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DIGITAL SIGN

Integrated Report **2016**

Creating sustainable value in A2A

Creating sustainable value in A2A

Circular economy

Smart networks and services

Decarbonisation

People innovation

a2a

2016 Integrated Report

This document has been prepared according to the Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI), version G4, level “in accordance - core”.

This Report may be consulted on the website **www.a2a.eu**

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www.a2a.eu

The A2A Group's 2016 Integrated Report is completed by a specific Supplement and is available for consultation on the Group's website in both Italian and English version.

Letter to stakeholders

Just over one year from the beginning of our new corporate social responsibility development process, approved by the Board of Directors in November 2015, we are proud to present the first edition of our A2A Integrated Report. The document represents an evolution of the Sustainability Report, maintaining the same level of transparency and completeness, along with a firm reference to the international reporting criteria of the Global Reporting Initiative (the GRI-G4 Guidelines). At the same time, our Integrated Report is fully compliant with the framework of the International Integrated Reporting Council (IIRC), which encourages companies to provide concise accounts of how they manage the process of creating value over time, with an emphasis on strategy and a focus on the future.

It is a fundamental stage in the new journey on which A2A has embarked, thanks in part to the valuable efforts dedicated by the Committee for Territory and Sustainability, to reiterate the Groups' strong ties to local communities and its focus on sustainability as a competitive factor and a deeply rooted ethical value.

We are on target to achieve the goals of the UN 2030 Sustainable Development Agenda

This spirit is fully reflected in the Sustainability Policy and Plan, through which the Group, within the international strategic framework of the UN 2030 Sustainable Development Agenda, informed the stakeholders last year of its sustainability goals for 2030 and the actions and results that may be achieved in the medium term (2016-2020). Using these tools, A2A – which this year continues to participate in the Global Compact – aims to take on a leading role in creating a new low-carbon circular economy based on smart networks and services.

This process also involves the restyling of the symbol that represents A2A. Our logo has been rethought and redesigned to better represent the positioning of our Group, which is increasingly focused on quality of service, sustainability and listening to people.
The revamped logo recreates a stylised map of a city viewed from above, a new perspective on the A2A City and the integration of all services dedicated to citizens.

With regard to the development of the actions contained in the Sustainability Plan, we have implemented a thorough monitoring process, which has confirmed that our firm is on the right path to achieve challenging objectives, as illustrated in this year's Integrated Report. Starting in 2017, the monitoring of sustainability indicators will form the basis for calculating a portion of the incentives for the Group's management.

We develop ideas and projects together with the community

Listening to communities lies at the heart of A2A's strategy. We have stayed true to this commitment by extending the multistakeholder involvement model based on the forumAscolto programme to communities in Valtellina-Valchiavenna, Bergamo and Milan. Thanks to this programme, we have interpreted the needs of local communities in greater depth and come up with new ideas capable of creating shared value, resulting in the creation of eleven projects. Among these, mention should be made of the Banco dell'Energia, created with the aim of supporting individuals in a temporary situation of economic and social vulnerability with paying for electricity and natural gas services, thus offering them a chance to get back on their feet.

We report on each step of the forumAscolto programme in a transparent manner by publishing, after the events, Local Sustainability Reports, which also include a summary of A2A's main commitments and results from the standpoint of environmental, economic and social responsibility for each community.

The distribution of value to stakeholders is rising

In 2016 we generated and distributed to stakeholders gross global added value of 1,634 million euros. We also distributed wealth through 835 million euros spent on goods and services, 97% of which for the benefit of Italian companies. 77% percent of the value of orders issued was related to suppliers in possession of at least one certification relating to environment, quality or safety and 3% to social cooperative companies or non-profit entities. We invested a total of 386 million euros (+12% on 2015), of which 58.5 million euros in activities with environmental effects: reduction of emissions, increased energy efficiency, development of renewable energies, innovation, etc.

We contribute to achieving international greenhouse gas reduction objectives

In 2016 we completed numerous measures to improve the efficiency of our plants that also yielded concrete benefits at the level of emissions: we completed extraordinary maintenance work on the Silla2 waste-to-energy plant, which will contribute additional renewable heat to district heating systems; we started up an innovative thermodynamic solar plant that is capable of generating electricity even when there is no sun by using the heat trapped in the sand; and we increased the flexibility of the Chivasso gas turbines, reducing start-up times and thus natural gas consumption and emissions.

From an environmental standpoint, we reduced the average CO_2 emissions factor for all of the Group's power generation by 6%, due in part to greater use of natural-gas combined cycle plants. The share of electricity generated from renewable sources remained essentially constant at around 35.6%, whereas the volumes served through the district heating network increased by 3%. Overall, CO_2 emissions from electricity generation have declined by 47% compared to the average levels for the 2008-2012 period.

We completed the plan to convert public lighting in Bergamo, Brescia and Milan to LEDs. We are committed to spreading a culture of responsible consumption, including among our customers. A2A Energia offers a wide range of products to promote green energy (the volumes sold by the Group are up by 22% compared to 2015) and has launched new energy efficiency solutions.

We are working on developing a circular economy

In 2016 we strengthened our presence in waste processing for the recovery of materials, exceeding 600,000 tonnes of annual production capacity, the equivalent of over 80% of the sorted urban waste collected by the Group's environmental companies.

At the same time, in the municipalities served by the Group, sorted waste collection made a further leap forwards, rising from 55% to 56.2%, due in part to the gradual launch of the new combined sorted waste collection system in the city of Brescia, which will yield its full effects starting in 2017, when it will cover the entire city. The share of urban waste disposed of in landfills remained at minimal levels (1.1%), with benefits for the recovery of materials and energy.

According to the circular economy approach, in the integrated water cycle we worked to reduce losses in the network and unmetered water (-3% on 2015).

Our networks and services keep getting smarter

In 2016 we formed A2A Smart City with the aim of promoting research and development activity to create innovative digital technologies pertaining to the IoT ("Internet of Things"), to be applied to the management of services dedicated to the local community, such as security, energy savings, environmental sustainability and mobility. We also pursued projects focusing on innovation of the electrical power grid ("smart grid") and launched an extraordinary four-year plan to improve the resilience of the electrical grid in the city of Milan.

In sustainable mobility, we installed 13 new FAST recharging stations for electric cars as part of our e-moving service.

A2A Energia continued to excel in Italian national customer satisfaction rankings, reaching first-place overall in the Cerved Energy Monitor survey for all segments analysed for the fifth consecutive year. Excellent results were also achieved in other customer satisfaction surveys carried out by the Group's service companies: A2A Calore&Servizi is regarded as a credible supplier offering a cutting-edge district heating service that is safe and requires lower maintenance than traditional plants. Amsa was approved with an average of 7.6 for cleaning and waste collection service provided in Milan and Aprica with an average of 7.8 in Bergamo.

To protect disadvantaged customers, in addition to the aforementioned Banco dell'Energia, in 2016 we decided on the voluntary introduction of a Water Bonus, which provides a discount on their water bills to families in economic difficulty, as already envisaged in regulations governing the supply of electricity and natural gas.

We innovate in our relationships with individuals and communities

As part of staff development, in 2016 we launched numerous projects, opting for a more entrepreneurial culture, listening to and involving employees, optimising skills and ensuring retraining where appropriate. Particularly noteworthy were the management development project "ABC", which in 2016 obtained feedback from the entire company population through a survey and focus groups, and the launch of the pilot project on smart working, an innovative approach to work where employees can work outside the office one day a week.

A total of 728 new employees were hired and 664 employees terminated during the year.

In the area of the safety of workers of third companies who work on the Group's networks and at its plants, in 2016 we launched an extended programme of inspections of the Networks and Heat BU's worksites (over 1,400 audits).
The number of accidents suffered by workers of third companies at major facilities declined.
The Group's accident indices returned to the levels of 2014, following the extraordinary performance achieved in 2015, primarily due to the effect of the zero accidents recorded on the many hours worked for the Expo environmental services.

We have confirmed our commitment to support social, cultural, environmental and sporting initiatives in the territories in which we operate, delivering 4.1 million euros in donations, sponsorships and contributions. We are also committed to spreading a culture of sustainability and environmental awareness in the communities where we operate, through new initiatives, such as visits to plants, workshops, digital tools and classroom sessions that involved more than 29,000 students and teachers.

Looking toward the future, we believe deeply in the growth of our Group and our competent, responsible people, to whom we extend our sincere thanks for their professionalism and dedication during these three years of activity, which have seen so many goals achieved and milestones reached, and their journey towards lasting growth, at the service of their communities.

This Integrated Report is made available to the public through the authorised storage mechanism 1Info at the address www.1info.it, at the company's offices in Brescia at Via Lamarmora 230 and on the website www.a2a.eu (in the section "Governance" - "Meetings"). The ordinary Shareholders' Meeting of May 15, 2017 (with potential second calling for May 16, 2017) will be asked to approve the report.

The Chairman
Giovanni Valotti

The Chief Executive Officer
Luca Valerio Camerano

Methodological Note

This year the A2A Group will be publishing its **first Integrated Report**, its ninth report on sustainability performance.

A2A followed the same procedure as for the previous edition, drafting this Report on the basis of the **Integrated Reporting Framework** (IR Framework) drawn up by the International Integrated Reporting Council (IIRC).

This document (including the Supplement) provides an account of the performances of the companies within the scope of consolidation for the year ended on December 31, 2016 from both a financial and a social and environmental standpoint, in accordance with the principles set out in the **Sustainability Reporting Guidelines G4** of the Global Reporting Initiative (GRI) and the Electric Utilities Sector Supplement - G4 Standard Disclosure.

Adopting the reporting principles entails the objective of presenting the way in which an organisation creates value over time. We therefore decided to adopt a structure for our report based on the various types of capital, which constitute the variables that determine how value is created:

Financial capital
The set of economic resources involved in production processes

Manufacturing capital
Property, infrastructure and physical equipment (plant, machinery, etc.) used in the production of the services offered by the company

Natural capital
All processes and environmental resources that provide goods or services for producing the services offered by the company

Human capital
The set of skills, abilities and experience of the people who work at the company

Intellectual capital
Intangible resources represented by organisational knowledge and the Group's intellectual property

Relational capital
The company's capacity to create relationships with external stakeholders and to share values in order to increase individual and collective well-being

Through the analysis of the types of capital that influence, and are in turn influenced by, the company's activities, A2A aims to provide a clear account of the existing, necessary integration between economic and social and environmental aspects in company decision-making processes, but also in the definition of the Group's strategy, governance and business model.

The initial chapters of the Report (chapters 1, 2 and 3) discuss the ways in which the Group's various businesses interact with the different kinds of capital to create value over time. There are cross-references and synergies between the various types of capital, emphasising the Group's commitment to achieving the objectives set out in the Sustainability Plan and Policy issued last year (see section 3.3).

A structured process of **materiality assessment**, to which reference is made in section 4.2, supported the definition of the content to be reported as relevant to both the Group and its stakeholders. On the basis of the issues identified as material, the GRI G4 aspects were selected along with the pertinent qualitative and quantitative disclosures to be presented in the Report and Supplement. On the basis of the current scope of the General Standard Disclosures and Specific Standard Disclosure indicators associated with the material aspects, as summarised in the GRI Content Index, the Report has been drafted according to the second option, **"in accordance – core"**.

The data collection and control process was managed by the CSR function, by means of Excel sheets sent to the managers of all company departments, of the local offices and companies coming under the scope of reference. Data on environmental responsibility was managed by the Environment function and was collected through the EMS (Environmental Management System) software, which envisages the tracking, verification and approval of all data required.

In this document, where necessary, a specific note has been inserted to indicate variations in the data on performance in 2014 and 2015, with respect to that reported in the 2015 Sustainability Report.

The document, submitted to the Board of Directors of A2A S.p.A. on April 3rd, 2017, was then **audited**, with regard to aspects relating to GRI disclosure, by an external company, in accordance with the criteria laid down by the "International Standard on Assurance Engagements 3000" ("ISAE 3000"), which at the end of the work carried out issued the report attached to this Report.

For the second consecutive year, this Integrated Report was **submitted for formal approval by the Shareholders' Meeting**, along with A2A's Consolidated Financial Statements.

Scope

This document marks another step in the journey towards integrated reporting, covering **the full scope of the Consolidated Financial Statements**, subject to the following concept of **materiality and significance**:

- with regard to financial capital, all companies included in the A2A Group's Consolidated Financial Statements are considered;
- with regard to manufacturing capital and natural capital, companies with industrial activities are considered;
- with regard to human capital, companies with at least one employee are considered;
- with regard to intellectual capital, all companies, with the exception of exclusively financial holdings, are included;
- with regard to relational capital, companies with commercial or industrial activities that do not hold exclusively financial investments are included.

The sole exceptions refer to the exclusion, with regard to environmental and social performance, of the data of companies acquired, sold or liquidated during the year. This was due to the fact that, for the areas of sustainability contemplated, performance before and after the acquisition, sale or liquidation cannot be separated. In the case of companies included within the scope of this Report, which in turn hold equity investments, the latter are evaluated using the same reasoning described above.

Consequently, with the exception of financial capital, for which the scope coincides with that of the Consolidated Financial Statements, the following consolidated companies are excluded in the remaining Capitals: Consul System S.p.A., LA BI.CO DUE S.r.l., the RI.ECO-RESMAL S.r.l. group and the Linea Group Holding S.p.A. group.

Owned or leased plants are fully consolidated if they appear as the fixed assets of consolidated companies. Otherwise, if they are material, they are discussed in specific captions (e.g. the Acerra waste-to-energy plant).

The Group's jointly owned material plants are consolidated proportionally. According to this principle, for environmental data, the Mincio thermoelectric plant was 45% consolidated.

In 2016 a process of consolidation began for the environmental and social performances of the EPCG group, which operates in Montenegro (a non-EU country) and is thus subject to different standards and regulations than the rest of the Group. In 2016 it was not possible to obtain complete coverage of the information reported for the A2A Group and the data collected will thus be discussed in a specific section of the Supplement. The goal is to reach full coverage in 2017.

In 2016, as part of the process of integration between subsidiaries and in line with the Group's goal of simplification of its corporate structure defined in the 2015-2019 Business Plan, the following companies were formed:

- **Unareti S.p.A.**, operational since April 1st, 2016, integrates the 100% subsidiaries of A2A S.p.A. that operate in the network services sector (A2A Reti Elettriche S.p.A., A2A Reti Gas S.p.A., A2A Logistica S.p.A. and A2A Servizi alla distribuzione S.p.A.);
- **A2A Illuminazione Pubblica S.r.l.**, formed on September 22nd, 2016, with the aim of managing public lighting systems (previously controlled by A2A Reti Elettriche);
- **A2A Smart City S.p.A.**, (formerly Selene S.p.A.: name change approved by the Shareholders' Meeting of March 29th, 2016), which offers smart services and designs the cities of tomorrow;
- **A2A Energiefuture S.p.A.**, operational since July 1st, 2016, into which the Brindisi, Monfalcone and San Filippo del Mela thermoelectric plants were merged;
- **A2A Gencogas S.p.A.** (formerly Abruzzoenergia S.p.A), operational since July 1st, 2016, into which the combined cycle thermoelectric plants in Chivasso, Piacenza, Sermide and Cassano d'Adda and the equity interests in the Ponti sul Mincio plant and Ergosud were merged.

In addition, the deed of merger of the subsidiaries A2A Trading S.r.l. and Edipower S.p.A. into **A2A S.p.A.**, which will enter into effect on December 31st, 2016, was signed in October 2016.

The scope of consolidated entities in the 2015 Sustainability Report has changed due to the inclusion in the 2016 Integrated Report of Bellisolina S.r.l., SED S.r.l. and Bergamo Servizi S.r.l.

The A2A Group

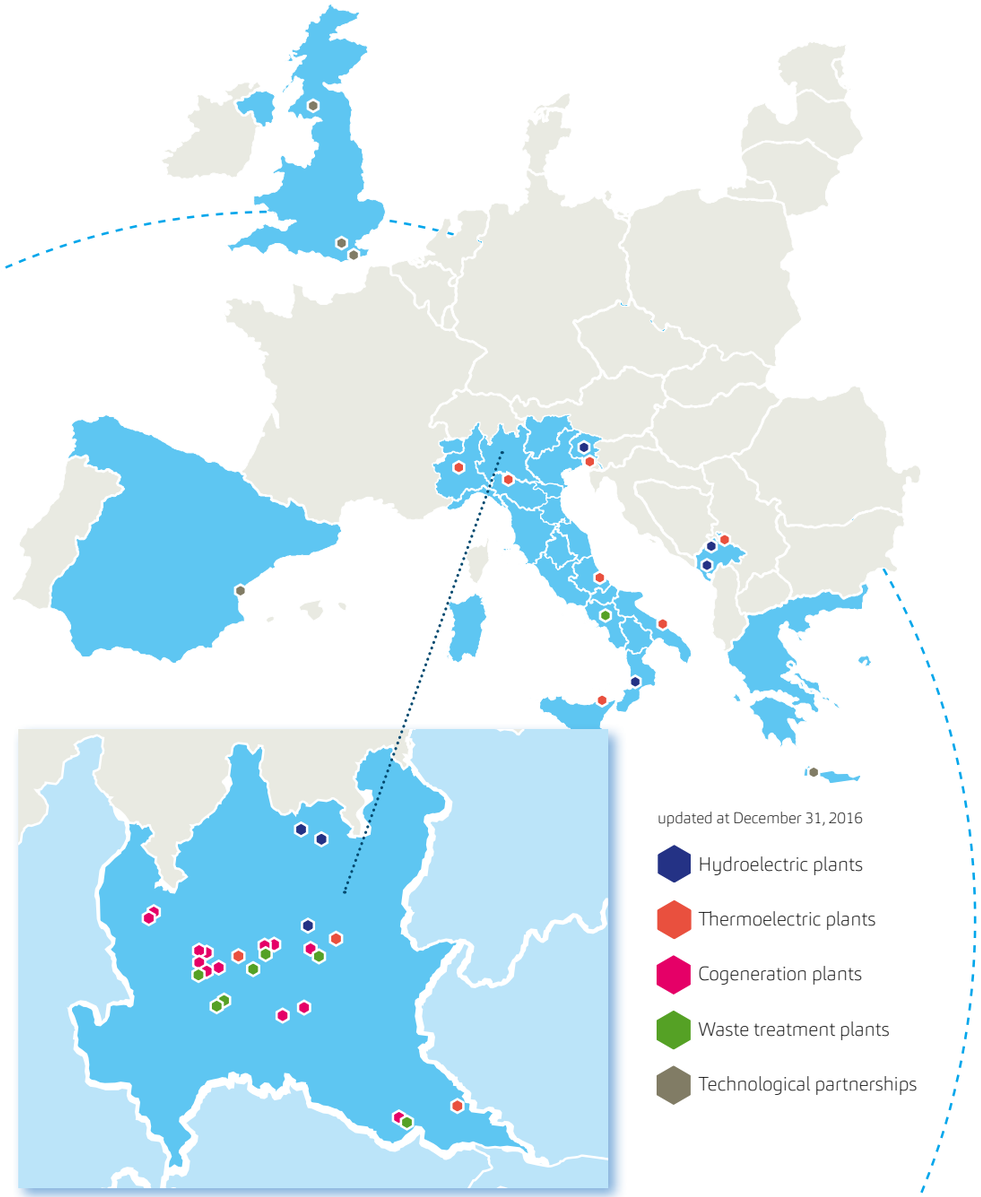
The A2A Group mainly operates in the production, sale and distribution of gas and electricity, district heating, environmental services and the integrated water cycle.

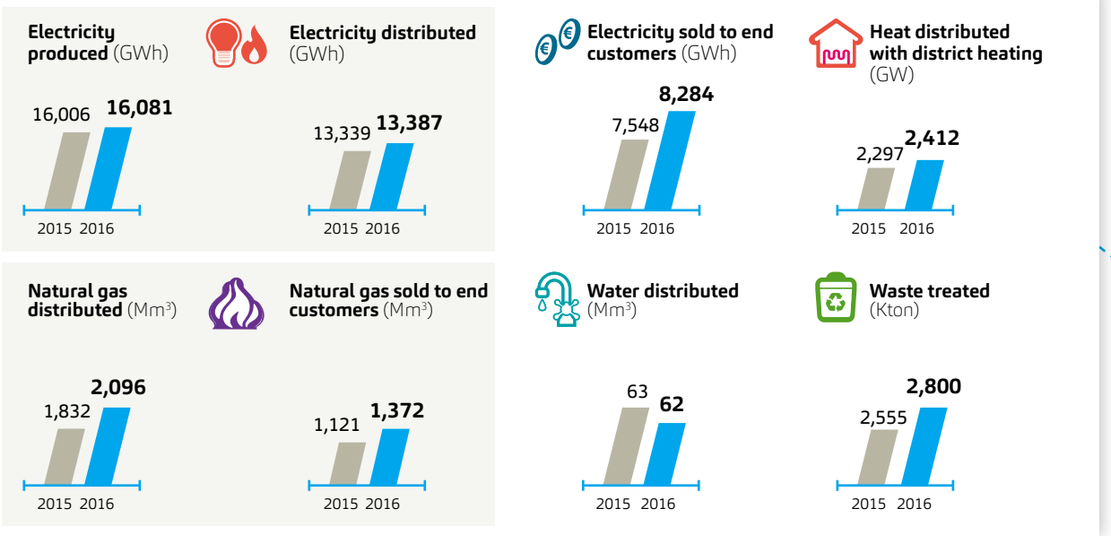
Its business areas are in turn attributable to the business units illustrated below.

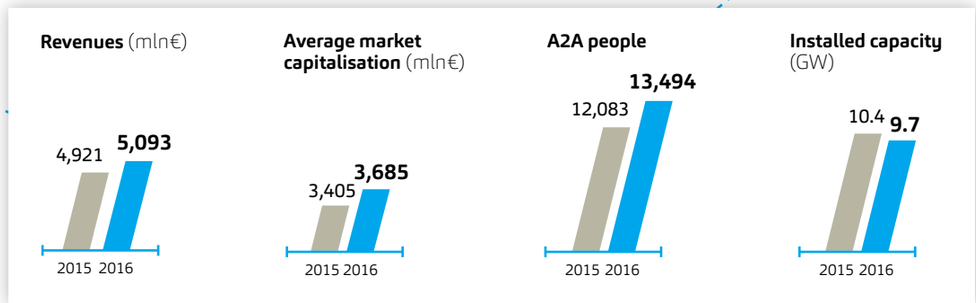
Figure 1 | Business units of the A2A Group

- **Generation and Trading**
  - Thermoelectric and hydroelectric plants
  - Energy management
- **Commercial**
  - Sale of electricity and natural gas
- **Environment**
  - Collection and street sweeping
  - Treatment
  - Disposal and recovery of energy and material
- **Networks and Heat**
  - Electricity networks
  - Natural gas networks
  - Integrated water cycle
  - Public lighting and other services
  - District heating services
  - Heat management services
- **International**
  - Generation and commercial electricity
  - Electricity networks
- **Other Services and Corporate**
  - Other services
  - Corporate services

A description of the BUs and the related quantitative and economic data may be found in the 2016 Report on Operations published at ***www.a2a.eu***







1
Governance

On June 13, 2014, the Shareholders' Meeting of A2A appointed for three years, with the mechanism of the list vote, the Board of Directors (BoD) consisting of 12 members. The current members of the BoD are specified in the table below:

POSITION	NAME	YEAR OF BIRTH	EXECUTIVE (E) - NON EXECUTIVE (NE)	INDEPENDENCE - CODE		INDEPENDENCE - CFA	EXECUTIVE COMMITTEE	CONTROL AND RISKS COMMITTEE	REMUNERATION AND APPOINTMENTS COMMITTEE	COMMITTEE FOR TERRITORY AND SUSTAINABILITY
Chairman (C)	Giovanni Valotti	1962	E	-		-	C	-	-	M
Deputy Chairman (DC)	Giovanni Comboni	1957	NE	-		X	M	-	M	-
Chief Executive Officer	Luca Valerio Camerano	1963	E	-		-	M	-	-	-
Director	Antonio Bonomo	1951	NE	X		X	-	-	C	-
Director	Giambattista Brivio	1946	NE	X		X	-	M	-	-
Director	Maria Elena Cappello	1968	NE	X		X	-	-	-	-
Director	Michaela Castelli	1970	NE	X		X	-	C	-	-
Director	Elisabetta Ceretti	1966	NE	X		X	-	-	-	M
Director	Luigi De Paoli	1949	NE	X		X	-	-	-	M
Director	Fausto Di Mezza	1971	NE	-		X	-	M	-	-
Director	Stefano Pareglio	1963	NE	X		X	-	-	-	C
Director	Secondina Ravera	1966	NE	X		X	-	-	M	-

Note: C: Chairman - M: Member

The Corporate Governance Code is available from the Borsa Italiana website: ***www.borsaitaliana.it***.
The Report on Corporate Governance and Ownership Structures is available from the Governance section of the Group website: ***www.a2a.eu***

1.1. Sustainability governance

Responsibility for sustainability issues is borne by the **Committee for Territory and Sustainability**, tasked with playing an evaluative, advisory and propositional role in assisting the Group's BoD, Chairman and Chief Executive Officer in defining guidelines, orientations and initiatives relating to the promotion of a strategy and tools that integrate sustainability into business processes so as to ensure the creation of value over time for the shareholders and all other stakeholders.

The Committee must be composed of no fewer than three directors and at least one member must have adequate experience in the field of the environment, sustainability and corporate social responsibility, to be assessed by the BoD upon appointment.
The Committee reports to the BoD on the activity performed with quarterly frequency.

For further information about the Bylaws of A2A's Committee for Territory and Sustainability, refer to the Governance section of the Group's website. ***www.a2a.eu***

In 2016, the Committee for the Territory and Sustainability met 11 times.

On the basis of the **programme** issued by A2A's BoD **for the development of corporate social responsibility activities for 2016-2017**, in 2016:
- two multistakeholder forums were held in Grosio and Bergamo (see page 41) and three Local Sustainability Reports were drafted (Brescia, Bergamo and Valtellina and Valchiavenna);
- the 2015 Sustainability Report was approved for the first time during the Shareholders' Meeting and the process of drafting the first Integrated Report according to the International Integrated Reporting Council (IIRC) framework was completed for 2016;
- both the Sustainability Policy, with goals for 2030, and the 2016-2020 Sustainability Plan were approved, and the process of introducing environmental sustainability and social objectives into the management incentive system (MbO) was launched;
- an internal training programme on sustainability issues was defined, set to be implemented in 2017.

In training efforts for directors aimed at ensuring adequate knowledge of sustainability issues, in March 2016 an **induction** session was held concerning the process of defining A2A's Sustainability Policy and Plan.

For more details on the process of delegation and self-assessment in the social, economic and environmental field, please refer to the Supplement and to the Report on Corporate Governance and Ownership Structures available from the Governance section of the Group website: ***www.a2a.eu***

1.2 Governance tools

A2A manages its internal and external corporate governance using various specific instruments such as:

- **Code of ethics**
- **Organisational, Management, and Control Model**
- **Quality, Environment and Safety Policy**
- **Quality, Environment and Safety Management Systems**
- **A2A Group's Sustainability Policy**

All documents mentioned above are available at ***www.a2a.eu***

All of the A2A Group's activities and relations, both internal and external, are inspired by observance of the principles, values and rules of conduct set out in the **Code of Ethics**, which is a fundamental component of the Organisation, Management and Control Model pursuant to Legislative Decree No. 231/01. The Code identifies requirements aimed at ensuring that the enterprise's activities are inspired by the following principles:

- recognition and protection of the dignity, liberty and equality of human beings;
- protection of workers and freedom of union association;
- protection of health, safety, the environment and biodiversity;
- integrity, transparency, honesty and loyalty in action.

The **Organisation, Management and Control Model of A2A S.p.A. pursuant to Legislative Decree No. 231/01** was also updated on July 29, 2016. The main Group companies have, in turn, adopted their own Organisation, Management and Control Models in accordance with Italian Legislative Decree No. 231/01. The Board of Directors of each of the above companies has appointed a **Supervisory Body** entrusted with the task of supervising the functioning and compliance of the Model and its constant updating.

All Group stakeholders can report through appropriate channels of confidential information, any violation or suspected violation of the Code, to the Supervisory Body or Internal Audit organisational structure. Reports can be made through the communication channels established (e.g. e-mail, ordinary mail) and as per the "Management of anonymous and other reports of the A2A Group" guideline issued on June 22, 2015 and published on the Group website.

The 30 Group companies that have adopted their own Organisation, Management and Control Models in accordance with Italian Legislative Decree No. 231/01 are systematically monitored with regards to risks connected with corruption. In line with that reported in the corporate Code of Ethics, the Group **bans all forms of corruption**, unlawful favours, collusive conduct, requesting of advantages, conferral of material and immaterial benefits and other advantages aimed at influencing or remunerating representatives of institutions or their relatives, and Group employees.

In 2016 there were no incidents of corruption and there were no pending cases relating to incidents of corruption with the exception of a single proceeding, relating to a previous manager of AMSA, in which the company has filed an appearance as civil party, and in which in 2016 the trial of the first instance ended with the conviction of the defendant (it is likely that an appeal will be lodged after the grounds of the judgment are filed).

In 2016 1,929 hours of training were provided on the 231 Model to 1,704 employees through e-learning.

For more information, please refer to the Governance section of the website ***www.a2a.eu***

A2A AND PARTICIPATION TO THE GLOBAL COMPACT

A2A is a voluntary member of **Global Compact**, the UN initiative for the promotion of a culture of corporate citizenship. Structured as a public-private partnership between the United Nations, the private sector, the governments and civil society, the GC encourages the creation of a sustainable social, economic and environmental framework.
The A2A Group observes and supports the universal principles of the four areas of interest (human rights, employment rights, the fight against corruption and respect for the environment), integrating them into its strategy and business through the definition of concrete tools, such as its Sustainability Policy and Plan.
The Group guarantees regular disclosure of significant information on these issues, both within and outside the company, through this document, which represents the advanced level of Communication on Progress (CoP).
In 2016, A2A participated in working groups launched by the Italian network of the Global Compact and the first Italian Business & SDGs Annual Forum, an opportunity for multistakeholder dialogue about the role that the private sector is called on to play in support of the achievement of the United Nations Sustainable Development Goals (SDGs) for 2030.

Within this framework, A2A has established an integrated approach to sustainability governance, based on its **Quality, Environment and Safety Policy** and **Sustainability Policy**, thereby developing a valid model of reference for all of the Group's employees and contractors.

These policies are implemented through **certified management systems** according to the major voluntary standards recognised at the international level, such as ISO14001 (Environment), ISO9001 (Quality) and OHSAS18001 (Health and safety at work), or within Europe, such as EMAS Registration, which refers to Regulation (EC) No 1221/2009.

For more information, please refer to the Sustainability section of the website ***www.a2a.eu***.
The details of the certifications are presented in the Supplement to this Report.

2
Risks and opportunities

2.1 Background information

In recent years, sustainable development issues have been at the centre of the political agendas of the world's most important leaders, driven to a real, concrete debate on these issues by an increasing awareness and need for action by society.

The year 2015 was decisive for sustainable development issues at the global level, and commitment in this area continued in 2016. On September 25, 2015, during the 70th General Assembly of the United Nations, world leaders adopted a new global sustainable development framework:

the **2030 Agenda**, which establishes **17 objectives valid** for the period **2015-2030**. **Agenda 2030** is based on a global public and private partnership involving all interested parties and requires the mobilisation of all means of implementation and a solid monitoring and control mechanism, to ensure the achievement of common objectives such as **peace, security, justice for all, social inclusion and environmental responsibility**.

PARIS2015 UN CLIMATE CHANGE CONFERENCE COP21·CMP11

The **Paris Climate Agreement** (COP21) aimed at **regulating greenhouse gas levels** was reached during that same year. The minimum ratifications required to render entry into effect starting in 2020 were reached in 2016.

In order to achieve the ambitious objectives set by the COP21 and, although of a different nature and cogency, the 2030 Agenda, enterprises are also called upon to integrate instruments, targets and indicators into their development strategies and business models, so as to measure their commitment to achieving sustainable development from an economic, environmental and social standpoint.

Within this framework, the issue of the **disclosure of sustainability performance** lies at the heart of an intense legislative process, while there is also growing interest in it amongst investors, who use it **to assess the risks and opportunities associated with the non-financial performances** of the companies in which they invest.

At the European level, the process was reinforced by the recent transposition of **European Non-Financial Reporting Directive 2014/95 (Barnier)**, which requires public-interest entities that meet certain criteria to provide disclosure concerning the management of social and environmental issues, with effect from financial year 2017. The Legislative Decree was definitely enacted into Italian law on December 30, 2016. The integration of sustainability into the company's strategy also involves greater awareness of the importance of sustainability risk issues. As emphasised by the **World Economic Forum** in the XVII edition of its Global Risk Report, the major trends that will influence global development in the next decade are tied to **climate change**, **income inequality** and **social inequality**. These three areas represent not just risks, but also new business opportunities that an organisation must be able to seize and manage appropriately.

Companies must therefore consider sustainability as a key factor in risk assessment and mitigation measures.

2.2 Analysis and management of risks and opportunities

The A2A Group has set up a **Risk Management** function and implemented a **risk measurement and detection process** on the basis of the **Enterprise Risk Management** method[1], developed in order to make **business risk management an integral and systematic part of the business management processes**. Such activities are carried out in accordance with the Guidelines for the Internal Control and Risk Management System approved by the Board of Directors and adopted by Group companies. The guidelines in question have been drawn up in a manner consistent with the recommendations of the corporate governance code for listed companies.

The process takes into account all possible risks and assesses their impact on the company, as regards both the **financial** and **reputational aspects**. To this end, the main risk drivers considered relate to the company's mission and relationship with the community, the nature and diversification of its business units, its growth plan, strategic objectives, competitive, legislative and regulatory environment, macroeconomic scenario and the expectations of interested parties, characterised by increasing sensitivity towards environmental, health and safety issues, and sustainability issues more generally.

Through the **involvement of all corporate structures**, the risk measurement process is regularly activated, enabling the **identification of the most significant critical issues, the measures to monitor them and the mitigation plans**.

Initially implemented at the Group level, the risk management process was developed with a structure based on both the business units and the Group companies, in particular for companies of significant strategic value, and in implementation of the new standards ISO 14001 (Environment) and ISO 9001 (Quality). The risk profile of the Group and its companies identified in the periodic assessment process are analysed by the respective boards of directors and during the business review.

MAIN DEVELOPMENTS RELATING TO THE RISK MANAGEMENT PROCESS

Following the issuance of the new standards ISO 14001 and ISO 9001, which call for the assessment of risks and opportunities as the main elements of their respective management systems, the Group Risk Management function, in collaboration with other company functions, launched a programme that will be further developed in 2017 with the aim of further inquiring into the specific issues of risk introduced and to develop the correlation of risks with company processes. In addition, a plan has been launched to develop IT tools in support of ERM to increase the efficiency of the workflow for information and preparation of reports. Finally, a project has been developed to define and monitor risk factors through specific key risk indicators capable of providing the board with a prospective vision of possible changes in the Group's risk profile.

The risks analysed by the Group relate to internal and external risk factors, in addition to the risk factors associated with the development guidelines and strategy (for further details, refer to page 11 of the Supplement). The main risks considered by the Group include the risk associated with the **volatility of commodity prices** (i.e., the variability of the prices of the main energy carriers managed), deemed one of the most complex risks for the *utilities* sector and covered by a specific organisational unit with the Risk Management function.

(1) The reference model for internal control prepared by the U.S. Treadway Commission known as the COSO (Committee of Sponsoring Organizations) Reports.

Management of risks related to sustainability issues

The process of managing risks adopted by the Enterprise Risk Management aims at creating and protecting company value. From this perspective, it bears emphasising that sustainability issues underlie this process. For example, this process applies in that risks are also assessed with regard to their impacts on reputation, the environment, health and safety and the quality of services provided to customers and the community.

In 2016 a process of dialogue was initiated with the Corporate Social Responsibility function to further explore **risk issues related to sustainability objectives** and to discuss the possibility of synergistically managing risk management activities and the results of stakeholder engagement activity, including through the **monitoring of risk factors tied to the theme of consent**.

In addition, an analysis was conducted of the associated risks and safeguards in place for material issues, and the details are illustrated in the tables presented at the beginning of each chapter (governance issues are illustrated in the appended Supplement). This transition represents an important objective, which reinforces the progressive inclusion of corporate responsibility in the sphere of the Group's management activity.

For further information about risks and the risk management model, refer to the 2016 Report on Operations and the Supplement to this Report.

3
Business model and strategy

The A2A Group has developed a multiutility business model in the production, sale and distribution of natural gas and electricity, district heating, integrated waste cycle services, the integrated water cycle and smart cities.

Mission

We aim to be a Group capable of providing cities with essential services that meet the highest standards of quality and efficiency due to their sustainability, optimal relationship with the local community and openness to change.

Our strategy aims to develop a repositioning process that in 2020 will result in more modern multi utility, leader in the environment, smart grids and new energy models, with a more balanced and profitable position, able to seize the opportunities that will be presented by the green economy and smart cities.

The A2A Group's **values** represent the cultural identity that inspires all of A2A's people and the rules of conduct that guide employees in their daily activities.
The Group's values, along with its mission, underlie its business model, which consolidates and encourages increasingly deep integration with local communities and their members due to a business plan that allows development opportunities to be identified for the business and its stakeholders.
The A2A Group contributes to building and developing a wide range of activities with local companies, thereby creating synergies and achieving industrial efficiency and economies of scale. The Group's ambition is to establish a **multiutility model integrated into the local community**, suited to the people who live there, capable of creating and distributing progressive, long-lasting social value to all of its stakeholders.

The integration and close relationship formed with local communities is further emphasised by the Group's **new logo**, which stresses, in an even more decisive manner, the work undertaken in recent years, to ensure a swift, effective response to the requests of local communities.
The new design, in keeping with the company's identity, retains the institutional light blue, but has been reworked and transformed into the stylised map of a city seen from above.
The new image represents the Group's desire to be a company at the service of citizens and not focused solely on producing and distributing its services.
The Group wishes to be recognised for its commitment and desire **to create and build the smart cities of tomorrow**, integrating all services relating to energy, the environment, water, heat, networks and fibre optics into a single centre.

