

Artemide[®]

Sustainability Report

↳ 2018

sustainability
→ report 2018

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A vision towards the future



Ernesto Gismondi,
photographed by Giovanni Gastel

The culture of the project, “the making”, Made in Italy and innovation: this is where Artemide’s products come from. Bringing together knowledge and manufacture, Artemide creates icons of design distributed all over the world.

I have always wanted to take part in the international culture of project making by working with major architects and designers, giving shape to their ideas while interpreting the evolution of technologies. This has always entailed great investments in research, production and distribution with a positive business risk appetite.

Artemide has always listened to the world. As a matter of fact, the project is not centred on the object itself, but on cultural, technological, humanistic and sustainable aspects of contemporaneity in order to light our future.

Today with the Sustainability Report Artemide wants to measure the progress towards an attentive and conscious project making for the planet and the people; Artemide wants to shed light on the core values guiding our approach. The value of making is important: being able to think about a specific product and know how to produce it has always been strategic. We really make our lamps.

I have enhanced the company’s expertise in order to make strong knowledge the main tool for the group’s growth. Artemide demonstrated to have the ability to look forward, absorb technological innovation and society’s changes by translating them into products that did not exist before. Light offered us real technological revolutions, giving us the opportunity to make real innovation in optics, electronics, material, management and interaction. Today the time of technology transfer is reduced and innovation is immediately applied into our products.

Research and several invention patents – the company’s pride – aim at producing and distributing a “good light” for everyone: the quality of life in everyday life can be continuously improved with a light that nourishes human and natural balance. We do not stand still contemplating our successes, we rather want to keep moving on with the objective of reinterpreting past projects within a framework of new references.

The products and services we offer today are expanded awareness tools designed with the goal of obtaining a positive energy balance. They are part of a large portfolio of solutions, also tailor-made, which allow you to create and manage the perfect light for each field of application, designing dynamic experiences that interact with activities and environment.

Artemide has embarked on a concrete path towards environmental and social sustainability. Such commitment has brought us to achieve the ISO 9001, ISO 14001 certifications and the recently obtained ISO 45001. In 2019, Artemide joined the United Nations Global Compact confirming the goal of promoting, together with its collaborators, a solid and sustainable development project as a base for the company’s strategy and daily functioning.

“Doing business” is planning the future, listening to the world and to multifaceted knowledge in order to distribute value within a vision and a path that has been lasting for almost 60 years.

Ernesto Gismondi
President & CEO

Sustainability highlights

Innovation and Made in Italy

Invention patents in the last 3 years
 ↗ **17**

Patents registered and kept 31.12.18
 ↗ **79**

Revenue dedicated to Research and development
 ↗ **5.2%**

Design awards receive since 1960
 ↗ **+280**

Architects and designers
 ↗ **62** from
 ↗ **15** countries

Environment¹

Purchase made to suppliers in the European Union
 ↗ **95%**
 of which Italian suppliers
 ↗ **76%**

Reduction of total energy consumption equal to
 ↗ **8%**
52,597 GJ against 57,248 GJ in 2017

Waste is destined for recovery
 ↗ **94%**

Reduction of direct emissions tCO₂ equal to around
 ↗ **-17%**

1,847 ton di CO₂ against 2,023 ton di CO₂ in 2017

Reduction of plants' waste production equal to
 ↗ **-36%**

1,043 ton of waste against 1,621 in 2017

¹For any details related to the perimeter limitations of the environmental data, see the section "Environmental responsibility. More with less" of the document.

Our people

Training hours
pro-capite
↗ 7.7 hours

Employees
↗ 705

Permanent contract
↗ 87%

Women employees
↗ 44%

Men employees
↗ 56%



Global presence

Revenues
↗ 110 mln €

Distribution in over
↗ 80 Countries

Manufacturing units
↗ 5

Export quota
↗ 75%

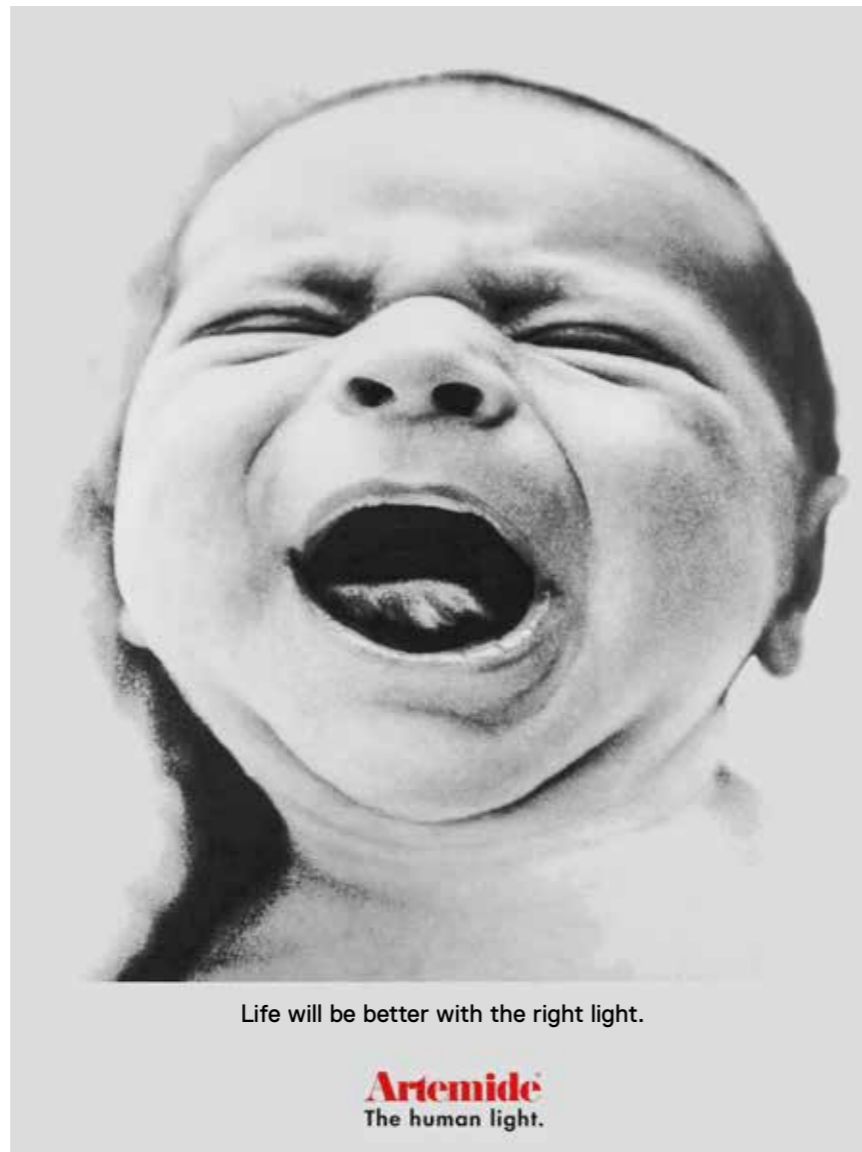


Ernesto Gismondi,
President

Carlotta de Bevilacqua,
Vice-President & CEO
Portrayed by Pierpaolo Ferrari

01 Artemide

↳ The Human & Responsible Light



ADV Campaign, The Human Light, 1998

↳ 01.1 Our identity between innovation and design

↗ Heritage

Artemide, old-time leader in the lighting sector, has always been a synonymous for innovation and **Made in Italy**, its products regarded as contemporary design icons at an international level. Founded in **1960** by the Engineer **Ernesto Gismondi**, the company's current President, Artemide is based in Milan and is recognized across the world for its light design competencies, with an innovative approach and products that are expression of **constant research** and **great manufacturing quality**.

↗ Innovation

Primary actor in the light sector, ever since its birth, Artemide has recorded several **invention patents** for its technological, mechanic and opto-electronic innovations. Technological development, dialogues with great architects, but also research in the socio-cultural field are an integral part of Artemide's path at the base of innovative projects capable, even over the course of time, of illuminating the future. During its innovation path, it has established great research collaborations with prestigious Universities from Italy and abroad: thanks to technological and scientific innovation, Artemide's **The Human and Responsible Light** philosophy allows to reconsider the environment, its resources and the energy project in ecosystem terms for a better quality of life. In this way, Artemide not only contributes to the well-being of the places and the people directly connected to them, but also to the welfare of the community as a whole, improving the relationship skills.

Light is in fact a means of communication between people and spaces, able to provide new experiences and emotions and to transform each piece of space into a place where people would want to live. Its products summarize the technological quality of the performance and aesthetics, a light capable of moving as well as guaranteeing perfect functionality and perception.

Artemide has opened new research borders in the photonics field where light goes beyond the product: through intelligence **Internet of Things (IoT)** many interactive **management systems (Artemide App)** and **informative applications (Geo Li-Fi)** and of **communication (Li-Fi)** have been designed.

↗ Made in Italy

The Made in Italy culture is the cornerstone of Artemide's history thanks to the birth of the brand in Italy in the era that marked the development of Industrial Design.

It is continuously nourished by the centralization at the Milan headquarters of the entire generation process of a new product - from the idea to its realization. In addition to the manufacturing unit, the **Pregnana Milanese Headquarters** also hosts the renowned **Innovation & Design Center** which houses the **Research & Innovation and Product Development** departments, where the design phase is continuously supported, always on site, by **Quality and Certification Laboratories**. Artemide also holds 50% of a historic glassworks in Veneto.

At the same time, Artemide has chosen to internationalise its manufacturing units: some of its manufacturing units are also located, as well as in **Italy**, in **France**, **Hungary** and **Canada**.

Artemide generates around **75%** of revenue from foreign markets with a whole distribution of **over 80 Countries**. This is so thanks to a widespread international distributive presence: **14 single-branded showrooms** stand out in some of the most important cities in the world and a whole chain of retailers and distributors, together with a global partnership network with the most prestigious architecture and lighting design offices.

The Group has in fact always collaborated with the most famous international designers and promoted renowned collaborations with schools, aiming to promote the culture of a project. Such an inclusive approach allows the integration of ideas and styles from all over the world and the creation of lamps icons of contemporary design.

As of December 31st 2018, the Group has employed **705 employees**, **60** of them working in **Research & Innovation** and **Product Development**. This demonstrates the pivotal role of innovation as a key to success. Artemide is a leading actor in the light field research and, it contributes to the growth of technological knowledge, thanks to its laboratories.

14

↗ flagship stores

5

↗ collections

Meanwhile, the brand opens up towards a humanistic culture with workshops, seminars and collaborations to develop broader observations on contemporary society, the evolution of the needs and of the scenarios. As an unmistakable sign of its role throughout the history of international design is the exposition of its products in the most important contemporary art museums and world collections, among which the **MoMA** (Metropolitan Museum of Art in New York), the **Victoria and Albert Museum** in London, the **Museo Nazionale della Scienza e della Tecnica**, the **Triennale Milano**, the **National Modern Art Gallery of Rome** and the **Centre Georges Pompidou** in Paris.

Artemide intends to offer a comprehensive range of products in which cutting-edge technologies and ancient know-how converge to meet the lighting needs of all types of applications: **Residential, Hospitality, Retail, Museum, Office & Education, Public Spacs, Urban and Landscape Outdoor**.

The lighting fixtures designed, produced and marketed by Artemide can be traced back to different product collections such as **Design, Architectural Indoor and Outdoor, Scenarios and Danese Milano** that includes objects and interior design items.

In recent years, the collections are more integrated than ever thanks to an open and transversal approach to the types and categorizations of the light product and not only.

14
➤ single-branded
showrooms



Milan



Milan



Rome



Paris



Frankfurt



London



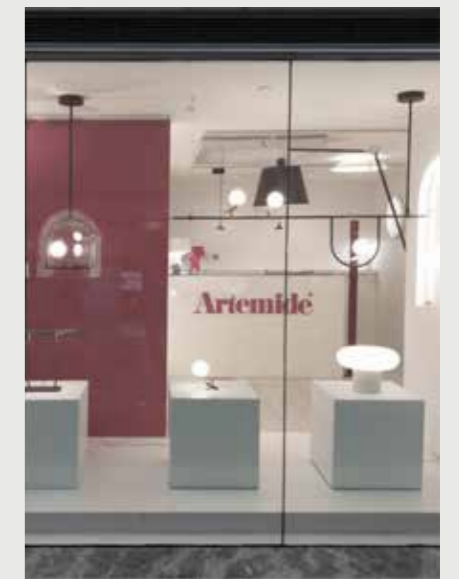
New York



Los Angeles



Chicago



Hongkong

Prizes and awards

Numerous international awards have been given over the years to Artemide and highlight how the Group's philosophy and values led to the creation of products capable of becoming icons of Italian design in the world.

The most recent award received is one of the most important awards in the field of Industrial Design, the prestigious **2018 Compasso d'Oro** to Discovery project, signed by Ernesto Gismondi.

Also in 2018, the Industrial Design Association awarded the 2018 Compasso d'Oro career prize to the founder Ernesto Gismondi for his achievements and merits as a versatile personality: aerospace engineer, university professor, entrepreneur and designer.

In 1994 Artemide had already received the **Compasso d'Oro career** award, other than the several awards for products such as the **IN-EI collection** (2014, by Issey Miyake), **Pipe** (2004, by Herzog & de Meuron), **Tolomeo** (1989, by Michele De Lucchi and Giancarlo Fassina) and the iconic **Eclisse** (1967, by Vico Magistretti), all awarded with the Compasso d'Oro award.

Artemide also received the prestigious **European Design Prize** in 1997 and the "Leonardo Quality Award Italy 2012" in 2013, as well as many other important international awards that reaffirm Artemide's contribution to the cultural and creative strengthening of Italy.

+280
↗ design awards

2018

- ↗ Ernesto Gismondi
Award to the Career
- ↗ Discovery
Ernesto Gismondi



- ↗ 7 Compasso d'Oro awards
- ↗ 9 Compasso d'Oro honourable awards
- ↗ 5 "Triennale di Milano" Award
- ↗ 20 Reddot Design Awards
- ↗ 9 Reddot Design Awards - Best of Best
- ↗ 34 Reddot Design Awards: High Design Quality
- ↗ 32 IF Product Design Award
- ↗ 2 IF Product Design Award - Best of Best
- ↗ 17 Design Plus Light + Building
- ↗ 10 Good Design Chicago Award
- ↗ 1 Green Good Design Award
- ↗ 1 European Design Prize '97
- ↗ 6 Wallpaper Design Awards
- ↗ 1 European Design Awards '17
- ↗ 3 Architectural SSL
- ↗ 1 Best of the Year Awards

1967

↗ Eclisse,
Vico Magistretti



1994

↗ Artemide



1987

↗ Tolomeo,
Michele De Lucchi
Giancarlo Piretti



2004

↗ Pipe,
Herzog & de Meuron



2013

↗ IN-EI Collection,
Issei Miyake + Reality Lab



2014

↗ Demetra,
Naoto Fukasawa



2014

↗ Objective Family,
Jean Nouvel



2015

↗ Sisifo,
Scott Wilson



2016

↗ Eggboard,
Progetto CMR



2017

↗ Unterlinden,
Herzog & de Meuron



2017

↗ Alphabet of Light,
BIG



2017

↗ Ameluna,
Mercedes Benz-Style



➤ National and international events and fairs

Every year, Artemide participates to different fairs in the world, during which it presents not only products and lighting systems, but also advanced interaction systems, result of the continuous research, experimentation and technological innovation.

The two main trade fairs, **Euroluce and Light & Building**, respectively in Milan and Frankfurt, witness Artemide's participation with biennial frequency in alternate years: these events are extremely important for the promotion of the brand and the products of the Group, as they constitute important showcases in which the new collections are introduced.

The participation to the **Fuori Salone of Milan** has become an habitual practice. During the event, Artemide presented many innovations, with products ranging from indoor lighting to outdoor lighting, from private environments to large urban architectures. All of them have a common denominator: innovation and attention to the environment. Milan Design Week has always been an opportunity not only for the presentation of new collections in Artemide's showrooms. It has also been an occasion to engage in important cultural events and to partner with other brands.

Worth noting is also the participation to the **Salone del Mobile Milano Shanghai** since 2016, to demonstrate the Group's deepest concern for the east, as shown by the work undergone with Neri&Hu's Studio recently awarded with the prestigious DFA World's Outstanding Chinese Designer 2018. The product family of Yanzi and nh are a perfect synthesis of innovation, sustainable innovation between material, light and form, open ideal systems for building light composition and landscapes of light. In this vein, in 2018 an important collaboration has started with the Chinese studio of MAD Architects.

In 2018, it is worth mentioning the Artemide's participation to the **Stockholm Furniture & Light Fair**. The products showcased cultural synergies and project partnerships with prestigious architecture and international design studios, and iconic products of collection and design, expression of the best Made in Italy have been showcased.

“It is not about exporting a culture, but about exchanging it. Sitting at the contemporary table means that everyone brings his or her own skills and he or she is available for a confrontation in which we all have something to learn from”

Carlotta de Bevilacqua
Vice President & CEO Artemide

↳ Ø1.2 Sustainability management & economic responsibility

Artemide Factory, Photographed by Elliott Erwitt, 2001



➤ MOG and Code of Ethics

Corporate Governance, Ethics and Integrity

By December 31st 2018, **Artemide's Group** is comprised of Artemide Group S.p.A. and by its **18 controlled companies**. The Group's organizational structure follows a traditional system, which presents: a Board of Directors, shareholders meeting and a Board of Statutory Auditors.

The internal control system consists of a set of policies, guidelines and procedures. Each of them describes and codifies a different activity constantly updated and disseminated within the Artemide Group.

From a value standpoint, more specifically related to compliance aspects, since 2008 the Italian companies of the Group have adopted their own **Organizational, Management and Control Model (MOG)** pursuant to Legislative Decree 231/2001 and the whole Group has simultaneously adopted a common Code of Ethics. Within the Code of Ethics, updated in March 2016, they is the set of rules from which the founding values of Artemide arise, as well as the indications regarding the prevention of illegal behaviour of each individual. The recipients of the Code of Ethics are all those who, directly or indirectly, permanently or occasionally, work with or for Artemide. Artemide's values, based on utmost correctness and ethics towards customers, human resources and suppliers are:

- **Customer-orientation.** Understanding the market within which the Group acts and consider the impact of any action and behaviour on customers. Draw on all the opportunities that arise from the client's interest and his needs..
- **Skill Responsibility and strive for results.** To aim with determination to the results, to personally commit to the definition of the programs, in the monitoring of the development and in the generation of concrete results.
- **Transparency.** Be open and fair about financial results. Being prepared to disagree if there is an alternative choice. Accept different points of view and encourage change. Mutually exchange information at all levels of the organization.

- **Innovation.** Be the first ones to imagine radically new solutions for products, services and processes that can actually be implemented. Pursuing excellence without accepting current standards as a satisfactory level. Continuously seek opportunities to develop the already existing processes and systems.
- **Integration.** Being aware of how a specific behaviour fits into a broader business framework. Operating transversely and within the corporate functions and geographical divisions towards a common goal. Increase efficiency while minimizing the duplication of effort.
- **Speed.** Perceive the urgency to set into practice a set of solutions that satisfy clients anticipating competitors. Reacting quickly to development needs, highlighting the appropriate solution with efficacy.
- **Professional excellence.** Place technical knowledge and use such lever for being the leaders. Structure your work following the rules and gaining a satisfactory feeling while operating.

The Group recognizes the importance of free, open and fair competition.

Therefore the Group's companies must refrain from unlawful conduct, harassment and abuse of a dominant position.

Artemide rejects any form of corruption of public and private subjects and Italian or foreign companies undertake to respect the six principles expressed by the **UK Bribery Act 2010** to avoid corruption risk; this policy is the subject of a specific training plan. In 2018, the group has also adapted to the recent regulatory updates on whistleblowing.

During 2018, Artemide has equipped itself with a system for reporting irregularities and potential unlawful acts by employees and third parties, to complement the channels already provided for reporting to the **Board of Statutory Auditors**.

Artemide Factory, Pregnana Milanese



Stakeholder’s map and materiality analysis

Stakeholder engagement assumes a central role for Artemide in the creation, definition and pursuit of its objectives. It is of fundamental importance to define a strategy aimed at **creating value**, anticipating the expectations of those whom retain interest, both internally and externally of the company.

In order to understand and anticipate clients and end customers’ new trends and needs, the Group establishes several dialogues with its stakeholders. In particular, the Group maintains a constant and constructive dialogue with its people, thanks to numerous internal communication tools that offer a space for sharing ideas, proposals and suggestions, such as Artemide Cloud. It is also a means that allows both the sharing of material and information internally among Group employees and the downloading of documents by website visitors.

The Group has always invested in research and development with the aim of ensuring its customers the best possible experience in terms of quality and service offer and to establish a strong relationship of trust with them.

Artemide also maintains a constant collaboration with media and magazines from the market sector through interviews, presentations and dedicated events. Moreover the brand is committed to contributing to the promotion of information campaigns on technological innovations, sector news or any actions taken in favour of the community and environment. This is done so to enhance the brand’s transparency and the engagement of the main stakeholders’ within Artemide’s reality.

In the following page a table with the main dialogue initiatives is reported:

Stakeholders

Engagement tools and communication

Customers

- ↗ Website, catalogues
- ↗ Events invitations, fairs and collections presentations
- ↗ Custom design solutions

End-users

- ↗ Meetings at the showrooms
- ↗ Websites and catalogues
- ↗ Campaigns of communication
- ↗ Artemide Cloud

Human Resources

- ↗ Constant dialogue with HR and the other functions
- ↗ Training programmes
- ↗ Channel for the gathering of violations and regulation signals of the Group
- ↗ Artemide Cloud

Architects and designers

- ↗ Cooperation on research and development of new design solutions
- ↗ Contamination for ideas and needs for the use of space

Schools and universities

- ↗ Internships and traineeships promotion
- ↗ Projects with important universities and schools in Italy

Centres of research

- ↗ Definition and sharing of technical and qualitative standards.
- ↗ Sharing of know-how

Media

- ↗ Interviews
- ↗ Company events and trade fairs
- ↗ Press and workshop

Suppliers

- ↗ Constant dialogue and specific meetings

Local Community

- ↗ Donations and Sponsorships
- ↗ Collaborations with organisations and non-profit entities for supporting solidarity initiatives

Financial Institutions

- ↗ Institutional website
- ↗ One-to-One Meetings

Regulatory entities and Public Administration

- ↗ Relations with entities
- ↗ Formal communications

The Group has developed and enhanced the materiality analysis process in order to guide the reporting of non-financial issues and ensure the correct representation and understanding of its activities, its performance, its results and its impacts, allowing for:

➤ **Identifying sustainability topics** mainly related to the sector in which the Group operates, defining the material aspects in light of the economic, social, governance and environmental impacts. In this regard, a benchmark analysis was conducted with the main peers and competitors in the sector and various internal and external sources were consulted;

➤ **Assess the relevance** of each material issue for Artemide and its stakeholders. This assessment was carried out taking into account positive and negative aspects of economic, environmental and social impacts generated by the Group and the expectations of the stakeholders themselves.

➤ **Materiality matrix**

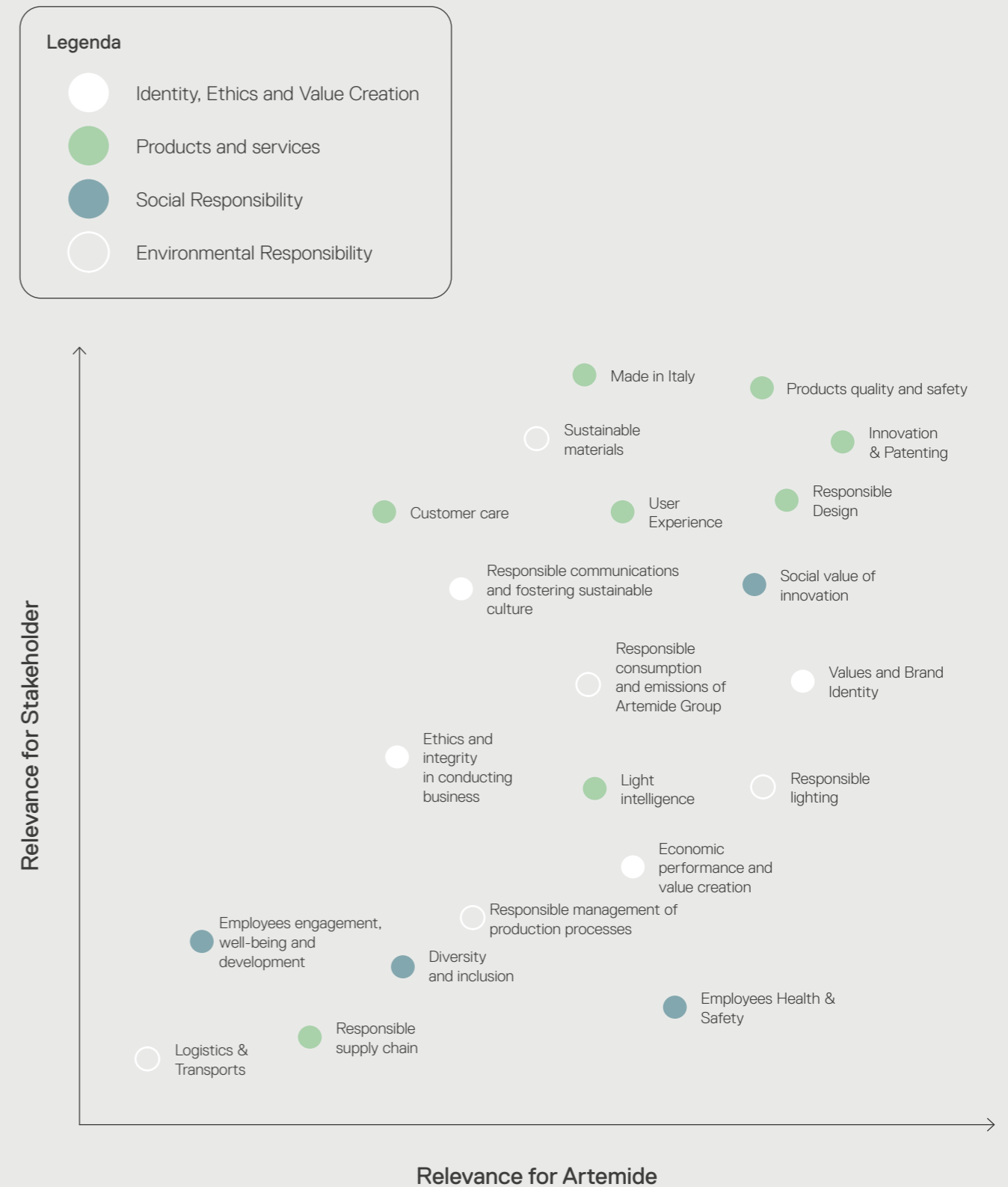
For the first time this year, in order to realize the first materiality matrix, the main internal functions were involved in a first internal engagement activity carried out at the Headquarters.

For the first time in 2019, in order to realize the first materiality matrix, the main internal functions were involved in a first internal engagement activity carried out at the Headquarters.

The results of the analysis were then elaborated and summarized in the materiality matrix where the main issues covered in this Sustainability Report were grouped into four macro-categories: **Identity, Ethics and Value Creation, Products and Services, Social Responsibility** and **Environmental Responsibility**.

For each macro-category, material issues have been identified that are positioned in the matrix based on their relevance to the Group, also considering the markets in which it operates, and its stakeholders.

Materiality analysis of the Group Artemide 2018



Value Generated and distributed to the stakeholders

The statement of distribution of the economic value generated and distributed expresses in monetary terms the relations between Artemide and the socio-economic system of reference, measuring its ability to create and share wealth among the main categories of stakeholders such as **personnel, financiers, community and public administration.**

➤ Distribution of generated value

The statement was made through a reclassification of the income statement items in the consolidated financial statements of the Group as of 31st December 2018. This year the total economic value generated by the Group is equal to **112,148 thousand euro**, of which **around 94%** is distributed while more than **6%** results being retained by the Group.

In particular, the remuneration to the suppliers category was given the prevailing quote of economic value, for a total of 65% of the total value distributed; such item includes purchases of raw materials, ancillary materials and consumables and other operating costs such as costs for services, costs for use of third-party assets and other operating expenses.

