 Customer satisfaction

**COMMUNITY AND ENVIRONMENT-RELATED TOPICS**

- 1 Local and Global development
- 2 Effective management of emissions in the atmosphere
- 3 Efficient waste management
- 4 Energy efficiency
- 5 Relations with local communities and stakeholder engagement
- 6 Product eco-innovation
- 7 Responsible water use
- 8 Conflict minerals
- 9 Soil protection from leakages and polluting substances
- 10 Responsible selection of materials

**SUPPLIER-RELATED TOPICS**

- 1 Supply chain management
- 2 Environmental and social due diligence in relationships with suppliers and business partners
- 3 Collaboration with suppliers and promotion of the supplier-driven innovation

**CROSS-CUTTING TOPICS**

- 1 Overall product and process innovation
- 2 Business Ethics
- 3 Brand value and reputation
- 4 Participation in system/industry initiatives
- 5 Talent attraction and partnerships with Universities

Brembo's sustainability model requirements (not included in the Materiality Matrix)

- CREATING LONG-TERM SUSTAINABLE VALUE
- EFFECTIVE GOVERNANCE SYSTEM
- LAW AND REGULATION COMPLIANCE



**The Materiality Matrix**

The result of the materiality analysis process has been converted into a graphic format where the 28 material Topics are positioned in a matrix organised along two axes:

- the abscissa axis reflects the materiality of the Topics for Brembo;

- the ordinate axis reflects the materiality of the Topics for the Group's main stakeholders.

The different colours of the Topics identify the stakeholder category most affected by the various sustainability aspects.

The Topics identified as material are reported in detail in the Sustainability Report, with an increasing level of detail according to their materiality for the

Group and its stakeholders. The **14** most significant Topics on which this document focuses are:

<b>Overall Product and Process Innovation</b>	Constant process and product innovation to ensure improvements in product quality, also with a view to reducing environmental impact. Capacity to exploit the opportunities that digitalisation offers for transforming the planning of production and logistic flows, while satisfying the Customers' need to be able to rely on an extremely flexible supply chain that can meet demand with "just in time" strategies.
<b>Total Product Quality and Safety</b>	Innovation to improve the safety of all product components: mechanical strength, integration with advanced electronics, etc. Maximum safety guarantee for the brake systems marketed. Offering customers products with high-quality standards to ensure excellent performance, consistent with the target market segment (top-range vehicles).
<b>Occupational Health and Safety</b>	Promotion of working conditions that ensure full compliance with the right to health and the safeguarding of the physical wellbeing of employees through management systems that allow workplace accidents and occupational diseases to be prevented. Promotion of healthy and ergonomically-sound workplaces. Investment in infrastructure and training and in disseminating a safety culture.
<b>Brembo People Development</b>	Performance management, through the regular appraisal of all staff and definition of structured and formalised career development paths. Retention and development of critical staff and related skills, planning of their succession. Programmes for managing skills and promotion of training/life-long learning. International mobility opportunities for Brembo People.
<b>Partnership with Customers and Co-design</b>	Partnerships in the automotive supply chain for product innovation and development. Capacity to monitor market trends, reactivity in understanding the most promising innovations and quickly adapting its own offer to such developments.
<b>Brand Value and Reputation</b>	Promotion of the Brembo brand's distinctive features. Protection of Group's reputation and brand value.
<b>Business Ethics</b>	Dissemination of and training on the Code of Ethics. Controls on effective implementation of the Model according to Legislative Decree No. 231/2001 and the Code of Ethics, effective management of violation reports and safeguards against retaliation. Internal and external mechanisms for reporting behaviours that are unethical, and do not conform to company standards or are illegal. Incentive systems that promote and recognise the commitment to manage one's own responsibilities/activities with a view to ongoing improvement in business sustainability.



<b>Supply Chain Management</b>	Propriety and integrity in all phases of the commercial relationship with suppliers, from their qualification to assignment of supplies up to payment and dispute resolution. Collaboration inside the supply chain through stable commercial relations, assistance with investment and reinforcement of management skills.
<b>Local and Global Development</b>	Globalisation strategy and implications for the delocalisation areas. Awareness of the Group's role in developing a local ancillary industry in areas where it operates, contributing to the creation of infrastructures, employment, training and development of the local business fabric. Promotion of a local managerial class in the various geographical areas where the Group operates. Containment of the industrial site's negative impacts, particularly on the environment and local ecosystems.
<b>Product Design and Style</b>	Expression of product quality also by focusing on its design and aesthetics.
<b>Effective Management of Emissions in the Atmosphere</b>	Control and reduction of climate-altering gas emissions generated by production processes. Use of technologies/systems to reduce greenhouse gas emissions. Purchase of energy from renewable sources and development of renewable energy plants. Efficiency in the logistics and reduction of greenhouse gas emissions. Reduction of other noxious emissions (e.g., nitrogen oxides - NOx, sulphur oxides - SOx, fine particulate matter -PM10, volatile organic compounds, etc.).
<b>Energy Efficiency</b>	Reduction of direct and indirect energy consumption. Management of energy performance and energy policies. Investment in energy efficiency with a particular focus on innovation and the adoption of the best available technologies.
<b>Effective Waste Management</b>	Reduction of hazardous waste production and proper disposal/recycling. Promotion of scrap reduction and recycling initiatives.
<b>Talent Attraction and Partnerships with Universities</b>	Capacity to attract and retain talent and key expertise within the Group also through relations with Universities.









The Group

# ONGOING EVOLUTION BASED ON SHARED VALUES

## chapter 2

## 2.1 THE HISTORY



The logo identifies the main stages of Brembo's sustainability journey

11 January 1961, Emilio Bombassei and Italo Breda set up Officine Meccaniche di Sombreno, a small mechanical workshop that can claim the carmaker, Alfa Romeo, as one of its first customers.

1961

Brembo launches the production of car brake discs for the aftermarket.

1964

Brembo supplies Moto Guzzi, opening up to the two-wheel brake sector.

1972

In 1975, a handshake between Alberto Bombassei and Enzo Ferrari, who chooses Brembo brakes for "the Reds", sees the Group start to establish itself as a leader in brake system applications for racetrack, road and off-road motor racing competitions. Brembo contributes to the victory of two world championships with Niki Lauda in 1975 and 1977.

1975

Within a context of increasing globalisation, the Company agrees for Kelsey-Hayes, a multinational U.S. group that produces brake systems, to take a stake in the company.

1983

In 1987, the first monobloc caliper was produced and this would soon make its debut in the Formula 1 world championships. This was a radical change compared to the caliper consisting of two pieces screwed together because it provides greater rigidity combined with reduced weight. It also exhibits none of the problems of the conventional caliper due to the different thermal response of the components. The monobloc caliper, which until then had been considered impossible to achieve due to the complexity of the production process, enters into production thanks to Brembo's designers and engineers.

1987



### The Sixties

### The Seventies

*Brembo establishes itself as one of the leaders in the sector of aftermarket brake discs in Europe, expanding production to other brake system components as well.*

### The Eighties

*In 1980, a new brake caliper is added to the range, produced for the first time in aluminium, an innovation in the material and design that would soon become the new standard for most road applications. Since the mid-Eighties, Brembo's production has also been extended to the commercial vehicle brake disc segment. Brembo becomes strategic supplier for Iveco, Renault and Mercedes.*

*Towards the end of the Eighties, the first carbon-ceramic applications are trialled in the production of brake pads for Formula 1.*

In March 1993, following adoption of a new strategic direction, Kelsey-Hayes sells its stake: Brembo buys the shares to ensure industrial continuity.

● 1993



## The Nineties


*After the monobloc brake caliper's debut in the Formula 1 world championship, 1992 sees Brembo introduce this new caliper concept for the first time in the MotoGP racing sector, overcoming the processing difficulties caused by the fact that motorbike calipers are smaller than those used on four-wheel vehicles.*

The Czestochowa plant, specialising in aftermarket disc manufacture, enters into production.


● 1994

The Group is listed on the Milan Stock Exchange and launches a strategy for growth and globalisation that in the course of the years will lead it to have production sites worldwide.

● 1995

 In 1999, Brembo obtains the first automotive certification (QS9 9000 – AVSQ 94).

● 1999

 The Group prepares the first edition of the Intangible Capital Report, a document that illustrates, with data and information, the company's capacity to create value not just in an economic perspective but also with reference to its social and environmental impacts, employment safeguards, empowerment of human resources, and capacity for growth and innovation.

 The logo identifies the main stages of Brembo's sustainability journey

## End of the Nineties

*At the end of the Nineties Brembo starts to develop carbon-ceramic brake discs.*



# New Millennium

To further develop its operations within the motorbike sector, Brembo buys 70% of the Marchesini company, specialised in the production of magnesium wheels for racing motorbikes.



Brembo obtains the first ISO 14001 certification.

In 2002, the new Ferrari Enzo is fitted with Brembo carbon-ceramic brake discs. The following year Brembo Ceramic Brake Systems S.p.A., based in the new Kilometro Rosso Science and Technology Park in Stezzano, is formed to intensify development of this innovative material. This is a joint venture between Brembo and Daimler Chrysler AG to develop and produce carbon-ceramic brake discs.



Brembo obtains the first OHSAS 18001 certification.



Adoption at Group level of the first version of Brembo's Code of Ethics.

In Poland the Group's third foundry is inaugurated in Dabrówka Gornicza. Moreover, in 2006, the monobloc brake caliper, developed at the start of the Nineties for the racing motorbike sector, is installed on a series motorbike as original equipment: this is a radical innovation for Brembo which then becomes the benchmark for the most well-known super-sport motorbikes.

The new Research and Development Centre inside the Kilometro Rosso Science and Technology Park is inaugurated. This accommodates more than 500 people including product engineers, designers and technicians employed in research and development. In the same year, the Group buys the brake division of Hayes Lemmerz International and launches Brembo's management of the two Hayes Lemmerz plants in Detroit, Michigan, and Mexico, which produce brake discs and drums for the North American car and commercial vehicle market.



Publication of Brembo's Charter of Values, which indicates definitions and rules of conduct representing each area of the company's set of corporate values.



The logo identifies the main stages of Brembo's sustainability journey

2000



2001



2002



2003



2004



2005



2006



2007



2009



The New Millennium marks a phase of major expansion for the Group at international level: in Brazil it buys the Brazilian company Alfa Real Minas, and in the United Kingdom the company AP Racing Limited. Lastly, in China the Group signs a joint venture with Yuejin Motor Group and sets up the company Nanjing Yuejin Automotive Brake System for the production of brake systems for cars and commercial vehicles.

Brembo receives the Financial Statements Oscar, promoted by FERPI, which recognises companies that have the best financial reporting and are most committed to looking after their relationship with stakeholders.



Publication of the Value Report, focusing on the relation between the Group's financial documents and its environmental and social performances.



In India a joint venture is set up between Brembo and Bosch's Indian subsidiary KBX Motorbike Products Private Ltd., based in Pune with the aim of producing and selling motorbike brake systems.

In May 2009, it sets up with SGL Group an equal partnership joint venture – Brembo SGL Carbon Ceramic Brakes S.p.A. – working in research and development in the field of innovative materials sector. The Company's objective is to develop a new generation of carbon-ceramic brake discs for large-scale applications.

Brembo inaugurates a new plant in India and launches the new Bybre brand, an acronym for "By Brembo", dedicated to brake systems for scooters and small and mid-power motorbikes for the Brazilian, Russian, Indian, Chinese and South East Asian markets.



# From 2010 to today

Brembo consolidates the Group's presence in China through the acquisition of a foundry for the gradual establishment of an integrated production hub in Nanjing, including a foundry and manufacturing plant for brake calipers and discs for cars and commercial vehicles.

2010

Works on expanding the Dabrowa industrial hub in Poland, to be used for the car and commercial vehicle market, are completed and the new plant is inaugurated for the production of aluminium brake calipers in Ostrava in the Czech Republic.

2011

Brembo receives the "Ambrogio Lorenzetti" award, introduced by GC Governance Consulting, to recognise administrations and companies that have adopted good corporate management practices.



With a view to increasing transparency towards stakeholders and strengthening the commitment to protect the environment, in 2011 Brembo subscribes to the Carbon Disclosure Project, publishing the greenhouse emission values for two important production sites in Mapello. Its support for the initiative is reconfirmed over the years, with an increase in the number of Group sites for which GHG emission data is disclosed.



2012

The commitment to improve the social-environmental impact of the company's activities is recognised by the "Sustainability Supplier of the Year" award for the EMEA region conferred by Fiat Chrysler.



2013

Adoption of Brembo's Anti-bribery Code of Conduct, valid for all Group companies.



First edition of the Code of Basic Working Conditions.



2014

A new brake system production plant for the North American market is inaugurated in Homer, Michigan.

First edition of the Policy on non discrimination and diversity.



Completion of construction of a cast-iron foundry in an area adjacent to the new Homer plants, marking the launch of the production vertical integration process for production capacity in the United States as well. The foundry, including the technical offices and warehouse, covers 30,000sq m and creates 250 new jobs in the Homer and Plymouth plants.

NORTH AMERICA EASTERN EUROPE  
2015

Beginning of work to expand the production capacity of the integrated industrial hubs in Dabrowa Górnica (Poland) and Ostrava-Hrabová (Czech Republic), specialised, respectively, in casting and processing brake discs for cars and commercial vehicles, and casting, processing and assembling brake calipers and other components.

Inauguration of the Escobedo plant, in Nuevo León, near Monterrey, covering 35,000sq m. It is the Group's most advanced brake caliper production hub and it is state-of-the-art in terms of energy efficiency and conservation, adopting the highest standards developed at several Brembo plants.

MEXICO CHINA  
2016

Acquisition of control over the Chinese company ASIMCO Meilian Braking Systems Co.Ltd. that operates a cast-iron foundry in Langfang where 660 staff are employed. This company supplies all local car manufacturers, mainly joint ventures among Chinese firms and European top players.



The logo identifies the main stages of Brembo's sustainability journey

## 2.2 GLOBAL FOOTPRINT

The Companyheadquarter is located in Italy, Curno (Bergamo).

**Manufacturing plants** are located in:

### Italy

Stezzano, Curno, Mapello, Sellero

### Poland

Czestochowa, Dabrowa Gornicza, Niepolomice

### United Kingdom

Coventry

### Czech Republic

Ostrava-Hrabová

### Germany

Meitingen

### Spain

Zaragoza

### Mexico

Apodaca, Escobedo

### Brazil

Betim

### Argentina

Buenos Aires

### China

Nanjing, Langfang

### India

Pune

### United States

Homer



**15** COUNTRIES  
WORLDWIDE

**19** PRODUCTION  
SITES



other companies located in:

**Spain**

Zaragoza

**Sweden**

Göteborg

**Germany**

Leinfelden-Echterdingen

**China**

Qingdao

**Japan**

Tokyo

**Russia**

Moscow

carry out **distribution** and  
**technical or sales assistance.**



23 LEGAL ENTITIES

4 R&D CENTRES

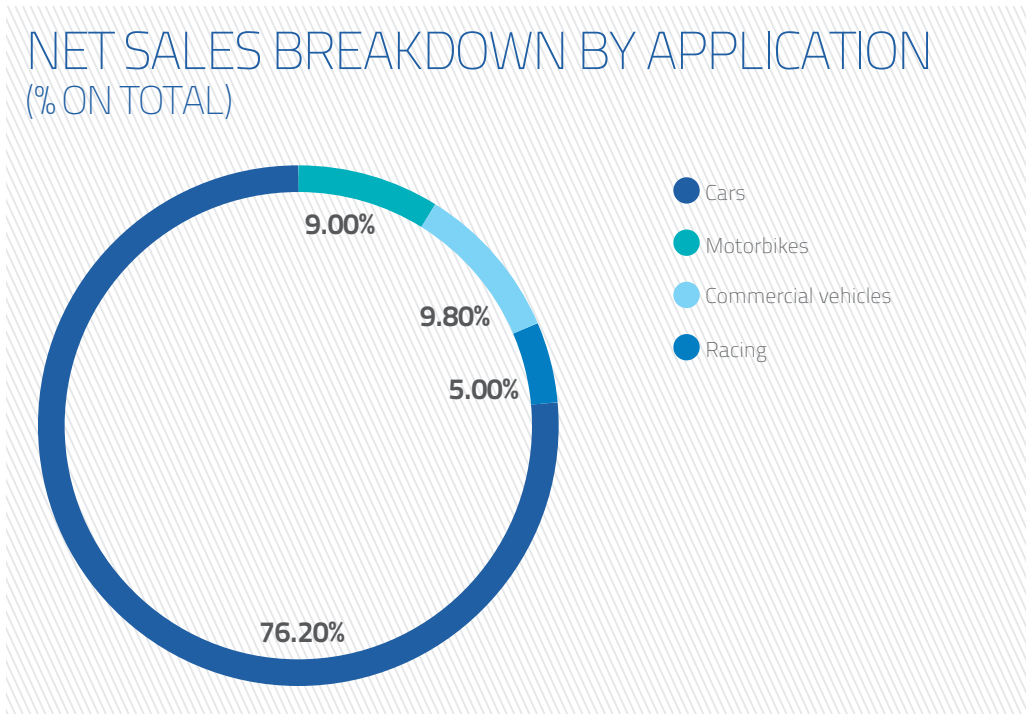
## 2.3 TARGET MARKETS AND BRANDS

**Brembo's reference market is represented by the most important manufacturers of cars, motorbikes, commercial vehicles and racing cars and motorbikes.**

The extensive product range consists of high-performance brake calipers, brake discs, wheel-side modules, complete braking systems and integrated engineering services, supporting the development of new models placed on the market by vehicle manufacturers. Brembo's products and services are conceived

for the automotive sector, as well as for the commercial and industrial vehicles, motorbike and racing sectors, and are targeted at both the original equipment market and the aftermarket.

Overall in 2016, Brembo's consolidated net sales amounted to €2,279 million, up 9.9% compared to €2,073 million in 2015.



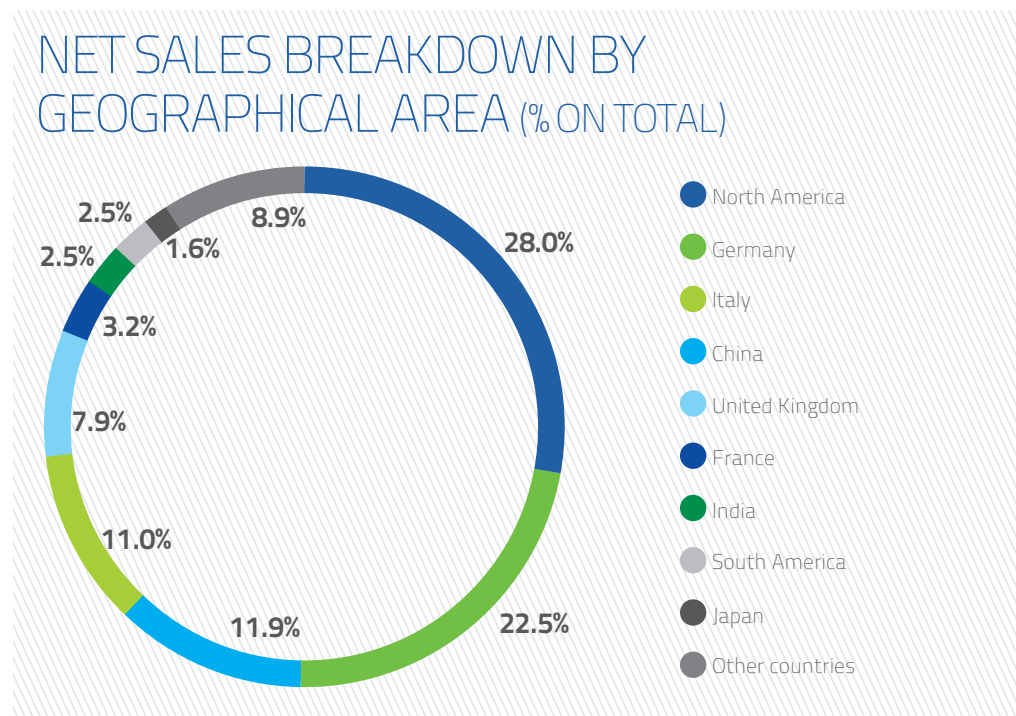
## Performance of the industry of reference

In 2016, the car market, which generates three quarters of Brembo's turnover, rose at global level by 4.6% over the previous year. This was due primarily to the growth

of the Chinese market and Western and Eastern Europe markets – geographical areas where most of the Group's sales are concentrated.

The Group has proven itself more than capable of seizing and exploiting in full this growth trend in the target markets:

In 2016, the car market grew compared to the previous year by	In the same period, Brembo's sales grew by
<ul style="list-style-type: none"> <li>+5.8% in Western Europe, with significant peaks in Italy and Spain. Positive trend was reported also in Eastern Europe with a growth of 15.9% compared to 2015.</li> </ul>	<ul style="list-style-type: none"> <li>+ 6.9% in Europe</li> </ul>
<ul style="list-style-type: none"> <li>+12.3% in China, the world's top car market</li> </ul>	<ul style="list-style-type: none"> <li>+ 67.9% in China</li> </ul>





**Brembo** is the leading brand in the design and manufacture of braking systems for high-performance road and racing cars and motorbikes and for commercial vehicles.



**Brembo Racing** is the brand that identifies all products bound for the world of car and motorbike racing, used by the best teams in the most important F1, Indy, Nascar, Rally, MotoGP, Superbike, Enduro and Cross championships.



**AP Racing** is the leading brand in the production of brakes and clutches for racing cars and motorbikes. AP Racing designs, manufactures and assembles its cutting-edge, high technology products for the main Formula 1, GT, Touring and Rally teams.



**AP** represents a brand of excellence in the world market of car brake systems and components for the aftermarket channel.



**Marchesini** is the leading brand in the design, production, and marketing of light-alloy wheels for road and racing motorbikes.



Acronym for “By Brembo”, **ByBre**, is the brand dedicated specifically to brake systems for scooters and small and mid-power motorbikes.



**Breco** is the brand dedicated to the sale of discs and drums in the aftermarket channel. Breco discs are certified as original or original-equivalent.

## The brands

The prestige and recognisability of the “Brembo” brand make it stand out within its market. In 2016, it was reconfirmed “best brand” in the brake category by readers of Germany’s main car and motorbike magazines including Motorrad, AutoZeitung, Motorsport Aktuell, a prime position recognised almost every year since 2006.

In 2015, it also joined the “Superbrands Club”, a selection of the best brands on the Italian market (Superbrands Council, with the collaboration of the Astarea and Demoskopie market research institutions), selected on the basis of three merit indicators: quality, reliability and significance.

2015 also saw the Brembo brand receive most votes in the “Brake discs of the year” category at the “Global Automotive Components” awards event, held every year at Moscow MIMS Automechanika, the most important trade fair dedicated to the Russian aftermarket.

Brand equity surveys conducted in 2015 involving owners of sports and luxury vehicles in the United States and Germany showed that Customers attribute extra value to their car when it is fitted with Brembo brake systems and consider Brembo equipment to be a feature to take into account when deciding on which car to buy next.