THE A2A GROUP'S VALUES

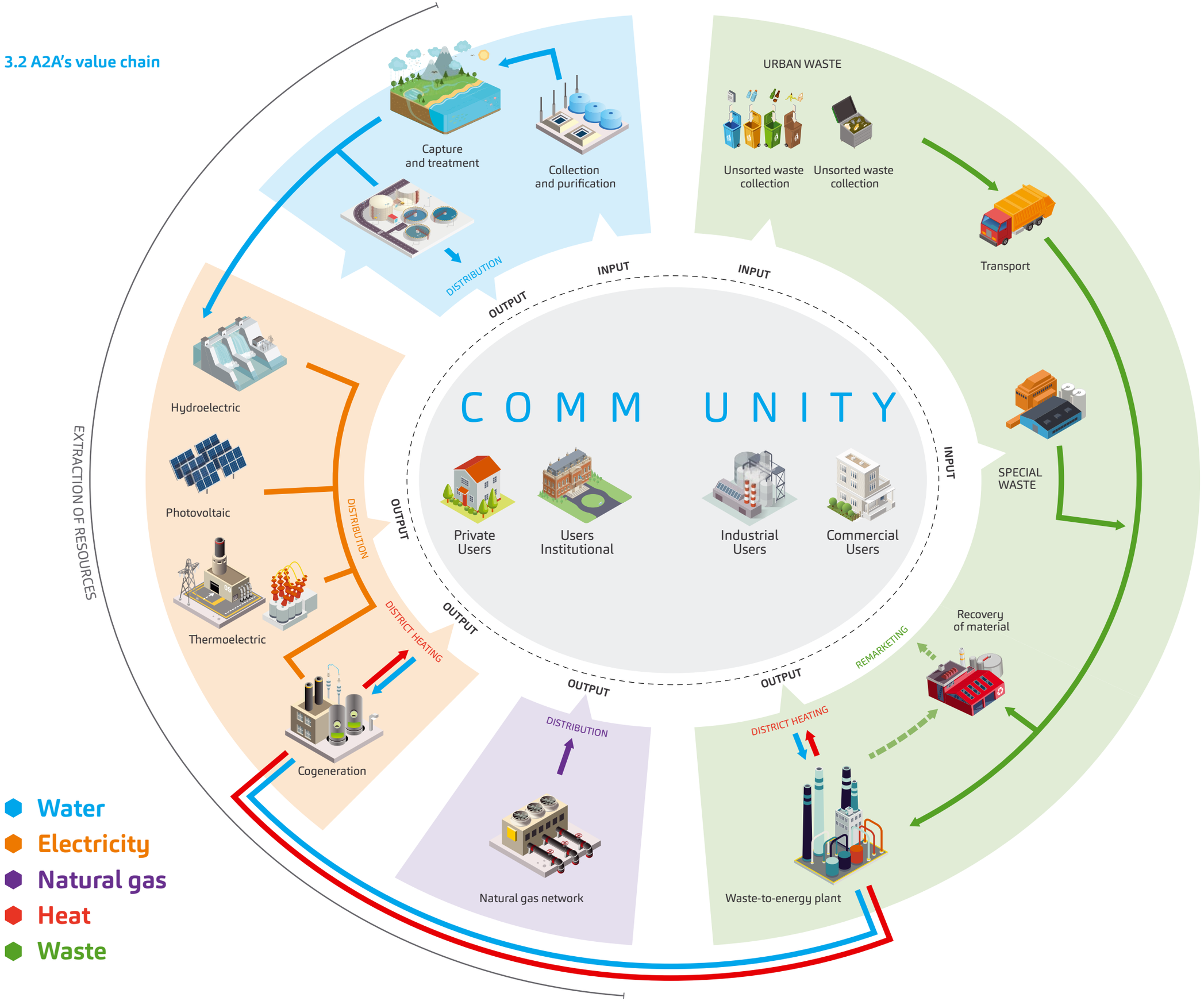
- **Innovation:** we are building a future based on ideas, research and technology to face each new challenge courageously;
- **Sustainability:** we are striving to reduce the impact of our actions on the environment to a minimum and to ensure a sustainable tomorrow for future generations;
- **Participation:** we put people first, focusing on feedback, cooperation and sharing;
- **Responsibility:** we are committed to creating value for the future, keeping our promises and being transparently responsible for our actions;
- **Excellence:** we are investing our skills with dedication and determination in order to ensure increasingly higher standards of quality.

3.1 Our business model

The schematic representation presented below emphasises how integrated, sustainable management of the various types of capital (financial, manufacturing, natural, human, intellectual and relational) on which the organisation relies to provide its services form the foundation for the creation of sustainable value over time. In order to preserve such capital from the standpoint of long-term resources, A2A has developed a business model that, in keeping with its mission and key values, allows its business units to ensure appropriate management of the aspects concerned through a governance system, guiding principles, risk assessment instruments and an operational strategy characterised by medium- and long-term objectives (Sustainability Policy, business plan and Sustainability Plan).

Figure 02 | The A2A Group business model

3.2 A2A's value chain



- Water
- Electricity
- Natural gas
- Heat
- Waste

3.3 The sustainability strategy

To A2A, sustainability is a strategic element integrated into the growth and development of the business to facilitate the generation of shared value in the short, medium and long term.

In early 2016 a process of gradual consultation with senior management and the main areas of the company was launched in order to stimulate constructive dialogue concerning the strategic direction of future sustainability efforts. The end result of this process was the definition of **a Sustainability Policy and Plan** capable of satisfying the Group's ambitions and contributing to the achievement of the **United Nations 2030 Sustainable Development Goals (SDGs)**.

For more information, please refer to the Sustainability Plan and Policy, available from the Sustainability section of the website ***www.a2a.eu.***

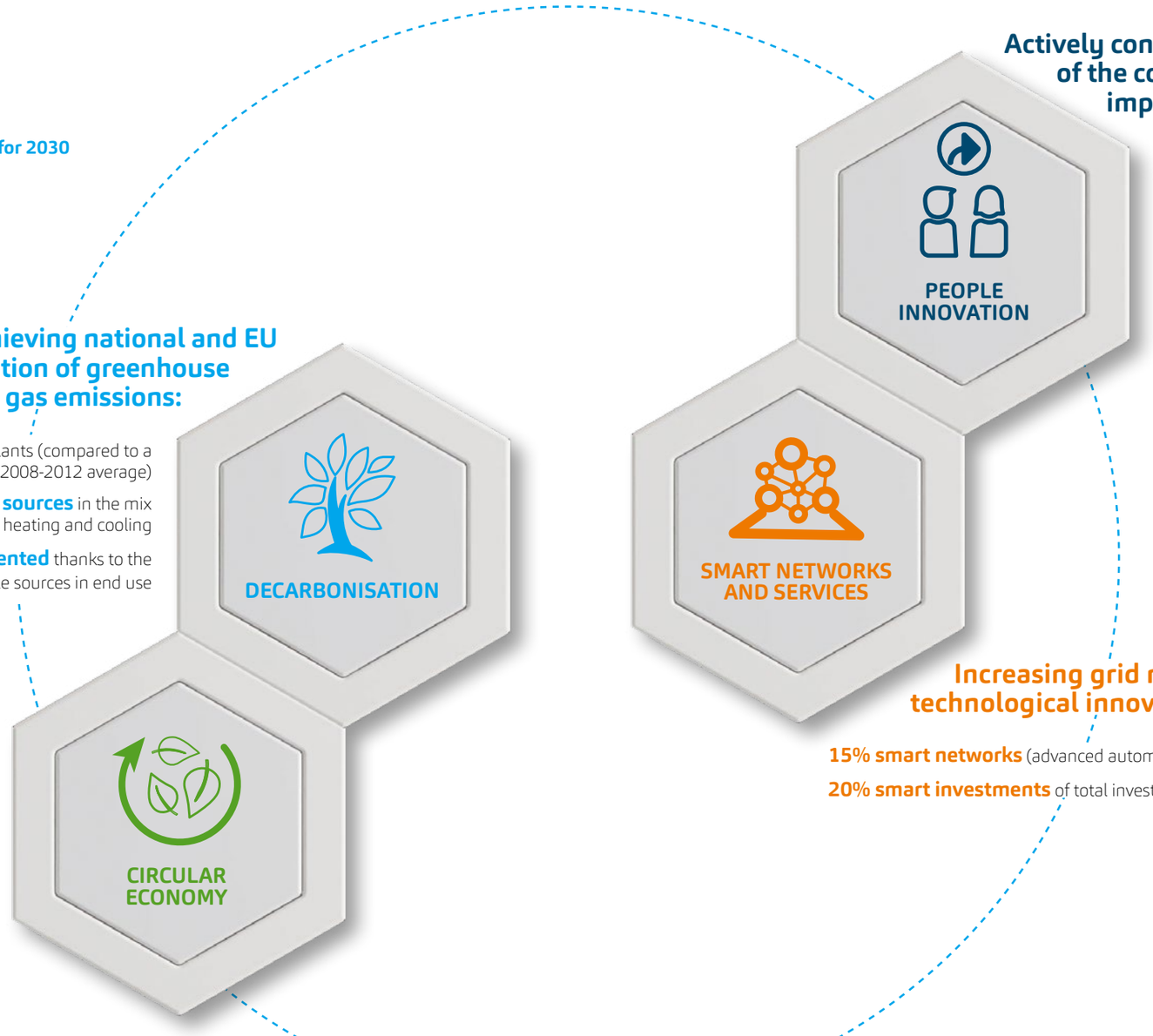
The Sustainability Policy

In its statement, the Sustainability Policy defines the meaning of sustainability for the A2A Group: **"Helping communities be sustainable"**.

For the Group, this commitment means **improving the quality of people's lives** through a new, low-carbon circular economy based on smart networks and services.

The Policy is built around four pillars (**Circular Economy, Decarbonisation, Smart Networks and Services and People Innovation**), which sum up the process that the Group wishes to follow to spread sustainability among all of its stakeholders.

Figure 03 | A2A's Sustainability Policy – some goals for 2030



The Sustainability Plan: objectives and actions in 2020

The Sustainability Plan is the tool that contains **the Group's sustainability objectives that may be quantified over a time horizon consistent with the Business Plan**, ending in 2020. Each action included in the Plan consists of various indicators that allow the state of progress of the action to be measured. Each action is monitored with half-yearly or annual frequency through a specific monitoring plan that allows the state of progress and its efficacy over time to be assessed.

The presentation of the new Business Plan calls for its content to be integrated with that of the Sustainability Plan, so as to create a single Integrated Strategic Plan for the A2A Group.

Figure 04 | 2016 – 2020 Sustainability Plan

	ACTION	2020 OBJECTIVE	KPIs	PROGRESS TOWARDS 2016 KPIs	TYPE OF CAPITAL AFFECTED
CIRCULAR ECONOMY	RECOVERY AND TREATMENT	• Reaching 99% of municipal waste collected sent for recovery of material or energy	• % of urban waste collected sent for recovery of material or energy	98.86%	MANUFACTURING CAPITAL NATURAL CAPITAL
		• Reaching 67% average share of sorted waste collection in the municipalities served	• % average share of sorted waste collection in the municipalities served	56.2%	
		• Reaching 80% material recovery rate out of total urban waste collected at the Group's plants	• Material recovery rate out of total urban waste subject to sorted collection at the Group's plants	84%	
			• Waste recovered as material at our plants (t)	606,000	
			• Waste subject to sorted collection (t)	724,239	
		• 151% increase in waste treatment capacity (urban + special waste) aimed at recovering material at the Group's plants	• Waste treatment capacity (urban + special waste) aimed at recovering material at the Group's plants (t)	658,000	
			• Δ compared to 2015	+86%	
		• 13% increase in waste treatment capacity aimed at energy recovery at the Group's plants	• Waste treatment capacity aimed at energy recovery at the Group's plants (t)	1,405	
			• Δ compared to 2015	+1%	
	REDUCTION POLICIES	Cover 100% of territories with waste recovery, reduction and reuse programmes launched with municipalities	• Territories covered	90%	RELATIONAL CAPITAL COMMUNITIES
	RISK MANAGEMENT	Definition of a specific risk intelligence system for sustainability risks	• To be implemented by 2020	Discussions launched with the CSR function	GOVERNANCE
	WATER	• 5% reduction in losses in the water service measured in 2016-2020	• Network losses (Mm^3)	24.3	MANUFACTURING CAPITAL NATURAL CAPITAL
			• Δ losses in the water service 2016-2020	-1.2%	
		• Implement treatment process for 60% of inhabitants equivalent not treated as at 2015 by 2020	• Equivalent inhabitants subject to treatment process	2,746	
			• Percentage of total equivalent inhabitants not treated in 2015	5%	
	BIODIVERSITY	Monitor 100% of plants for biodiversity	To be implemented by 2020	/	NATURAL CAPITAL

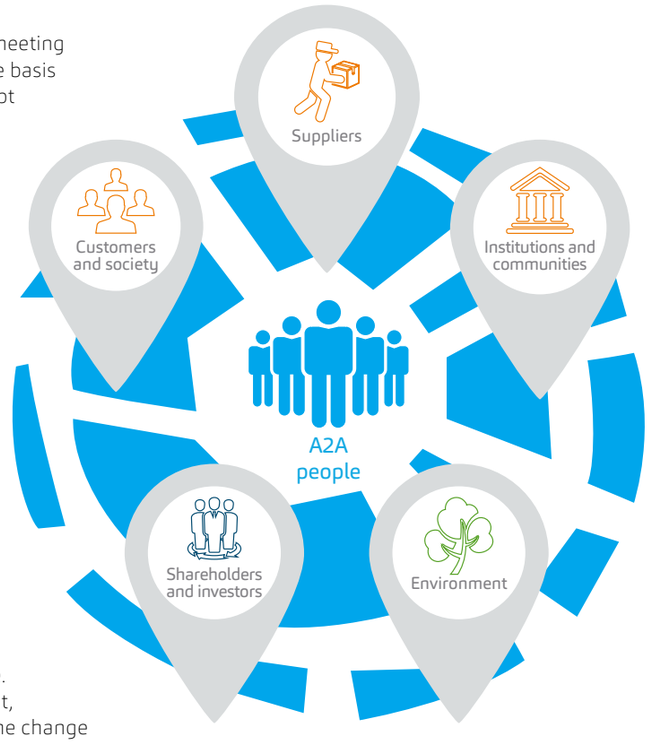
	ACTION	2020 OBJECTIVE		KPIs	PROGRESS TOWARDS 2016 KPIs	TYPE OF CAPITAL AFFECTED
DECARBONISATION	DISTRICT HEATING	• 13.7% increase in volumes served by district heating (ACS+Varese Risorse scope)		• Volumes served by district heating and district cooling (Mm^3)	98.3	MANUFACTURING CAPITAL
				• % increase compared to 2015	+3%	
		• 194 t/y of NOx emissions prevented due to district heating in 2020 (+149% on 2014)		• NOx avoided (t/y)	-102 (2015 figure)	
		• 234,000 t/y of CO_2 emissions prevented due to district heating in 2020 (+82% on 2014)		• CO_2 emissions avoided (t/y)	-164,000 (2015 figure)	NATURAL CAPITAL
	EFFICIENCY IN END USE	• Convert 500 obsolete heating systems on the premises of end customers		• Number of obsolete heating systems converted on the premises of end customers (heat management)	13	NATURAL CAPITAL
				• Number of new AEN boiler installations	69	
		• Preventing 36,200 t of CO_2 due to energy efficiency measures affecting end use (LED installations, ESCO industrial activities and condominium management)		• CO_2 avoided through LED activities (t)	27,950	RELATIONAL CAPITAL CUSTOMERS
				• CO_2 avoided through condominium management (t)	2,995	
	EMISSIONS	• 34% reduction in CO_2 emissions from power generation compared to the average levels for the period 2008 – 2012 (9,500 t CO_2)		• CO_2 emissions of electric power generation plants (kt CO_2)	5,047	NATURAL CAPITAL
				• Δ on average levels for 2008-2012	-47%	
		• 10% reduction of carbon intensity in electrical power generation (CO_2/KWh) compared to the average levels for 2008 – 2012 (438 g CO_2/KWh)		• Emissions factor for power production plants ($kgCO_2$/kWh)	417	
				• Δ on average levels for 2008-2012	-5%	
	SUSTAINABLE MOBILITY	• Increase in Euro 6 vehicles and methane electric engines (+63% on 2015)		• Number of new low environmental impact waste collection vehicles	417	NATURAL CAPITAL
				• Δ compared to 2015	+276%	
	RENEWABLES	• Reaching 49% thermal energy generation from non-fossil sources in 2020		• Generation of thermal energy from renewable sources (GWh)	1,386	MANUFACTURING CAPITAL
				• % of the total	50.4%	
	GREEN MARKETING	• 100% increase in the sale of green (renewable) energy on the mass market segment (compared to 2015)		• Green energy sold (GWh)	768.7	FINANCIAL CAPITAL
				• Δ compared to 2015	+22%	
		• Reaching 350,000 participants (contracts) in loyalty programmes that promote informed energy use		• Number of participants in Chiara2a	257,075	RELATIONAL CAPITAL COMMUNITIES
	EDUCATION	• 20% increase in the number of visits to the Group's plants (compared to 2015)		• Visitors to plants	21,000	RELATIONAL CAPITAL COMMUNITIES
				• Δ compared to 2015	+19%	
		• 20% increase in the number of students of all ages involved in A2A's initiatives for schools (compared to 2015)		• Students involved in initiatives	29,000	

	ACTION	2020 OBJECTIVE		KPIs	PROGRESS TOWARDS 2016 KPIs	TYPE OF CAPITAL AFFECTED
SMART NETWORKS AND SERVICES	QUALITY	• Maintenance of performance in the main multi-client customer satisfaction surveys of 2% above the natural average and never < 90% (CERVED DataBank)		• Total CSI	92.4% (national average of 90.3%)	RELATIONAL CAPITAL CUSTOMERS
		• Maintenance of quality of service in call centres > the national average for the sector		• CSI for call centres of A2A Energia (first half of the year)	97.1 (national average of 91.0)	
	SMART NETWORKS	• Reaching 70% of users with smart natural gas meters by 2018 and 100% by 2020 (open meters, which coincide with grid users)		• Users with smart natural gas meters	361,575	INTELLECTUAL CAPITAL RELATIONAL CAPITAL CUSTOMERS
				• % of total users	31%	
		• Reaching 75% of users with smart power meters (2G - Authority model) in 2020		• Users with smart power meters	1,107,770	
				• % of total users	99%	
		• 40% reduction of the average length of service outages in the city of Milan compared to 2015		• Average annual minutes of outage per BT user in high concentration environment due to long outages without notice	26.63	
				• Δ compared to 2015	+12%	
		• 64% reduction in the average number of outages in Milan compared to 2015		• Annual average number of outages per BT user in high concentration environment due to long outages without notice	1.54	
				• Δ compared to 2015	+18%	
		• Reaching 62 million euros in investments in the smart grid (electricity)		• Investments in the smart network (million €)	3	
	DIGITAL	• Reaching 400,000 customers with online tools		• Number of customers registered with the online service	268,818	RELATIONAL CAPITAL CUSTOMERS/COMMUNITIES
		• Reaching 400,000 customers registered with bollet@mail e-mail billing		• Number of customers registered	289,613	
		• Reaching 100,000 registrations of citizens in online services through downloading the Group's app		• Number of downloads of the Group's app	18,558	
	SMART CITIES	• Reaching investments of 10 million euros in smart cities in the area		• Investments in smart cities (million €)	1.9	INTELLECTUAL CAPITAL
		• Install 20,000 smart environmental bins		• Number of smart bins	Implementation planned starting in 2017	
		• Install 250,000 IP LED systems		• LED systems installed (number)	193,500	
		• 100% LED replaced in Milan, Brescia and Bergamo		• LED systems installed (%)	99%	
	DISADVANTAGED GROUPS	• Reaching 0.1% participation of the customer base (including employees) in the Banco dell'Energia initiative		• Participation in the Banco dell'Energia (number)	1,317	RELATIONAL CAPITAL COMMUNITIES
				• Percentage of the customer base	0.15%	

	ACTION	2020 OBJECTIVE	KPIs	PROGRESS TOWARDS 2016 KPIs	TYPE OF CAPITAL AFFECTED
PEOPLE INNOVATION	RESPONSIBLE PROCUREMENT	• Reaching 75% of the value of orders assigned to certified suppliers	• Value of orders assigned to certified suppliers (% of the total)	77%	RELATIONAL CAPITAL SUPPLIERS
		• Reaching 50% of qualified suppliers in the register with sustainability requirements	• Qualified suppliers with sustainability requirements (% of the total)	23%	
		• Monitoring of accident index scores of suppliers for work done on the premises of the A2A Group	• To be completed by 2020	/	
		• Carry out 4,000 inspections of road worksites	• Inspections of road worksites (number)	1,406	
	HEALTH AND SAFETY	• 25% reduction of the weighted accident rate (frequency index x severity index) compared to the average for 2013-2015 (25.69)	• Weighted accident rate	30.7	HUMAN CAPITAL
	MbO	• Reaching 100% of executives with Sustainability MbO	• Executives with Sustainability MbO (% of the total)	33%	HUMAN CAPITAL
		• Reaching 100% of employees subject to *Performance Management* assessed according to CSR parameters	• Employees assessed according to CSR parameters (% of the total)	0%	
	TRANSPARENCY	• Development of a Sustainability Policy and Plan	• To be completed by 2017	achieved	RELATIONAL CAPITAL COMMUNITIES
		• Progressive development of Sustainability Reports and integrated financial statements	• To be completed by 2017	achieved	
		• Drafting eight local Sustainability Reports	• Local reports drafted (number)	3	
		• Reaching 100% response rate to requests / demands for sustainability ratings	• Response rate	100%	
	INNOVATION AND R&D	• Launching five research projects, initiatives and partnerships a year in which the A2A Group participates with major research institutions and universities	• Projects launched	9	INTELLECTUAL CAPITAL
	CHANGE MANAGEMENT	• Reaching 15 new change management projects	• Number of new projects implemented	5	HUMAN CAPITAL
		• 100% of graduates under 35 (in 2015) subject to job rotation	• Employees subject to job rotation (% of the total)	7%	
	INTERNAL ENGAGEMENT	• Reaching 100% of employees involved in feedback surveys	• Employees involved in feedback surveys (% of the total)	100%	HUMAN CAPITAL
	WELFARE	• Reaching 20% of employees involved in smart working projects, for roles where it is applicable, in a systematic manner	• Employees involved in smart working projects (% of total applicable roles)	5%	HUMAN CAPITAL
		• Reaching 100% of employees involved in welfare and diversity initiatives	• Employees involved in welfare and diversity initiatives (% of total)	21%	
	BRAND PERCEPTION	• Implementing a system for measuring and monitoring the Group's notoriety and image	• To be completed by 2020	/	RELATIONAL CAPITAL COMMUNITIES
	TRAINING	• Reaching 100% of employees involved in sustainability matters	• Employees involved in sustainability training (% of the total)	Preparation of a training plan for 2017	HUMAN CAPITAL
		• Reaching 100% of employees involved in training on the Group's new Code of Ethics	• Employees involved in training on the Group's new Code of Ethics (% of the total)	17%	
		• Maintenance of average levels of approval of the teaching/training hours of 5 (scale of 1 to 7)	• Average level of approval of training	6	
	STAKEHOLDER ENGAGEMENT	• Develop 15 territorial workshops, from which 30 actions should ensue	• Number of works developed (forumAscolto)	2	RELATIONAL CAPITAL COMMUNITIES
			• Number of ensuing actions	6	
	FOUNDATIONS	• 100% of the Foundations' initiatives, in line with the Group's Sustainability Policy	• % of total initiatives	100%	RELATIONAL CAPITAL COMMUNITIES

4
Stakeholder engagement and materiality analysis

Listening to the community's needs and meeting their requirements and expectations is the basis for concrete implementation of the concept of sustainability. The aim is to generate and distribute value in a harmonious, lasting manner, reconciling the interests of the Group with those of its stakeholders. In this interplay of relations and interests, it is important to see that **the main stakeholders often play a double role**, for example: the municipalities in which the Group operates are also shareholders; the institutions with which it compares notes are also customers; the residents (and therefore the public) are, in turn, the greatest users of the services; customers also include employees and suppliers.
In 2013, a structured reporting system was introduced on **stakeholder engagement** activities through the development of a specific Group database. During meetings and external involvement, stakeholders thus become promoters of the change and evolution of the Group's sustainability strategies.



In 2016, approximately 240 engagement initiatives were organised. The groups of stakeholders with the greatest involvement are the local communities and institutions and associations of Milan, Brescia, Naples, Bergamo, Valtellina and Friuli Venezia Giulia.

Figure 05 | Issues considered in stakeholder engagement activities

Figure 06 | Main categories of stakeholders involved in engagement initiatives

4.1 The forumAscolto programme

The **forumAscolto** programme, the multistakeholder feedback initiative launched by A2A in 2015 aimed at understanding the needs of the communities where it operates, continued in 2016.

The forumAscolto programme is an opportunity for dialogue and discussion aimed at identifying each community's specific needs, establishing debate on issues important to A2A and its stakeholders and contributing to the development of ideas and projects in accordance with the Group's goals, so as to create shared value.

The first forum was held on June 8, 2015 in Brescia, and two other forums were organised in 2016.

Figure 07 | forumAscolto meetings held in 2016

AREA OF REFERENCE	WHEN	NUMBER OF STAKEHOLDERS INVOLVED	ISSUES DISCUSSED	IDEAS BROUGHT TO LIGHT
Valtellina and Valchiavenna	February 25, 2016	29	Four work groups on: • Economic responsibility • Environmental responsibility • Social responsibility. • Relations with the local community	Nine ideas developed, of which five were selected and three implemented
Bergamo	July 4, 2016	44	Four work groups on: • Grids and infrastructure • Circular economy • Support and relationship with the local community • Digitalisation and smart cities	Seven ideas developed, of which three selected

After each forum, the ideas proposed were assessed by the Committee for Territory and Sustainability and the Group's BUs according to the defined criteria, such as: consistency with the priorities identified during the forum, the necessary investment, implementation times, consistency with the business plan, the social, economic and environmental benefits that may be obtained and the presence of any other ongoing similar initiatives.

The ideas selected were then reported to the stakeholders and the community during two dedicated sessions, during which the **Local Sustainability Reports** drafted after the forums were also presented.

The results of the multistakeholder forums, along with A2A's economic, environmental and social performance in the various communities are included in the pertinent Local Sustainability Reports, innovative sustainability reporting documents intended as an **annual opportunity for communication with local stakeholders**, as in the case of the second edition of the Local Sustainability Report for Brescia, published in the second half of 2016. This document also includes the plan to implement the initiatives that arose from the forum.

The state of progress in the implementation of the selected projects is also reported through a dedicated website, www.forumascoltoa2a.eu.

Local Sustainability Reports may be consulted in the Sustainability section of the website ***ww.a2a.eu***.

In the second half of 2016 preparation began to hold the **first forumAscolto event in Milan** (January 30, 2017), which involved the participation of 39 stakeholders invited to discuss four main issues: smart cities, the circular economy, environmental culture and urban renewal. In addition, for the first time since the creation of A2A's forumAscolto programme, all residents of Milan were invited to participate through the platform www.forumascoltoa2a.eu by proposing ideas and initiatives and then voting for and sharing them. The platform was also promoted by a **dedicated Facebook page** (see also page 129).

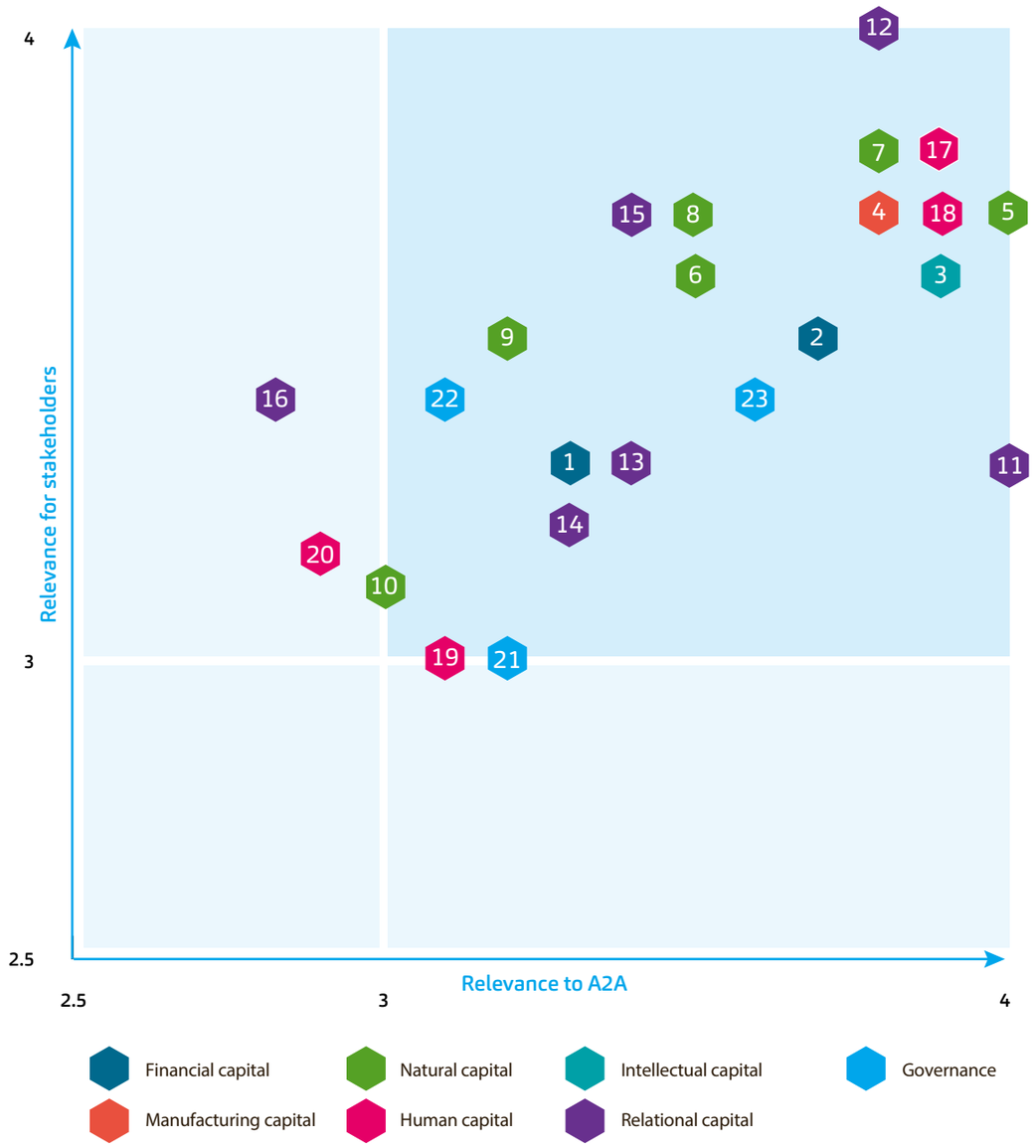
4.2 Materiality matrix and analysis

In 2016, the **A2A Group materiality matrix was updated**. To measure the importance for stakeholders, the assessments were considered as emerging from:

- a survey conducted in January 2017 through an online questionnaire sent to all stakeholders who participated in A2A's various forumAscolto events (approximately 120 individuals);
- the results of the Bergamo and Valtellina-Valchiavenna forums;
- the analysis of the database of the year's engagement initiatives.

To measure their significance to A2A, the various issues were assessed by the Group's departments/companies through a survey administered during the annual kick-off meeting for activities for the 2016 Report, held in December 2016. Compared to previous years, the list of issues to be assessed was updated to keep pace with changes in general trends in the industry, taking into account issues such as "transport and logistics management" and "ESG elements in corporate governance". The final analysis identified 23 issues that embrace the six types of capital and the Group's governance system.
The results are illustrated in the materiality matrix.

Figure 08 | Materiality matrix



1	Promotion of ESG criteria towards investors and integration into investment processes
2	Creation of shared economic value
3	Technological innovation and smart cities
4	Efficient management of plants and networks
5	Circular economy
6	Efficient water use
7	Climate change and energy efficiency
8	Land protection
9	Waste water treatment
10	Transport and logistics
11	Responsibility, security and quality in the supply of services and products
12	Relationship with the local community
13	Accessibility of the service
14	Responsible management of the supply chain
15	Citizen education
16	Lobbying and public policy
17	Health and safety in the workplace
18	Development of human capital
19	Diversity and company welfare
20	Union relations
21	Human rights
22	Ethics, integrity and compliance with laws and regulations
23	ESG elements in corporate governance

Capital

5 Financial capital

1,634
mln euros
Financial value produced and distributed to stakeholders

58.5
mln euros
invested in activities with environmental implications: emissions reductions, increased energy efficiency, renewable development, innovation.

5,093
mln euros
2016 Group revenues

386
mln euros
invested in Group Business Units

Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
CREATION OF SHARED VALUE	The aware management of the Group's economic-financial performance, guaranteeing financial stability, protecting profitability and the economic value generated, making a positive contribution towards the development of the social and economic fabric of the local community.	Economic value produced and distributed to stakeholders	The Group ensures the aware management of the economic and financial resources through continuous monitoring that is able to guarantee suitable levels of recovery and return on invested capital. Under this scope, special attention is paid to the mapping and implementation of monitoring processes and the management of impacts generated from the variation in market prices of the main commodities.	• 1,634 million euros in **added value distributed** • 8 projects activated by **multi-stakeholder** listening forums	
OPTIMISATION OF ESG CRITERIA AMONGST INVESTORS AND PROMOTION OF ITS INTEGRATION IN INVESTMENT PROCESSES	Optimising social and environmental aspects with the aim of developing reliable, secure relations with the financial community; stimulating the appeal of new investors and the creation of value through responsible investment initiatives.	• Change to the regulatory structure (e.g. carbon tax) • Assessment of the ESG components by ratings agencies.	The Group integrates aspects of ESG into its investment decisions and its corporate conduct, integrating sustainability into the business activities and committing to construct solid relations with the financial community. The Group proactively involves potential ESG investors, communicating its sustainability performance transparently.	• Entrance into the **Euronext Vigeo Europe 120** index. • Response to the main assessments of the **ethical ratings agencies**.	***PEOPLE INNOVATION*** Transparency

The figures given in this chapter refer to the scope of the A2A Consolidated Financial Statements. For more information, see the Methodological Note on pages 6-7.

5.1 Value added produced and distributed

Value added is the wealth that the Group generates in the year. It is the difference between revenues on the one hand and the intermediate costs and accessory and extraordinary items on the other. This parameter measures the **financial effect of the business of the A2A Group on its main stakeholders** and therefore the Group's capacity to create value for its stakeholders.
To determine the formation of value added, A2A uses the methodology defined Social Accounts Group (Gruppo per il Bilancio Sociale - GBS).

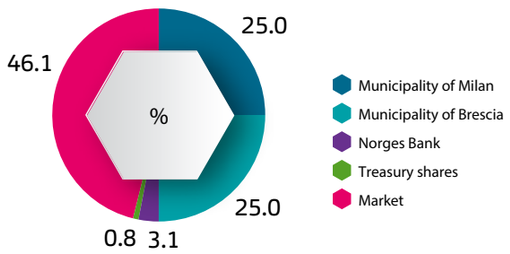
In 2016, the gross global value added distributed by the Group was 1,634 million euros (+ 29% on 2015). Most of this was allocated to company remuneration (527 million euros, + 48.5% on 2015), staff compensation (477 million euros) and transfers to the public administration (304 million euros). Transfers in favour of the local community have declined (- 7% on 2015), mainly due to the reduction in local taxes and duties.

5.2 Relations with shareholders

The parent company, A2A S.p.A., is listed on the Milan stock exchange. The A2A share is traded on the electronic stock market and belongs to the FTSE-MIB segment and falls within the "Public Utilities - Electricity" sector. Under article 9 of the company's By-laws, no single shareholder other than the Municipalities of Brescia and Milan may hold more than 5% of share capital. Shares held in excess of the 5% limit have no voting rights.

A2A has 82,504 shareholders, divided between institutional investors and retail investors.
Institutional investors hold approximately 33.8% of the share capital (31.5% in 2015). 25.2% of the free float in the hands of institutional investors is held by British investors, 18.1% by investors based in Luxembourg, 17.5% by US investors and 17.1% by Italian investors. There are also French (7.2%) and German (2.5%) institutional investors.
Please note that there are also ethical investors amongst the shareholders, such as **Norges Bank** and **Etica Sgr.**

Figure 09 | A2A's shareholding structure (at December 31, 2016)*



*Source: CONSOB for shareholdings exceeding 3%

Retail investors total approximately 81,000 and together hold 12.9% of share capital (16.2% of 2015). 99.8% of the retail shareholding is resident in Italy and in particular, 57.8% in Lombardy. Investors residing in the provinces of Milan and Brescia hold 26.3% and 12.9%, respectively, of the total retail[1].

Figure 10 | Share indicators

	2014	2015	2016
Earnings per share (EPS) *(euros)*	(0.012)	0.023	**0.072**
Dividend per share (DPS)* *(euros)*	0.0363	0.041	**0.0492**
Dividend Yield (DPS/P)**	4.3%	3.8%	**4.2%**
Number of shares (million)	3,133	3,133	**3,133**

* Dividend proposed by the Board of Directors
** Calculated on average share price

(1) The figures have been prepared on the basis of the shareholders' register updated as of the distribution of the dividend on June 22, 2016.

A2A in the stock market indices

Among the factors affecting share performance in 2016 were those arising from macro-economic and government policy trends, as well as capital flows on the international financial markets.

On the other hand, the company-specific factors include:
- the presentation of the 2016-2020 Strategic Plan;
- the growth of the dividend distributed;
- the growth of the quarterly industrial results, which exceed expectations;
- the acquisition of 51% of Linea Group Holding;
- the completion of certain acquisitions in the waste and energy efficiency sectors;
- the pursuit of the debt reduction trend.

A2A forms part of the following indices: FTSE MIB, STOXX Europe, EURO STOXX, WisdomTree, MSCI Europe Small Caps and S&P Developed Ex-US.

A2A in the sustainability ratings

In recent years, the number of initiatives promoting the upholding of ESG (Environmental, Social and Governance) criteria in different ways, in the assessment of financial investments, has increased exponentially. Sustainable finance should therefore be implemented with the inclusion on the ethical indexes of listed companies meeting the main criteria of environmental, social and economic responsibility. The Group is currently listed in the following ethical indices:
- **Ethibel Sustainability Index Excellence Europe;**
- **Euronext Vigeo Europe 120;**
- **Solactive Climate Change Index;**
- **Standard Ethics Italian Index.**

Since May 2013, A2A has also been included in the **Ethibel Excellence Investment Register** and in the **Ethibel Pioneer Investment Register**.
A2A also participates in the annual assessments of the CDP (Carbon Disclosure Project) of Vigeo-Eiris, RobecoSAM and ETICA SGR.

In 2016, A2A was included in the LEADERSHIP section of the CDP, reserved to leading companies in the fight against climate change, obtaining a rating of A-.

In December 2016, A2A was included in the **Euronext Vigeo Europe 120** index, which lists the top 120 companies across Europe that have achieved the highest environmental, social and governance performance, on the basis of 330 indicators analysed.

Relations with shareholders and investors

A2A is constantly committed to providing answers as precise and exhaustive as possible to the needs and specific requests of financial stakeholders. To this end, various communication tools and channels are used:

- company documents (financial statements, interim reports, corporate presentations);
- documentation ad hoc (Investor Guidebook, Investor Guidebook Utilities Sector Regulation, Investor Databook, documents of the Library for the investor);
- press releases;
- "A2A Business Plan News" newsletter (on-line);
- meetings with analysts and shareholders (road shows, one-to-one meetings, group meetings, conference calls, presentations at events, seminars on specific sector issues, etc.). The financial community has met with both the company's senior management and some business managers and staff.

As for the coverage of the analysts, at the end of 2016, A2A was followed by 13 different brokers.

Internet communication (website and mailing) is particularly important and, in 2016, the Investors section of the website was further expanded:

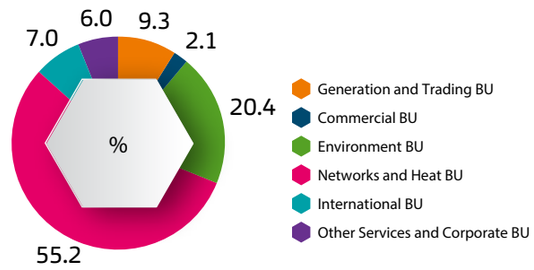
- the subsection "**Library for the investor**" was enriched with further contents, with the publication of specific studies regarding the markets, the businesses in which the Group operates and the regulatory context;
- new information was added to the **Investor Guidebook**, a document that provides a comprehensive overview of A2A through the use of the main public information available;
- a new document has been published, discussing the regulatory and legislative aspects most relevant to the A2A business model and the utilities sector, the "**Investor Guidebook, Utilities Sector Regulation**";
- the set of economic-financial data of the **Investor Databook** has been expanded upon, in particular envisaging not only the historic information from 2008, but also a part dedicated to prospective data, useful for analysts' modelling.

As regards communication with the institutional investors and analysts, in 2016, publication of the web newsletter (the "**A2A Business Plan News**") continued, which illustrates the main updates connected with the Strategic Plan.
The web also provides an effective **communication channel with retail investors**: the A2A website publishes the answers to the most frequently asked questions (FAQs). The Investor Relations unit also provides timely responses to specific questions raised by small investors (especially by e-mail).

5.3 Relaunch of investments

Capital expenditure totalling 386 million euros (+12% vs. 2015) **was made in the A2A Group's various sectors in 2016**.

Figure 11 | Investments in % by business unit in 2016



15% of investments related to environmental aspects, such as: actions to reduce emissions, increase energy efficiency, development of renewable sources and innovation.