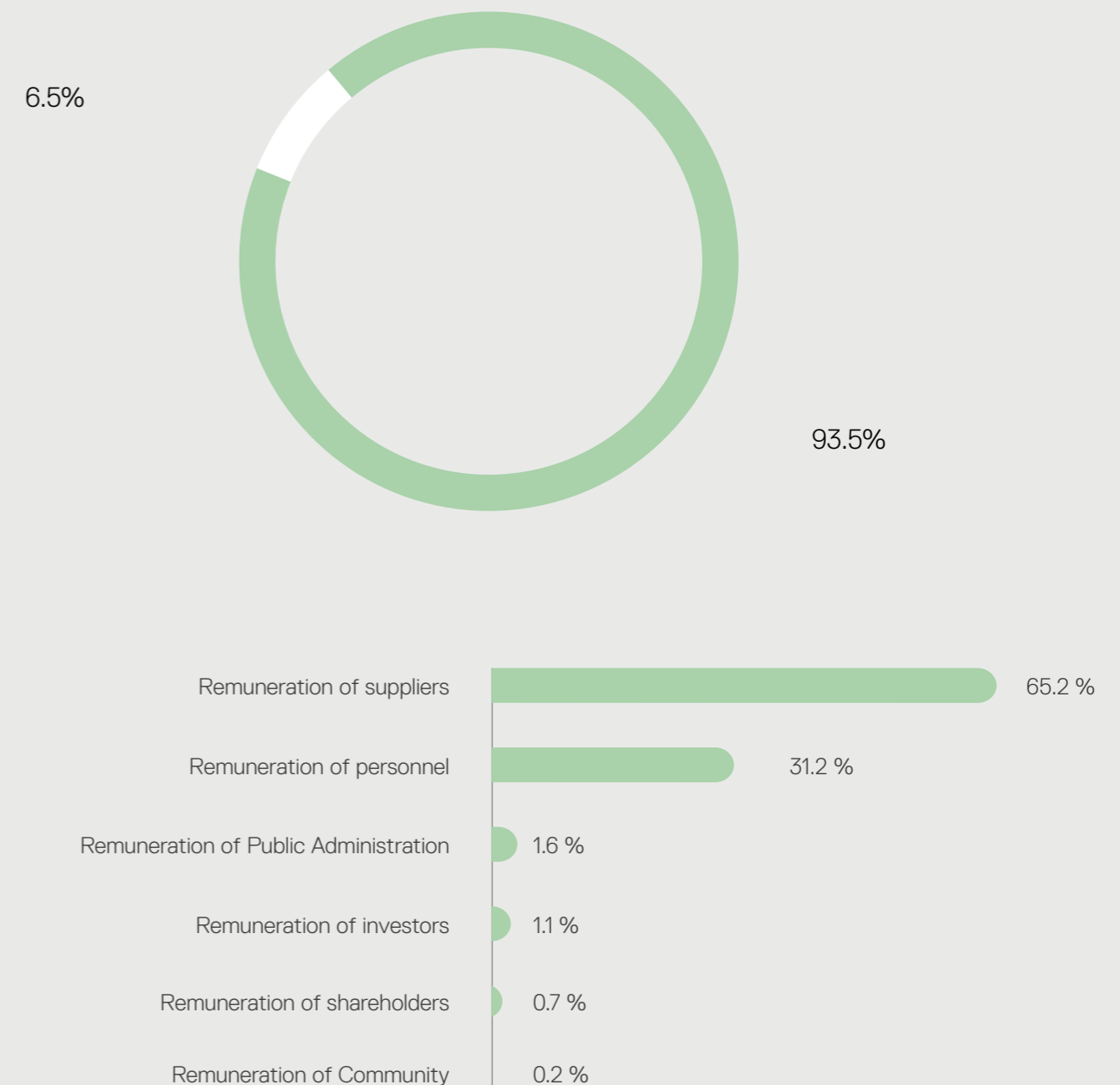
Furthermore, the other category of stakeholders who received a significant share of the economic value was the personnel, with an incidence on the economic value distributed by the Group more than 31%. This amount includes the costs incurred for wages and salaries, social security contributions, severance pay and other personnel costs. A share of around 2% is allocated to the Public Administration in the form of taxes. The lenders were distributed a portion more than 1% due to financial charges. The rest of the quotas was allocated to the community, in the form of donations, sponsorships and contributions. The economic value distributed to the members represents a quota equal to 0.7%.

Summing up, more than 6% expresses the economic value held by the Group, in regards to the operating result destined to reserves, amortization, provisions and write-downs.

Economic value generated and distributed by the Group by December 31, 2018

Key:

- Economic value distributed
- Economic value retained



Social commitment

For what concerns the share distributed to the communities, the Group generates such value developing business activities in full respect towards social and cultural realities where it operates on a daily basis. Artemide contributes to the development of the community by organizing activities for educational/training purposes for people development and the territory and supporting numerous initiatives of a social, cultural and scientific nature, bestowing contributions and donations for over **225 thousand euros**, including the exhibition of the **Biennale di Venezia** and the Master Lighting Design of the **Politecnico di Milano**.

↗ Cultural and social initiative

Artemide provides its knowledge and products in cultural and social initiatives. Many activities in support of the community are carried out through technical partnership whereby with the role of knowing how to generate light, Artemide attempts to requalify outside-spaces in favour of better environmental quality, for developing social relationships, also in favour of location usability. Light becomes a means of well-being, by lighting up for instance spaces of “taking care” like the **TOG Foundation** (Together To Go) that has the objective of treating infants with nervous system disorders.

As an additional witness of Artemide’s social commitment to transform the way of thinking about light collocating men’s needs at the very centre of its project, in 2017, Artemide has supported a non-profit-organisation **Food for Soul** founded by chef Massimo Bottura in occasion of the London Food Month, a festival dedicated to British culinary diversity in London. The Group has supported this significant solidarity project lighting up the new community canteen, the Felix Refectory, located in the historic St Cuthbert centre. The Felix Refectory is added to other important projects carried out by Food for Soul including **Refettorio Ambrosiano**, born in Milan on the occasion of Expo 2015, where Artemide with its lighting project helped make this space welcoming and familiar.

↗ Biennale di Venezia

Artemide has also supported various non-profit organizations through product donations. Among them there is the **Tree of Life Foundation - The voice of children**. The organisation works through multiple projects to ensure well-being, protect and promote rights, promote the development of children, of their families and communities they belong to.

Artemide supports the commitment of associations and of entities through the illumination of benefit events, such as for the photography shows “**My dream Home**” and “**EY You!**” for the **Rava Foundation**.

In 2018, Artemide renews the collaboration begun in 2015 with **La Biennale di Venezia** to support one of the most prestigious Italian and international cultural institutions in promoting new visions of art and architecture. A choice dictated as in past editions by a sharing of values and proximity of themes between the culture of architectural design and the culture of light. “Freespace”, managed by Yvonne Farrell and Shelley McNamara, goes over the generosity and the humanity of architecture. These aspects are showcased in each context: the respect for natural resources and artificial ones, the freedom of sharing and that of people engagement in the life of spaces.

Artemide shows its support not only by being a sponsor but also through the creation of the light projects that accompany visitors’ experience across the paths of the exposition, in the internal and external spaces. The competence, emotion, aesthetic and innovative value of its light wisely unfold in collective and social environments: lighting projects that blend perfectly with the space and nature that welcomes them in the exteriors and solutions with a scenic and iconic presence in the interior meeting spaces.

The knowledge on how to shed light of Artemide is also expressed in the exhibition spaces of the two Special Projects of the 2018 Architecture Biennale: the Pavilion of Applied Arts at the Sale d’Armi of the Arsenal, created in collaboration with the **Victoria and Albert Museum - London**, and the installation by architects Sami Rintala and Dagur Eggertsson, at the Forte Marghera Pavilion in Mestre.



Fondazione Together to Go
Milan



Empatia - Carlotta de Bevilacqua
Biennale di Venezia

Triennale Milano

In 2019 Artemide will be lighting partner of the XXII International Exhibition of Triennale Milano "Broken Nature: Design Takes on Human Survival" with a lighting project that accompanies the immersive experience to discover the special exhibition: the Nation of Plants.

Artemide has always supported the projects with which the Triennale Milano promotes the "project culture".

On this occasion specifically, it will find itself sharing even more the vision that encourages us to see nature as an example to learn from. This is the research topic that Artemide has been researching for years for the development of a Human & Responsible Light. Artemide perceives proximity not only in the topics addressed, but also in the approach that combines scientific research bases and engaging communication as well as Artemide light translates rigorous technological principles and optoelectronic innovations into emotion, experience and sensitivity.



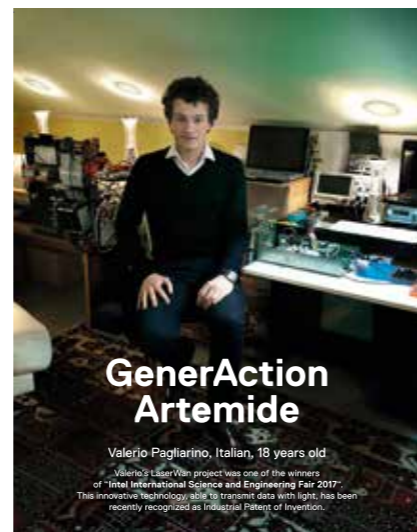
Alphabet of light, Broken Nature, Triennale Milano

During the course of the year, Artemide has implemented a project in progress, which will continue throughout 2019 and beyond: **GenerAction**. It is an innovative project that aims to support and highlight the passion towards humanity and the future of the planet of Gen Z, the generation of girls and boys from the young age. Artemide gives voice to young Centennials who have distinguished themselves in different fields thanks to their personal skills and their innovative ideas, supporting their studies and research paths. The campaign is in progress and the idea was born in honour of the Group's 60 years anniversary.



**GenerAction
Artemide**

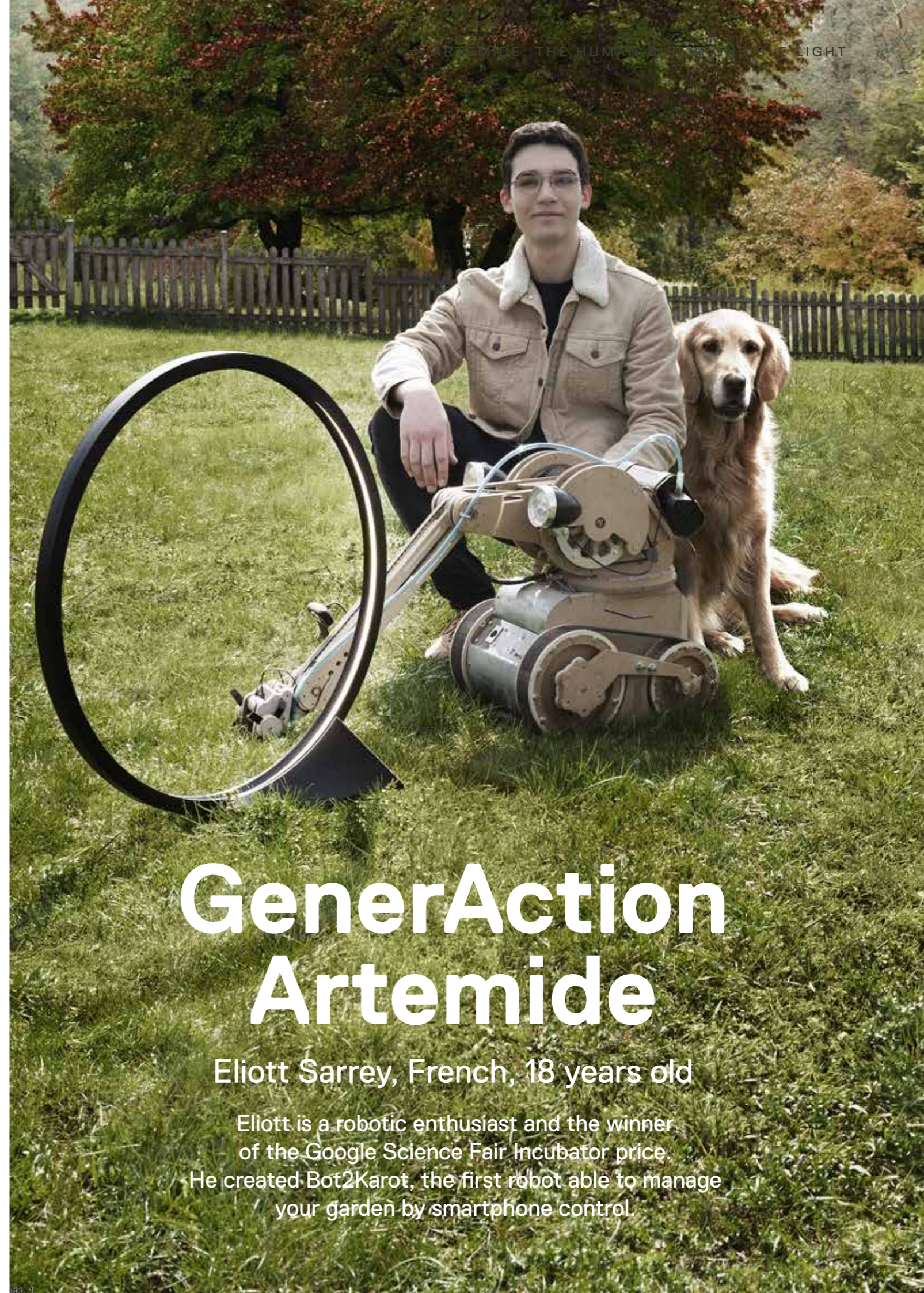
Rayouf Alhamedhi, Saudi, 17 years old
Rayouf is leading the successful Hjab Emirj Project. Her aim is to not only encourage representation for the hijabi community, but to also prompt an open dialogue about the hijab itself.



**GenerAction
Artemide**

Valerio Pagliarino, Italian, 18 years old
Valerio's Laser Vibe project was one of the winners of Intel International Science and Engineering Fair 2017. This innovative technology able to transmit data with light, has been recently recognized as Industrial Patent of Invention.

ADV, GenerAction Artemide, 2018



GenerAction Artemide

Elliott Sarrey, French, 18 years old

Elliott is a robotic enthusiast and the winner of the Google Science Fair Incubator price. He created Bot2Karot, the first robot able to manage your garden by smartphone control.

↪ 01.3 Sustainable culture

Artemide Factory, Photographed by Elliott Erwitt, 2001



↗ Sustainable values

The path directed towards sustainability that Artemide has always followed reaches its tipping point with the publishing of the first Sustainability Report. This document not only aims at informing the reader toward the actions and the projects set forth by the Group, it also intends to state the ever increasing sense of commitment of Artemide, that allows to integrate sustainable objectives with economic results, thus creating value for all stakeholders.

In April 2019, Artemide signed the **United Nations Global Compact** by expressing its support for the ten principles regarding human rights, work, the environment and anti-corruption. Artemide's commitment is to make the Global Compact and its principles a key element of the Group's strategy, culture and operations carrying out in that direction.

With a view to defining an integrated action plan for people, the planet and prosperity on a global level, the Group is also committed in meeting the **17 Sustainable Development Goals** of the United Nations. This choice represents a great opportunity for Artemide to create shared value through the development of products and the implementation of innovative and sustainable production processes.

Artemide believes Sustainability to be a world that goes beyond the safeguard of natural resources and of the habitat. It reaches a definition of efficiency understood as life quality growth and saving up, recognised as an innovative engine and the inescapable premise of every project act.

Artemide's is a reality that spreads the **light culture** believing in those values that have become primary needs in each phase of production and planning: tradition and innovation for improving the quality of its own products, technological research and social and environmental responsibility. In its own communication campaigns, Artemide has always highlighted values that go beyond the product: during the years communicative strategies related to the quality of light, the light's positive relationship with **mankind**, **sustainable innovation** and also campaign referred to social and ethical topics have been implemented.

“In the relationship that establishes itself between mankind and light, the capability to determine one’s spaces has to be seen as a new perspective of regard to the planet or a positive energetic balance, committed to maintain resources.”

Carlotta de Bevilacqua
Vice President & CEO Artemide



Discovery - Ernesto Gismondi
Photographed by Pierpaolo Ferrari

↗ Best practice

Artemide's Group believes in the global sustainable growth for the mutual interest of all stakeholders. It is aware of the impact that its own activity can have on the economic and social development and on the general well-being of the collectivity. For such reason, the business choices take into account environmental regard and public health, as well as local and national communities' needs.

The group has followed and shall continue in the future, to pursue the path towards sustainability that leads to work on parallel basis on two separate fronts: **research on the utmost well-being for mankind and respect for the environment**. This leaves the Group to materialize its own commitment through a concept of design quality that constantly renews and feeds itself:

→ Constant activity of **reading and of interpretation** of the various and constantly mutating life styles in answering with accurate products for the environment and for contemporary mankind.

→ Attention to the **efficiency** of light solutions advanced, by the consumption of the single product in use, to the intelligence of the lighting project, through opto-electronic innovations that optimize performance up to the systems of management and intelligences that interact with users and the environment.

→ **Research** of new energetic technologies and productive always more efficient, development of products made with materials and finishes with low environmental impact.

→ Attention to the **innovative productive processes**, thanks to agreements with suppliers that agree on Artemide's innovative approach.

→ Attention to the **reduction** of the dimensions of the packaging and use of packaging consisting partly of recycled and completely recyclable cardboard.

→ **Commitment to the development** of tools at the service of the designer and detailed product technical sheets, which illustrate to the customer the energy performance of the production phase, the consumption of use and the material composition of the products.

→ Constant monitoring of **technical and cultural feedback** coming from different markets.





Vetrofond, Glass Workshop

A sustainable journey

Key:

- Company Milestones
- Design Milestones

- Environmental & Ethics actions
- Cutting-Edge interactions
- Innovative Vision Manifesto

1960
↗ The very start

In Milan, Ernesto Gismondi and Sergio Mazza founded Artemide; the first was born, Alfa, designed by Sergio Mazza in 1959.

↗ **1967 First Compasso d'Oro**

This is the first important recognition for one of the products that have become icons in the Artemide collection. Eclisse designed by Vico Magistretti invites a new human interaction with light.

↗ **1972 Headquarters Pregnana Milanese**

The inauguration of the Pregnana Milanese plant which still host Artemide Headquarters. Ever since the start Engineer Ernesto Gismondi invests in growth and in valorising competencies, of know-how and of internal production.

↗ **1972 Tizio**

Designed by Richard Sapper it is a highly innovative table lamp and designed starting from the 12 Volt halogen source.

↗ **1987 Artemide R&D centre "Giacinto Gismondi"**

It is the centre of those activities related to product development. The Centre, with its divisions of optics, electronic design, materials and light sources, together with a workshop specializing in the production of prototypes and a modern test laboratory, shows how the realization of the project is always based on research, competence and innovation.

↗ **1987 Tolomeo**

Thanks to the collaboration with Michele De Lucchi and Giancarlo Fassina, Artemide launches Tolomeo on the market, a lamp that over the years becomes an iconic symbol of Made in Italy of common presence in homes and workplaces around the world. Two years later, Artemide won the Compasso d'Oro with Tolomeo.

↗ **1994 Compasso d'Oro to the Career**

Artemide receives this prestigious award "for the articulated contribution to the culture of furnishing, for the often advanced use of materials and technologies, also through Ernesto Gismondi's design skills, and for the overall quality of production and image".

↗ **1996 The Human Light**

New manifesto that identifies the vision of Artemide: light at the service of man and his needs. Through a research workshop Artemide states that man with his activities and his rhythms is at the centre of the project. The focus is not the product, but its performance and the relationship with those who live its light.

↗ **1996 Metamorfosi**

The Metamorfosi collection introduces coloured light as a tool not strictly emotional and scenographic, but also aimed at the psychophysical well-being of man, opening the possibility of choosing scenarios that follow our life, emotions.

↗ **2000 LED Engine**

Presented the first two LED lamps, Sui and Kaio, designed respectively by Carlotta de Bevilacqua and Ernesto Gismondi. The "Led Revolution" begins, well before then actually sanctioned by the European Directives for energy saving, becoming over time the privileged solution with a view to saving energy, efficiency and quality of light.

↗ **2002 Environmental total quality**

Air, Light, Sound and Other. The collection was created so to allow the integrated management of important environmental parameters such as air, light and sound. The light project opens up to accept an idea of total environmental quality that depends not only on the light performance but also on sound and air quality for a total wellbeing.

↗ **2006 My White Light**

Artemide opens a new frontier in lighting: the My White Light. The research is carried out over the years, starting from coloured fluorescent tubes with the possibility of obtaining, by adding red, green and blue lights in different and appropriate quantities, the different intensity and colour temperatures of white light up to the most current developments of the Tunable White technology, together with applications of high-end technologies both in terms of LED solutions and in management drivers.

↗ **2007 Analysis LCA**

In collaboration with the Polytechnic University of Milan, this research was carried out to assess the impact on the environment during the entire life cycle of Tolomeo (1987). Its sustainability was evaluated according to the various models and lamping available and the guidelines for the development of new products were outlined underlining the fundamental importance of the efficiency of the appliance and its correct use.

↗ **2008 Human and Responsible Light**

"Responsible" becomes an integral part of the The Human Light concept that identifies Artemide's project. Artemide's light opens up to the world of which man is part of and is committed to become an actor aware of the destiny of the natural, social and civil environment. It becomes an act of responsibility. The concept of environmental quality, combined with conscious consumption, officially becomes the unit of measurement of the perceptive, expressive and emotional experience of the project.

↗ **2008 Brief manifesto on Good Light**

"Duties, principles and rights" are declared to bring the project to the field of values but are interpreted as a system open to confrontation and constructive dialogue. The grid of values expressed in the Manifesto indicates a vision that guides the technological trajectory and the project towards responses to the needs of individuals respecting the limited resources of the planet.

↗ **2008 Code of Ethics**

The Italian companies of the Artemide Group have adopted their own Organizational, Management and Control Model (MOG) pursuant to Legislative Decree 231/2001 and a common Code of Ethics that is constantly updated to incorporate the legislative changes on the subject.

↗ **2010 Feeding the nature Feeding the man**

RWB patented Technology is a specific combination of "red + white + blue" LEDs generates light that is attentive not only to the staging of nature but also to its development. Defines an emission capable of supporting even the most correct human perception and of creating spectacular and exciting effects through dynamic colours and colour temperatures.

↗ **2011 TCO**

It is a calculation tool that was offered in the transition phase between traditional technologies and LED technology. It evaluates and compares the energy and economic impacts of different lighting solutions over time. It is also a digital tool developed by Artemide to encourage a conscious choice aimed at design solutions with greater efficiency, while verifying its economic sustainability based on real or hypothetical usage conditions.

↗ **2012 IN-EI**

A fabric composed of recycled PET able to maintain through special folds a 3D geometry and to close in a flat pack, giving life to a collection of lamps based on material innovation and sustainability, developed by Issey Miyake + Reality Lab.

↗ **2014 Acoustic Quality**

The will to offer a total environmental quality that falls in the development of the Light Acoustic Collection that combines light with acoustic absorption.

↗ **2015 New Innovation Centre & Laboratories**

Opens a new centre with state-of-the-art test laboratories accredited by certification bodies according to international standards of the International Electrotechnical Commission (IEC), Underwriters Laboratory (UL) and Intertek to support all phases of product development starting from research to its release on the market. Here qualified technicians perform photometric tests, tests for electrical and electromagnetic safety, mechanical tests, tests on the quality of materials and finishes.

↗ **2015 First IoT experience**

Ameluna App is presented, the first Artemide application to control light from which Artemide App evolves. It is the first step in defining a system of intelligence and services related to the photonic interpretation of light, which are fundamental today to offer new interactions and experiences also in favour of a better energy balance.

↗ **2016 Feeding Living Beings**

Spectral Light is a project that explores the decomposition of the light spectrum and its effects on humans, animals and plants. It identifies and implements the use of only the wavelengths needed to see, to grow, to feed on the benefits of light by dividing them into "artificial rays" whose colours remain visible before joining, by colour addition, in white.

↗ **2017 Target Point**

Target Point is an advanced interaction system that brings parametric design to the Human Light through devices and sensors that open a dialogue between the desired and designed light and the surrounding environment. It records the environmental changes and integrates them to maintain a dynamic balance with respect to the targets set for the maintenance of a physiological or chromatic quality of the perceived.

↗ **2017 Visible Light communication**

Visible light is used for data transmission. The transmission takes place in a two-way direction, without altering in any way the optical properties and light performance of the device. Artemide opens up new scenarios for integrating light into intelligent projects that need to manage high baud rates in a timely and secure manner in private or public contexts.

↗ **2017 Artemide App & new intelligences**

Artemide App is presented, an intuitive management system able to dialogue with all the products of the Artemide collection to make each author aware of their own light scenarios. It is an advanced project tool that integrates intelligence to offer services beyond light.

Key:

- Company Milestones
- Design Milestones
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- Innovative Vision Manifesto

Next steps



↗ **2019 Sustainability Report**

Publication of Artemide's Group first Sustainability report.

↗ **2019 United Nations Global Compact**

Artemide signs the United Nations Global Compact by engaging once again in the adoption and implementation of sustainable and socially responsible policies.

↗ **2019 Artemide GenerAction**

Artemide is committed to communicating and supporting the projects of Generation Z youth from all over the world who have distinguished themselves for their innovative ideas in support of humanity and the future of the planet.

02

↪ Values, knowledge & know-how to realize universal projects



Ernesto Gismondi with the R&D Team,
at the entrance of "Giacinto Gismondi Innovation Centre",
Photographed by Elliott Erwitt, 2011

↪ Application fields

Artemide represents the culture of Italian **know-how** and has always been synonym for innovation and Made in Italy. In each of Artemide's lights, there is a balance between technology, intelligence, creativity, quality, attention to man and the sustainability of the project. There is the energy of a company that believes and invests in research, which supports **Made in Italy** and that it produces in Europe. Made in Italy remains at the centre of the Group's path, and makes it possible to preserve a cognitive heritage of inestimable value.

Artemide is the key player of light design in any application field: **Residential, Hospitality, Retail, Museum, Office & Education, Public Spaces, Urban and Landscape Outdoor.**

The complete range of its collection is the strength that allows the brand to fill the requirements of any kind of space. Artemide satisfies the location by combining typologies, functionalities, performances, applications, aesthetics and state of the art technological solutions and thus by granting access to people and to ethical and sustainable values.

Artemide sees past the classic distinctions of technical and design products, breaking in with a diverse approach to the lighting of spaces. Key to the company is the competency to plan and produce light. This also falls into the ability to develop **customized solutions** with an exhaustive, integrated and transversal vision that goes from the product to its application.

Today Artemide not only is able to plan the most suitable light for each specific space. It is also a platform of open possibilities for the creation of new services with a high added value.

Suitable for being integrated with many products and services of the collection, these **technological solutions** combine an innovative interpretation of the interaction with advanced digital protocols such as the **Artemide App, Geo Li-Fi, Li-Fi, IoT interaction sensors.**

↗ Public Spaces



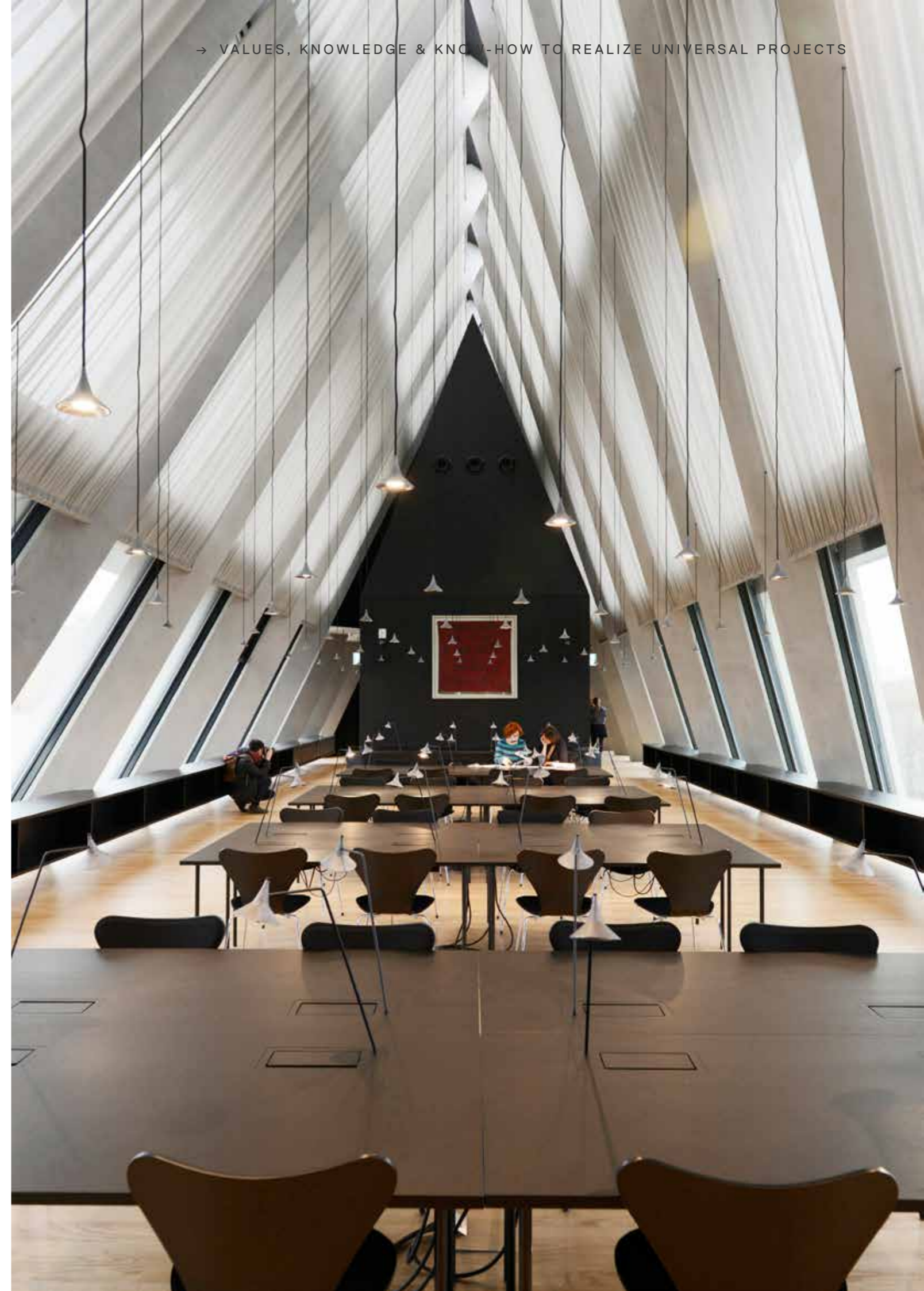
Artemide offers an immersive light experience thanks to its products performance and to the interaction with Artemide App. A dynamic light, attentive to the human scale of the project, Artemide's products are modeled on paths and activities, drawing a perceptive and socially interactive rhythm.