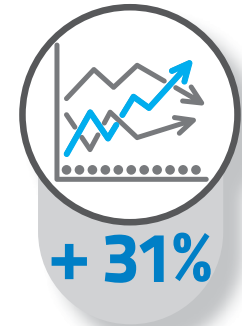


## 2.4 STOCK PERFORMANCE

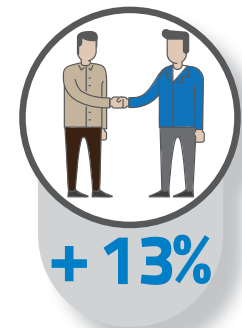
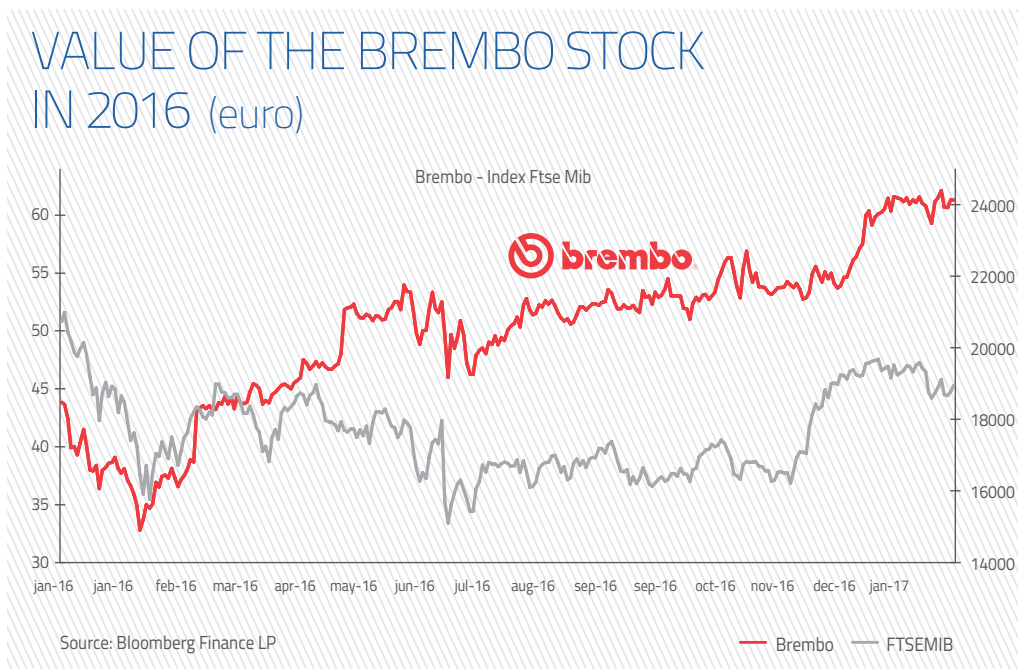
For a listed company, stock value can be seen as a possible indicator for measuring an enterprise's credibility and reputation.

From this perspective, the trust and relational capital enjoyed by Brembo in recent years has grown steadily. After several years of significant growth, in which the value of the Brembo stock increased more than tenfold from the first day it was listed on the Italian Stock

Exchange (which took place in July 1995), the stock rose by a further 31% in 2016. During the same period the FTSE MIB index (to which Brembo has belonged since 2 January 2017) closed down 7.24%, whilst the BBG EMEA Automobiles Parts index fell by 0.37%.



stock value increase in 2016 compared to year-start



of Brembo's shares outstanding on the market are held by **shareholders** who select investees also based on **ESG** (environmental social and governance) criteria

## 2.5 THE GROUP'S VALUES

Ethics, quality, acknowledgement, proactivity and belonging are the five guiding values that make up the wealth of Brembo's shared culture, as well as a benchmark for conducting the company's business and operations in full respect for all the Group's stakeholders.

Brembo's Code of Ethics is based on the values listed here below.



### ETHICS

For Brembo this means behaving with integrity, honesty and respect, placing common interests before individual interests.

- RESPONSIBILITY
- TRANSPARENCY



### QUALITY

For Brembo this means the pursuit of excellence through high quality and timely performance to achieve corporate goals.

- ENGAGEMENT
- CUSTOMER FOCUS



### PROACTIVITY

For Brembo this means anticipating changes and promoting innovation by exceeding expectations.

- COURAGE
- CHANGE



### ACKNOWLEDGEMENT

For Brembo this means undertaking to improve the contribution of people in order to achieve company objectives in terms of performance, skills, potential and motivation.

- ATTENTION
- TRUST
- OPENNESS



### BELONGING

For Brembo this means feeling part of the company and proud to be recognised as such.

- STYLE
- PARTNERSHIP

For more information: <http://www.brembo.com/en/company/corporate-governance/codes-policies>











Organisational Structure

# TRANSPARENT ARCHITECTURE OF CUTTING-EDGE PROCESSES

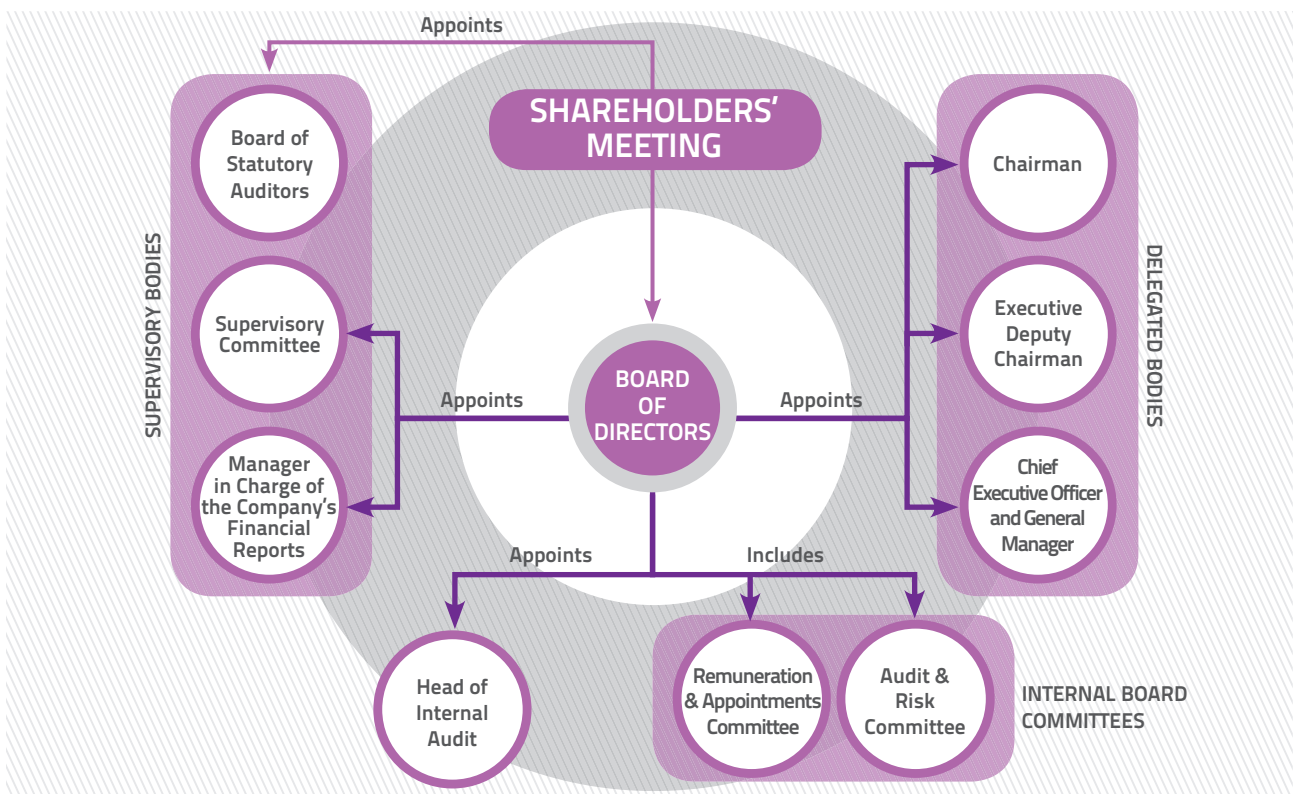
## chapter 3

## 3.1 CORPORATE GOVERNANCE MODEL

Brembo has structured a sound Corporate Governance Model based on the recommendations of Borsa Italiana’s Corporate Governance Code and best international practices, through which it meets the interests of all its stakeholders effectively.

Over the years, the Group has paid particular attention to ensuring that its corporate structure always complies with best international practices, that its own reference Codes are kept up to date and its

processes for managing both operating and sustainability risks are improved. Brembo S.p.A. has adopted a traditional form of governance, which involves a contribution by the following players:

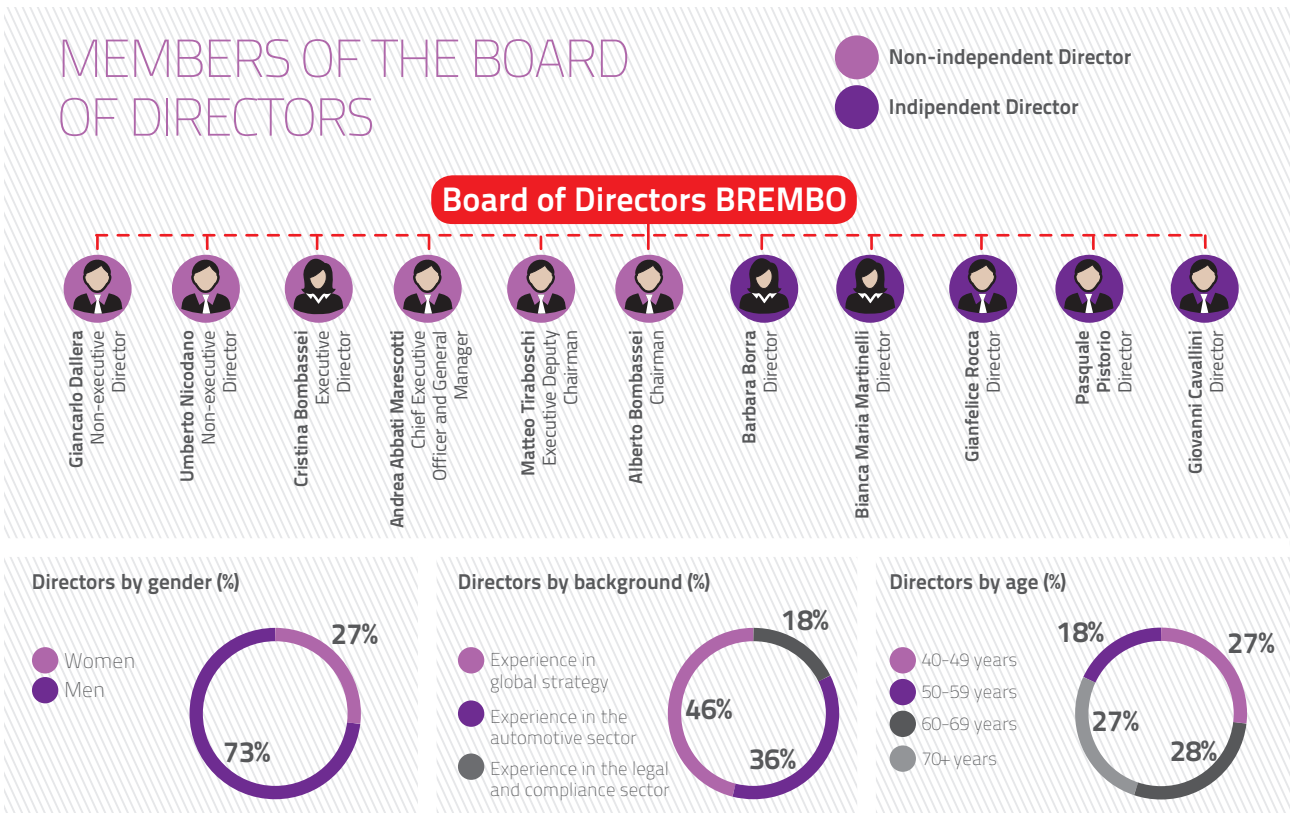


■ **Shareholders' Meeting.** It is the body through which corporate intentions are forged and expressed for subsequent implementation by the Board of Directors. It comprises Brembo's shareholders and meets regularly to deliberate according to the formalities and on matters defined by the law, as well as by the Company's By-laws; the most important duties of the Shareholders' Meeting include selecting members of the Board of Directors and the Board of Statutory Auditors, as well as approving the Financial Statements for the year.

■ **Board of Directors (Board).** This is the administrative body that steers the Group and is responsible for managing the

Company, except for any matters that fall within the scope of the duties fulfilled by the Shareholders' Meeting. The Board of Directors analyses, shares, approves and monitors the Group's annual budgets and strategic, business and financial plans. The Board of Directors is also charged with defining the corporate governance system and Group structure, the nature and level of risks linked to the strategic objectives and the medium-long term sustainability of company operations. The Shareholders' Meeting held in April 2014 confirmed 11 members of the Administrative Body and appointed the Board of Directors for the 2014-2016 three-year period, based on the lists filed by the majority shareholder and by a group

*For further information on the composition of the Board of Directors and the profiles of its members, reference should be made to the Corporate Governance and Ownership Structure of Brembo available at: <http://www.brembo.com/en/company/corporate-governance/corporate-governance-reports>.*



of institutional investors respectively, assigning one seat to a director elected from the minority list.

Following the reappointment of its corporate officers, Brembo organised an induction programme, an initiative set up with the aim of providing all Directors and Statutory Auditors, particularly those newly appointed, with a proper understanding of the industry in which the Group operates, its products, business dynamics and trends, as well as its organisation and relevant regulatory framework.

This initiative was repeated in 2015, focusing more on Brembo's short-medium and long-term growth strategy. This featured two sessions that directly involved the Business Development Manager and Top Managers in the main development initiatives in progress. In addition, visits to Italian and international facilities were organised in 2016 to provide a deeper insight into the industrial and development processes of Brembo's products.

As required under the Corporate Governance Code, Brembo set up, within the Board of Directors, the Remuneration & Appointments Committee and the Audit & Risk Committee. The roles, composition and functioning of all Committees are defined in specific Regulations fully implementing the principles and criteria set forth in the latest edition of the Corporate Governance Code of Borsa Italiana.

In line with corporate values and consistent with company's regulations and stakeholders' expectations, the **Remuneration Policy** aims primarily to:

- define a remuneration system based on fairness and meritocracy, able to both attract and retain human resources who, thanks to their talent and excellent professional skills, can successfully work and operate within the Company;

- motivate those resources to achieve increasingly challenging performance targets in view of a constant improvement, also through the adoption of incentive schemes designed to orient them towards the fulfilment of strategic business objectives, hence creating value and aligning the management's interests and shareholders' expectations.

■ **Board of Statutory Auditors.** It is the body in charge of supervising compliance with the law and corporate By-laws, observance of the principles of sound management and adequacy of the organisational, administrative and accounting structures adopted by the Company.

The Board of Statutory Auditors of Brembo S.p.A. is made up of three Acting Auditors and two Alternate Auditors, all appointed by the Shareholders' Meeting based on list voting procedures; the Chairman of this Board is drawn from the minority list. All members of the Board of Statutory Auditors satisfy the eligibility, integrity and professionalism requirements laid down by the law. In addition, the Acting Auditors shall be chosen from persons who qualify as independent as per provisions of the Corporate Governance Code.

■ **Independent Auditors.** It is an external entity in charge of the statutory audit appointed by the Shareholders' Meeting. The audit firm Ernst & Young has been appointed for the years 2013 to 2021.

The management and development of the governance system is founded on a number of responsibilities, related to a system of procedures, practices and activities designed not only to meet

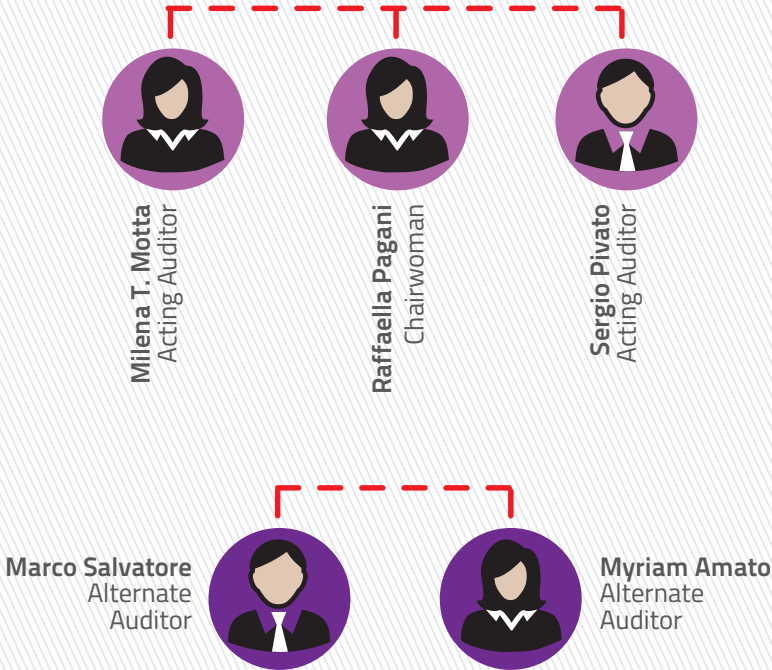


legal requirements, but also to make the governance system effective as a whole. For this purpose the following tools are also in place at Group level:

■ **Delegation of Powers:** Brembo has established a system of delegated powers and powers of attorney to ensure that powers are segregated and the related flows and processes improved, for regulatory compliance purposes;

■ **Governance Model of Subsidiaries:** Brembo has fixed additional internal rules, in accordance with regulations applicable in each country, based on the size and complexity of each Subsidiary, to define the corporate structure of Subsidiaries so that this is compatible with the Parent Company’s “traditional” structure.

## MEMBERS OF THE BOARD OF STATUTORY AUDITORS

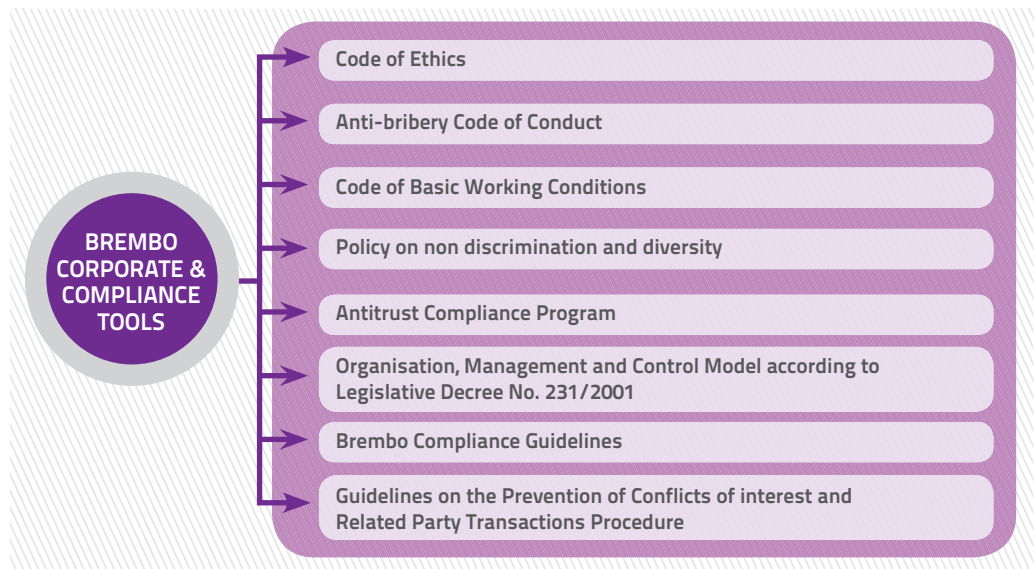


## 3.2 THE SYSTEM TO ENSURE INTEGRITY IN BUSINESS CONDUCT

**Brembo considers that transparent, ethical and compliant conduct is essential for the company's activities to be managed correctly. This means not only observing the numerous current laws and regulations, but also considering the expectations and aspirations of the various stakeholders.**

In order to promote a Group's prevention policy, Brembo has implemented an integrated global compliance system, adopting a system of Corporate Governance and compliance tools which apply to the entire Group (Brembo Corporate and Compliance Tools) designed to ensure a high ethical standard at group level. The Code of Ethics is the mainstay of this system, but the Code must be read and

interpreted together with the documents considered essential for the development and dissemination of the Group's core values. These include the Anti-bribery Code of Conduct, the Code of Basic Working Conditions, the Policy on non discrimination and diversity and other codes of conduct, policies, procedures, guidelines and organisational provisions existing today.



Brembo's Codes of Conduct and Policies are available for public consultation at <http://www.brembo.com/en/company/corporate-governance/codes-policies>

■ **Code of Ethics:** this Code is aimed at all the Group's stakeholders and describes the rules of conduct designed to support sustainable growth and protecting the company's reputation, in accordance with the principles and values that have always characterised Brembo and that are shared at Group level, developing an understanding and respect for diversity and the dissemination of an integrity culture. In 2016, Brembo published the Group's new Code of Ethics, which is now in its third edition, distributed throughout the year to all Brembo's employees worldwide.

■ **Anti-bribery Code of Conduct:** Brembo does not tolerate any form of corruption and undertakes to comply with anti-corruption laws in all countries where it operates and where the persons involved are required to act with integrity and honesty. The Board of Directors has therefore approved the Anti-bribery Code of Conduct, valid at Group level, in order to assure compliance with current rules and hence maintain the highest integrity standards.

The Code focuses primarily on the following issues:

- hospitality and gifts given and received;
- contributions to political parties and their representatives, prohibited in any form;
- charity donations;
- due diligence to third parties cooperating with Brembo;
- requirements for internal control, books, documents and reports.

■ **231 Model:** Brembo S.p.A. adopted its own Organisation, Management and Control Model according to Legislative Decree No. 231/2001 (hereinafter "231 Model"), compliant with Confindustria's

Guidelines on Organisational Models, which is an integral part of the Internal Control and Risk Management System. The 231 Model includes:

- a General Section illustrating the company's profile, the regulations of reference, the purpose of the 231 Model and the ways in which it is constructed, the recipients, the Regulation of the Supervisory Committee, as well as the disciplinary system and the measures to be implemented in terms of staff training, dissemination and amending and updating processes;
- several Special Sections focusing on specific types of offences which — in light of Brembo's profile and business operations — could, in the abstract, be committed within the company; these sections define the principles of conducts and preventive measures that the company has adopted;
- Sensitive Activity Analysis Sheets that can be broken down by offence and sensitive area, and provide the following information: (i) description of the underlying Offence; (ii) description of the Sensitive Area at risk of commission of the aforesaid underlying Offence; (iii) persons involved in the Sensitive Activity; (iv) Control Environment; (v) description of the Controlling & Prevention Measures in force.

■ **Brembo Compliance Guidelines:** these summarise the main rules of conduct and main control principles indicated in the Special Sections of the 231 Model, which the Subsidiaries are required to adopt to prevent crimes within the meaning of Legislative Decree No. 231/2001 from being committed and corporate liability being transferred from the Subsidiaries to the Parent Company.

■ **Local Compliance Programmes:**

these are (similarly to what occurs in Italy through the 231 Model) the compliance programmes (summarised in the document of the same name) implemented in each Subsidiary to prevent or mitigate corporate liability in accordance with local legislation, based on a risk assessment process, a mapping of sensitive areas and preparing of the most suitable control protocols, which form part of each Subsidiary's risk control and management system. Each Country General Manager with responsibility for the operation of each company's risk control and management system acts as the contact person for implementation and monitoring of the local compliance programme project, with the support of the various officers responsible for process at local level and the related organisational structure.

■ **Guidelines for preventing conflicts**

**of interest:** according to Brembo's Code of Ethics, any situation that could generate a potential or actual conflict of interest must be communicated and reported to the immediate superior of the person concerned. The guidelines set out procedures to ensure that decisions taken at any level are not influenced by personal interests and/or relationships; similarly, commercial agreements are to be signed or continued solely on the basis of objective criteria, including quality, price and reliability of the business partner in question.

■ **Antitrust Compliance Program:** to ensure that the Group's commercial practices do not prejudice the ability of other competitors to operate legitimately within the market, since 2014 the Group has

defined the Antitrust Compliance Program to reinforce the internal culture for this type of risk and provide appropriate monitoring tools.