Figure 12 | Environmental investment (millions of euro)

Investment classification	Generation and Trading Business Unit	Networks and Heat Business Unit	Environment Business Unit	Corporate Business Unit	International Business Unit	Total
Emissions reduction	1.1	8.1	0.8	0	0	**10.0**
Energy efficiency	0.01	15.2	13.8	0	0	**29.1**
Renewable sources	10.1	0	5.3	0	0.8	**16.2**
Innovation	0.8	1.0	1.1	0.3	0	**3.2**
Total	**12.0**	**24.3**	**21.1**	**0.3**	**0.8**	**58.5**

Investments mainly regarded energy efficiency interventions linked with improvements to the Group's main waste-to-energy plants and the replacement of public lighting systems to use LEDs.

To develop renewable sources, in 2016 A2A invested to improve the technological status of all its hydroelectric units, as well as envisaging an increase in the power of the Silla2 waste-to-energy plant. Investments in innovation regarded research and development projects in smart grids, in the stabilisation of fly ash emitted by the waste-to-energy plants and in the making of water distributed fit for drinking (elimination of hexavalent chrome).

6 Manufacturing capital

628 MW_t
installed capacity for the production of thermal energy from waste

9 GW_e
installed capacity for the production of electricity

46 Mm^3
of water treated in the Group's purification plants

1,055 km
of district heating network

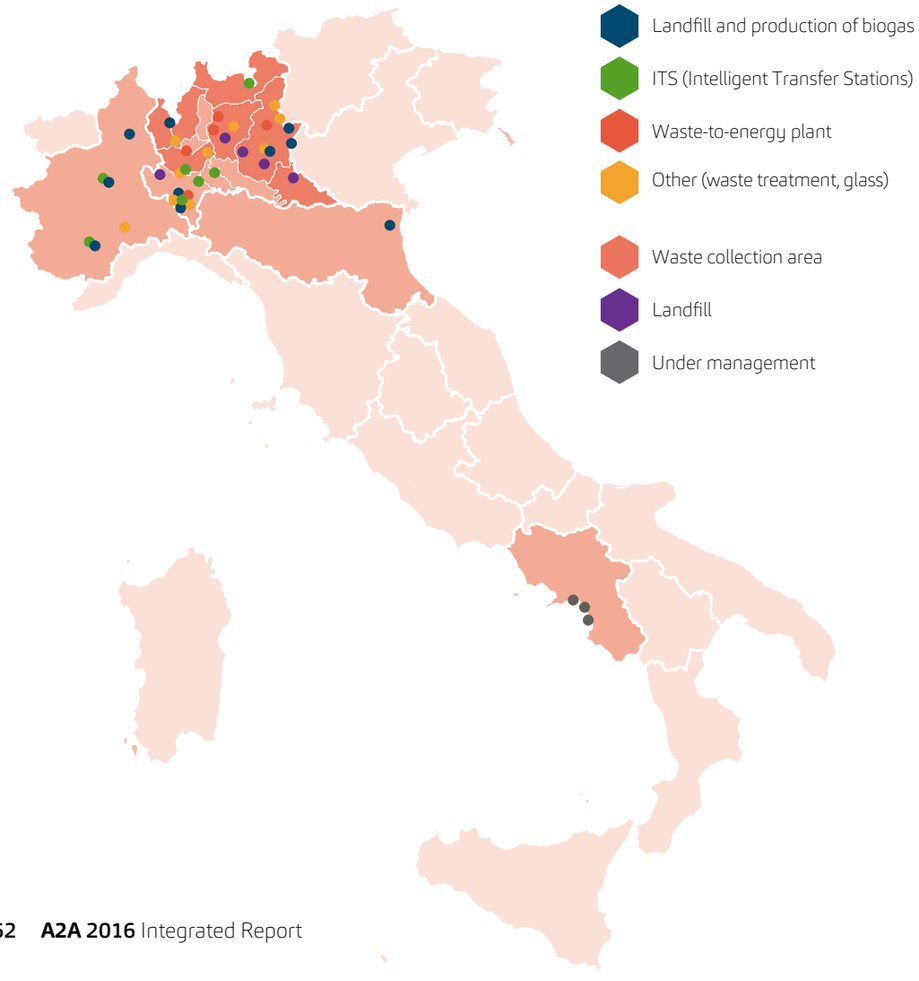
Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
Efficient management of plants and networks	Integrating climate change mitigation strategies into the production lines. Efficiently manage the Group's plants and infrastructures, promoting technological innovation and performance improvement, so as to guarantee an increase in energy production and generation capacity, a reduction in water losses and the continuity and reliability of infrastructures.	• Achievement of the objectives of the energy efficiency development initiatives • Wear of significant plant components • Continuity of operation of the plants and networks.	Structured organisational device in corporate departments focussed on the development of energy efficiency initiatives. The Group efficiently manages its plants and networks with a view to preventing any disservices or failures and guaranteeing reliability and high performance during operation. Continuous management is assured through preventive maintenance work, controls and a careful planning of emergency intervention teams to cope with any eventuality.	• Extraordinary maintenance work on **Silla2** • Start-up of the new Giussago **bioreactor** • Strengthening of the Asti **glass recovery** plant • Start-up of the ISO 50001 certification process for the Brescia, Milan and Corteolona waste-to-energy plants • Development of the first **thermodynamic solar plant (STEM)** • Implementation of the extraordinary four-year plan to **improve the resilience** of the electricity grid • Start-up of 3 new natural gas heaters at the **Lamarmora plant**	***DECARBONISATION*** • District heating • Renewable ***SMART NETWORKS*** • Smart grids

6.1 Manufacturing capital in the Environment Business Unit

The plants managed by the Environment BU cover all phases of the integrated waste cycle:
- collection: with the management of recycling centres and ecological platforms;
- treatment and recovery of materials: through a glass recovery plant, waste washing plants (mainly for waste deriving from road sweeping and aimed at recovering inert materials), composting plants for the optimisation of the wet fraction, ITS (Intelligent Transfer Stations) for the recovery of the residual fraction of municipal solid waste after separate waste collection;
- energy recovery: through waste-to-energy plants and yards for the recovery of biogas produced by landfills;
- storage and life-end: through dedicated platforms and controlled landfills for municipal solid waste and special waste comparable with municipal waste.

Figure 13 | Plant types and geographic location of the Environment BU

TYPE OF PLANTS	NUMBER OF PLANTS	CAPACITY
Material treatment and recovery	11	844,000 t/y
ITS	7	645,000 t/y
Waste-to-energy plants	5	204 MW_e 628 MW_t
Landfills	15 (of which 7 in post-management)	7 mln m^3
Biogas production	10	13 MW_e 2 MW_t



With the growth of separate waste collection and the evolution of environmental policies increasingly focussed on recovery and recycling, the phases of treatment, selection and optimisation of waste have taken on increasingly strategic importance. This is why in 2016, A2A strengthened its presence throughout the waste recovery chain, acquiring businesses already operating in these activities, building new plants and extending existing ones; these plants will be consolidated, in terms of their social and environmental performance, in 2017 (in line with that explained in the Methodological Note).

A2A Ambiente has in fact stipulated the deed of purchase of:
- a majority (64%) share in the company **La BI.CO due**, which operates in the municipal hygiene sector through the collection, transport and disposal of waste in various municipalities throughout the province of Brescia, as well as with a waste storage, treatment and recovery plant (mainly paper and plastic), in the municipality of Lograto (BS);
- 100% of the **Rieco-Resmal Group**, operating in the collection, selection and recovery of special, non-hazardous waste (plastic, biomass and in particular waste paper) in the area of Milan.

The most significant operation is without doubt the purchase of a 51% share in the share capital of the **LGH Group**, whose partnership, completed in August 2016, will influence multiple business areas and, in particular, the environmental area, with its 11 waste treatment plants and more than 125 municipalities covered by the environmental hygiene service. The 2020 Sustainability Plan aims, in fact, to increase the (municipal and special) waste treatment capacity by around 150%, so as to recover the materials in the Group plants.

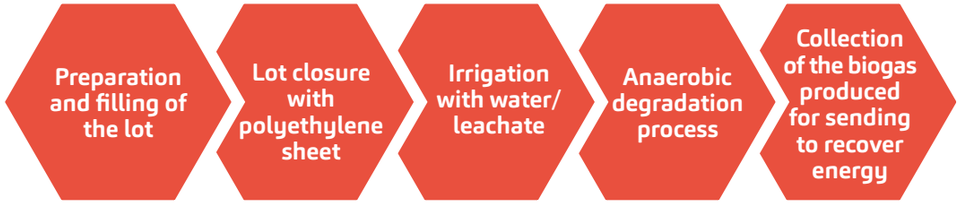
Extraordinary maintenance of the Silla2 waste-to-energy plant

Following completion of the preliminary activities carried out in 2015, in August and September 2016 extraordinary maintenance works were completed on Line 3 of the Milan waste-to-energy plant, which resulted in a **15% increase in thermal production**. Thereafter, the line was provisionally started-up until its definitive commissioning on December 12, 2016.
In 2017, similar interventions on Lines 1 and 2 will increase the nominal thermal power of the entire plant by 15%.

Start-up of the new Giussago bioreactor

The bioreactor able to be activated is a depot controlled on the ground, which differs from traditional landfills, in which **a controlled degradation process of the organic substance present in the waste** is triggered, setting the conditions most favourable to it, so as to reduce the time it takes to obtain complete stabilisation. The triggering of the biodegradation process is made possible thanks to the controlled addition of water/leachate.
Non-hazardous waste can be disposed of in the bioreactor, mainly comprising waste deriving from the treatment of municipal waste, no longer able to be used to recover materials.

The total project for the bioreactor envisages the development of 17 lots, which will be progressively implemented and managed as described below:



Once the conferrals are complete and biogas production has been exhausted, the bioreactor may be reused for waste disposal, after:
- aerobic stabilisation by blowing air into the mass of waste, to degrade any organic residues still present;
- reopening and emptying of the landfill, screening the waste extracted, sending the oversize material for energy recovery and definitive positioning in the landfill of the fine fraction.

The bioreactor for activation was **started up on January 11, 2016, with 8 lots currently authorised**, which have a surface area of more than 74,000 m^2 and a useful volume of more than 442,000 m^3.

Strengthening of the Asti glass recovery plant

In 2016, a project was authorised to **increase the percentage recovery of glass from separate waste collection**, to be sent directly to the glass factories. Plant strengthening consists of developing a treatment line dedicated to small granulometry glass fractions (ranging between 3 and 7-8 mm) through the installation of:
- a drier dedicated to granulometry fractions smaller than 10 mm;
- two optical selectors for the treatment of granulometry fractions ranging between 3 and 7 mm;
- machinery for screening and aeraulic separation dedicated to eliminating fine fractions smaller than 3 mm from the flow and components such as paper, plastic and organic substance;
- connecting belts/elevators between added machinery and the rest of the plant.

Works are expected to be completed by end 2017.

The Cavaglià plastic-selection plant

In July 2016, a request was lodged with the provincial authority of Biella, for the issue of authorisation to build and manage, in the municipality of Cavaglià, a **new plastic fraction selection plant** from the separate waste collection of municipal solid waste. Authorisation was granted on December 30, 2016. The plant is expected to start being developed in 2017 with works scheduled for completion, testing and start-up of operations in the second half of 2018.
The plant will have the **capacity to treat 45,000 tonnes a year**.

ISO 50001 ENERGY CERTIFICATION FOR THE WASTE-TO-ENERGY PLANTS

With a view to ensuring continuous improvement, A2A Ambiente has embarked on a **certification process of its energy management system** for the Brescia waste-to-energy plant, the Milan Silla 2 waste-to-energy plant and the Corteolona waste-to-energy plant.

The first step was to build the energy model of each plant, so as to identify the presence of further opportunities to improve energy performance.

In November 2016, the entity assigned carried out the preliminary checks for certification in accordance with UNI CEI EN ISO 50001:2011, which revealed that A2A Ambiente was ready to move onto phase 2 of the certification, set to take place by end April 2017.

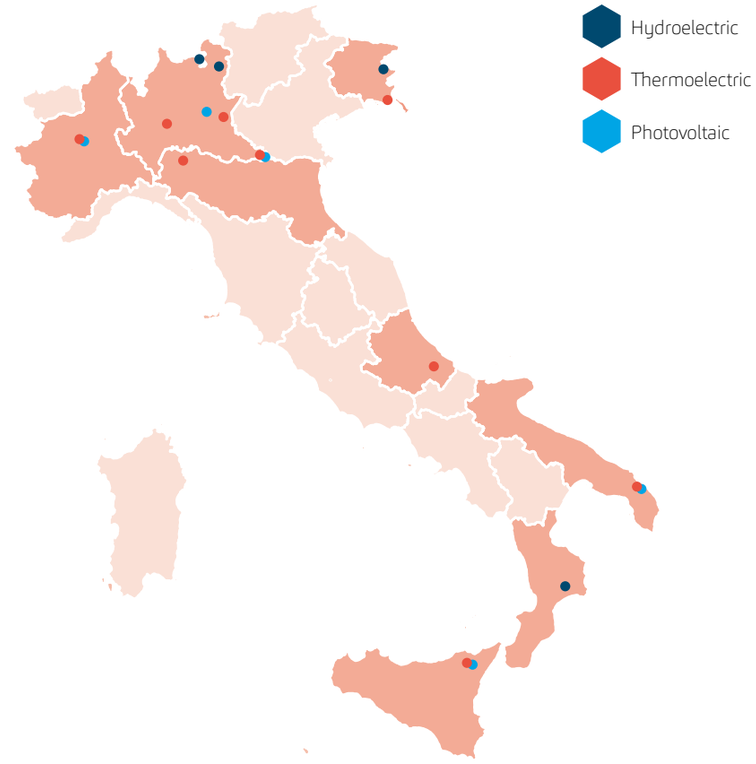
6.2 Manufacturing capital in the Generation and Trading Business Unit

The Generation and Trading BU manages the Group's electricity and heat production, through:
- hydroelectric plants, both with flowing water and storage;
- thermoelectric plants, mainly comprising plants based on high-performance combined cycle (CCGT) technology and two coal-powered plants (of which one was decommissioned in 2012) and one that uses heavy fuel oil;
- photovoltaic plants installed close to some of the Group's thermoelectric plants.

Figure 14 | Plant types and geographic location of the Generation and Trading BU

TYPE OF PLANTS	NUMBER OF PLANTS	INSTALLED CAPACITY
Hydroelectric plants*	4	2,012 MW_e
Thermoelectric plants**	9	6,896 MW_e
Photovoltaic plants	5	4 MW_e

* On 28 December 2015, the partial spin-off contract was signed for the Udine Unit of Edipower hydroelectric plant, with effect as from January 1, 2016. By virtue of this operation, Cellina Energy S.r.l. is assigned the complex comprising the hydroelectric plants constituting the Friuli plant, with the exception of the plants of Ampezzo and Somplago and the related works.
** Does not include the investment of Scandale (Ergosud S.p.A. 50%).



In 2016, the **BU restructuring project** was implemented, which envisaged the corporate unification of the homogeneous generation assets, by means of infra-group operations. The following were incorporated:
a) the hydroelectric plants into A2A S.p.A.;
b) the combined cycle plants and the investment in Ergosud, into A2A Gencogas S.p.A.;
c) the thermoelectric plants of Brindisi, San Filippo and Monfalcone into A2A Energiefuture S.p.A., to follow up on investment projects in alternative renewable technologies, aimed at allowing for successful industrial transformation interventions.

NEW GENERATION PROJECT

In order to balance its generation mix, in the latter months of 2016, the A2A Group decided to make the most of the new opportunities arising in the field of energy production from renewable sources, through innovative experiments, new developments and direct acquisitions on the market.

Below are some important renewal or maintenance projects that involved the Generation and Trading BU in 2016.

Reduction of Heavy Fuel Oil (HFO) deposits

Considering the consolidated decline in recent years in the use of HFO in conventional thermoelectric plants for market-related reasons, the A2A Group has decided to start procedures and operations to reduce the quantity of HFO present in the tanks of some of its thermoelectric plants, so as to reduce the environmental risk connected with their management and thereby allow these sites to exit the classification of "Plants at Risk of Major Accidents" (RMA) and the application of the "Seveso Directive".

In the **thermoelectric plant of Brindisi**, October 2015 put an end to the procedure of emptying the HFO tank and transferring the remnants to the supply line and deposit tanks at the San Filippo del Mela plant. As from 2017, the residues will be entirely removed from the bottom of the two 50,000 m^3 tanks, in order to also obtain "gas free" certification.

The same procedure will then be launched in 2017 at the **Sermide thermoelectric plant**, which in 2016 completed the procedure for leaving the application of the "Seveso Directive".

Reconversion of the San Filippo del Mela plant

The **San Filippo del Mela (ME) thermoelectric plant** currently houses 4 conventional unit (heater - steam turbine), powered by fuel oil, which ensure that the demand for energy of the Sicilian network is met. Despite the strengthening, since May 2016, of the connection to the national electricity grid (by means of the Terna Sorgente-Rizziconi cable), the San Filippo del Mela plant remains essential to guaranteeing the safety of the Region's electrical system, as sanctioned by the AEEGSI, which, by resolution passed in December 2016, has confirmed the classification as essential plant at least until 2021.

In putting its extensively diversified know-how to good use, A2A has in any case prepared a project to reconvert the production site, which, with a view to progressive decarbonisation envisages:
- the installation of a new plant for the creation of energy from SSF (Secondary Solid Fuel deriving from a waste treatment process) with a potential of approximately 200 MWt and 60 MWe;
- the installation of a new anaerobic digestion plant producing biomethane, able to use a wide range of biomasses (i.e. OFMSW).

Moreover, there are already some photovoltaic plants on the site (total peak power approximately 800 kWp) and in 2016, a new-design **thermodynamic solar plant** was launched.

ENERGY FROM SAND: THE STEM TECHNOLOGY

On June 30, 2016, A2A and the Magaldi Group, world leader in the research and production of innovative solutions in the field of solar energy, opened the **world's first "STEM" thermodynamic solar plant** in Sicily. The module, with a capacity of 2 MW, uses the **beam down** technique: a series of heliostats (786) follow the sun in its trajectory to concentrate the rays on a receiver, destined to store the heat during hours of high sun levels. The plant exploits the capacity of a fluid sand bed that, thanks to the concentration of solar radiation, enables high temperatures to be obtained (520° C) and steam pressure produced, typical of fossil fuel plants. One qualifying element of the cutting-edge system consists of the **storage in the sand of the energy obtained from solar radiation** and its use, in the form of electricity, even when there is no sun. The module in fact allows for fairly flexible heat storage, equal to 6 hours at nominal power, with the possibility of switching the plant on and off without any particular technical restrictions. The innovative STEM technology is characterized by the echo compatibility of materials used such glass for the mirrors, steel for structures and sand and does not provide for the use of diathermic oils or molten salts.

Improvements in the performance of combined cycles

In Italy, recent years have seen the growth of production from renewable sources go hand-in-hand with a reduction in the demand for electricity, which have together caused a progressive decline in the operating hours of combined cycle plants; however, the poor level of programmability of the plants from renewable sources obliges network managers to call combined cycles to produce in order to guarantee a balance of energy required and released, prioritising the more flexible plants.

This is why the strategic commitments of the A2A Business Plan include making some Turbogas Combined Cycle plants more competitive, allocating major investments to make them more flexible, thanks to the application of new technologies.

The "**Co-Development Program Framework Agreement**" stipulated between A2A and General Electric in April 2015 regarded precisely the implementation of modern, technologically-advanced hardware and software packages to improve performance, emissions and plant management.

The interventions that were concluded in 2016 on the **Chivasso** CCGT plant as regards the Group 1 800 MW turbogas units, have yielded excellent results in terms of the greater capacity to respond to the manager's demands and less start-up time with the consequent reduction in gas consumption and fewer emissions. 2017 will mark completion of the work to increase flexibility of the Chivasso plant, with interventions on the thermal cycle and plant auxiliaries, whilst work will start on increasing flexibility of the Sermide plant (800 MW) and consideration will be given to the possibility of applying the same technologies to the Cassano d'Adda plant (800 MW).

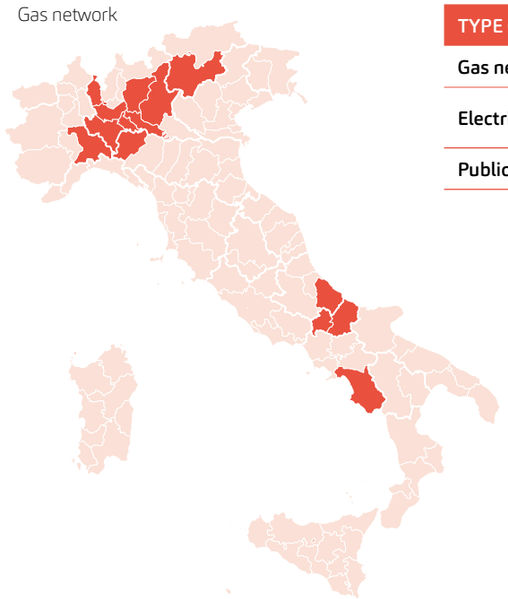
6.3 Manufacturing capital in the Networks and Heat Business Unit

The Networks and Heat BU is responsible for coordinating, implementing and maintaining the electricity, gas, heat and water cycle network distribution infrastructure as well as for managing plants used to produce thermal energy and electricity.
The maintenance and evolution of these infrastructures are amongst the key factor necessary to achieve the national and European energy policy goals.

Gas and electricity distribution networks

Figure 15 | Extension and geographic distribution of the gas and electricity network

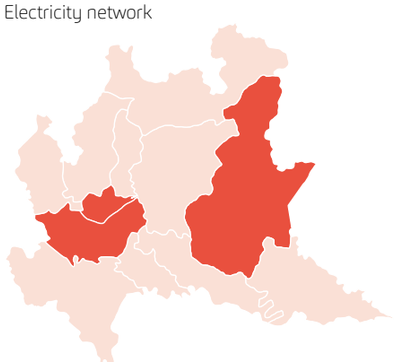
Gas network



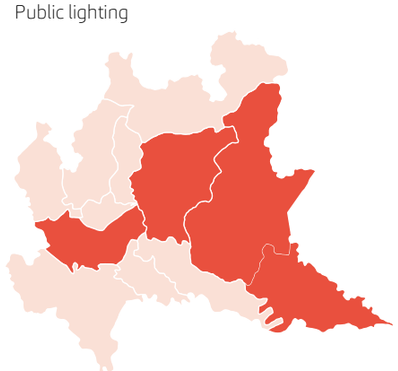
TYPE OF PLANTS	EXTENSION
Gas networks	8,057 km
Electricity networks	14,039 km (of which 12,013 km underground)
Public lighting systems	210,805 light points

Area in which the service is present

Electricity network



Public lighting



The **electricity distribution network** extends for over 14,000 km in high, medium and low voltage, with 28 primary stations and sub-stations and more than 8,300 secondary stations.

In December 2015, Milan City Council and A2A announced an **extraordinary four-year plan to improve the resilience of the electricity grid** in the most critical parts of the city, thereby making it able to support any exceptional electrical loads, with a total investment of 13 million euros.
The plan envisaged the replacement of more than 11,500 joints, with the aim of carrying out around 3,000 interventions per year. At end 2016, 6,095 joints had been replaced. Although complex and articulated, more than 50% of the work has therefore already been completed, making for a network that is already more reliable.

STRENGTHENING OF THE PRIMARY CABINS IN THE CITY OF MILAN

In July 2016, the **new primary cabin of via Rogoredo** was commissioned, successfully improving the quality levels of the service offered in the south-east area of the city of Milan, guaranteeing greater reliability and continuity, in particular to sensitive users, such as the Monzino Cardiology Centre.
In November 2016, moreover, **commissioning of the new medium voltage panel for the future primary cabin of via Benedetto Marcello** was completed, which, in June 2017, will be followed by completion of high voltage works.
The new primary cabins and the expansion of the existing panel (already in operation) will assure a clear improvement in the quality, reliability and continuity of electricity distribution throughout the centre of Milan, an area in which the demand for energy is constantly on the rise.
The inclusion in the network of the new plant will also allow for the rationalising of the medium voltage network, making it more reliable, for the inclusion of a new power point from the high voltage network and the "unloading" of other city plants, in turn making them more reliable.

The length **of the gas distribution infrastructure** is more than 8,000 km, of which 2,000 in medium and high pressure, with more than 270 primary stations (REMI) and approximately 4,300 secondary stations.
The **cathode protection system** is an integral part of the infrastructure in preventing corrosion of metal materials that safeguard the integrity of the pipes, increasing network safety.
Resolution AEEGSI 574/13 envisages the obligation for the concession-holder of the gas distribution network to guarantee effective cathodic protection on 100% of steel pipes of high and medium pressure networks and 90% of low pressure gas networks for 2015-2016, and 95% thereafter.
Unareti has adopted a highly challenging implementation plan, **achieving the objective of 95% in 2016**, a whole year ahead of the resolution requirements, despite the difficulties encountered in critical areas, where interventions have major impact (need for digs and multiple operations on reduced length network segments).

SMART METERING PROJECT FOR SMART GAS METERS

The Smart Metering Gas project has been launched to fulfil the obligations laid down by AEEGSI resolution 155/08 relative to the start-up of gas meters, characterised by minimum functional requirements involving **remote reading and remote management** at the natural gas distribution network delivery points.
The commissioning of the industrial meters (over G6) has basically been completed for around 32,000 meters (more than 98% of the fleet).
As concerns domestic meters, as at December 31, 2016, more than 384,000 smart meters have been installed, of which around 258,000 remote-readers (63,000 more than the AEEGSII obligations).
Of the meters installed, approximately 78,000 are connected in GPRS, whilst the remaining 180,000 are in radio frequency.

The Group also operates in the **regional transmission of natural gas** through the subsidiary Retragas S.r.l., which manages its own regional transmission system, moving more than 390 million m³ of natural gas per year.
The network is more than 398 km long and is distributed throughout the territory of Lombardy, Trentino Alto Adige and Piedmont.

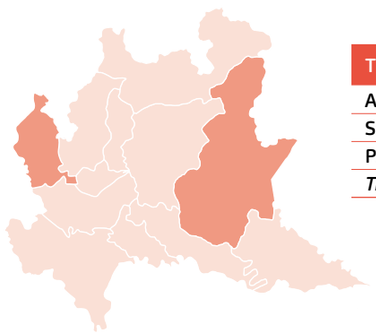
Moreover, through the subsidiary A2A Illuminazione Pubblica, the Group manages more than **210,000 lighting points** in the municipalities of Milan, Bergamo and Brescia and another 4 municipalities of Lombardy (Stradella, Cassano d'Adda, Pieve Emanuele and San Giuliano Milanese), directly designing and maintaining the public lighting systems and carrying out interventions aimed at illuminating the cities' architectonic sites so as to optimise the territory and guarantee its safety lighting.

LED LIGHTING

With the progressive increase in the number of lighting points, A2A, which has been ever-attentive to energy savings, has gradually adopted higher efficiency technology, thereby reducing specific consumptions. Late 2014, the project was started to replace all lighting points managed by A2A - in the cities of Milan, Brescia and Bergamo - with LED technology.
At end 2016, out of all lighting points used, respectively **99.75% in Milan, 98% in Brescia, 99% in Bergamo and 99.1% in Cassano d'Adda** had been **replaced**.
The amount of investments made by the Group was approximately 54 million euros in two years (2015-2016).

Integrated water service

Figure 16 | Extension and geographic distribution of the integrated water service



TYPE OF PLANTS	EXTENSION
Aqueduct network	4,878 km
Sewers network	2,203 km
Purifiers	54
Treatment capacity	*46,411,627 m³*

The term **integrated water cycle** is used to mean the management of three services: aqueduct, sewers and purification. Sources of pumping for water distributed through the aqueduct network consist of 176 wells and 188 sources for A2A Ciclo Idrico in the province of Brescia and 86 wells and 55 sources for Aspem in the province of Varese. The sewer service consists of managing the sewer networks, including maintenance, emptying and controls on waste quality.

The **Verziano purification plant** (Brescia) is operative to treat the waste water, connected to the city and hinterland drains; major requalification works were carried out on this plant, which, having been completed in April 2016, have successfully **increased the plant's potential to 296,000 equivalent inhabitants**. In addition to the Verziano purification plant, A2A Ciclo Idrico also manages another 53 plants, some of which are supra-municipal. Each year, approximately 46.4 million m³ of water are purified from the sewers.

In 2016-2020, investments are expected to come to a total of 161 million euros, to be substantially divided up into equal parts between aqueduct, sewers and purification; approximately 70% (112 million euros) will be allocated to development interventions, whilst the remaining 30% to maintenance work with a view to guaranteeing continuity of service supplied to users.

ENERGY EFFICIENCY INTERVENTIONS ON THE INTEGRATED WATER CYCLE OF BRESCIA

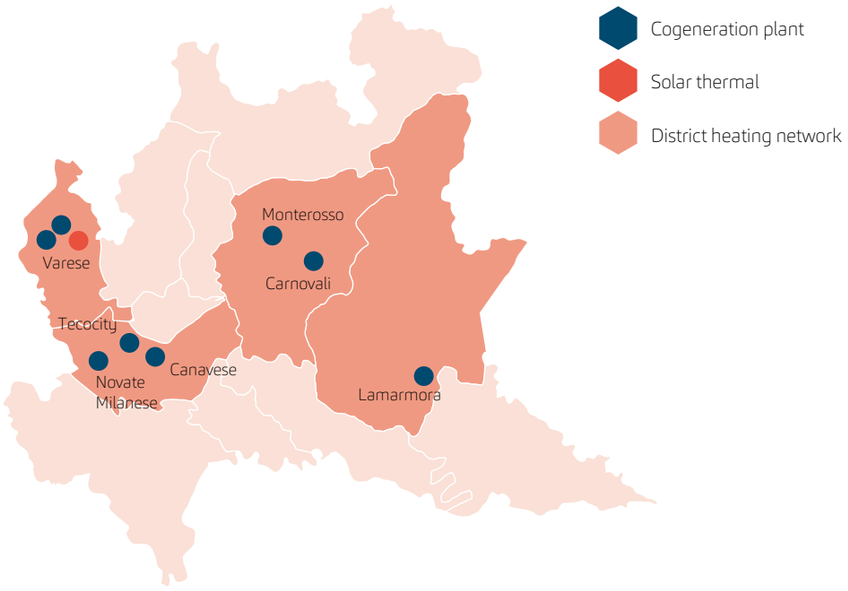
After the 2015 energy diagnosis, **5 interventions** were identified and carried out with a view to **increasing the efficiency of purification plants** (regarding operative aspects, lighting and ventilation), which, thanks to investments of 256,000 euros, are consolidating annual savings of approximately 130,000 euros.
Moreover, 11 interventions have been planned for the "Brescia Area" aqueduct - for a total of 100,000 euros - which were partly carried out late 2016.

In 2017, a diagnosis was also carried out on the remaining sites ("Pontevico Area" and "Vobarno Area"), in order to identify additional possible interventions to increase efficiency.
A feasibility study has also been **launched for the development of a cogeneration plant at the Verziano purification plant**, which will allow for the self-production of electricity and heat by a biogas-powered engine, produced by the plant sludge digestion process.

Cogeneration plants and district heating networks

Figure 17 | Plant types and geographic location of the cogeneration and district heating network

TYPE OF PLANTS	NUMBER OF PLANTS	INSTALLED CAPACITY
Cogeneration plants	8	114.9 MW_e 789.7 MW_t
Solar thermal plant	1	0.7 MW_t
Thermal plants	18	714.5 MW_t
Heat exchange	5	216.0 MW_t
Heat pump	2	30 MW_t



The A2A Group has an advanced environmental energy system that, thanks to the prevalent use of sources of renewable energy (deriving from the waste-to-energy plants) and recovery, and the efficiency of high-performance cogeneration systems, makes the district heating service extremely efficient and environmentally-friendly. Some of these plants also have a **heat pump with water table** section (renewable source) that enables a further reduction in fuel consumption. In the field of renewables, we should also note the **solar thermal plant** used by the **Varese** district heating network, opened in 2015.

The **installation and start-up of three new heaters, powered by natural gas** for the simple generation of heat was completed in 2016 at the **Lamarmora plant**. The new heaters will have maximum emissions of 80 mg/Nm^3 for NOx, which fall below the limits established by national and regional legislation.

In addition to this, there is also the **district heating network**, consisting of double pipes for the distribution of heat, in the form of hot or heated water, positioned in a capillary fashion in the urban area and which allows for the connection to the Group plants. A2A has been designing, developing and managing district heating in the cities of Milan, Sesto San Giovanni (MI), Novate (MI), Cassano d'Adda (MI), Brescia, Bovezzo (BS), Concesio (BS), Bergamo and Varese, for more than 40 years.

Figure 18 | Extension of the district heating network and geographic location

Situation as at December 31, 2016	Network development[1] (double pipe) km	Buildings connected[2] (users) no.	Volume serviced (Mm^3)	Apartment equivalents[3] no.	Forecast development to 2017 Volume serviced (Mm^3)
Bergamo area	71.2	585	6.5	27,100	**7.0**
Brescia area	669.2	20,392	42.1	175,400	**42.5**
Milan area	298.8	3,181	47.0	195,800	**50.5**
Varese area	16	145	2.7	11,150	**2.7**
TOTAL	**1,055.2**	**24,303**	**98.3**	**409,450**	**102.7**

(1) The network is intended as the sum of heat transmission, distribution and supply pipes.
(2) Users may be individual residential units in the case of independent heating or whole buildings in the case of centralised heating.
(3) Apartment equivalent = 80 m^2.

A2A Calore & Servizi has also promoted the **"Calore in rete"** project, aimed at searching for heat sources from production cycles available in the territory, releasing the heat that is currently dispersed into the atmosphere by other industrial plants into the atmosphere, thereby making the fumes cooling and purification process more efficient and sustainable.
In Brescia, the heat produced by the Ori Martin steelworks is recovered, whilst in Milan, heat is recovered from the VetroBalsamo glass factory of Sesto San Giovanni, enabling a further increase in the number of users connected to the city district heating network.
The heat recovered in 2016 thanks to these two projects is approximately 30 GWh.
The "Calore in rete" project is a further drive towards consolidating the leadership position enjoyed by A2A Calore & Servizi, not only in terms of the volume of heat disbursed but also, and above all, as regards technological innovation, energy efficiency and environmental quality.

THE "ESTATE FREDDA" PROJECT OF A2A CALORE & SERVIZI REWARDED AT ECOMONDO

The A2A Calore & Servizi "Estate Fredda" project has obtained official recognition in the 2016 Sustainable Development Prize promoted by the Sustainable Development Foundation and Ecomondo - Rimini Trade Fair and sponsored by the Ministry for the Environment and Land and Sea Protection, as well as the important conferral of the medal by the President of the Republic.
The Commission chose A2A Calore & Servizi from amongst the top 10 of the "Energy from renewable sources" section.
The "Estate Fredda" project was conceived in Brescia, also thanks to the dialogue and comparison of ideas with local stakeholders and takes the form of a process of **summer use of the heat recovered by the district heating system**: by installing absorption machines, in fact, the heat is converted into cooled water that is in turn used for summer air conditioning.
The project was tested in summer 2015 in the A2A offices of via Malta, Brescia: this first positive experience then enabled the launch of a series of studies and projects aimed at extending district cooling to also include other areas. At present, an implementation is currently underway that will regard some public buildings of Brescia: it started with the former psychiatric hospital and will continue in 2017 with Palazzo Loggia and other municipal buildings.
This **combined district heating and district cooling service will yield considerable health and environmental benefits**: approximately 20.5 t per year of CO_2 (considering a 100kW plant powered by a waste-to-energy plant like that of Brescia) not released into the atmosphere, as well as a reduction of 100% of the fluoride gases that are so harmful to the environment, present in traditional coolant units.
The dissemination of this technology will also allow for a drastic reduction in the electricity needs, consequently optimising the national electricity system in particularly critical periods like summer.

HEAT RECOVERY AT THE CASSANO D'ADDA THERMOELECTRIC PLANT

Having completed the first stage of development of the **3 inter-connected macro operating systems** - in the west, east and north of the city of Milan - the development of district heating can now continue with the second phase involving the **planning of a backbone to transport the heat** produced by the thermoelectric plant of **Cassano d'Adda**.

With a view to developing **a regional heat transport network**, July 2015 in fact saw the regional authorities of Lombardy, Milan City Council and A2A stipulate a memorandum of understanding with the aim of analysing the possibility of developing a network of approximately 35 km to run from the Cassano plant through to the metropolitan area. Preliminary studies suggest the connection with the east area of the city, as there are connections with the current macro systems. The possibility is also being considered, for the territories crossed by the backbone, of exploiting the heat transported to strengthen their own district heating networks, where already present, or of potentially developing new ones.

The project has some important environmental advantages, as well as a positive impact on the economy and territory due to the investments made in developing the infrastructures.

7 Natural capital

-6%
the Group's average emission factor, **equivalent to 404 g CO_2/kWh.**
General reduction in the Group's CO_2 emissions

-6%
the Group's consumption of the **water resource**

36%
electricity produced from **renewable sources**

18 companies **certified ISO 14001** and **24** **EMAS registered sites**

Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
CIRCULAR ECONOMY AND RESPONSIBLE USE OF RESOURCES	Applying policies for the management and disposal of waste that can, where applicable, encourage the reuse of materials. Developing separate waste collection activities and an efficient management of the fraction of waste that cannot be recovered, through its recovery in the form of energy. Aware management of landfill sites.	• Achieving of the Sustainability Plan objectives on the recovery and treatment of waste • Achievement of the objectives of the environmental development initiatives	The Group encourages the full achievement of the development objectives set out in the Business Plan and develops its own capacity to listen to and dialogue with local and institutional interlocutors on matters of the circular economy, by launching and taking part in technical round tables and opportunities for a comparison of ideas, in line with the community's demands and expectations.	• Growth of **separate waste collection** in all municipalities served • New **combined separate waste collection** system in **Brescia** • 56% of **thermal energy** produced **from waste**	**CIRCULAR ECONOMY** • Recovery and treatment

Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
EFFICIENT USE OF WATER AND REDUCTION OF WATER LOSSES	Efficiently manage water resources with specific reference to energy production processes from hydroelectric and thermoelectric plants and the reduction of water losses along the network. Adoption of policies and good practices that can stimulate the responsible use of water, promoting plans and actions involving reuse in day-to-day activities.	• Achieving of the Sustainability Plan objectives linked to the losses of the water network	The Group develops projects and initiatives aimed at optimising consumption and ensuring the efficient management of the water resource, paying particularly close attention to limiting network losses through specific electronic leak detection systems and the establishment of dedicated working and coordination groups. The Group also promotes sensitisation initiative on the awareness and importance of saving water, amongst customers and citizens.	• **Acquasicura project** for the promotion of responsible consumption of the water resource • **Energy efficiency interventions on the integrated water cycle of Brescia**	**CIRCULAR ECONOMY** • Water
PURIFICATION OF WASTE WATER AND SLUDGE MANAGEMENT	Development of waste water treatment services with a particular focus on the reduction of pollutants, the management of pathogen organisms in purification plants and the management of sludge deriving from the purification process.	• Chemical and biological quality of drains	The Group guarantees the quality of waste water by adopting suitable purification and monitoring systems of drains. The Group invests in strengthening the purification processes, guaranteeing continuous improvement of the efficiency and effectiveness of the waste and sludge treatment processes.	• Completion of the **requalification** works on the purification plant of Verziano (Brescia).	**CIRCULAR ECONOMY** • Water
CLIMATE CHANGE AND ENERGY EFFICIENCY	Promotion of strategies to limit the emissions into the atmosphere and develop energy efficiency initiatives, including through the use of energy from renewable sources. Developing energy efficiency initiatives in end uses, increasing district heating.	• Energy efficiency initiatives • Achieving of the Sustainability Plan decarbonisation objectives	The Group encourages the full achievement of the decarbonisation objectives envisaged: • installing emissions elimination and continuous monitoring systems on its plants; • offering innovative energy services and those with a reduced impact on climate; • investing in the development and dissemination of renewable energy.	• **"Calore in Rete"** project • Development of the **"Estate Fredda"** project • Interventions to increase the **flexibility of CCGT plants** • Opening of the world's first ever **STEM®** thermodynamic solar plant	**DECARBONISATION** • Emissions • End User Efficiency • District heating
TRANSPORT AND LOGISTICS MANAGEMENT	Increasing the efficiency of transport and logistics in the Group's everyday operations, with specific reference to limiting the noise and emissions in residential areas during waste collection operations.	• Fuel consumption and emissions of the vehicle fleet • Acoustic emissions	The Group limits the atmospheric and acoustic emissions of the vehicles used in its everyday activities with a commitment to the preventive maintenance of the vehicles, the use of light methane- or low emission diesel-powered vehicles and using emissions-reducing technology.	• Modernisation of the **vehicle fleet** for the municipal hygiene service • Design of a **charging network** for electric cars at Group sites	**DECARBONISATION** • Sustainable mobility
LAND PROTECTION AND SAFEGUARDING OF HABITATS	Protecting the landscape heritage of the territories in which the Group operates, and promoting studies and monitoring with a view to minimising the impacts on biodiversity and the most important habitats.	• Landfill leachate • Environmental damages from production plant production processes • Hydroelectric plant reservoir management	The Group is constantly committed to keeping the procedures, technological devices and monitoring systems operative and in line with the best technology available, aiming to: minimise possible environmental impacts on the territory and landscape and prevent potential pollution both during normal operation and in the event of any plant anomalies, identifying the best design solutions in line with territorial needs. The Group also collaborates with entities, institutions and associations to protect the territory and promote its safeguarding.	Initiatives to **optimise the natural surrounds** of **Torrente Morletta**	**CIRCULAR ECONOMY** • Biodiversity

7.1 Group environmental management

The whole of the Group's business is strictly inter-connected with and inter-dependent on the ecosystem in which its plants stand or where it goes about its activities. The Group receives countless natural resources from the environment, which it transforms and returns in the form of assets and services useful to the local communities.