Thanks to intelligences like the Artemide App and to sensors, the artificial light opens up a dialogue with the natural light and the environmental conditions, favoring a positive energy balance.

A wide variety of products answers multiple requirements of those spaces with solutions that are functional, minimal, integrated or scenic and remarkable.

Artemide not only deals with light but also takes care of a 360° environmental quality through its acoustic collection, which aims at diminishing the sound reverberation or the integration of sensors for the air quality.

Fondazione Giangiacomo Feltrinelli - Milan



↗ Office & Education

Artemide not only develops systems that satisfy the needs of traditional workplaces, but also of mutable workspaces, which have become more technological, more scattered and more interconnected.

The core of each product is the quality of the light for a proper perception and support to the well-being.

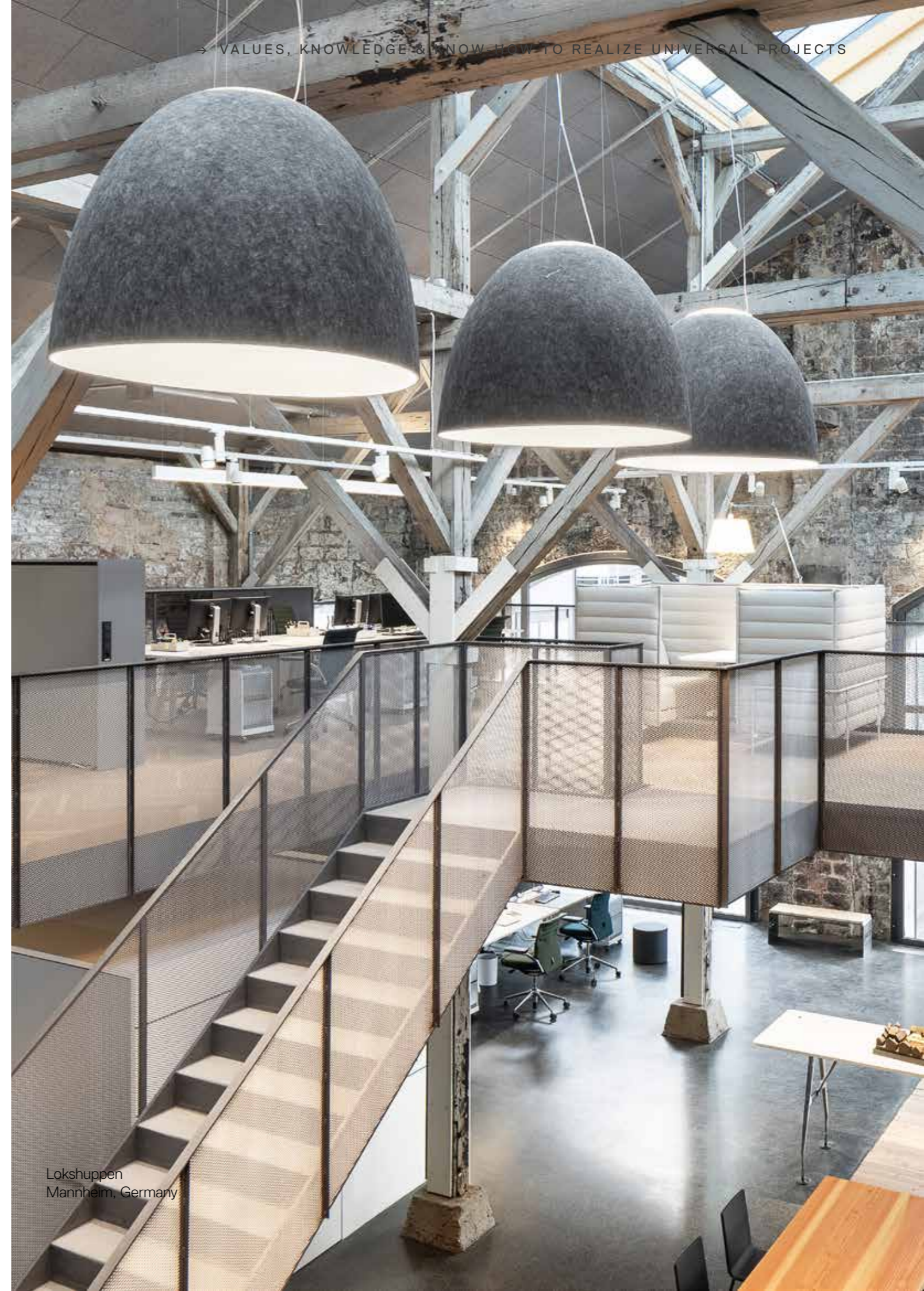
Of course, also UGR parameters, the contrast and the chromatic rendering are relevant.

The products are designed to model an uneven and inconsistent scenery of light that is calibrated on the exigencies and the dynamics of the activities, the occupation of the spaces and the natural light.

Artemide sees beyond the traditional interpretation of light in the working spaces with professional high performing products that are remarkable and scenic and provide the light with a unique emotionality.



MZC Office
Trieste



Lokshuppen
Mannheim, Germany



BIG - Bjarke Ingels Offices
Dumbo, New York

↗ Retail

Artemide offers a highly specialized light: whole families in respect to the different applications, flexible systems, and wide range of standard possibilities in the choice of light performance.

Artemide's products are essential elements with very high performances and efficiencies, suitable for any type of retail space: fashion, jewellery, beauty, technology, automotive, food.

Artemide is able to customize the quality of light: from the drawing of the optical, that model the emission, to the selection of the most suitable light spectrum for highlighting the product showcased.

Artemide introduces new user-experience with services that go beyond the light thanks to new intelligence such as Artemide App and Geo Li-Fi.

Artemide App lays out an unprecedented freedom in varying the light sceneries with simplicity. Moreover, it ensures a considerable saving of energy during the installation phase and the usage of the product. It is an actual instrument at the service of the designer, able to return the manager of the spaces data and information on the light usage.



JLR showroom - Varese, Italy



Issey Miyake Flagship Store
Milan



SSence - David Chipperfield
Toronto, Canada



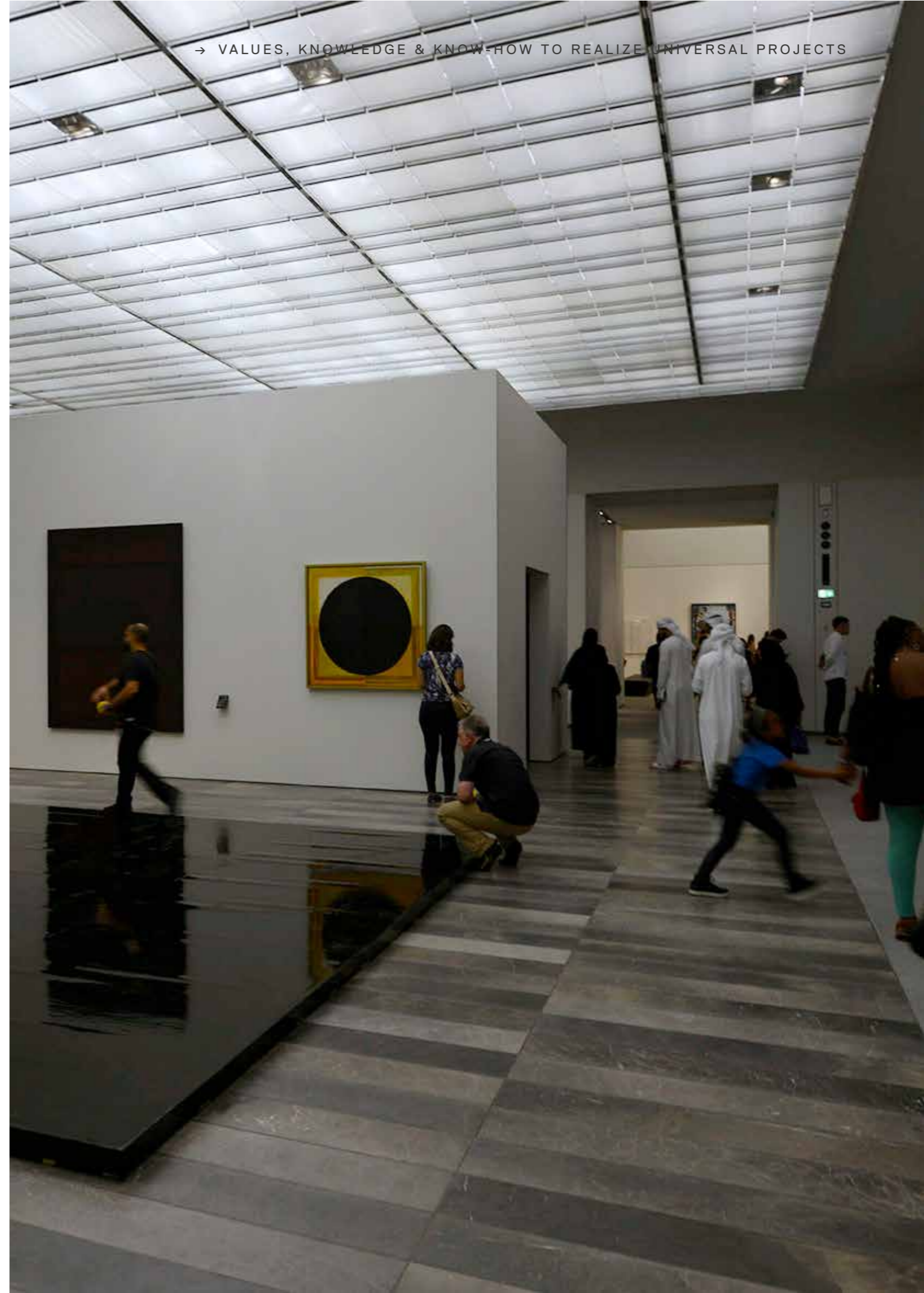
↗ Museum

Artemide offers a controlled light from every aspect, perfect for the highly specialized requirements of museum spaces. Apart from the light emission quality, it opens up an innovation for an interactive and immersive experience.

Target Point, integrated within the Artemide App, allows the communication with the variability of the environment maintaining the work's lighting and colour temperature constant. Thanks to Geo Li-Fi the light can guide the visitor through the museum path with contents insights, returning the space managers with information regarding the flows in the space.



Louvre Abu Dhabi - Jean Nouvel



↗ Hospitality



The Modernist Hotel
Trieste

A wide variety of products fills in the several needs of hospitality spaces with solutions that could be considered functional, minimal, integrated, scenic and remarkable. Artemide is specialized in creating bespoke products perfect for distinguishing spaces or meet the specific requirements of the light or of an image. The new intelligences such as Artemide App open up a new dynamic and immersive experience. Furthermore, they provide the manager of light with services that allow him to get information regarding the usage of light. The access to the freedom to configure and program sceneries with Artemide App is available to everyone.



The Pink Lobster
Warsaw



Attimi - Fabio Novembre
Milan

↗ Residential



Yanzi Floor - Neri & Hu
Private Residence, Copenhagen

Artemide offers a wide collection of products with infinite solutions, to be able to fit any space and moment of the day, allowing anyone to be the creator of his or her own light.

Technology and innovation become a specific kind of beauty that invites a correlation with the light object. The iconic Artemide products are timeless and are part of our life thanks to the high quality that allows them to be long lasting.

Artemide's Human Light pays attention to the physiological and psychological well-being of man, to color and the different temperatures of white. Moreover, it creates dynamic sceneries in the domestic environment that could simply be controlled through Artemide App.



Miconos Gold - Ernesto Gismondi
Private Apartment, Milan



Tolomeo Maxi - Michele De Lucchi & Giancarlo Fassina
Private Residence, Denmark



City after City - Milan Expo 2015

↗ Urban and Landscape Outdoor

The Artemide outdoor collection is suitable for any type of open space and for modelling any kind of urban or natural scenery, be it public or private.

It combines the respect of the norms and technical performances with a considerate approach towards nature. Moreover, it is innovative as it communicates with controlling intelligences and it links with the surrounding natural environment or the smart city. Not only it offers standard solutions for paths, green areas, architecture but it also offers customized installations, monuments or landscapes. The quality of materials and finishing is tested not to wear off over time due to the weather even in the most extreme conditions.

Reeds - Klaus Begasse
Private Villa, New Zealand

Custom Lighting installation "Sternzauber"
for Passagenviertel, Hamburg



Bespoke Projects

A dedicated internal department, in collaboration with the research, development and innovation team, deals with customized projects and develops individual solutions. Within the Scenarios projects, Artemide is able to develop customized product solutions both from products already present in the catalogue and from designing and producing bespoke solutions created on specific requests and needs.

The optoelectronic innovation capabilities, technological know-how and high quality production of Artemide are available for customers and designers to implement projects at 360°, to help design products, as well as the behaviour of light in space.

Traditionally Artemide establishes important collaborations with international architecture or lighting studios and with the best brands, which translate into unique solutions, often interesting from a cultural point of view and for the research they stimulate. Many of these collaborations have triggered the development process of some of the existing products now in the catalogue. At the same time, the Scenarios projects offer solutions to the contract that are no longer present in the catalogues, so Artemide offers a complete service on several levels.



Pietà Rondanini Museum
Milan



La Porta - Malpensa, Milan



Audi City Lab. - MAD Architects
Milan

Worldwide designers – Listen to differences

The Group collaborates with designers and architects from all over the world, aware that the background from which designers come from contaminates and increases the quality of the project.

Artemide, thus becomes a hub where different skills and professionalism meet: our designers share not only technical and production aspects with us but also contribute to increasing the cultural network that grows around our company.

Thus, from a technical meeting a new product can be born as a new collaboration: from a meeting in front of a prototype spring ideas for innovative materials or more sustainable production solutions .

The project activity is experienced as a moment of encounter, dialogue, professional and experiential exchange between individuals with different backgrounds, culture and life histories. The principle according to which ideas are lighter than matter is adopted in its maximum form in the process of collaboration with designers from all over the world.

“Diversity” is therefore assumed as a resource, able to lead to the creation of products characterized by a high quality not only aesthetic but also technological and environmental. Shanghai, Tokyo, Melbourne, Dubai, London, Paris, Oslo, Sao Paulo, New York and Chicago are just some of the cities in which our designers work.

In 2018, the collaboration with Alejandro Aravena’s Elemental studio, winner of the 2016 Pritzker Prize, brings to six the number of winners of the prestigious award who designed products from the Artemide collection: from Aldo Rossi to Norman Foster, Jacques Herzog & Pierre de Meuron, Zaha Hadid and Jean Nouvel.

During 2017 and 2018 there were signed respectively 9 and 6 new contracts with external designers relating to the rights of intellectual property on products, which are normally related to the transfer of Intellectual Property.



6 Pritzker prize

↳ 02.1 Lighting culture between research and innovation

Sui, Portable LED Lamp, Photographed by Elliott Erwitt, 1999



➤ Innovation Centre

Activities of research and development are conducted in Innovation Centres of the Group that play a crucial role in order to fine-tune each new product from concept to industrial production. Innovation lies in the need to develop a unique product from the point of view of technology materials, finishes, performance and management and above all that offers new perspectives to the interaction between light and space and the interpretation of the project / product.

The Giacinto Gismondi Innovation Centre of Pregnana Milanese, as indicated in the Sustainable Journey (see section “Sustainable culture”) boasts the divisions of optics, electronic design and materials and from 2015 includes a new centre equipped with accredited test and certifications laboratories.

In recent years, Artemide is dedicating itself to important topics of research on photonics and on new technologies for delineating a future vision, a new way of interpreting and living light.

Artemide has dedicated in 2018 around 5.2% of its revenue on Research & Development for exploring the borders of innovation, it is moving towards new frontiers of projection where the focus is not only on the product anymore but new intelligences and information management. Artemide’s research, as The Human and Responsible Light philosophy states, is not addressed only to technological aspects of components of a lighting fixture, but also to all the possibilities of interaction between man and space through light, his performances and perceptive, psychological and physiological implications.

The engine of innovation is the commitment combined with a concrete desire to offer an alternative to what exists. In fact, the innovator is the one who manages to dream of something different, better, going beyond what has been understood as far.



Goniophotometer, Artemide Laboratories

“For us innovation is the starting point of a project. It is based on research and on scientific thought, thus on the ability to see things differently than before. Rather than being only rigorous research, science is also vision. It can expand our knowledge for discerning the future, it can open new borders. Thanks this scientific and technological innovation, light allows us to re-consider the environment, its resources and the energy project in ecosystem terms for a better life quality for human beings but also for all the other beings of the planet”

Carlotta de Bevilacqua
Vice President & CEO Artemide

➤ Innovation process

For this reason, we always find a vision at the base of the innovation process that must then materialize in technical specifications and expected functioning of the product / system. In particular, in the field of lighting, conceiving an innovative lighting fixture is an activity that involves more people from different **backgrounds**, not necessarily technical ones.

Then there are several methods for developing the innovation process.

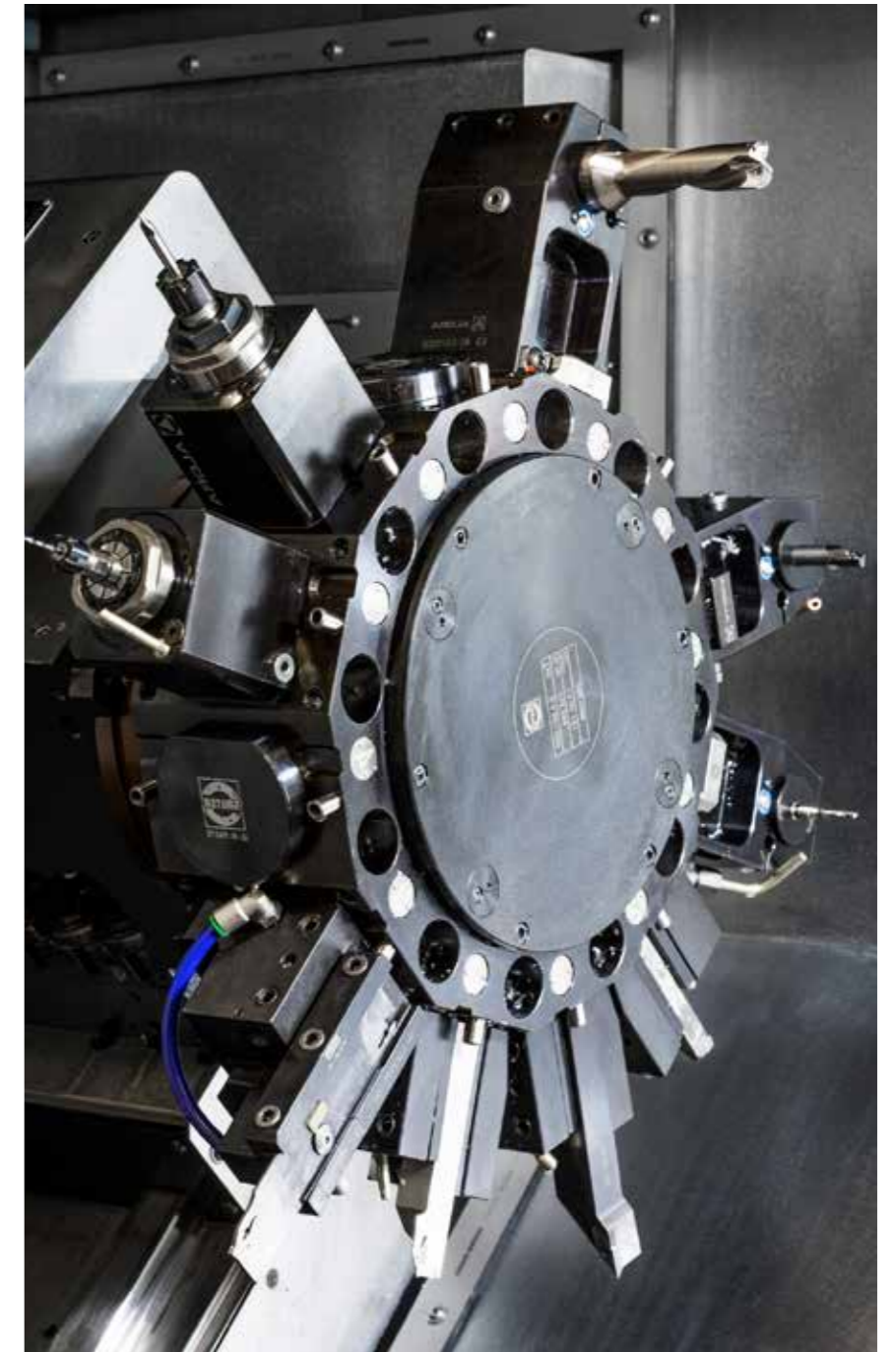
The most frequent is the **ability to apply**, in a critical and creative way, new technologies that are present in the marketplace, which as such may not yet have a specific reference sector.

In other cases, the lighting market witnesses a **process of integration** with more or less mature technologies from adjacent sectors: in particular, today we refer to Hardware and Software systems derived from consumer electronics used later as control and management parts.

An example is the use of technologies applied in the automotive and consumer goods sector, readapted already in **1972** in the **Tizio lamp**, reported for the Compasso d'Oro award in 1979 and winner of numerous other international awards. A halogen lamp, wireless, with arms to act as conductors of current, characterized by a considerable freedom of management in space. The Tizio will become one of the most sold lamps in the world and, at the same time, a cult object to confirm that what is "innovative" reaffirms its uniqueness in time.

The ideas that lead to the development of new products are also developed through the use of external subjects who are assigned tasks related to the identification of design model; hence the value of collaborations with the main architects and designers.

The design of a new concept is then conducted according to various phases which envisage the development of systematic activities and their subsequent verification - according to technical criteria of compliance with the initial product specifications - and which consider not only costs and investments but also important aspects of sustainability, as better specified in **Quality System Group' s documentation**.



CNC 4-Axis Machine, Artemide prototyping lab

Light as
Wavelength

Light as
Quanta



ALTROVE

➤ LED revolution

A great revolution in the lighting field is that of the years 2000, the so-called **LED revolution**, that has led to a design, mechanics and opto-electric approach completely disruptive compared to the previous one. These aspects of the product are in fact from this moment considered extremely interconnected variables for the design of light, with a view to maximizing luminous and material efficiency, miniaturization and long duration.

➤ Photonic revolution

The **Photonic revolution**, coinciding with this century called the century of photonics, introduces a new paradigm shift. Today Artemide is able to write the language of light through which each lighting fixture can be connected with the others, with other objects and with smart-devices exchanging data and information through a continuous parametric dialogue. These new intercommunication technologies between objects have opened unexpected and innovative scenarios both in terms of an un-expected experience on the part of the final consumer and of the business model on the part of companies, opening up new horizons of light as a service.

The Apps and services that integrate new technologies are conceived as new open platforms, continuously updatable from a performance point of view, but also mainly possible to overcome overtime with the interaction network and compatibility with other systems. For reaching such results, the design process takes place according to a principle of **Open Innovation**.

This is a strategic and cultural approach to which Artemide is inspired to create added value, thus choosing to implement its vision - born of internal ideas and resources - with solutions, tools and technological skills that can come from outside, in particular from start-ups, universities, research institutes and inventors with whom the Group has always been collaborating.

The common ground for the development of these new technologies is sustainability. The energy infrastructure to be provided within a space for lighting in fact becomes the functional support for these value-added services, thus avoiding a waste of resources, minimizing costs. Thanks to the integration with sensors of different nature (daylight presence, environmental quality meters, etc.) energy saving is made possible based on the variables that are within the environment and there is a constant and real-time metering of energy consumption.

These technologies reaffirm the **centrality of man** and his self-determination in time and space, giving him the possibility of being ever more author of his "landscape light", calling him at the same time to a responsible and sustainable use.

➤ Collaboration researches

The Research and Development department boasts several collaborations, among them the main ones are the **University of Padua, the Politecnico di Milano, the San Raffaele Hospital**. The projects aim at improving product efficiency and at developing design expertise that can promptly answer to the ever-new demands of sustainability.

➤ Light and Colour

Interdisciplinary research has in fact always been a flagship of Artemide. It starts from the **Metamorfosi collection** - through working groups with professionals and with the main universities of Milan in order to draw a well-rounded line of research that covers matters from the evaluation of the physiological responses of man to light, to the cognitive and emotional responses of the individual in conditioned environments also through light and light scenes.

Yang, 1998



Light as a wavelength: perception and psycho-physiological well-being

↗ Light and colour temperature

From the first research on the colour of light and its psychological and physiological influences on man with the Metamorfosi project, Artemide's research has investigated the effects of white light on our circadian rhythms and on the perception with "My White Light" and the development of families of products with proprietary technologies based on fluorescent sources.

These studies were thus renewed in the light of the new LED technologies with Metamorfosi 2.0 and Artemide TW (tunable white) and in specific functionalities, such as the "Circadian Cycle", incorporated in the Artemide App for IoT management of products and lighting scenarios.

↗ Circadian Rhythm

This feature in fact, developed according to a patented programming, manages the light starting from the principles that regulate the circadian cycles.

The psychophysical well-being also depends on a sort of complex "internal clock" to the organism that keeps itself synchronized with the **natural cycle** of day and night through natural stimuli, such as sunlight and environmental temperature, regulating factors such as hormonal secretions and the sleep-wake cycle which is strongly influenced by light. Artemide App, starting from a principle of geo-location and temporal collocation, regulates the variation in intensity and colour temperature of artificial light to best accommodate these rhythms.

The parameters of geographical and temporal contextualization are flanked by behavioural models that recognize three different types of representative lifestyles (so-called "circus-types") to calibrate the light on the rhythm of the activities that everyone performs. The **modulation of light** starts from a warm and soft emission upon awakening. To stimulate the activity, it moves towards colder tones during the morning, recreates a pause with warm light towards the central part of the day, moves towards a second peak of stimulation with cold light in the afternoon to then accompany, towards the end of the day, with a more relaxing atmosphere.

Prometeo - Aldo Rossi
Metamorfosi Collection



Metacolor - Ernesto Gismondi
My White light Collection

To this complex programming the freedom to modify the extremes of **temperature** is added and **intensity** is reached as well as to intervene on the expansion of the times with respect to which the modulation of light moves. In this way, everyone can have a light that follows the course of circadian cycles but related to their own daily habits.

↗ Light and nature

The perspective on the well-being of man has opened more and more towards the whole ecosystem. In 2010, the **RWB (Red-White-Blue) patent** combines a light that favours the growth of plants to a proper perception for the man.

The “**Spectral light**” research, undergone in collaboration with Philip Rham has investigated the perception of all human beings.

Spectral Light Exhibiton, Philippe Rham, 2016



Gople Lamp is a new witness of Artemide's research path on light quality and colour. Its **system RWB** (Red- White-Blue), patented in 2011, is a shift in paradigm. It is a new way of interpreting colourful light to have a light that cares about the well-being of people but also of the environment. Through its direct and controlled emission RWB is unified with a **white light** which is also **indirect**, diffused and manageable separately.