All these rules of conduct are shared and observed not only by Members of the Board of Directors and personnel of the Group, but also by third parties who work with and on behalf of Brembo. The Group's business partners are also required to observe the principles expressed in the Code of Ethics, and it is for this reason that Brembo carries out a thorough due diligence analysis in respect of suppliers and potential partners in joint ventures, so as to ensure that they adhere fully to the company's ethical standards. Special clauses in commercial agreements are binding on the counterparties with regard to observance of the content of the Group's Code of Ethics and commercial dealings may be terminated if these are breached. Similarly, a breach of these rules by Brembo personnel may lead to disciplinary proceedings, including dismissal, in accordance with current laws and based on the collective labour agreements applicable.

Brembo is served by the following bodies to ensure that the founding principles, expressed in the Code of Ethics and other codes of conduct, are observed and that the control system set out in the 231 Model, of which the Code of Ethics is a fundamental and integral part, is implemented effectively:

■ **Supervisory Committee:** appointed by the Board, it is composed of 3 members of the Board of Statutory Auditors, 2 members who are external to the organisation and one internal member. The task of the Supervisory Committee



is to monitor, receive and report to the Board any irregularity or breach of the Organisation, Management and Control Model, adopted pursuant to Legislative Decree 231/01 by Brembo S.p.A and La.Cam, as well as breaches of the Code of Ethics and Anti-bribery Code of Conduct, which apply across the Group. A body with a similar function has also been set up in the Spanish company Corporación Upwards 98 S.A. in accordance with local legislation.

■ **Internal Audit Department:** it assists the Group in those activities aimed at improving organisational effectiveness and efficiency and in the pursuit of its strategic objectives by reinforcing control, risk management and Corporate Governance processes.

All Group personnel are required to report conduct that is illegal, unethical or non-compliant with internal procedures as soon as they become aware of such conduct, using Brembo's reporting system channels, such as the special section on the company Intranet or Supervisory Committee's e-mail address;

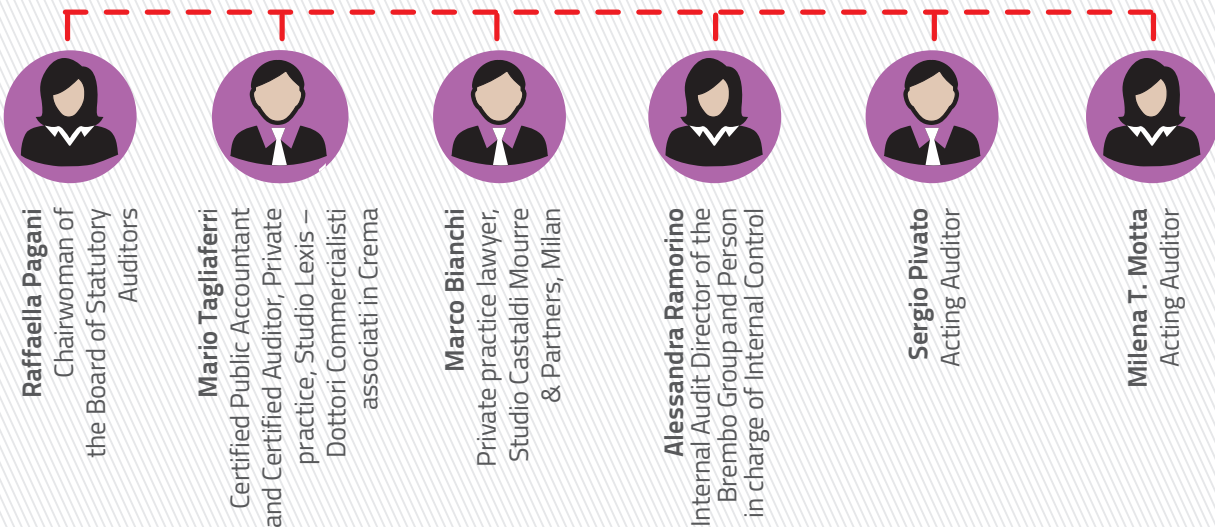
■ **Group Legal and Corporate**

**Department:** it has the role of drawing up and executing programmes for preventing and mitigating the Group's administrative and criminal liability, also with reference to Anti-Bribery and antitrust issues;

■ **Group Human Resources and**

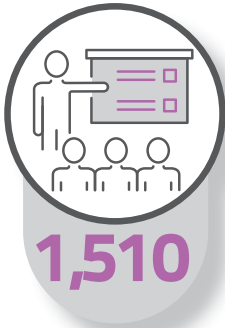
**Organisation Department:** it receives and ensures that reports about the Code

## MEMBERS OF THE SUPERVISORY COMMITTEE



of Basic Working Conditions and the Policy on non discrimination and diversity are analysed and handled correctly.

In addition, the Group has implemented the following tools to assure that the compliance culture is disseminated and the rules of conduct developed are implemented effectively:



Brembo People received training regarding Ethics, Antitrust, Anti-Bribery and compliance with the 231 Model.

■ **Whistleblowing procedure:** designed to establish and properly manage direct communication channels for the timely reporting of any breaches or irregularities concerning the Organisation, Management and Control Model, the Code of Ethics or other provisions of Brembo's codes of conduct; the Group's whistleblowing procedure is structured in such a way as to guarantee the confidentiality of the reporting person and of the information received, as well as the validity of such information, by means of a Supervisory Committee that assures adequate protection against reports made in bad faith. Any person of

the Group thus can report any cases of violation or irregularity by writing to the dedicated e-mail address [Organismo\\_Vigilanza@brembo.it](mailto:Organismo_Vigilanza@brembo.it).

■ **Training schemes:** special training schemes for Brembo staff are also provided to ensure compliance with and adherence to the principles of the Code of Ethics, the Anti-bribery Code of Conduct, the Antitrust Compliance Program and the 231 Model. The training initiatives, which include classroom lessons and/or e-learning tools, are tailored to the role covered and the level of risk to which individuals are exposed. In addition, all new recruits are handed a copy of the Code of Ethics to ensure that Brembo's fundamental principles and values are widely disseminated, and they are asked to return a signed declaration attesting that they have received and read the Code of Ethics.

## 3.3 BREMBO'S ORGANISATIONAL JOURNEY OF SOCIAL RESPONSIBILITY

**Corporate social responsibility is not an abstract concept for Brembo, but a set of daily concrete practices, designed to balance economic decisions against an assessment of their social and environmental impact in relation to the expectations of all Group stakeholders.**

The journey, on which Brembo's intention was to strengthen the structure of its awareness and commitment, started at the end of the Nineties with an analysis of the value of the intangibles, aimed at measuring the company's ability to create value not only from an economic perspective, but also considering the social and environmental impacts, safeguards for employment, appreciation of human resources, promotion of employee safety and capacity for growth and innovation.

In 1999, this analysis work was included in the first Intangible Capital Report which was followed in 2004 by the publication of the Value Report, a document describing the inter-relationship between the Group's economic results and its environmental and social performance.

Over the next few years this reporting approach combining financial and social responsibility information continued with the in-depth analysis, included in the Management Report, of aspects regarding the global macro-economic scenario, safety and environmental risks, company organisation, research and human resources.

Further progress was made in strengthening the corporate social responsibility culture with the adoption in 2011 of the Brembo's Code of Basic Working Conditions by all Group Companies, not only in-house but also extended to include business partners outside the Group.

In fact, the publication of this document, which openly expresses Brembo's commitment to employee protection and local development, has enabled the Company to involve its own supply chain in this process and disseminate its own way of doing business ethically in accordance with the values set out in Brembo's Code of Ethics.

Finally, the Group's focus on operating responsibly and sustainably is reflected in the establishment of the position of CSR Officer, a role under the responsibility of the Director overseeing the Internal Control System. A CSR Steering Committee has been set up to support this function.

This committee, supported by a team consisting of representatives from the various company functions, is responsible for promoting, coordinating and ensuring

that the company's projects and activities are consistent with sustainability, monitoring the CSR action plans put in place by the different organisational units,

assessing best practices at international level, effectively managing relations with all Group stakeholders and managing sustainability risks.



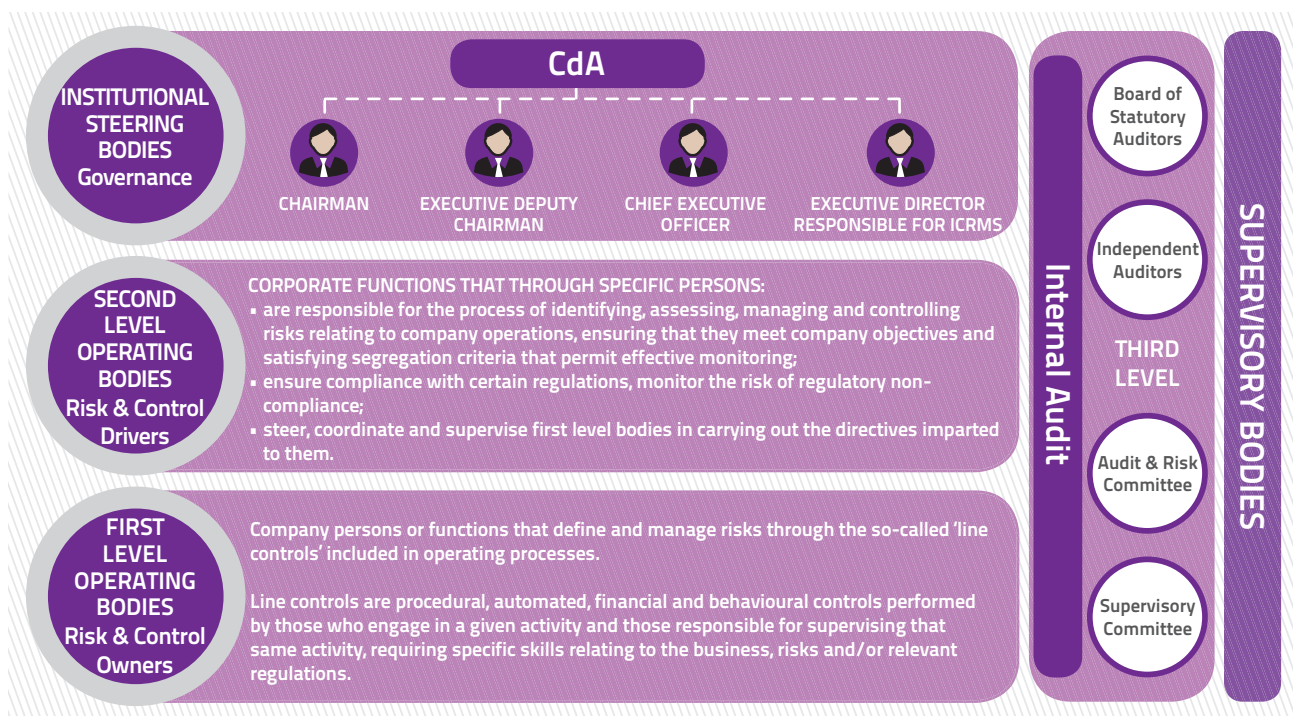


## 3.4 MANAGEMENT OF BUSINESS RISKS

Effective risk management is a key factor in maintaining the Group’s value over time, also with respect to its sustainability principles.

In this regard, Brembo has established, within the framework of its Corporate Governance system, an Internal Control and Risk Management System (ICRMS), in keeping with best international and

national practice, consisting of specific rules, procedures and organisational responsibilities. More specifically, the organisational structure designed to manage business risks is as follows:



### Organisational Structure:

- the **Audit & Risk Committee** is tasked with supporting the Board of Directors on internal control and risk management issues;
- the **Executive Director in charge of the Internal Control and Risk Management System** is tasked with identifying the

main corporate risks by executing risk management Guidelines and verifying their adequacy;

- the **Risk Committee** is responsible for identifying and weighing the macro-risks and working with the system parties to mitigate such risks;
- the **Risk Manager** is tasked with ensuring,

together with the management, that the main risks relating to Brembo and its subsidiaries are correctly identified, adequately measured, managed, monitored, and integrated within a corporate governance system consistent with the strategic objectives;

- **Internal Audit**, responsible for providing assurance on how Brembo assesses and manages its risks; through a risk-based approach, it helps to identify, manage and control possible negative events, in order to provide reasonable certainty that Group's objectives will be met.

The Brembo Group has drawn up Guidelines and procedures, such as:

■ **Risk management policy**

A Risk Management Policy based on ISO standard 31000, approved by the Board of Directors, with the aim of establishing the Group's general direction and policies relating to risks, risk management and harmonisation of processes. The risk management policy pursues a variety of aims, including: increasing the likelihood that company objectives will be met,

improving the identification of threats and opportunities, setting up a reliable base for the decision-making process and strategic planning, improving loss prevention and incident management, as well as improving organisational resilience.

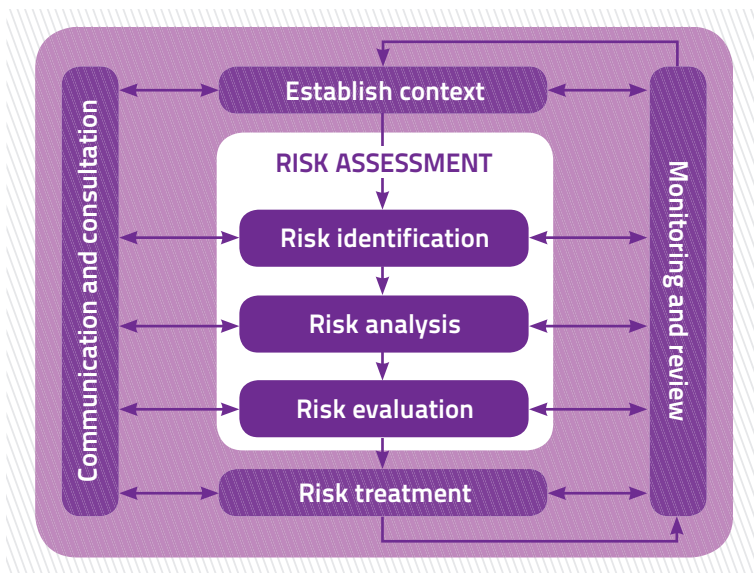
■ **Risk management procedure**

A Risk Management Procedure, designed to provide Guidelines in terms of methodology and operating guidance to support the risk management process, organised into the following series of consecutive phases:

- **Risk identification:** designed to identify the sources of risk, events and their causes, identifying the respective areas of impact and potential consequences, to create a complete risk catalogue. Brembo carries out exercises and simulations to identify possible scenarios, causes and potential consequences, considering any cascade (domino effect) and/or cumulative effects.
- **Risk Analysis:** designed to assess the risks by producing data such as probability of occurrence and impact.
- **Evaluation:** designed to support the decision-making processes by identifying risks that need to be treated and the related priorities for action or implementation;
- **Treatment:** designed to select one or more options for changing risk exposure, both in terms of impact and probability of occurrence, and to implement such options through specific action plans.

■ **Risk Model**

A risk management process founded on a Risk Model consisting of the following



risk families:

- External risks: connected to the occurrence of external events that are difficult (or partly) difficult to predict or can be influenced by Brembo;
- Strategic risks: connected to events that could influence strategic policies or the organisational and business model adopted by Brembo. This family includes risks related to the business model adopted, target markets, innovation, sustainability and management of relations with stakeholders in general;
- Operational risks: connected to inefficient and ineffective processes, with negative consequences for Brembo's value creation. This family covers risks regarding personnel, production, supply chain, information technologies, planning and reporting processes, as well as legal and compliance aspects;
- Financial risks: connected to ineffective and inefficient management of events arising in key financial markets.

Risk management is an integral part of decision-making and business management processes, including strategic and operational planning, the management of new business initiatives and the associated change, and specific reports for stakeholders.

In particular, Brembo's risk management system considers the risks linked to climate change, with reference to significant atmospheric phenomena that could potentially threaten the Group's operating continuity, as well as the increase in regulatory requirements regarding a reduction in greenhouse gas emissions. More generally, it takes into account the growing pressure being applied by civil society and the end consumer to the development of products and industrial processes with a lower environmental impact. Also considered are

the risks arising from water resource use on production sites located in geographical areas where there is a potential scarcity of this resource, as well as risks linked to the pollution of waterbodies due to contamination.

On the other hand, Brembo's procurement system is becoming more and more globalised, and being able to rely on suppliers that operate in accordance with the sustainability standards required by the Group is deemed to be of strategic importance. Considering that potential risk factors exist within the supply chain, Brembo is implementing ongoing measures to safeguard the environment and ensure appropriate working conditions with a view to continuous improvement.

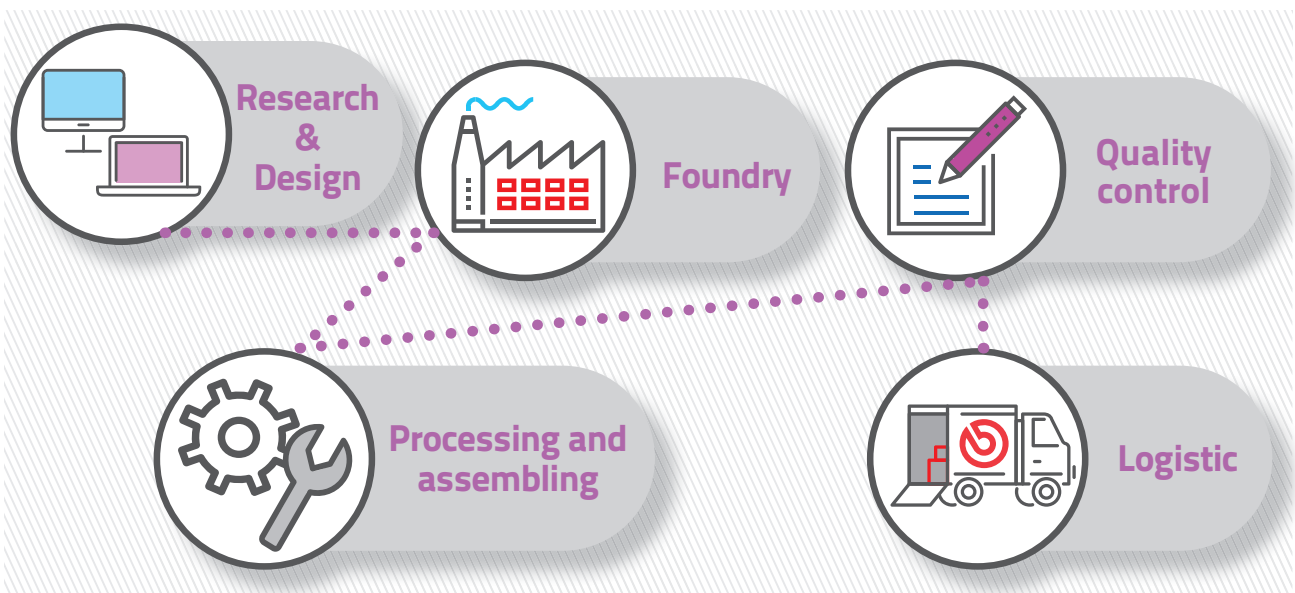
## 3.5 THE SYSTEM FOR THE INTEGRATION AND ONGOING PROCESS IMPROVEMENT

***“Anyone can do simple things, but only a few can handle difficult ones. We have to do the difficult ones.”***

The observations of Emilio Bombassei, founder of the Group, captures the essence of the Group’s success, and at the same time the tremendous efforts involved in achieving it.

One of the major challenges has actually been to tackle the complexity caused by the integration and direct management of all the brake system’s main production phases, starting with raw material processing in the foundries, moving through product machining and assembly, and then ensuring

that products are promptly distributed in the various geographical areas where the Group’s customers are located. Right across these processes the Group has also been able to develop research and innovation activities internally, as well as constantly control company operations, so that they





meet the highest quality standards and are shaped to ensure ongoing product improvement.

The integration of all these processes and the Group's history spanning more than half a century have enabled Brembo to acquire a considerable wealth of expertise and know-how. The decision to handle the "difficult things" has thus enabled the Group to develop its competitive advantage and the ability to understand and intervene more quickly and with more certain results in all the key stages influencing product quality and Customer service.

Development of this business model has placed Brembo in a position where it can really drive product innovation and development, whilst also seeking ongoing improvement in its environmental

impact of products. In addition, it also offers Customers greater flexibility and adaptability, as well as a faster time-to-market, optimised overall costs and an even greater level of operating efficiency. Finally, overcoming the challenge of "doing difficult things" requires an ongoing effort in trying to reduce complexity, breaking down processes and tasks into simpler elements and replicating them so that they are standardised as far as possible in all Group companies. All of the Group's industrial sites have the same distinctive traits. The Brembo People can feel "at home" even on the other side of the world, since they are part of a working environment where it is possible to recognise the same ways of doing things and the same procedures adopted in their country of origin.







## 4.1 A GROWING GROUP WITH TALENTED PEOPLE

The capacity to innovate and pursue excellence in Brembo product development is the result of the attitude, dedication and passion of the more than 9,000 People who work for the Group.

More than 1,000 of these joined Brembo in 2016, thanks to the integration of the Chinese company ASIMCO Meilian Braking Systems Co. Ltd. into the Group, as well as the opening of a new production hub in Mexico and the expansion of the Homer plant in the United States.

All of the Brembo People have their own professional experience and an ability to work with others, contributing to the

formation of a youthful, highly professional and qualified team, which represents the company's real strategic asset. 84% of company population has a medium-high level of education, and 28% of it is university graduate. Around 1,800 People (20% of the total) have a degree in engineering or other technical and scientific subjects.



**9,042**  
Brembo  
People



**38.66**  
years:  
average age

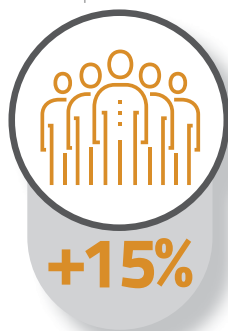


**+1,175**  
People: increase  
in workforce  
in 2016



## Compared to 2015

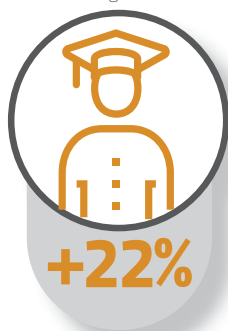
Increase in personnel:



Increase in people with mid-high level education:



Increase in people with a university degree:



### Educational qualifications of Brembo People (No. and % of the total)

<b>Brembo People</b>	<b>9,042</b>
Compulsory primary school	16%
High school or vocational school	56%
University	28%

### People with a university degree by subject studied (No. and % of the total)

<b>Brembo People with a university degree</b>	<b>2,547</b>
Engineering	57%
Business and Law	18%
Arts, Humanities and Foreign Languages	8%
Mathematical, Physical and Natural Sciences	7%
IT	4%
Social, Political and Behavioural Sciences	3%
Chemistry	1%
Other	2%

The Group believes that a key competitive factor lies in the ability to identify new talents to be incorporated into the company, offering them a stimulating workplace with real opportunities for professional growth.

This is the result of a strategy that focuses on offering employment stability, working together with trade union organisations, where present. In fact, more than 80% of the Brembo Group's personnel has a permanent contract.

### People hired and terminated by geographical area and gender (No.)\*

<b>Geographical Area</b>	<b>Hired</b>		<b>Terminated</b>	
	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>
Western Europe	138	38	94	15
Eastern Europe	334	113	204	45
North America	349	78	121	33
South America	11	1	111	3
Far East	154	23	60	19
India	48	1	18	1
<b>Total</b>	<b>1,034</b>	<b>254</b>	<b>608</b>	<b>116</b>

\* The figures referring to Brembo People on international assignment are not counted in the number of people hired and terminated but they are included in the year-end workforce figure.