In this context, A2A has built up its own integrated approach to **environmental governance**, thanks to its Quality, Environment and Safety Policy and the Sustainability Policy, enabling the development of a reference model that is valid for all Group employees and collaborators.

The principle of the protection and sustainable use of the "natural capital" explained in the A2A Policies seeks to guarantee the effectiveness of the environmental protection from any potential irreversibility of damages that can be caused to the environment. The following objectives and strategies are implemented:

- limitation of atmospheric emissions helping, with the decarbonisation process already launched, achieve the national and European Community greenhouse gas emissions reductions objectives, thereby reducing the impacts on climate change (see page 69);
- the efficient use of resources, optimising the use of natural and non-renewable resources;
- waste management aimed at achieving a circular economy (see page 75);
- mitigation of pollution of the soil, subsoil and water, including through the use of the best technologies available;
- protection of biodiversity and ecosystems (see page 70-72).

In 2016, the model for the management of aspects of the environment, health and safety paid particularly close attention to the generation of competences that could be shared for people operating in HSE, launching a support project as described below.

NEW HSE. COLLABORATION AND EFFICIENCY AT THE HEART OF THE NEW CHANGE PROCESS

The professional HSE family has embarked on a new, important change management process, which seeks to create awareness of role and a sense of belonging to the professional family, activating a change in the operating method of the HSE role, disseminating the use of suitable management tools and developing an active network within the professional family. This route has been structured into two meetings, in April and May, in which participants were able to compare notes on key themes, sharing viewpoints and experiences on how to perform their role in the company. A great many subjects were covered during the two days of training, including **group work**, the search for new **solutions by which to optimise the activities carried out**, the definition of **methods by which to communicate as effectively** as possible with interlocutors of the professional family.
The two days revealed ideas, some of which were already implemented in the latter part of 2016, and others to be developed in 2017.

Climate change and the management of atmospheric emissions

With its 2016-2020 Sustainability Plan, the Group has set itself objectives that are coherent with the provisions of the Paris Agreement on limiting climate change, i.e. a lesser use of fossil fuels and greater investments in renewable sources and technological innovation, through a series of projects aimed at:

- implementing sustainable industrial development with long-term investment in alternative renewable technologies;
- changing the current plants and developing SSF (Secondary Solid Fuel) powered plants, with a consequent reduction in CO_2 emissions;
- developing flexibility-enhancing projects for some plants, to improve their presentations and, therefore, the possible impacts in terms of emissions.

This route will result in a general reduction in CO_2 emissions and savings of fossil fuels with respect to conventional processes (see also paragraph 6.2).

2016 saw a generalised downturn to CO_2 emissions with respect to 2015.

Figure 19 | A2A Group greenhouse gas emissions (t CO_2eq)

	2014	2015	2016
Direct emissions - Scope 1	5,966,086*	7,586,815*	**6,983,503**
Indirect emissions - Scope 2	146,747	126,723*	**119,937**
Other indirect emissions - Scope 3	1,437,635*	1,781,924*	**1,638,017**

* Updated figure with respect to the 2015 Sustainability Report.

Group **direct emissions (classified as Scope 1)** came to approximately **7 million tonnes**, primarily due to the supply chain for the production of electricity and heat and, secondarily, to methane leaked from the distribution network or not collected at landfill sites.
This was a reduction on 2015 (-8%), due to the general limitation of emissions from combustion. More specifically, the emissions from heavy fuel oil reduced considerably (-43%) as the thermoelectric plant of San Filippo del Mela was subject to lesser demands for energy. Waste-to-energy also produced fewer CO_2 emissions (-3%), due to the characteristics of the waste used.

The Group's **average CO_2 emission factor** calculated by adding all emissions of energy production and relating them to the total energy production (electricity and heat), came to **404 g/kWh**, down 6% on 2015. **Indirect emissions (Scope 2)** due to electricity consumption also dropped by 5%.

Scope 3 indirect emissions reduced by 8% on 2015, thanks to the mix of fuels procured and the reduction of fuels used for heat management on behalf of third parties. This value includes both emissions from plants managed for third parties (boilers for heating buildings, the waste-to-energy plant in Acerra and STIR in Caivano) and also the greenhouse gas emissions produced during refining and extraction of the fuels used by the Group, equal to approximately 860,000 tonnes of CO_2, which this year decreased as a result of the reduced use of HFO.

To properly assess the emission savings of CO_2 achieved by its activities, the A2A Group uses a methodology for **calculating the avoided emissions of CO_2 and energy savings applicable to all plant and energy processes**. This method is updated once a year on the basis of the parameters and emission factors of the national thermoelectric farm, published by Terna and ISPRA.
In 2016, **more than 2.3 million tonnes** of CO_2 emissions were avoided. The value of CO_2 avoided has improved considerably thanks to the contribution made by the thermoelectric sector, which made proportionally greater use of natural gas combined cycles. By contrast, the TOE saved have reduced slightly, due to the reduction in the benchmark for calculation (average consumption of the national thermoelectric farm).

Figure 20 | Avoided emissions of CO_2 and energy savings in energy processes

	2014	2015	2016
CO_2 avoided (t)	2,802,070	1,711,921	**2,394,216**
Energy saved (TOE)	1,311,210	1,130,412	**1,059,650**

A2A AND THE ENVIRONMENTAL MARKETS

A2A is very much involved in the environmental markets incorporating EU Directors and national legislation by means of mechanisms such as cap and trade (based on the setting of an emissions threshold and a trading mechanism), which make it possible to achieve environmental targets at a lower total economic cost for system. In 2016 the CO_2 quotas allocated to A2A, within the ETS program, totalled 152,195.
The **white certificates issued**, on the other hand, corresponded to emissions savings of 938,000 tonnes of CO_{2eq}.

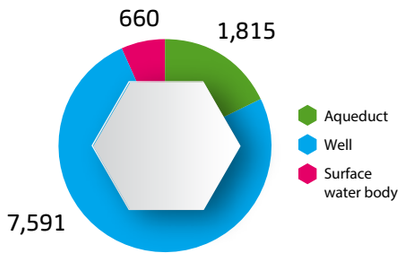
The water resource

One of the most important "natural capitals" for the A2A Group is, without doubt, water, which takes different forms. First and foremost, it is used as a raw material to produce electricity and distribute to users for human consumption.
In addition to these are the uses necessary to the industrial processes, which range from cooling the plants to putting out the heater residues and the regeneration of water treatment plants, from the production of steam through to the replenishing of water in the district heating and district cooling network, road cleaning, washing the ground and sweeping through to the means used for citizen services.

Use of this resource is **managed with the utmost responsibility**, including through:
- procurement by means of the pumping of specific, **dedicated wells** for the plants;
- reduced consumption of drinking water and limited to sanitary uses;
- **recovery of** rainwater for irrigating green areas and filling the fire-fighting tanks;
- use of reduced water consumption washing **technologies**;
- **recycling** of washing water;
- **return** to the water body without the introduction of polluting substances (relative to cooling process water and water used for hydroelectric production).

In 2016, the A2A Group consumed approximately 10 million m^3 of water, down 6% on 2015.

Figure 21 | Water consumed in 2016 by the Group Business Units according to type of collection (thousands of m^3)



Attention to biodiversity and the landscape

The A2A Group operates in harmony with regional, natural and cultural features, and is aware of the extraordinary wealth of biodiversity present. Some Group plants are located in or near sites characterised by high natural value, parks or protected areas: for example in the Parco Regionale Adda Nord, in the Parco regionale del Mincio, in the Parco Nazionale dello Stelvio and in the Parco Nazionale della Sila. These parks record the **presence of more than 40 species included on the Red List of the International Union for the conservation of Nature (IUCN)**. In order to minimise the environmental impacts, the A2A Group takes specific action to protect and safeguard the environment, also carrying out interventions to improve the territory and assessing the impact on the landscape context.

In the design and development of plants, A2A sets itself the aim of optimising the natural component, making spaces that facilitate the conservation of the local natural heritage.

One example of this is the project for the **"Ecological restoration of the River Spoel corridor"**, which has been concerned by various intervention to extend the route of the river ecological corridor, diversifying the bed and increasing the heterogeneity of the habitat and the generation of the refuge and reproduction zone for fish. Another initiative developed for the territory of Valtellina is the conservation of the mountain paths through eco-teaching routes. On the basis of one of the proposals emerged from the multi-stakeholder forum held in Valtellina in 2016 (see also page 41), A2A has decided to develop the **Ciclovia dell'Energia** project, which consists of the optimisation for tourism and sports, of a route with the installation of dedicated signs that will present both the landscape features of the Valtellina mountain and the specificity of the A2A hydroelectric plants.

In 2016, the project for the **requalification of the decommissioned stack of the Mincio plant** continued: on 28 October 2016, the MATTM (Ministry for the Environment and Land and Sea Protection), jointly with the MIBACT (Ministry of Cultural Heritage and Tourism), assessed the project of the "requalification into a tower to be visited and gateway to the Mincio park" to be environmentally compatible.

BERGAMO WASTE-TO-ENERGY PLANT AND BIODIVERSITY

With the coordination of the "E. Caffi" Civic Museum of Natural Science of Bergamo, the site is involved in the experimentation of naturalistic initiatives aimed at **encouraging the establishment of animal species potentially able to counteract the presence of insects**.
The area used has been enriched with a **green oasis** near an open segment of river Morletta, in which there are:
- a pond in which algae and aquatic vegetation create ideal conditions, albeit in the middle of an urban-industrial context, for the life of numerous species of amphibians, reptiles, birds and invertebrates;
- some feeding troughs and artificial nests for small birds;
- a demonstration area dedicated to household composting, to reproduce what takes place spontaneously in nature and observe the numerous life forms that, thanks to their decomposition activities, develop within;
- a demonstration area dedicated to the degradation of large trunks of dead wood, which become a basis for supporting and giving opportunities for life and reproduction of many animal species.

The visit to the nature area has become an integral part of the route proposed to the numerous school children who visit the plants on the site each year.

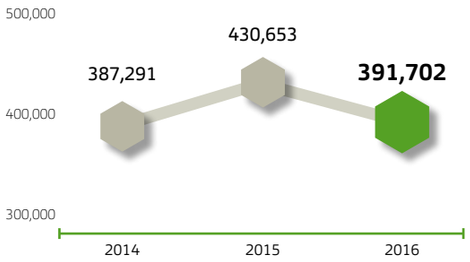
The protection of the soil, subsoil and water tables is ensured by envisaging the installation and correct management of storage systems, which reduce the risk of the dispersion of pollutants into the environment.
In managing the landfills, including those that have been dismantled, all measures and works necessary for the safe management of the post-closure phase are guaranteed, enabling the surface development of green areas, often chosen as refuge and for population by local birds and animals.

In order to protect biodiversity, habitats and landscape, both during planning and design stages, each Group company assesses the aspects connected with the crossing of or proximity to areas of landscape interest, such as: green areas, local parks, flower beds, gardens or other portions of territory of particular value and natural prestige. Correct planning when designing the plants also enables us to significantly reduce possible impacts and pressure on any water bodies, thereby helping prevent issues and protect the territory's water resources.

Protection of the river habitats: the minimum vital flows

For hydroelectric production plants, it is essential to guarantee respect for the **Minimum Vital Flow** (MVF). To comply with EU, national and regional norms, for the protection of river habitats in the waterways affected by extraction for hydroelectric energy production; in fact, it is necessary to ensure a minimum flow of water in the river bed. To this end, A2A has developed a trial programme based on regional instructions on MVF, recording a gradual increase in the volumes of water released. By resolutions passed by the Regional Council (no. 5945 and 5946 of December 05, 2016), the Region of Lombardy has established the definitive values, post the six-year experiment (2009-2015) of the MVF, which must be respected by the A2A plants in the province of Sondrio.

Figure 22 | Water released for MVF (thousands of m³)



The quantity of water released for the minimum vital flow presented in the above graph has been recalculated, aligning the different calculation methods.
In previous years, only the quantity emitted at the last release point was considered (the plant furthest downstream), whilst the new figure corresponds to the sum of the quantities emitted by all release points.
The figures show a reduction in 2016, parallel to the reduction in water taken for hydroelectric production.

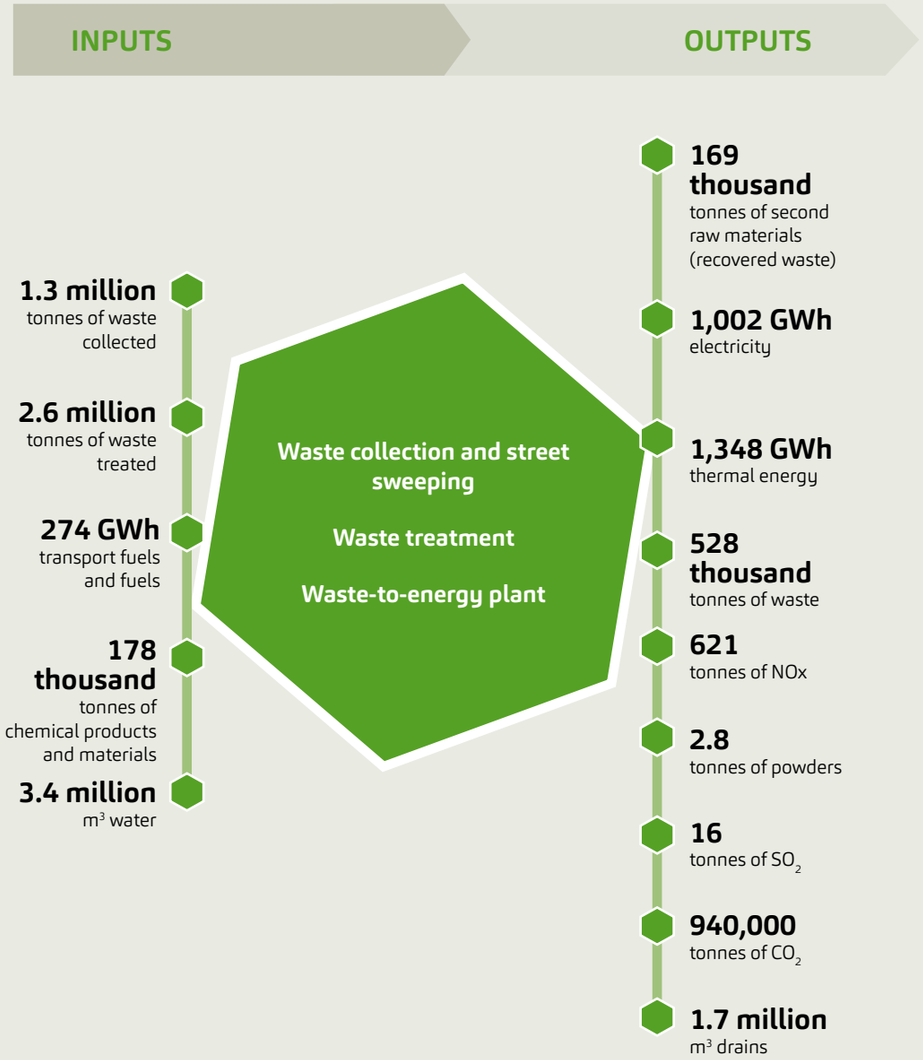
The hydroelectric plants contribute towards the decarbonisation process. It is important, however, to stress that the reduction in water run through turbines due to the increased minimum vital flow has the effect of a reduction in energy production from renewable sources.

For example, the increase in the MVF for the A2A plants in the province of Sondrio will entail greater releases in the annual amount of approximately 16.6 million m³, corresponding to a loss of production of around 17.1 GWh/year, equivalent, if replaced by fossil fuels, to a greater consumption of 3,242 TOE, for 9,251 tonnes of CO_2 emitted.

7.2 Natural capital in the Environment Business Unit

The Environment Business Unit deals in an integrated manner with the management of municipal and special waste (collection, transport, treatment and optimisation).
Waste is the main raw material of the business, together with other resources such as fossil fuels, vehicle fuels, water and chemical products.
The efficiency in the collection and optimisation of waste through its recovery and transformation into a raw material, along with the waste-to-energy systems used to recover their energy content, are the key elements of the processes of the BU, which leads what is today termed the "circular economy".

Figure 23 | Input-output model of the Environment BU (2016 data)

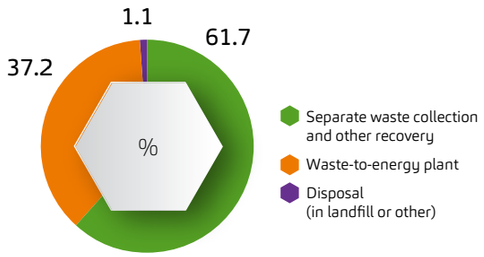


The waste cycle starts with collection and, in particular, with the separate collection of all fractions of waste (paper, glass, plastic, metal, kitchen and canteen waste, harvest and garden pruning, etc.), targeting both private individuals and businesses. The special waste collection, transport and treatment services are instead mainly intended for artisan and industrial businesses.

In 2016, generally, in the municipalities served, the **positive trend continued of differentiated collection**, due both to the campaigns of citizenship awareness and improvements and new measures introduced in the service. Of the 1.3 million tonnes of municipal waste collected (+ 3% on 2015), the separated fractions totalled 724,239 t (+ 5.4% on 2015).

The residual part that had not been separated was sent almost entirely to energy recovery through waste-to-energy plants, whilst only around 1% was sent to landfills or disposal plants.

Figure 24 | Final destination of municipal waste collected



FIRST POSITIVE RESULTS OF THE NEW SEPARATE WASTE COLLECTION IN BRESCIA

To improve separate waste collection in Brescia, in 2016 the choice was made to implement a **combined system**, which, as the name suggests, combines two collection models. Non-differentiated and organic waste is collected in swing-top bins along the roadside, which can only be opened using a personal electronic card. Paper, plastic packaging, glass and metal are instead collected door-to-door. To better handle the transition, the new collection system was introduced gradually across the territory, until complete coverage of the city envisaged by end 2017.
The average figure of the first three zones of Brescia involved by the new separate waste collection system launched last April, confirms the very positive trend seen to date: in the yellow, green and blue zones - in November 2016 - the percentage of separate waste collection stood at 64%, rising approximately 26 percentage points on the average figure of the three zones prior to the start-up of the new system (which was 38.1%).
The effect of the new method of separate waste collection has also been seen on the overall indicator of Brescia, which has gone from 37.5% in 2015 to **44.5%** in 2016.
The aim is to reach separation of at least 65% of municipal waste and recycling of 50% of materials.

The route taken by the city of **Bergamo** towards the objective of 65% separate waste collection has been progressive and constant over time. In 2016, a further increase was recorded, reaching 66.3% separate waste collection, also thanks to the action of ecological inspectors, involved in a concrete sensitisation action, more than actually applying penalties.
The vegetable oil collection service provided by the RUAH Community should be noted, in accordance with the municipal administration, characterised by the offsetting of the cost of the service against the income generated by the contractor for the recovery of the materials intercepted.

Since 2013, Aprica has been managing the municipal hygiene service in the municipality of **Como**, where in 2016 the percentage of service reached 62.9%, also thanks to various new services launched, such as the public opening of the new Municipal Collection Centre in via Stazzi, which enabled access control to be regulated using the Ecopass badge and, as compared to before, the supply of a better service in terms of the variety of the type of waste that can be conferred and user room for manoeuvre.

As at December 31, 2016, the city of **Varese**, served by ASPEM, reached 62.2% separate waste collection. To reach the goal of 65%, ASPEM and the municipality of Varese have launched a sensitisation campaign with the slogan "**Varese manca poco**" (Varese is almost there), particularly targeting four subjects: condominium administrators, associations of foreigners, commercial activities and major distribution, private residents and commercial activities in the city centre. The involvement should help motivate and increase the sense of responsibility felt by everyone to do their bit to achieve the goal of 65%, after having explained how the waste collection system works, clarified the benefits enjoyed by adopting virtuous behaviour and the consequences of incorrect conduct. Through these specifically-focussed meetings, the aim is to achieve a formalised joint responsibility with the "commitments charter", a document defining the commitments each party involved makes to achieve the goal, which is not only a limit established by the law but also the result of renewed awareness and responsibility due to the city, the environment and the future generations.

In the city of **Milan**, the quantities of separate waste collected (including the quantities effectively sent for recovery of cumbersome/large items) in 2016 came to 352,042 tonnes, with a final percentage at end 2016 of 52.4%, as compared with 52.7% in 2015.
Total waste collected (non-differentiated, separated and other waste excluded from the calculation of the percentage of separate waste collected) dropped by 0.12%. A significant increase regards the separate waste collection of tyres abandoned in the territory (+ 33.4% on 2015), whilst a considerable reduction was recorded in the collection of second-hand clothes (- 38% on 2015) along with the collection of harvest and gardening waste (- 24.8% on 2015).

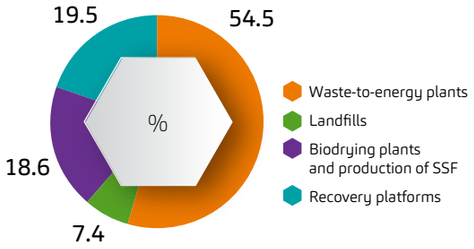
Figure 25 | Differentiated collection in the Municipalities where Group companies operate*

	2014		2015		2016	
	Quantity collected (t)	Index %	Quantity collected (t)	Index %	Quantity collected (t)	Index %
Bergamo	40,718	64.3	41,351	65.7	**42,112**	**66.3**
Brescia	51,809	38.3	50,395	37.5	**59,075**	**44.5**
Como	19,728	49.3	23,997	61.7	**25,200**	**62.9**
Milan	334,138	50.2	352,291	52.7	**352,042**	**52.4**
Varese	24,043**	60.3**	23,842**	60.7**	**25,228**	**62.2**
Province of BG	4,443	62.9	4,205	59.3	**4,347**	**59.7**
Provinces of BS and MN	85,400	63.5	109,512	67.3	**119,207**	**69.1**
Province of MI	59,612	57.1	69,296	58.5	**75,783**	**58.4**
Province of VA	5,711**	67.9**	11,134**	68.7**	**21,247**	**70.1**
TOTAL/AVERAGE	**625,602**	**51.4%**	**686,022**	**55.0%**	**724,239**	**56.2%**

* The data refers to only the municipalities where A2A is the sole party assigned the service and for the entire year; a further 7,270 tonnes of separated waste was collected in the province of Bergamo. The quantity collected and differentiated collection rate have been calculated on the basis of the recommendations of the Region of Lombardy
** The data has changed on last year as a result of the update of the quantities effectively recovered.

In 2016, a total of 2.6 million tonnes of waste were **processed by the plants**. This quantity falls approximately 5% below that of last year, due to the lesser use of landfills.

Figure 26 | Waste processed by type of plant*



Recovery platforms, including both recovery plants and simple storage, enabled the recovery of **169,085 t** of **secondary raw materials** (or "**end of waste**", to use the European term), starting from an intake of approximately 500,000 t of waste. Outgoing, 203,263 t of waste was sent to special recovery plants, whilst the remaining (141,450 t) was sent for disposal.

* All waste entering the Group's plants is considered.

Recovery and storage include:
- the recovery of glass, paper and cardboard, plastic, wood, unusable tires, ferrous materials, etc. (mainly by selecting waste obtained through differentiated collection, bulky waste and non-differentiated waste);
- the recovery of sludge resulting from biological waste water treatment, used for agricultural purposes;
- recovery of inert materials, sand and gravel, certified in accordance with standards UNI for use in construction (by means of the treatment and washing of the street sweeping grounds); these materials can be reused directly as raw materials, e.g. to prepare cement or bituminous conglomerates and to prepare road beds;
- the production of fuel (SSF) to be used in waste-to-energy plants (through mechanical selection processes and the bio-drying of non-differentiated urban waste);
- the treatment of solid residues from waste incineration and fly ash from waste-to-energy plants through recovery and inertisation operations;
- interim storage of waste to be sent for subsequent recovery or to a lesser extent to disposal at the Group's plants or external plants.

The non-recoverable waste as a raw material is used as fuel in the processes of **waste-to-energy** to supply the district heating networks as well as to generate electricity, thereby saving fossil fuels and avoiding the related CO_2 emissions.
In line with last year, electricity produced from waste in 2016 was approximately 7.5% of the total electricity produced by the Group, while thermal energy from waste accounted for 55.7% of total thermal energy produced and allocated to the district heating networks (+ 4% on 2015).
On average **803 kWh of electricity and 918 kWh of thermal energy** were produced for each tonne of waste, offering yields of respectively 4% and 2% better than last year.

The energy resources: transport fuels, fuels and electricity

Waste collection and transport involves significant resources to power the vehicles. In 2016, 500 TJ of fuel was used (of which 80% diesel, 19% methane and 1% petrol), 3% more than last year. Instead, the waste treatment process required 488 TJ fuel (for the most part natural gas), a value that is almost in line with last year, and 189 TJ electricity, down 14% on 2015.

Water, chemical products and materials

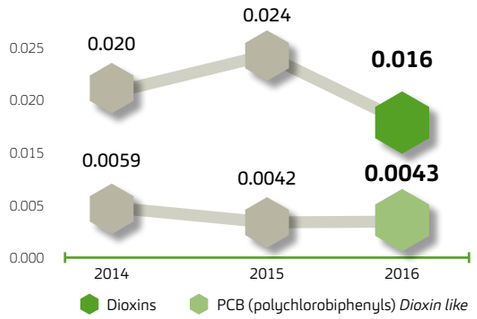
93% of water used in the treatment processes is used for waste-to-energy plant and comes from industrial wells. In 2016, consumption declined by a total of 5% thanks to process optimisation.
As regards chemical products and materials, the greatest consumption is due to the use of inert materials (sand, clay, cement) and solid neutralisers (sodium bicarbonate, lime, etc.). In all, 2016 records a reduction in the use of inert materials (-15% on 2015), for lesser use in the landfill.

Atmospheric emissions

The significant emissions of the Environment BU plants mainly come from the waste-to-energy plants. Although as a rule, it is the micro pollutants like dioxins and PCB that give rise to concern for this type of plant, in actual fact they are emitted in quantities that fall well below a gram.

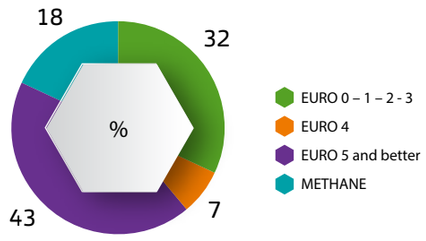
The limitation and reduction of emissions due to transport requires a gradual renewal of the vehicle fleet; for clearing too, where possible, the switch is made to light vehicles that are powered by methane or electricity.

Figure 27 | Dioxins and PCB (toxic equivalent grams)



Emissions of the waste-to-energy plants updated weekly are available from the Sustainability section of the website www.a2a.eu ***www.a2a.eu***

Figure 28 | Composition of the waste collection vehicle fleet



Discharges and emissions into surface water bodies

The plants of the Environment BU do not have significant discharges, apart from the Gerenzano plant, which treats considerable quantities of water table (1.4 mm^3), thereby also making it the main source of emissions into surface water bodies, in terms of organic load (105 t COD).

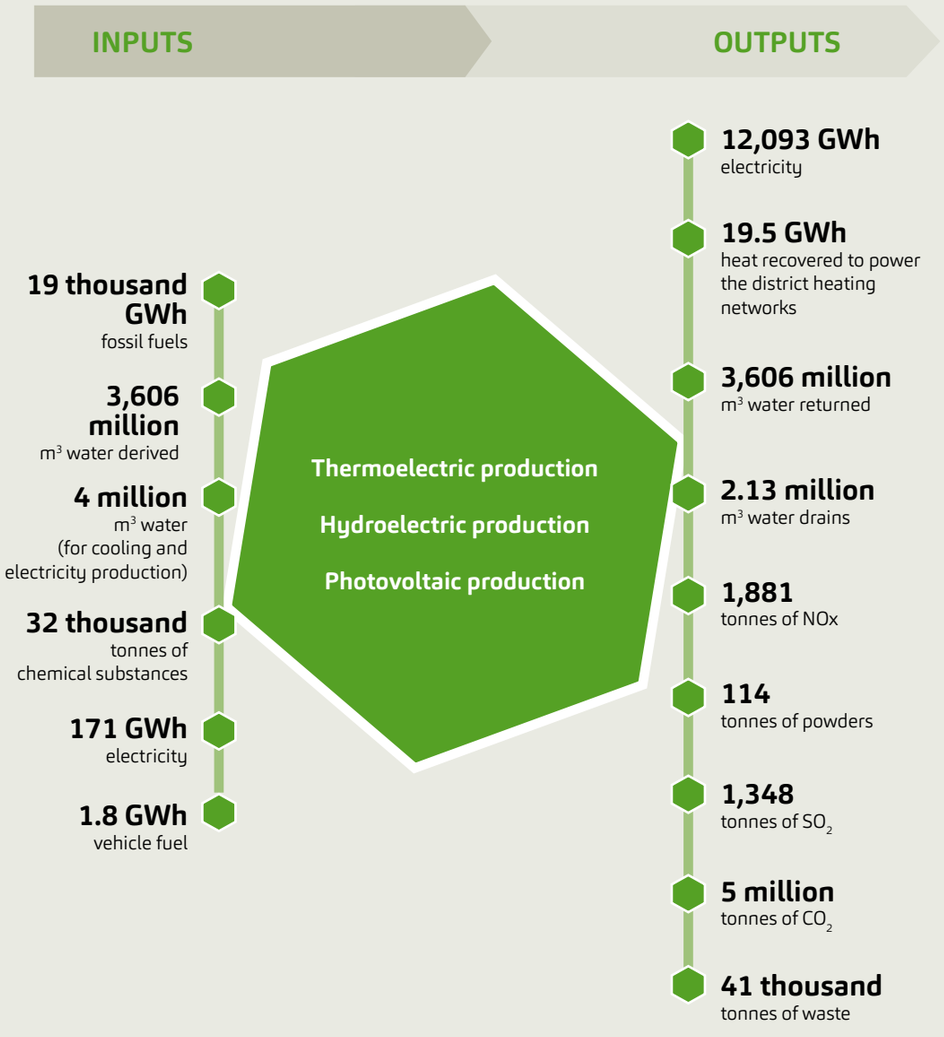
Waste produced

The processes of the Environment BU in turn generate waste, for the most part non-hazardous (ash and waste-to-energy plant refuse, leachate and water-based reject solutions). In 2016, a fair decline was recorded in non-hazardous waste (- 9.8% on 2015) and a slight increase in hazardous waste (+5.4% on 2015); this latter fact is mainly due to a different classification of waste that was previously classified as non-hazardous according to regulatory parameters.

7.3 Natural capital in the Generation and Trading Business Unit

The Generation and Trading Business Unit is dedicated to the Group's electricity generation and energy portfolio management processes, including the purchase and sale of electricity, fuels and environmental certificates.
Several sources, such as water, sun and fossil fuels are used to generate electricity. In addition to these essential natural capitals, substances and chemical reactors are added, as well as electricity itself.

Figure 29 | Input-output model of the Generation and Trading BU (2016 figures)



In 2016, the Generation and Trading BU produced approximately 4% less electricity than last year. The reduction is due to the reduced production by the San Filippo del Mela plant and the decline in hydroelectric production (due to the sale of some plants in the province of Udine). The greater operation of natural gas combined cycle plants should be noted, thanks to increased flexibility assured by work carried out on the Chivasso thermoelectric plant (which produced more than double 2015) coupled with a greater demand for the use of these plants by the regulator. Production of photovoltaic energy remained constant, coming in at 3 GWh.

Figure 30 | Electricity production by type of plant in the Generation and Trading BU (GWh)

		2014	2015	2016
Thermoelectric plants	CCGT	2,252	3,797	**4,424**
	Multi-fuel plants	3,192	4,333	**3,448**
Hydroelectric plants		6,066	4,451	**4,218**
Photovoltaic plants (including self-consumption)		3	3	**3**
Total		**11,513**	**12,584**	**12,093**

The fuels and resources used

Electricity is produced using various sources. Of these, the main role in the A2A Group is played by water, which powers the hydroelectric plants; in 2016, net hydroelectric energy production in fact accounted for 35% of total BU production. The remaining 65% is produced using fuels, as shown in the table.

Figure 31 | Use of fuels in the Generation and Trading BU (TJ)

	2014	2015	2016
Natural gas	17,249	27,758	**31,661**
Coal	18,928	22,100*	**23,315**
Oil (HFO, diesel)	16,375*	25,856*	**14,771**

* Updated figure with respect to the 2015 Sustainability Report.

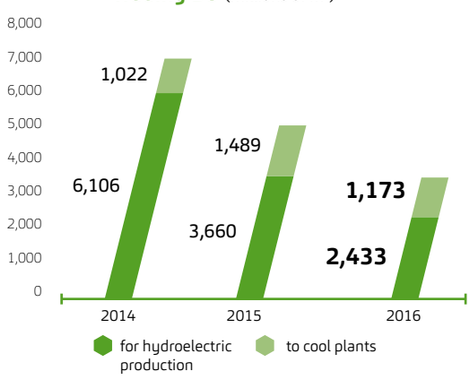
In 2016, there was an increase in natural gas due to the greater operation of the thermoelectric plants of Gissi, Cassano and Chivasso, and a more limited increase in the use of carbon, due to the greater demand by the electricity market. HFO reduced in connection with the lesser operation of the thermoelectric plant of San Filippo del Mela.

Water resource

Water in the Generation and Trading BU is mainly used for hydroelectric production and for cooling the thermoelectric plants; in both cases, the resource is returned to the water body with the same qualitative characteristics, apart from a slight increase in temperature in water used for cooling.

The water derived for hydroelectric has reduced considerably due to the sale of the minor plants in the province of Udine. Instead, the reduced use of water for cooling is due to the lesser operation of the plants of Mincio, San Filippo del Mela and Piacenza.
Additional water is collected mainly for process uses and to a large extent is recovered in the production cycle; in 2016, the quantity of water recovered in the production cycle was approximately 1,088 thousand m³.

Figure 32 | Water derived in the Generation and Trading BU (millions of m³)



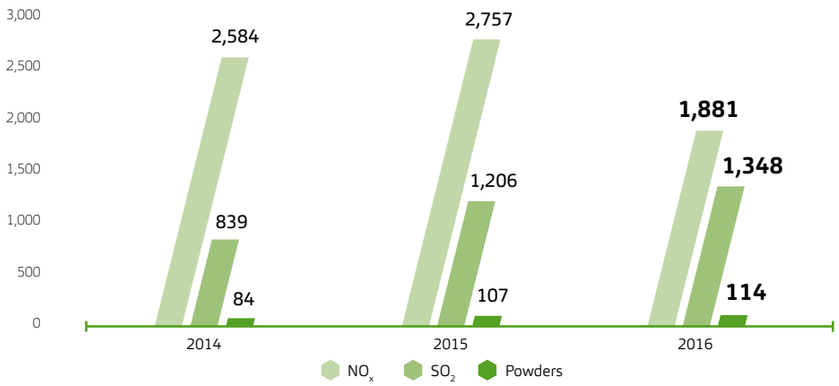
The chemical products used

The main chemical products used to produce electricity are used to eliminate pollutants and condition process water; the quantity used depends on production levels. In 2016, 94% of all products and materials used consists of neutralising substances (lime, calcium carbonate, etc.). The reduced consumption of these substances, used to eliminate sulphur oxides, is due to the lesser production by the plant of San Filippo del Mela. The ammoniacal solution used for denitrification has increased, following the full operation of the denitrification system at the Monfalcone plant. The decrease in thermoelectric production has also resulted in a decreased consumption of sodium hydroxide to produce the demineralised water necessary to the production cycle.

Atmospheric emissions

The limitation of atmospheric emissions generated by electricity production is guaranteed by the use of the most modern technologies to eliminate pollutants. To manage, limit and reduce atmospheric pollution, A2A: installs emissions elimination plants, installs continuous monitoring systems and uses low sulphur content fuels.

Figure 33 | Emissions produced by the Generation and Trading BU (t)



NO_x emissions have reduced considerably as a result of the lesser use of HFO, but also thanks to the effectiveness of the new denitrification system installed at the Monfalcone plant.

Instead, total SO_2 emissions recorded a rise due to both changes in the operating conditions of the Monfalcone thermoelectric plant and the different structure of the fumes treatment line.

Waste produced

The main waste generated from electricity production consists of light ash from fumes treatment, heavy ash and slag, residues from the desulphurisation process of fumes and sludge from water treatment; most of this waste is recovered.

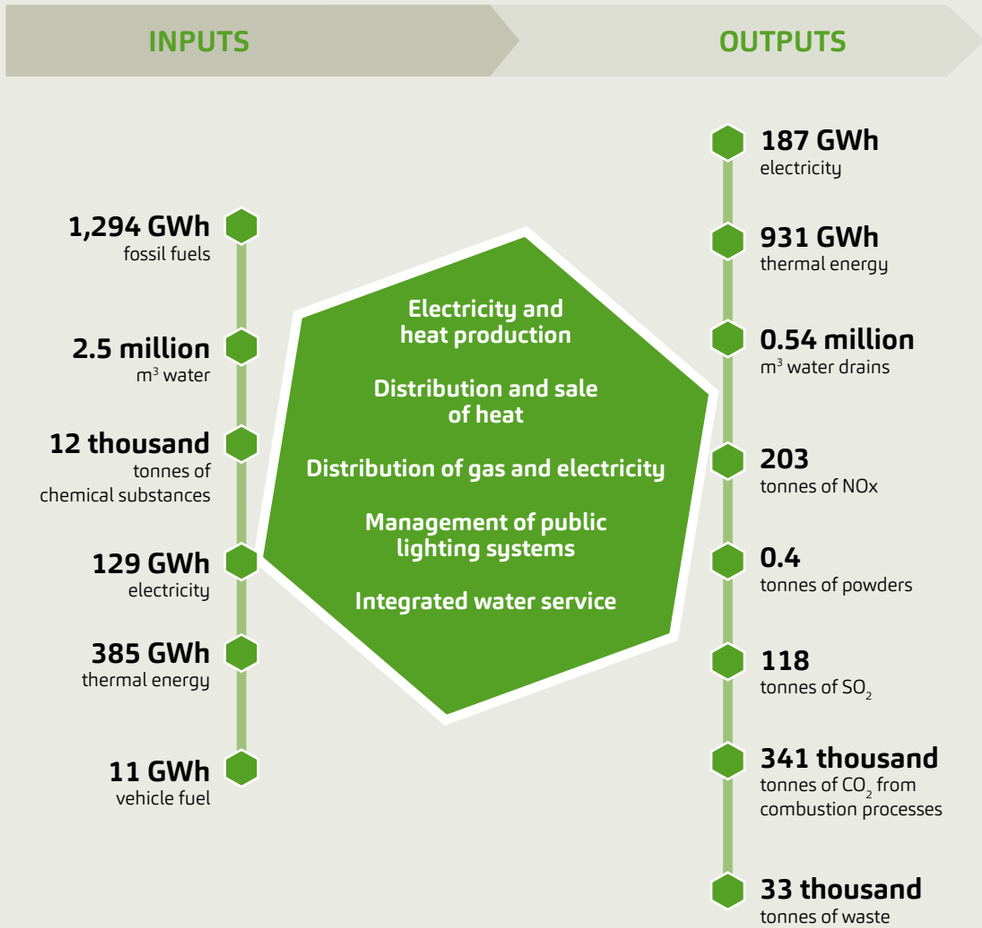
In 2016, a total of 41,000 t of waste was produced, of which 72% was sent for recovery (+6% on 2015). It should be noted that the waste recovered does not include the gypsum produced by the Monfalcone Thermoelectric plant, which is considered as a by-product.