Growing Light - Gople RWB



Growing Light - Una Pro

➤ Gamut Index

The researches on perception also touch application domains such as the retail one.

Thanks to high-level opto-electronic know-how and an in-depth study of existing sources and their characteristics, Artemide can perform an accurate selection in order to identify the most appropriate LED light source to guarantee the correct alchemy between the different variables that influence the perception of the end user. It is therefore possible to evaluate numerous LED sources in terms of **Fidelity Index (Rf)** and **Gamut Index (Rg)** but above all in terms of spectral quality analysis in order to establish, together with the customer and according to his needs, the most appropriate source to put on stage in the best possible colours, materials and textures.

The spectral quality of the sources used in Artemide products is such that the chromatic response of illuminated objects is particularly comparable to reference sources, such as for example the traditional incandescent hot light or the more neutral sunlight. Therefore it is possible, thanks to the use of these sources, to recreate different atmospheres such as the warm feeling of the light of the past, rich in red radiation or the most modern and balanced natural daylight, able to make colours more natural. Such researches go through light interpreted with its nature and **wavelength**.



Light solutions with customized spectra

Light as quanta: photonic and innovative interactions

Artemide welcomed **Photonic Era** by working and investing on the second nature of light, scientifically demonstrated by quantum physics. Made up of energy particles or quanta, light, thanks to enabling technologies, can become “intelligent” and be a vehicle of information for advanced **IoT applications**.

From a manufacturer of high-end lighting fixtures, Artemide is indeed evolving into a company that also provides services. A new dimension of light, linked to the new product-service paradigm that is changing the nature and perception of light in different spaces.

This opens the frontier of the “**intangible**”, of products capable of carrying and exchanging data, of being the link between man and internal and external environmental conditions in order to guarantee a high environmental quality combined with energy consumption responsible. All **can be monitored remotely**, with possible real-time maintenance intervention.

↗ Light and data

For this reason the integration with sensors and intelligence becomes fundamental and, unavoidable, the management by the end user through new interactions (starting from its presence, its smart-device up to voice commands and more). This scenario calls, from the company, a concrete agility in the management of tools to support the customer such as the continuous updating of the platforms, help-desk services, prompt assistance and maintenance.

The innovation of these services is enclosed in a dual added value: on the one hand they open up to **unexpected experiences** and **new interactions** imagined for the end-user that can grow and change in an organic way with changing needs over time. On the other hand, innovation lays in the great sustainability of these solutions, enclosed in the fact of using the necessary light infrastructure without further complexity in terms of arrangements, systems and programming.

Light thus becomes a bearer of meaning, for a contemporary **storytelling** of life in in / out spaces, and of value for our common future.



Huara by Elemental, controlled by Artemide App

➤ Artemide App

Artemide App revolutionizes the approach to light control and makes it possible to fully exploit the possibilities of timely management offered by LED technology.

Meanwhile, it always keeps man at the centre of the project that can be the author of his luminous landscape through the management of up to 500 luminaires for each network, single or in groups (homogeneous or heterogeneous), activating interactive or parametric actions in real time, which require, in certain cases, a collaboration between BLE (Bluetooth Low Energy) and Wi-Fi.

“**Interactive actions**” means the possibility of managing light intensity, colour temperature and colour point in addition to the application of static or dynamic scenes. To make light control even more immediate and intuitive, interaction controls with **presence sensors** and voice **control with Alexa or Google Home** were also developed.

Artemide App can also interact with environmental variables through “**parametric actions**” through sensors integrated in luminous or stand-alone luminaires. It is in fact possible to monitor air quality indexes such as **humidity**, CO₂ rate and room temperature, set the behaviour of light through dialogue with a **Daylight** sensor up to having information, through the **Heat Maps** function, on how users move in a given space in time and prepare **scheduling** to recall scenes based on the day of the week.

Artemide has also implemented the function of the **Circadian Cycle** through which recommends certain light recipes in respect of the psychophysical well-being of man.

A proprietary **Cloud system** ensures the reliability of the service, making the network information secure and allowing the administrator user to profile his network, giving the possibility to other users to manage only a part of it. A **Multi-Network** control on a Wi-Fi basis amplifies the possibility of management allowing controlling different networks, even placed on different floors, from a single point of the space.

➤ Target point

Artemide Target Point, feature of Artemide App, is a system of appliances and sensors that open dialogue between desired light and actually projected light and the surrounding environment.

This system’s revolution consists in the capacity of centering choice parameters and the definition of performances on the focal point of interest and not on the brightening appliance.

The targets are the environmental parameters, a concept that goes beyond a normative value of lightning or colour rendering. Target Point refers to an **exchange of information** between the lighting fixture and the environment recording its variations and integrating them for maintaining a dynamic balance in accordance to pre-determined targets.

Therefore, the result of a dynamic perception of light is simply the **maintenance** of a **physiologic quality or a chromatic one**. With Target Point technology is at the service of mankind, becomes a tool for reaching a state of well-being and gives value to how man lives within space.



Target Point, museum application.
Parametric dialog between a Tunable White artificial
light and enviromental phenomena.

➤ **Geo Li-Fi**

Offering new possibilities of interaction within spaces, the Geo Li-Fi is a perfect technology for different applications: museums, where the same beam that illuminates the artwork can **transmit information** to the observer, for **retail spaces** or environments **public places** where it can guide visitors by providing useful services with high added value.

Through the visible light, modulated according to a coded logic, it is possible to activate the location data. The frequency of these light pulses is imperceptible to the human eye but generates a signal that can be received by the camera of any smart device.

The communication takes place via a wireless connection while the light source, equipped with the Geo Li-Fi device, works both as a light coordinate in the **geo-positioning** and as a **trigger**, for wireless reception of visible contents through a special App on your device. It can be static content like a message, an image or dynamic like a video. It can also refer to external links becoming a bridge to more extensive in-depth analysis.

➤ **Li-Fi**

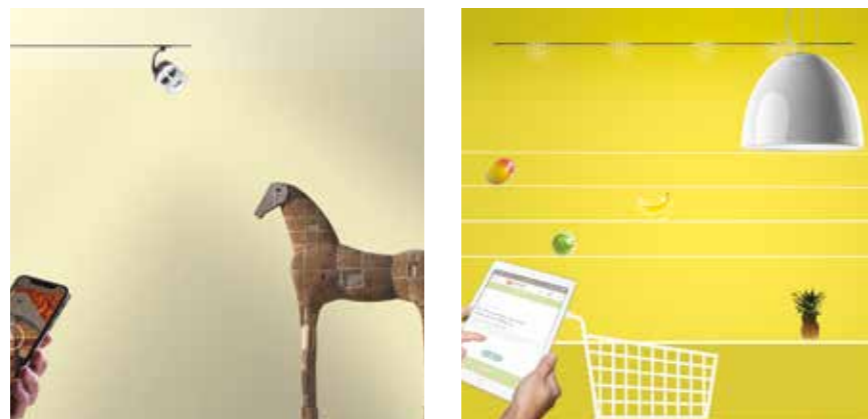
With Li-Fi it is possible to transfer data wirelessly through the very high on-off switching speed of the LEDs, at a frequency not visible to the human eye.

Compared to classic wireless solutions, it also does not generate electromagnetic fields in a defined physical area, ensures **greater safety standards** by limiting access to the network and any information to the areas involved in the emission, outside which the light cannot be modified or intercepted.

Geo Li-Fi,
retail & social space application



Geo Li-Fi,
museum & supermarkets application



Li-Fi, Personal workplace



Li-Fi, Meeting room



Smart City

Artemide is developing outdoor lighting solutions able to characterize the urban environment and to communicate with the city management systems and individual users, in order to generate different types of **lighting effects** and distribute data and energy. The outdoor lighting network can support, both on **VLC (Visible Light Communication)** or better on **IR basis**, communication through specific emitters, which Artemide is applying to both indoor and outdoor systems. The results of these studies will also depend on the availability of smart-devices with native VLC or IR wireless functions.

↗ Solar Tree

Solar Tree was born as an outdoor luminaire capable of combining the technology of LED basic lighting systems with solar photovoltaic technology in a very particular and innovative design created by **Ross Lovegrove**.

On the one hand the project aims to **reduce** as much as possible the **environmental impact** when using the product, on the other hand it wants to guarantee the expected luminous performance without being hostage to meteorological randomness or being subject to an oversizing of the photovoltaic part; hence the choice of the **hybrid battery + network solution**.

Solar Tree therefore becomes an **intelligent** and latest generation **platform** capable of establishing a personal connection with the individual user or with a smart and “SENSEable” city network.

The project opens up new perspectives in urban lighting because it interprets surprisingly current artistic, cultural, social and environmental needs. Solar Tree has been designed to work both independently and in synchronism with public lighting.

If modulated for autonomous operation, the Solar Tree will be disconnected from the public light supply network and by day will use the energy generated by the solar panels to recharge the batteries. The twilight will be recognized autonomously by monitoring the output of the solar panels, and at that moment the LED sources will be switched on until dawn.

The **accumulation of energy** in the battery will allow the luminaire to operate for about 25h in the absence of any other energy incoming. If instead the device is wired for operation synchronized with the public light, switching on and off will be coordinated with what will happen for lighting of the surrounding area.



Solar Tree - Ross Lovegrove
Piazza Gae Aulenti, Milan

Artemide, with Deloitte's support, has started off working plans of involving heterogeneous actors interesting in developing innovative solutions in the Smart City field, whose meeting and discussion could bring out innovative projects not only immediately, but also on a medium-long term perspective.

➤ SENSEable Village

The objective is to develop a common research and development project on which to structure an innovative business model to support concrete projects aimed at present and future SENSEables cities.

The cities of the future are one of the main fields of innovation, meeting point for many issues relevant to the people's lives (data transmission, mobility, pollution, safety) that affect different operators. Artemide has been active in the design of an outdoor light designed to follow the needs of urban areas not only with functional solutions, but also with interactive and energetic intelligences that promote a new sustainable and social dimension for the city and the man.

Starting from the consideration that the energy network and lighting luminaires will become a new technical platform on which to develop innovative services for the city, Artemide has the ambition to create new services for citizens of intelligent cities creating new collaborative and business models that bring organizations to leave their specific area of expertise and to collaborate with actors from other sectors.

“The space where the interaction of human beings, nature and technology enhances the quality of life”

SENSEable Village Manifesto

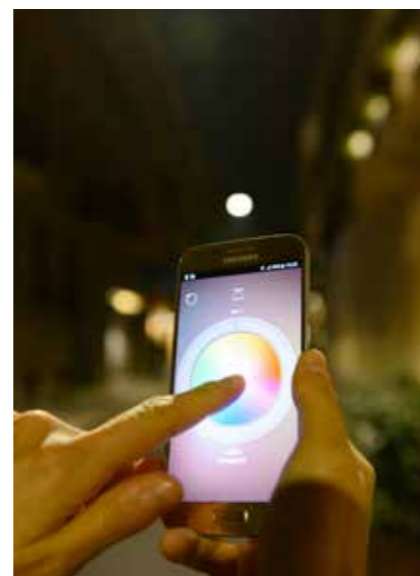
➤ The flow of light

Unique among all the streets of Milan's Quadrilatero, the fifteenth-century **Via Gesù** becomes the protagonist of an innovative lighting project, which intends to enhance the peculiarities of a unique place, where refined boutiques follow one another in artisan and antique shops, alongside the neo-Renaissance house Bagatti Valsecchi museum and the Four Seasons Hotel Milano, born from the transformation of the Convent of Santa Maria del Gesù, becoming more and more of an ideal space also for the many resident families.

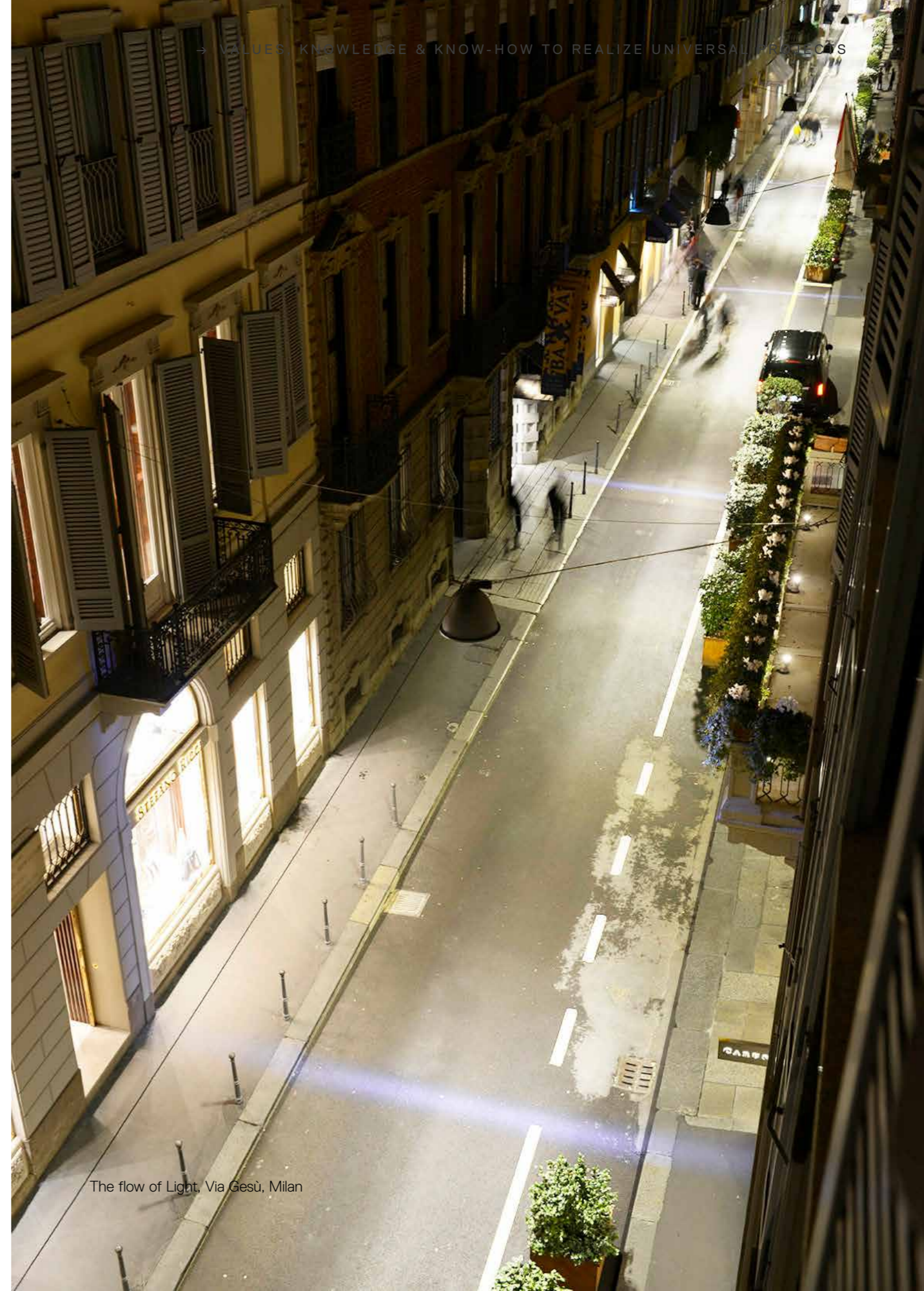
An initiative that concretely applies the concept of Smart City, of which the Municipality of Milan has long been a promoter of, in an evolved version, bringing information, relationship and culture through light.

A constant **"river of light"** will be created by the Nur lamps—light in ancient Egyptian—projected in the special version of Outdoor for Via Gesù, and will accompany all visitors through a **new experience** that unites the prestigious via Montenapoleone to the exclusive and just as prestigious via della Spiga.

The same appliance will project on the facades of the buildings bright blades of different colours, creating a scan of the space and a perspective view that mark the way, revealing to those who pass by of the beauty of the facades and balconies of these architectures and the history of the places.



The flow of Light,
controlled by Artemide app



The flow of Light, Via Gesù, Milan

Protection of Know-how

Of the essential elements of Artemide's success includes the **know-how** and **intellectual property rights** in its possession, such as brands, product design and innovations in materials and components.

Therefore, the protection of know-how and in general of the rights of third parties is of the utmost importance. In order to protect results from constant investments in technological research in the field of illumination, Artemide has always adopted a strategy based on obtaining registered industrial property rights, that is to say, properties that allow the exclusive enjoyment of the technological solutions found.

Artemide has developed, over the years, numerous **invention patents** in the **optical, mechanical, electronic** and, in recent years, including digital management and interaction and sensors.

In today's times, **technological transfer** is always more reduced, this allows for Artemide to apply and immediately distribute developed innovation through research. Patented solutions increase the company's know-how with wide impact on the different collections in which they often find application on different products. Mostly Artemide holds an invention on its proprietary technological solutions or in use.

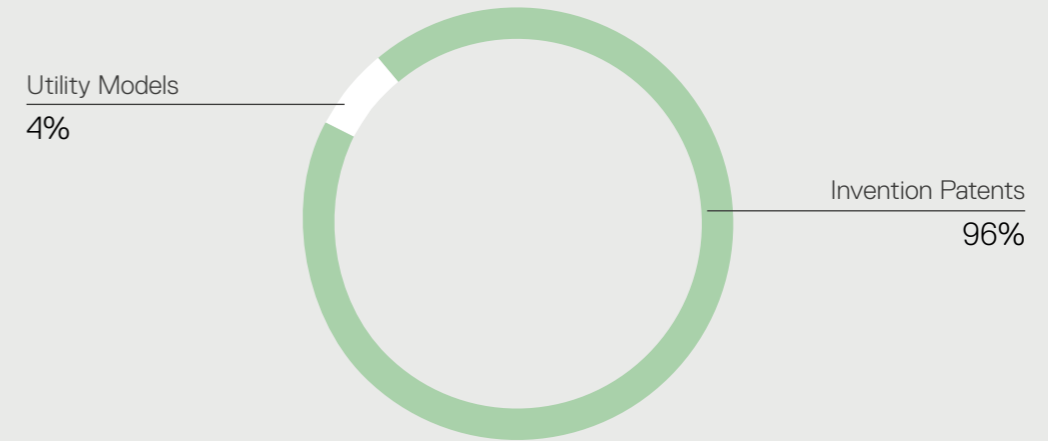
At the end of December 2018 the ratio between invention patents and utility models held is 76 to 3 respectively, for a total portfolio of **79 patents** for 36 different technical solutions. Reported below the ratio of nationality of patents is shown in the portfolio by December 31st 2018 and Italy (where the first storage area takes place) represents 37%, Europe 49%, U.S.A. 14%.

Concerning the Design application in defence of the **aesthetic aspect** of the products, Artemide believes it is of primary importance to provide every design with a registered patent right. The policy to date in place forces Artemide to proceed each year at registering some designs of new products within the interior of one. Registered models are fundamental for the defence of original products from their counterfeits, especially in the online market, which the Company has been managing for 7 years through an international partner specialized in brand monitoring. This activity allows the massive removal of counterfeit offers from the major online sales platforms, on which the largest volumes circulate, even before the production of the pieces.

↗ Innovation patents and Utility Models

↗ Registered models

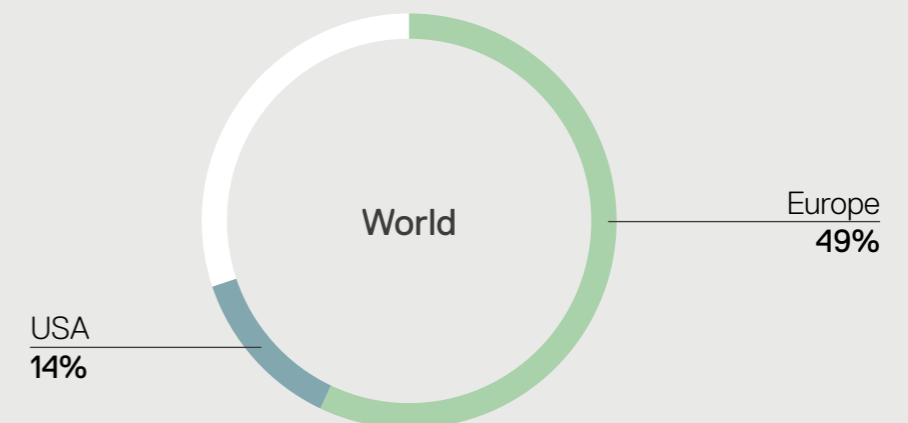
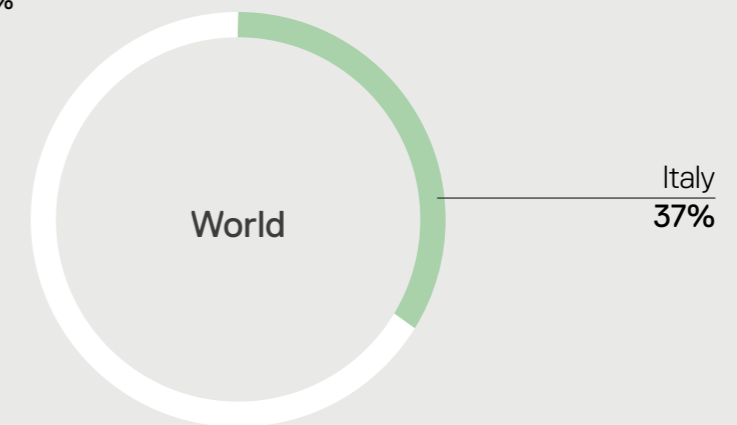
Types of patents



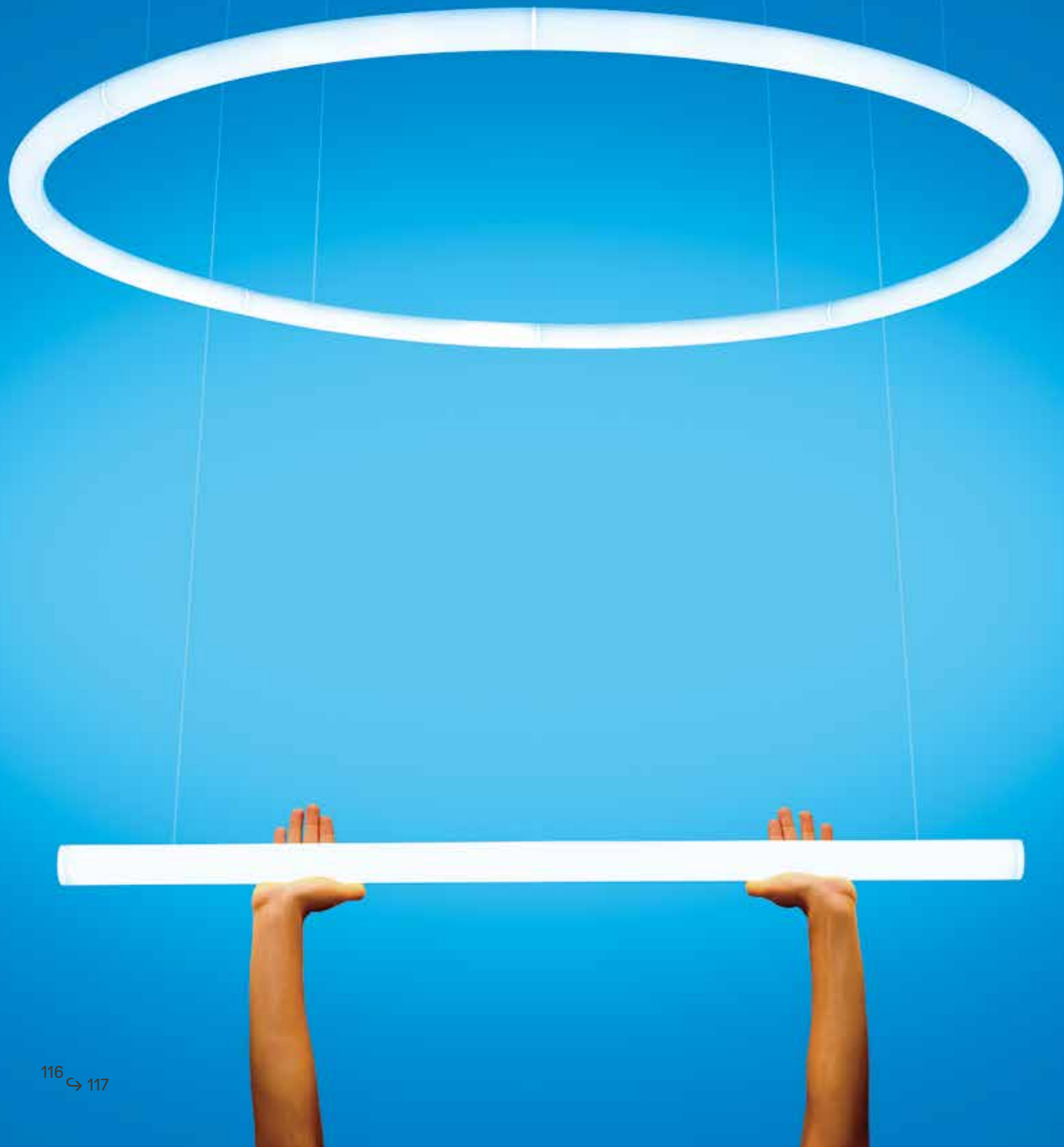
Ratio of Patent Nationalities

Ratio of patent nationalities included in the portfolio as of 31.12.2018:

Italy (where the first deposit is made): **37%**
 Europe: **49%**
 U.S.A.: **14%**



Alphabet of Light, BIG - Bjarke Ingles Group
Photographed by Pierpaolo Ferrari



Alphabet of Light,
BIG - Bjarke Ingles Group

02.2 Actions for Eco-effectiveness

Logico, photographed by Elliott Erwitt, 2001



↗ **Téchne**

Artemide's design is founded on the capability of anticipating change through innovation, culture and creativity, manufacturing and sustainable economics, uniting knowledge and know-how. Science is strictly linked technic, to "téchne", term which in greek means "the art of knowing how to do" and "passion for knowledge".

This implies creativity and competence only as technology, but also as a language and expression of beauty.

Research for Artemide, as well as human vision and approach open to project have always been tools for interpreting and translating modernity transforming "téchne" in quality, art and emotion.

The true value of Italian design is the unique coincidence of scientific competencies, techniques and human heritage, a culture capable of creating an economy based on knowledge through the beauty of innovative products and emotions, as concrete answers to mankind's needs and of the world's.

All of Artemide's choices are focused towards one unique objective: commitment to improving humankind's quality of life and of its relationship with the environment through a responsible design.

Present and future of the light project are in line with this vision through the following values:

Responsible Design = Reducing for innovating: more with less. New projects becoming responsible acts towards the planet are translated into creative innovation: less material and no energy waste, without denying performance, quality and beauty. A critical and more efficient approach that goes to the heart of the project and extends 360 ° to its application. Artemide promotes the culture of light and offers tools for an informed choice and a rational use of light, qualifying it in terms of energy and economic savings.

Long lasting = Long-lasting project. Emancipating the logics behind consumption, through the quality of the product. A cautious selection of innovative material and an intelligent project that help to create an emotional and long-lasting relationship with the product. Long-lasting projects mean quality.

Incremental systems = The open platform project. The product is not a closed system, but an open and positive system that can grow and constantly update itself through maintenance and updating parameters.

Good Light = Reconnecting to nature. Light is an indispensable energy for man and for all living beings. It influences nature by helping its growth and photobiological processes. By studying its relationship with humans, space and the environment, it is possible to define a light that takes care of the planet and all its inhabitants.

The whole Artemide collection is the expression of a responsible and careful design. There is always a push to develop new products in which attention to the environment is intrinsic and inherent in the design will. Artemide is committed to constant **research** in an attempt to develop and adopt new eco-compatible materials and lighting systems that pursue the goal of maximum energy efficiency. Artemide has always loved to design with architects: it is not a matter of designing lamps, but of designing light within spaces. Artemide pushes the boundaries of design to go beyond the idea of object design, in favour of the **design of interactive and changing systems in space**.



Tolomeo, Michele De Lucchi & Giancarlo Fassina,
Photographed by Elliott Ervitt



“Enduring Beauty – An innovative vision to design a sustainable beauty”

“O” Suspension, Elemental



Una Pro, Carlotta de Bevilacqua
LEED Certification

➤ Life Cycle Assessment

Sustainable approach

Artemide reserves great attention particularly to sustainability in terms of Eco-design aware that design plays a fundamental role in the control of and in the limitation of the impact that the product can provide to the environment, throughout its life cycle.

As stated in the environmental philosophy, the Group is committed to designing products in order to minimize their environmental impact.