Some of the technical-scientific training courses that Brembo participates in:

- ✓ Accademia del Freno (Brake Academy) at the Polytechnic University of Milan
- ✓ Master in Car Engineering at the University of Modena and Reggio Emilia
- ✓ Master in Race Motorbike Engineering in Bologna
- ✓ Master in Competition Vehicle Engineering in Bologna
- ✓ Technical German Language course at the Milan Polytechnic

**People hired and terminated by geographical area and age (No.)\***

Geographical Area	Hired				Terminated			
	<30	31-40	41-50	>50	<30	31-40	41-50	>50
Western Europe	122	39	8	7	28	27	11	43
Eastern Europe	245	121	60	21	130	70	42	7
North America	172	154	77	24	55	62	22	15
South America	7	4	1	0	51	31	18	14
Far East	74	79	22	2	25	38	6	10
India	34	13	2	0	4	9	5	1
<b>Total</b>	<b>654</b>	<b>410</b>	<b>170</b>	<b>54</b>	<b>293</b>	<b>237</b>	<b>104</b>	<b>90</b>

\* The figures referring to Brembo People on international assignment are not counted in the number of people hired and terminated but they are included in the year-end workforce figure.

Brembo's ability to offer itself as a point of reference for many talented young people is also due to the partnerships that the Group has developed over the years with more than 40 universities worldwide. This is the result of the Group's specific strategy to consolidate relationships with academic institutions. This includes organising career days and campus recruiting days, during which Brembo and its professional opportunities are presented to young graduates and those about to graduate. Another example of how Brembo develops synergies with the world of university education and research is the support it provides for training and education courses, when Brembo professionals work with young students, sharing their knowledge and expertise with them and also hosting students at the group's laboratories for thesis projects, research and internships. While it is essential to maintain a channel for dialogue with universities in order to boost opportunities for reciprocal awareness and identify the young people most interested in working for Brembo, it is equally important to provide those starting

out on their professional career within the Group with well-structured paths for effective induction within the company. With this objective in mind, Brembo promotes dedicated programmes around the world for identifying talented new graduates and helping them learn all about Brembo as they join the company. One of these programmes — the only interfunctional one — is "LIFT", Leaders International Fast Track, which accompanies young talents for eighteen months after they start working for Brembo, assigning them a mentor, tutor and sponsor from among the managers and offering job rotation comprising three positions from different areas of the company, with at least one overseas posting. Those who join the Group will find a stimulating and positive environment at Brembo, where they can grow and feel that they are making a difference. This is demonstrated by the results of the surveys carried out by the Group on a three-yearly basis, giving all Brembo People the opportunity to anonymously express their level of engagement and motivation

deriving from their professional experience at Brembo. In 2015, the analysis (which is carried out every two or three years) was based on a questionnaire containing forty-nine questions. The Group used it to assess job satisfaction, as well as perceived pride in being part of Brembo. The survey attracted widespread participation – more than 68% of all personnel – and revealed a notable propensity for Brembo People

to feel involved in the Group's corporate project: as many as 7 employees out of 10 indicated a high or very high level of engagement (only 3 a low, very low, and especially neutral level of engagement), placing Brembo above the average (+4.02%) for the manufacturing enterprises used as benchmark for the industry (2015 Mercer's "Global Manufacturing").



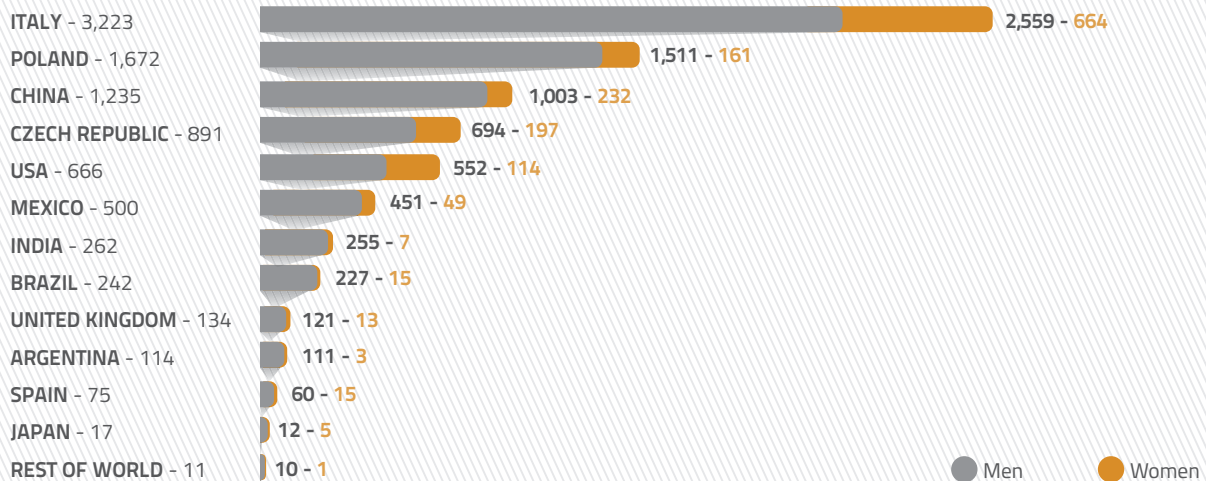
## 4.2 DIFFERENT WAYS OF BEING BREMBO PEOPLE

Brembo is a constantly and rapidly growing international Group, operating in very different contexts worldwide. As a result, a key competitive factor for the Group lies in creating a culture that values internal diversity, fostering an environment in which everyone's point of view and voice count and where everyone can feel an integral part of Brembo.

In fact, the Group is formed by a multicultural team: out of every 100 Brembo People, 36 worked in Italy, 18 in Poland, 12 in China, 10 in the Czech Republic, and 9 in the United States, while the remaining 15 were distributed between Mexico, Brazil, India, the United Kingdom, Spain and Japan. There has been a significant increase in personnel of Chinese nationality compared

to 2015 (7% of the company's workforce in 2015, 14% in 2016) due also to the integration into the Brembo Group of the Chinese company ASIMCO Meilian Braking Systems Co. Ltd., as well as a rise in United States and Mexican personnel due to the expansion of the Homer production hub and opening of the Escobedo plant, respectively.

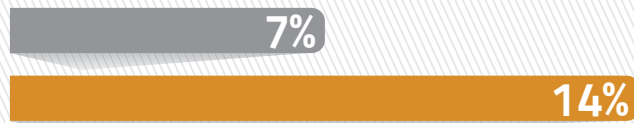
### BREMBO PEOPLE BY COUNTRY AND GENDER (No.)





## GEOGRAPHICAL AREAS WITH THE MOST SIGNIFICANT PERSONNEL CHANGES COMPARED TO 2015

### China:



### North America



● of 2015 workforce ● of 2016 workforce

The diversity and richness of Brembo's community also emerges taking into account that:

- 84% of Brembo People are men and 16% are women, up slightly compared to 2015, with the latter most prevalent among white-collar workers, where they account for 26% of the workforce;

- Brembo employs 145 People with disabilities;
- Brembo's personnel spans all age groups, evenly spread between those in their twenties (24% of the total), thirties (34%) and forties (28%), with the over-fifties accounting for 14% of the corporate population.

### Compared to 2015

Increase in the number of women:

**+22%**

Increase in the number of men:

**+14%**

Brembo People by age and gender (No.)

	2015			2016		
	Men	Women	Total	Men	Women	Total
< 30 years	1,613	246	1,859	1,878	308	2,186
31 – 40 years	2,363	479	2,842	2,532	533	3,065
41 – 50 years	1,722	368	2,090	2,041	487	2,528
< 50 years	960	116	1,076	1,115	148	1,263
<b>Total</b>	<b>6,658</b>	<b>1,209</b>	<b>7,867</b>	<b>7,566</b>	<b>1,476</b>	<b>9,042</b>

Brembo People by classification level and gender (No.)

	2015			2016		
	Men	Women	Total	Men	Women	Total
Managers	410	51	461	450	56	506
White-collar workers	1,555	529	2,084	1,690	593	2,283
Blue-collar workers	4,693	629	5,322	5,426	827	6,253
<b>Total</b>	<b>6,658</b>	<b>1,209</b>	<b>7,867</b>	<b>7,566</b>	<b>1,476</b>	<b>9,042</b>



91% of managers were born in the Country where they are working for Brembo today

A sign of our commitment to developing an organisation that is as multicultural and as aware of local issues as possible, starting with the managerial team, is that the clear majority of local managers at all Group Companies comes from the local area: out of 506 Brembo managers, 91% were born in the country where the Company operates.

In order to ensure the promotion of diversity and respect for people, in addition to the provisions set out in its Code of Ethics, Brembo has also formalised a Code of Basic Working Conditions and a Policy on non discrimination and diversity, both of which are publicly available from <http://www.brembo.com/en/company/corporate-governance/codes-policies>. Specific mechanisms have been put in place to monitor their effective implementation and receive reports on conduct that is not in keeping with corporate policies, including a dedicated e-mail address for receiving reports of non-conformities [Working\\_Conditions@brembo.it](mailto:Working_Conditions@brembo.it).

To this regard, five episodes of potential discrimination were brought to Brembo's attention in 2016 via a variety of reporting channels.

All the reports received were investigated and four have now been resolved. The other is being worked on. In addition to focusing

on respect for corporate discrimination policies and respect for Brembo People, the Group also promoted awareness courses, with specific training sessions.

Equally important for creating an inclusive workplace designed to meet everyone's needs are the organisational tools introduced to improve the work-life balance, starting with the possibility to work on a part-time basis. In this regard, in 2016 over 270 employees (79% of whom women) benefited from this opportunity.

What is more, to support the needs of employees with school-age children, the group promoted a number of ad-hoc initiatives during the summer holidays, such as the "Brembo Kids" project in Italy. This involved setting up a recreation centre open to children of Brembo workers at the group headquarters, offering spaces suitable for hosting young visitors. Games and educational activities were provided to children aged 3 to 11, allowing them to experiment with different forms of art – from painting to sculpture, comic strips, music and architecture – with the objective of stimulating their creativity and learning to share their ideas with others.

**Brembo People with part-time contracts by gender (No.)**

2015			2016		
Men	Women	Total	Men	Women	Total
64	206	270	58	216	274

## 4.3 TRAINING AND DEVELOPMENT OF SKILLS

✓ over 180,000 hours of training provided in 2016.  
In 2015: over 150,000

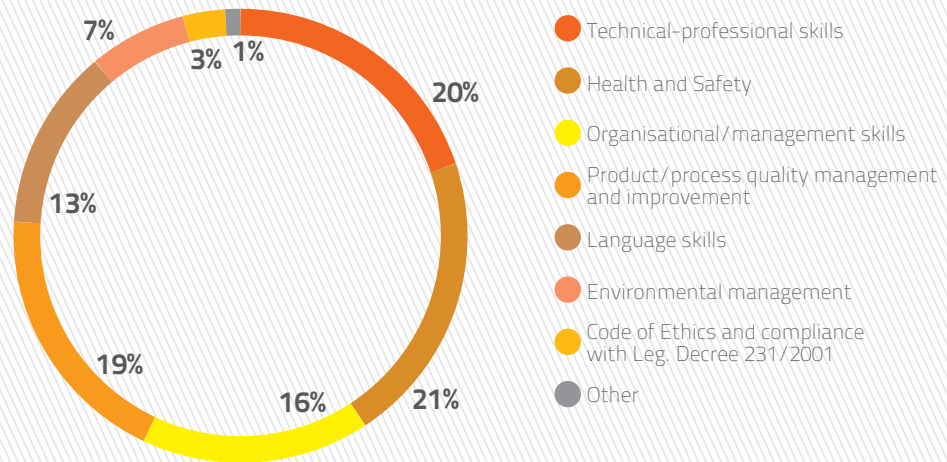
✓ €2.4 million invested in training Brembo People.  
In 2015: €1.6 million

**Training for Brembo People is at the basis of the continuous innovations and quest for quality that the Group can offer its clients, representing one of its areas of excellence. The Group can only continue to grow as a result of specific investments in development and in improving the skills of its personnel.**

Training is structured so as to respond to the training requirements of the entire corporate population, ensuring a differentiated and inclusive offer, designed to involve professional families on all levels: on average, each employee received 20

hours of training in 2016, with this figure reaching an average of 32 hours per year for white-collar workers, around 27 hours for managers and around 15 hours for blue-collar workers.

### TRAINING PROVIDED BY TYPE OF CONTENT (% ON TOTAL HOURS)



#### Average hours of training weighted by gender and professional classification level

	2016		
	Men	Women	Weighted average
<b>Managers</b>	28	27	27
<b>White-collar workers</b>	34	27	32
<b>Blue-collar workers</b>	16	10	15

As a strategic activity, training is regulated by a specific Group procedure that defines the methods and organises the various phases of the process, starting with identifying the training needs of the corporate population. This is carried out annually by surveying specific areas and topics that require further study in relation to the repertoire of skills required for the Group's main professional families, formalised in the Brembo Managerial Competencies Model and the Technical Competencies Library.

In addition to the survey involving the individual organisational units, which identifies specific training courses for each

professional family at Brembo, all those working at Brembo also have the opportunity to request to take part in specific training and modules, thereby customising their training. This is intended to foster self-responsibility and proactivity in every Brembo Person in the construction of their curriculum.

Over the past two years, the general training catalogue offered by the Group was further enriched through inclusion in the broader framework of personal development and skill enhancement designed to support the talent management and succession planning system in place within the Group for years.





## KNOWLEDGE SHARING IN BREMBO

The Brembo Academy was set up to promote the invaluable know-how developed by the various offices and teams in Brembo companies around the world. This authentic corporate training school, with UNI EN ISO:9001 quality certification, draws solely upon the knowledge of teachers from within the company, pursuing the objective of enabling structured sharing of Brembo expertise across the Group.

Precisely in order to strengthen the ability of Brembo experts to transfer their knowledge, discoveries and best practices, the training course for trainers at the Brembo Academy itself was updated and relaunched as of 2015. The Academy offers a variety of courses: from more technical and engineering-related courses, held by experts from the R&D Academy, to courses focused on the efficient organisation of manufacturing and office processes.

Another example of knowledge-sharing mechanisms, designed to facilitate collaboration between the Group's various

facilities around the world, comes in the form of the "Kaizen weeks" project, which involves Brembo's aluminium foundries in the analysis of matters relevant to their respective plants and sharing solutions that can be used to improve processes.

There are plans to make the "Kaizen weeks" permanent six-monthly events, attended by groups of shift supervisors and heads of the Technology and Optimisation Department.

What is more, the coverage of the Brembo Production Lab System or BPS Lab programme, developed at the Curno site in 2014 for the first time, was expanded on a global level in the past two years.

All the Group personnel was given the opportunity to attend training courses in a classroom created specifically to make it possible to carry out practical experiments that simulate production processes, aimed at improving their technical skills in accordance with Brembo Production System criteria, with a view to ongoing improvement.



## 4.4 PROFESSIONAL GROWTH THROUGH RECOGNITION OF MERIT

As part of Brembo’s personnel development strategy, the training process is complemented by individual performance and professional growth assessment plans.

Providing tangible career advancement opportunities and the security of being able to build one’s professional career within Brembo are two important tools for encouraging fundamental talents and skills to remain within the Group. This demonstrates the Group’s commitment to

the development of its employees, partly by facilitating courses for growth. Indeed, in 2016, following strong growth in the workforce (+15%), more than one fifth of job vacancies were covered by internal personnel, whilst those covered by external personnel required specific new skills.

Job vacancies covered by internal personnel (No.)		
	2016	
	Job vacancies	Job vacancies covered by internal selection
Managers	71	15
White-collar workers	441	94
Blue-collar workers	1,134	249
<b>Total</b>	<b>1,646</b>	<b>358</b>

The prerequisites of an effective system for assessing and recognising individual contributions to the Group's growth are:

- periodically sharing the company's expectations concerning its employees, defining the expected performances for each role;
- the assessment of the results achieved.

The importance attributed to the recognition of each individual's contribution to corporate growth is reflected in the adoption of specific procedures regulating these processes and applicable to the entire Group, and in the development of specific management tools.

In greater detail, for the white-collar worker population the assessment process focuses on the Brembo Yearly Review, an opportunity for discussion between managers and employees, during which the year's results are assessed, the objectives to be pursued are defined along with the preparation of any improvement plans, and employee performances are evaluated and used to plan career paths.

During the year, 73% of Brembo People were included in a periodical and structured performance assessment process, with a registration rate of 73% for men and 75% for women, varying from 70% for blue-collar workers to 82% for managers.

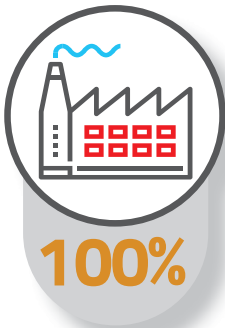
**Brembo People involved in the regular performance appraisal process\* out of the total of the category to which they belong (No. and % on total)**

	Men	% on total men	Women	% on total women	Total	% on total
<b>Managers</b>	334	82%	42	82%	376	82%
<b>White-collar workers</b>	1,269	82%	404	76%	1,673	80%
<b>Blue-collar workers</b>	3,266	70%	460	73%	3,726	70%
<b>Total</b>	<b>4,869</b>	<b>73%</b>	<b>906</b>	<b>75%</b>	<b>5,775</b>	<b>73%</b>

\* Data refer to the 2015 performance assessment process ended in April 2016.

## 4.5 SAFEGUARDING WORKERS' HEALTH AND WELLBEING

One of the main values appreciated by Customers and by the end users of any Brembo product is the reliability of the braking system, able to ensure safety both on the road and the race track.



100%  
of Brembo's plants is OHSAS 18001:2007 certified

This recognition would not be achieved and maintained if the corporate DNA did not include an innate awareness of the importance of safety, which extends to all its operating sites, with specific actions put in place to safeguard all of its employees. Within this field, the policy adopted by Brembo is based on mandatory compliance with legislative requirements, enhanced by specific actions primarily aimed at seeking more effective solutions for guaranteeing health and safety – both individual and collective – in the workplace. Brembo's commitment in this field entails analysing potential sources of risk for its personnel and putting the most effective solutions into place to prevent, reduce and, where possible, eliminate these risks: from appropriate handling of substances and processes to the correct operation, maintenance and control of machinery, all through People training.

The management of these and many other key aspects for the health and safety of Brembo workers is regulated by specific manuals that comply with the OHSAS:18001 standard. These manuals set out the principles, Guidelines, responsibilities and operating methods involved in managing work activities in safety. In order to ensure their full and effective implementation,

the Group undergoes periodical voluntary inspections by independent third-party organisations, put in place to verify that its various production sites have implemented effective safety management systems for its workers. In 2016, 100% of the Group's production plants had OHSAS 18001:2007 certification. On a voluntary basis, all the Group plants also undergo an annual audit carried out by a third-party organisation to ensure that they comply with legislation.

A consistent and systematic approach to managing these aspects enabled the Group to close the year with an accident frequency rate of 1.5 per 100 employees, down by 25% compared to 2014 and by 68% compared to 2010. There was also a decline in the severity rate, which expresses the number of calendar days lost on average per accident over the year by each worker (worker implies anyone who works at a Brembo site in any role, with the exception of contractors), equivalent to 0.44 days per worker, down by 12% compared to 2014 and by 40% compared to 2010, reaching the lowest level ever recorded in the Group's history. More than one half of the accidents led to fewer than 10 days off work and there were no fatal accidents.



Zero accidents for over one year in 4 out of the Group's total 23 organisational units

and in 1 of those plants no accident was recorded for longer than two years



While bearing in mind that accidents can be caused by various factors, more than 65% of accidents were primarily caused by the inappropriate behaviour of those involved, while around one third of accidents can be attributed to technical causes.

The majority of accidents, accounting for 54% of the total, occurred in Italy, where over one third of the Group's workforce is based. Four Group organisational units recorded no accidents over the course of the year. For 1 of these organisational units, 2016 was the second year running with no accidents.

### Open dialogue and discussion for ongoing improvement

The trend for ongoing improvement in the Group's health and safety performance over the years can certainly also be attributed to the involvement of Brembo People as active

players in the accident prevention model.

#### ■ Safety and Environment Committees

The corporate management and workers in all the Group companies meet at specific times and work together to identify optimal solutions for protecting the occupational health and safety and the environment. Members selected by the workers and representatives of the Brembo workforce are involved.

#### ■ Prevention through information sharing

In order to encourage information sharing and discussion about problems, an IT portal facilitates the prompt communication and analysis of information regarding incidents, accidents or near misses at the various Group sites, strengthening the Group's reaction capacity, but above all its

## PERFORMANCE OF SEVERITY AND FREQUENCY INDEXES OVER THE THREE-YEAR PERIOD\*

**SEVERITY INDEX**  
No. of days of absence due to accident / No. of workers



**FREQUENCY INDEX**  
(No. of accidents / No. of workers) \* 100



● 2016    ● 2015    ● 2014

\*Severity and frequency rates do not include the figures on the Langfang production facility, which was included in the consolidation scope in 2016.

efficiency in preventing incidents. In fact, the platform facilitates the analysis of the negative event and the identification of the root causes, as well as makes it possible to structure the information in a single archive accessible to all Group sites on a global level, so as to permit entities not involved in the incident to rapidly assess whether what happened could repeat itself at their facility and to implement appropriate preventive actions.

#### ■ **Training and promoting a health and safety culture**

During 2016, more than 39,000 hours of training were provided on health and safety issues, with an investment of more than €270,000 in this activity. What is more, in order to foster commitment and promote workplace safety, the Group holds the “Best Safety Idea” competition each year, which rewards the best development idea of the year in this field and represents an effective tool for raising awareness and promoting best practices.

#### ■ **Promoting worker wellbeing**

The Group’s commitment to promoting the health and wellbeing of its workers has received recognition for example in Italy (Stezzano plant) from the Associazione Confindustria Bergamo, which rewarded Brembo together with other firms in the area for its participation in the WHP - Workplace Health Promotion project, for which the Group has been one of the main advocates since 2011. This initiative, in partnership with the local health authorities and Bergamo’s entrepreneurial association, is designed to promote healthier lifestyles and eating habits among workers at the companies taking part. On the basis of recommendations from the World Health Organisation, Brembo employees have been involved in an awareness-raising process regarding individual behaviours that can have the biggest effect on people’s health, such as cigarette and alcohol addition, a sedentary lifestyle, eating habits and driving style.











Production Process

# SAFETY: EXCELLENCE, FROM THE CONCEPT TO THE FINISHED PRODUCT

**chapter 5**

[↑ index](#)

## 5.1 DESIGNING INNOVATION

Innovating the “friction system”, a fundamental which can be related to Brembo’s entire product range, means exploring new possibilities of forms, materials, technologies and concepts that meet the needs of new generation vehicles with the following unchanging objectives:

- ◆ increasing braking system performance, while ensuring maximum reliability and improving comfort through solutions that can reduce braking action noise, vibrations and harshness;
- ◆ prolonging the life of Brembo’s products, while minimising disc and pad wear;
- ◆ reducing the environmental impact resulting from the use of vehicles fitted with Brembo systems in terms of greenhouse gas and particulate emissions into the air, through the reduction of the weight of Brembo’s products and the control of the dispersion of braking-related dust;
- ◆ enhancing the style content so as to offer products that can interpret concepts of prestige and elegance, thus becoming new status symbols.

The main areas that reflect the Group’s capacity to develop new generation brake systems are as follows.

### Innovation in the forms

Design is an integral part of product functionality and performance: it is through research into innovative forms – with the use of new geometries and removal of non-essential material – that more lightweight, high-performance and lower environmental impact products can be created.