7.4 Natural capital in the Networks and Heat Business Unit

The Networks and Heat Business Unit comprises the operation and maintenance of the cogeneration plants and the distribution on the territory of network services. The main natural resources used to provide the services are:

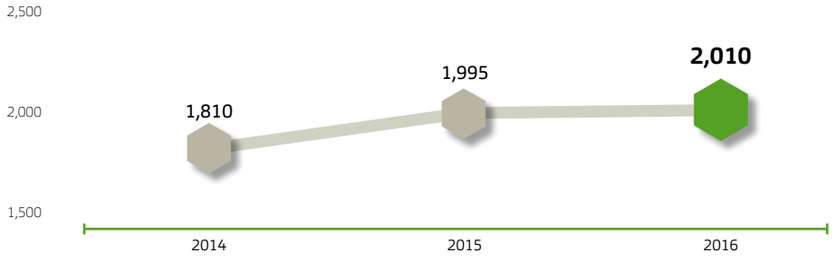
- fossil fuels (including natural gas, both as raw material delivered to the user for civil and industrial uses and as a fuel to run the cogeneration and thermal plants);
- fuels for the company vehicles that enable the service to be provided in the reference territories;
- water intended both as a "product" distributed to users for human consumption and as a "carrier" to bring heat into homes and/or public and private offices and for plant function;
- chemical substances for the plant operation and maintenance and to improve the quality of water for human use or purification;
- the soil and subsoil for laying distribution networks;
- electricity and heat.

Figure 34 | Input-output model of the Networks and Heat BU (2016 figures)



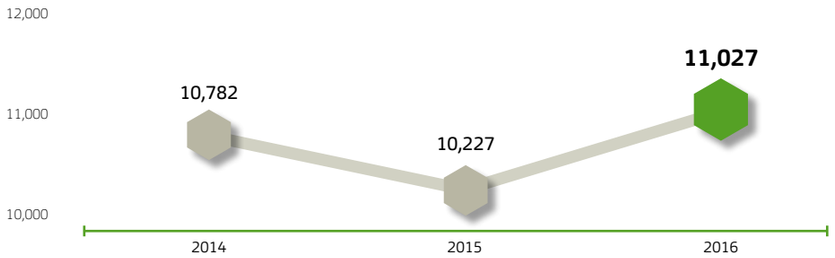
The Networks and Heat BU manages the development and maintenance of the gas and electricity distribution plants, the development of new connections, the installation of meters and the replacement of pipes.
In 2016, 2,010 million m³ of **natural gas** were released to the network, in line with previous years.

Figure 35 | Gas distributed (Mm³)



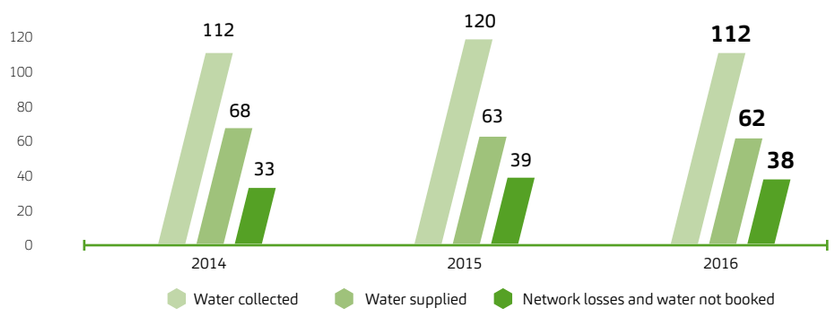
As regards **electricity distribution**, in 2016 a rise of approximately 800 GWh on the previous year was recorded, for a total of 11,027 GWh.
There was also a reduction in losses, which declined by 16% on 2015, going from 383 GWh to 323 GWh.

Figure 36 | Electricity distributed (GWh)



The quantities of **water supplied** in the year, of 62 million m³, are in line with those of previous years. However, a 7% reduction was recorded in the quantities of water collected and a reduction in network losses of 1 million m³.

Figure 37 | Water distributed (Mm³)



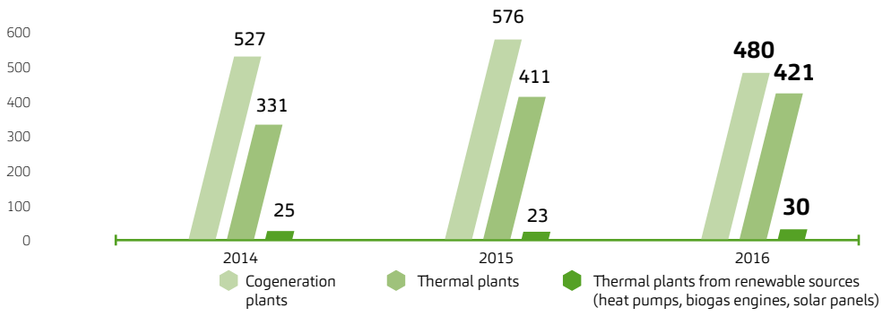
In order to guarantee the quality of the water distributed, almost 4,300 controls are run per million m³ of water supplied, for a total of close to 20,000 samples taken and more than 264,000 parameters analysed.

The **cogeneration processes** managed by the BU enable, by using the same production process and the same quantity of fuel, the simultaneous production of thermal energy and electricity.

The heat produced during the cogeneration processes is released to the **district heating networks** in the provinces of Bergamo, Brescia, Milan and Varese and thereafter distributed to users.

In 2016, net thermal energy production in co-generation plants reduced on 2015, going from 1,010 GWh to 931 GWh, for a decline in the demand for thermal energy. The average yield of fossil fuel cogeneration plants maintained values of close to 80% in 2016.

Figure 38 | Net thermal energy produced in the Networks and Heat BU (GWh)



The fuels and resources used

The fuel most used in the Networks and Heat BU is natural gas, which powers the cogeneration plants. The Brescia Lamarmora plant also uses coal for its operation.

As seen in the table, in 2016, a 17% reduction was recorded in the use of natural gas. This reduction is due to the trend of the thermal season, which, with respect to the previous year, required lesser heat production.

As concerns the use of fuels to run the networks, consumption is almost entirely due to the use of fuel for vehicles needed to carry staff in charge of emergency interventions and maintenance work on the infrastructures. For 2016, no significant differences in value were recorded with respect to previous years' consumption.

Figure 39 | Fuels used in the Networks and Heat BU (TJ)

	2014	2015	2016
Natural gas	3,133*	3,356*	**2,804**
Coal	1,593	1,812	**1,846**
Oil (diesel)	0.1*	0.3	**0.5**

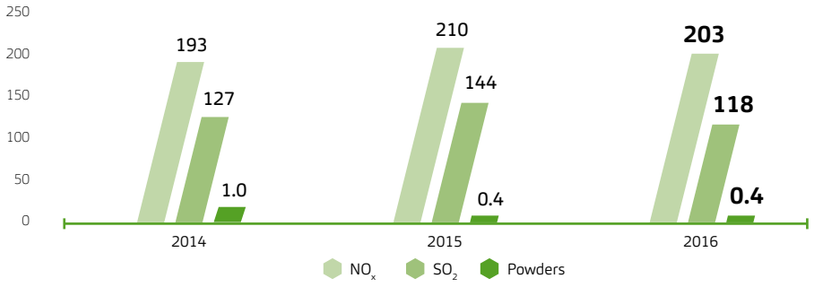
* Updated figure with respect to the 2015 Sustainability Report.

Atmospheric emissions

The atmospheric emissions of the BU are mainly due to the production of thermal energy and electricity.

In 2016, no significant changes in the production of powders were recorded. Instead, there was a slight decline in NO_x and an 18% reduction in the value of SO_2 due to the lesser production.

Figure 40 | Emissions produced by the Networks and Heat BU (t)



Emissions into the water

As regards activities not relating to the water cycle, in 2016, 69% of discharges of the Networks and Heat BU were into the drains, whilst 31% of discharges went into surface water bodies.
During the year of calculation, 3,800 m^3 of water was recovered within the production cycles.

As compared with 2015, pollutants in waste water discharged into surface water bodies were virtually unchanged, as deriving from the work of the BU.

As regards the activities of the integrated water cycle, purification aims to make the qualitative characteristics of municipal waste water compatible with the safeguarding of the environment to which it is returned. The performance of the removal of polluting loads (COD, BOD, Nitrogen and Phosphor) have increased slightly on the figures recorded in previous years, as shown in the table below.

Figure 41 | Purification performance

	2014	2015	2016
COD	91%	94%	**94%**
BOD	97%	99%	**100%**
Nitrogen	65%	70%	**72%**
Phosphor	79%	80%	**82%**

Waste produced

Waste produced by the work of the Networks and Heat BU mainly derives from the operation and maintenance of the heat and cogeneration production plants, the maintenance of networks, plants and infrastructures, under the scope of the distribution of gas and electricity.
Activities managed by A2A Ciclo Idrico instead generate waste consisting of sludge deriving from the purification processes and used granular active carbon produced in the drinking water processes. In addition to these, there is also waste deriving from the maintenance of networks and plants.
2016 waste production was in line with that of 2015. 99% of waste produced is special, non-hazardous, deriving above all from cogeneration processes. The remaining 1% instead consists of hazardous waste. The percentage of (hazardous and non-hazardous) waste sent for recovery is 92% and has therefore grown by 2% on last year.

8 Human capital

9,777
A2A Group employees, of whom 96% on permanent contracts

164 thousand
hours of training, for an average of 16.8 hours per person

VITA Programme
for the safety of employees and contractors operating on the networks

Pilot project launched of
SmartWorking
for **250** employees
throughout the Group

Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
Protection of health and safety at work	Promotion of health and safety at work, monitoring of incidents and adoption of prevention measures, education and training.	Health and safety at work	Preventing injury, major incident and occupational diseases involving staff operating at the sites and operative sites, through measures managed by the Environment and Safety structures. Identification of the specific risks and delivery of dedicated training.	• Adhesion to the **WHP network** of Lombardy • Introduction of the new **ARIAL application** • Development of the **"*Leadership in Health and Safety* (LiHS)" programme** • Start-up of the **VITA Programme**	***PEOPLE INNOVATION*** • Health and safety

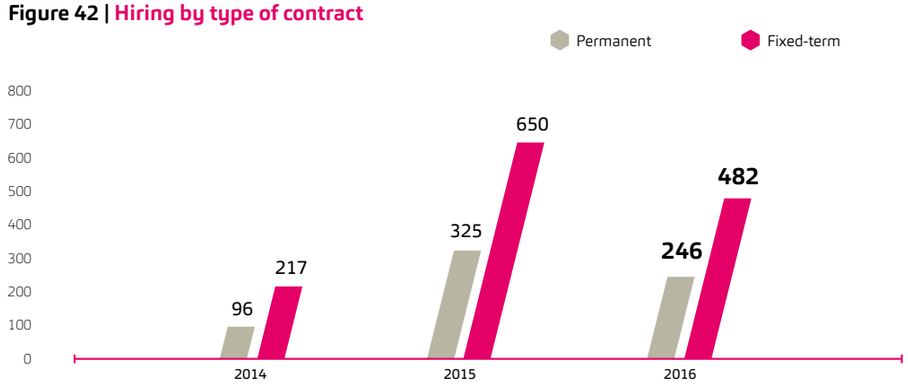
Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
Management, development and optimisation of the human capital	Investing in professional growth paths and developing policies to attract and retain talent. Strengthening the development and training paths of technical, managerial and organisational skills of staff and consolidating the professionalism required by the role held.	Retention of middle management and technical profiles Loss and poor optimisation of managerial skills	Maintaining continuity of the managerial and technical profiles required in the group, even when staff leave, so as to support the company's growth, through: • mapping of roles and profiles, identifying the resources of greatest value based on specific indicators and specific management plans; • rotation, training and initiation plans of resources with competence/ professionalism not present in the company; • development of initiatives aiming to evolve the visibility of middle/top management in corporate processes; • adoption of suitable compensation systems with respect to the market benchmarks.	• Launched **14 projects** on continuous improvement • **ABC** managerial development **project** • Development of **4 laboratories** to strengthen the competences of employees • Development of **paths for listening and team building** with employees	***PEOPLE INNOVATION*** - Change Management - Training - MbO
Management of corporate welfare and diversity	Developing practices and conditions of work that are suitably able to ensure equal opportunities through the removal of all forms of discrimination of gender, age and religion. Promoting the well-being of employees through welfare policies aiming to guarantee a good working environment and a conciliation of private and professional life.	Staff protection and management tools Employee retention Staff satisfaction	The Group carries out actions that can encourage diversity, the conciliation between life and work and employee well-being, with the aim of increasing the sense of belonging. By activating specific projects, the protection and respect of diversity is promoted and a change pursued towards a corporate culture based on a greater optimisation of the issues of respect and social inclusion.	• Development of the **MAAM project** (*Maternity as a master*) • Start-up of the **SmartWorking** project • Launch of the **Mia2a** offer for employees	***PEOPLE INNOVATION*** - Internal engagement - Welfare
Trade union relations	Promoting dialogue with trade union organisations and industry organisations. Stipulating industrial relations agreements and protocols and encouraging collaboration with the trade unions.	Transparency and collaboration with the trade union representatives Stipulation of agreements and memorandums of understanding with the main unions	The Group encourages the stipulation of agreements and contracts aimed at maintaining constructive, transparent relations with the workers' representatives through negotiations and comparison of ideas, helping define a corporate social system model.	• Stipulated **73 trade union agreements**	/

8.1 Responsible management of human capital

The A2A Group Human Resources Development Plan aims to optimise the people working in the company and is based on human resource selection, training and management processes and compensation systems.
The plan has been developed on the basis of an ideal route that accompanies the employee's working life from when he/she enters the company until potentially reaching high levels of responsibility.

As at December 31, 2016, the total workforce of the A2A Group numbered 9,777 people. During the year, 728 people were hired and 664 ended their employment contracts.

Figure 42 | Hiring by type of contract



The total number of new employees has reduced on last year (-25% on 2015); at the same time, there has also been a reduction in percentage points of employees who left (-29% on 2015).

The turnover rate came in at 6.8%, down 3 point percent lower than last year.

The staff recruitment process is supported by employer branding activities, aimed at constantly consolidating the image and appeal of A2A on the employment market.

In 2016, employer branding activities regarded 2 business schools, 13 universities and 15 secondary schools. A total of 20 events were organised, of which 7 career days and 9 round tables, as well as presentations and testimonials in the classroom and various open days for students as part of the UniversoA2A project, which involved around 171 students at the waste-to-energy plants of Brescia and Milan.

Moreover, in continuing on with 2015, the listening activity continued with 2 focus groups with university students aiming to gain a better awareness of the positioning of the A2A Group on the employment market.

Thanks also to the collaboration of universities, schools and research entities, in 2016, 27 internships and 154 placements were activated. Of these, 91 were carried out in AMSA with the collaboration of the Municipality of Milan, as part of a process for the reintegration into work of people with social and economic disadvantages. To increase development opportunities and internal mobility, in 2016, 72 recruitments were made through job posting, of which 43% was successful.

Attention to the stability of work remains high: since 2012, in fact, employees hired on permanent contracts account for more than 95% of the total. In 2016, permanent employees accounting for 96% of the total and the remaining 4% are on fixed-term contracts.

In 2016, amongst other aspects, the Group was involved in various corporate restructuring projects that involved the Networks and Heat BU, the Generation and Trading BU and the Commercial BU, as describe on page 56.

It should also be noted that the Networks and Heat BU was involved by a complex reorganisation project that, with the aim of supporting investments and implementing the generational handover process, entailed the adoption, by agreement with the trade union organisations, of mobility procedures aimed at accompanying the cessation of service by staff meeting pension requirements.

Under the scope of the Environment BU, amongst others, we should mention the stipulation of the trade union agreement for the introduction into the municipality of Brescia of a new *combined home* waste collection service.

In 2016 too, multiple trade union agreements were stipulated that can be grouped according to the subjects covered:

1. work timetable and organisation (including the agreement for the start-up of the pilot SmartWorking project);
2. the use of technologies for the safety of work sites and work activities;
3. the transfer of companies, business units and contracts;
4. personnel management, training and education;
5. health and safety training;
6. functioning of industrial relations and social institutions;
7. management of reorganisation processes, with the application of social guarantees and economic incentives;
8. productivity enhancement.

All of the Group's workers are covered by the National collective Labour Agreements (CCNL), which establish the means of dealing with trade union relationships at the various levels of representation: national, territorial and corporate. As at December 31, 2016, the renewals of the collective national employment contracts for the "Electricity" and "Gas-Water" sectors were still being negotiated with the unions.

8.2 Health and safety at work

98% of workers work according to the Health and Safety at Work Management System OHSAS 18001. This certification was obtained by 16 Group companies. Once a year, all the A2A Group companies organise a meeting with the employer, the physician in charge, the Head of Prevention and Protection (RSPP) and the workers' safety representative (RLS), representing all workers.

WORKPLACE HEALTH PROMOTION

The WHP (Workplace Health Promotion) programme aims to encourage the aware adoption of healthy lifestyles for the prevention of chronic illness.
The A2A Group has decided to adhere to the WHP Lombardy Network as an action to assure corporate well-being and sustainable development, registering the company offices of Milan, corso di Porta Vittoria and piazza Trento, Brescia, via Lamarmora and the Bergamo office in via Suardi.

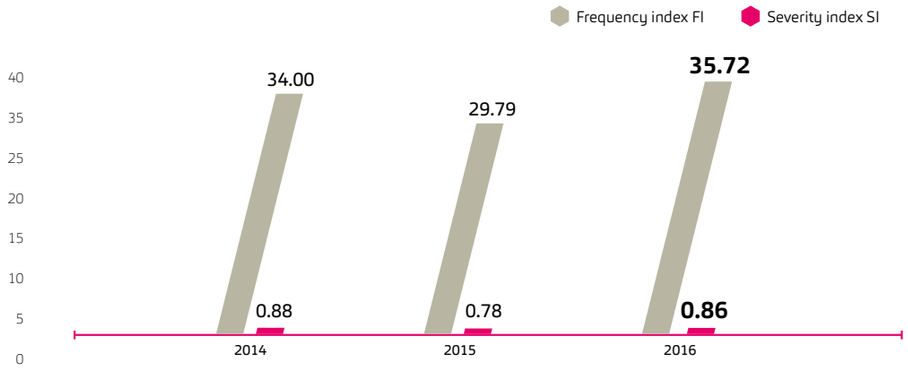
In 2016, A2A obtained the important "European Network Workplace Health Promotion" (ENWHP) award.
The prize is an annual award insofar as it aims to continuously offer support to and monitor the process of improvement and update of good corporate practices. The themed areas chosen for 2016 were diet and safe, sustainable mobility.

2016 marked the introduction of **the new ARIAL application** (Application for the Environmental and Work Risks) that standardises the operating procedures of the various group companies. The application manages four main modules: Health, Safety, Environment and Audit.
The first module implemented was that for the **management of the health surveillance process**, with the consequent elimination of hard copy documents and greater ease in preparing statistics on the outcome of the activities.

As from December 2016, the application has also allowed for the recording and monitoring of injuries of workers and contractors, as well as all other incidents involving HSE (safety and environmental incidents as well as near misses, i.e. incidents with no consequences on people or the environment). The module will be operative for the whole Group as from February 2017.
In 2017, other modules will be implemented for risk assessment, the preparation of the risk assessment document ("DVR"), for the management of personal protection equipment (PPE) and chemical substances and for the environment.

The results of the injury indices record, in 2016, a worsening with respect to the previous year, once again settling at the values recorded in 2014; this is mainly due to the activities for EXPO carried out in 2015, which had, for the Environment BU, entailed a considerable increase in the number of hours worked in exchange for the non-occurrence of injuries. More than 85% of injuries are in fact recorded in the Environment Business Unit (in line with previous years).

Figure 43 | Accident indices



Studies conducted on injuries in the last 20 years show that the main cause of incidents in the workplace is insecure behaviour of workers. This is why A2A has developed and launched a programme of change called "**Leadership in Health and Safety (LiHS)**" which involved the management of the Networks and Heat BU. This programme is based on strategies and instruments designed to give rise to a strong emotional impact, able to bring widespread beliefs into discussion and deep-rooted habits in terms of safety.
The programme is structured into several stages:

- in December 2015, the **first workshop** was organised, involving **49 top managers** of the BU, starting out with the preparation of key values that the parties responsible identified after the launch of the programme with the creation of the **Health & Safety Vision**, a document that outlines what the company wishes to be in the future, i.e. also a leader in health and safety;
- during the first half of 2016, a total of **5 workshops** were carried out, involving **127 managers and coordinators of the BU**. The method by which these events are carried out has always focussed on the emotional involvement of the participants, including through the watching of a film that provides a dramatic reproduction of an incident at work and the whole chain of events that preceded it;
- during the second half of 2016, **meetings were held to sensitise all staff** managed by senior figures of the BU, for a total of 69 meetings involving around 1,800 workers.

The workers will therefore be asked to take part in the third step of the LiHS programme called "Five Star", which aims to provide the tools for a correct approach to the intervention.

VITA PROGRAMME

In 2016, the main aim of the VITA Programme promoted by the Networks and Heat BU is **to zero the risks connected with the safety** of employees, contractors and customers.
In 2016, **1,400 inspections** were carried out of road sites, with the analysis of around 23,000 parameters and the identification of 20% of elements of non-conformity. To improve sensitisation to matters of health and safety at work, approximately 1,800 people were involved, with the organisation of more than **60 classroom sessions**.
In a parallel fashion, research and development activities were carried out on innovative technologies for safety, such as: the integration of radiofrequency identification systems on PPE for the control of access to plants; Internet of Things applied to grids through the use of mobile technologies for timely interventions in the event of incidents or the introduction of the augmented reality on manoeuvres in high-risk environments.

Additionally, **structural checks were performed on 16,000 public lighting poles and approximately 2,300 checks carried out** in the field of the correct presence of methane gas odorants, a significantly higher number than the AEEGSI targets.
The action that will be taken in 2017 will aim to promote the integration of safety into the processes and training, involving both internal staff and contractors, to improve the signalling and the analysis of near misses and to obtain greater rigour in the management of contractors.

In 2016, 11 injuries were recorded to **workers of contractors**, with a prognosis of more than three days to recover, for a total of 464 working days lost. This data returns a frequency index of 6.39 and a severity index of 0.27. To increase sensitisation to the promotion of safety also amongst employees of external companies, in 2016, more than **6,000 hours of specific training** was delivered to around **1,700 people**.

Worker health surveillance

In A2A, health surveillance is carried out according to the specific risk assessed for each individual worker and in the workplace.

The A2A Group companies that have a significant biological risk are those that operate in the sector of environmental sanitation and those that deal with civil water purification. Thanks to targeted activities of prevention and protection, in the last three years there have been no cases of illness caused by contact with work-related pathogens.

The service is offered in the approximately **40 medical units** distributed throughout national territory, and with authorised external facilities. In the Group, a pool of 34 appointed physicians operate and one general practitioner who supports the appointed physicians of Brescia in physical examinations and vaccinations.

In 2016, a **service reorganisation** process was launched, through:

- the breakdown of the service according to territorial scope and number of employees, rationalising the number of doctors and analysis centres, identifying a single appointed physician per company/territory;
- the organisation of the service to manage both the assessments and the visits to the company offices, reducing staff movements.

In 2016, more than **6,960 medical check-ups** were held and approximately **11,272 clinical examinations** in compliance with the health protocol. Moreover, another **191 specific visits** were carried out for special appointments and an additional **602 clinical assessments**. **83 site inspections** were carried out by appointed physicians at the workplaces, to verify the coherence between the medical monitoring programme and the activities carried out by workers.

Doctors also took part in specific training, like that organised at the Silla 2 waste-to-energy plant, where workers took part in meetings dedicated to the risks consequent to the assumption of drugs and the abuse of alcohol and spirits.

In 2016, 8 occupational disease procedures were opened by appointed physicians or signalled by INAIL.

Activities also continued aiming to promote health, such as:

- seasonal **anti-influenza vaccination** campaign with adhesion of 608 workers;
- the **Cuore project** for the prevention of cardiovascular risk;
- the **Promosalute Edipower project**, which envisages a series of clinical assessments to prevent cardiovascular disease and preventive controls for prostate cancer in men aged over 50.

8.3 Employees development

A2A uses a **performance management** system which is gradually being extended to increasing sectors of the company's employees; today, all managers, executives and employees of the Group are assessed.

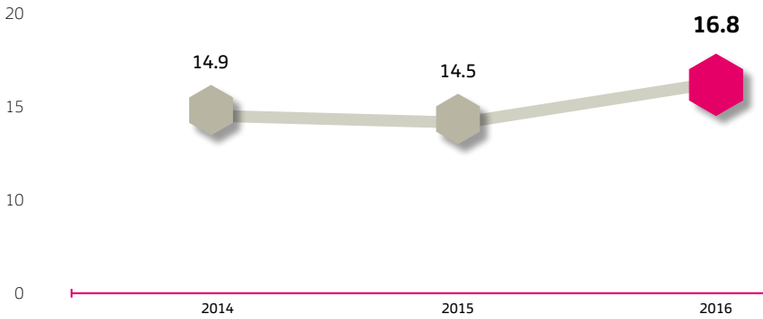
The **new** A2A **people strategy** aims to create a more entrepreneurial managerial culture and develop resources, with the objectives of attracting, developing and retaining the human capital. The table below summarises the strategies and activities for the projects.

DRIVERS	COMMITMENTS AND GUIDELINES	PROJECTS
Organisational culture	**CONTINUOUS IMPROVEMENT** Simplify the processes, share best practices within and between the Business Units	**CONTINUOUS IMPROVEMENT PROJECTS THROUGH THE USE OF LEAN METHODOLOGY** The lean thinking methodology aims to optimise the processes and corporate working methods, through a high level of involvement of staff involved at all levels and the progressive development of a business culture focussed on spontaneous, continuous improvement. Following a first pilot phase that started in 2015, in 2016 a second phase was pursued that involved all business units and much of the A2A Group staff areas. More specifically, in 2016, 14 initiatives were started and completed to a degree of 90%: 2 in the Networks and Heat BU, 1 in the Commercial BU, 1 in the Environment BU, 1 in the Generation and Trading BU and the remaining 9 in the staff departments.
	CULTURE OF THE MARKET AND DIVERSITY Promote the centrality of the employee, the merits, innovation and optimise diversity	**MELOGRANO PROJECT** Launched in 2015 to promote and help optimise the female component in the company, the project drew to a close mid-2016. In September, implementation instead began of the ideas selected, some of which were flowed into the Alternanza Scuola Lavoro and Futura2a projects, whilst others, like the MAAM project and SmartWorking are described on page 95.
Stakeholder engagement	**INTERNAL COMMUNICATION AND LISTENING** Activate formal and informal listening initiatives on all levels, with different tools and methods	**INTERNAL COMMUNICATION INITIATIVES** In 2016, once again the quarterly internal magazine SiAMOA2A was published and the project for revising the spaces of the office in via Lamarmora, Brescia and ICT areas of Piazza Trento was pursued, with a view to involving employees and improving quality of life in the office. Moreover, specific communication campaigns were launched for various corporate projects through news, articles in the magazine, videos on the company notice boards, brochures, dedicated blogs and questionnaires. **AD INCONTRA** In February 2016, the initiative began whereby the Chief Executive Officer meets with and gets to know the employees of A2A, investigating projects in progress and sharing Group themes and strategies with them. The CEO met with colleagues from the offices of Sondrio, Grosio, Milan Piazza Trento, Bergamo via Codussi, Bergamo via Suardi, Bergamo via Goltara, Bergamo via Moroni, Brescia Codignole, and Milan Olgettina. **ABC PROJECT** To launch an organic managerial development programme that complies with company priorities and effective needs, launched in 2016 by means of a listening process articulated into interviews with the top management, focus group on 25% of executives and 100% of managers and a survey for the whole population. In 2017, workshops will be held dedicated to the return of evidence and, thereafter, managerial training paths developed starting from the top and middle management, and initiatives in response to the findings.
Resource development	**GENERATIONAL TURNOVER** Optimisation of the company's silver population	**SILVER PROJECTS** In 2017, projects will be launched to optimise the over 55s, aimed at the transmission and capitalisation of the distinctive competences held.
	YOUNG POPULATION Free up the energy of the younger members of the Group to drive ideas and change	**FUTURA2A** Project for the Group's young graduates, which brought together more than 200 innovative ideas onto the dedicated on-line platform. In 2016, the winning idea was developed **"From the bill to energy efficiency"** and sites were launched to implement another 9 ideas whose start-up is envisaged in 2017. The process of developing each idea is monitored by a young member of the Group, who interfaces with internal and external experts as well as with the company's senior management. The ideas developed also include an induction process for new employees called "Virtual Buddy", for which the pilot project will start in 2017. **MEETINGS BETWEEN THE YOUNGER GENERATION AND TOP MANAGEMENT** In 2016, meetings were held of the younger members of the Networks and Heat Business Unit and corporate staff (ICT, Human resources and External communication).
Optimisation of core competences and requalification	**MANAGERIAL SKILLS AND REQUALIFICATION** Adjust competences in line with the change to business and strengthen managerial skills	**SKILLS LABORATORY** In 2016, the following projects were launched: • training for the Networks and Heat BU deriving from the skills mapping carried out in previous years (Accounting Works for Unareti); • "The power of water" project for the mapping of the technical-professional competences of employees of the hydroelectric area based in Grosio in the Generation and Trading BU; the project will be extended to the whole area in 2017; • master ENVIRONMENT project intended for employees of the HSE structure; • training routes for employees of the A2A Smart City company.

For the A2A Group, **training** is a key tool in stimulating and extending individual skills of its employees. During the year, **164 thousand hours of training were provided**, for an average of **16.8 hours per person**, with a peak of 32 hours for middle management. 87.1% of Group employees received training during the year. Approximately 50% of training hours delivered was spent on matters of health and safety.

The investment in training, equal to 1.8 million euros, has declined by 12% on 2015 following a free market tender whereby a new supplier was identified for the delivery of safety training.

Figure 44 | Average training hours per person (hours)



2016 was characterised by an **increase in hours (+17%) and participation (+12%)** on last year. The increase can be traced to the following training projects:

- **Leadership in Health and Safety (LiHS):** training event on health and safety at work that involved the employees of the Networks and Heat BU for a total of 3,740 hours and 1,870 participations (see also page 90);
- **Lean Management:** in 2016, 17 training sessions were held for 214 participations and 2,500 training hours;
- **Masters in environmental matters for HSE specialists:** course aimed at reinforcing environmental knowledge aimed at approximately 60 employees operating in the HSE structures of the individual Group companies. Masters articulated into 7 training sessions for a total of 1250 training hours;
- **HSE profession:** training course linked to a change management project for professionals of the Group HSE structures and HSE specialists of the Corporate areas. Approximately 160 employees were involved for 920 training hours. The project will continue in 2017;
- **"Site management" project:** course dedicated to approximately 600 employees for more than 40 training sessions and 10,500 hours of training so as to realign the role of the professional figures involved in the site management process;
- **Upgrade in ICT competences:** training aimed at developing and updating the competences on IT Management instruments and methods. Approximately 120 employees, were involved for 6,000 training hours, structured into 35 training sessions.

BIMBI VILLACOLLE TEAM BUILDING PROJECT

As has now been consolidated for some years now, also in 2016 a team building event was organised for employees with responsible roles in A2A Energia. This year, following a choice made directly by the parties concerned, the event focussed on a social matter: the help to the Associazione Casa Famiglia Villacolle for the adjustment of a villa abandoned on the mountains of the Liguria inland for its re-use to host - for training and teaching activities - children and teenagers in difficulty. The commitment of approximately 60 managers of A2A Energia regarded activities inside and outside the villa: restoration of spaces, painting, removing of unused fencing, redoing of the flowerbeds, significantly helping implement the activity.

8.4 Welfare and diversity

The Group has promoted the development of a great many initiatives, in order to create value and make the most of opportunities for growth and development, optimising diversity through the identification and overcoming of all stereotypes connected with gender, age, disability, ethnic origin, religious belief and sexual orientation.

To help employees reconcile work and private life, the Group has granted **303 part-time** jobs (3% of total employees), of which 82% have gone to women. A total of 993 parental leaves have been agreed to 252 Group employees (50% more than 2015). 82% of the people granted parental leave in 2016 returned to work in the same year.
A2A ensures working rights for people with disabilities, as required by current legislation. 476 persons with disabilities were employed by the Group in 2016, of whom 22% women.
The offer in terms of company welfare comprises numerous services offered to employees:

A2A social policies	
Work-life balance services	**Mobility services:** again in 2016, beneficial tariffs were applied for the purchase by employees of subscriptions with local transport services; more specifically, in 2016, 936 subscriptions were taken out at beneficial rates in Milan and Brescia.
	Company daycare at the Lamarmora office in Brescia: in 2016, 24 children of employees were registered.
Personal services	**Pension funds:** employees join or may elect to join supplementary pension schemes in compliance with their specific employment contracts. The main funds are Pegaso, Fonte, Fopen, Fondichim, Previambiente and Previndai and Mario Negri for managers.
	Insurance for non-professional injuries and supplementary medical insurance to the NHS (medical conventions, dental treatment, specialist visits, hospitalisations, glasses, nursing assistance, etc.).
Health and well-being services	**Social-psychological assistance service:** offered in 14 A2A Group offices. In 2016, the service involved 779 employees for a total of 4,358 consultancy sessions.

As part of the Melograno project, the experimental project was started, **MAAM U - Maternity As A Master** - to optimise the training potential of the experience of maternity, transforming it into a gymnasium of skills also useful to the return to work.

Moreover, at end June, the pilot was run of the project **SmartWorking**, an innovative working method that involves, for one day a week, working from home or from a place other than the office, using the company's equipment to perform work activities. The results of the experiment, verified by means of an intermediate and final survey, will enable assessment of the future scope of the project.

Moreover, for the SmartWorking project, a dedicated blog has been started in which the people involved in the pilot can interact and exchange experiences and suggestions.

ENERGY AT ADVANTAGEOUS PRICES FOR OUR EMPLOYEES

In April 2016, the **Mia2a** offer was launched, reserved to A2A Group company employees, which guarantees a better or equal price to that applied in best electricity protection and gas protection. Each employee can activate up to two domestic Mia2a Electricity contracts and two Mia2a Gas contracts, including where the supplies are not held in the name of the employee, but rather of a cohabitee of such: spouse or parent.
The offer has proved to be very popular and has been subscribed to by approximately 2,000 employees of the group for a total of more than **3,000 contracts** at end 2016.

8.5 Remuneration

A2A provides new graduates with the minimum remuneration established by the level of classification of the Collective Contract of reference; for qualified figures with experience, remuneration is disbursed that is in line with the market standards and internal remuneration practices, which guarantees both an adequate level of external competitiveness and internal fairness.
In defining the type of contract and salary, A2A complies scrupulously with Italian legislation, which excludes any distinction of gender in remuneration.
As in previous years, the differences in average remuneration within the different qualifications are minor.

Figure 45 | Average salary of men/woman by category

Category	2014	2015	2016
	Men/women	Men/women	Men/women
Managers	101.2%	101.0%	102.3%
Supervisors	97.5%	97.0%	95.7%
White-collar workers	89.5%	89.1%	89.6%
Blue-collar workers	91.1%	91.1%	92.7%

The Group's remuneration policy is mainly conceived to acknowledge and optimise the commitment, competences and behaviour of employees and to guarantee the correct remuneration positioning of people in connection with their duties.

For all employees, remuneration is structured into fixed and variable monetary components and provides for a package of benefits in support of income or similar such additions (medical and social security insurance, projects and initiatives for employees and their families, promotions and benefits of various types). The variable monetary component is based on systems of a direct connection between company performance and individual performance ("MbO") or on discretionary mechanisms for the recognition of working performance and conduct in terms of "one-off" bonuses. In 2016, in line with the objectives of the A2A Group Business Plan, specific extraordinary incentive plans were also introduced for the sale of energy efficiency services, which are progressively being extended.

The variable remuneration system is also supplemented by a collective incentive tool (a "**results bonus**"), which is based on Group productivity and profitability goals, aimed at guaranteeing the involvement of all staff, including those not assigned MbOs, in company performance. Study and further investigation is currently underway as to the possibility of introducing the choice for employees to convert part of the "results bonus" into provisions and services in addition to the contractual and corporate welfare package already in place, for themselves or their families.

To involve employees more closely in the Group's objectives and increase their participation in the achievement of company results, the **MbO system** has been gradually extended over the years to include more and more people, in 2016 reaching around **100% of managers, 20% of middle managers and 1% of employees**.

Moreover, to facilitate the implementation of the 2016-2020 Sustainability Plan, the A2A Group has defined a model for the structured, integrated insertion of **sustainability objectives in the management incentive systems as from 2017**.

9 Intellectual capital

The **A2A Smart City** is born
Group company for the **cities of tomorrow**

IDMS system
evolution of remote control and automation systems of the **future smart grids**

E-MOVING project
13 new FAST charging columns

Smart Bin
able to specify the **fill status**

Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
Technological innovation and smart cities	Optimising the competences and know-how of the Group through research and development activities that stimulate a continuous evolution of services, like electric mobility, the strengthening of network connectivity and energy savings through LED lighting and extension of the smart grids. Guaranteeing high safety standards in the management of IT infrastructures (cybersecurity).	Sustainability Plan objectives - reputational	The Group supports research and innovation initiatives linked to the development of smart cities, through cooperation with universities and networks of excellence. A2A develops research projects able to stimulate the innovation of production processes and the supply of cutting-edge services, making a positive contribution towards the development of the territorial fabric in the communities in which it operates.	• Development of the **Work Force Management** (WFM) application • **Smart Grid** projects • Establishment of the **A2A Smart City** • Development of the **Smart Bin** project • Organisational unit dedicated to **cybersecurity**	***PEOPLE INNOVATION*** • Innovation and R&D ***SMART NETWORKS AND SERVICES*** • Smart City • Smart Grid

9.1 Research and development of smart grids

In line with the guidelines of the Business Plan, and in view of the stimulus deriving from technological evolution, A2A is committed to the development of new "smart" solutions. Indeed, the adjective "smart" is used to identify innovative digital technology, as an enabling tool for achieving greater "intelligence" in the product-service, on the one hand, adapting it to the requirements of the Regulator, on the other, making it more responsive to the expectations of customers who are increasingly technologically and cutting-edge orientated.

Below are the main projects that, benefiting from the collaboration with research entities and universities, have resulted in the evolution of processes and operative management, increasing quality of service.