Following the guidelines that refer to the three principal aspects:

- energetic evaluation impact: Life Cycle Assessment and Energy Metric Centric
- selection of materials
- definition of the productive processes

The energetic evaluation impact **Life Cycle Assessment (LCA)** sets the basis for defining the priority indicators of design intervention, such as the decisional support for effectively guiding a lighting device's design towards solutions with high eco-efficiency. Thus would reduce the environmental impact associated to the products in all the phases of its life cycles.

In collaboration with the **Politecnico di Milano** a research has been conducted for evaluating the environmental impact during the whole table lamp's **Tolomeo** life cycle. The aim of this analysis was to provide Artemide with a contribution to the development of a culture and a design practice in the development of future products, defining guidelines in development of products able to face the transition towards environmental sustainability in a **deeply changing regulatory framework**.

The analyses have been conducted by following the **LCA**, the **ISO** norms of the **14040** series that allow to identify the different impacts in relation to the phases and processes of the product's life cycle. The aim has been that of defining environmental criticalities of the whole life cycle of Tolomeo table lamp's as support to the design of a lighting fixture with high eco-efficiency.

It is fundamental to highlight how the main impact is given by consumption in the use phase. This directs attention to design choices aimed at maximizing the energy efficiency of the product and reducing its consumption. The analysis also highlights how an **awareness-raising** activity for customers and end-users aimed at conscious use is equally important.

➤ LCA Tolomeo

The **Tolomeo** lamp, designed by Michele De Lucchi and Giancarlo Fassina, already in **1987** was respecting the design conditions that today are essential strategies for the design of a new lamp:

- low use of material consumption of the product and in the accessories part;
- use of non-depleting materials with respect to conservation and biocompatibility;
- product's long-life;
- recyclability of the material used;
- easiness of disassembly.

Analysing the life cycle of a lamp like Tolomeo, the greatest environmental impact occurs during the use phase of the product. **Energy consumption** is significantly more impactful than the phases of pre-production, production, distribution and disposal. Even if the incidence values vary according to the actual time of use of the appliance, it can be argued that the use phase of a lamp equipped with a traditional incandescent light source from 100W affects more than 90% of the overall environmental impact, estimating an ignition of 3 hours a day.



Tolomeo Mega Floor, Michele De Lucchi & Giancarlo Fassina
Photographed by Pierpaolo Ferrari



➤ Energy Metric Centric

Artemide adopts project criteria that aim to maximize the efficiency of the products and maximum attention is paid to the verification of consumption according to an “**Energy Metric Centric**” logic that allows the monitoring of the energy use per square meter of each space to be illuminated in order to guarantee the right light in terms of quality and quantity.

All products are designed with latest generation LED sources. Historical products have been updated to accommodate energy-efficient and high-performance sources. Where possible they have been designed from scratch to accommodate an integrated LED source.

The use of LED sources in Artemide products guarantees a **reduction in consumption** up to 80%, depending on the case, compared to the same appliance equipped with traditional sources, minimizing the impact of the use phase on the product life cycle and guaranteeing an extrapolated average life of the source of at least 75,000 hours.

The studies on dissipation have been guided by the desire to reduce as much as possible the material useful for heat dispersion, while maintaining high LED performance.

Dissipation studies were driven by the desire to reduce as much as possible the material useful for heat dispersion, even if keeping LED performance high. The heatsinks are indeed sized to preserve the duration of the sources according to **IES LM80-TM21** method recognized worldwide, which correlates the life of the LED with the temperature of use.

Artemide tests LED sources in compliance with the standards of reference and determines, on all its appliances, a temperature of use lower than 85 °, a value that ensures a remarkable durability over time (**L80 B10 > 75,000 hours**).

This means that, statistically, only **10%** of appliances, after **75,000 hours of use**, it will have a lower luminous flux 80% of the initial one.

For Artemide the tests on the product and its components are an integral part of the engineering process and not just a step final, aimed at certification of the result.



Alphabet of Light System, BIG - Bjarke Ingles Group

➤ Materials and productive processes

In 2018, 78.7% of sales were attributable to sustainable products based on LED technology (76.4% in 2017).

In the transition from traditional sources to LED it was possible to face clear advantage in the reduction of consumptions. Today the introduction of management intelligences that dynamically relate light performance to the environments and activities carried out, it brings further advantages in terms of energy saving and, consequently, also economic.

Many Artemide luminaires have integrated these light management systems, which allow them to be controlled as a function of natural light in the case of **DayLight-Detectors**, or by means of third-party sensors (presence detectors, integrated presence systems etc), allowing the **optimization** of the installation of entire buildings according to the type of use and the profile of the typical users.

The **choice of materials** is made by favouring recycled or recyclable raw materials to allow an installation as efficient as possible compared to the actual use of the product. This is one of the fundamental points on which Artemide constantly carries out research in order to identify **new generation** production processes, materials and finishes that improve the environmental impact of the product. In some cases this activity opens up to fields of application even distant from the field of lighting or develops in partnership with suppliers dedicated and innovative solutions.

Very often, research introduces less evident variants which, however, lead overall to a continuous improvement of the sustainable characteristics of the products, to a reduction of materials, waste and energy used during the production phase, to the identification of solutions that optimize the impact of surface finishes.

↗ IN-EI

The IN-EI collection by ISSEY MIYAKE produced by Artemide is a family of free-standing, table and hanging lights; each lampshade is created using 2 or 3D mathematic principals, where light and shade harmoniously alternate. Miyake's inimitable folds, which determine the plastic forms and the solidity of the lamps, are made with a unique technology, created by Issey Miyake. Thanks to the recycled material of which they are made, which has a bright transparency higher than that of the paper, these lamps keep perfectly their shape without the need for internal frame: the process of folding, in fact, creates volumes sufficiently solid statues, that can be re-shaped when needed. They can be easily stored flat when not in use.



↗ GOPLE

The metallized versions of Gople are a perfect example of how the search Artemide on materials, finishes and processes is strongly oriented towards solutions sustainable. In the choice the impact environmental is a discriminant that imposes itself on the result final aesthetic. In this case the silver finishes, **bronze, copper and sapphire blue** are made with an innovative and sustainable process vacuum deposition of metal.

From the point of view of respect environmental "Sputtering" is one of the technologies of cleaner coating:

↗ **Use** only metals not harmful to health;

↗ **Reset** all completely emissions and in particular those in the atmosphere of sulfuric acid and cyanides, normally produced by galvanic processes.

The next stage of protective painting transparent, aimed at ensure long life to the aesthetic quality of the finish, employs a solid paint with at most 5% of solvents (compared to a traditional one 75%). The waste generated by the process are very limited.



↪ 02.3 Designed in Italy, produced in Europe, worldwide distributed

Artemide HQ, Pregnana Milanese, photographed by Elliott Erwit



↪ ISO 9001:2015

Lean Manufacturing

Artemide is known throughout the whole world for the high qualitative standards of its products and their endurance. This allows to maintain high levels of quality and the productive process completely realized within the Group's plants or left to entrusted qualified contractors, highly specialized and in possession of requirements of excellence necessary for the realization of the products.

A perceptible sign of Artemide's attention to quality is the request to its suppliers to act in accordance with the principles of the **Group's Code of Ethics**, and the adoption of the management system **ISO 9001:2015 Quality Management System** based on international standards that allows us to demonstrate our ability to regularly supply products that meet specific product and system standard requirements.

Constantly analysing production processes with the aim of making them more efficient is an activity to which no cutting-edge company can escape, especially considering the dynamism of the modern market: adopting a strategy that strives to continuous improvement is therefore an indispensable requirement to successfully face challenges posed by the market. Bearing this in mind, Artemide has decided to adopt new tools to further improve process control so as not to lose the competitive advantage obtained so far thanks to the implementation in 2011 of production processes oriented to the Lean Manufacturing philosophy.

Lean Manufacturing, is a group of principles, methods and techniques of managing operational processes that aims to increment client's value and to systematically reduce time waste, material and energy.

The objective of the Lean Manufacturing is of "doing always more with always less":

- less **time**
- less **space**
- less **effort**
- less **machines**
- less **material**



Artemide Factory - Pregnana Milanese

➤ Lean Thinking

Lean Manufacturing uses for this purpose on unique basic scheme in all the company's areas: product development, sales and marketing, production, logistics, management. The integration of such philosophy is possible only through personnel involvement and the operative coaching of motivated people for the continuous improvement of the product. The system therefore assumes a "continuous improvement", and it is for such reason that Artemide has provided specific training in 2018 through specific targeted steps, which will be implemented also during 2019.

At the basis of Lean Manufacturing there is Lean Thinking that comprises of a series of operational tools and application methods of the lean principles of the company. The concept of Lean Thinking highlights how lean, other than a method for applying, is above all a forma mentis, as in the way of thinking that inspires the method itself.

Lean Manufacturing is founded on 5 principles

→ **Value.** The starting point has always been the definition of value under the client's perspective. Value is only what the client is willing to pay; all the rest is waste and needs to be eliminated.

→ **Mapping.** For eliminating waste "mapping" is needed for the flux of value, which means delineating all the activities where the operational processes articulated distinguishing between them those of added value and those that are not.

→ **Flow.** The process of creating value is seen as a flux, that has to flow in a continuous way, with consequently a reduction of lead time and of material.

→ **Pull.** Satisfying the client means producing only what he wants, only when he wants it and only as much as he wants. Production is therefore pulled by the client instead of pushed by whom produces.

→ **Perfection.** Perfection is a reference point for which one has to tend without end, through continuous improvement, and corresponds to elimination of waste.



Artemide Factory
Pregnana Milanese

➤ Efficiency and service

In summary, the basic philosophy of Lean Manufacturing is to **eliminate inefficiencies** from the processes carried out by the company, shortening its duration through a systematic approach, to provide a product that meets the needs of its customers, in terms of greater resource efficiency. and improved service level.

Moreover, thanks to the reduction of waste in terms of time, the operators of the production lines have the opportunity to compare and share their work to achieve common goals. The ultimate goal is to achieve “**zero defects**” and make final product inspection unnecessary.

In 2019, an automatic system shall be introduced of production data gathering, called **Management Execution System – MES**. The system will be able to gather and monitor in real time production data, among which the the time and the progress of production, eventual blocks and the reasons correlated.

This investment, which fully integrates with the Lean Manufacturing philosophy, will be made so to improve efficiency and minimize waste and will be used at its full capacity in 2020. The operational benefits that can be achieved are, for example, real-time control of the progress of orders.

Artemide strongly believes in territory value: if for the project culture the aim is to broaden its range of action as much as possible, as far as the transport of goods is concerned, organizational efforts try to **minimize distances** to reduce CO₂ emissions.



Artemide Factory
Pregnana Milanese

↗ Productive Network

Artemide’s production network makes use of the best companies and the best artisans for each technological sector: Artemide strongly believes in the quality of Made in Italy production chains and entrusts production to certified subcontractors who represent the excellence that made it famous and recognized in the world the Italian *modus operandi*.

In addition to the considerable energy savings in the transport of goods, the mileage proximity allows to constantly monitor the quality level of the products.

The choice of local suppliers limits the mileage distances for transport and allows the creation of a solid network that consciously increases the innovation and culture of the project. With the selected suppliers, real partnerships are created, the competence of the designers allows you to create a constructive dialogue with external realities for the development of increasingly advanced and innovative dedicated solutions. Artemide’s production process involves the use of materials with components already partially assembled and to a lesser extent the use of raw materials.

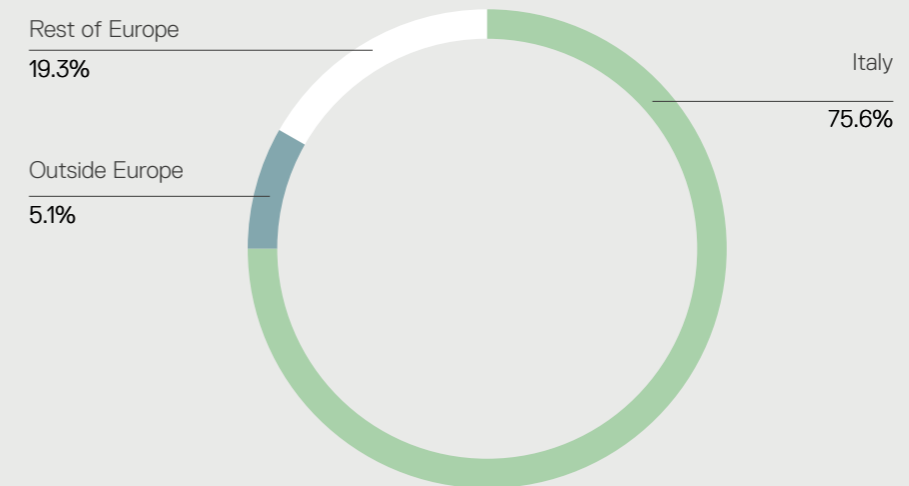
This feature makes selected suppliers and subcontractors a fundamental part of the value chain and for this reason, relations with suppliers are cared for and valued over time.

Artemide uses mainly **aluminium, steel, plastic** and **glass** as **raw materials** for its production. In addition, it procures basic electrical components and light sources from some of the world’s major manufacturers. Furthermore, in the design phase, the Group tries to favour recycled and low environmental impact materials.

At December 31st, 2018 and 2017, the Group’s costs for raw materials and components had an impact on the total costs of the Group for 18.9% and 18.7% respectively. This expense resulted in the use of 2,971 tons of materials for the production and packaging processes in 2018. That are sub-divided between renewable material and non-renewable materials, respectively of 28% and 72%.

Proportion of expenses towards suppliers

Nazionalità Suppliers	Expense Ratio (%)	Quantity of Suppliers
↗ Italy	75.6	447
↗ Rest of Europe	19.3	265
France	5.0	183
Hungary	6.9	42
Others	7.4	40
↗ Outside Europe	5.1	36



Material used for production and packaging (2018)

Materials ²	Weight (ton)	%
↗ Renewable material (wood, paper, cardboard, glass)	826	28
↗ Non renewable material (aluminium, brass, iron, plastic, electronic components, paints, other)	2,145	72

² The calculation of the materials used for the year 2018 has provided the use of an estimate according to the best methods available.

➤ RoHS

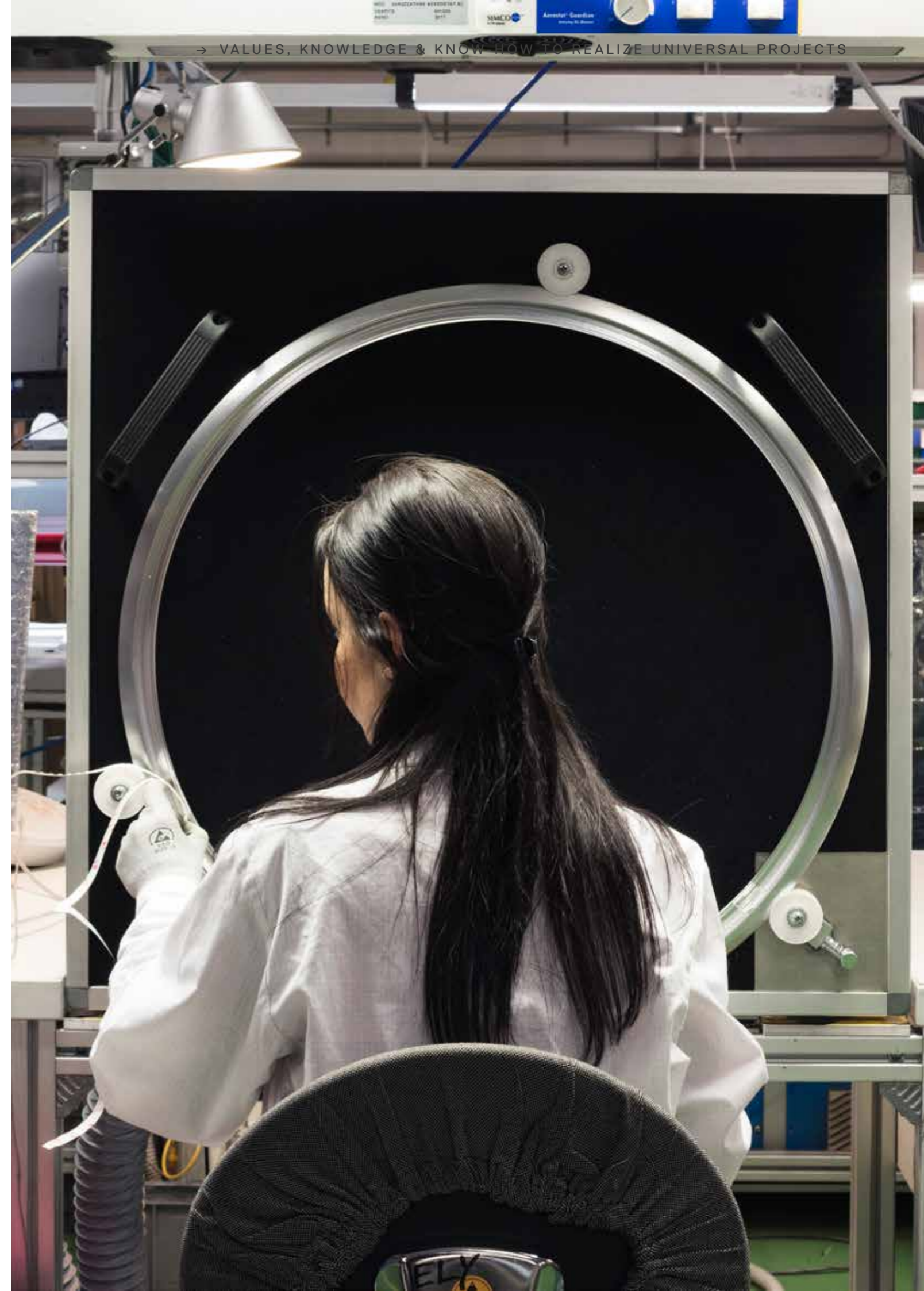
On the one hand, renewable materials derive from abundant resources that are rapidly recomposed and fall into this category: wood, paper, cardboard and glass. Other examples of non-renewable materials that do not regenerate in short periods include aluminium, brass, iron, plastic, paint and more. Part of the materials used include electronic components for which Artemide complies with the European legislation commonly called **Restriction of Hazardous Substances Directive - RoHS³**.

The directive imposes restrictions on the use of certain dangerous substances and Artemide, upstream of its supply chain, requires suppliers to fill in a questionnaire, which requires compliance with RoHS legislation. The questionnaire also allows Artemide to **map the certifications** and controls adopted by the supplier, the location of the registered office and operating offices and the type of main production activity.

The great attention, which the Group has always maintained in the choice of materials and respect for the environment, also emerges in the activity of replacing lamp instruction manuals and office paper with 100% recycled paper, which has obtained the **Nordic Swan** and **Blue Angel** certifications, which will take place starting from 2020. For all its printed communication, Artemide uses only **FSC (Forest Stewardship Council)** certified paper.

With reference to purchases divided by geographical area, around **76%** is concentrated on the **Italian territory**. The rest of **Europe** area, which includes Germany, France, Hungary and 12 other European Union countries, accounts for more than **19%** of purchases. The remaining **5%** is represented by purchases made in the **Extra Europe** area including Canada, the United States, Switzerland, China, Japan, the Philippines and Taiwan.

³ Restriction of Hazardous Substances Directive



Finishing process Painting

The painting machines in Italy, France and Hungary are conceived and built for environmental safeguard, particularly the environmental safety norms of within European territorial pertinence (ISO 14001:2015).

Painting by powder is completely free, it makes use of Wagner wagons for the application and the reuse of all the delivered parts, it does it through absolute filters that keep 99% of residual from painting. They do not contain solvents and the processing waste is confined and properly disposed of as special waste (non-toxic). The pre-treatment tunnel is composed of six washing tanks containing water and a 3% solution of iron phosphates, they are free of volatile organic compounds and closed-loop. Waste is then recycled and purified thanks to purified by means of demineralization columns for downstream rinses.

The tanks last an average of 6/8 months and, once exhausted, these substances are disposed of in purification plants at third parties, in full compliance with environmental regulations.

As the painting by powder is completed, the finishing liquid makes use of paints (exclusively realized for us in cooperation with Basf and Akzo) of medium-high solid acrylic nature, with a low solvent content and the technical yield is superior to any body-approved paint (a lower quantity is needed than usual in other situations). We also have an instant paint mixing unit that optimizes the preparation and consumption of raw material.

For the recovery and optimization of costs related to the production sector, an atmospheric solvent distiller is used; this allows for the recovery of all the reusable parts of cleaning solvents and paint preparation, and none the less it also allows the lowering of the threshold of "VOCs in the atmosphere", for which Artemide draws up a mass balance file to present to the Regional body for environmental controls, to which Artemide is linked for plant authorizations. In the spray booth all the solid parts of over spray are captured and retained in special dry filters and certificates which, once exhausted, are always disposed of in compliance with the regulations.



Coating Machinery - Artemide Factory
Pregnana Milanese



Coating Machinery - Artemide Factory
Pregnana Milanese

In the departments the rules for the disposal of all the various compounds are respected observing the cataloging for compatibility families in the disposal, from gloves, to rags, to abrasives, to detergents and other components in production.

There is an internal mission to Artemide, which also includes activities to optimize production flows and cycles. With regard to the latter, Artemide carries out continuous research in the technical field to take advantage of the ever-better painting solutions of the products.

For example, already in 2009 Artemide was able to change some pre-existing constraints in liquid painting: by removing the passage relating to the support base, Artemide has reduced the amount of paints used and the workforce required, also obtaining an optimization on the lead times of product preparation.

Sustainable procurement practices

In the single supply contracts, a set of clauses require the adhesion by all suppliers, agents, collaborators in the Group's Code of Ethics. In particular, in the stipulated contract with suppliers coming from countries dubbed as "at risk", defined by such recognized organisations, contractual clauses are introduced that provide to standard:

↗ Code of Ethics

→ **Self-certification** by the supplier regarding adherence to specific social obligations (for example, measures that guarantee workers respect for fundamental rights, the principles of equal treatment and non-discrimination, the protection of child labor);

→ The possibility of using the **control system** in the production units or the **operating headquarters** of the supplier, in order to verify the fulfilment of these requirements.

Artemide's suppliers must also conform to the principles of the **Code of Ethics** in their relations with their stakeholders.

Artemide verifies, as far as possible, the commercial and professional reliability of new suppliers, in order to ascertain that there are links of any kind with criminal, terrorist or mafia organizations.

The implementation of a supplier portal on Artemide's web platform will be launched: this project allows suppliers to start a business relationship. The portal will guarantee a mapping of registered suppliers and the visualization of the materials submitted by each supplier on the portal.



Automatic Shipping Warehouse - Artemide Factory
Pregnana Milanese

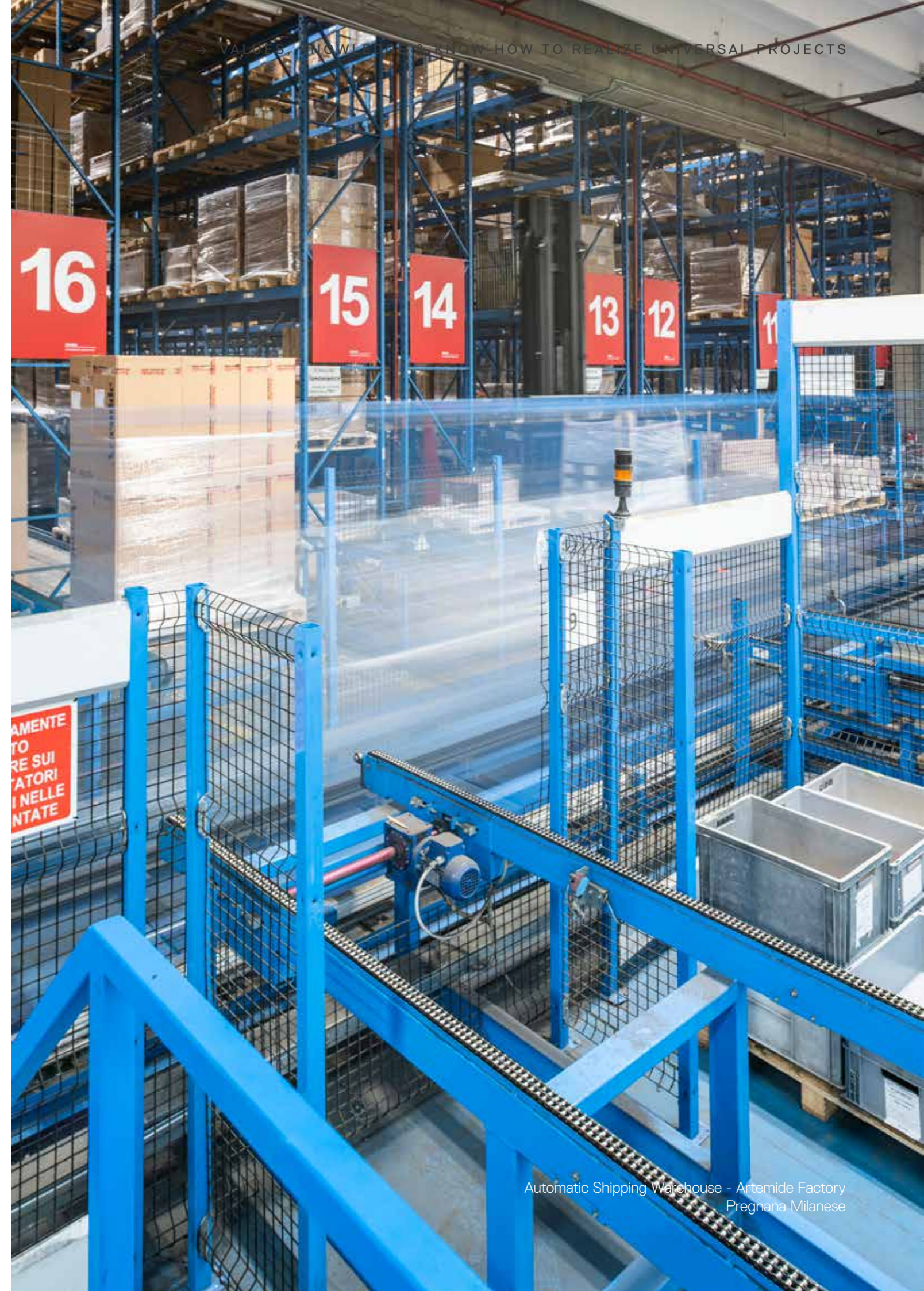
➤ Automatic warehouse

The automatic finished goods warehouse at the Pregnana Milanese plant dates back to 2012.

The automatic system has made it possible to eliminate manual handling by employees and drastically reduce the risk of accidents. In fact, the operation of the same involves the taking in charge, by automatic machines, of the incoming products, which are organized inside the warehouse. This system also allows a precise and updated inventory.

It should also be noted that, with a view to optimizing the logistics of its distribution network, in 2019 the Group launched a project which envisages the use of one partner at European level: the centralized management by a single transport company of all shipments at an international level would allow an analysis of the movements and analysis of possible improvement actions, as well as environmental benefits.

At the Italian level, the Group operates through a single supplier member of Sedex - a non-profit organization for the dissemination of a responsible and ethically correct business - **ISO 14001** and **OHSAS 18001** certified, standards related to the environment and workers' health and safety.



Automatic Shipping Warehouse - Artemide Factory
Pregnana Milanese

↪ 02.4 Product quality and Certifications

Tizio by Richard Sapper, Photographed by Elliott Erwitt, 2001



↗ International Standard

The Group works in a constant way for maintaining high qualitative standards that the entire world recognizes to Artemide.

The high quality and safety of products is guaranteed by the respect of standards of international certification.

In general, for its products Artemide proceeds with the acquiring of certification from third parties on the markets of reference as Europe, America, Canada and China.

In 2018 Artemide obtained:

↗ **33** new certifications for the European market, of which 15 related to product families

↗ **44** certifications for the US-Canada market of which 23 related to product families

↗ **8** product certifications for China, of which 2 related to product families

Regarding the safety certifications for the markets that follow the technical rule of the International Electrotechnical Commission (IEC), the Artemide laboratory is accredited by both Underwriters Laboratory and Intertek.

The same goes for the American and Canadian markets, so the laboratory is accredited according to UL regulations both by Underwriters Laboratory and by Intertek for ETL mark.



Gople RWB Assembling - Artemide Factory
Pregnana Milanese



CE
Marcatura CE



EAC
Marcatura EAC



UL
LISTED
UL Underwriters Laboratories



ENEC
Certificazione di conformità
europea ENEC



CCC
Marchio CCC
China Compulsory Certificate

➤ In-house Laboratories

For Artemide the test of the products and its components are integral part of the process of engineering and not only one final step, aimed at the certification of the result.