For example, integrated 3D design technology has resulted in the development of a radically innovative form of the Brembo B-M8 car brake caliper that reproduces the typical technical characteristics of billet-machined or forged calipers, whilst being produced with the traditional casting method. In 2015, at the American SEMA Show, the Brembo B-M8 caliper received the Best Engineered New Product Award, for its innovative characteristics in design and technological terms. The innovative patented geometry of this new family of calipers, centred on 5 openings, results in ~8% reduced mass, thanks to the reduction in the amount of material at the least stressed points and, hence, less fuel consumption and polluting emissions.



**1,983  
patents**

filed by the Group  
since it was founded

Brembo’s capacity to innovate and exploit its own expertise as a strategic lever for maintaining its technological and commercial leadership can also be gauged by the patents filed by the Group over time: 1,983 patents have already been registered in the world, divided into 438 families, in little more than fifty years since its foundation. In 2016, 42 among patents and design models were filed, in addition to 41 filed the previous year and 31 in 2014.

The results achieved by the Group in the innovative design concept for its products have received a variety of different awards. One of the most prestigious is the Golden Compass Award, awarded in 2004 for the carbon-ceramic brake system for road cars.

Research into new forms that are more lightweight, have greater thermal stress cracking resistance and reduced pad wear has also resulted in the new ventilation chamber for the Brembo PVT Plus car brake disc. Similarly, the study of new geometries for cast-iron discs for heavy commercial vehicles has resulted in a significant reduction in mass and an improvement in the disc's cooling and ventilation capacity, with a consequent reduction in the braking system's operating temperatures. The new technical solutions have been patented and are in the application development stage with various customers.

The study of product forms has also led to the development of the distinctive holes on the braking ring of the Brembo Sport car brake disc, designed to disperse water spray when driving in wet weather conditions, thereby improving the responsiveness of the brake system. In the motorbike applications segment, the Brembo M-50 brake caliper stands out for its innovative and optimised shape.

### Innovation in materials

Brembo is also widely recognised for its ongoing research into cutting-edge materials: 2000 saw the start of production of brake systems for sports cars with carbon-ceramic discs developed by the Brembo SGL Carbon Ceramic Brakes joint venture. It is a material derived from the aerospace industry that offers significant

advantages in terms of performance on dry and wet roads, as well as of weight, comfort, corrosion resistance and technical image.

Together with the development of carbon-ceramic discs, currently underway at the Brembo – SGL JV, known as BSCCB, the Group has promoted the use of aluminium instead of cast iron in order to make the brake system lighter (disc, caliper, suspension): these are two of the main innovations and pivotal changes in the use of materials promoted by the Group that have become “de facto” industry standards over the years.

A new carbon material for discs and pads, derived from the aerospace industry, has also been developed in the racing applications segment, and become a performance benchmark in all categories where carbon is allowed to be used, including F1 and GT. New formulations are currently being trialled for road motorbike applications involving carbon-ceramic discs with improved couplings with friction materials. Finally, the ultimate validation phase has been completed for the use of magnesium alloys for road application brake levers.

Brembo's research over the next few years will focus on strategic development and the use of new unconventional materials such as technopolymers or reinforced light metal alloys for the production of structural components. This will also involve participation in international research and development groups.

### Innovation in concepts and technologies

Many of the Group's most distinctive products, including the radial mount brake caliper, would not have been developed without a radical rethink of the product's



for the reduction in the product mass and the ensuing decline in polluting emissions

basic concept, reconsidering its interaction with the other vehicle components in an original way. In fact, the brake system will have to dialogue more and more with other vehicle systems, such as electric traction motors and new suspension and steering concepts, allowing an increase in active safety and optimisation of functions such as braking regeneration, namely the capacity to recover useful energy by extracting it from energy normally dissipated as heat during the vehicle's braking phase.

Brembo is developing the Brake By Wire or BBW system in this direction. This is an electric brake system to be applied to all future vehicles, not just cars, but also commercial vehicles and motorbikes. The first practical applications are in the racing segment, where since 2014 Brembo has been supplying BBW systems on the single-seaters of three F1 teams. The teams being supplied rose to five in 2016. For those Brembo has produced an electro-hydraulic BBW system with an integrated

solenoid valve, representing Brembo's most complete and advanced product for these brake control systems.

Again in the racing field, the new 'amplified' caliper concept has been developed and applied. This features oblique caliper-pad contact zones, to ensure greater braking force. This concept is used in the motorbike and automotive fields (for example in MotoGP and F1).

Further developments see the brake system dialoguing with the electric traction system and related architecture: one example is the development of the wheel-end electronic architecture which enables greater integration between brakes and motor. This solution involves the traction, regeneration and dissipation processes being subject to an integrated control which also regulates the behaviour of four-wheel brakes in a differentiated manner with advantages in terms of vehicle safety, power and dynamic performance.

Another area where Brembo expresses its innovative drive is the challenge of transferring the know-how and expertise it has built into new business sectors.

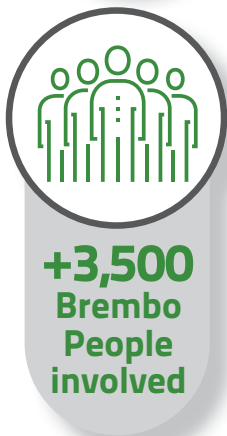
In this regard, the Group has started to work in the aviation business after obtaining in 2014 the APDOA certification from the European Aviation Safety Agency and having started the production certification process with ENAC (Italian Civil Aviation Authority). These are prerequisites for authorisation to manufacture and market aircraft components.



Brembo's capacity to achieve significant results in all areas where the Group is committed to product and process innovation is the result of:

- **the work of 971 People** engaged in research and development activities
- **R&D** expenditure and investment amounting to 5% of turnover
- **more than 17 years** of refining the Brembo Project Development System methodology which structures phases, roles, responsibilities, controls and tools for the innovation management process.

Ideas competitions are run every year with a view to consolidating the improvement processes, through an approach that values the contribution of all of Brembo teams and reinforces the spirit of collaboration within the Group. These competitions map and reward innovations and improvements that have enabled major progress to be made in different areas including the improvement of quality, process or product innovation, cost reduction, increased productivity and simplified processes.



## brembo excellence awards

Every year Brembo uses the Excellence Awards to reward the ideas and solutions presented by Group employees in three main areas:

- **Best Ideas**, which promotes ideas for improvement in the production area;
- **Best Plant**, which recognises the production sites that have stood out for their excellent performance during the year;
- **Best Ideas Office** which identifies the ideas for improvement developed outside the production area, such as ideas for cost reduction or process simplification.

Participation in the Excellence Awards is open to individual employees or groups from all of the Brembo Group sites.



## brembo innovation awards

The Innovation Awards recognise the best ideas involving the following business areas:

- product;
- systems production process;
- disc production process.

This annual initiative is also accompanied by the Brembo Monthly Innovation Prize, an event that every month recognises the best projects developed by Group employees. Participation in the Innovation Awards is also open to all personnel of all Brembo Group sites. Many of the ideas rewarded meet the requirements for patent applications.

## 5.2 THE RESULTS OF INNOVATION: SOME DISTINCTIVE PRODUCTS

The **Extrema brake caliper** with carbon-ceramic disc, winner of the Innovation Gallery – 2015 Motortec Madrid Show, is the direct result of Brembo's commitment in F1. Its distinctive features are the result of a concise and essential design,



far more open and deeper than previous products. Innovative aesthetics that translate into a sharp reduction in the weight of non-suspended masses (more than 3kg), thus reducing the vehicle's fuel

consumption and hence greenhouse gas emissions, and giving better pedal feeling than the conventional product. The caliper body designed in this way also gives improved ventilation, with a reduction in brake fluid temperature of more than 30 °C (86°F).

The **lightweight brake disc**, conceived by Daimler and developed in partnership with Brembo, combines two different materials: cast iron and steel.

The most important advantage is the steel disc hat, which is just 2.5mm thick, compared to the 7.5-9mm of the classic cast iron disc hat, but has the same performance. The significant weight reduction produces a disc that is 10-15%



lighter, depending on disc hat geometry. This reduces the car's fuel consumption significantly and, hence, limits greenhouse gas emissions.

Brembo's main contribution to product development has been the design of the hat's gearing, achieved using a precision sprocket technology, normally employed for the famous Swiss watch mechanisms.

The **co-cast floating brake disc** is made of two materials, cast iron and aluminium. This disc has many advantages: reduced weight (between 15 and 20%), greater comfort, reduction in corrosion and consumption and improved component performance. The braking ring is cast iron and the hat aluminium, which combines the advantages of cast iron behaviour at different temperatures with the lightweight properties of aluminium. The innovation consists in the way in which the two materials have been joined in a single component, and the behaviour of the disc itself; in fact, it behaves as an integral disc at low temperatures and like a floating disc at high temperatures, when maximum performance is required and the disc tends to deform.

In addition, this disc meets the need for a drastic reduction in weight, combined with an improvement in braking sensation in the most extreme uses and a rise in fatigue strength at high temperature. The result is important when one considers that manufacturers believe that a 1kg weight reduction over the entire vehicle is a success and is even more so since it



is achieved on the vehicle's "non-suspended masses", which have a major influence on driving comfort and steering precision.

The Brembo high-performance **M-50 brake caliper** has been chosen by Ducati for its most recent and most powerful motorbikes: launched in 2011 on the 1199

Panigale, the M-50 monobloc caliper uses the technology successfully introduced in 1994 by Brembo for the 500cc. This caliper is the result of the use of sophisticated 'topological optimisation' calculation programmes, permitting the

removal of material from parts of the caliper where it is not needed, so as to get as close as possible to the optimal structure, which combines the maximum rigidity with the lowest weight.



The **B-M8 brake caliper** an 8-piston monobloc with four of the largest pads produced by Brembo, was recognised in 2015 as the Best Engineered New Product at the SEMA Show in Las Vegas. Specifically conceived for the front brake systems of heavy vehicles, SUVs and large saloon cars, the key feature of the B-M8 is that it is the caliper with the highest level of efficiency in terms of architecture and style, increasing overall performance during braking and providing constant braking power in intensive use conditions. The B-M8 calipers are produced using an innovative casting process with 4D technology, applied for the first time on this occasion for the production of automotive calipers. The 2016 SEMA Show saw the debut of the smaller B-M6 (6-piston) and B-M4 (4-piston) versions.

The **PVT Plus brake disc** adopts the pillar-structure brake disc ventilation system designed by Brembo for heavy vehicles, which improves system cooling and reduces the risks of generating thermal cracks on the disc surface. This ventilation system features a pillar geometry with a specially designed form which, together with the arrangement on three bands on the braking ring, increases resistance to thermal cracking by up to 30%, thereby guaranteeing a



## 5.3 PARTNERSHIPS TO IMPROVE THE ENVIRONMENTAL IMPACT OF PRODUCTS

One of the prime objectives of Brembo product innovation is to reduce environmental impact, linked especially to the production of raw materials used, the generation of particulates during braking — harmful for human health as well — and greenhouse gas emissions caused by heavier vehicle weight due to the brake systems.

In a perspective of open-innovation, and to improve the effectiveness of research in these areas, the Group encourages collaboration with other industry players through networks and work projects. These bring together key players in the automotive sector, research centres and Universities both at Italian level — where the Group works closely with organisations including the Milan Polytechnic and the Turin Polytechnic, School Sant'Anna Superiore in Pisa, the Universities of Bergamo, Trento and Reggio Emilia — and at international level — where Brembo has developed partnerships with Stanford University, the Royal Institute of Technology in Stockholm and Ostrava Technical University.

Brembo subscribes to various coordinating organisations that facilitate industrial research in the automobile field, including AIRI (Italian Association for Industrial Research), ATA (Technical Automobile Association), Automotive SPIN Italia, CAAR (Automotive Cluster of Aragon Region) and the Lombardy Mobility Cluster.

The main joint research projects in which Brembo participates are described below:

### ► REBRAKE

The objective of the European REBRAKE project, which sees Brembo working closely with Stockholm's Royal Institute of Technology and the University of Trento, is the study and design of friction materials to be used for the production of brake systems that allow at least a 50% reduction in the emissions of PM10 particulates during the braking phase. This project also seeks to develop a better understanding of friction material behaviours and wear phenomena.

For further information:

<http://www.rebrake-project.eu/Pages/home.aspx>

### ► LOWBRASYS

Brembo subscribes to the “Low Environmental Impact Braking System” three-year project, as part of the Horizon 2020 scientific research and technological innovation programme. Started in the second half of 2015, this involves Brembo in the role of coordinator of a consortium of 10 partners from the industrial world — including Ford, Continental Teves, Federal





**2,061,000 €**

allocated by the European Union for this project

The Group is Project Coordinator

Mogul and Flame Spray – and research institutions with the participation of Ostrava Technical University, Stockholm’s Royal Institute of Technology, Trento University’s Department of Industrial Engineering, the European Commission’s Joint Research Centre and the Mario Negri Institute for Pharmacological Research in Bergamo. The challenge is to develop a new generation of technologies, materials and measures to improve the impact of vehicles on health and the environment through an innovative braking system that can halve the emissions of micro and nano particles.

consumption required to prepare aluminium, as well as the emissions of polluting gases released in the magnesium casting process.

For further information:  
[www.cralproject.eu](http://www.cralproject.eu)

► **COBRA**

COBRA is a four-year research project for the development of a new type of material for brake pads, steered by Brembo and co-financed by the European Commission, which will end in 2018.

Other important research centres such as the Mario Negri Institute for Pharmacological Research, Italcementi and the company CiaoTech are involved in the initiative. The research activity aims to develop a pre-industrial process for the production of pads whereby organic origin binders can be substituted with cement binders, with the same finished product performance, allowing a significant reduction in both water and energy consumption in the pad component’s life cycle.

For further information:  
<http://www.cobralifeproject.eu/en>



**9,465,000 €**

budget for the project

**8%**

of the costs are financed by Brembo

For further information:  
<http://www.lowbrasys.eu/en>

► **LIFE-CRAL**

The three-year LIFE-CRAL project, launched by the European Union in 2016 and coordinated by Brembo, aims to develop a production line, in the pre-industrial phase, that will allow aluminium and magnesium components to be produced, starting with recycled or highly impure materials, whilst at the same time maintaining the product’s end quality. The use of recycled material avoids the energy



**3,327,000 €**

budget for the project

**42%**

of the costs are financed by Brembo

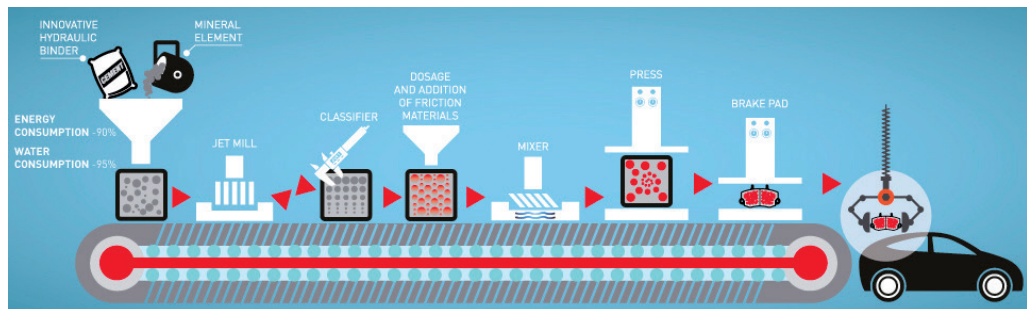


**3,825,000 €**

budget for the project

**43%**

of the costs are financed by Brembo



**4,678,000 €**

budget for the project  
Brembo works in  
collaboration with 11  
international partners

### ► EQUINOX

Brembo is a partner in the EQUINOX European research project, which aims to identify possible alternatives to those included on the list of critical raw materials drawn up by the European Union. The project focuses particularly on replacing stainless steel in brake systems since elements such as nickel and molybdenum are required for its production and these are deemed to have limited availability. Brembo is developing a new large-scale industrial process to replace stainless steel

by 2019. This process uses an aluminium-iron alloy, which is used only in small market niches at the moment. This change would also allow materials to be used that have better environmental performance since they can be more easily recycled than stainless steel.

For further information:

[http://cordis.europa.eu/project/rcn/199894\\_it.html](http://cordis.europa.eu/project/rcn/199894_it.html)



## 5.4 CREATIVITY AND METHOD: ENSURING PRODUCT SAFETY

**Brembo is committed to applying the voluntary technical standards that national and international standards bodies develop to define in detail how to produce excellent products and align its own production processes with best practice, guaranteeing safety, quality, respect for the environment and certain performance.**

### ► The tests

During the technical approval stage, all Brembo products are subject to stringent tests, carried out in all operating conditions, including the most extreme. These are tests designed to define product quality, performance and efficiency and are performed in type-approved laboratories, as well as on the road and racetrack. This process follows a rigorous sequence that includes static bench tests, dynamic bench test cycles and then on-road tests. These are three steps required to test the brake systems in operating conditions similar to actual usage conditions.

The static bench tests represent the moment when design, testing and production come together; in order to check that design requirements are met, the prototypes are subject to load, pressure and braking torque cycles, superior to those physically applicable on the vehicle in various ambient conditions in terms of temperature, humidity and corrosion. The dynamic benches, by contrast, are used to replicate vehicle dynamics through a combination of mass and speed. The

checks carried out regard efficiency, functionality and resistance, and also use loads that are greater than operating ones in accordance with appropriate safety coefficients. To reduce development times, these benches, designed by Brembo, operate independently for 24 hours a day, 7 days a week thanks to sophisticated control systems.

They are able to simulate all worldwide type-approved circuits for the various categories of cars and motorbikes, as well as the main alpine descents for any vehicle type. Comfort is also tested on dynamic benches and is measured based on three characteristics defined in the acronym NVH - Noise Vibration Harshness: the lower these three elements, the more silent and vibration-free the braking. In addition, Brembo has a roller bench for cars, motorbikes and heavy goods vehicles, where vehicles can reach 250km/h at temperatures between -30 and +40°C (-22 and 104°F). This is a test booth which simulates road tests in all conditions, from snow to wet roads to extreme speeds.





✓ The Brembo Group is associated with the Italian Standardisation Body (UNI) and also complies with the technical standards of the British Standards Institute.

✓ The Group also works with the National Unification Commission for the Automobile (CUNA) which, in the framework of UNI federated bodies, assists with defining technical standards and instructions for production, testing, the correct use and maintenance of vehicles, motor vehicles, operating machines and related components so as to improve their safety and reliability.

participates as an expert member on functional safety in the joint working group in technical commission TC22/SC3/WG16 appointed to improve standard WG 16 ISO:26262 regarding the functional safety of electrical and electronic systems in motor vehicle production.

However, it is the final on-road vehicle tests that allow Brembo to achieve excellence. In fact, the products approved on the various benches are mounted on car prototypes supplied by the makers. An internal team, consisting of expert inspectors, carries out all the tests necessary for testing brake system performance, comfort and durability. The inspectors trained by Brembo have a broad-spectrum profile that allows them to cover functions ranging from prototype assembly to data analysis, and thereby provide a subjective assessment supported by the measurements carried out. The tests carried out include “superfading”, which involves a suitable braking sequence, from high speed to full stop in full load conditions, the subjective comfort and feeling assessment, carried out by drivers who have an in-depth knowledge of the vehicles and products, and the efficiency tests on wet and dry terrain.

### ▶▶ FMEA/FMECA

During the design and development phase, product and process FMEAs/FMECAs are carried out to identify in advance the weaknesses and critical issues that could compromise product reliability and safety and define the necessary improvements and priority measures to be taken before the product enters into production. FMEA methodology is used, in particular, to identify product and process characteristics having a potential impact on end-user safety, so that these characteristics can be managed and controlled systematically throughout the entire production chain (product development, internal process and supplier process).

These elements represent a fundamental part of the Brembo Group's quality management system, compliant with ISO/

TS 16949 technical specification. This system, characterised by Guidelines common to all the Group's plants, allows best practices to be transferred from one plant to another, as well as all the sites to be managed with the same standards and quality indicators.

### ▶▶ Guaranteeing product authenticity

Safeguarding the safety of those wishing to buy Brembo equipment also means being committed to countering product illegal counterfeiting activities and fraud in the distribution channels as the sale of counterfeit braking systems may represent a source of risk for the end user. In fact, the brake system is a safety component and very often counterfeit products are found to be extremely dangerous because they are not made with controlled materials and are inadequately tested. The main tool developed by Brembo to counter the sale of non-original products is the introduction of an “anti-fraud card” which allows customers to easily check if their purchase is really “Made in Brembo”. The anti-counterfeiting card is delivered inside a sealed bag in the packing of the product purchased and gives a unique identification code, which — once entered on the website [www.original.brembo.com](http://www.original.brembo.com) together with the card number, component type and country of purchase — allows the product's authenticity to be checked. If the check fails to give a positive outcome, the purchaser is invited to enter further information to enable the Group to start investigations about the origin of the counterfeit part. The card also contains the quality control document, another tool for confirming product originality, whilst an external seal guarantees that the purchaser has received the product intact





**100%**

of production  
plants are  
ISO/TS 16949  
certified

from the factory. The anti-counterfeiting card is currently available on the Brembo High Performance and Brembo Racing lines: Sports discs, Rally discs and GT kits. For motorbikes, the initiative covers calipers, discs, brake/clutch cylinders and replacement levers.

The Group actively seeks collaboration with public institutions and customs control authorities to combat the production and illegal trade in Brembo counterfeit products. In particular, 2016 saw numerous operations being carried out in collaboration with the local

authorities in China and Taiwan which led to the closure of laboratories and shops that produced and sold counterfeit Brembo products.

In addition, regarding the online sales channels, the Group is engaged in monitoring the main e-commerce sites with the aim of reducing the number of counterfeit Brembo products sold on digital platforms. More than 12,000 offers of counterfeit products worth an estimated €1 million were removed from e-commerce platforms during 2016.

## 5.5 EFFICIENCY AND ENVIRONMENTAL PROTECTION IN PRODUCTION PROCESSES

**At Brembo the development of high-quality products with an increasingly lower environmental impact is combined with ongoing innovation of production processes, through the adoption of solutions that make it possible to reduce the use of resources — first and foremost water and energy — during all processing phases, ensuring efficient use of raw materials and the proper handling of waste.**

In a complex field such as the environment, characterised globally by constantly evolving regulatory requirements, a commitment to ongoing improvements in environmental performance permits the Group to reduce risks of non-compliance with regulations, while also guaranteeing a high level of competitiveness through greater production efficiency and cost optimisation.

Brembo's approach to protecting the environment at all its production sites can be summed up in the application of the most restrictive standards and better technology, so as to ensure excellent performances. This is exemplified by the construction of its plant in Escobedo, Mexico, which uses all the best technology and solutions adopted by the Group to meet the most stringent environmental regulations in place in the various countries where the Group operates.

The careful management of the environmental impacts of Brembo's activities has also led to growing interest from the majority of its stakeholders, first and foremost customers and investors.

For several years now, there has been an ongoing exchange of information regarding the Group's environmental performance with almost all its customers. A particular focus has been placed on strategies, technical and organisational solutions, which have led Brembo to minimise risks for the environment. The proven collaborative effort of the Group and its focus on these aspects have received recognition from various customers. In fact, back in 2013, Brembo was named "Sustainability Supplier of the Year" for the EMEA region by Fiat Chrysler.

The policies implemented by Brembo to reduce its impact on climate change and water consumption are an element that is also assessed by the community and investors. In order to ensure transparency and accurate information about these aspects, Brembo has voluntarily adhered to Carbon Disclosure Project initiatives since 2011. This independent organisation promotes synergies between the financial community and the business world, monitoring and advocating for commitment to limiting climate change and ensuring



**688,534 t CO<sub>2</sub>eq**  
of GHG released into  
the atmosphere



**100%**  
plants with  
ISO:14001-certified  
environmental  
management system



**12,126 hours**  
of training provided  
to personnel on  
environmental  
management

responsible and sustainable use of water resources.