Work Force Management

The Work Force Management (WFM) application enables the integration of the Asset Management systems, the GIS geographic information system and GPS technology, to **pinpoint plants and operating teams** on the electricity and gas distribution networks available throughout the area, thereby enabling a more effective, efficient management of activities. At present, the WFM project has been completed in terms of gas metering and is currently being completed for all operating departments of the Networks and Heat BU. The application dissemination is expected to be complete within the first half of 2018.

The IDMS

In 2016, Unareti called a European tender for the selection of an IDMS (Integrated Distribution Management System), which was concluded with the award of the supply to Schneider Electric. The first few months of 2017 will see the system development phase start.

The IDMS constitutes the evolution of the network automation and remote control systems and will effectively form the **"brain" of the smart grids of tomorrow**. The numerous evolved functions of the IDMS will effectively allow for an improvement to be made to the efficiency and operative effectiveness in the management of the electricity grid through an increased quality of service, management of problems relating to the growing penetration of distributed generation and the integration of evolved functions in terms of smart grids.

The IDE4L project

The IDE4L (Ideal Grid for All) project, which was successfully completed in October 2016, aimed to analyse and conceive a programme for the improvement of quality of service, integration and operative management in the distribution networks of **energy coming from renewable sources**. The project was co-financed by the European Union as part of the FP7 framework programme on research and innovation.

During the trial, a pilot system was developed in a district of Brescia, with the installation of users' electricity consumption monitoring systems, plants generating power from renewable sources, primary and secondary cabins and innovative systems that can pinpoint, isolate and reconfigure the network in a dynamic, adaptive and predictive manner.

S.C.U.O.L.A (Smart Campus as Urban Open Labs) project

2016 marked the end of the project's test and experimental phase, which had lasted for more than 22 months; the results were unveiled on June 30 at the Milan Polytechnic University and on October 4 at Brescia University.
The project, which was coordinated by A2A, aimed to **develop an energy management system at end users' premises** that could respond to requests to vary the load by the electricity distributor and optimise the ultimate use of energy, both in terms of economic savings and improved performance and comfort perceived.
The classroom air conditioning system requalification was tried out at Milan Polytechnic, managing energy demands according to the data recorded by environmental sensors, consumption forecasts and other network variables.
At Brescia University, the project focused on integrating renewable energy sources and energy storage systems, so as to maximise self-consumption and reduce waste.
In the home environment, thanks to the introduction of an Energy Management System, it was possible to optimise the management of electrical loads according to the user's requirements (electric car charging, self-production from photovoltaic, price of energy and requests of the network manager).
The management of the three demonstrators envisaged the development of specific apps and web interfaces to allow for interaction between users and innovative network protection systems. The project was financed 40% by the Region of Lombardy as part of the Regional Operative Programme - FESR programme and entailed total investments of 9 million euros, of which almost 20% disbursed by A2A.

Pilot projects on electricity stations

Unareti is taking part, together with other important operators, in the trial on the observability of **unforeseeable flows of energy produced by renewable sources** in close collaboration with the grid manager, Terna. The aim is to optimise the forecasting of said production, helping improve the security of the electrical system.

In 2016, two important pilot projects were completed promoted by the AEEGSI as part of the smart grids (in particular in the development of the distributed generation of electricity) on a primary cabin in the district of Lambrate, Milan, and a primary cabin in the municipality of Gavardo (Brescia).

9.2 A2A for the smart cities of tomorrow

With its know-how and qualifying infrastructure, A2A wishes to be a leader in offering smart and digital services to the city of tomorrow; this is why it has established **A2A Smart City**, which with its Smart City Lab, has launched research and development on the development of innovative IoT (Internet of Things) technologies to be applied to the management of local services. This revolution will enable it to offer "smart" services to ensure a more efficient management of urban centres: security, energy savings, environmental sustainability, mobility, etc.

In 2016, A2A Smart City organised and took part in numerous events, promoting the dissemination of the concept of smart cities amongst the communities. Some of the most important include:
- participation in the **"Hackathon Smart City"**, dedicated to the innovation of cities, within the Brescia **Supernova** festival;
- the organisation, with Milan City Council, and directed by Talent Garden, of the **Connected City Hackathon**, a competition of ideas between innovators, developers, entrepreneurs, start-uppers and design thinkers, to create a new model city that improves the quality of life of its inhabitants;
- the promotion of the event **#HOF (hands on future)**: an initiative that, through a series of themed workshops, presented some innovative technologies, enabling participants to test them out directly on the field using development kit. The first edition held at Milan Polytechnic, saw 150 participants.

Visit the website ***www.a2asmartcity.io/smartcity-lab*** to go on a smart tour with inside view custom by Google to see the services tried out and developed.

Sharing Cities project

Sharing Cities is a research project in the multi-service area that is co-financed by the EU and which involves the municipalities of Milan, London, Lisbon, Bordeaux, Burgas and Warsaw. The project began in January 2016 and is expected to be completed in April 2020. The total value budget is approximately 28 million euros.

The partnership comprising 34 subjects (including A2A S.p.A., Unareti and A2A Smart City) aims to overcome, by defining an **integrated smart city platform**, some of the essential environmental challenges faced by a city, actively involving the citizens and developing IT platforms that can collect information and transform it into services.

In 2016, having identified the area of Porta Romana/Vettabbia as that for the trial, A2A worked on both the energy networks, starting consumption monitoring in the areas and users involved, and on the smart lampposts (specific applications enabled for the Internet of Things) and on innovative sensors (air quality, mobility, noise, etc.).

Brescia Smart Living project

The BSL (Brescia Smart Living) project started in March 2015 and will draw to a close in 2018.

The aims of the project, co-financed by the Ministry of Education, University and Research, are to **create a city that is more sustainable both in energy and environmental terms**, and **new services** aimed at **improving the quality of life** of its residents, thereby creating a sort of prototype of a smart city.

The subjects covered in the project relate to various areas: energy, public utility (public lighting, video surveillance), environmental (waste management, climate and air quality) personal/home (home automation, remote aid, assistance to the vulnerable).

The testing of new technologies and services, in collaboration with the Municipality of Brescia, will be carried out in two districts of the city, the district of San Polino and an area adjacent to via Solferino; it will involve various families residing in the two areas.

The integration of data coming from all the various areas into a single system will be able to offer the community new services on several levels, with the making available of applications to view the information collected on the home, district and the city of Brescia.

The involvement of the local residents is really the key to the project and precisely 2016 was also the year in which the needs analysis stage began, examining day-to-day customs and the actual expectations of citizens by administering 1,000 questionnaires given out in the two districts in which the test is to be run.

In April 2016, BSL was chosen as one of the representative projects of research on smart cities in Italy, for the fourth edition of the CSITF (China Shanghai International Technology). Moreover, thanks to BSL, in October, Brescia Municipality was awarded the "Cresco Award 2016" for the "Smartest municipality".

E-MOVING project

The trial continues on **electric mobility**, as launched by A2A in collaboration with the municipalities of Brescia and Milan and the AEEGSI. The project, which officially closed on December 31, 2015, consisted of developing a public charging network in the municipalities of Brescia and Milan, for a total of 100 Quick 22 kW charging points - of which 64 in Milan and 32 in Brescia - in 50 columns and the installation of private columns at companies to test the complete mobility system so as to help understand the real needs, business opportunities, strengths and critical issues involved in the system as a whole. In December 2016, the project obtained an extension in Brescia (for the next 2 years) and in Milan (for another 6 months, whilst awaiting the issue and award of the tender).

In May 2016, Milan opened a network of 13 public FAST 50 kW columns (using direct current), which enabled the recharging of 80% of the battery of electric vehicles prepared in less than 30 minutes. These columns replaced an equal number of Quick columns, keeping the number of columns available in total to the public on the Milan network, unchanged.

Throughout 2016, initiatives continued in support of SEMS car-sharing (now FN Mobilità Sostenibile) and Sharen'go, managing the infrastructures and supply of the dedicated charging service, laying the basis for another important partnership, which started in 2017 with a new electric mobility player on Milan (BMW - Drive Now).

To date, the service (excluding car-sharing companies) has around 600 customers, of which around 350 are private cars and the remainder company cars. In 2016, a total of 616,000 kWh were supplied (public and private charging service for car-sharing companies). All the electricity supplied by the A2A charging points is 100% renewable energy (supplied by A2A Energia), thereby making a further contribution towards the elimination of emissions.

On an internal level within the A2A Group, 2016 saw the e-moving team start designing a charging network that will be developed at its Ricevitrici Nord and Sud offices of Milan and Lamarmora of Brescia, to guarantee power to a significant electrical fleet on its way for mid-2017. This network, together with the new fleet, will allow A2A to try out the specificity of electrical mobility directly and on a vast scale, so as to be well prepared for a future business, both in the private and public area, offering products that were are fully tested, reliable and innovative.

Smart Bin

In collaboration with Cefriel, AMSA has developed a new technological solution for the waste collection bins, which allows for the constant monitoring of how full they are.

Each "smart bin" is equipped with a data transmission module that can **regularly signal its filling status and certify that it has been emptied**. The technological container allows for the reorganisation of the planning of itineraries on the basis of the information collected on effectively how full the containers are, in a dynamic manner; at the start of a shift, thanks to the information collected, the teams' itinerary is planned and this can be altered throughout the day.

The smart bin is not only a product innovation but a new integrated process approach insofar as it allows of the timely monitoring of operations, transparency towards customers, greater control over the service supplied and control of improper conferrals, with the consequent recovery of operative resources, reduction in vehicles travelling and improved urban décor.

In previous years, AMSA had assessed reliability, also preparing an exhibition during Expo2015.

The project effectively started up midway through 2016 and the first half of 2017 will see an end to the tender for the award of the production of the more than 20,000 smart bins envisaged, foreseeing the positioning of 300 units for the pilot project by end 2017 and the achievement of 16,000 units throughout the territory by end 2018.

CYBERSECURITY

In order to implement the security processes and infrastructures within the Group, an organisational unit has been created within the ICT Department, dedicated to **cybersecurity**. The activities carried out mainly consist of:

- defining the policies, processes and standards of IT security to be applied within the Group and the security measures to be adopted during the design and supply of the ICT services (Security Operation Centre for the analysis and identification of security threats);
- assessing IT risks, identifying and implementing the suitable mitigating actions (Vulnerability Assessment and Penetration Tests on critical applications and infrastructures);
- defining the governance model and service access profiles in compliance with corporate policies and processes;
- designing and implementing the infrastructures for the protection of corporate information security, like anti-malware systems on workstations and networks;
- monitoring and training on security matters.

In 2016, there were 5 attempted violations through phishing made on Group organisational structures, but none succeeded, hence there was no theft of information on customer data.

The A2A Group is also a member of CLUSIT, the Italian IT security association.

9.3 Trademarks and patents as intangible resources

The term "intellectual capital" is used to refer to all the intellectual resources on which competitive advantage depends, including intellectual property, patents, copyright, software, industrial models, procedures and protocols, which the Group wishes to preserve and protect over time. The brand and reputation of the organisation are also associated with these aspects.

Below are the Group's main patents and trademarks.

Figure 46 | Registered patents of the A2A Group as at December 31, 2016

	Italian	European	International
A2A Ambiente	22	9	2
Amsa	5	3	-

It should be noted that for AMSA, 1 European patent application has also been filed and for A2A Ambiente, 1 European patent application and 1 international patent application.

The **patents** mainly refer to instruments and processes implemented by the Environment BU for waste collection and treatment, including, for example: procedure for the recovery of energy from solid urban waste; procedure for the neutralisation of acid substances present in industrial origin gases; procedure for the elimination of organic chloride micro-pollutants present in combustion fumes; method and system for the treatment of biological sludge; device for supplying refuse-derived fuels (RDF) to combustion plants; device to facilitate road cleaning (for motorised cleaners used for municipal cleaning services); waste collection vehicles.

A **trademark** identifies and values the products/services, distinguishing them from those of competitors and protecting them against counterfeiters and illegality. The Group's registered trademarks include: A2A, E-MOVING, Unareti, Biocubi, ITS, MyLED, Chiara2a, Bollett@mail.

Figure 47 | Registered and deposited trademarks of the A2A Group as at December 31, 2016

	Italian	European	International
A2A S.p.A.	21	3	-
A2A Ambiente	10	7	1
AMSA	2	-	-
A2A Energia	3	-	-

Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
RESPONSIBILITY, SAFETY AND QUALITY IN THE SUPPLY OF SERVICES AND PRODUCTS	Meeting customers' expectations with high quality, promoting correct communication and marketing practices, security and reliability in the supply of services and the development of disaster and emergency management plans. The matter also includes the protection of privacy and personal data of customers.	• Quality of service • Quality of the drinking water distributed to users • Efficiency of the municipal hygiene and collection service • Customer satisfaction performance • Unfair commercial practices	The Group develops specific initiatives with the aim of keeping high quality and security levels in services, ensuring the correct function and monitoring of the processes and supporting computer systems (e.g. CRM, Customer Relationship Management). the scrupulous observance of the standards envisaged by the sector and the continuous improvement of services, including through the comparison of notes with consumer associations aimed at preventing and reporting fraud and damage to consumers, enables the Group to offer secure solutions that can meet customers' expectations.	• Strengthening of **listening channels and customer satisfaction surveys** • Top position in the **Cerved Energy Monitor** for customer satisfaction • Development of initiatives for the promotion of district heating: **City-Butterfly** • **"Varese manca poco"** sensitisation campaign • Development of **conferral points** for the collection of food oil at wholesale distribution in Milan	**SMART NETWORKS AND SERVICES** • Quality • Digital

Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
SERVICE ACCESSIBILITY	Promoting access to electricity, gas and water services by disadvantage categories of consumers.	Accessibility of essential services	The Group develops initiatives for the access to energy in the favour of disadvantaged categories and collaborates with partners and associations in the territory to protect the most disadvantaged categories of consumers.	• Start-up of the **Banco dell'Energia** project and the fund-raising campaign • Launch of the ***Bonus idrico*** initiative to support economically disadvantaged families	***SMART NETWORKS AND SERVICES*** • Vulnerable groups

10.1.1 Relations with customers of the gas and electricity sales service

A2A Energia and its subsidiary Aspem Energia are the commercial companies of the A2A Group, focused on the sale of electricity and gas to the market.

In 2016, the total number of customers of the two services remained virtually unchanged on last year, as reported in the table given on page 44 of the Supplement.

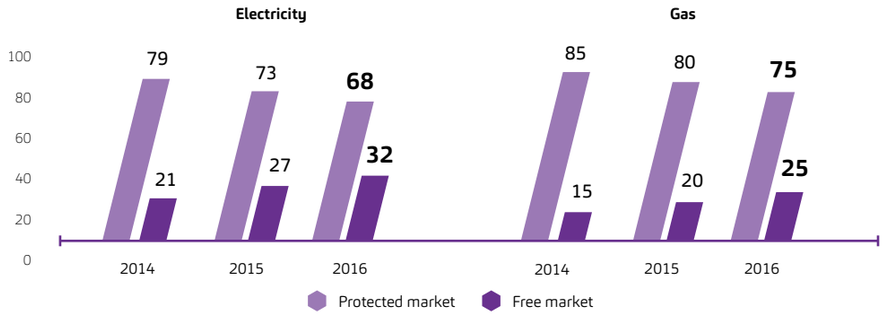
More specifically, there was a slight increase in the number of customers of the electricity vector (+1.15% on 2015), whilst those of the gas vector reduced (-0.6% on 2015).

The distribution of the customer portfolio in the various segments has remained substantially unchanged on 2015.

Figure 48 | Number of customers analysed by type

Within the customer portfolio, the protected market share has reduced, resulting in a consequent increase in the free market for both commodities with respect to 2015, generated by commercial actions aimed at promoting new offers on the free market.

Figure 49 | Number of clients by type of market (%)



Again in 2016, the intensive commercial campaign launched by A2A Energia aimed at strengthening its identity as a company leader in the Lombardy region, continued, coupled with commercial expansion into the territories of central-north Italy. The company relied on a new network of agents dedicated to the SME segment and new partnerships with suppliers specialised in the promotion and sale of the services offered by A2A Energia.

Figure 50 | Geographic breakdown of sales volumes

As compared with last year, the company has intensified its commercial action in the rest of Italy, increasing the percentage of volumes sold outside Lombardy, from 16% to 22% for the electricity service and from 9% to 12% for the gas service.

PROMOTE RESPONSIBLE ENERGY CONSUMPTION

The campaigns run during the year have reinforced the route undertaken in 2015, which repositions A2A Energia from pure supplier of commodities to advisor of energy efficiency services. The commercial strategy involves the promotion and sale of valued added services (VAS) with the aim of guiding customers towards sustainable solutions with low energy consumption.

Under this scope, A2A Energia took part in a national multi-client survey to investigate the actual needs of Italian consumers and the level of interest with regards to the world of energy efficiency.
The results of the study were then used to prepare the commercial strategies and design the campaigns launched during the year.

LED kit

In 2016, A2A Energia continued its initiatives to promote and sell **LED bulbs**, activating all its channels: website, call centre and territorial offices. The sale, supported by an advertising campaign launched in April 2016, was promoted also using **"on field" initiatives** with temporary stands set up in the cities of Bergamo, Brescia and Milan.
In order to reach business customers, A2A Energia has developed an app dedicated to its sales channels (agencies, KAN and direct sales) to promote the **LED relamping** offers. The aim is to propose a mass replacement of traditional bulbs in offices and commercial operations with the possibility of making monthly payments in instalments charged directly to the power bill.

Cas@ccogliente and Caldaia2a

In February 2016, the **Cas@ccogliente** initiative was launched in test mode, developed for A2A Energia customers in collaboration with an external partner. The agreement envisaged a package focused on the safe, efficient management of the home heating system, with the installation of a thermostat that can be managed via a smartphone, a qualified heater maintenance service and technical assistance on call via a freephone number.

In September 2016, A2A Energia launched, with the manufacturer Fondital, the pilot campaign **Caldaia2a**, for the sale of energy-efficient heaters to domestic customers on the free market.
The initiative involves the purchase of a wall-mounted condensation heater or latest generation open chamber heater, through a turnkey solution that includes a free site inspection, installation and test, warranty and assistance for up to 5 years through a network of hand-picked technicians. In 2016, 67 heaters were installed.

At the end of the year, moreover, the study was launched of the sales project of **air conditioning units**, in a partnership with Whirlpool, an initiative that will be launched on the market in the first part of 2017 and formulated in a similar fashion to the turnkey solution already offered for heaters.

Efficient condominium

Teamed up with A2A Calore & Servizi, the initiative offers solutions by which to improve energy efficiency with the transformation of oil-powered thermal plants into methane-powered systems or the requalification of thermal plants, already methane-powered, with more modern, efficient ones. To this end, various communication campaigns were carried out in 2016, which involved both condominium administrators and the condominium members of the city of Milan, through the use of various channels (web, social networks, hard copy mailing, telephone) with field marketing carried out directly at the properties concerned and participation in industry trade fairs. An agreement was also stipulated with Banca di Credito Cooperativo in Sesto San Giovanni to fund the interventions at particularly advantageous conditions.

"SORVEGLIANZA2A", THE CONDOMINIUM SECURITY OFFER

The offer of A2A Energia, in a partnership with A2A Smart City, envisages the installation of video surveillance systems in the common areas of condominiums. The offer is structured as a turnkey package that includes a site inspection and free estimate, the supply and installation of the video surveillance system, system maintenance, support with specialised staff and the remote control of the systems.

The offer was proposed in the second half of the year to condominiums and administrators through an targeted informative, commercial campaign with specific supporting materials:

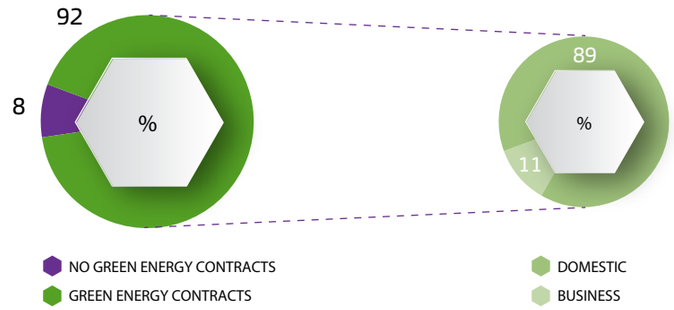
For more information: ***http://condomini.a2aenergia.eu/***

Green energy

In 2016, **769 GWh of green energy was sold with an increase of 22% on 2015**. The offers that promote green energy are identified by the "ENERGIA A2A Rinnovabile 100%®" brand, which guarantees the origin of the source used for production.

In 2016 too, almost all domestic and small business customers on the free market (92%) stipulated green energy offers with an increase of one percentage point on last year's purchases.

Figure 51 | Distribution of green energy contracts on the free market by segment of customers



In 2016 too, A2A Energia developed the sale of new 100% renewable green energy offers.

Valorenergia

Developed in co-marketing formula with Philips, it offers the advantage of a competitive price of energy and the possibility of using a purchase voucher worth respectively €50 or €150 - depending on whether one or two contracts have been stipulated - to be used to buy Philips brand products. Moreover, customers had the option of taking part in the "Vinci l'Energia" awards, for supply vouchers worth 150, 500 or 1,000 euros.
The offer was re-launched in the second half of the year, with the possibility of obtaining a 20% or 30% discount, respectively for the stipulation of one or two contracts, again for the purchase of Philips brand products.

Fedeltà2a

Launched in October and dedicated to the domestic customers of A2A Energia, it rewards customer loyalty with a significant discount on the gas and energy component, the latter produced 100% from renewable sources.
The offer was created considering the needs and preferences expressed by the customers interviewed through dedicated focus groups and a web-based questionnaire.
In order to promote the offer, A2A Energia has chosen a direct contact with its customers, making seven branches and mini branches available across the territory, along with a VAN-office and a little electric van, monitored daily by 70 A2A Energia people and specialised promoters.

In order to increase awareness of the brand and services offered by A2A Energia, the television advertisement has been created, broadcast last October 2016 on some national channels. The initiative aimed to communicate a message of standing close to customers, as well as one of comfort, innovation and efficiency, reviewing a whole day through a sequence of scenes and habitual gestures inside and outside the home.

BILL 2.0 AND THE DEMATERIALISATION OF COMMUNICATION WITH CUSTOMERS

For supplies of electricity and gas, in 2016, A2A Energia issued around 11 million bills, in line with the previous year, of which approximately 14% in electronic format.

January 1, 2016 marked the introduction of the new **Bill 2.0** (in accordance with AEEGSI Resolution 501/2014 that came into force on January 1, 2016), which optimised the contents to be displayed to customers with a view to ensuring greater clarity and transparency.

Within a few months of introduction of the new bill, the National Consumers Union rewarded A2A Energia as the best solution in terms of graphical impact and clarity, organisation of contents and quality of supporting materials sent together with the bill (e.g. the comprehension guide).

With the new format of the bill, there has been a significant reduction in the number of sheets contained in bills, averaging out as 1 sheet per bill and therefore approximately 9.5 million sheets printed. Moreover, in 2016 the new **fully-recyclable envelope** was used once again (no longer comprising acetate material), as introduced in 2015 for almost all documents sent out by A2A Energia.
At end 2016, also thanks to the promotional campaign disseminating awareness of the activation of the **Bollett@mail** service, adhesions rose to 289,613, up 16.5% on last year.

Thanks to **Bill 2.0** and **Bollett@mail** about 166 15-m high-medium-sized trees were saved in 2016. Furthermore, it eliminated the pollution caused by transport for the production and distribution of approximately 1.5 million documents*.

March 2016 marked the start of the new interactive **Bollet@free** service, which enables A2A Energia customers on the free market to browse and consult the bill from any device (PC, tablet and smartphone), at any time.

In order to ensure the direct debt payment of bills, late July 2016 saw the launch of the **SDD Smart** project, which allows the service to be activated directly over the telephone, by calling the A2A Energia Contact Centre, thereby considerably reducing the direct debit activation time.

Thanks to the use of certified e-mail for business customers, a communication digitisation project has been able to be launched for payment reminders; this has considerably reduced the use of paper and also optimised the time and efficiency of contact with customers. Hard copy communication is, however, still envisaged but only where the certified e-mail is not delivered and this is constantly monitored with a second attempt made at any unsuccessful mails.
The service started out in the second half of October and has helped reduce the costs linked to the production/printing/postage on similar documents as hard copies, a benefit that has also been transferred to the customer thanks to the elimination of the costs normally charged for reminders sent out.

* Source: http:\\www.focus.it/ambiente/natura

Chiara2a: the A2A Energia loyalty programme

During the year, activities relating to the Chiara2a loyalty programme increased. The "discount vouchers on the bill" initiative has continued, providing the opportunity, on request, to convert the points accumulated with the programme into gas and electricity supply vouchers worth 25, 50 and 100 euros.

As part of the Fidelity Programme, in 2016 the new initiative **"La Casa dell'Efficienza"** was launched, with the aim of sensitising and educating customers to optimise the energy consumption of their home in a simple, fun manner. By surpassing the missions proposed in a fun manner, the customer obtains valuable "home credits" that can be used to customise and make a virtual home increasingly efficient and rise up the classification to win electricity and gas supply vouchers.

The initiative has a major impact in terms of sustainability because it seeks to transmit various contents to customers and useful information on energy savings, in the form of a game.

FAIRNESS AND TRANSPARENCY IN CUSTOMER RELATIONS

A2A is particularly committed to ensuring customers with a service based on maximum transparency and fairness and over time, also in collaboration with the Consumer Associations, it has adopted various tools by which to simplify the information supplied to customers and regulate conduct clearly: from activation of the service through to **joint settlement**, in 2009, to the stipulation of the institute agreement of the **Observatory on unfair commercial practices** with the application of the **Code of Commercial Conduct**, the activation of the **anti-fraud freephone number** and the **Self-regulation protocol** between 2011 and 2013. These actions have always gone hand-in-hand with constant training of sales staff and service staff in direct contact with customers.

As part of the joint settlement service for domestic customers, in 2016, 24 cases were submitted to A2A by the Consumer Associations, which are in addition to the 3 cases of the previous year, still being processed. Of these: eight were rejected, seven were closed with an agreement, two have not yet succeeded in conciliation and ten are currently being settled. In 89% of cases, the reports relate to problems connected with metering and 11% to billing issues. For the service managed by the Single Buyer, 5 cases were submitted, of which 4 have been admitted in one case with an agreement having been reached.

As part of consumer protection, the **anti-fraud freephone number received 3,368 calls**, of which 2,264 relate to unfair commercial practices by other operators (of which 943 relate to unknown companies), whilst the remaining calls regarded other types of requests. In a parallel fashion, A2A Energia recorded a further 98 notifications of unfair commercial practice through its own channels, of which none proved to be unfair practice on the part of A2A Energia and Aspem Energia.
A2A Energia has equipped itself with a monitoring procedure of situations and cases of "non-conformity". In 2016 too, the company did not receive any sanctions for situations of non-conformity with laws or regulations relating to the supply and related services, for marketing, sponsorship and communication activities.

In 2016 too, the claim index (i.e. the percentage of simple complaints out of an average number of customers) was very low and came in at around 0.14% for a total of 2,823 complaints.

NEW CHANNELS OF LISTENING TO CUSTOMERS

In 2016, the **chat service** started in 2015 and managed by A2A Energia operators to guarantee proper listening to customer needs, was consolidated. A total of around 14,500 requests were received during the year, always handled assuring excellent customer satisfaction levels, as also shown by the results of the post-chat survey: 92% of opinions given by customers were positive.

A **social customer care** service has also been started by means of Facebook, to ensure an ever closer position to customers and offer improved assistance and no longer only on traditional channels.

Finally, the **call-back service** remains available for customers wishing to stipulate a new gas and energy contract, who can express their preference on the time to be contacted. During the year, approximately 3,000 requests for call-back were received from customers.

SERVICE ACCESSIBILITY

The Group has always been close to citizens to improve and maintain access to electricity by more disadvantaged populations through the development of various solutions.

A2A disburses the **social bonus**, as per provisions of the AEEGSI, allowing family units in particular financial difficulties or in which one of the members suffers from severe physical difficulties, to save on the energy bill.

Figure 52 | A2A customers who have used the social bonus

	2014	2015	2016	Economic value of the bonus
Gas bonus	19,174	18,580	**16,459**	From 33 to 297 euros per year
Electricity bonus	18,552	17,023	**16,658**	From 80 to 153 euros per year for family units and from 175 to 628 euros for the 942 customers with physical difficulties

The **physical bonus** is only recognised on supplies of electricity and the amount varies according to the meter power and consumption bracket established by the ASL (local health authority).

75% of A2A Energia customers entitled resides in the lower bracket of 175 euros/year, whilst the remaining 25% is split up between the other 5 brackets with an average of approximately 360 euros/year.

In 2016, moreover, A2A activated a specific project for access to energy by the vulnerable groups of the population, termed the **Banco dell'Energia**, described on page 126. A2A Energia played a very important role in the development of this initiative:

- offering its customers the chance to support the initiatives by making regular donations through their bills, able to be activated in various ways, including through the customer web area, by calling the freephone number 800.199.955 and at the local branches;
- conveying the communication of the project towards the main stakeholders, including suppliers and domestic and business customers.

Attention to vulnerable customers is also evidenced by various solutions adopted to facilitate the different needs:

- **sight-impaired customer** – the bill that has been overprinted "black and Braille" for several years to allow for easy reading by seeing and sight-impaired customers alike, has also been adjusted to the new layout of the Bill 2.0 as from January 2016.
- **foreign customers** - multilingual information brochures are available in the main offices and the "Guide to reading the bill" in 7 languages: Italian, English, French, Spanish, Arabic, Chinese and Rumanian, revised with Bill 2.0.
- **priority access customers** - at the main public branches, facilitated, priority access is available for customers with physical difficulties, including: disabled, pregnant women and the elderly.

For more information, refer to the website Info Point section: ***www.a2aenergia.eu/area_clienti***

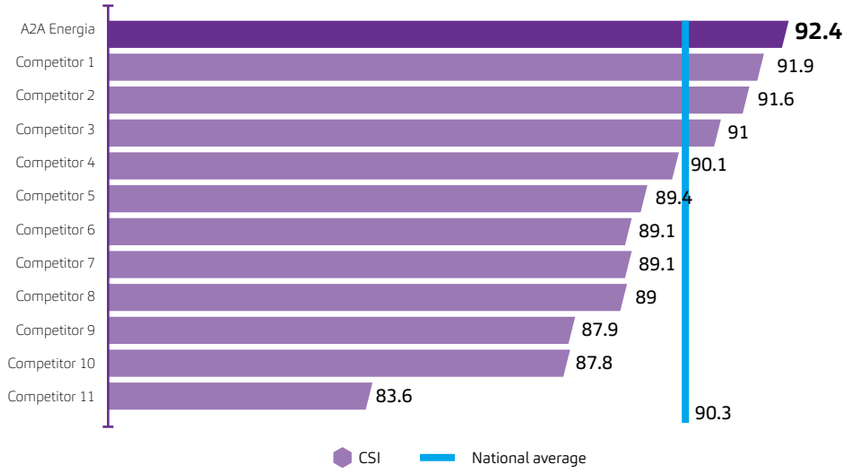
CUSTOMER SATISFACTION

A2A monitors its customers' satisfaction in order to analyse the perception of its services to identify areas for intervention with a view to ensuring the continuous improvement of the quality of services supplied.

Cerved survey

A2A Energia again took part in the 2016 Cerved Energy Monitor to measure and monitor customer satisfaction on the main sales factors. The company confirms its positive performance, reaching absolute leadership in the business segment, this year also for electricity. On the domestic market, the A2A Energia indicators are stable as compared with the previous edition, always conferring an excellent positioning amongst the top brands in the ranking. In all, A2A Energia reaches the absolute top position of all segments analysed.

Figure 53 | 2016 Cerved Energy Monitor - Total CSI



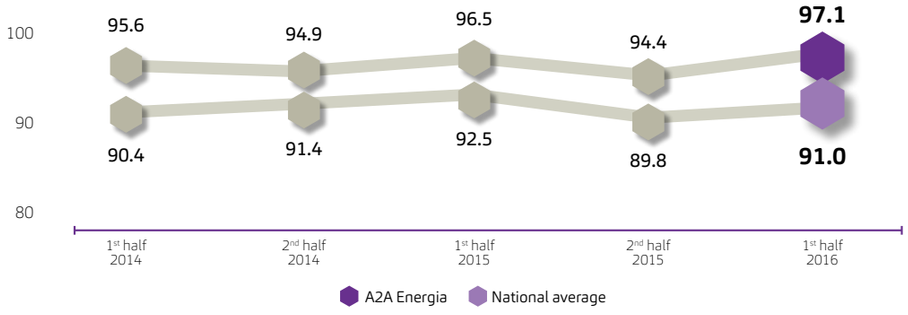
Customer survey on the free market

In collaboration with the Doxa institute, a survey has been run that involved a sample of customers on the free market, gathering a total of 2,662 interviews, of which 1,458 residential and 1,204 business, through telephone and web-based interviews (mixed CATI/CAWI system).
The survey recorded a good position of A2A Energia both in absolute values and with respect to the sector benchmark and confirmed the excellent satisfaction levels both amongst residential and business customers, respectively with satisfaction indexes of 73.3 and 71.5 (on a scale of 0-100).
A2A Energia stands out above all for the deep roots in the territory and reliability; moreover, the Contact Centre is appreciated above all for its competence and capacity to solve queries, aspects confirmed both by the CES (Customer Effort Score) and the "one-call solution".
The digital channels, i.e. the website and customer area, were also assessed very positively both in terms of ease of use and browsing and completeness of the services and contents offered.

Call centre survey

In 2016, A2A Energia received a total of over 2 million calls to the call centre.
AEEGSI carries out surveys every six months on the quality of national telephone services received by end customers. Even in the first half of 2016, customers of A2A Energia confirmed the appreciation for the call centre service of the company, measured by a Customer Satisfaction Index (CSI) of 97.1% (+6.1% as compared with the national average). The result for the 1st half of 2016 is the best performance recorded since AEEGSI started measuring in 2010.

Figure 54 | Customer satisfaction on call centre operations* (% satisfied customers)



* The data on the second half of 2016 will be available in the months that follow publication of this document.

After call survey

The "after call" survey records the level of satisfaction of users with the call centre services after completing a telephone call. As is clear from the table, also for 2016 survey results were again very positive for A2A Energia, with more than 92% of customers satisfied and very satisfied.

Figure 55 | Customer satisfaction after a call to the call centre (percentage on assessments recorded)

Quality of branches

In 2016, the Group's commercial branches welcomed more than 300 thousand visitors, with an average waiting time of around 14 minutes.

In 2016 too, a survey was run to analyse the level of approval of the service at the branches of Bergamo, Brescia and Milan. 96% of users gave a positive opinion and approximately four percentage points higher than last year.
During the year, A2A Energia worked hard to make its customers' access to branch services easier and quicker thanks to new digital solutions adhering to the **Qurami** network, the Italian app for smartphones that means that your turn at the branch can be booked in just a few clicks, thereby reducing waiting time.

With this initiative, A2A Energia has once again shown how it stands close to the territory and pays careful attention to quality of service and customer satisfaction. Again in terms of customer experience, A2A Energia has unified the queue management system in the Milan, Brescia and Bergamo offices to offer the same high level of service to all its customers.

Figure 56 | Customer satisfaction on the services provided at the counter

	2014	2015	2016
Positive	79.5%	92.0%	**95.9%**
Negative	20.5%	8.0%	**4.1%**

THE NEW ON-LINE COUNTER

During the year, various projects were carried out relative to the optimisation and improvement of the graphics of the A2A Energia website and the customers area. More specifically, the customer area has been given a complete overhaul with a clear improvement to graphics and the user experience, to allow for browsing in complete compatibility with all devices. Moreover, new services have been developed to offer customers the chance to carry out any operation relating to their supply contracts through the digital channels (e.g. tracking procedures requested, e-mail and SMS text message notifications, graphs on consumption and amounts billed).

Finally, in order to allow all customers to autonomously manage their contractual situation, a customer area has been developed, dedicated to condominium administrators.

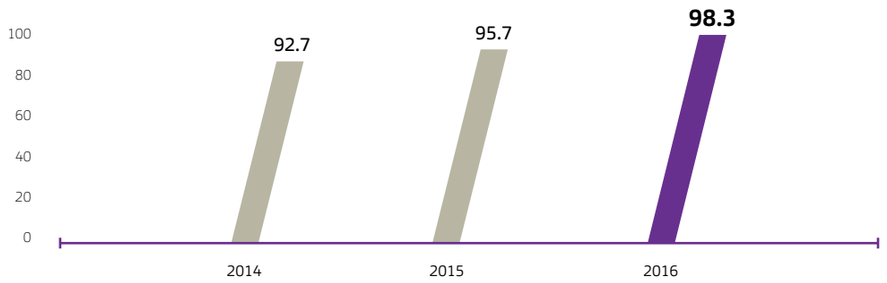
Customer satisfaction and attention to customer needs are the drivers behind all the activities seeking to improve and expand upon the functions of the A2A Energia website and customer area, on which there has been an **18%** increase in registrations with respect to last year.

10.1.2 Relations with customers of the district heating service

The Group operates in the production, distribution and sale of heat in the areas of Milan, Brescia, Bergamo through A2A Calore & Servizi and in the Varese area through the company Varese Risorse.

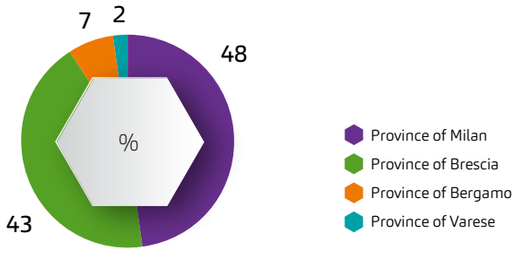
This service is currently delivered to over 24 thousand users (individual residential units in the case of independent heating or whole buildings in the case of centralised heating), for a total served volume of 98.3 million cubic meters (+3% vs. 2015).

Figure 57 | Volume served by the district heating network (Mm^3)



The district heating growth plan continues in the cities undergoing the greatest development, Bergamo and Milan, in line with guidelines for town-planning and road works scheduling that have been agreed with the municipal administrations (see page 63).

Figure 58 | Geographical distribution of the volume served by district heating



The Group companies are also specialised in rationalising the energy management of buildings through measures to improve efficiency, such as:
- the conversion of heating plants fuelled by liquid fuels to methane;
- condominium heat management;
- energy management for large property complexes and public administrations.

In 2016, A2A Calore & Servizi made 13 changes to plants for a total capacity of 16,950 kW.

The increased efficiency of the plants/property fleet is assured through the use of environmentally-friendly solutions (sustainable models) that allow the customer to benefit directly from the financial and other benefits.

In 2016, moreover, the A2A Group acquired 75% of the share package of **Consul System S.p.A.**, the first Italian independent ESCo, to create operative synergies and develop new products and services for energy efficiency. Consul System is, in fact, the main independent ESCo in terms of number of energy efficiency certificates (TEE) generated, with a market share of 6.4% in 2015 and its customers include some of the most important Italian or foreign industrial businesses in the energy-hungry sectors (paper, steel, cement, etc.) and transport.

RESPONSIBILITY OF CUSTOMERS

November 2016 marked the conclusion of the **European Stratego project**, which also involved A2A Calore & Servizi. The project studied and simulated the most efficient heating and cooling plans, finalising advanced methods for energy planning in the sector, aimed at increasing environmental performance, improving efficiency and reducing system costs.

The Stratego project identified **proposed action plans for Italy**, which would, by 2050, enable the reduction in the energy needs of the sector by more than 30%, reducing CO_2 emissions by more than 40% and reducing the system costs by approximately 15%.

For more information about the project please visit ***www.stratego-project.eu***

QUALITY OF SERVICES PROVIDED AND ATTENTION TO CUSTOMERS

To promote the district heating service and facilitate access to information, the Group offers multiple communication channels.

The Group has equipped itself with a **Quality Charter** establishing the principles and criteria for the management of the district heating service, so as to guarantee customer satisfaction.

Moreover, citizens are provided with communication on the development of the district heating network in their district, through the capillary distribution of leaflets.