Internal laboratories work at tight contact with the development department so to find better solutions and maximizing the performance of design solutions. The phase of development, design and projecting comprises of different sub-phases that concentrate on the control of the product's quality for Artemide.

At the beginning, a lighting and optical simulation is carried out starting from the drawings of the components and the properties of the sources to get, on real prototypes, the performance checks with respect to the projects targets. Afterwards, the analysis of the physical-mechanical (thermal and electrical) aspects resulting from the simulation is carried out. Laboratory tests are also carried out on individual components or integrated systems.

These tests include accelerated aging tests of the components or products, through thermal cycles at 35° C, UV rays and saline mists, particularly important for outdoor use by simulating harsh conditions of use.

Together with the development of efficient products, Artemide has always supported a careful analysis of their applications in order to highlight the variables that are related not only to the single fixture but to the entire lighting project, which affect the energy impact of the light solution over time.



Photometric Measurements - Goniophotometer with rotating mirror



Photometric Measurements - Ulbright Sphere



EMC Test - Triple Loop Antenna



Safety Test - Temperature



Safety Test - Endurance



Corrosion Test - Salt-acetic fog chamber

↪ 02.5 Customer care

Artemide Factory, Pregnana Milanese, Photographed by Elliott Erwitt



↪ artemide.com

The customer and the relationship with the Group are the key essential for a long-lasting and trust relationship, for this reason the Group takes care of its own clients through different provided channels.

In addition to the traditional freephone number, the main one is the section of the web site dedicated to the contacts and a department dedicated to ruling such channel for giving quick assistance and communication to those who ask for it.

Instead, the different questions and signals gathered by social networks are managed by dedicated resources within the Communication department. The Group has implemented across all European and American branches CRM systems aimed at maintaining customer relations and managing business relationships with professionalism and effectiveness.

To support new interaction tools such as the Artemide App, a dedicated Help-Desk service has been introduced, in Italian and English, which guarantees immediate and qualified assistance via telephone number or ticket opening.

Communication is developing always more through digital systems and of support and in partial substitution of papery. In this perspective, artemide.com website has been renewed in its graphics and responsive platform for enthusiasts and professionals in the sector. There are many levels of different sections, all enriched with new content and images. Navigation is still more intuitive and faster, just a few clicks are enough to get to the heart of the information, a personalized experience to offer everyone their own point of view on the Artemide world.

It is also possible to create a **"My favourites"** area where to save products or projects, organizing them in folders from where to automatically generate documents, comfy brochures and personalized that become a work tool or wish lists. Central for Artemide's website is also the constant and automatic updating of all data relative to the products for being real and reliable support service to designers and professionals of the sector that can find all info (3ds, tech-lighting and instruction sheet and technical brochures etc.)

Through the “**Store Locator**” sector, completely redesigned, it is now possible to quickly visualise all the showrooms, the sellers, Artemide’s assistance centres across the entire world. Through one’s own GPS on smartphone it will be easier than ever to reach the closest shop.

2019 shall continue with 3 interventions to give clearer tools and more exploitable ones to the customer. The first one will be an important graphic revision, the second one shall witness the introduction of new sections as **Artemide Journal**, section dedicated to insights related to events, projects and new product launches whilst the third will provide an entire area dedicated to **configurators**. These last ones are useful tools for simplifying the design of its own composition.

Once having finished the plan has been defined, the desired system can be designed by reconstructing it with a practical drag and drop of various modules. Once the project is completed, the system gives back a complete datasheet of all details for proceeding with the orders.

Artemide offers its customers a free warranty extended to 5 years ensuring that the product does not show defects during the warranty period, when used and maintained correctly. Such warranty, correctly activated by registering the product online by the 2 months from its purchase, confers to the buyer the right to obtain by Artemide the repair or even free of charge substitution of the product as required by the warranty conditions of validity.

↗ 5 years warranty



03

↪ Environmental responsibility. More with less

Artemide Factory, Pregnana Milanese, Photographed by Elliott Er Witt



↪ ISO 14001:2015

The primary objective that the Group has presented itself with is to develop products and projects that are able to interact with people, with their needs and with heterogeneous modalities of living in residential spaces, public and work ones just as well. At the same time, the products ought not to comprise, throughout the whole life-cycle, the environmental components and have to contribute to, with the intrinsic qualities of the project itself, to the human environment quality in its most ample meaning.

Artemide is conformed to the **ISO 14001:2015** norm for the activities of design, development, manufacture and assistance of assistance for indoor and outdoor lighting fixtures and systems through mechanical processing, painting and assembly.

The Environmental Management Systems ISO 14001 contributes to the specific requirements of an environmental management system, used to monitor and evaluate its environmental performance.

The standard, intended to manage its environmental responsibilities in a systematic way, contributes to the pillar of sustainability and helps to achieve the expected results of its environmental management system. In particular, these certificates are in possession:

Artemide Spa in the offices of **Pregnana Milanese** and **Telgate** (BG), **A&A Zrt.** In the **Paks** office (Hungary), Artemide **Saint Florent SAS** in Sain Florent Sur Cher (France) and **Artemide Italia** Srl in the Headquarters of Pregnana Milanese.

↪ ISO 9001:2015

In order to strengthen the environmental controls, Group management procedures and operating instructions have been implemented for each site. We also report the implementation of a Quality-Environment Manual (compliant with **ISO 9001** and **ISO 14001 certifications**), addressed to all Group staff and customers and suppliers who request their vision, in order to describe the Group's activities through diligent and effective application of the Quality-Environment management system.

Plant Certification

↗ AEO

Artemide Spa is the holder of the AEO authorization issued in 2016 by the Customs and Monopolies Agency. The status of Authorized Economic Operator guarantees Artemide's commercial partners the Group's absolute compliance with customs and safety regulations in international commercial operations.

↗ ISO 9001:2015

Quality Management System of Artemide Spa and the operational units of Pregnana and Telgate (Italy), Paks (Hungary) and St. Florent (France) is complied with the ISO 9001: 2015 standard for the design, development, manufacture and assistance of indoor and outdoor lighting fixtures and systems.

↗ ISO 14001:2015

Artemide's Environmental Management System is complied with ISO 14001: 2015 (for further information, refer to the information reported in section 03 Environmental responsibility. More with less)

↗ ISO 45001:2018

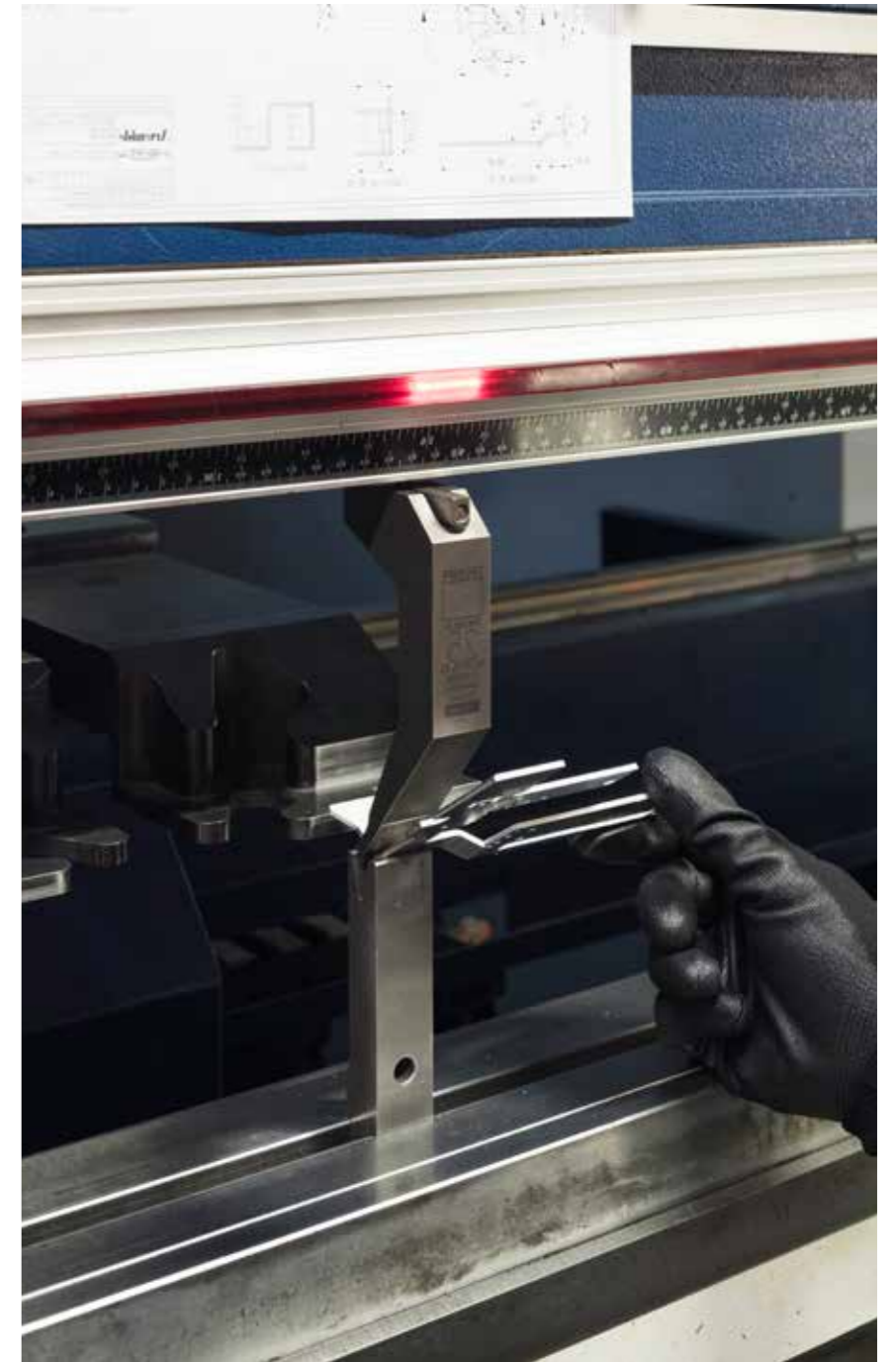
Artemide has started the process for UNI ISO 45001: 2018 certification on its occupational health and safety management systems for European production sites, which will end in 2019.

In particular, also thanks to the implementation of the environmental certificate, the Group is committed to control and influence the way the products are projected, manufactured, distributed, consumed and disposed of by using a life cycle perspective that can avoid the involuntary displacement in another phase of the life cycle of environmental impacts.

For some time Artemide has started an experimental research that has as its core the concept of reduction, which however does not mean a reduction in the sense and performance of the product. The design gesture today broadens its boundaries and looks to its responsibility towards an increasing world in crisis. This approach translates into the optimization of the components and the synthesis of performance to achieve production optimization and easiness of disassembling.

Artemide takes care to keep its products updated from a technological and performance point of view. Artemide has introduced constant attention to the use of high efficiency sources in its collections, well ahead of the regulations.

“We are committed to creating products and systems that minimize energy consumption during use and reduce waste production for the end customer, through the use of innovative technologies and materials”.



Artemide Factory
Saint-Florant, France

Energy Balance

Artemide has defined an environmental philosophy that reflects different commitments undertaken in the environmental topic with particular regard to productive processes efficiency, to waste limitation, to the development of new technologies promoting a culture towards the **environmental respect**.

➤ Plants and production

The Group is therefore committed to the **continuous optimization of plants and production** processes to reduce energy consumption and environmental impact in terms of atmospheric emissions, acoustic and electromagnetic pollution, through the purchase of more efficient machinery or by modifying existing plants through LED Relamping activities.

In 2018, the **Group's⁴ energetic consumptions** amount to approximately 53 thousand GJ, diminishing from the previous year. In particular, these consumption is driven by the consumption of natural gas, which is equal to approximately 33 thousand GJ, slightly decreasing compared to the consumption of electricity equal to approximately 17 thousand GJ, decreasing compared to last year thanks to a relamping on the Pregnana site.

GHG Emission

The quantity of GHG emissions by their nature are proportional to the organisation's energy consumption. For such reason, it is highlighted that a slight decrease in CO₂ tons emitted to the atmosphere by the Group during the reporting period.

The reporting standard mainly used (**GRI Sustainability Reporting Standards**) provides for two different calculating approaches of emissions Scope2: "**Location-based**" and "**Market-based**"⁵.

Direct CO₂ emissions (Scope 1⁶) have been equal to 1,847 tons of CO₂, while **indirect CO₂ emissions** (Scope 2⁷) have been equal to 1,290 tons of CO₂ (location based) and 1,924 tons of CO₂e (market based).

“We are committed in creating products and systems able to minimize energy consumption during use and reduce waste production for the end customer, through the use of innovative technologies and materials.”

Carlotta de Bevilacqua
Vice President & CEO Artemide

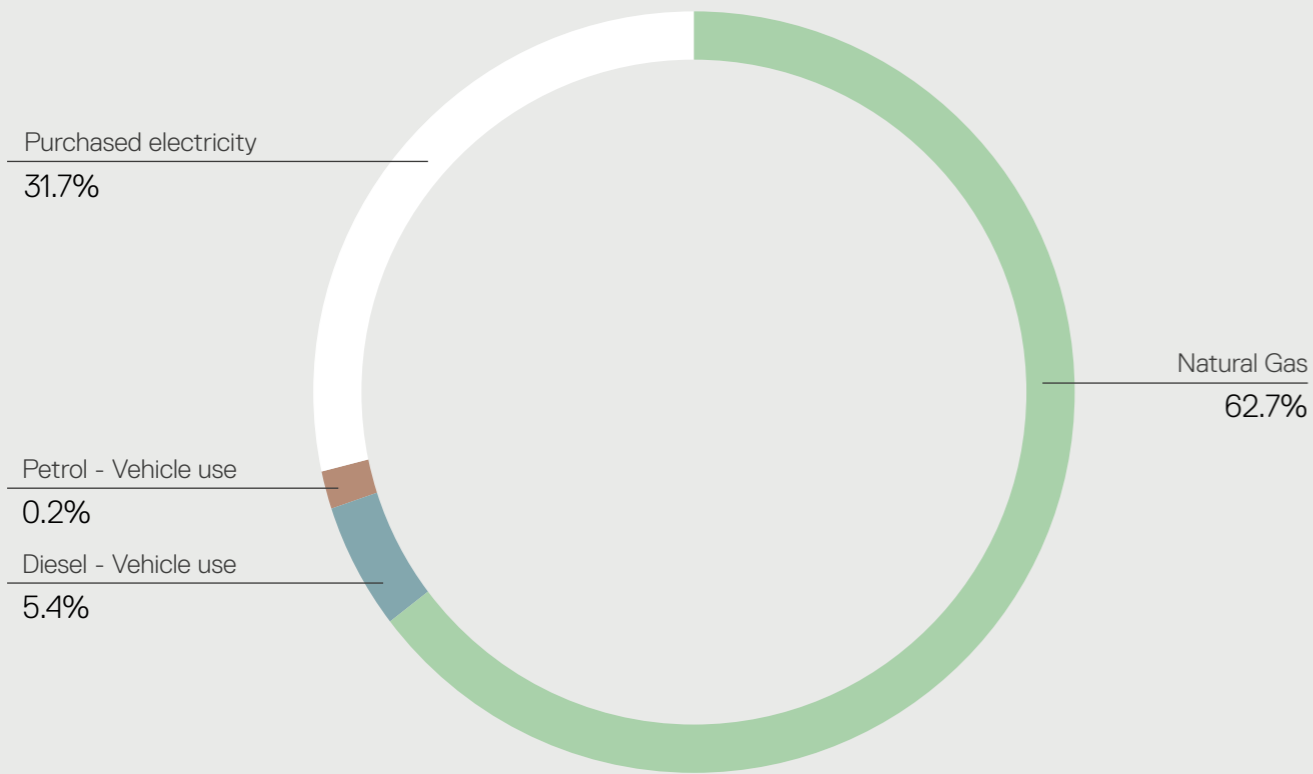
⁴ The boundary refers to Pregnana's Headquarters, at the Group's production plants based in Italy, France and Hungary, and at the Italian showrooms under Artemide's Italia s.r.l. control. Fuel for vehicles refer to the Italian companies.

⁵ The "Location-based" approach involves the use of average emission factors relating to the specific national energy mix of electricity production. The "Market-based" approach involves the use of emission factors defined on a contractual basis with the electricity supplier. In the absence of specific contractual agreements between the Group and the electricity supplier (eg purchase of Guarantees of Origin), the emission factor relating to the national residual mix was used for the "Market-based" approach.

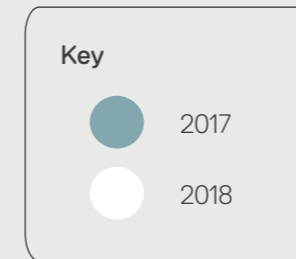
⁶ Scope 1 (direct emissions): emissions from sources owned or controlled by the organization fall into this category. Scope 1 emissions are expressed in tonnes of CO₂, as the source used does not report the emission factors of other gases other than CO₂.

⁷ Scope 2 (indirect emissions): emissions derived from electricity consumption are included in this category. Scope 2 location based emissions are expressed in tons of CO₂, however the % of methane and nitrous oxide has a negligible effect on the total greenhouse gas emissions (CO₂ equivalent) as can be deduced from the technical reference literature.

Energy consumed within the Group (GJ)



Scope 1 and Scope 2 Group's emission - location-based and market based methods (2018)



Energy consumed within the Group

Source	2018
→ Natural Gas	823,468 m ³
→ Diesel - Vehicle use	74,427 l
→ Petrol - Vehicle use	2,368 l
→ Purchased electricity	4,638,682 kWh

Waste management

Waste management generated by production phases during goes in conformity with the national directives that require waste categorization either hazardous or non-hazardous and the appropriate disposal through a waste and disposal transport company. The waste minimization policy is held with particular consideration in the phase of design of the product.

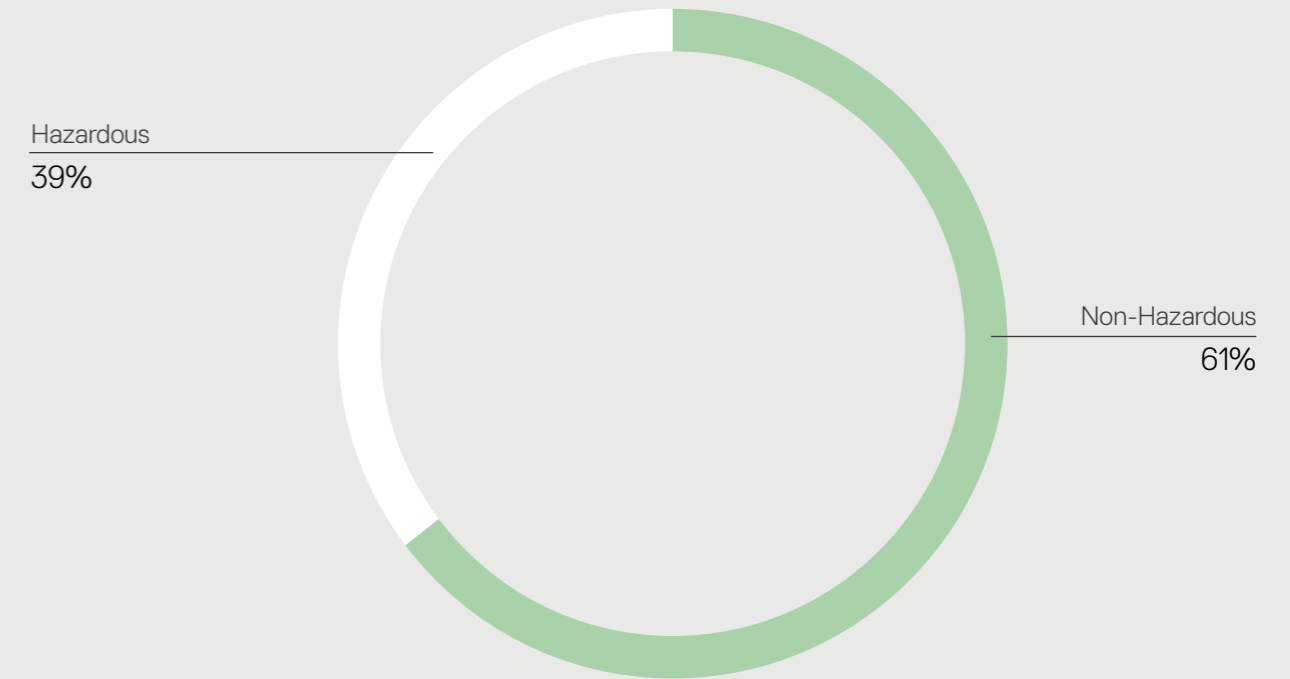
↗ 36% reduction of waste

Consequently the quantity of waste produced each reporting year can be related to the design and manufacture of products. It should be noted, in fact, that in 2018 the Group⁹ produced around 1,044 tons of waste, with around 36% decrease compared to 2017; this decrease can be traced back to greater efficiency in the use of materials within the production processes and to a responsible management of waste with particular attention to the treatment and disposal of hazardous waste (represented by 39% of total waste).

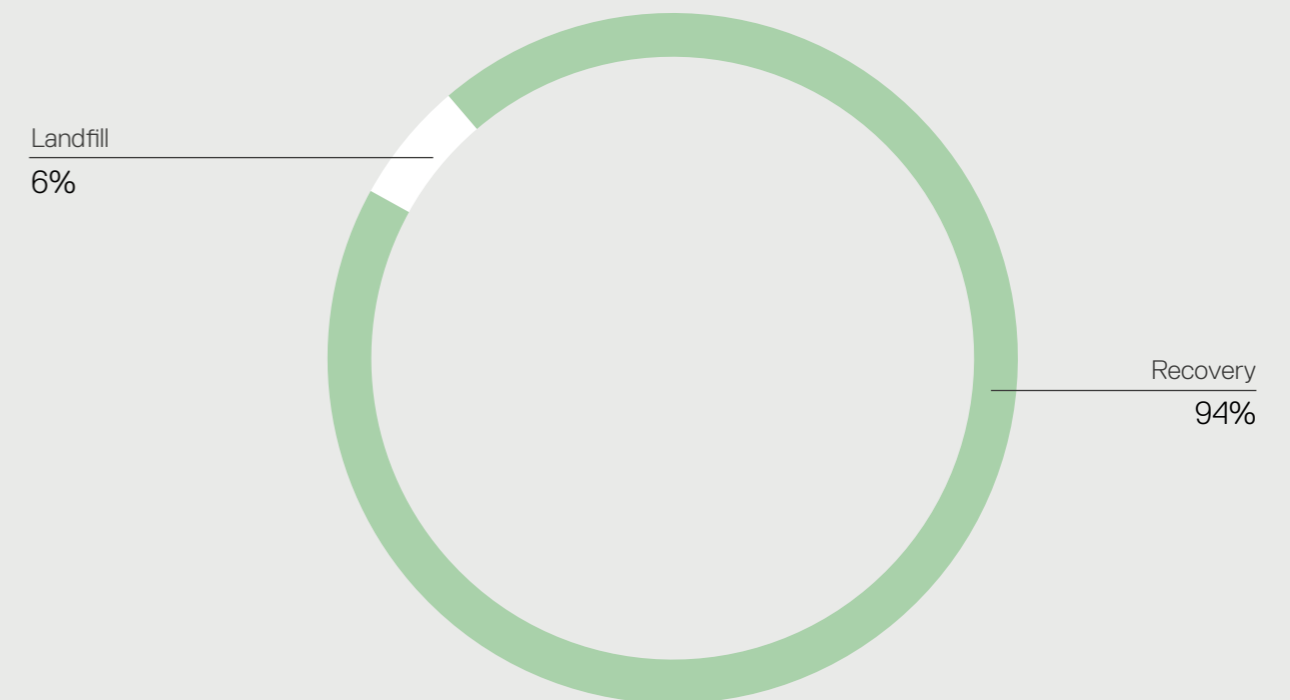
↗ 94% waste recovery

Artemide takes care of the disposal of electronic components that are present in the appliances and has nearly reached the total elimination of disposed material at landfills through a system separate collection within the production sites that allows to increase the recovery phase of various waste materials and the correct disposal of special waste. In fact, almost all the waste produced by the Group was destined for recovery, including energy (94%), while 6% was disposed of in landfills. For more details on the data, see the “Attachments” section at the bottom of the document.

Group’s waste by type of waste (2018)



Group’s waste by disposal method (2018)



⁹The boundary is referred to the Group's production plants based in Italy, France and Hungary.

Less Material

The reduction of environmental impacts policy is transmitted across all the value chain. Throughout 2018, Artemide's group has started off the implementation of a project for reducing the number of packaging suppliers.

The project provides the **optimization of logistics** supply of packaging materials and of its relative finished product packaging. The identified objective is the **reduction of codes** to manage in order to obtain a relative advantage on consumption and management costs. Furthermore, the single supplier will proceed with an analysis for verifying the effective optimization packaging in terms of system and in terms of **material**.

This managerial unification will allow hints of improvement in the future, as for instance the progressive elimination of the polyurethane foam as a packaging solution and in general the reduction in the use of packaging materials.



Vector by Carlotta de Bevilacqua,
photographed by Pierpaolo Ferrari

04

↪ Social responsibility. Our Team

↪ 04.1 The well-being and development of our employees

RA System, photographed by Elliott Erwitt, 2001



↗ 705 employees

Throughout 2018, during a complex macroeconomic context, Artemide has kept on investing in human resources, strengthening some of the central strategies, in particular in the design areas and in the product development and in the commercial areas. The Group's total headcount by December 31st 2018 is of **705 employees**, of which **393 men** and **312 women**. The Group makes use of external workforce in order to support its own activities, with **733 people**.

The "external workers" category mainly includes administration workers. Nearly all of them have been taken on board within the manufacturing units in Italy and France. Interns instead provide further support to staff's activities, design and techniques and to thinner extent independent workers.

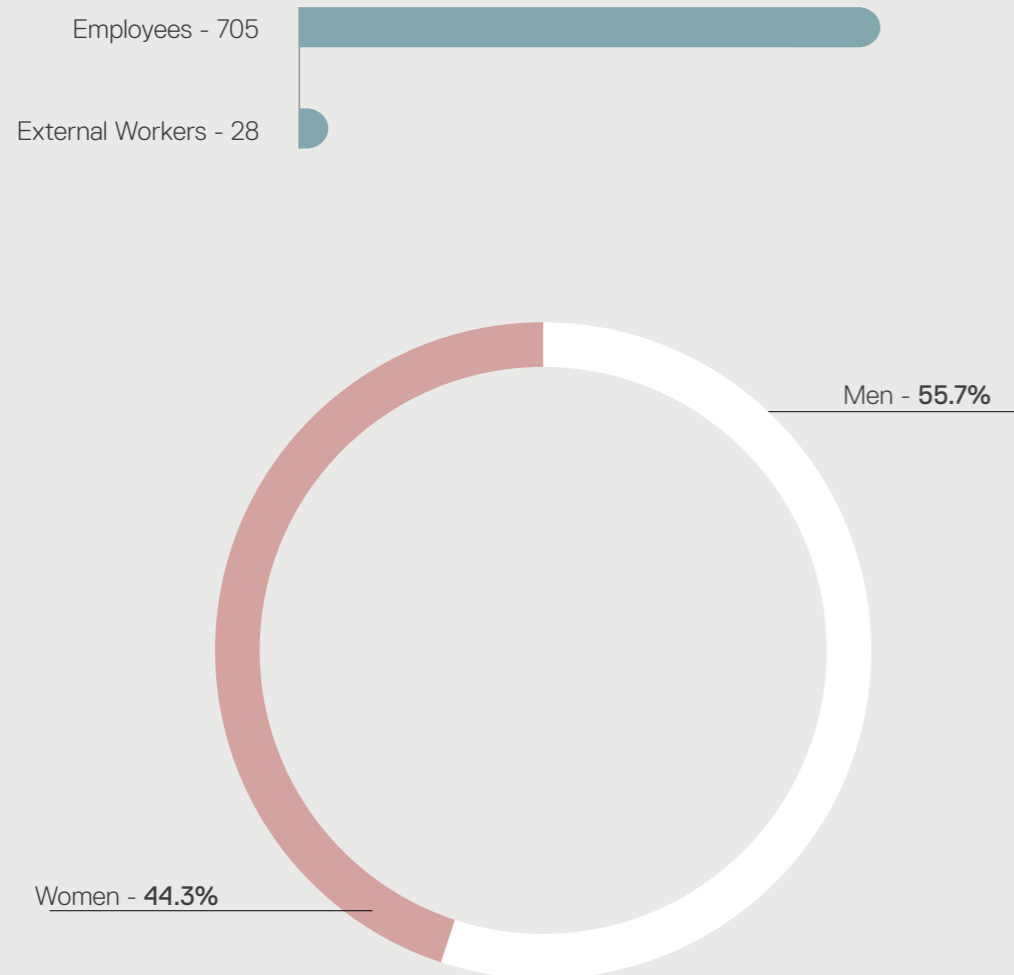
By December 31st 2018, around **87%** of employees has been hired with a permanent contract, demonstrating that the company's policy is prone to creating stable employment relations with its own employees.