Brembo has progressively extended this monitoring and reporting activity over the years, making it possible to include 9 production sites within the CDP questionnaire reporting scope in 2014, and reaching total coverage of all Group sites as of 2015. This commitment has allowed not only to paint a full picture of greenhouse gas emissions deriving from both energy and fuel use during production processes and from the Group's logistic activities, but also to identify the main mitigation actions put into place to reduce the environmental impact.

In 2016, the CDP officialised the score on the "CDP Climate Change" questionnaire on 2015 data, for which Brembo received an "A-" score, which is assigned to respondents that stand out for their position of leadership in environmental reporting and in the management of the impacts of their activity on climate change. As regards monitoring its impact on water resources, in 2016 Brembo voluntarily adhered to the "CDP Water" questionnaire in 2015 and achieved a "B" rating.

### System for the effective management of environmental impact

In order to ensure systematic and structured management of environmental risks, the Group has developed and maintains an up-to-date environmental management system based on the ISO:14001 standard. The Group voluntarily submits its system for periodical assessments by independent third-party organisations to ensure its full compliance with international standards. In 2016, the environmental management systems of all Group plants were certified as complying

with the ISO:14001 standard.

In addition to investments in technology and services to protect the environment, the human factor is a decisive element for ensuring the effective protection of the environment in everyday corporate activities. Because of this, more than 12,000 hours of the natural capital training were provided in 2016, with an investment of around €140,000.

### Energy consumption

In 2016, Brembo consumed more than 3 million GJ of energy, the same quantity as that needed to power more than 2 million fridges for an entire year, primarily in the form of electricity (66% of total consumption) and natural gas (21%).

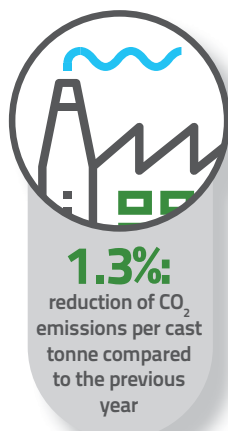
The Group's operations with the highest energy consumption are the metal alloy casting processes, operations that, for Brembo, have the greatest environmental impact, particularly in greenhouse gas emission terms. It is actually the efficient management of melting furnaces that can provide the largest gains in terms of optimising the energy requirement and reducing the gases released into the atmosphere.

The technology investment programmes and research projects supported by the Group, also in partnership with other qualified bodies in the sector, are heading in this direction. The industrial strategy decision taken to vertically integrate the production process, while also directly performing the metal alloy production phase along with the machining process, not only gives a definite competitive and industrial edge, but also allows the Group to intervene more effectively and more quickly in applying innovative solutions to reduce the environmental impact of one of the most polluting phases in the Brembo

**Annual energy consumption broken down by source (GJ)**

	2015	2016*
Electrical energy	1,831,302	2,038,812
Natural Gas	559,206	651,329
District heating	15,746	11,452
Other fossil fuels	287,030	370,891
Thermal solar	N.A.	424
<b>Total</b>	<b>2,693,284</b>	<b>3,072,908</b>

\* The figures for the Langfang production plant, which entered the consolidation scope in 2016, are excluded from the energy consumption calculation.



The calculation scope for measuring changes in the emission intensity index of cast-iron and aluminium production process includes exclusively the foundries in Dabrowa, Nanjing and Mapello.

product's life cycle, namely metal casting. A variety of solutions have been adopted to date in this area: over the past few years, all the basin casting furnaces in the Mapello aluminium foundry have been replaced by new-generation furnaces which drastically reduce methane gas consumption per tonne of aluminium produced. If a conventional furnace requires 110 to 120m<sup>3</sup> of gas to be used per tonne of metal, the new technology reduces the requirement to 70 or 80m<sup>3</sup> of gas per tonne depending on the plant's saturation level, with an energy saving of about 30%. This is a new high-efficiency technology that has now become the operating standard for the entire Group. Over the years important measures have also affected the heat treatment furnaces used in the final phases of the production process to give pieces the mechanical properties desired: in this case the electrical plant has been replaced with gas-powered systems with major efficiency gains.

A type of plant that deserves particular attention is the plant produced by recovering process heat from the melting furnaces in the cast iron foundries, in Italy and Poland, and from the infiltration furnaces in Stezzano. The recovered heat is used to warm the plant, allowing about 300,000m<sup>3</sup> of natural gas to be saved every year and avoiding atmospheric

emissions in the region of 565t of CO<sub>2</sub>. In the general technical plant area, given the high incidence of the energy consumption of the compressed air systems used in the production areas, over the years various actions have been taken to improve energy efficiency for compressed air generation, achieving a reduction in consumption of 20% compared to the facilities and equipment used in the past.

These energy consumption optimisation measures combined with other initiatives, — involving processes and plants that are less energy-consuming but cumulatively are just as significant, — have resulted in major energy savings and a significant cost reduction, particularly in the Group's long-established plants such as those in Italy. Overall the measures implemented in recent years in the various production hubs reduced CO<sub>2</sub> emissions by about 2,500 tonnes in 2016 and allowed cost savings of more than €600,000.



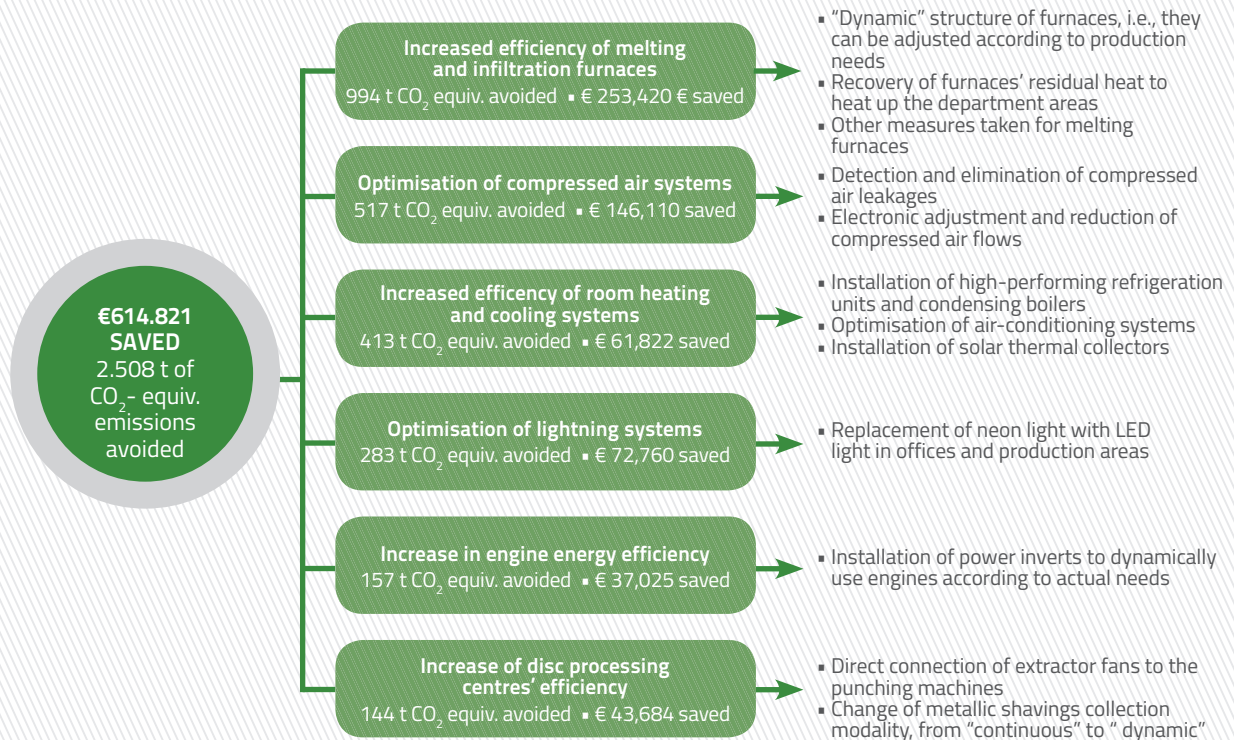
Brembo also liaises with research centres and other important industry bodies to support the identification of more cutting-edge solutions to increase the energy efficiency of its own processes. In fact, the Group participates in the European Union’s “Factory Eco-Mation” project, which aims to develop a new production plant concept that allows integrated management of environmental impacts – primarily energy consumption and atmospheric polluting emissions – together with plant productivity and product quality aspects. Brembo, in its role as partner, has tested various innovative solutions developed by the project team in one of its plants.

### Greenhouse gas emissions

It has been calculated that the Group’s operations in 2016 produced a total of 688,534 tonnes of CO<sub>2</sub>, a contribution equivalent, for example, to the emissions generated by a fleet of more than 1,100 Boeing 747s flying on the Milan-New York route.

The sources of CO<sub>2</sub> can be traced primarily to energy use required for the casting processes, which account for nearly 70% of total greenhouse gas emissions of the Group, as well as for powering production machinery and plants.

## ANALYSIS OF MAIN MEASURES TO REDUCE ENERGY CONSUMPTION AT GLOBAL LEVEL



**✓ SCOPE 1**

Climate-changing emissions generated directly by Brembo come from plant, assets and vehicles operated directly by Brembo. This scope includes emissions from the combustion of fossil fuels in melting furnaces, leakage of coolants in air conditioning systems or use of the company fleet.

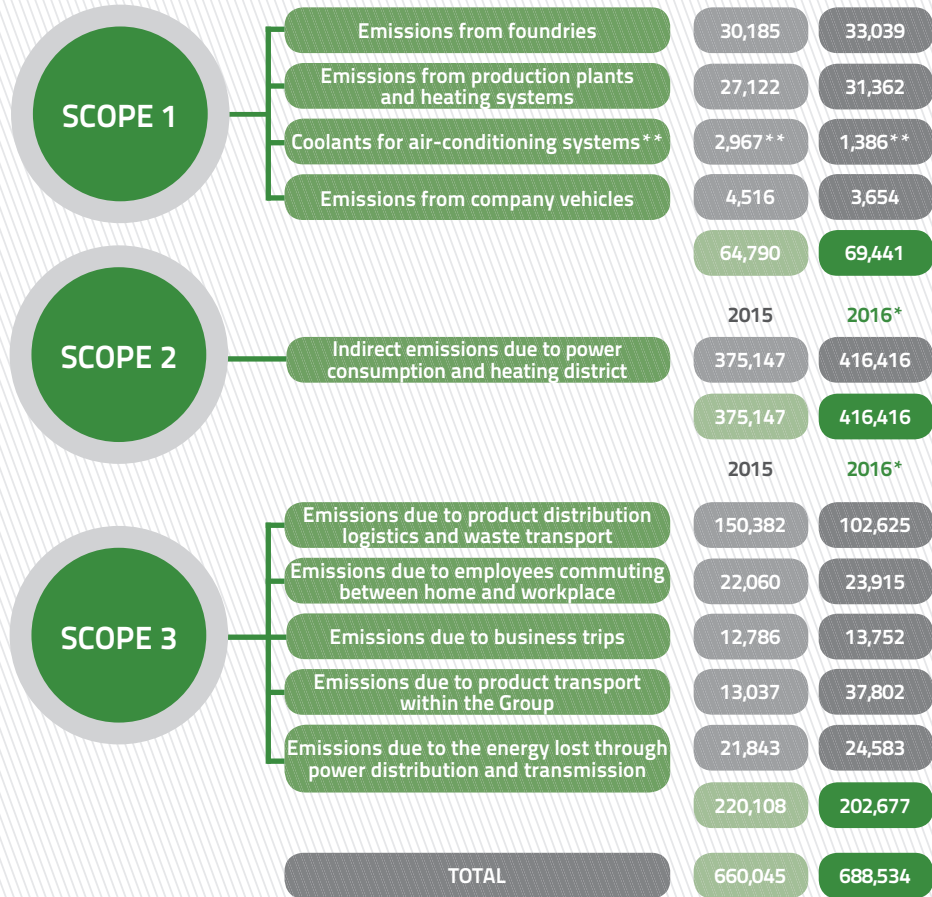
**✓ SCOPE 2**

Indirect emissions of greenhouse gases resulting from the generation of electricity purchased by Brembo, as well as the heating of water/steam procured by the Group through district heating systems; with these purchases Brembo indirectly contributes to the emissions generated by electricity or heat suppliers.

**✓ SCOPE 3**

Emissions that are not included in the previous scopes linked to Brembo's value chain. This scope includes emissions from Brembo product distribution and handling among plants, personnel commuting from home to workplace or business trips.

## GREENHOUSE GAS EMISSION BY SCOPE (tCO<sub>2</sub> equiv.)



\* The figures for the Langfang production plant, which entered the consolidation scope in 2016, are excluded from the calculation of CO<sub>2</sub> emission.

\*\* The figure includes the quantities of refrigerant gases dispersed into the atmosphere and reported in the special registers when air conditioning systems are refilled periodically. In the absence of such a record or other evidence of gas refills carried out during the year all the gas contained in the air conditioning systems is considered to be dispersed into the atmosphere – as a precautionary measure.

The Group has set specific medium and long-term objectives to reduce greenhouse gases and implement Brembo's commitment to environmental protection and combating climate change:

**▶ by 2025**

Brembo is committed to reducing Scope 1 and Scope 2 direct and indirect emissions by 19% compared to the levels measured

in 2015 through actions aimed at improving the efficiency of plants and increasing the percentage of energy used that comes from renewable sources.

**▶ by 2040**

Brembo is committed to reducing Scope 1 and Scope 2 direct and indirect emissions by 41% compared to 2015 levels.

### Atmospheric emissions

Brembo also controls, together with gas emissions contributing to climate change, the release of substances that are harmful to the environment and ozone-depleting. In 2016, 0.62 tonnes of ozone-depleting gases, including 0.47 tonnes of coolants containing hydrofluorocarbons (HFC) and 0.15 tonnes of freon 22 gas (R-22), were dispersed into the atmosphere.

The figure includes the quantities of coolants dispersed into the atmosphere and reported in the special registers when air conditioning systems are refilled periodically. In the absence of such a record or other evidence of gas refills carried out during the year, all the gas contained in the air conditioning systems is considered to be dispersed into the atmosphere – as a precautionary measure.

\* These figures reflect exact measurements carried out in the plant included in the regular sample assessment. On the basis of these exact measurements, each plant's emissions are calculated, as data regarding harmful substances, volume flows and operating times are available.  
 \*\* The figures for the Langfang production plant, which entered the consolidation scope in 2016, are excluded from the calculation of emission of harmful substances.

HARMFUL EMISSIONS (t)*		
	2015	2016**
Nitrogen oxides (NOx)	262.15	415.75
Dusts	100.52	79.43
Volatile organic compounds	65.99	146.51
Sulphur oxides (SOx)	48.82	45.95
Hazardous pollutants	25.46	35.14
Persistent organic compounds	3.46	0.69
OTHER	256.71	-

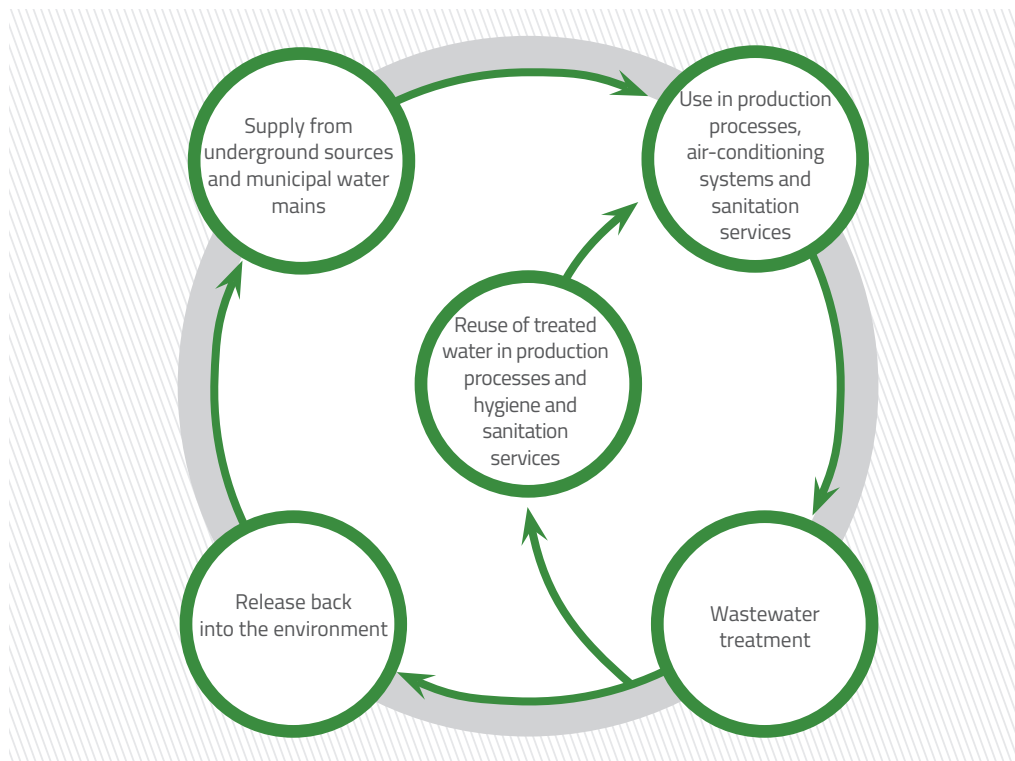
### Management of water resources

On the one hand, the demographic growth in world population, and the resultant increase in demand for water particularly for agricultural production purposes, and, on the other, the gradual desertification of increasingly large areas of the planet due to climate change, are forcing industrial complexes with a significant need for water resources like Brembo to identify all possible solutions for reducing the amount of water drawn and consumed.

Some of the main areas where Brembo is committed to an efficient use of water resources include: accurate monitoring of the quantities of water drawn, consumed and recycled, a systematic analysis of wastewater put back into the environment after industrial use, the reuse of water in multiple processing cycles, as well as the adoption of technologies and product treatment plants which, where possible, allow water to be replaced with dry alternatives.

These measures allowed the Group to restrict water use to a total of 994 million litres in 2016. This represents virtually

the same amount of water expected to be used by Milan's inhabitants in one year considering a daily per capita water



**Water consumption by supply source (megaliters)**

	2015	2016*
Public water mains	588	668
Water well	348	326
<b>Total</b>	<b>936</b>	<b>994</b>

\* The figures for the Langfang production plant, which entered the consolidation scope in 2016, are excluded from the water consumption calculation.

**Water discharges by destination (megaliters)**

	2015	2016*
Public sewage system	310	232
Surface waterbodies	88	208
<b>Total</b>	<b>398</b>	<b>440</b>

\* The figures for the Langfang production plant, which entered the consolidation scope in 2016, are excluded from the wastewater calculation.



consumption of 2 litres. Most water supplies are drawn from public mains. Most of the water supply was used for cooling purposes primarily in the casting and machining processes; most wastewater — about 441 million litres — was put back into the public sewage systems, and a little above 43% was, instead, treated and poured back into surface waterbodies

### Waste reduction

Greater efficiency in using raw materials in production processes translates into reduced costs and containment of waste and processing scrap, which benefits the environment.

With this objective in mind, Brembo closed 2016 with waste production at Group level above 218,000 tonnes, half of which recyclable, due in large part to the brake disc machining processes. Most waste is scrap metal which is reused in the production processes. Only 8% of the

waste generated during the year — equal to a quantity of about 18,300 tonnes — is classified as hazardous under current local legislation.

The modest percentage of hazardous waste produced overall by the Group is due both to careful management of the production processes, designed to minimise scrap generation as much as possible, and the very nature of Brembo's industrial sector in which the waste produced can be reused in other processes.

All waste produced by the Group is disposed of using external specialised firms, which are checked for possession of the necessary permits. In addition, when components are not directly recycled by the Group, where possible Brembo works to exploit by-products within collateral supply chains, such as machining process scrap metal which is recycled by companies in the supply chain as part of a circular economy.

Waste generated (t)		
	2015	2016*
Hazardous waste	18,599	18,300
Non-hazardous waste	181,670	199,979
<b>Total</b>	<b>200,269</b>	<b>218,279</b>

\* The figures for the Langfang production plant, which entered the consolidation scope in 2016, are excluded from the calculation of waste generated.





Suppliers and the Local Area

# GROWING IN HARMONY. TOGETHER AND WHEREVER

**chapter 6**

[↑ index](#)

## 6.1 CREATING LOCAL DEVELOPMENT OPPORTUNITIES

For more than 50 years, Brembo has contributed directly and indirectly to the economic development of the local areas and numerous communities around the world, which the Group has joined in keeping with its objective of establishing strong bases in the vicinity of its customers' production centres, where the vehicles and motorbikes fitted with the Group's braking systems are manufactured.

It is sufficient to mention the investments that have led to the opening and ongoing modernisation of the Group's 19 production plants and 4 research laboratories, thereby contributing to the development of manufacturing districts in Italy and in around 14 countries worldwide, representing for many of its workers a source of employment and income to use in the development of their own projects. Over the last few years, the main investment programmes have involved:

- the State of Michigan, with a planned investment of €100 million during the 2015-2017 period for the development of a cast iron foundry in an area adjacent to the new Homer plant;
- Mexico, with a three-year investment programme worth a total of €32 million for the construction of a new plant in Monterrey covering more than 35 thousand square hectares, which, once fully operational, will be able to produce around 2 million aluminium calipers per year. Again in Mexico, a new cast iron foundry is going to be constructed adjacent to the new Escobedo plant, with

an additional investment of €85 million. It will enter into production by 2017 and, once fully operational, will have a casting capacity of about 100 thousand tonnes a year;

- Poland, with a four-year investment programme from 2014-2017 worth €34 million, which has led to the opening of a new plant in Niepolomice, devoted to processing steel hats for mounting on lightweight braking discs. In addition, again in Poland, a third casting line and new machining lines are planned in the Dabrowa Górnicza production hub, extending over a covered area of a further 22 thousand square metres, increasing the casting capacity by 100 thousand tonnes a year;
- China, where a new complex is to be built close to the plant already existing in Nanjing to produce aluminium calipers. The new production hub will have a casting capacity of more than 15 thousand tonnes and a production capacity of more than 2 million pieces a year, including calipers and spindles.



Economic value generated, distributed and retained (€ thousand)		
	2015	2016
<b>Economic value generated</b>	<b>2,131,927</b>	<b>2,353,494</b>
<b>Economic value distributed*</b>	<b>1,904,201</b>	<b>2,065,231</b>
Suppliers	1,391,201	1,504,633
Brembo People	356,369	387,640
Investors and lenders	94,556	101,807
Public Administration	61,186	69,944
Gifts and sponsorships	889	1,207
<b>Economic value retained</b>	<b>227,726</b>	<b>288,263</b>

\* The item "economic value distributed to Brembo People" includes the costs of Brembo's employees and temporary workers.

In the same way, Brembo, which represents a reliable partner for many businesses in the supply industry, with which they can develop partnerships and grow over time, has contributed to strengthening the entrepreneurial fabric in its value chain, creating a network of ancillary companies that guarantees additional employment and technological development. In fact, in 2016, much of the wealth distributed by Brembo went towards remunerating and supporting the system of businesses in the supply chains: overall, the Group made purchases worth over €1,500 million. More than €350 million were distributed to Brembo personnel in the form of salaries, variable remuneration and social security contributions.