In 2016, a new ecological way by which to promote district heating was tried out in Bergamo: **City-Butterfly**. The initiative envisages the distribution throughout the territory of commercial brochures using 2 assisted-pedal bicycles, customised with the campaign graphics.

For more information on the advantages of district heating and on the Quality Charter, visit: ***www.a2acaloreservizi.eu/home/cms/area_caloreservizi/società/comunicazione/pubblicazioni***

In April and May, A2A Calore & Servizi organised three **courses on district heating** to train industry operators: the first held at the Bergamo waste-to-energy plant, the second at the Silla 2 waste-to-energy plant of Milan and the third at the Energy Office of Milan City Council. More than 50 stakeholders were involved including thermal technicians, administrators and maintenance technicians of condominium plants.

Moreover, on May 27, 2016, a congress was scheduled entitled "Energy efficiency, heat regulation and the metering of heat in condominiums", organised in collaboration with ANACI (National Association of Condominium Administrators) at the Brescia waste-to-energy plant.

"UN'OPPORTUNITÀ CHE MILANO TI DÀ", THE NEW DISTRICT HEATING INFORMATION CAMPAIGN

In May, Milan launched the new A2A Calore & Servizi and Milan City Council communication campaign "Un'opportunità che Milano ti dà" (An opportunity Milan gives you), involving the distribution to citizens of more than 50,000 brochures providing information on district heating. The aim is to help citizens understand the environmental sustainability of the service proposed: a concrete contribution towards reducing air pollution thanks to the elimination of emissions produced by combustion to produce heat.

The brochures were made available at various municipal offices, the Energy Office of Corso Buenos Aires and were also given out into mailboxes of condominiums already reached by district heating, or which will shortly be reached.

Customer satisfaction survey

In July 2016, Doxa was appointed to carry out a survey on the district heating service amongst the resident population (families/administrators) in the areas of Milan and Bergamo, to analyse awareness and perception by citizens of this service.

The survey revealed that the attractions of the district heating service are:
- savings on consumption;
- savings in running costs;
- easier maintenance;
- lesser environmental impact in the city and in the district;
- greater safety (elimination of heaters in the home).

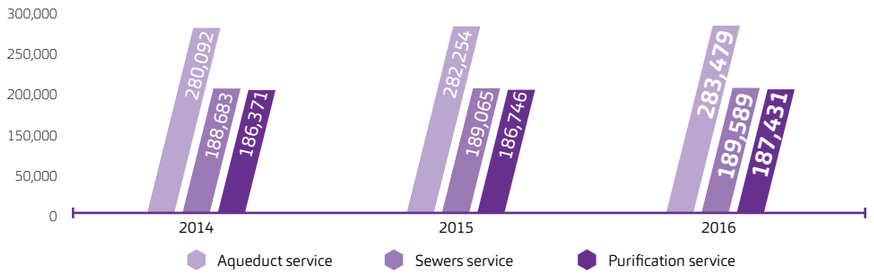
Almost all those interviewed (97%) knew about district heating, even if only half (47%) felt that they were sufficiently well informed.
Customers already using district heating consider the service to be an improvement on the previous situation, in particular as regards continuity, consumption and costs on the bill. 96% would very probably recommend it to other users. However, only one in three administrators is in favour and would consider district heating. The greatest barrier is the lack of information (economic and technical), which allows for a concrete assessment of the tangible aspects to be presented to the condominium members in general.

The qualitative survey has revealed that district heating is acknowledged as having a lesser environmental impact that traditional plants; it is considered a cutting-edge service that is safe and requires simpler, more practical maintenance than traditional plants. A2A Calore & Servizi is considered a credible supplier and this therefore helps give the district heating service the positive connotations already associated with A2A: support/familiarity, reliability, competence and good assistance.

10.1.3 Relations with customers of the integrated water service

Through the companies A2A Ciclo Idrico and Aspem, the Group operates in services connected with the integrated water cycle in the territories of Brescia, Varese and province.

Figure 59 | Integrated water service users (no. users)



RESPONSIBILITY OF CUSTOMERS

The Group promotes models of responsible consumption and conduct with regards to water so as to mitigate water losses through various initiatives.

One example comes in the form of the **Acquasicura Project** developed to support users and help them take the necessary steps to control water losses downstream of the delivery point and reduce the risks of economic damages. The promotion envisages a contribution for the expenses incurred for moving the water meter to the edge of private property and a contribution for the purchase of a manometer. An insurance policy can be stipulated (reserved to domestic users) against water leaks, at beneficial conditions.

As at December 31, 2016, insurance cover had been taken out by 8,601 customers for a total of 9,416 property units. In 2016, 1,917 reimbursement procedures were processed for water losses downstream of the delivery point.

QUALITY OF SERVICES PROVIDED AND ATTENTION TO CUSTOMERS

Group companies undertake to provide a continuous, regular, uninterrupted service, as declared in the **Integrated water service charter**, which lays down the principles and criteria for the delivery of the service and constitutes an attachment to the supply contract, stipulated between the manager and the individual users.

The service is regulated by the AEEGSI, which monitors certain parameters, like grid connection time or response to estimates requested. These also include the minimum percentage performance of **emergency intervention**, whereby staff appointed by the manager arrive at the place within three hours of the start of the conversation with the operator. The performance level envisaged is to reach at least 90% of reports. The performance of A2A Ciclo Idrico as regards this indicator, excluding performance by appointment, is 98.47%, with an average arrival time in situ of 1 hour and 5 minutes.

The drinking water distribution service **was not interrupted** in 2016, except for some segments that were disconnected to allow for the repair of accidental failures.

The Group provides various channels, as well as informative materials, to communicate with citizens. In 2016, the **call centre** service of A2A Ciclo Idrico processed around 80 thousand calls and obtained excellent quality levels, reducing the average wait time (73 seconds) by 13% on 2015 and successfully completing 88% of calls.

Approximately 18 thousand customers were served at the **counter**, on average within 8 minutes. Again in 2016, user approval at the branches was detected using emoticons: 92% of users expressed judgements of "satisfied" or "very satisfied".

The water undergoes **special tests** and disinfecting treatments, and chemical-physical or biological purification treatments where necessary before it is fed into the network. The primary objective is, in fact, to supply quality water and this is why, in compliance with regulations, qualitative checks are performed on the entire production chain (see also page 83). All the water supplied by the aqueducts of A2A Ciclo Idrico is compliant with the limits established by the law and, therefore, no orders of water being unfit for drinking have been issued.

For more information on water quality and data related to concentrations of the parameters characteristic of the water distributed, refer to the supplement to this Report or visit the Water Quality section at ***www.a2acicloidrico.eu***; and the Activities section of the site ***www.aspem.it***.

BONUS IDRICO

In December 2016, A2A Ciclo Idrico launched the initiative termed the "**Bonus Idrico**" in support of **economically disadvantaged families**. The initiative is intended for citizens of Brescia and another 73 municipalities across the province, served by A2A Ciclo Idrico. Activation of the bonus is on a voluntary basis, decided independently by the company, which stresses the Group's attention to the territory and the economically weaker groups of the population.

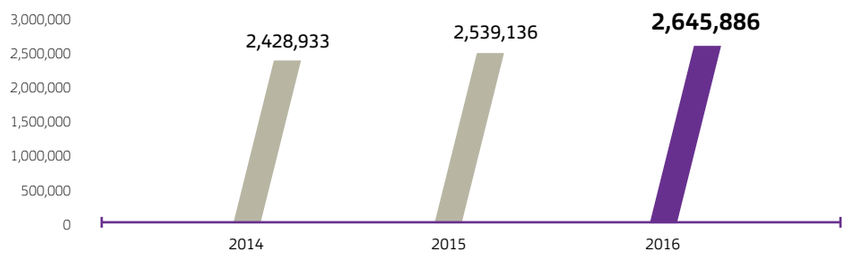
The discount on the water bill will be applied by A2A Ciclo Idrico, assigning each person entitled a **bonus 55 litres of water per day**, making for an annual consumption of 20 cubic metres. In a similar fashion to as is already the case for the electricity and gas sectors, A2A Ciclo Idrico will appoint institutional subjects to implement the social policies throughout the territory and deal with management of bonus access. The indicator of equivalent economic position (ISEE) will be the tool used to verify requirements, in compliance with principles of fairness, impartiality and transparency. For domestic customers of A2A Ciclo Idrico, the bonus will be calculated directly on the bill, whilst for condominium users, a reimbursement will be given with a cheque or bank credit.

For more information, see the Customers section of the website: ***www.a2acicloidrico.eu***

10.1.4 Relations with customers of the urban hygiene service

Through the companies Amsa, Aspem and Aprica, the Group manages the urban hygiene services of 117 municipalities across Lombardy, for a total of more than 2.6 million citizens served.

Figure 60 | Total number of users of the municipal hygiene services (no. users)



In 2016, **Aprica** acquired the waste collection service in 9 new municipalities - Rodigo (MN), Almenno San Salvatore, Ambivere, Brembate di Sopra, Capriate S. Gervasio, Filago, Madone e Sotto il Monte Giovanni XXIII in provincia di Bergamo e Lazzate (MB) - and completed the service in the municipalities of Castelbelforte (MN) and Castenedolo (BS).

In April 2016, Aprica launched the new separate waste collection system referred to as the **combined system** (see page 74), in Brescia. All citizens were sent a letter from the Mayor, together with a guide containing all practical information necessary for the collection. At the same time, an important integrated information campaign was launched on the various media, including a website - *www.differenziatabrescia.it* - and a dedicated Facebook page.

In 2016, Amsa acquired the waste collection and road clearing service in the municipality of Pioltello and completed the service in the municipality of Basiglio.

In 2016, **Amsa** went about the ground hygiene services through:
- increasing "global sweeping" in the outlying areas, increasing the frequency of passing from weekly to twice weekly; the increase was 210 km/week for a total of approximately 3,000 km/year (+4% on 2015);
- increasing "fine sweeping" by increasing the currently frequency of sweeping, mainly in the outlying areas, intervening on areas most in need. The increase was in the amount of 180 km/week, for a total of approximately 9,500 km/year (+8% on 2015).

COLLECTION OF ORGANIC WASTE FROM OUTDOOR MARKETS

As from February 2016, Amsa has introduced an **experimental collection of organic waste from 15 outdoor markets across Milan city**.
The main Saturday markets and the Monday market located in Kramer street were involved.

Each food stall was given 70 litre **biodegradable bags** into which to collect organic waste and related supporting materials.
The experiment resulted in 24.6% separate waste collection.

RESPONSIBILITY OF CUSTOMERS

Over the years, the Group companies' commitment to promoting responsible behaviour in the management of resources and waste, in respect of the environment and people, has continued.

Below are the main initiatives and campaigns developed in 2016 in order to sensitise customers to the efficient collection of resources.

As from June 1, 2016, **Amsa** has implemented a **home collection service of paper and cardboard, on request**, both to increase the quantity of recyclable materials and to stem the phenomenon of the abandonment of cardboard boxes in the street. Today, by calling the Amsa freephone number, collection can be booked in the same way as the free service for the collection of large waste along the roadside. The service is supplied during the day, at the same time as door-to-door collection.

Since the service was first launched, 1,040 collections have been made (approximately 34 collections on average per week) for a total of around 23,500 boxes and a total weight of 21 tonnes (figure updated as at December 31, 2016).
The service has been extended throughout 2017.

2016 saw Varese experience a sensitisation campaign with the slogan **"Varese manca poco"** (Varese is almost there), to re-launch the target of achieving 65% separate waste collection. The current campaign, which is still being run, pays careful attention to the stakeholder engagement, particularly targeting four subjects: condominium administrators, associations of foreigners, commercial activities and major distribution, private residents and commercial activities in the city centre.

In both Milan and Bergamo, campaigns have been run for the **collection of cooking oil** from major distribution and commercial operations. In Milan, 9 new conferral points have been opened at Carrefour and Coop Lombardia, thereby reaching a total of 17 stations. It is very simple: used oil need merely be collected into a plastic bottle and then given into the specific containers at one of the sales points. The project started with a first experimental phase has proven so successful that it has now become a new collection service offered by Amsa to all intents and purposes. The quantities collected and sent for recovery in 2016 came to more than 12,000 kg. In Bergamo, the service provided on the territory of the RUAH Community, in accordance with the municipal administration, is provided for commercial operations so requesting.

SUNDAY CLEANING IN THE OUTSKIRTS

In 2016, in continuing on from its tests run in 2015 during the Expo, Amsa planned and carried out cleaning interventions in the outskirts, starting February. The interventions took place on Sundays and involved the outlying districts that most required specific intervention.

The following services were supplied: global and/or fine sweeping according to the type of streets; washing the perimeters of schools, steps and underpasses; emptying and clearing of road drains; removal of unlawful drains; removal of grass from pavements and the road bed; cleaning of green areas and manual brushing.

A total of 40 Sundays were used, with particular frequency in the areas considered to be most critical.

QUALITY OF SERVICES PROVIDED AND ATTENTION TO CUSTOMERS

Amsa, Aprica and Aspem maintain a direct relationship with the citizen and customer through different channels. As regards the call centre service, the levels of customer satisfaction are extremely high in terms of accessibility of lines.

Figure 61 | Quality levels of the call centre

	AMSA	APRICA	ASPEM
Accessibility of lines and services (time when line is free vs operator presence time)	100%	100%	100%
Average waiting time on the telephone (minutes seconds)	70	60	23
% of calls successful	94%	82%	47%

The services offered by Amsa and Aprica are regulated by a specific **Service Charter**, which describes the terms, methods and quality of services offered to citizens in the municipalities served.

The Service Charters of Amsa and Aprica are available respectively on the sites ***www.amsa.it*** and ***www.apricaspa.it*** in the Citizens section.

The **"PULIamo"** application also continues to be available, dedicated to separate waste collection and environmental services of the three Group companies, provides users with indications as to the days on which waste is collected from their homes and all the information necessary to ensure correct separation. Moreover, where available, it allows for a request to be made to collect cumbersome waste, abnormal situations to be reported and information to be provided on the location of the ecological platforms.

Amsa customer satisfaction survey in Milan

The Milan residents approve the Amsa waste collection and cleaning work with an **average of 7.6**.
The approval is revealed by a survey carried out in June by a specialised company appointed by Milan City Council. The analysis was carried out on a representative sample of 5,060 citizens resident in the city, of whom 500 of foreign origin.

All waste collection services achieved **an indicator of approval of at least 8**, with a peak of **8.7 for the door-to-door collection of large waste**. Cleaning and clearing services totalled average scores ranging between 7 and 8, almost all up on last year's survey.

The channel interfacing with Amsa most used by citizens remains the freephone number **(39.2% of the sample)**, followed by on-line booking for the collection of cumbersome waste, use of the PULIamo app (both 19.9%) and the website (15.4%). **The freephone number is also the contact channel most appreciated by users (score 8.1)**, followed by the on-line booking for the collection of cumbersome waste (7.9), the website (7.6) and the PULIamo app (7.2). Milan resident following of the Amsa Facebook page remains very limited: only 1.6% of the sample interviewed declared that they monitored it regularly.

Aprica customer satisfaction survey in the municipalities of Bergamo, Flero and Gardone Valtrompia

In March 2016, Aprica ran its own customer satisfaction surveys in the municipalities of Bergamo (1000 interviewed), Flero (300 interviewed) and Gardone Valtrompia (300 interviewed).

In all three municipalities, the **average satisfaction score for the service was above 7**; more specifically, a satisfaction indicator of 7.61 was achieved in Flero, 7.60 in Gardone and 7.77 in Bergamo, with more than half of those interviewed declaring that they were extremely satisfied with the Manager (score of above 8).

Satisfaction over certain specific aspects of the service was also good, as shown in the table below.

Figure 62 | Assessment of certain aspects of the service in the Aprica Customer Satisfaction survey

	Bergamo	Flero	Gardone
Municipal waste collection service	8.28	8.31	7.97
Collection times	8.2	8.63	8.15
Cleaning of areas after collection	7.5	7.46	7.3
Road and pavement cleaning	7.12	6.62	7.1
Freephone contact number	8.06	8.67	7.4

"FROM WASTE TO RESOURCES: MILAN MEETS NEW YORK"

In 2016, a total of **11 delegations** were hosted from various countries across the globe. The visit made by the **representatives** of the city of **New York** on **September 13, 2016** is worthy of particular note, organised for a meeting on the study of the integrated waste collection system implemented in Milan, the city with the highest percentage of separate waste collection - 53% - of all European metropolises.

The delegation of the Department of Sanitation therefore was able to see, on field, the door-to-door collection service of municipal waste, with particular interest shown in the separate collection of domestic wet waste, which has proven to be particularly successful in Milan.

10 Relational capital

Community

Established the **non-profit Banco dell'Energia**, to assist people in temporary positions of social and economic vulnerability

21,000 visitors to the Group plants

4.1 mln euros invested in all for the community

927 thousand euros in sponsorships of sports, social, environmental and cultural activities

Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
CITIZEN EDUCATION	Sensitising the local community to the responsible use of resources, energy and the importance of reusing materials in order to minimise waste. Promotion of environmental education initiatives.	Awareness and knowledge of matters of sustainability amongst the public opinion	The Group sensitises citizens on the responsible use of resources by promoting environmental education initiatives that can make a positive contribution towards the development of local communities and provide greater awareness on the importance of the dissemination of responsible, sustainable behaviour.	• **"La Casa dell'Efficienza"** energy saving awareness initiative • Partnership with **Brescia Mobilità** for the development of educational projects • **Progetto Scuola** with more than 18,000 visits by students • Numerous **environmental education projects** • 113 boys and girls rewarded and 31 study **grants assigned**	***DECARBONISATION*** • Education • Green marketing **CIRCULAR ECONOMY** • Waste reduction policies

Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
LOBBYING AND PUBLIC POLICY	Involving the regulatory entities, the public and private subjects and the institutions in matters of sustainability that can influence the Group's business performance. Transparently and efficiently managing the contributions assigned by the public administration.	Business development in line with regulatory scenarios Achievement of objectives of initiatives seeking to transform plants with conversion projects under the scope of renewable energy.	Dialogue and discussion with the national and supranational institutions in connection with the matters of energy and the environment play a key role in the development of all businesses. The Group establishes opportunities for listening to and comparing notes with the main regulatory entities, actively collaborating in a transparent fashion to define secure, sustainable scenarios for the development of the sector and businesses regulated; the Group establishes permanent, collaborative dialogue with the competent authorities under the scope of authorisation processes for existing plants and transformation initiatives.	• Participation in more than **80 associations** • Meetings with **Utilitalia** on matters of CSR • "Un'opportunità che Milano ti dà" **district heating development campaign** with Milan City Council • New **joint settlement protocol** with 17 Consumer Associations	***PEOPLE INNOVATION*** • Stakeholder engagement
RELATION-SHIP WITH THE LOCAL COMMUNITY	Developing activities in complete respect of local communities, promoting involvement and listening relative to the impacts on landscape, use of soil, infrastructures and existing services. Promotion of projects for the development of the territory and local communities, with specific reference to the territories involved by new works.	Relations with stakeholders Perception of the activities and business carried out by the Group.	The Group develops constant dialogue with the local communities and reference entities, through: • participation in public debates and press conferences • the organisation of multi-stakeholder forums • the publication of data and information using tools like local Sustainability Reports, environmental statements and the website. The Group is constantly committed to disseminating a positive perception of the activities and business it pursues.	• Approximately 240 **engagement initiatives** on the territory • 2 **forumAscolto forums** held in Valtellina/ Valchiavenna and Bergamo • Partnerships with **universities and research centres** • Approximately 4.1 million euros **disbursed to the community**	***PEOPLE INNOVATION*** • Transparency • Brand perception • Stakeholder engagement

10.2.1 Relations with entities and institutions

The role and nature of the A2A business require constant dialogue and a comparison of notes with the national institutions, regional authorities and local entities. The instrument that defines and regulates relations with the entities and institutions s the Code of Ethics of A2A.

In 2016, the following matters were discussed during the national meetings:
- measures for the reorganisation of local public administrations with particular reference to subsidiaries;
- regulations on the establishment of an independent waste authority;
- regulations on the renewal of hydroelectric concessions in Italy;
- regulations on the identification of the residual need to be covered by means of the development of waste-to-energy plants;
- regulations on the exceeding of the greater protection on the electricity and gas market;
- support measures and incentives for district heating.

THE ASSOCIATIONS OF WHICH WE ARE A MEMBER

A2A is a member of more than 80 different associations, including:
- **Utilitalia**, the Federation of companies operating in the public services of water, the environment, electricity and gas. The association is currently chaired by the Chairman of A2A.
- **Confindustria** and, in particular, **Assoelettrica** (National association of electricity companies), **Assolombarda**, **AIB** (Brescia industrial association) and **Green Economy Network**, the network promoted to create opportunities for the exchange of information and commercial agreements between businesses offering products, technologies and services for environmental and energy sustainability;
- **AIRU** (Italian municipal heating association), which aims to promote and disseminate the application and innovation of territorial energy plants, in the sector of district heating (and district cooling) and Integrated Energy Systems in an urban setting;
- **AIM** (Association of Metropolitan Interests) for the promotion of social, economic and cultural development in Milan and **Valore D** offering support to female leadership in business.

10.2.2 Relations with universities and research centres

Interactions and exchanges between the world of university and that of business are essential in facilitating reciprocal learning and, in general, the dissemination of good practices within the communities. For A2A, all this means having high level competences, which are complementary and synergic to its own, but also helping train students with a baggage of knowledge that is more orientated on the world of work.

In 2016, A2A developed numerous research and innovation projects in partnership with universities and research centres of primary standing.

In Brescia, in particular, the Group signed a **collaboration framework agreement** with the Cattolica University and Università degli Studi, to promote joint initiatives on matters of innovation and eco-sustainability. The initial result was a mixed working party on the matter of the "Circular economy", assigned the task of describing the positioning of the Brescia Energy and Environment system with respect to the latest European Union Directives and Guidelines on the matter. Moreover, **three studies in support of the Banco dell'Energia project** are also currently being planned (see page 126), regarding: the analysis of communication tools and messages for fund raising, the identification of target beneficiaries, and the mapping of non-profit organisations able to intercept "energy poverty". A2A has also stipulated an agreement with the University of Udine, for a **research grant on environmental matters**.

As part of the dissemination of good sustainability practices, the **agreement with Cattolica University of Milan** is also important. During a public event held in September, A2A illuminated the front of the historic building that hosts the main part of the university using LED technology for the very first time. As part of this same agreement, AMSA conducted a field study to assess the degree of sustainability of the organisation of separate waste collection in the Milan bases of the university. The percentage separate waste collection recorded was 70%. Study has been completed on a plan of action to achieve a portion of 80%, based on logistics interventions on a joint communication plan targeting students, teachers and other staff of the university.

Together with the **Politecnico University of Milan**, in the last two years, A2A has developed a partnership to involve the students in training and design works, aimed at creating a space planning prototype, which has been applied in two Milan company sites.

The collaboration with accredited research centres has been equally important, with a view to investigating aspects relative to air quality in the territories in which the Group operates.

In Campania, A2A has **promoted a study of the CNR on air quality** in Acerra. It is the first study that has taken complete stock of local air quality, measuring how far the waste-to-energy plant affects it and how much of an impact the other sources of emissions have on the territory. Again by CNR, in Monfalcone, the study has been completed, as envisaged by the Technical Environmental Table, with its four air monitoring campaigns, before and after the installation of systems to eliminate nitrogen oxides in the thermoelectric plant of Monfalcone.

AEM foundation supports some university masters courses on energy and sustainability: the masters course "RIDEF 2.0- Reinventare l'energia", managed by Politecnico University of Milan and Università degli Studi of Milan, and the "MaGER – Master in Green Management, Energy and Corporate Social Responsibility" run by Bocconi University.

THE A2A GROUP FOUNDATIONS

The **AEM Foundation** has always been committed to supporting scientific research, training and the development of innovative knowledge and skills in the field of energy and environmental sustainability throughout Lombardy and in particular in the areas of Milan and Valtellina. The **ASM Foundation** is based in the territories of Brescia and Bergamo, supporting the activities dedicated to social aspects, the promotion of art and culture, as well as support for training and environmental protection.

10.2.3 A2A and the regulation stakeholders

The A2A Group operates in sectors that are strictly regulated, with systems directly affecting the economic results and medium/long-term profitability. More than 40% of the Group's EBITDA is generated by "regulated" activities (distribution networks, components to cover the costs of marketing of sales, production both from incentivised renewable sources and those subject to capacity payments), whilst 24% of the business is "almost regulated" (municipal hygiene, distribution and public lighting).

The Group adopts a regulatory risk monitoring and management policy in order to mitigate, to the extent possible, the effects through oversight on various levels, which primarily involves collaborative dialogue with the institutions (Authority for Electricity, Gas and Water System, the Competition and Market Protection Authority, Ministry of Economic Development, Authority for Communications Guarantees) and technical bodies of the sector (GSE Energy Services Operator, GME Energy Markets Operator, Terna) as well as active participation in category associations and working groups established at said entities.

A2A has equipped itself with the Regulatory Affairs and Market structure to better make the most of the opportunities and challenges offered by the regulation. The structure prepares an internal quarterly document entitled the "**Regulatory Review**", structured according to business unit and which highlights the context in which the main provisions arise, describing the criteria and logics behind them, identifying the stakeholders concerned and the economic and organisational impact.

An important part of the activity is also aimed at organising public opportunities for the comparison of ideas and participation: in 2016 - the year in which the structure dedicated a great deal of resources in order to obtain the approval resolutions from the relevant entities of the updates to the integrated water service tariff - Brescia held two meetings prepared with A2A Ciclo Idrico: on September 16, the company presented its investment plan for 2016-2020, whereas on December 22, the Water Bonus initiative was launched, involving the representatives of the municipalities in which A2A provides the water service (for more details, see page 116).

10.2.4 A2A and relations with national and territorial institutions

Relations and dialogue with the reference territory underlie the very identity of the Group and have a major impact on the degree of acceptance of the business activities.
This dialogue is also based on constant relations with the national and territorial associations (20 national consumer and environmental associations and all the territorial consumer protection and environmental associations), as well as local territorial committees.

The main activities of 2016 carried out with the Associations were:
- promotion of the A2A **"Messaggi dallo spazio"** project and other environmental education initiatives on the territory of Campania, in collaboration with the associations Acssa, Adiconsum, Amici della Terra and Lega Consumatori;
- meetings to draft/revise the environmental **service quality charter** for Aprica and Aspem with the territorial consumer associations;
- sharing of activities/actions on the **integrated water cycle** with the consumer associations of the territories of Brescia and Varese;
- meetings with the **foreign communities** of Brescia, in collaboration with the municipal administration, to disseminate information about the start-up of the new **separate waste collection** system;
- organisation in the main reference cities, of a cycle of meetings, reserved to representatives of the consumer and environmentalist associations, committees and local councils, for the presentation and investigation of **initiatives carried out** by all **Group** companies;
- **consolidation** of dialogue already begun, **analysis** and extension of the areas of activity involved through **specific** meetings and sponsorship of conventions on environmental matters (such as, for example, Amici della Terra or events organised by Legambiente).

On December 1, 2016, A2A was the **first multi utility to sign the new multi-service equal settlement protocol** with the 17 consumer associations recognised by the National Council of Consumers and Users (CNCU) for the introduction, as from January 1, 2017, of the new dispute management procedure for all Group companies regarding the sale and distribution of electricity and gas, the integrated water service and district heating. The new agreement envisages the creation of the A2A ADR (alternative dispute resolution) organisation, comprising both representatives of the Group and of the associations.

NON-PROFIT BANCO DELL'ENERGIA

A2A and its **foundations, AEM** and **ASM**, in collaboration with the **Cariplo Foundation**, have established the non-profit Banco dell'Energia, a non-profit entity designed with the aim of **offering support** to people who find themselves in a temporary situation of **social and economic vulnerability**, in an all-round recovery route, including through the distribution of essential or payment of urgent expenses, such as electricity and gas bills (of any energy operator). A network of non-profit organisations, carefully selected through a call for tenders, will select the direct beneficiaries, presenting concrete plans of action for the early processing (before slipping toward poverty) and facilitating a move forward away from a situation of need.

In order to reach the most possible benefactors, the Banco dell'Energia has promoted a **fund-raising campaign** amongst Group employees, partners, suppliers and customers, allowing donations to be made through the bill.

For the first time ever in Italy, in fact, the **bill** has become a **tool** by which to make a simple **donation**. Customers of A2A Energia with electricity contracts (free market) or gas contracts (free and protected market) for their homes can now donate, by requesting direct debit on the bill and allow families in difficulty to receive concrete aid.

Anyone wanting to take part in the fund-raising can do so by making a free donation on their postal bill, bank transfer or credit card. In order to multiply the value of the donation, A2A has promised to double all donations made by domestic customers of A2A Energia, up to the threshold of one million euros by 2017. The Cariplo Foundation, project partner, will contribute by in turn doubling this amount.

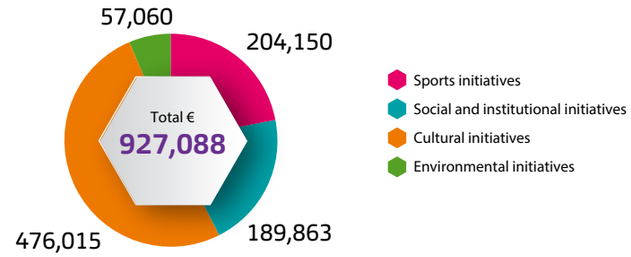
The project, which stemmed from a proposal made in the forumAscolto forum of Brescia held on June 08, 2015, was officially unveiled last 14 November.

For further information refer to: ***www.bancodellenergia.it***

10.2.5 Responsible investments in the community

The Group has always offered its support to multiple social activities and initiatives, which have allowed it to collaborate closely with the reference community.
In 2016, the Group's **total investment** in the community came to approximately 4.1 million euros including contributions made in sponsorships, donations and support of the Group Foundations.
Sponsorships of sports, social, environmental and cultural activities in favour of the territory come to more than 927 thousand euros.

Figure 63 | Breakdown of sponsorships by area of activity



Some of the most important sponsorships include:
- the **9th edition of the "Energy Festival"**, the most important national energy event, with a focus on innovation and sustainability;
- the **"Brescia vestita di luce"** event to celebrate the LED lighting of the architectonic and historic sites of Brescia;
- the **Orient@giovani** project with a contribution made for the purchase of transport means for innovative guidance activities provided to boys and girls of Valle del Mela (Messina);
- the contribution made to the **young sports associations** of Acerra (Naples);
- sponsorship of the 14th edition of **Bergamoscienza** (Bergamo).

This year too, the Group stood close to communities most in difficulty with the valuable contribution of 16 specialists of the **A2A Group Civil Protection Volunteers Association**, sent by the National Civil Guard Department to the places struck by the earthquake that shook several areas of central Italy.

A2A AND BRESCIA MOBILITÀ, TOGETHER FOR SUSTAINABLE BRESCIA

In a partnership with **Brescia Council**, on June 24, 2016, **A2A and Brescia Mobilità** stipulated a memorandum of understanding that will involve joint actions and projects focussed on Brescia, the **quality of life of its citizens, the sustainable development of its territory**, to make the city of Brescia more modern, more liveable and more in step with its citizens.
Joint educational projects will be dedicated to schools and the younger residents.

In environmental terms, an experimental project will be studied for the production of biomethane from the recovery of the organic fraction of separate waste collection. Special attention will also be paid to strengthening the smart city through the development of integrated digital services, applications and technological infrastructures.
Finally, joint local listening initiatives are being discussed.

10.2.6 Education and training

For A2A, environmental education is the main way by which the younger generation can get to know the complex interactions of the natural world and humans. The aim is to facilitate the growth of an environmental conscience and an active conduct aiming to improve the quality of our cities.
As part of the **Progetto Scuola**, A2A offers guided tours all year round in Group plants, with more than 18,000 students from more than 2,000 different schools in 2016. **Casa dell'Energia e dell'Ambiente** in Milan remains the most visited site, with 6,000 entries recorded.
This structure, the operational premises of the AEM Foundation, is a museum open to schools and to the public, where it is possible to learn about and explore the issues relating to the world of energy and sustainability.

The environmental education projects that involved primary and secondary schools in 2016 are:
- **"Messaggi dallo spazio"** (Messages from space), a competition run for first and middle schools, where the students were asked to create digital planets from which they could send "sustainable" message to Earth. The first edition involved 45 institutes in the 13 territories involved, for 135 planets uploaded to the website created for the occasion, www.messaggidallospazioa2a.eu, which received 45,500 "likes";
- a theatrical installation entitled **«Ogni cosa al suo posto»** (Everything in its place), developed thanks to the support offered by the ASM Foundation at the Natural Science Museum of Brescia, to sensitise students to separation and correct conferral of waste;
- a television quiz on sustainability "**La nostra energia per l'ambiente**" (Our energy for the environment), now at its seventh edition, which has involved 6 primary schools and 6 secondary schools in Brescia;
- the initiative **"Bergamo di tutti. Per una città più pulita e più bella!"** (Bergamo belongs to everyone. For a cleaner, more beautiful city), to involve the fourth and fifth years of the first and middle schools of the city of Bergamo in matters regarding the reduction of waste, separate waste collection, recycling and energy recovery; the event concluded with a public event held in May during the European "*Let's Clean up Europe*" week;
- "**Percorso Naturacqua**" (Nature Water Route) initiative - in collaboration with AmbienteParco, offered primary and secondary school in the city of Brescia a teaching laboratory on the integrated water cycle.

Additionally, **events and initiatives dedicated to teachers** were also organised, including the workshops organised in collaboration with FAI - the Italian Environment Fund ("A world of energy" held in Milan in October and "The beauty of Brescia, past and future", in March) and the tour of the AEM photographic historic archives of Piazza Trento, Milan.

A2A STUDY GRANTS

In November, the San Barnaba auditorium in Brescia hosted the usual ceremony for the delivery of **study grants** to **children of employees in the Brescia-Bergamo area**. In 2016, **113 boys and girls** were rewarded: 32 had achieved their middle school diploma, 62 students from the middle secondary school classes and 19 who had completed secondary school.

In 2016, A2A and Edipower teamed up with Intercultura to give the possibility of a **free study stay abroad** to students of various territories hosting the Group's production plants, for a total of **10 study grants**. In a parallel fashion, Edipower has promoted a contest to assign the most worthy students of secondary schools **21 study grants** to support **university studies** in all territories in which it works.

10.2.7 External communication

In 2016, the Press Office produced a total of 275 media communications. 83% of the communications were given out as Press releases with the remaining 17% taking the form of letters. In 2016, there were 300 opportunities to meet with journalists, amongst interviews and one-to-one dialogues, press conferences and press visits.

The A2A Group is present on the following social channels: Facebook, LinkedIN and Twitter. Social communication allows for a more direct contact with citizens, sensitising them to key matters for the Group, such as senior Vice President and energy saving. It is also possible to start up social media caring flows to promptly intercept critical issues and reports to be conveyed to customer care channels and, finally, to get to know and collect the main issues discussed on the internet, as opportunities for development to be implemented in new services and products. In 2016, to mark the start-up of the new separate waste collection service in the municipality of Brescia, A2A created the **"Differenziata Brescia" Facebook page**. Followed by more than 6,000 people, the page has been confirmed as a place for debate amongst the citizens of Brescia and A2A on matters of separate waste collection, addressing hundreds of requests for information and assistance and thereby helping towards the successful introduction of the service.

THE FORUMASCOLTO WEB PLATFORM

Parallel to the Milan forumAscolto event, December 2016 saw A2A launch the **on-line portal** ***www.forumascoltoa2a.eu*** and a dedicated **Facebook page**, where all citizens of Milan were able to propose their own ideas on matters such as the circular economy, energy efficiency, smart cities, environmental culture and municipal regeneration.

A direct line of dialogue, over the internet, with the citizens of Milan the like of which had never previously been seen. The aim was to collect ideas, but also to sensitise the community to matters of sustainability in which the Group operates in its businesses.
In addition to presenting their projects, users could vote for the ideas put forward by others, enrich them and comment on them making their own contributions and sharing them on Facebook. More than 50,000 people were reached via the page, which thanks to 6 dedicated items obtained more than 2,700 "likes" in a very short space of time.
The web initiative for Milan envisages the uploading of ideas until February 28, 2017, and thereafter the proposals receiving the most "likes" will be assessed by A2A on the basis of a series of criteria, such as, for example, the creation of value for citizens and the company and the alignment with the objectives and subjects covered by the Sustainability Plan, with the precise objective of developing them in the near future. Each idea chosen will have its own plan of work that can be monitored on the platform.

To date, the platform has recorded more than 23,000 accesses and a considerable number of ideas proposed and shared.

10 Relational capital

Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
RESPONSIBLE MANAGEMENT OF THE SUPPLY CHAIN	Ensuring the ever better selection of suppliers, collaborators and business partners through fair, transparent processes that envisage the meeting of ESG (Environmental, Social and Governance) criteria. Promoting practices of social responsibility throughout the value chain, stimulating the improvement of reliability and security in supplying services.	Sustainability and responsibility of players in the supply chain	The Group integrates ESG themes into the qualification and choice process of suppliers, business partners and collaborators; the awareness and dissemination of matters of sustainability is constantly monitored with the aim of promoting the development of a high quality, sustainable supply chain.	• Activation of the **new supplier portal** and introduction of new features in the qualification process and management of subcontracting • Pursuit of the **inspection audits plan** that has involved a sample of more than 1,400 road sites	***PEOPLE INNOVATION*** • Responsible procurement

During the year, **6,579 orders** were issued by Group companies for supplies, services or works, making for a total value of more than **835 million euros**. 97% of orders are placed with Italian suppliers.

Figure 64 | Order value by business unit in 2016 (mln €)

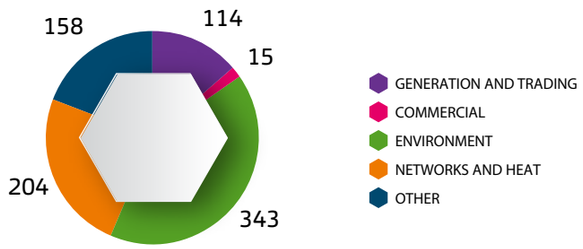
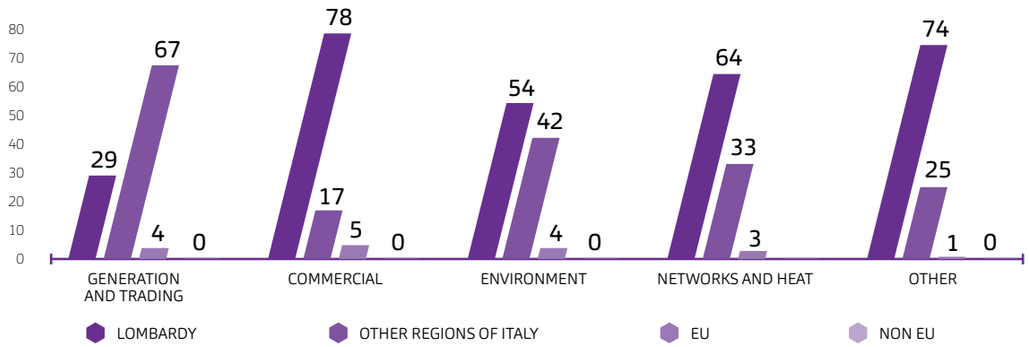


Figure 65 | Geographic breakdown of orders by business unit in 2016 (%)



In addition to this, approximately **765 million euros** were spent on the purchase of fuels used in Group plants or conveyed as carrier to end customers, of which 83% for natural gas. Carbon purchases were made 42% from Russia, 36% from Colombia, 18% from Kazakhstan and 4% from Indonesia.

10.3.1 Sustainable management of the value chain

For the A2A Group, sustainability is an important management driver also as regards purchases made and relations with suppliers. This approach has allowed for the consolidation over time of relations of trust that are fair and timely, looking to the future and investing to create long-term value.