Employees tend to prefer full-time solutions (more than 96%), whilst around 4% of employees has taken the advantage of part-time contract. The professional classification "Senior Managers, Managers, Employees" (**Officials**) appears to be the one with the largest groups of employees (**357**), followed by **Blue collars** (**328**), physiological characteristics of the sectors' consideration of the Group's operational capability.



Artemide Innovation Centre in Pregana Milanese, Milan

Work Force (2018)



➤ Diversity and inclusion

To the demonstration of the made in Italy context where the group performs, with a strong international component, around **47%** of its employees resides in **Italy**, **41%** in the rest of Europe and the rest outside Europe.

The Group is based on **diversity** and **multicultural** values: the possibility to collaborate with people from different nationalities, with cultural background and heterogeneous professionals, Artemide's international reality is of fundamental importance.

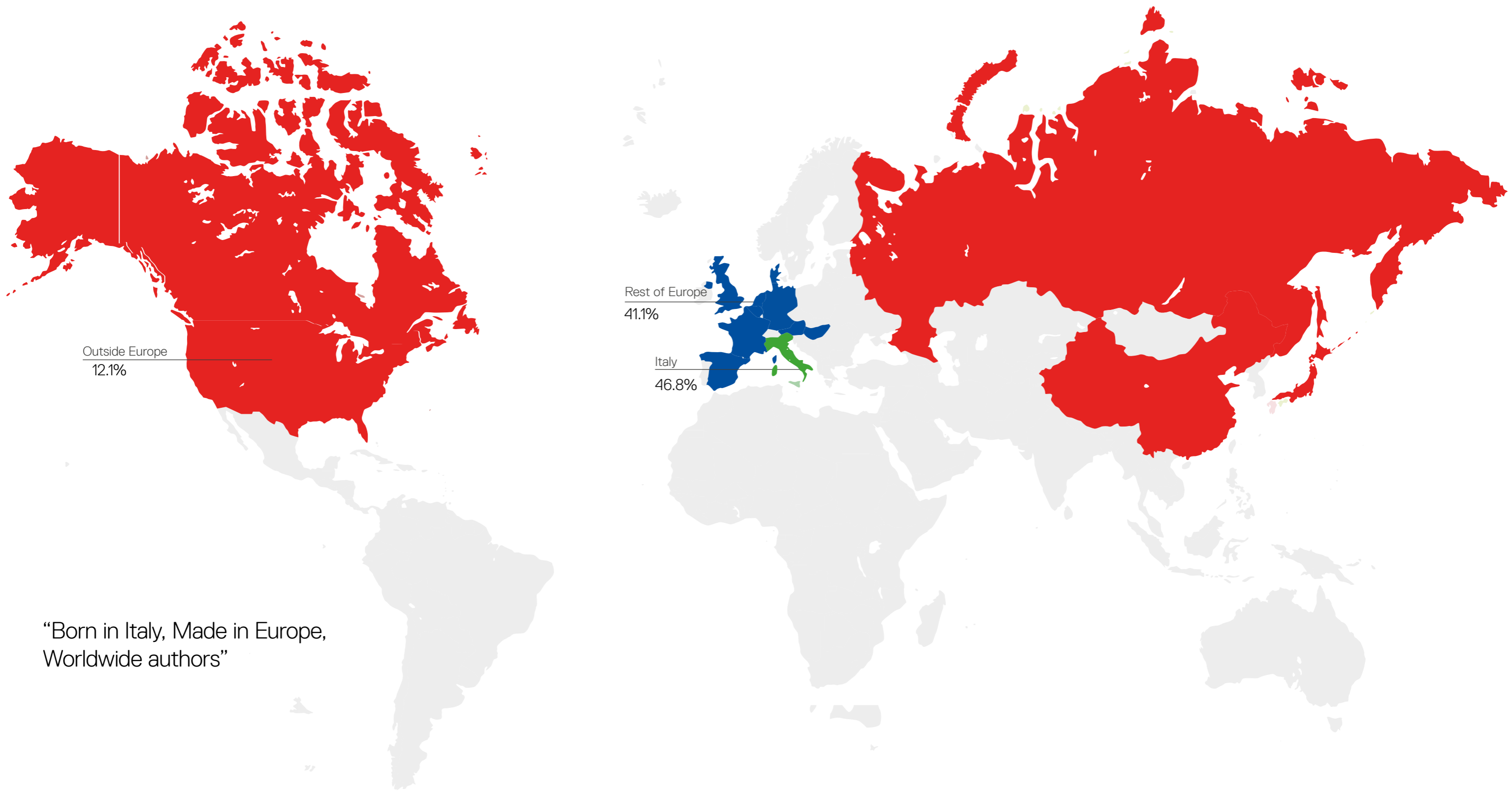
The commitments for the respect of principles of inclusion and diversity are carried out on a daily basis and reflect on the staff's composition that welcomes employees from different countries: the percentage of staff that reside outside the country is at 53%, while the division by gender depicts a balanced organization, respectively with **56%** being men and **44%** being women.

56% of employees are in the age group between 30 and 50, 33% of employees have a registry age over 50 years and 11% are under 30 years.

In fostering the Group's sustainable growth, Artemide favours the implementation of effective systems of attraction and selection of personnel, with a view to guarantee transparency and fairness, in full respect of **equal opportunities** and the enhancement of **individual skills**.

The group has been able to include, thanks to targeted selections all over the world, professionals with specialized skills: in particular, figures of high seniority have been included, but also young talents from the most prestigious Italian and foreign universities and specialized courses, such as for example the masters.

Youth employment is fostered through placement paths provided by individual countries that allow the development of training, both theoretical and practice within the field, through the acquisition of specific sets of skills and the consolidation of the knowledge learned during the previous course of study.



“Born in Italy, Made in Europe,
Worldwide authors”

In particular, in the commercial area, a reorganization process is being implemented with the aim of increasingly managing global markets in increasingly strategic areas of the sector.

In the company's activities of the Italian companies of the Group, for the specific operating sector, the **National Collective Labour Agreement** relating to the Private Metalworking Industry and Plant Installation is mainly used.

Worth mentioning is also in such contracts the provision of welfare instruments to workers, for the three-year period 2017-2019, with an increasing value from year to year. In Italy there has long been a supplementary contract that provides each worker with additional welfare values that can be used through a specific platform allowing the use of numerous services for both the employee and his / her family including school costs, medical expenses, vouchers, to name a few.

In terms of company engagement, there are many benefits the Group offers. All personnel benefit from variable reward systems. In some cases through the assignment of **Management by Objectives - MBO** or ad personam bonuses, in other cases through a performance bonus to the achievement of certain assigned objectives, with the aim of rewarding collective performance such as productivity, times of delivery and other business parameters.

Over the course of time, Artemide has built and cultivated solid and constructive trade union relations in the countries where the trade unions or similar structures operate. There is reason to believe that the method of preventive comparison represents a useful tool for achieving continuous improvement in company's competitiveness, workers' conditions and the level of company engagement.



Tolomeo Micro
Michele De Lucchi & Giancarlo Piretti

The **right and freedom of association** and collective bargaining are always protected, recognizing the essential value of such freedoms, in compliance with national legislation in terms of collective agreements, individual bargaining and freedom of association.

In Italy the whole totality of employees is covered by collective bargaining contracts (**CCNL Industria Metalmeccanica Privata e Installazione di Impianti**); in France personnel is distinguished in Cadres and non Cadres; thus, this means that on Non cadres personnel the Convention collective de la métallurgie of the given region is applied (Paris or Cher). For the Cadres both companies are compatible with the application of the collectives des cadres.

On top of that, supplementary agreements are in force at company level that provide for the payment to the French employees of a prime de participation. In all the countries where there is a collective bargaining agreement, Artemide undergoes in apply it.

The Group complies with all the indications provided for by current legislation and the provisions of collective agreements regarding organizational changes, informing the unions, and when it is required to, by directly involving them. The minimum notice period in the event of organizational changes therefore follows the different national and local legislation on the subject.

“In relations with its stakeholders, the Artemide Group’s companies avoid any form of discrimination based on age, sex, sexual habits, health status, race, nationality, political opinions and religious beliefs of own interlocutors.”

Group’s Code of Ethics
2008

Encourage internal skills

Training represents an important growing lever structured for increase and consolidate the employees managerial and professional skills and to nurture growth and innovation within the Group.

With this perspective, training is provided in different ways: classroom courses, online courses, participation in conferences and seminars, on-the-job support. In the financial years of 2017 and 2018 the main training objectives included the provision of different training courses carried out in parallel with the compulsory training in the field of Health and Safety at work, which allowed to involve personnel belonging to different company functions transversally.

Mainly courses were provided relating to language training, technical-electronic training, lean manufacturing (in France and Hungary too), technical-IT courses and those relating to product specifications and their updating. In particular, in the Operations area, the Pregnana Milanese Production Unit was able to benefit from an extensive training project, divided into three steps with a growing level of in-depth analysis, regarding electronic components.

Within the organization and on-going improvement, a specific form, called "Course evaluation questionnaire", has been included in the "Employee training management" Procedure, through which each participant in a training action (internal or external: in the classroom, online, seminars, etc.) was able to express its own evaluation relative to the course followed, based on a series of parameters. This initiative allows you to receive feedback on the quality of the courses provided, as well as any food for thought and improvement in view of future training interventions.

As already stated before, Artemide's group represents an old-time sponsor of the Master in **Lighting Design & LED Technology** of **the Politecnico di Milano**, a course exclusively dedicated to topics linked to the world of light and aimed at training professionals in the field. It consists in a post-grad course to which young graduates participate to, coming from the most renown Italian and international universities.

The Master's sponsorship represents an important chance of **employer branding** for Artemide and at the same time, it appears to be an opportunity to host one or more students for their compulsory curricular internship. During 2017-2018 the Group Artemide has on a whole hosted 4 students taking their internship and to whom two of which a professional apprenticeship collaboration was taken on.

During 2018, the Group provided almost **5,412 hours of training**, of which 7.2 per capita for men and 8.3 per capita for women. More than 68% of total training activities was provided to the blue collars' category, followed by officials and top management.

↪ 04.2 Occupational health and safety

Artemide gets inspiration from the **UNI ISO 45001:2018 - Occupational health and safety management systems**, for implementing a management system for health and safety in the workplace concerning the specific sites and major risk activities that the Group carries out.

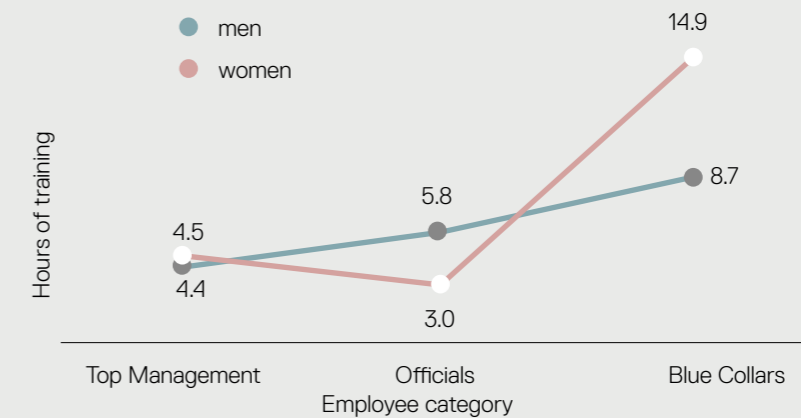
According to the Standard, currently in progress, **4 productive** plants have been designated of **Pregnana** and **Telegate** (Italy), **Paks** (Hungary) and **St.Florent** (France) with the following application field: “Design, development, manufacture and assistance of lighting equipment and systems for interiors and exteriors through mechanical processing, painting and assembly”.

The norm highlights the measures for health and safety on the workplace management (SSL) in order to allow the company to provide safe and healthy workplaces, inhibiting work-related injuries and illnesses, as well as proactively improving their performance. The conformity with such norm, allows eliminating risks and hazards, by grabbing the opportunities and identifying and taking charge of the non-compliances associated to its own activities.

↗ Risk identification

The identification of health and safety risks is periodically carried out by **HSE's** internal function (Health, Safety and Environment), by each Group's site level, in the field of a process that has above all the need to satisfy the current obligations in the country of reference: such type of analysis, allows, in fact to better contextualize the activities performed in each of the company's sites in order to highlight the significant risks for such undertaken activities in this context.

Average hours of training pro-capite (2018)



Number of injuries ⁹



⁹ Injuries data is available to employees of the Group's Italian companies. Artemide will go in-depth with the analysis with respect to the significance of other non-employee workers, in order to assess the need to collect data from employers of external collaborators and suppliers that operate at Group sites and / or under the control of the Group, evaluating the quality and accuracy of such data over which it does not exercise the direct control of.

“Artemide has always been committed to foster and consolidate a safety culture through a greater risk consciousness and the distribution of responsible behaviour by all collaborators. A primary objective is to shelter the human resources, financial and patrimonial, seeking for the necessary synergies not strictly internally, but also in external stakeholders involved in its activities.”

Group's Code of Ethics
2008



The analysis are integrated into the **Risk Assessment Document**, which identifies the prevention and protection measures to eliminate and, where no possibility lies, minimize the risks of the workers' health and safety. The final document is approved by the management of each company.

Such process allows identifying the Group's possible improvements for the management approach and afterwards for the inclusion of a plan aimed to improve with time workers' health and safety conditions.

Regarding the processes in place to ease off communication with employees with regards to the health and safety sphere, several **periodic meetings** have taken place, that varied according to the countries' of origin, between both management and workers, in order to share issues problematics, information exchanging and redefining plans and improvement programs.

Both during institutional meetings, which comprise of, for instance, periodical meetings on safety and evaluation of risks for health and safety, which on other more informal instances the consultation and participation of workers is promoted and guaranteed, in order to guarantee an active contribution, by all, to risk management.

Own representatives, according to each countries' norms, are made available to employees, and protected by law, capable of acknowledging and advocating health and safety issues.

Concerning the management of personal information concerning workers' health, the group's consolidated practice considers workers' health surveillance activities relative to health and safety risks to which they are subjected to: information regarding health check-ups are managed and recorded in a confidential form and disclosed within the company only for what strictly concerns the consequent operational management obligations.

➤ Injuries and emergency management

Artemide sets in place necessary measures for health and safety safeguarding physical well-being of its workers, of its collaborators that are in Artemide's workplace, adopting important organizational models marked on constant safety improvements in the workplace. Employees can refer to various internal company procedures relating, among other things, to the management of emergencies and accidents.

With particular reference to the productive realities, the greatest risks are linked to the use of work equipment (machinery, bench tools etc.)

In order to eliminate, or at least reduce such risks, in Italy employees are endowed of specific **Individual Protection Devices (DPI)**, in relation to activities that are undertaken and in relation to the single departments, a decrease of injuries is to be noted throughout 2018.

In both 2018 and 2017 the main types of work-place injuries in Italy were slight damages occurred in the performance of work and there is a decrease in accidents during 2018.

Each instance is subject to analysis so to assess the causes and identify the corrective measures in order to improve the existing prevention system. Each worker can freely pull out, without any consequence, from any activity that exposes him to a serious and immediate danger, signalling the event to his manager and to his representatives.

Health and safety training

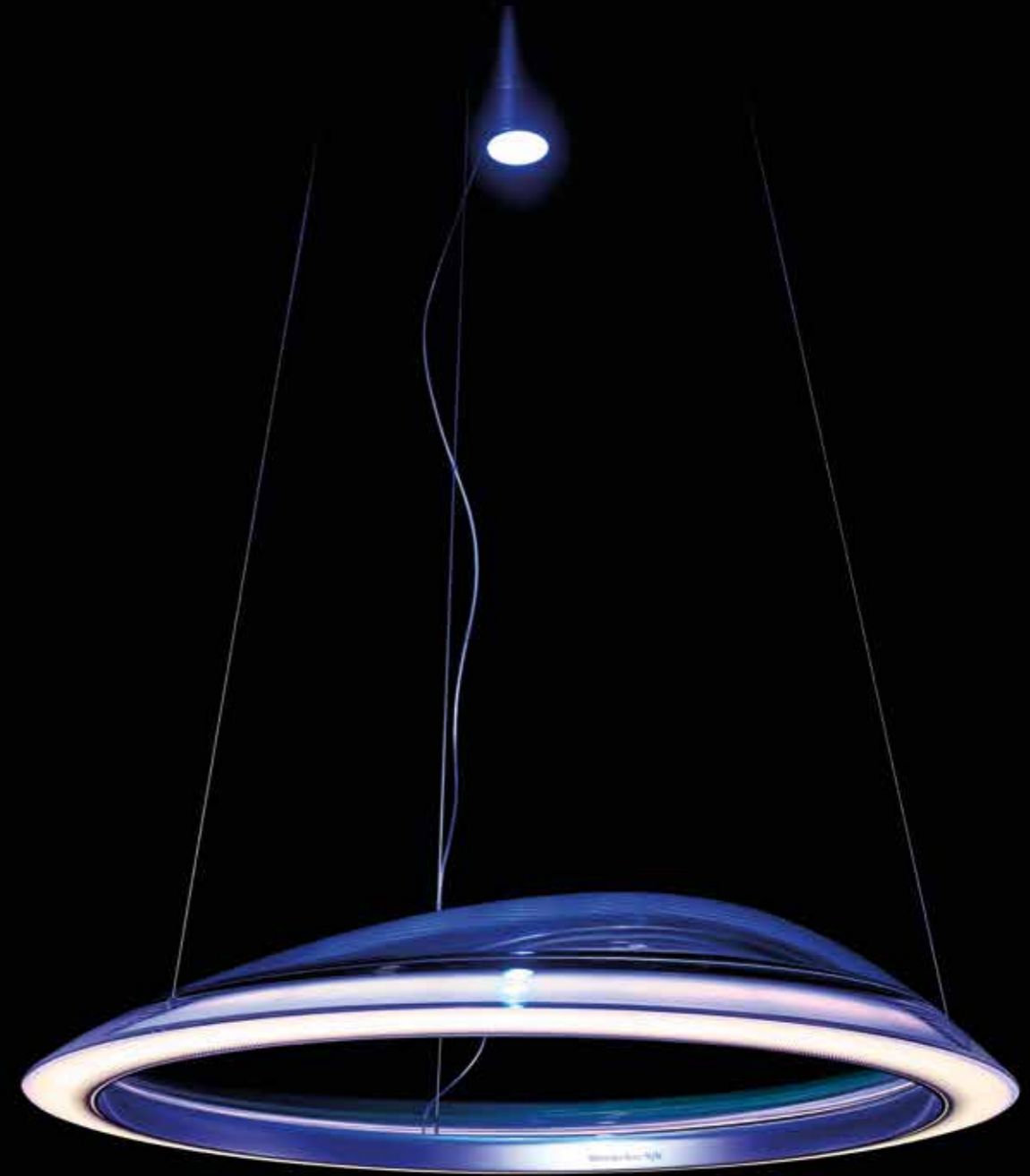
In order to execute its workplace safety policy, Artemide takes good care of continuous training and the raising awareness of all staff towards this issue: Artemide has long set itself the goal of increasing awareness of individual workers, both through specific training, and through the initiative to set up mailboxes to facilitate the process of reporting risks.

2018 has sought the persistence and update of training events and information activities relating to workplace health and safety, according to the consolidated regulatory provisions (Legislative Decree 81/08 in Italy) and corporate standards.

The integration of a training project is expected in 2019, named as the Behavioural Safety Laboratory that will involve personnel in a transversal manner the Group's both white and bluecollars.

Such path, of the total duration of 24 hours per capita, will have the objective to make workers aware of the issue of safety by having greater regard of themselves and of the surrounding environment, positively affecting their behaviour (thus becoming "Safety Leaders") and improving some soft skills, as collaboration and communication. Some quick meetings, named "pills", will focus on some specific relevant topics, of which for instance civil conduct while driving, behaviour management in emergencies, posture and load handling.

As part of this path, a day dedicated to fire-fighting training will be provided with the use of visors and virtual reality equipment. This innovative training modality will allow an update of the contents of the mandatory training through a practical test that involves in first person the participants.



Ameluna, Mercedes - Benz Style
Photographed by Pierpaolo Ferrari



Artemide HQ, Pregnana Milanese, Photographed by Elliott Erwitt

Table of material

aspects and GRI

Macro - area	Material Aspects	GRI Standards	Scope of material aspects	Type of impact
Identity, Ethics and Value Creation	↗ Economic performance and value-creation	GRI 201: Economic performance	Artemide	↗ Directly caused by Artemide
	↗ Integrity and ethic in conducting business	GRI 205: Anti-corruption	Artemide	↗ Directly caused by Artemide
	↗ Values and Brand Identity	N/A	Artemide	↗ Directly caused by Artemide
	↗ Responsible communications and fostering sustainability culture	N/A	Artemide	↗ Directly caused by Artemide
Products & services	↗ Made in Italy	N/A	Artemide	↗ Directly caused by Artemide
	↗ Innovation & Patenting	N/A	Artemide	↗ Directly caused by Artemide
	↗ Light intelligence	N/A	Artemide	↗ Directly caused by Artemide
	↗ Responsible design	GRI 301: Materials	Artemide	↗ Directly caused by Artemide
	↗ Products quality and safety	GRI 416: Customer health and safety	Artemide, Suppliers	↗ Directly caused by Artemide ↗ Indirectly caused by Artemide's activities through business relationships
	↗ Customer care	GRI 417: Marketing and labeling	Artemide	↗ Directly caused by Artemide
	↗ User experience	N/A	Artemide	↗ Directly caused by Artemide
	↗ Responsible supply chain	GRI 204: Procurement practices	Artemide, Suppliers	↗ Diretto – Causato da Artemide ↗ Indirectly caused by Artemide's activities through business relationships

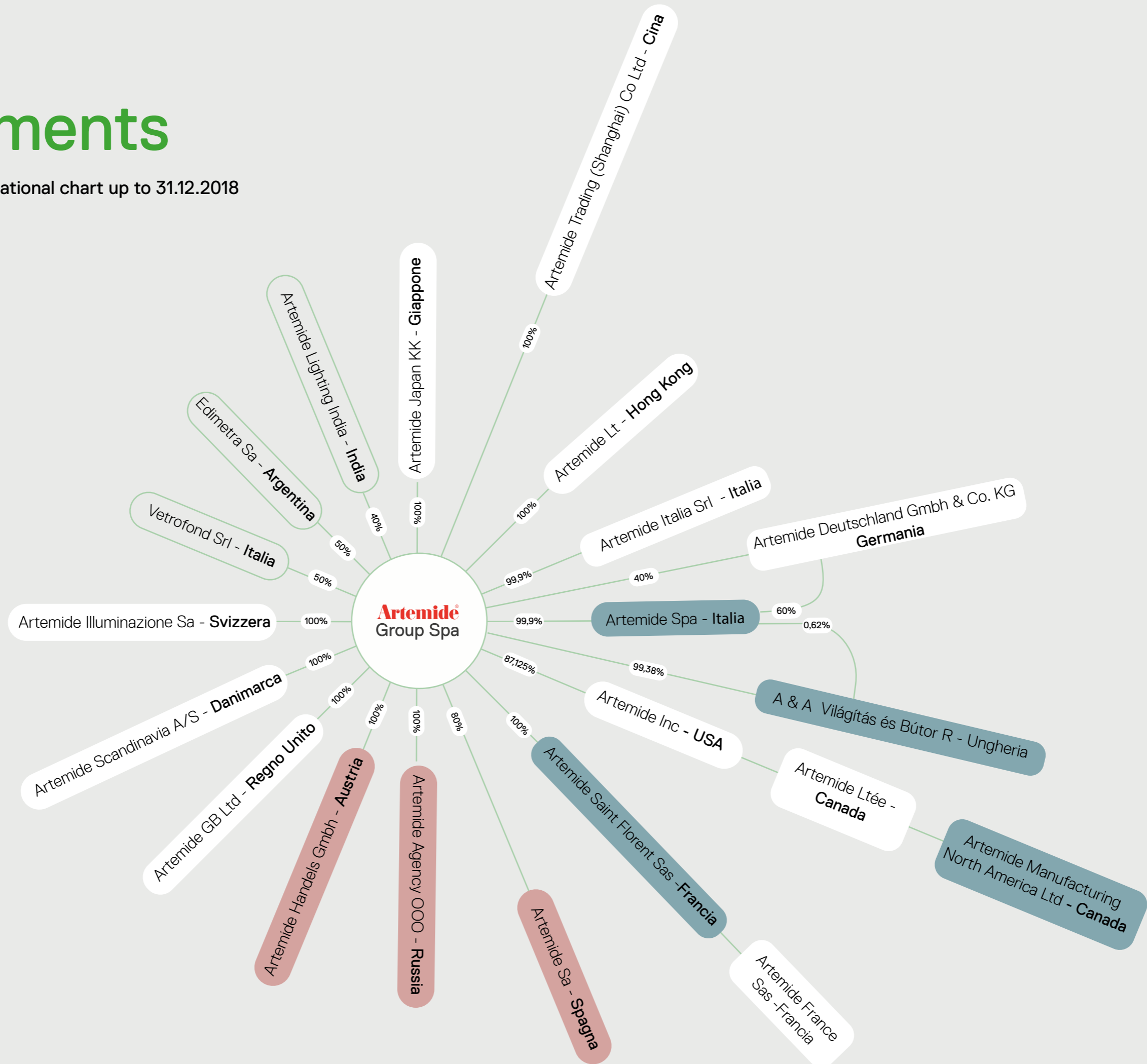
Table of material

aspects and GRI

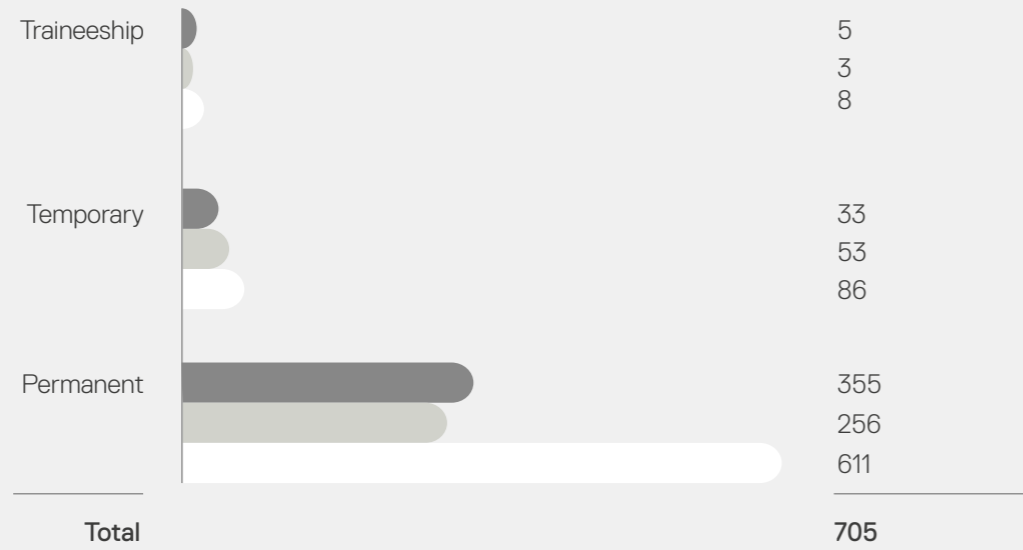
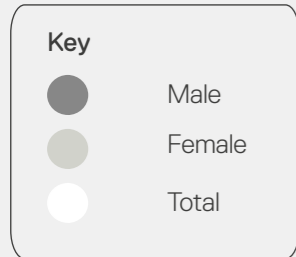
Macro - area	Material Aspects	GRI Standards	Scope of material aspects	Type of impact
Social responsibility	↗ Employees engagement, well-being, safety and development	GRI 401: Employment GRI 402: Labour\management relations GRI 404: Training and education	Artemide	↗ Directly caused by Artemide
	↗ Employees Health & Safety	GRI 403: Occupational Health and safety	Artemide	↗ Directly caused by Artemide
	↗ Diversity and inclusion	GRI 405: Diversity and equal opportunity	Artemide	↗ Directly caused by Artemide
	↗ Social value of innovation	N/A	Artemide	↗ Directly caused by Artemide
Environmental responsibility	↗ Sustainable materials	GRI 301: Materials	Artemide	↗ Directly caused by Artemide
	↗ Responsible management of production processes	GRI 307: Environmental compliance	Artemide	↗ Directly caused by Artemide
	↗ Responsible consumption and emissions of Artemide Group	GRI 302: Energy GRI 305: Emissions GRI 306: Effluents and waste	Artemide, Suppliers	↗ Directly caused by Artemide ↗ Indirectly caused by Artemide's activities through business relationships
	↗ Responsible lighting	N/A	Artemide, Clients	↗ Directly caused by Artemide ↗ Indirectly caused by Artemide's activities through business relationships
	↗ Logistics & transport	GRI 204: Procurement practices	Artemide, Suppliers	↗ Directly caused by Artemide ↗ Indirectly caused by Artemide's activities through business relationships