The economic impact of the Group can also be measured in its support for public spending through its contribution to tax revenue and its dividends to shareholders, thereby encouraging further investments. The generation and distribution of wealth by the Group has had a particularly

significant positive impact in those areas characterised by levels of industrialisation and wealth distribution below the national average. This is the case, for example, with the Homer production plant in the United States and the Ostrava plant in the Czech Republic, areas that are characterised by a below-average employment rate and per-capita GDP compared to country's average. In recognition of the benefits produced by the presence of highly specialised manufacturing firms, in 2016 – as part of national policies designed to attract and support industrial innovation and development – the Group received more than €26 million in public grants, many in the form of tax relief.

### ► Contribution to developing the local intellectual capital

Brembo's effects on local communities are not just measured in terms of the investments channelled into these areas or the job opportunities that are created there. Even more important to their development

is the Group's contribution to increasing the intellectual capital of those districts. In fact, for local areas the presence of Brembo entails the transfer and development of skills, benefitting the activities of a Group that focuses on creating excellent production plants wherever it sets them up, as demonstrated by the recognitions received by the Dabrowa plant from Jaguar Land Rover as a "Gold Standard Global Supplier" for 2015 and the award presented to the Ostrava plant in 2016, also by Jaguar Land Rover. The main tools used to make Brembo's "knowledge" capital a resource for the local area include personnel training and partnerships developed with various research and training institutions, including the Milan Polytechnic, the Royal Institute of Technology in Stockholm, the University of Padua and the University of Trento. These partnerships have made it possible to share Brembo's legacy of expertise in materials, braking systems, technology and industrial fusion and mechanical processing procedures, while also allowing the Group to develop highly innovative products with a view to open innovation that benefits both Brembo and the local areas.

Out of the main initiatives that demonstrate Brembo's key role in creating and promoting knowledge and innovation on a local level, the most significant are reported below:

### ► The development of the innovation hub **Kilometro Rosso**

Out of the main initiatives that demonstrate Brembo's key role in creating and promoting knowledge and innovation on a local level, the most significant are reported below: The Group was involved in the creation of **Kilometro Rosso** from the very start. This district, established on the outskirts

of Bergamo — the area where Brembo has its roots, acts as a catalyst for various areas of excellence in the field of research, high-tech production and services for innovation in various sectors and areas of specialisation. This knowledge hub aims to create a meeting point for businesses with a strong propensity for innovation, scientific institutions and R&D centres, with a view to promoting the sharing of specialist expertise among businesses operating in various industries, considerably increasing the ability of the participants to generate product, process and service innovation. **Kilometro Rosso** is now one of Italy's main science parks, accredited by the CENSIS 2009 report as one of Italy's top 10 initiatives for innovation. Brembo has its central headquarters in the park, as well as a mechatronics, sensor systems and mechanical research centre and the laboratories of Brembo SGL Carbon Ceramic Brakes, a joint-venture set up between Brembo, SGL Group and Petroceramics.

For further information:  
[www.kilometrorosso.com](http://www.kilometrorosso.com)

### ► **Accademia del Freno (Brake Academy) at the Polytechnic University of Milan**

In partnership with the Milan Polytechnic, Brembo set up the **Accademia del Freno [Brake Academy]** in 2014. This technical and scientific advanced education initiative specialising in braking systems seeks to complement the academic curriculum of Milan Polytechnic's engineering students. The Academy features a cycle of lessons and seminars in the University and in the company. It involves Group managers and specialists, who provide students with the knowledge and expertise developed by

the Group, ranging from brake disc and brake disc caliper design to further study of friction materials and thermal and structural calculations. This partnership aims to prepare new braking system specialists, training future professionals in the sector.

### ▶▶ The support to local technological institutions

The Group's partnerships with the world of education do not focus solely on universities. In fact, it is important for Brembo to develop a relationship with future generations from secondary schools onwards, so as to guide and introduce the best talents to the mechanics industry. The partnership established in Italy between the Group and the alumni association of the Istituto ITIS Paleocapa fulfils this vision. This is the main vocational education institution in the city of Bergamo, which trains and specialises young

people in disciplines such as electronics, electrotechnology, IT and mechatronics. In addition, the Group contributed to setting up a museum in 2015/16 at the institution itself, not only providing the funding, but also donating company machinery that was no longer in use but which was of significant historic and industrial importance.

### ▶▶ Enhancement of car design

In partnership with Auto&Design magazine, the Group has contributed to the revival of the Car Design Award, a prestigious award presented in Turin and designed to promote industrial design in the automotive industry, rewarding designers who have stood out for innovations in series-production models, prototypes and showcar categories, demonstrating the best developments while remaining in keeping with the image of the brand.

## 6.2 ANCILLARY COMPANIES AND SUPPLIER NETWORK

Brembo's production requires the significant contribution of several thousands of businesses in the supply chain, located in more than 15 countries worldwide, which provide essential goods and services for the Group's industrial processes.



The set of raw materials, components and materials, as well as ancillary production services that are processed and integrated in Brembo products generated a purchase value of about €1,400 million in 2016. Purchases of raw materials such as grey cast iron goods, aluminium, scrap and other metallic charge components (€488 million) are of prime importance. Equally significant are purchases of components

and outsourced processing (€541 million), reconfirming the complex and multiple nature of the products that Brembo supplies to its Customers.

The Group also performs a high volume of purchases of durable goods to support its own growth and development (about €199 million). Equipment and machinery purchases are characterised by high levels of innovation and the requirements

### DIRECT PURCHASES\* BY CATEGORY (€)

	2015	2016
Raw materials	471,528,576	488,058,411
Components and outsourced processing	473,807,534	541,838,745
Ancillary products and services	157,269,625	169,209,841
Industrial assets	133,184,000	199,036,000
<b>TOTAL</b>	<b>1,235,789,735</b>	<b>1,398,142,997</b>

\* This only includes the costs of purchasing goods and services directly involved in finished product production, namely: purchases of raw materials, purchases of direct materials (including components and assembled parts), purchases of industrial assets (including machinery and production lines), and purchases of products and services ancillary to production (including logistic, maintenance and repair services for production plant, packaging materials and tools). Other purchasing items such as energy supplies, utilities and advisory services are therefore excluded.



regarding environmental protection and promotion of workplace safety.

Finally, product quality, service and customisations require the contribution of suppliers of materials and ancillary production services (€169 million), such as transport and logistic services, plant maintenance and assistance.

Therefore, the quality of the products and services offered by Brembo also depends on the supply chain from which all the production components come.

A key element in the Group's industrial strategy is the effective management of its network of suppliers in all the phases of the business relationship, starting with the partner qualification and selection process, right through to checking compliance with

the supply conditions agreed, including verifying the suppliers' capacity to manage their environmental and social impact correctly with a view to ongoing improvement.

The value of the supplies illustrates the importance of the supplier network for Brembo, but also mirrors the Group's economic impact on the supply chain. The Group helps to support the growth of over 4,800 businesses with its purchases. Most suppliers operate in areas where the Group is also present.

85% of purchases, amounting to more than €1,150 million, are made with businesses operating in Europe, the United States, China, Mexico and India, countries where the Group carries out its main activities.



This demonstrates the Group's policy of preferring local supplies, pursuing an international development strategy that places the local area at the centre,

alongside a commitment to create stable relations with the communities with which Brembo deals, improving supply chain flexibility with a view to risk minimisation.

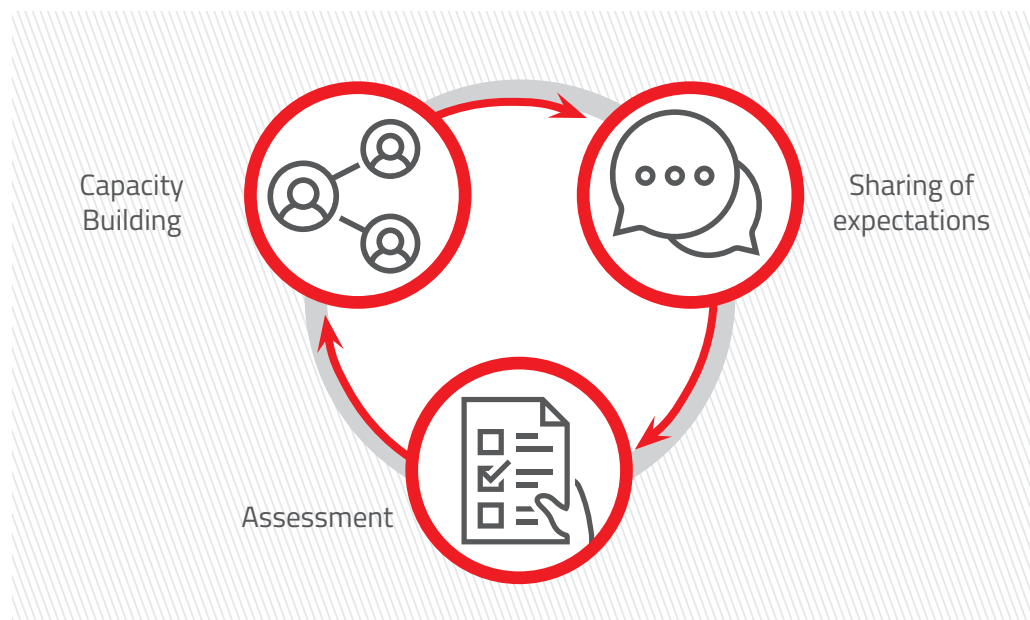
## PURCHASES BY GEOGRAPHICAL AREA (€)

	2015	2016
Europa	701,463,108	777,810,442
North America	300,529,609	311,422,998
South America	50,911,600	46,379,878
Asia	150,384,139	220,474,178
Other	32,501,279	42,055,501
<b>TOTAL</b>	<b>1,235,789,735</b>	<b>1,398,142,997</b>

## 6.3 PROMOTING SUSTAINABLE BUSINESS MODELS THROUGH RESPONSIBLE PURCHASING PRACTICES

Given the strategic importance for Brembo of developing relations with a supply chain focused on ongoing innovation, improving quality and sustainability, the Group has developed a structured supplier management process, in which three main stages can be identified:

- Clear communication of the standards and performance that Brembo expects from its business partners in terms of product and service quality, correct environmental management and the safeguarding of proper working conditions.
- Assessment of suppliers' capacity to meet requirements both during the qualification phase and during the business relationship.
- Providing suppliers with support to continually improve their own performance and strengthen their ability to innovate.

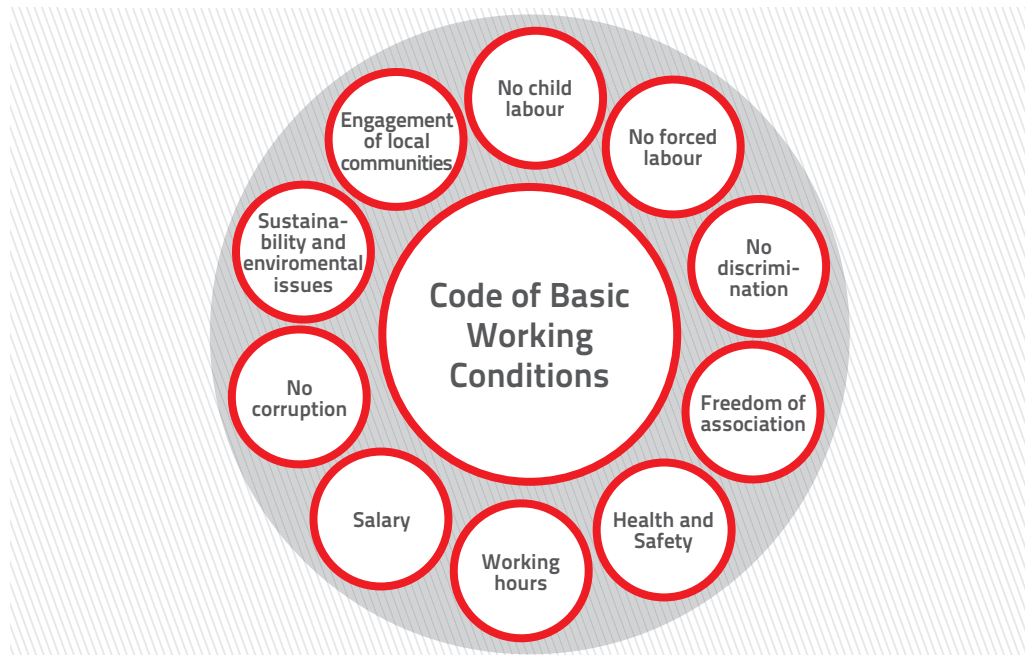


► **Clear communication of what the Group expects from suppliers**

Bearing in mind the sector in which the Group's suppliers operate, featuring high labour intensity and complex production and technological processes, the Group requires its suppliers – as a significant requisite for any supply contract – to develop and maintain an environmental management system compliant with ISO 14001 standards. This is to mitigate the risks in the supply chain linked to full protection of working conditions and proper management of environmental impacts. In addition, they are required to base their conduct on the Universal Declaration of Human Rights, the ILO's Tripartite Declaration on the Principles Concerning Multinational Enterprises and Social Policy, as well as the OECD Guidelines for Multinational Enterprises, mentioned in the Code of Basic Working Conditions, which

is for all intents and purposes an essential part of the supply contract (available at <http://www.brembo.com/en/company/corporate-governance/codes-policies>). All suppliers are also required to apply an effective safety management system in accordance with the rules of OHSAS: 18000 Series or equivalent, preferably obtaining third-party certification. Finally Brembo's partners are required to establish a certified quality management system, with the aim of promoting the compliance of all suppliers of direct materials and related services with the ISO/TS Automotive Standard 16949, obtaining the relevant certification from accredited independent bodies.

For additional information: <http://www.brembo.com/en/company/suppliers/general-terms-and-conditions-of-purchase>





### ► Supplier selection and appraisal

Brembo provides new suppliers with a structured assessment and type approval process carried out in accordance with uniform methodologies, based on objective and measurable parameters. The first phase engages suppliers in a process of self-assessment, carried out using a special questionnaire (available online <http://www.brembo.com/en/company/suppliers/criteria-for-selection>). It also includes an analysis of the supplier's commitment to adequately safeguard human and worker rights, combat corruption and minimise risks for the environment. The questionnaires are then analysed by the Quality and Environment, Purchasing and Administration and Finance Departments with the aim of ensuring consistent assessment of suppliers and the related operating, financial and sustainability risk profile. Once the pre-assessment phase has been completed positively, all potential suppliers receive local site visits by the Quality and Environment Department of other competent Brembo staff to check their capacity to meet quality and process requirements.

If the new supplier's type approval process has a positive outcome, the supplier joins the network of potential partners with which Brembo can place contracts. The actual assignment of a supply will then depend on an analysis of offers based on objective criteria such as adequacy and technological and design capacity, the service and logistic capacity of the supplier, as well as the search for the lowest cost considering not only price, but also the quality, innovation and service in relation to the performance required so as to generate efficiency over time.

With a view to a virtuous process of continuous improvement, Brembo carries out periodic audits of suppliers with which it has commercial dealings also with the specific objective of assessing their compliance with the sustainability standards required by the Group. To ensure maximum independence for the supplier appraisal process, a pilot project has been running since 2015 in which a third-party certifying body monitors direct material suppliers (about 153 businesses) regarding specific aspects of environmental and social management. 41 suppliers were identified for this purpose, to cover about 29% of 2016 purchases invoiced, selected based on geographical location criteria, type of production processes and sales to the Group.

There were no reports in any case of serious critical issues, such as the presence of underage workers or forms of forced labour, and no serious infringements of employee safety standards, such as a lack of suitable emergency escape routes. A total of 17 suppliers have received an above average assessment compared to the average of the country and reference industry.

A corrective action plan, subject to periodic monitoring by Brembo using a third-party certification body, has been developed for each non-conformity reported.

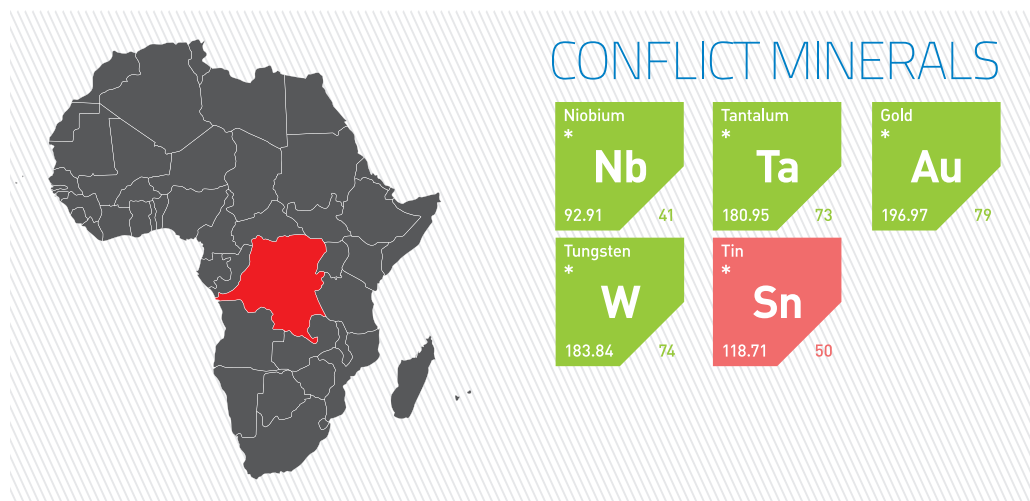
### ► Development and capacity building

The goal to drive ongoing innovation and improve the quality offered by Brembo requires supplier involvement so that a supply chain network supporting this evolution can be developed. It is for this reason that the Group is committed to providing opportunities for supplier growth by also promoting initiatives

for collaboration that encourage direct discussion and the transfer of expertise. One such example is a pilot project developed during the past two years involving a number of suppliers on a path of guided growth designed to improve quality. This is coordinated by Brembo's Supplier Quality Development Engineers (Quality and Environment Department). The project to assist and support the development of skills was organised on the basis of mixed working groups, consisting of suppliers and Brembo technical personnel, which, during a series of meetings, analysed examples of best practice and shared their own significant experiences in the adoption of quality improvement solutions. This created a shared vision on how quality requirements and rules in the automotive sector are evolving, analysing requests presented to the Group by End Users and indirectly those requests that Brembo makes in turn to the suppliers.

## Combating the use of conflict minerals

“Conflict minerals” are metals such as gold, coltan, cassiterite, wolframite and their derivatives such as tantalum, tin and tungsten that are extracted by the Democratic Republic of the Congo (DRC) or in neighbouring countries. This category of metals is subject to international regulations, including section 1502 of the Dodd-Frank Act, a 2010 U.S. federal law which discourages the use of minerals the trading of which could fund conflicts in Central Africa, where there are reports of serious violations of human rights. Promoting the full protection of human rights in its own supply chain as set out in the Group's Code of Ethics and the Code of Basic Working Conditions, Brembo does not directly purchase minerals from conflict zones and requires its suppliers and commercial partners to declare the provenance of metals for Brembo Group supplies so that a check can be made that they do not originate in countries at risk. Suppliers are required to undertake the monitoring of their own supply chain.



## 6.4 SOCIAL AND CULTURAL DEVELOPMENT OF LOCAL COMMUNITIES

**Brembo is a Group with close ties to the local areas where it operates. It focuses strongly on the needs they express, demonstrating its willingness to provide tangible support to local communities in the areas of greatest social need, through various projects and initiatives.**

In order to guarantee structured and strategic management of philanthropic initiatives promoted by the Group, a dedicated coordination body has been set up on a central level: the Social and Cultural Sponsorships and Donations Committee. It periodically brings together the Heads of the main corporate functions, with the task of defining criteria, guidelines and priorities on which to focus sponsorships and donations in the social and cultural sphere, establishing the annual budget set aside for these activities, evaluating projects and initiatives to support, as well as monitoring the coherence and efficacy of the projects being promoted. The Group's Country General Managers also play an active part in listening to and supporting local socio-cultural development initiatives. They act in keeping with the priorities identified by the Committee, indicating local needs and identifying suitable ways of providing support to the communities. Brembo concentrates its efforts on the following five areas of intervention:

- ▶ **Social issues and safeguarding children**
- ▶ **Education, training and research**
- ▶ **Art and culture**
- ▶ **Sport**

### ▶ **Brembo worldwide**

With respect to this latter area of intervention, which conveys the Group's desire to play an active part in the most urgent international contexts and situations, there were two particularly important projects in the two-year period 2015-2016 — one in India, the other in Italy —, which saw Brembo acting as the direct promoter of initiatives, developed through the active search for partnerships with non-profit organisations.

### ▶ **CESVI Houses of Smile**

The partnership between Brembo and CESVI, an NGO involved in supporting development and combatting poverty, led to the launch of the Brembo – CESVI Houses of Smile project in Pune, India, aimed at supporting highly vulnerable women and children. This is an initiative which aims to open, by the first quarter of 2017, a service centre in the area of Bibwedi, Pune, and three educational centres for children and adolescents in run-down outlying areas. The Indian humanitarian organisation Swadhar, selected locally by CESVI staff for its considerable experience in women's welfare and education services, will coordinate and

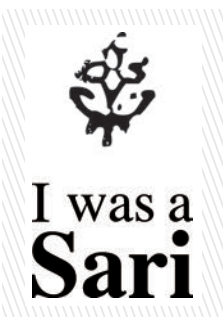


manage all the Houses of Smile activities. Swadhar can boast a team of operators specialised in teaching, health education and vocational development and its objective will be to accompany children and women in need of help on a path of training and empowerment.

Since 2015, Brembo has also supported the CESVI Houses of Smile in Tamil Nadu. The Company's grant has enabled the buildings to be maintained and refurbished and new educational centres to be opened in the outlying areas.

► **I was a Sari**

The Sari is the traditional dress for Indian women that has passed down through the centuries in local culture and "I was a Sari" is one of the social projects supported by Brembo since 2015. "I was a Sari" is a social enterprise based in Mumbai, founded by



an Italian entrepreneur with the aim of improving the lives of Indian women from the most disadvantaged social and economic classes. The women of "I was a Sari" create hand-crafted fashion accessories using recycled Sari fabrics or premium textiles. The Indian women are taught specialist tailoring skills and guaranteed a dignified regular wage, providing them with precious independence.

In December 2016, a temporary shop was organised in the Group's three production hubs to promote awareness amongst the employees and the objectives of the I was a Sari project. Brembo's people greeted the initiative with great enthusiasm and a high level of participation.

► **SOSSteniamoci**

Given the current crisis that has led to migrants and refugees seeking refuge in Europe, landing in Italy and other southern Mediterranean countries, Brembo has worked in partnership with the Non Governmental Organisation CESVI to launch the SOSSteniamoci project aimed to assist 25 unaccompanied foreign minors or young adults resident in the Bergamo area on a two-year path to help them achieve socio-







economic independence. The young people, selected based on their strong motivation and desire to build a life in Italy, are supported not only from the psychological standpoint, but above all guided to enhance their skills through individual training paths. The young people involved in the project have the opportunity to attend a professional training, Italian specialist language and civic education course, tailored to their needs and aspirations. They will therefore be able to improve their abilities and skills during the course of the project, which will culminate in apprenticeship and training opportunities with various local firms.

Alongside its international projects, Brembo also supports the communities in which it operates through local initiatives focused on the following priorities:

■ **Social issues and safeguarding children:**

within this area, Brembo makes an annual contribution to the Associazione Amici della Pediatria Onlus, which promotes the “Giocamico” project at the Papa Giovanni XXIII hospital in Bergamo. Giocamico comprises a psychological space where young patients can experience a fun activity that prepares them for surgery and diagnostic investigations. Children can therefore find out about what will

happen to them in a fun manner; the operating theatre becomes a space ship, the operation an adventurous journey. Thanks to the use of sounds, images and simulations, they are not just told about their treatment, but actually experience it.

■ **Education, training and research:**

in keeping with its nature as a company with a strong vocation for innovation, Brembo supports scientific research projects in various fields of application, as well as various initiatives linked to education and training for young people. the Group supports and works with the Mario Negri Institute for Pharmacological Research, one of Italy’s most important biomedical and pharmacological research centres.

■ **Art and culture:**

Brembo has also sought to promote the artistic and cultural heritage of the areas in which it operates, as well as Italian culture around the world. The main initiatives supported include the sponsorship of the Teatro alla Scala’s tour of China from 31 August to 17 September 2016 and a contribution to the restoration of the Italian Chapel in the historic centre of Prague.

■ **Sport:**

Brembo believes in the importance of sports as an educational teambuilding element for young people. Because of this, Brembo has sponsored a local female volleyball team, the “Brembo Volley Team”, since 2003, as well as supporting other local sports associations.









## 7.1 METHODOLOGY USED

**Brembo's Sustainability Report is intended to provide the Stakeholders with an accurate, thorough and transparent view of the Group's strategies, actions and results in pursuit of economic growth and business development, while taking account of the expectations of the stakeholders involved and seeking constant improvement of the environmental and social impacts of its activities.**

The Report will be published annually and will be disclosed to the public as of 2017, with data on the performance for the year ended 31 December 2016. The Report was prepared in accordance with the Global Reporting Initiative's G4 Sustainability Reporting Guidelines — Core Option.

### Reporting process

Coordinated by the CSR Officer and the relevant work team, all the main company functions took part in the process aimed at identifying the contents of the Sustainability Report and defining the indicators to be used in monitoring the Group's performances, as explained in greater detail in section 1.4 "The aspects involved in measuring the capacity to create sustainable value". All the main company functions also participated — each with regard to their respective area of competence — in the subsequent phase of collecting, analysing and consolidating data, with the task of validating each information included in the Report.

The Report is not subject to external assurance, therefore only Brembo Group's

executives are responsible for the data and information provided herein.

### Period and boundaries

All data and information reported herein refer to financial year 1 January 2016 – 31 December 2016. Figures for 2015 have been added and indicated appropriately, where useful for purposes of comparison or contextualisation of the information. The reporting boundaries are the same as in the Consolidated Financial Statements for the year ended 31 December 2016 as per the 2016 Annual Report. Any boundary limitation is specified in the Report. The information on the size and composition of the workforce, education level, training activity and staff performance appraisal (chapters 4.1 – 4.4) concerns Group employees only.



## Reporting Principles

The following principles have been taken into consideration in defining and reporting the contents of the Sustainability Report:

<b>Materiality</b>	The Report covers aspects that reflect the main direct economic, environmental and social impacts of Brembo's activities that are more significant for the Group and the internal and external Stakeholders involved in company activities.
<b>Inclusiveness</b>	Brembo takes into account the expectations and interests of all stakeholders who for various reasons participate in or are influenced by the company's activities. The Report provides a description of the Group's main stakeholders and the main sources – documents or dialogue channels – used to identify stakeholders' interests and expectations.
<b>Sustainability Context</b>	Sustainability reporting has taken into account the social and economic context in which the Group operates and the most significant topics for the engineering and automotive industry, including through the analysis of sustainability reports of national or international groups of the same or similar industries.
<b>Completeness</b>	The aspects and scope of the Report allow the stakeholders to comprehensively assess the Group's main economic, social and environmental impacts.
<b>Balance</b>	The Report covers the Group's main sustainability performances. It reflects both aspects where the Group recorded favourable results and trends, and those where the Group has detected room for improvement.
<b>Comparability</b>	The indicators contained in the Report have been selected and presented in a manner that enables their construction and processing over time so as to enable stakeholders to analyse changes in the Group's performance over time. Figures for 2015 and 2016 have been added and indicated appropriately if useful for purposes of comparison or contextualisation of the information.
<b>Accuracy</b>	To guarantee the accuracy and comparability of the reported information the data have been directly measured, limiting the use of estimates to the extent possible. The report indicates which data has been estimated. Estimates were produced using the best calculation techniques currently available.
<b>Timeliness</b>	Brembo's Sustainability Report is prepared annually and disclosed in the same period of the presentation of the Consolidated Financial Statements.
<b>Reliability</b>	All the data and information reported have been validated by the Heads of the relevant company functions and have been processed based on documents that prove their existence, completeness and accuracy.







## 7.2 MATERIAL TOPICS AND RELATED GRI – G4 ASPECTS

MATERIAL TOPICS IDENTIFIED BY BREMBO	REFERENCE GRI-G4 CATEGORIES AND ASPECTS	IMPACTS BOUNDARY	
		IMPACTS WITHIN THE GROUP	IMPACTS OUTSIDE THE GROUP
Creation of Economic Value Sustainable over Time	<b>Economic:</b> Economic Performance	All the Group	Investors, Suppliers, Brembo People, Institutions, Customers, Local Communities
Effective Governance System	<b>General:</b> Governance	All the Group	Investors, Institutions, Brembo People, Customers
Compliance with laws and regulations	<b>General Aspects:</b> Ethics and Integrity <b>Society:</b> Anti-corruption, Anti-competitive Behaviour, Compliance <b>Human Rights:</b> all aspects <b>Labor Practices and Decent Work:</b> Labour Practices Grievance Mechanisms <b>Environmental:</b> Products and Services	All the Group	Institutions, Investors, Brembo People, Competitors, Customers, Local Communities
Overall Product and Process Innovation	<b>Product Responsibility:</b> Customer Health and Safety <b>Environmental:</b> Products and Services	All the Group	Clients, End user, Local Communities, Investors, Future Generations
Total Product Quality and Safety	<b>Product Responsibility:</b> Customer Health and Safety	All the Group	Customers, End user, Institutions
Worker Health and Safety	<b>Labor Practices and Decent Work:</b> Occupational Health and Safety	All the Group	Brembo People
Brembo People Development	<b>Labor Practices and Decent Work:</b> Employment, Training and Education	All the Group	Brembo People
Partnership with Customers and Co-design	Non GRI Material Aspect	All the Group	Customers
Brand Value and Reputation	<b>Product Responsibility:</b> Product and Service Labeling	All the Group	Customers, End user, Brembo People
Business Ethics	<b>General Aspects:</b> Ethics and Integrity <b>Society:</b> Anti-corruption, Anti-competitive Behaviour, Compliance <b>Human Rights:</b> Investment, Human Rights Grievance Mechanisms	All the Group	Local Communities, Institutions, Competitors, Investors

MATERIAL TOPICS IDENTIFIED BY BREMBO	REFERENCE GRI-G4 CATEGORIES AND ASPECTS	IMPACTS BOUNDARY	
		IMPACTS WITHIN THE GROUP	IMPACTS OUTSIDE THE GROUP
Supply Chain Management	<b>Economic:</b> Procurement Practices	All the Group	Suppliers, Future Generations, Local Communities
Local and Global Development	<b>Economic:</b> Economic Performance, Indirect Economic Impacts, Procurement Practices	All the Group	Local Communities, Suppliers, Brembo People
Product Design and Style	Non GRI Material Aspect	All the Group	Customers, End user
Effective Management of Emissions to the Atmosphere	<b>Environmental:</b> Emissions, Transport	All the Group	Future Generations, Local Communities
Energy Efficiency	<b>Environmental:</b> Energy	All the Group	Future Generations, Local Communities
Efficient Waste Management	<b>Environmental:</b> Effluents and Waste	All the Group	Future Generations, Local Communities
Talent Attraction and Partnerships with Universities	<b>Labour Practices and Decent Work:</b> Employment, Training and Education	All the Group	Brembo People, Local Communities
Customer Satisfaction	<b>Product Responsibility:</b> Product and Service Labeling	All the Group	Customers, End user
Responsible Water Use	<b>Environmental:</b> Water	All the Group	Future Generations, Local Communities
Relations with Local Communities and Stakeholder Engagement	<b>General Aspects:</b> Stakeholder Engagement	All the Group	All stakeholders
Environmental and Social Due Diligence in Relationships with Suppliers and Business Partners	<b>Environmental:</b> Supplier Environmental Assessment <b>Labour Practices and Decent Work:</b> Supplier Assessment for Labour Practices <b>Human Rights:</b> Supplier Human Rights Assessment	All the Group	Suppliers, Future Generations, Local Communities
Participation in System/ Industry Initiatives	<b>General Aspects:</b> Commitment to External Initiatives	All the Group	Competitors, Institutions
Protection of Trade Union Freedom and of Workers' Rights	<b>Human Rights:</b> Freedom of Association and Collective Bargaining, Forced or Compulsory Labour	All the Group	Brembo People, Institutions
Collaboration with Suppliers and Promotion of the Supplier-driven Innovation	<b>Economic:</b> Indirect Economic Impacts	All the Group	Suppliers



MATERIAL TOPICS IDENTIFIED BY BREMBO	REFERENCE GRI-G4 CATEGORIES AND ASPECTS	IMPACTS BOUNDARY	
		IMPACTS WITHIN THE GROUP	IMPACTS OUTSIDE THE GROUP
Benefits and Job and Family Balance for Brembo People	<b>Labour Practices and Decent Work:</b> Employment	All the Group	Brembo People
Product eco-innovation	<b>Environmental:</b> Products and Services	All the Group	Clients, End user, Local Communities, Investors, Future Generations
Attention to and Strategic Alignment of Brembo People	<b>General Aspects:</b> Stakeholder Engagement	All the Group	Brembo People
Soil Protection from Leakage and Polluting Substances	<b>Environmental:</b> Effluents and Waste	All the Group	Future Generations, Local Communities
Conflict Minerals	<b>Labour Practices and Decent Work:</b> Supplier Assessment for Labour Practices <b>Human Rights:</b> Supplier Human Rights Assessment	All the Group	Local Communities, Institutions, Suppliers
Responsible Selection of Materials	<b>Environmental:</b> Materials	All the Group	Future Generations, Local Communities, Suppliers
Promotion of Diversity and Equal Opportunities	<b>Human Rights:</b> Non-Discrimination <b>Labour Practices and Decent Work:</b> Diversity and Equal Opportunity <b>Economic:</b> Market Presence	All the Group	Brembo People

## 7.3 GRI INDEX

### General standard disclosures

GENERAL STANDARD DISCLOSURES	EXTERNAL PAGE OR DOCUMENT	EXTERNAL ASSURANCE	GENERAL STANDARD DISCLOSURES DESCRIPTION
<b>Strategy and Analysis</b>			
G4 - 1	4	N	Statement from the most senior decision-maker about the relevance of sustainability for the organisation and its strategy
<b>Organisational Profile</b>			
G4 - 3	7	N	Name of the organisation
G4 - 4	38	N	Primary brands, products and/or services
G4 - 5	34	N	Location of the organisation's headquarters
G4 - 6	34	N	Number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the Report
G4 - 7	Brembo's Corporate Governance and Ownership Structure Report	N	Nature of ownership and legal form
G4 - 8	11,36-37	N	Markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries)
G4 - 9	10, Brembo's Corporate Governance and Ownership Structure Report	N	Scale of the organisation
G4 - 10	66-68	N	Total number of employees by employment type, employment contract, region and gender
G4 - 11	The Group applies collective bargaining when required by the law or the social system	N	Percentage of total employees covered by collective bargaining agreements
G4 - 12	106-108	N	Description of the organisation's supply chain
G4 - 13	62-64,106-108	N	Significant changes during the reporting period regarding size, structure, ownership or the supply chain
G4 - 14	118-119	N	Report on whether and how the precautionary approach or principle is addressed

GENERAL STANDARD DISCLOSURES	EXTERNAL PAGE OR DOCUMENT	EXTERNAL ASSURANCE	GENERAL STANDARD DISCLOSURES DESCRIPTION
G4 – 15	33-35,74,93, Code of Ethics	N	Externally developed economic, environmental and social charters, principles or other initiatives to which the organisation subscribes or which it endorses
G4 – 16	19-21	N	Memberships of national and/or international industry associations
<b>Identified Material Aspects and Boundaries</b>			
G4 – 17	118	N	List of entities included in the organisation's consolidated financial statements or equivalent documents and those not covered by the Report
G4 – 18	22-23,118	N	Process for defining Report content and the aspect boundaries
G4 – 19	24-27	N	Material aspects identified in the process for defining Report content
G4 – 20	121-123	N	Aspect Boundary within the organisation for each material aspect
G4 – 21	121-123	N	Aspect Boundary outside the organisation for each material aspect
G4 – 22	N.A.	N	Effect of any restatements of information provided in previous Reports, and the reasons for such restatements
G4 – 23	N.A.	N	Significant changes from previous reporting periods in the Aspect Boundaries
<b>Stakeholder engagement</b>			
G4 – 24	15	N	List of stakeholder groups engaged by the organisation
G4 – 25	15-17	N	Basis for identification and selection of stakeholders with whom to engage
G4 – 26	15-17	N	Approach to stakeholder engagement, including frequency of engagement by activity type and by stakeholder group
G4 – 27	16-17	N	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its Report

GENERAL STANDARD DISCLOSURES	EXTERNAL PAGE OR DOCUMENT	EXTERNAL ASSURANCE	GENERAL STANDARD DISCLOSURES DESCRIPTION
<b>Report Profile</b>			
G4 - 28	118	N	Reporting period (such as fiscal/calendar year) for information provided
G4 - 29	N.A.	N	Date of most recent previous Report (if any)
G4 - 30	118	N	Reporting cycle (such as annual, biennial)
G4 - 31	7	N	Contact point for questions regarding the Report or its contents
G4 - 32	118	N	GRI Content Index and the 'in accordance' option chosen
G4 - 33	118	N	External assurance for the Report
<b>Governance</b>			
G4 - 34	44-47,53-56	N	Governance structure of the organisation, including committees of the highest governance body, and any committees responsible for decision-making on economic, environmental and social impacts
G4 - 36	55	N	Executive-level position within the organisation with responsibility for economic, environmental and social topics
G4 - 37	16-17,45-46	N	Processes for consultation between stakeholders and the governance bodies on economic, environmental and social topics
G4 - 38	44-45, Brembo's Corporate Governance and Ownership Structure Report	N	Composition of the highest governance body
G4 - 39	45, Brembo's Corporate Governance and Ownership Structure Report	N	The highest governance body with an executive-level position
G4 - 43	45	N	Development and enhancement of the highest governance body's knowledge of economic, environmental and social topics.
G4 - 44	Brembo's Corporate Governance and Ownership Structure Report	N	Process for evaluation of the highest governance body's performance
G4 - 49	50-52	N	Process for communicating critical concerns to the highest governance body
G4 - 52	Brembo's Corporate Governance and Ownership Structure Report	N	Process for determining the remuneration of the highest governance body



GENERAL STANDARD DISCLOSURE	EXTERNAL PAGE OR DOCUMENT	EXTERNAL ASSURANCE	GENERAL STANDARD DISCLOSURES DESCRIPTION
<b>Ethics and Integrity</b>			
G4 – 56	40, 48-50, Code of Ethics	N	Organisation's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics
G4 – 57	52, 68, Code of Ethics	N	Internal and external mechanisms for seeking advice on ethical and lawful behaviour, and matters related to organisational integrity
G4 – 58	52, 68, Code of Ethics	N	Internal and external mechanisms for reporting concerns about unethical or unlawful behaviour, and matters related to organisational integrity

## Specific standard disclosures

DMA AND INDICATORS	EXTERNAL PAGE OR DOCUMENT	OMISSIONS	EXTERNAL ASSURANCE	DMA AND INDICATORS DESCRIPTION
<b>Category: Economic</b>				
<b>Aspect: Economic Performance</b>				
G4 – DMA	102-104,111-112		N	Management approach
G4 – EC1	103		N	Direct economic value generated and distributed
G4 – EC4	103, Brembo's Corporate Governance and Ownership Structure Report		N	Financial assistance and subsidies received from governments
<b>Aspect: Market Presence</b>				
G4 – DMA	66-68		N	Management approach
G4 – EC6	68		N	Proportion of senior management hired from the local community at significant locations of operations
<b>Aspect: Indirect Economic Impacts</b>				
G4 – DMA	64,102-108,113-115		N	Management approach
G4 – EC8	64,102-108,113-115		N	Significant indirect economic impacts, including the extent of impacts
<b>Aspect: Procurement Practices</b>				
G4 – DMA	106-112		N	Management approach

DMA AND INDICATORS	EXTERNAL PAGE OR DOCUMENT	OMISSIONS	EXTERNAL ASSURANCE	DMA AND INDICATORS DESCRIPTION
G4 – EC9	108		N	Proportion of spending on local suppliers at significant locations of operation
<b>Category: Environmental</b>				
<b>Aspect: Materials</b>				
G4 – DMA	80,86-88,111-112		N	Management approach
G4 – EN1	106-108		N	Materials used by weight or volume
<b>Aspect: Energy</b>				
G4 – DMA	92-99		N	Management approach
G4 – EN3	94		N	Energy consumption within the organisation
G4 – EN6	95		N	Reduction of energy consumption
<b>Aspect: Water</b>				
G4 – DMA	97-99		N	Management approach
G4 – EN8	98		N	Total water withdrawal by source
<b>Aspect: Emissions</b>				
G4 – DMA	92-97		N	Management approach
G4 – EN15	96		S	Direct greenhouse gas emissions
G4 – EN16	96		S	Energy indirect greenhouse gas emissions
G4 – EN17	96		S	Other indirect greenhouse gas emissions
G4 – EN19	94		S	Reduction of greenhouse gas emissions
G4 – EN20	97		S	Emissions of ozone-depleting substances by weight
G4 – EN21	97		S	NOx, SOx and other significant air emissions
<b>Aspect: Effluents and Waste</b>				
G4 – DMA	97-99		N	Management approach
G4 – EN22	98		N	Total water discharge by quality and destination
G4 – EN23	99		N	Total weight of waste by type and disposal method
G4 – EN24	No case was reported in 2016		N	Significant spills
G4 – EN25	99		N	Hazardous waste

DMA AND INDICATORS	EXTERNAL PAGE OR DOCUMENT	OMISSIONS	EXTERNAL ASSURANCE	DMA AND INDICATORS DESCRIPTION
<b>Aspect: Products and Services</b>				
G4 – DMA	80-83,86-88		N	Management approach
G4 – EN 27	84-88		N	Extent of mitigation of environmental impacts of products and services
<b>Aspect: Compliance</b>				
G4 – DMA	49-50		N	Management approach
G4 – EN29	During the year Brembo received no sanctions for non-compliance with environmental laws or regulations		N	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations
<b>Aspect: Transport</b>				
G4 – DMA	93		N	Management approach
G4 – EN 30	96		N	Significant environmental impacts of transporting products and other goods and materials for the organisation's operations, and transporting members of the workforce
<b>Aspect: Supplier Environmental Assessment</b>				
G4 – DMA	57,109-112		N	Management approach
G4 – EN 33	57,109-112		N	Significant actual and potential negative environmental impacts in the supply chain and actions taken
<b>Category: Labour Practices and Decent Work</b>				
<b>Aspect: Employment</b>				
G4 – DMA	48-50,62-64,105,109-112		N	Management approach
G4 – LA1	63-64		N	Total number and rates of new employee hires and employee turnover by age group, gender and region
<b>Aspect: Occupational Health and Safety</b>				
G4 – DMA	74-76		N	Management approach
G4 – LA5	75		N	Percentage of total workforce represented in formal joint management-worker health and safety committees
G4 – LA6	74-75		N	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender

DMA AND INDICATORS	EXTERNAL PAGE OR DOCUMENT	OMISSIONS	EXTERNAL ASSURANCE	DMA AND INDICATORS DESCRIPTION
<b>Aspect: Training and Education</b>				
G4 – DMA	69-73		N	Management approach
G4 – LA9	69-70		N	Average hours of training per year per employee by gender, and by employee category
G4 – LA11	73		N	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category
<b>Aspect: Diversity and Equal Opportunity</b>				
G4 – DMA	66-68		N	Management approach
G4 – LA12	45, 63, 66-67, Brembo's Corporate Governance and Ownership Structure Report		N	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity
<b>Aspect: Supplier Assessment for Labour Practices</b>				
G4 – DMA	48-50,57,109-112		N	Aspect: Supplier Assessment for Labour Practices
G4 – LA15	57,109-112		N	Significant actual and potential negative impacts for labour practices in the supply chain and actions taken
<b>Aspect: Labour Practices Grievance Mechanisms</b>				
G4 – DMA	52,68, Code of Basic Working Conditions, Code of Ethics		N	Management approach
G4 – LA16	68		N	Number of grievances about labour practices filed
<b>Category: Human Rights</b>				
<b>Aspect: Investment</b>				
G4 – DMA	48-50,109-112		N	Management approach
G4 – HR1	109-112		N	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening
G4 – HR2	69		N	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained



DMA AND INDICATORS	EXTERNAL PAGE OR DOCUMENT	OMISSIONS	EXTERNAL ASSURANCE	DMA AND INDICATORS DESCRIPTION
<b>Aspect: Non-Discrimination</b>				
G4 – DMA	68, Code of Basic Working Conditions, Code of Ethics		N	Management approach
G4 – HR3	68		N	Total number of incidents of discrimination and corrective actions taken
<b>Aspect: Freedom of Association and Collective Bargaining</b>				
G4 – DMA	48-49,110, Code of Basic Working Conditions, Code of Ethics		N	Management approach
G4 – HR4	109-112		N	Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of all forms of forced or compulsory labour
<b>Aspect: Forced or Compulsory Labour</b>				
G4 – DMA	48-49,110, Code of Basic Working Conditions, Code of Ethics		N	Management approach
G4 – HR6	109-112		N	Significant actual and potential negative human rights impacts in the supply chain and actions taken
<b>Aspect: Forced or Compulsory Labour</b>				
G4 – DMA	48-49,110, Code of Basic Working Conditions, Code of Ethics		N	Management approach
G4 – HR11	109-112		N	Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of all forms of forced or compulsory labour
<b>Aspect: Supplier Human Rights Assessment</b>				
G4 – DMA	48-49,110, Code of Basic Working Conditions, Code of Ethics		N	Management approach

DMA AND INDICATORS	EXTERNAL PAGE OR DOCUMENT	OMISSIONS	EXTERNAL ASSURANCE	DMA AND INDICATORS DESCRIPTION
G4 – HR12	68		N	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms
<b>Category: Society</b>				
<b>Aspect: Anti – corruption</b>				
G4 – DMA	48-52, Code of Ethics		N	Management approach
G4 – SO4	49-50, Brembo's Corporate Governance and Ownership Structure Report In 2016, over 1,510 Brembo People were trained on prevention of the offences indicated in Legislative Decree No. 231/2001, including on anti-corruption issues		N	Communication and training on anti-corruption policies and procedures
G4 – SO5	During the year no cases of corruption were reported		N	Confirmed incidents of corruption and actions taken
<b>Aspect: Anti – competitive Behaviour</b>				
G4 – DMA	48-52		N	Management approach
G4 – SO6	Any form of payment to parties or political organisations, representatives of the latter, or for political campaigns is forbidden		N	Total value of political contributions
G4 – SO7	During the year no sanctions for anti-competitive behaviour, anti-trust and monopoly practices and their outcomes were received		N	Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes
<b>Aspect: Compliance</b>				
G4 – DMA	48-52		N	Management approach
G4 – SO8	No significant cases were reported		N	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations

DMA AND INDICATORS	EXTERNAL PAGE OR DOCUMENT	OMISSIONS	EXTERNAL ASSURANCE	DMA AND INDICATORS DESCRIPTION
<b>Category: Product Responsibility</b>				
<b>Aspect: Customer Health and Safety</b>				
G4 – DMA	89-91		N	Management approach
G4 – PR2	No incident of non-compliance was reported during the year		N	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle
<b>Aspect: Product and Service Labeling</b>				
G4 – DMA	16		N	Management approach
G4 – PR5	16		N	Results of surveys measuring customer satisfaction













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