Attachments

Artemide's Group organizational chart up to 31.12.2018



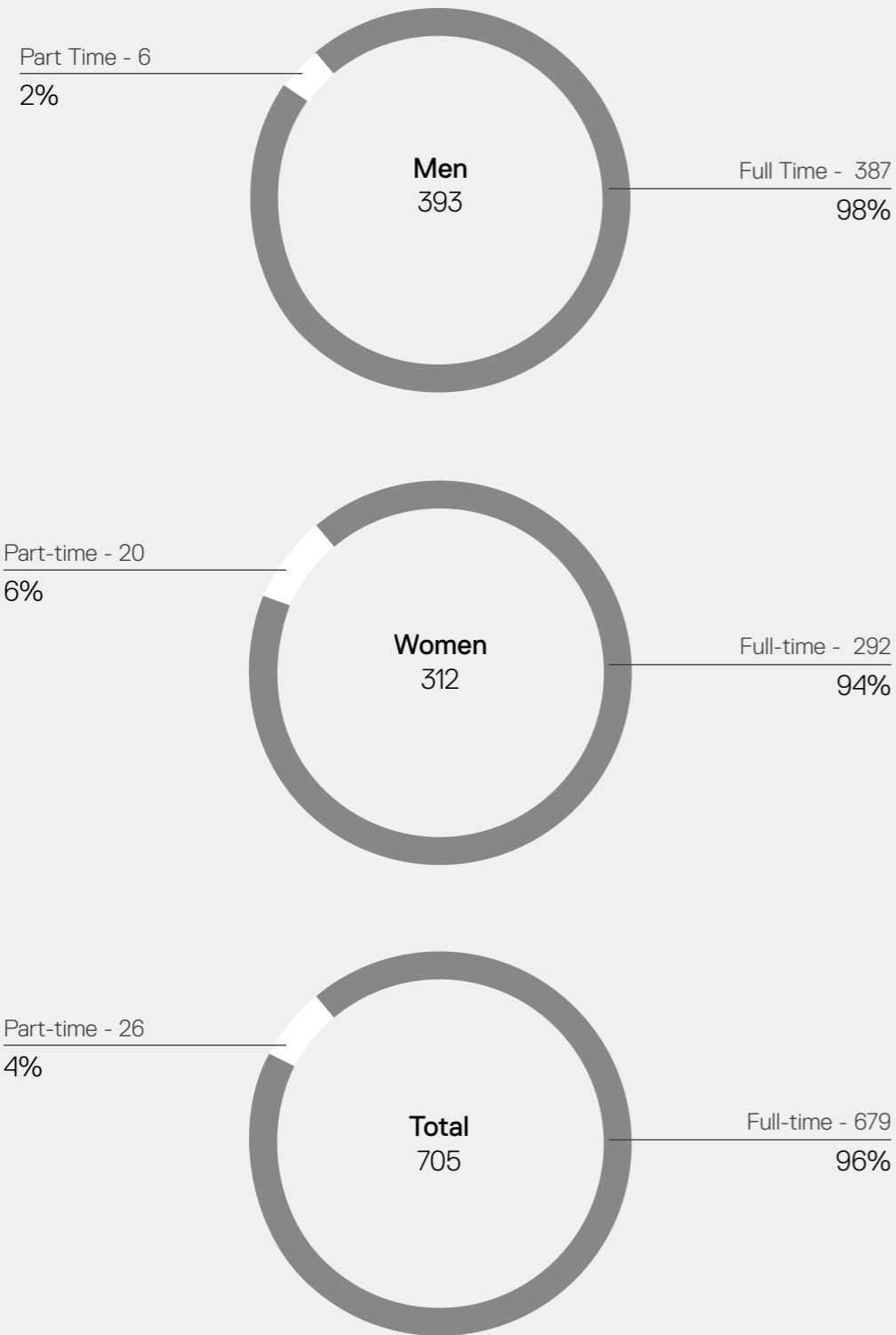
Total number of employees (head count) by employment contract (permanent, temporary and traineeship), by gender



Total number of employees (head count) by employment contract (permanent, temporary and traineeship), by geographical region

Employment contract	Men	Women	Total
Italy	207	123	330
Permanent	200	119	319
Temporary	2	1	3
Traineeship	5	3	8
Rest of Europe	138	152	290
Permanent	109	102	211
Temporary	29	50	79
Traineeship	0	0	0
Outside Europe	48	37	85
Permanent	46	35	81
Temporary	2	2	4
Traineeship	0	0	0
Total	393	312	705

Total number of employees (head count) by employment type (full-time, part-time), by gender



Percentage of employees (head count) by employee category, gender and age group

% of employees	Men				Women			
	<30 years old	30-50 years old	>50 years old	Total men	<30 years old	30-50 years old	>50 years old	Total women
Top Management	0%	2%	8%	4%	0%	2%	1%	1%
Officials	38%	54%	41%	48%	47%	56%	53%	54%
Blue collars	62%	44%	51%	48%	53%	42%	46%	44%

Total number and percentage of employees (head count) by vulnerable categories (employees with disabilities)¹⁰

Employee category	Men	Woman	Total
Top Management	0	0	0
%	0%	0%	0%
Officials	2	2	4
%	50%	50%	100%
Blue collars	8	6	14
%	57%	43%	100%
Total	10	8	18
%	56%	44%	100%

¹⁰ The boundary is referred to the Group's countries Italy and France.

Average hours of training by employee category and by gender

Training hours	Hours for men	Total men employees	Hours per-men pro capite	Hours for women	Total women employees	Hours per women pro-capite	Total hours	Total employees	Total hours pro-capite
Top Management	70	16	4.4	18	4	4.5	88	20	4.4
Officials	1,084	187	5.8	516	170	3.0	1,600	357	4.5
Blue collars	1,661	190	8.7	2,063	138	14.9	3,724	328	11.4
Total	2,815	393	7.2	2,597	312	8.3	5,412	705	7.7

Total number of external workers by gender¹¹

External workers	Men	Women	Total
Independent contractors	11	12	23
Interns	2	1	3
Independent employees with VAT number	2	0	2
Total	15	13	28

Total work-force

External workers	Men	Women	Total
Total employees	393	312	705
Total external workers	15	13	28
Total	408	325	733

Composition of Board of Directors

	Men				Women			
	< 30 years old	30 - 50 years old	> 50 years old	Total men	<30 years old	30-50 years old	> 50 years old	Total women
members	0	2	1	3	0	0	2	2
%	0%	40%	20%	60%	0%	0%	40%	40%

¹¹ The boundary is referred to the Group's countries Italy and France.



ADV Campaign, Elliott Erwit, 2001

Total energy consumption within the organization¹²

Consumption type	Unit of measurement	2018	2017
Natural gas	GJ	32,975	36,521
Diesel – For vehicle use	GJ	2,840	3,222
Petrol – For vehicle use	GJ	82	52
Purchased electricity	GJ	16,699	17,453
Total	GJ	52,597	57,248

Consumption type	Unit of measurement	2018	2017
Natural gas	m ³	823,468	891,049
Diesel – For vehicle use	l	74,427	84,483
Petrol – For vehicle use	l	2,368	1,516
Purchased electricity	kWh	4,638,682	4,848,019

Consumption type	Unit of measurement	2018	2017
Fuel consumption from non-renewable sources	GJ	35,897	39,795
Purchased electricity	GJ	16,699	17,453
Total	GJ	52,597	57,248

¹² The boundary refers to Pregnana's Headquarters, at the Group's production plants based in Italy, France and Hungary, and at the Italian showrooms under Artemide's Italia s.r.l. control. Fuel for vehicles refer to the Italian companies.

GHG Emission¹³

GHG Emissions	Unit of measurement	2018	2017
Direct emissions of CO ₂ - Scope 1	tCO ₂	1,847	2,023
Indirect emissions of CO ₂ - Scope 2 - Location Based	tCO ₂	1,290	1,377
Indirect emissions of CO ₂ e - Scope 2 - Market Based	tCO ₂ e	1,924	2,012

Total weight of waste by type and disposal method¹⁴

Waste type	Unit of measurement	2018		2017	
		total	%	total	%
Hazardous	t	408	39%	788	49%
Non hazardous	t	635	61%	833	51%
Total	t	1,043	100%	1,621	100%

Disposal method	Unit of measurement	2018		2017	
		total	%	total	%
Reuse	t	980	94%	1,228	76%
Landfill	t	63	6%	393	24%
Total	t	1,043	100%	1,621	100%

¹³ Sources of emissions factor used:

- Scope 1: ISPRA (Higher Institute for Environmental Protection and Research) for the Italian perimeter and UK Government - GHG Conversion Factors for Company Reporting for the international perimeter;

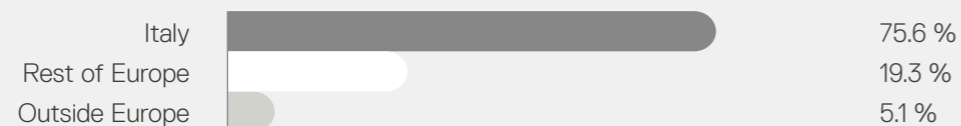
Scope 2:

- Electricity (Location-based): ISPRA (Higher Institute for Environmental Protection and Research) for the Italian perimeter and TERNA - International comparisons for the international perimeter;

- Electricity (Market-based): AIB - European Residual Mixes Vers. 1.1 of 28/05/2019 for the year 2018 and vers. 1.13 of 11/9/2018 for the year 2017 both for the Italian and international perimeter.

¹⁴ The boundary is referred to the Group's production plants based in Italy, France and Hungary.

Proportion of spending on local suppliers - 2018



↗ Number of worked hours in 2018:
340,283 in Italy

Work-related injuries and injuries rates¹⁵

	2018	2017
Total number of injuries	3	4
of which fatalities	-	-
of which high-consequence work-related injuries (excluding fatalities)	-	-
of which recordable work-related injuries	3	4

Rate of work-related injuries¹⁶	2018
Rate of fatalities as a result of work-related injury	-
Rate of high-consequence work-related injuries (excluding fatalities)	-
Rate of recordable work-related injuries	1.76

¹⁵ The reporting's boundary table is limited to the Group's Italian companies.

¹⁶ The work-related indexes are calculated by applying the following formula:

- Rate of fatalities as a result of work-related injury = (number of fatalities resulting from work-related injuries \ number of hours worked) * 200,000

- Rate of high-consequence work-related injuries = (number of high-consequence work-related injuries (excluding fatalities) \ number of hours worked) * 200,000

- Rate of recordable work-related injuries = (number of recordable work-related injuries \ number of hours worked) * 200,000

Reading Guidance

This document represents the **Sustainability Report** of Artemide (group formed by Artemide Group S.p.A. and its subsidiaries – hitherto also “Artemide” or “Group”) and reports on the issues deemed significant, to the extent necessary to ensure the understanding of the business, its performance, its results and of the social and environmental impact it generates. In particular, the identification of the material aspects was performed through a materiality analysis, which is described in the “Sustainability management & economic responsibility” chapter of this document.

The Sustainability Report has been prepared in accordance with the «Core» option of the «**GRI Sustainability Reporting Standards**», published in 2016 by the **Global Reporting Initiative** (GRI). As regards the specific Standards GRI 403 (Occupational Health and safety), the most recent version of 2018 was adopted.

The document refers to the period from **January 1 to December 31, 2018**. The data related to 2017, where available, has been included for comparative purposes so to facilitate the assessment of the performance of the business activities.

The scope of the economic and financial data is the same as the one used in the **Consolidated Financial Statement** of Artemide Group as of December 31, 2018.

The scope of the social and environmental data and information reported includes all the companies consolidated on a line-by-line basis in the Consolidated Financial Statement of Artemide Group S.p.A.¹⁷, any boundary limitation is indicated in the text. The use of estimates has been limited as much as possible and, if used, these are based on the best methodologies available and appropriately reported.

The Sustainability Report is subject to a limited review (“limited assurance engagement” in accordance with the criteria indicated by the ISAE 3000 Revised principle) by **Deloitte & Touche S.p.A.**. The periodicity of the Sustainability Report reporting is set on an annual basis.

¹⁷ For the list of companies consolidated on a line-by-line basis, please refer to the Group Directors’ Report and Consolidated Financial Statements as of 31.12.2018.



GRI Context Index

GRI 102: General disclosures (2016)

GRI Standard	Disclosure	Page number / external reference
Organisational profile		
102-1	Name of the organisation	206-207
102-2	Activities, brands, products and/or services	15-17
102-3	Location of headquarters	11
102-4	Location of operations	11; 16
102-5	Ownership and legal form	206-207
102-6	Markets served	16-17; 57-72
102-7	Scale of organisation	10; 16; 179
102-8	Information on employees and other workers	179; 182; 208-210; 214
102-9	Supply chain	16;150
102-10	Significant changes to the organisation and its supply chain	During 2018, no significant changes to the organisation and its supply chain were occurred.
102-11	Precautionary principle or approach	27; 192
102-12	External initiatives	45; 55; 135; 165-167
102-13	Membership of associations	20
Strategy		
102-14	Statement from senior decision-maker	7

GRI Standard	Disclosure	Page number / external reference
Ethics And Integrity		
102-16	Values, principles, standards and norms of behaviour	27-28; 45-48
Governance		
102-18	Governance structure	27
Stakeholder engagement		
102-40	List of stakeholder groups	31
102-41	Collective bargaining agreements	188
102-42	Identifying and selecting stakeholders	30
102-43	Approach to stakeholder engagement	30-31
102-44	Key topics and concerns raised	30
Reporting Practices		
102-45	Entities included in the consolidated financial statements	206-207
102-46	Defining report content and topic Boundaries	32
102-47	List of material topics	33
102-48	Restatements of information	This document is the first Sustainability Report of Artemide Group.
102-49	Changes in reporting	This document is the first Sustainability Report of Artemide Group.
102-50	Reporting period	220
102-51	Date of most recent report	This document is the first Sustainability Report of Artemide Group.
102-52	Reporting cycle	220
102-53	Contact point for questions regarding the report	sustainability@artemide.com
102-54	Claims of reporting in accordance with the GRI Standards	220
102-55	GRI content index	224-234
102-56	External assurance	236

GRI 200: Economic Performance (2016)

GRI Standard	Disclosure	Page number / external reference
↗ Economic Performance		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	34-36
103-3	Evaluation of the management approach	35; 220
GRI-201: Economic Performance (2016)		
201-1	Direct economic value generated and distributed	35
↗ Procurement practices		
GRI-103: Management approach (2016)		
103-1	Material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	134-142; 150-152
103-3	Evaluation of the management approach	142; 150-152; 220
GRI-204: Procurement practices (2016)		
204-1	Proportion of spending on local suppliers	9; 142-143; 218

GRI Standard	Disclosure	Page number / external reference
↗ Anti-Corruption		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	27-28;45
103-3	Evaluation of the management approach	27-28; 220
GRI-205: Anti-Corruption (2016)		
205-3	Confirmed incidents of corruption and action taken	During 2018, no cases of corruption were occurred.

GRI 300: Environmental Performance (2016)

GRI Standard	Disclosure	Page number / external reference
↗ Materials		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	48; 83; 125-126; 131-133; 142-144
103-3	Evaluation of the management approach	142-144; 220
GRI-301: Materials (2016)		
301-1	Materials used by weight or volume	143; 218
↗ Energy		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	166-170
103-3	Evaluation of the management approach	166-170; 220
GRI-302: Energy (2016)		
302-1	Energy consumption within the organisation	9; 172; 216

GRI Standard	Disclosure	Page number / external reference
↗ Emissions		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	166-170
103-3	Evaluation of the management approach	166-170; 220
GRI 305: Emissions (2016)		
305-1	Direct GHG emission (Scope 1)	9; 173; 217
305-2	Energy indirect GHG emissions (Scope 2)	9; 173; 217
↗ Effluents and waste		
GRI-103: Management approach(2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	174
103-3	Evaluation of the management approach	174; 220
GRI 306: Effluents and waste (2016)		
306-2	Waste by type and disposal method	9;175; 217
↗ Environmental compliance		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	27-28
103-3	Evaluation of the management approach	27-28; 220
GRI 307: Environmental Compliance (2016)		
307-1	Non-compliance with environmental laws and regulations	During 2018, no relevant monetary sanctions related to the violation of laws, regulations or voluntary environmental codes were identified.

GRI 400: Social performance (2016)

GRI Standard	Disclosure	Page number / external reference
↗ Employment		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	186
103-3	Evaluation of the management approach	186; 220
GRI-401: Employment (2016)		
401-2	Benefits for full time employees that are not provided to temporary or part-time employees	186
↗ Labour management relations		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	188
103-3	Evaluation of the management approach	188; 220
GRI-402: Labour management relations (2016)		
402-1	Minimum notice periods regarding operational changes	188

GRI Standard	Disclosure	Page number / external reference
↗ Occupational Health and Safety		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	196-198
103-3	Evaluation of the management approach	196-198; 220
GRI-403: Occupational Health and Safety (2018)		
403-1	Occupational health and safety management system	146; 152; 165; 167
403-2	Hazard identification, risk assessment, and incident investigation	192; 196-197
403-3	Occupational health services	196-197
403-4	Worker participation, consultation, and communication on occupational health and safety	196
403-5	Worker training on occupational health and safety	198
403-6	Promotion of worker health	186
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	196-197
403-9	Work-related injuries	193; 219
↗ Training and education		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	137; 190-191; 198
103-3	Evaluation of the management approach	190-191; 220
GRI-404: Training and education (2016)		
404-1	Average hours of training per year per employee	10; 193; 212-213

GRI Standard	Disclosure	Page number / external reference
↗ Diversity and equal opportunity		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	80; 183
103-3	Evaluation of the management approach	183; 220
GRI-405: Diversity and equal opportunities		
405-1	Diversity of governance bodies and employees	10; 211; 214
↗ Customer Health and Safety		
GRI-103: management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	107; 135-140; 146; 154-159
103-3	Evaluation of the management approach	135-140; 154-159; 220
GRI-416: Customer Health and Safety (2016)		
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	During 2018, no relevant cases of non-compliance related to the health and safety of products and services were reported.
↗ Marketing and Labelling		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	160-162
103-3	Evaluation of the management approach	160-162; 220
GRI-417: Marketing and Labelling (2016)		
417-2	Incidents of non-compliance concerning product and service information and labelling	During 2018, no cases of non compliance related to information and labelling of products and services were reported.

GRI Standard	Disclosure	Page number / external reference
↗ Values and Brand Identity		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	15-17; 45-48
103-3	Evaluation of the management approach	15-17; 45-48; 220
↗ Responsible communication and fostering sustainable culture		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	30-31; 45-48; 52-55
103-3	Evaluation of the management approach	30-31; 45-48; 52-55; 220
↗ Made in Italy		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	8; 15-17; 57; 142; 183
103-3	Evaluation of the management approach	15-17; 57; 142; 220
↗ Light intelligence		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	83-112
103-3	Evaluation of the management approach	83-112; 220

GRI Standard	Disclosure	Page number / external reference
↗ Innovation & patenting		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	8; 86-91; 114-115
103-3	Evaluation of the management approach	86-91; 114-115; 220
↗ User experience		
GRI-103: Management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	57-72; 77; 90-112
103-3	Evaluation of the management approach	57-72; 77; 90-112; 220
↗ Social value of innovation		
GRI-103: management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	36-43
103-3	Evaluation of the management approach	36-43; 220
↗ Responsible Lighting		
GRI-103: management approach (2016)		
103-1	Explanation of the material topic and its boundary	32-33; 202-205
103-2	The management approach and its components	90-103; 108-109; 129-131
103-3	Evaluation of the management approach	90-103; 108-109; 129-131; 220

Independent Auditors' Report



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INDEPENDENT AUDITOR'S REPORT ON THE SUSTAINABILITY REPORT

To the Board of Directors of Artemide Group S.p.A.

We have carried out a limited assurance engagement on the Sustainability Report of Artemide Group S.p.A. and its subsidiaries (hereinafter also "Artemide Group" or the "Group") as of December 31, 2018.

Responsibility of the Directors for the Sustainability Report

The Directors of Artemide Group S.p.A. are responsible for the preparation of the Sustainability Report in accordance with the "Global Reporting Initiative Sustainability Reporting Standards" established by the GRI – Global Reporting Initiative ("GRI Standards"), as stated in the paragraph "Reading guidance" of the Sustainability Report.

The Directors are also responsible, for such internal control as they determine is necessary to enable the preparation of the Sustainability Report that is free from material misstatement, whether due to fraud or error.

The Directors are also responsible for the identification of the objectives related to the sustainability performance and for identification of the stakeholders and the significant aspects to report.

Auditor's Independence and quality control

We have complied with the independence and other ethical requirements of the *Code of Ethics for Professional Accountants* issued by the *International Ethics Standards Board for Accountants*, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. Our auditing firm applies *International Standard on Quality Control 1 (ISQC Italia 1)* and, accordingly, maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Auditor's responsibility

Our responsibility is to express our conclusion based on the procedures performed about the compliance of the Sustainability Report with the GRI Standards. We conducted our work in accordance with the criteria established in the *"International Standard on Assurance Engagements ISAE 3000 (Revised) – Assurance Engagements Other than Audits or Reviews of Historical Financial Information"* (hereinafter "*ISAE 3000 Revised*"), issued by the *International Auditing and Assurance Standards Board (IAASB)* for limited assurance engagements. The standard requires that we plan and perform the engagement to obtain limited assurance whether the Sustainability Report is free from material misstatement. Therefore, the procedures performed in a limited assurance engagement are less than those performed in a reasonable assurance engagement in accordance with ISAE 3000 Revised, and, therefore, do not enable us to obtain assurance that we would become aware of all significant matters and events that might be identified in a reasonable assurance engagement.

Ancona Bari Bergamo Bologna Brescia Cagliari Firenze Genova Milano Napoli Padova Parma Roma Torino Treviso Udine Verona

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The procedures performed on the Sustainability Report are based on our professional judgement and included inquiries, primarily with company personnel responsible for the preparation of information included in the Sustainability Report, analysis of documents, recalculations and other procedures aimed to obtain evidence as appropriate.

Specifically we carried out the following procedures:

1. Analysis of the process relating to the definition of material aspects disclosed in the Sustainability Report, with reference to the methods used for the identification and prioritization of material aspects for stakeholders and to the internal validation of the process results;
2. Comparison between the financial data and information included in the chapter "Sustainability management & economic responsibility" of the Sustainability Report with those included in the Group consolidated financial statement;
3. Understanding of the processes underlying the origination, recording and management of qualitative and quantitative material information included in the Sustainability Report.

In particular, we carried out interviews and discussions with the management of Artemide Group S.p.A. and with the personnel of Artemide S.p.A., and we carried out limited documentary verifications, in order to gather information about the processes and procedures which support the collection, aggregation, elaboration and transmittal of data and information to the department responsible for the preparation of the Sustainability Report.

In addition, for material information, taking into consideration the Group's activities and characteristics:

- at the parent company's and subsidiaries' level:
 - a) with regards to qualitative information included in the Sustainability Report, we carried out interviews and gathered supporting documentation in order to verify its consistency with the available evidence;
 - b) with regards to quantitative information, we carried out both analytical procedures and limited verifications in order to ensure, on a sample basis, the correct aggregation of data.
- With regard to the Pregnana Milanese (MI) site of Artemide Group S.p.A. and to the Pregnana Milanese (MI) site and production plant for Artemide S.p.A., which we selected based on their activity, their contribution to the performance indicators at the consolidated level and their location, we carried out site visits, during which we have met their management and have gathered supporting documentation with reference to the correct application of procedures and calculation methods used for the indicators.

Conclusion

Based on the work performed, nothing has come to our attention that causes us to believe that the Sustainability Report of the Artemide Group as of December 31, 2018 is not prepared, in all material aspects, in accordance with the GRI Standards as stated in the paragraph "Reading guidance" of the Sustainability Report.

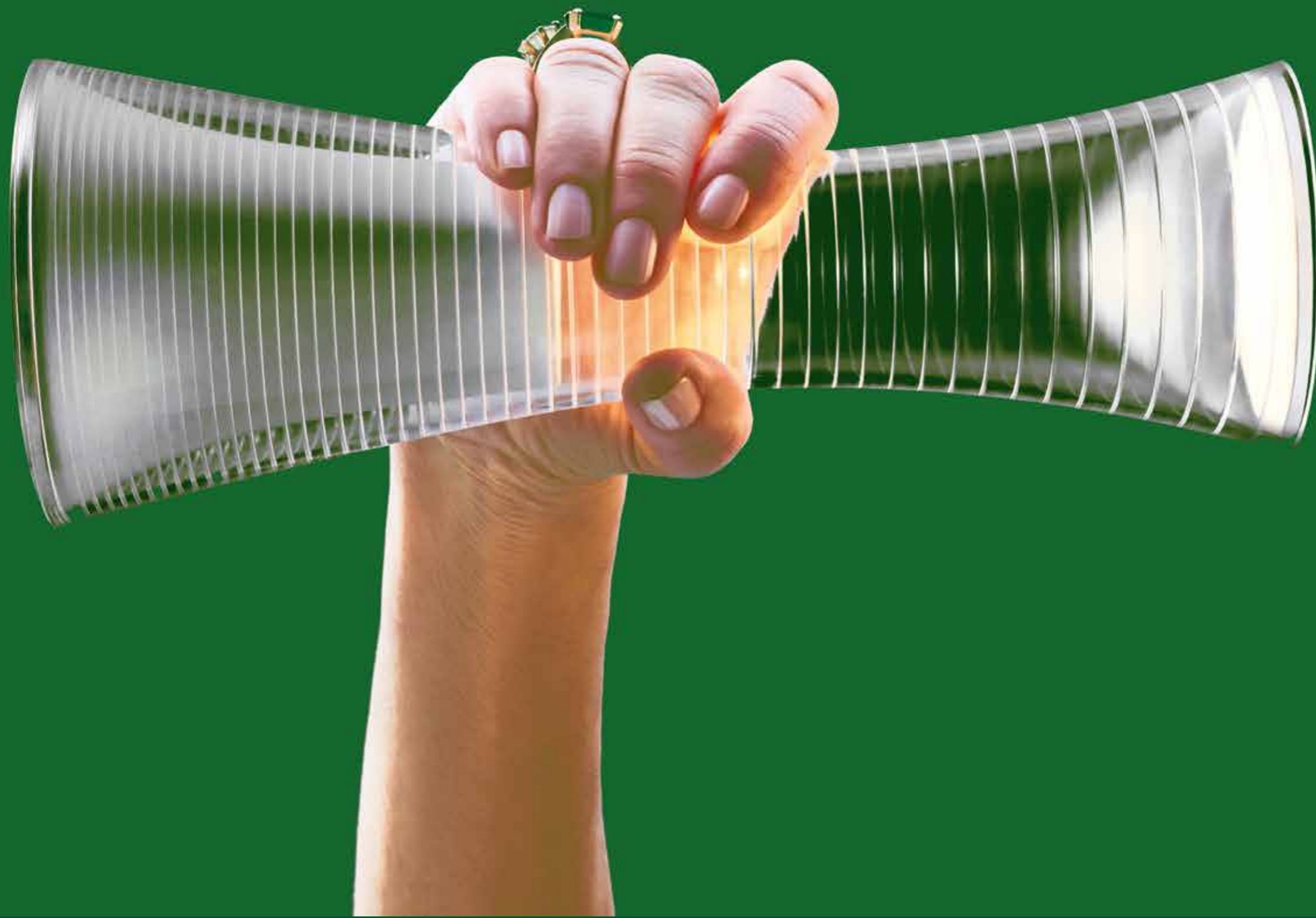
Other matters

The comparative data presented in the Sustainability Report in relation to the financial years closed prior to December 31, 2018 have not been verified.

DELOITTE & TOUCHE S.p.A.

Signed by
Ernesto Lanzillo
Partner

Milan, Italy
April 9, 2020



Artemide[®]
The Human and Responsible Light

Artemide