Figure 66 | Validated suppliers, by certification held

Type of certification	2014	2015	2016
ISO 9001	2,360	2,741	**2,800**
ISO 14001	756	920	**915**
OHSAS 18001	455	620	**662**
SA 8000	n.a.	n.a.	**22**
Respondents to the TenP (Global Compact) questionnaire	*n.a.*	*n.a.*	***22***
With at least one certification	*2,377*	*2,768*	***2,843***

The Group operates with suppliers that apply high standards in terms of staff health and safety and environmental protection. To this end, A2A has adopted a specific system by which to assess the suitability of companies, so as to ensure the technical and economic-financial capacity in line with the legal requirements and the provisions of the Group Code of Ethics (in respect of the Organisational Model pursuant to Italian Legislative Decree no. 231/2001).

In the selection and validation of suppliers, A2A is open to all companies interested in participating in tenders called by the Group, ensuring the maintenance of a Qualified Vendor List by product category, which buyers must refer to for the definition of "vendor list" of a tender.

Qualification remains **valid for 36 months** but may be revoked early if risk factors should arise or there should be negative changes in performance assessments.

Each supplier is assigned a global score, calculated as the average of the preventive assessment, made on the basis of the information collected during qualification (incident indexes, certificates obtained, financial rating, etc.) and the assessment of performance, given by the supplier's conduct during contract performance. If the **global scoring** assigned to a supplier is insufficient, A2A reserves the right to take steps such as suspending, revoking qualification or starting an audit.

NEW SUPPLIER PORTAL

2016 saw the activation of the **new supplier portal**, through which suppliers can request new qualifications, take part in on-line tenders and request authorisation to subcontract. The new portal therefore guarantees the complete dematerialisation of the processes monitored and will be further enriched in 2017 with new e-collaboration functions.

For suppliers registered with the A2A list, the new portal is a sort of "showcase" towards all Group companies, to be supplemented with **information and documents that are always up-to-date**.

Through a single point of access and thanks to a specific "dashboard", the supplier can easily access all the functions currently available.

The qualification process has been strengthened thanks to the introduction of new information required from companies; according to the risk class assigned to the goods category, additional specific questionnaires will be required to further investigate aspects relevant to sustainability too (such as, for example, impacts deriving from waste management, the carbon footprint, the impacts on safety at work, etc.).

Another new feature of the supplier portal regards the on-line **subcontracting management**: where criteria are met, the contractor can request authorisation for subcontracting by sending all documents required in electronic format, submitting them via the specific section of the portal. The documents will then be assessed by A2A and authorisation to subcontracting will, if granted, be made available to the contractor on the portal.

In 2017, the issue of contracts will also be entirely digitised: contracts signed digitally by A2A proxies will in fact be available in the specific **"Contract Management" section**.

10.3.2 Site management

The Networks and Heat BU carries out strict controls over site management for works assigned to external companies.

Checks particularly regard: effective implementation of the commissioned works, respect for timing, use of established materials, performing the tests requested, environmental and social impact and the provisions of the tender specifications.

The 2016 audit plan includes **control audits** on a sample of **more than a thousand road works**, to assess compliance with health and safety at work provisions (Italian Legislative Decree no. 81/2008) and environmental ones (Italian Legislative Decree no. 152/2006).

The methodological approach adopted for carrying out checks on road work sites considers the following aspects:

- analysis of current legislative references and company procedural framework;
- census of road works in progress and selection of sites to visit;
- acquisition of information and data on the work sites (ex. location, type of intervention, companies, etc.);
- perform verification at sites with the support of specific check-lists and photographic documents;
- sharing the results of the verifications with the internal managers;
- drafting of regular analytical reports sent to the company structures concerned.

Figure 67 | Inspection audits conducted on sites in 2016

Sites visited	1,406
Companies concerned	Unareti, A2A Ciclo Idrico, A2A Calore & Servizi.
Areas concerned	Milan and province, Bergamo and province, Brescia and province
Action taken	Training and information action planned that, during the early months of 2017, will involve both internal operators and contractors
Results expected	Minimise anomalies with a consequent improvement to safety, reduction in environmental impacts, improvement in quality of works and guarantee of complete compliance with current standards.

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Independent auditors' report on data and information included in the "2016 Integrated Report" and referenced in the "GRI Content Index" (Translation from the original Italian text)

To the Board of Directors of
A2A S.p.A.

We have carried out a limited assurance engagement of data and information included into the "2016 Integrated Report" of A2A S.p.A. and its subsidiaries (hereinafter also "A2A Group") referenced in the "GRI Content Index" (hereinafter also "GRI disclosure of the 2016 Integrated Report") as of 31st December 2016.

Directors' responsibility on the GRI disclosure of the 2016 Integrated Report

The Directors are responsible for the preparation of the GRI disclosure of the 2016 Integrated Report in accordance with the "G4 Sustainability Reporting Guidelines" and "Electric Utilities Sector Disclosures" issued in 2013 by GRI - Global Reporting Initiative that are detailed in the paragraph "Methodological Note" of the 2016 Integrated Report, as well as for that part of internal control that they consider necessary in order to allow the preparation of a GRI disclosure of the 2016 Integrated Report that is free from material misstatements, even caused by frauds or unintentional behaviours or events. The Directors are also responsible for defining commitments of A2A S.p.A. regarding the sustainability performance and for the reporting of the results achieved, as well as for the identification of the stakeholders and of the significant matters to report.

Auditors' responsibility

It is our responsibility the preparation of this report on the basis of the procedures carried out. Our work has been conducted in accordance with the criteria established by the principle "International Standard on Assurance Engagements 3000 – Assurance Engagements other than Audits or Reviews of Historical Financial Information" ("ISAE 3000"), issued by the International Auditing and Assurance Standards Board for the engagements that consist in a limited assurance. This principle requires the respect of relevant ethical principles, including those related to independence, as well as the planning and the execution of our work in order to obtain a limited assurance that the GRI disclosure of the 2016 Integrated Report is free from material misstatements. These procedures included inquiries, primarily with company's personnel responsible for the preparation of the information included in the GRI disclosure of the 2016 Integrated Report, document analysis, recalculations and other procedures in order to obtain evidences considered appropriate.

The procedures performed on the GRI disclosure of the 2016 Integrated Report were related to the compliance with the principles for defining report content and quality, as articulated in the "G4 Sustainability Reporting Guidelines", and are summarised below:

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P.IVA 00891231003
Iscritta al Registro Revisori Legali al n. 70945 Pubblicato sulla G.U. Suppl. 13 - IV Serie Speciale del 17/2/1998
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a. comparison of economic and financial data and information included in the GRI disclosure of the 2016 Integrated Report with those included in A2A Group's consolidated financial statements as of 31st December 2016 on which we issued our audit report, pursuant to art. 14 of Legislative Decree n. 39 dated 27th January 2010, on the 12th April 2017;

b. analysis, through interviews, of the governance system and management process of the issues related to the sustainable development regarding A2A Group's strategy and operations;

c. analysis of the process relating to the definition of material aspects included in the GRI disclosure of the 2016 Integrated Report, with reference to the criteria applied to identify priorities for the different stakeholders categories and to the internal validation of the process outcomes;

d. analysis of the operation of the processes that support the generation, recording and management of the quantitative data reported in the GRI disclosure of the 2016 Integrated Report. In particular, we have carried out the following procedures:

   - interviews and discussions with personnel of the Management of A2A S.p.A. and of some subsidiaries of A2A Group, to obtain an understanding about the information, accounting and reporting systems in use for the preparation of the GRI disclosure of the 2016 Integrated Report, as well as about the internal control processes and procedures supporting the collection, aggregation, data processing and transmission of data and information to the department responsible for preparation of the GRI disclosure of the 2016 Integrated Report;
   - on-site verifications at some A2A Group's headquarters and plants;
   - analysis on a sample basis of the documentation supporting the compilation of the GRI disclosure of the 2016 Integrated Report, in order to confirm the processes in use, their adequacy and the operation of the internal control for the correct processing of data and information in relation to the objectives described in the GRI disclosure of the 2016 Integrated Report;

e. analysis of the compliance and internal consistency of the qualitative information included in the GRI disclosure of the 2016 Integrated Report to the guidelines identified in paragraph "Directors' responsibility on the GRI disclosure of the 2016 Integrated Report" of the present report;

f. analysis of the process relating to stakeholders engagement, with reference to procedures applied, through review of minutes or any other existing documentation relating to the main topics arisen from discussions with them;

g. obtaining of the representation letter, signed by the legal representative of A2A S.p.A., relating to the compliance of the GRI disclosure of the 2016 Integrated Report with the guidelines indicated in paragraph "Directors' responsibility on the GRI disclosure of the 2016 Integrated Report", as well as to the reliability and completeness of the information and data presented in the GRI disclosure of the 2016 Integrated Report.

Our engagement is less in scope than a reasonable assurance engagement in accordance with ISAE 3000 and, as consequence, we may not have become aware of all the significant events and circumstances which we could have identified had we performed a reasonable assurance engagement.

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Conclusion

Based on our work, nothing has come to our attention that causes us to believe that data and information included into the "2016 Integrated Report" of A2A S.p.A. and its subsidiaries referenced in the "GRI Content Index" as of 31st December 2016 is not in compliance, in all material aspects, with the guidelines "G4 Sustainability Reporting Guidelines" and "Electric Utilities Sector Disclosures" issued in 2013 by the GRI - Global Reporting Initiative, as stated in the paragraph "Methodological Note" of the 2016 Integrated Report.

Other aspects

Data presented for comparative purposes in the 2016 Integrated Report come from the 2015 Sustainability Report, which has been subjected to limited assurance by other auditors, who, on 6th April 2016, issued their report.

Milano, 12th April 2017

EY S.p.A.
Signed by: Paolo Zocchi, Partner

This report has been translated into the English language solely for the convenience of international readers

GRI Content Index

General Standard Disclosure

⬢= full correspondence ◪= partial correspondence ⬡= no correspondence

Indicators		Correspondence	Report pages	Supplement pages
Strategy and analysis				
G4-1	Letter to stakeholders	⬢	4-5	
G4-2 (comp)	Impacts, risks and opportunities	⬢	19-22, 45, 51, 65-67, 85-86, 97, 103-104, 121-122, 131	9, 11-12
Organizational profile				
G4-3	Name of the organization	⬢	Cover	
G4-4	Services provided	⬢	10-11	
G4-5	Location of company headquarters	⬢	Colophon	
G4-6	Countries where the organization operates	⬢	11	
G4-7	Ownership structure	⬢	46	
G4-8	Markets served	⬢	10-11	
G4-9	Scale of the organization	⬢	10-11	
G4-10	Employees by type of contract, gender, geographic area, category	⬢	85, 88	4-5; 34-35
G4-11	Employees covered by collective agreements	⬢	88	34
G4-12	Supply chain of the organization	⬢	26-27, 131-134	54-55
G4-13	Changes during the year in the organization or in the supply chain	⬢	6-7	
G4-14	Precautionary principle (risk management)	⬢	19-22	11-12
G4-15	Charters, principles or other external initiatives that the organization signs	⬢	13-17	
G4-16	List of trade associations to which the organization adheres	⬢	123	
Material aspects and boundaries				
G4-17	Companies included in the consolidated financial statements and those not considered in the Sustainability Report	⬢	6-7	
G4-18	Process for defining report content and scope	⬢	6-7; 42-43	
G4-19	Material aspects identified in the process of defining content	⬢	42-43	
G4-20	For each material aspect indicate the related scope within the organization	⬢		16-18
G4-21	For each material aspect indicate the related scope outside the organization	⬢		16-18
G4-22	Any "restatement" with respect to the previous report	⬢	6-7	
G4-23	Any "restatement" with respect to the material aspects of the previous report	⬢	42-43	
Stakeholder engagement				
G4-24	Group stakeholders	⬢	40-41	
G4-25	Identification process	⬢	40-41	
G4-26	Engagement approach, including frequencies and types of activities	⬢	40-41	13-16
G4-27	Issues arising from stakeholder engagement	⬢	40-41	13-16
Report parameters				
G4-28	Reporting period	⬢	6-7	
G4-29	Date of most recent previous report	⬢	6-7	
G4-30	Reporting frequency (yearly, half-yearly, etc.)	⬢	6-7	
G4-31	Contacts for information regarding the report	⬢	Colophon	
G4-32	GRI Content Index	⬢	137-142	
G4-33	Assurance document	⬢	135-136	

Indicators		Correspondence	Report pages	Supplement pages
Governance				
G4-34	Governance structure of the organization	⬢	14-15+RCG	10
G4-35 (comp)	Process for delegating authority for economic, environmental and social issues	⬢	14-15+RCG	10
G4-36 (comp)	Internal positions with economic, environmental and social responsibility	⬢	14-15 +RCG	
G4-37 (comp)	Processes for consultation on economic, environmental and social issues between stakeholders and the highest governance body	⬢	41	
G4-38 (comp)	Composition of the highest governance body and its committees	⬢	14-15 +RCG	
G4-39 (comp)	Indicate whether the Chair of the highest governance body also has an executive role	⬢	14-15 +RCG	
G4-40 (comp)	Process of selection and appointment for the highest governance body and its committees	⬢	14-15 +RCG	
G4-41 (comp)	Processes in place for the highest governance body to ensure conflicts of interest are avoided	⬢	14-15 +RCG	10
G4-42 (comp)	Role of the highest governance body in the development, approval and updating of the corporate mission, strategies, policies and objectives	⬢	14-15 +RCG	
G4-43 (comp)	Training of the highest governance body on economic, environmental and social issues	⬢	14-15 +RCG	
G4-44 (comp)	Process for evaluating the highest governance body's performance	⬢	RCG	10
G4-45 (comp)	Management of impacts, risks and opportunities in economic, environmental and social terms	⬢	19-22	11
G4-46 (comp)	Review of risk management in economic, environmental and social aspects	⬢	19-22	11
G4-47 (comp)	Indicate the frequency with which the highest governance body performs said revision	⬢	14 + RCG	
G4-48 (comp)	Indicate which position or committee examines and approves the Sustainability Report	⬢	6-7	
G4-49 (comp)	Process to communicate critical issues to the highest governance body	⬢	RCG	
G4-51 (comp)	Remuneration policy for the highest governance body and management	⬢		10
G4-52 (comp)	Process for determining remuneration	⬢		10
G4-54 (comp)	Indicate the ratio of the total annual remuneration paid to the highest paid employee by the company and the average annual remuneration of employees (excluding the highest paid individual)	⬢	The information has been omitted insofar as it is subject to confidentiality restrictions	
G4-55 (comp)	Indicate the percentage increase in the ratio described above	⬢		
Ethical aspects				
G4-56	Mission, values, codes of conduct and principles	⬢	16-17; 24-37	
G4-57 (comp)	Internal and external mechanisms for providing advice on ethical and legal conduct	⬢	16	
G4-58 (comp)	Internal and external mechanisms to report unethical and illegal conduct	⬢	16	

RCG= Report on Corporate Governance and Ownership Structures for the year ended December 31, 2016
RR= Report on Remuneration

Specific Standard Disclosure

⬢= full correspondence ◪= partial correspondence ⬡= no correspondence

DMA and indicators	Correspondence	Report pages	Supplement pages
Issue 1 - Promotion of ESG criteria towards investors and integration into investment processes			
DMA GRI aspects: Economic performance	⬢	45	
EC2 - Economic and financial implications of climate changes	⬢	19-22; 28-37; 49	3
Issue 2 - Creation of shared economic value			
DMA GRI aspects: Economic performance - Indirect economic impacts	⬢	45	
EC1 - Direct economic value generated and distributed	⬢	46	19-20
EC3 - Coverage of the organization's defined pension plan obligations	⬢	95	
EC4 - Significant financial assistance received from PA	⬢		19
EC7 - Development and impact of investments in infrastructure and services provided	⬢	49, 51-64	
EC8 - Main indirect economic impacts	⬢	116; 121; 126-127; 131-132	54-55
Issue 3 - Technological innovation and smart cities			
DMA GRI aspects: Demand-side management - Research and development	⬢	97	
Research and development activity aimed at promoting sustainable development	⬢	97-102	
DSM (Demand-side management) programs	⬢	97-99	
Issue 4 - Efficient management of plants and networks			
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SO2 - Activities with negative impacts, present or potential, on local communities	●	22	
EU25 - Number of injuries and fatalities to the public, including legal proceedings	●		56
Issue 13 - Accessibility of the service			
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EU3 - Number of customers analysed by type	●	104-105	7; 44; 47; 52; 53
EU27 - Number of disconnections for non-payment	●	As part of its credit control procedures, A2A Energia constantly monitors the indicator, but chooses not to specify the figure as it is considered as sensitive data	
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LA15 - Current and potential significant negative impacts on work in the supply chain and action taken	●	90; 134	11
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DMA and indicators	Correspondence	Report pages	Supplement pages
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We would like to thank all our colleagues of A2A who worked on the preparation of this Report.

Graphic design and layout:
MERCURIO GP - www.mercuriogp.eu

Cover layout:
BOUTIQUE CREATIVA - www.boutique-creativa.com

Translation:
TransEdit Group - www.transeditgroup.com

Printed:
AGEMA S.p.A. - www.agema.it

FSC www.fsc.org MIX Paper from responsible sources FSC® C003526

Milan, April 2017

www.a2a.eu

a2a
SHAPING THE FUTURE TODAY

Integrated Report
Supplement **2016**

Contents

The EPCG Group

General description

In 2016 A2A began the process of integrating the EPCG group, based in Montenegro, into its environmental and social performance data, given that EPCG is included in the scope of A2A's Consolidated Financial Statements. Although the company does not hold the majority of the votes that may be exercised at a shareholders' meeting – the currently interest amounts to 41.7% – it is considered to be a subsidiary because the parent company A2A S.p.A., with the appointment of the key managerial figures and the definition of some reserved matters on important topics for the corporate life of EPCG, has de facto control, applying in practice the provisions of the purchase agreement, namely it is able to manage the company from an effective standpoint.

In 2009 A2A chose to invest in Montenegro in pursuit of two fundamental industrial objectives: acquiring new generation capacity from renewable sources - hydroelectric sources in particular - and serving a geographical area increasingly integrated into the Italian and European system, thanks to the interconnection that Terna will build between Italy and Montenegro in the form of a 1,000 MW submarine cable.

On July 29, 2016, the Parliament of Montenegro approved the new Shareholders' Agreements between the State of Montenegro and A2A for the management of EPCG, with duration until December 31, 2016.

The main points of these new agreements are maintaining the current management rights of A2A in EPCG, with the appointment of the key managerial figures by A2A and the definition of some reserved matters on important topics for the corporate life of EPCG, the possibility to exercise an option to sell the entire shareholding of A2A to the State of Montenegro, for a value of 250 million euros, upon expiration of the agreements and exercisable by March 31, 2017, and no opposition by A2A to the construction project of the new thermoelectric plant in Pljevlja.

Our plants

EPCG's electricity generation capacity consists of two hydroelectric plants and seven mini-hydro plants (two of which are owned by Zeta Energy, in which EPCG holds a 57.86% interest) and one thermoelectric plant. The total installed capacity is 879 MW.

Figure 1 | Net electricity generated by EPCG's plants (GWh) [G4-EU2]

	2014	2015	2016
Thermoelectric plant	1,322	1,412	**1,216**
Hydroelectric plants	1,693	1,419	**1,737**
Total	**3,015**	**2,831**	**2,953**

Net electricity generated, which rose compared to 2015, showed a sharp increase in hydroelectric generation of over 22.4%. As may be seen from the table, in 2016 energy from renewable sources accounted for an impressive 58.8% of the total.

The hydroelectric plant in **Perućica** has been in service since 1960 and is Montenegro's oldest facility. It has an installed capacity of 307 MW and it generates electricity using the drainage basin of the Gornja Zeta river, with a flow rate of 353 m^3/h.
Over the years, the plant has been modernised, resulting in the refurbishment of the first four generation groups. The remaining groups, including the sluice gates, will be refurbished during the second phase. A screen is also to be installed upstream from the dam to prevent waste material from entering the basin.
The 2016-2020 Business Plan calls for investments of 24 million euros related to the project of diverting the Zeta river.

The **Piva** hydroelectric plant, inaugurated in 1976, has a capacity of 342 MW and generates electricity in peak mode, since it can be started up quickly and can be synchronised with the 220 kV power grid. Phase 2 of the project to rebuild and modernise the equipment and plant was launched in early March 2008, with the aims of increasing performance in terms of safety and reliability of the plant and expanding total energy generation.

Internal procedures for waste management and disposal are in the development phase at both plants. The monitoring of environmental emergencies was implemented for the first time in 2016.

The coal-powered **Pljevlja** plant is Montenegro's main power plant (and the only such facility powered by fossil fuel) and thus has the most significant impact on the electrical grid's load balancing.

Built at 760 metres above sea level, the plant has a chimney 250 metres high that thus allows emissions to be discharged at an altitude of 1,000 metres above sea level.

Significant projects aimed at environmental and technological stabilisation of the site, including the following, were launched in previous years:

- the installation of an EPS (Electro Static Precipitator) to contain particulate emissions;
- the replacement of management and control systems, i.e. the DCS (Distributed Control System);
- the replacement of the 6 and 0.4 kV auxiliary power supply systems;
- the replacement of the generator excitation system and the installation of a generator circuit breaker.

The thermoelectric plant uses cooling water from the "Otilovici" basin, which has a capacity of 18 million m^3, located on the banks of the river Cehotina.

By decision no. 2016-2019 of the Ministerial Council of the Energy Community, the plant was granted a permit to operate for an additional 20,000 hours in derogation from EU laws from January 1, 2018 until December 31, 2023.

In addition, an application has been submitted to the Agency for Environmental Protection for integrated authorisation of the environmentalisation of Unit 1, scheduled to be completed by 2021, involving the installation of carbon dioxide and sulphur abatement systems and a waste water treatment plant (which at present consists solely of a mechanical system for separating out oils).
The application is to be decided by January 1, 2018.

PROJECT TO BUILD UNIT 2 AT THE PLJEVLJA FACILITY

The construction of the second unit at the Pljevlja plant involves the installation of a coal-powered unit with a planned capacity of 254MW and a net yield of 39%, and with all environmental indicators fully compliant with European legislation.
In 2016 the preliminary analyses necessary to submit the project continued. These included negotiations with financial institutions aimed at obtaining financing for the construction of the unit, the drafting of an agreement governing the preparation of the main project (EWA agreement) and preparation of the tender documents for the bidding to carry out the work, selection of the project engineer and procurement of coal, in addition to activities aimed at obtaining approval for the environmental impact assessment.

Figure 2 | Resources used [G4 - EN1_EN8]

	2014	2015	2016
Fuel (TJ)			
Coal	15,003	16,293	**13,136**
Petroleum derivatives (heavy fuel oil and diesel)	34	19	**36**
Vehicle fuel (litres)			
Petrol	44,625	44,273	**38,117**
Diesel	81,352	82,654	**73,856**
Water resources consumed (thousands of m^3)			
Total water consumed	4,416,914	4,531,325	**4,136,602**
Chemical products and materials (t)			
Water additives/conditioners	488	586	**426**
Ammonia (solution)	3	2	**-**
Cement, sand and inert materials	326	3,361	**1,302**
Technical gases (nitrogen, CO_2, hydrogen and oxygen)	93	103	**218**
Sodium hydroxide (solution)	9	9	**6**
Odorants	5	6	**3**

Figure 3 | CO_2 emissions from combustion processes (t)

	2014	2015	2016
Pljevlja plant	1,518,032	1,649,097	**1,347,126**

Personnel

The figures presented in this section refer to the employees of EPCG and CEDIS (a subsidiary of the EPCG group) under both permanent and fixed-term contracts. Employees hired by EPCG and CEDIS under non-standard PWAs (piece work agreements) are also included. Employees engaged through external agencies (81 workers) and the employees of the subsidiaries ZETA ENERGY and EPCG d.o.o. Beograd are excluded.

At December 31, 2016 the headcount amounted to 2,241 individuals, of which 49% was over age 50. Job stability is a priority for the company: 99% of staff have permanent contracts.

A large proportion of total personnel (92%) are members of the union of reference, and people with disabilities are assured access to the workplace (approximately 2% of employees belong to protected categories). Other company welfare services provided are parental leave, which in 2016 involved 24 women.

Figure 4 | Personnel by category and type of contract

	2014			2015			2016		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Managers	34	1	35	29	6	35	**28**	**6**	**34**
Supervisors	39	21	60	49	18	67	**48**	**17**	**65**
White-collar workers	708	445	1,153	708	444	1,152	**680**	**421**	**1,101**
Blue-collar workers	1,071	11	1,082	1,073	6	1,079	**1,014**	**6**	**1,020**
Permanent workers	**1,829**	**458**	**2,287**	**1,840**	**466**	**2,306**	**1,770**	**450**	**2,220**
Fixed-term workers	**23**	**20**	**43**	**19**	**8**	**27**	**17**	**4**	**21**
TOTAL	**1,852**	**478**	**2,330**	**1,859**	**474**	**2,333**	**1,787**	**454**	**2,241**
Workers under non-standard contracts (PWAs)	**11**	**5**	**16**	**9**	**7**	**16**	**12**	**5**	**17**

Figure 5 | Personnel by seniority of service - 2016

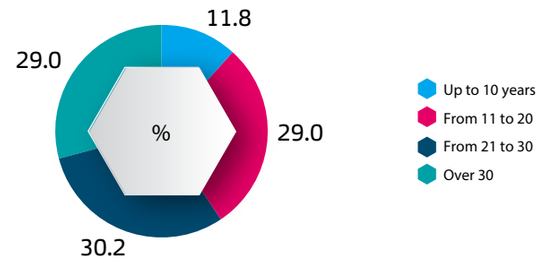
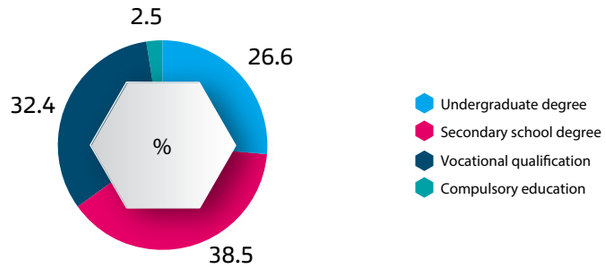


Figure 6 | Personnel by academic qualification - 2016



In 2016 nine individuals were hired, fewer than in previous years. The turnover rate has remained constant over the years, with values near 5%.

Figure 7 | Hiring by type of contract and gender

	2014			2015			2016		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Permanent contracts	15	4	19	2	1	3	**2**	**-**	**2**
Fixed-term contracts	6	6	12	15	4	19	**7**	**-**	**7**
Total	**21**	**10**	**31**	**17**	**5**	**22**	**9**	**-**	**9**

Figure 8 | Workers departures during the year, by gender

	2014			2015			2016		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Retirement	3	-	3	5	-	5	**3**	**-**	**3**
Voluntary resignations (plan with indemnity)	65	15	80	64	17	81	**69**	**18**	**87**
Decease	9	-	9	6	-	6	**9**	**1**	**10**
Resignation (other)	1	1	2	6	-	6	**5**	**1**	**6**
Other (e.g., expiry of fixed-term contract)	17	3	20	3	2	5	**-**	**-**	**-**
Total	**95**	**19**	**114**	**84**	**19**	**103**	**86**	**20**	**106**

Training at EPCG mainly concerns prevention and language courses. In 2016, 2,057 hours of training were provided, for approximately 0.9 hours of training per employee on average. Performance management activities are carried out annually for all employees.

Figure 9 | Training provided by position

	2014		2015		2016	
	Number of hours	Average annual hours of training per employee	Number of hours	Average annual hours of training per employee	Number of hours	Average annual hours of training per employee
Managers	448	12.8	160	4.6	160	4.7
Supervisors	1,630	27.1	272	4.1	176	2.7
White-collar workers	3,308	2.9	2,600	2.3	1,596	1.4
Blue-collar workers	2,938	2.7	1,340	1.2	125	0.1
Total	**8,324**	**3.6**	**4,372**	**1.9**	**2,057**	**0.9**

In personnel **safety** matters, efforts were increased in 2016, involving the implementation of a process of risks mapping and assessment at the level of offices and plants: an emergency (extraordinary event) plan began to be prepared and a plan for safety training (internally performed since 2013) was consolidated.

Figure 10 | Accident data

	2014	2015	2016
Number of deaths	-	*1*	-
No. of accidents (excluding commuting)	43	26	54
No. of days of absence	1,783	1,584	2,635
Average duration	41	60.9	49
Frequency index FI	10	6	14
Severity index SI	0.43	0.39	0.66
Incidence index II	18.45	11.14	24.10
Commuting accidents	6	1	-
Total hours worked	4,156,079	4,044,231	3,962,734

Figure 11 | Number of working days lost by gender

	2014		2015		2016	
	Men	Women	Men	Women	Men	Women
Illness	16,845	3,907	14,088	4,453	12,691	4,669
Unpaid leave / absence	248	-	249	-	-	-
Company strikes	-	-	-	-	-	-
National strikes	-	-	-	-	-	-
Accidents	1,141	642	1,440	144	2,293	342
Total	**18,234**	**4,549**	**15,777**	**4,597**	**14,984**	**5,011**

Distribution and sale of electricity

In June 2016, following the legislation enacted by the government of Montenegro concerning the unbundling of power grids, the company was de-merged to separate the sale and generation of electricity. CEDIS, a fully-owned subsidiary of the EPCG group, was formed to conduct power distribution.

Detailed provisions governing the quality of **distribution service** do not yet exist and are in the process of being drafted by the competent authorities. However, there is a consumer charter, under which CEDIS has some technical and commercial service obligations (e.g., an obligation to restore service within 24 hours in the event of non-payment, hook-up within 15 days of the request and estimates for complex work within 90 days). The new provisions also make room for greater attention to vulnerable groups. In fact, it will not be possible to disconnect persons in such categories from service during the coldest part of the year, from October to April.

Figure 12 | Extension of the electricity distribution service [G4 - EU4]

	2014	2015	2016
km of electricity network	19,110	19,274	19,274
of which underground cable	*3,109*	*3,233*	*3,233*
Customers connected	384,730	374,105	374,773
Municipalities served	23	23	23

Figure 13 | Technical quality of electrical power - service outages (35 kV and 10 kV network)

	Planned		Unplanned		Total	
	no.	minutes	no.	minutes	no.	minutes
2014	1,457	3,287	4,838	9,082	6,295	12,369
2015	2,549	6,184	10,878	21,135	13,427	27,319
2016	2,879	6,001	9,782	21,974	12,661	27,975

Sales service is provided under a monopoly regime. EPCG is still the only national operator. Accordingly, all supply points in the country are served by the Group company. There are approximately 370,000 total customers (supply points), 91% of which have domestic contracts. The decrease of 2% compared to 2015 was primarily due to the elimination of inactive supply points.

Figure 14 | Electricity supply contracts by type of customer

TYPES	2014	2015	2016
Domestic	350,302	338,976	334,190
Other consumption by voltage level:			
35kV	24	25	25
10kV	522	528	524
0.4kV	33,882	34,576	33,141
Total	**384,730**	**374,105**	**367,880**

In terms of customer care, EPCG owns all 16 offices located throughout the country, visited by over 208,000 customers in 2016. There is also a call centre service (available from 8 AM to 8 PM) internally operated by the company.

Figure 15 | Visitors to offices

	2015	2016
Total customers served	186,868	207,821
Average customer waiting time in the office (minutes)	1.2	0.33

The decrease in the complaint rate, which declined to 3% in 2016, was due to EPCG's commitment to improving communication with its customers, through both clearer, more informative bills and the new complaint resolution method, launched in September 2015 and implemented through a dedicated internal procedure in June 2016.

Figure 16 | Complaint trend

	2014	2015	2016
No. of complaints	n.a.	17,107	11,629
Complaints as a percentage of total customers	n.a.	4%	3%

Figure 17 | Customer satisfaction index

Customer satisfaction index	2014	2015	2016
Scale 1-5	3.67	3.8	**3.73**

With regard to sustainability issues, it is important to emphasise a commitment to the reduction of paper bills: in fact, in 2017 over 30,000 customers are expected to be served via the e-mail billing service. EPCG is also the main buyer of renewable power from local distributed generation, purchasing over 35 GWh of green energy generated by small local plants (300% more than in 2015).

Relations with the community

The initiatives focused on development of the local community are many. EPCG acknowledges its role as a major player and contributes through charity and solidarity measures to improving the wellbeing of the community. The relationship with the community is managed through cooperation with non-governmental organisations or, simply, the launch of communication channels such as the Facebook page or institutional website. EPCG has also allocated a specific budget for CSR activities and established its own association for employees who donate blood.

The Montenegro-based company also does work on behalf of children and students, through charitable efforts for schools, such as the initiative to rebuild the Podgorica library and the sports complex, with classroom lectures on energy efficiency, visits to plants, scholarships and educational internships.

Figure 18 | Sponsorships and CSR initiatives - euro

	2014	2015	2016
Total	318,250*	387,957*	**355,899**

* Updated figure with respect to the 2015 Sustainability Report.

Material issues	Description	Risk factors for sustainability	Management method (DMA)	2016 actions	Sustainability Plan Action
ETHICS, INTEGRITY AND COMPLIANCE WITH LAWS AND REGULATIONS	Ensuring compliance with laws and regulations and adherence to the main national and international agreements on environmental and social matters. Managing the business ethically and with integrity, with a particular focus on relations with suppliers and tender management. This also extends to a commitment to ensuring the adoption of non-competitive, proper behaviour in the area of anti-corruption by promoting training and communication on such subjects.	Compliance with applicable laws and regulations	The Group is committed to full compliance with the laws, regulations and voluntary agreements through constant updates to its processes, polices and internal procedures.	- Update of the 231/01 Model of A2A S.p.A. and e-learning training.	**PEOPLE INNOVATION - Training**
SUSTAINABILITY ELEMENTS IN CORPORATE GOVERNANCE	Introducing and progressively developing sustainability in corporate governance with a particular focus on issues of remuneration and diversity. Promoting specific systems, mechanisms and procedures for reporting irregularities and illegal behaviour. Analysing and managing risks to mitigate and prevent them with a particular focus on ESG issues.	Achieving the goals set in the Sustainability Plan	The Group has introduced a Committee for Territory and Sustainability responsible for coordinating and establishing guidelines and positions on the development of sustainability strategies. The Group is committed to informed management of risks and opportunities by integrating ESG issues into its strategy, thus facilitating the continuation of the businesses managed in the medium/long term.	- Launch of a risk management analysis with sustainability criteria. - Definition of a 2020 Sustainability Policy Plan for the Group. - Organisation of induction sessions for the top management on ESG issues.	**CIRCULAR ECONOMY - Risk management** **PEOPLE INNOVATION - MbO**
HUMAN RIGHTS	Avoiding, internally and throughout the value chain (suppliers and customers), activities that have significant risks in the area of human rights (forced labour, child labour, freedom of association, collective bargaining and discrimination in the workplace).	Respect for human rights by employees, suppliers, customers and partners.	The Group monitors and assures respect for human rights throughout the entire value chain, contributing to spreading the proper sensitivity to, and awareness of, the matter among its employees, including through specific training activities and projects in this area.	- Participation in working groups within the Italian network of the Global Compact.	

Assessment process [G4-44]

In compliance with the provisions of the Code of Corporate Governance for Listed Companies, the BoD conducted its assessment for the year 2016, on the size, composition and functioning of the Board and its Committees. The results of the Board Review were presented and discussed during the session of the Board of Directors of January 26, 2017.

Governance structure of the organisation [G4-34]

The "Related Parties procedure", revised by the BoD in June 2016, sets out the rules and safeguards aimed at ensuring the transparency and substantial and procedural integrity of transactions with Related Parties undertaken by A2A, either directly or through subsidiaries. A2A has identified its Control and Risks Committee as its "Related Parties Committee", tasking it with providing opinions of the Company's interest in undertaking transactions with related parties and the advisability and substantial integrity of the conditions of such transactions.

Delegation process [G4-35]

The delegation process for economic, environmental and social issues, as well as any other form of delegation, takes place through a specific internal procedure, which involves the identification of the need for attribution/formalisation of power and verification of compatibility with the Model of Powers by the internal function "Authority and Delegations".

Remuneration system [G4-51]

Information on remuneration as well as information on agreements between the company and members of the Board of Directors that provide indemnities in case of resignation or dismissal without just cause or if their employment is terminated following a takeover bid is provided – as suggested in the model prepared by Borsa Italiana for the Report on Corporate Governance and Ownership Structure – in the **Remuneration Report**, as per article 123-*ter* of the CFA.

For further information on the remuneration and benefits received by the Board of Directors in the year ended December 31, 2016, refer to the 2017 Remuneration Report published on the website ***www.a2a.eu***

The method adopted

The ERM method envisages specific tools and methods of analysis aimed at identifying, assessing, prioritising and managing the risks to which the Group and individual companies are exposed. Within this framework, a periodic process of assessment of the operational risks that directly affect the management is defined. Risk assessment is based on measurement of certain variables such as: the impact on company results and/or the Group's image if the risk event occurs, the probability of occurrence of the uncertain event, and the Group's ability to prevent or manage the event, also termed a "safeguard" (in other words, its risk management capacity). Particular emphasis is placed on identifying "mitigation measures" planned in order to further improve existing safeguards and the ability to manage the risk event in question if it occurs. Given the wide range of risks considered, a common method has been identified to measure and compare the various risks. Risk measurement is both qualitative and quantitative, offering the benefits of both the qualitative approach (it is simple and thus allows risks to be prioritised quickly) and the quantitative approach, which provides a sufficiently broad range of values in support of the qualitative assessment.

For additional details concerning the main types of risk subject to the assessment and reporting process, consult the A2A Group's website at the following link: ***www.a2a.eu/it/investitori/strategia***

Figure 19 | The Risk Management model

Figure 20 | The main categories of risks mapped

Figure 21 | Group certificates

Total number of certificates	QUALITY [UNI EN ISO 9001:2008]	ENVIRONMENT [UNI EN ISO 14001:2004]	SAFETY [OHSAS 18001:2007]	EMAS
2014	19	23	23	24
2015	19	18	18	24
2016	**20**	**18**	**16**	**24**

The Quality, Environment and Safety Policy is available from the Sustainability section of the A2A Group's website, ***www.a2a.eu***

Stakeholder engagement and materiality analysis

Figure 22 | Stakeholder engagement initiatives activated in 2016 [G4-26_27]

Stakeholders involved	Mode of communication and involvement	Issues addressed during engagement activities, identified by BU
Consumer Associations	• Meetings (physical, telephone and Web)	**Networks and Heat BU**
		Water bonus (Brescia)
		Presentation of some Group projects (smart metering, testing of organic waste collection and increased efficiency of the district heating network)
		New AEEGSI resolution on Saturday office hours for the water cycle (Brescia and Varese)
		Commercial BU
		Meetings with the Joint Committee to discuss teleselling and pricing issues (Milan)
		Mediation protocol (Milan)
Environmental associations	• Meetings (physical, telephone and Web)	**Environment BU**
		Discussion of communication strategy for technical and organisational aspects of the new sorted waste collection system (Brescia)
		Presentation of the project to renovate the Brescia Science Museum and the Teatro Telaio project (Brescia)
		Generation and Trading BU
		Discussion of issues and requests relating to the local plant (Giussago)
Institutions Regulators and Supervisory Authorities	• Meetings (physical, telephone and Web) • Convention	**Generation and Trading BU**
		Green certificates and incentive mechanisms for renewable sources (Rome)
		Contribution of natural gas capacity (Milan)
		Institutional relations (all areas)
		Environmental communication plan and development of Stelvio National Park (Bormio)
		Management of Cascina Maggiore plants (Milan)
		Alignment of municipal projects and future initiatives in 2017; activities for new investments in the area (Gorizia and Pavia)
		Commercial BU
		Competition Bill scenario (Milan/Brescia)
		Equal protection, invoicing, complaint management, sales rates/ offsetting mechanisms, RAI tax, commercial processes/SII (Milan/Brescia)
		Presentation of new joint A2A-consumer association mediation protocol (Milan)
		Environment BU
		Presentation of the Aprica service quality charter (Bergamo)
		Coordination of sorted waste collection activities (Brescia)
		Implementing provisions for Art. 35 of the "Sblocca Italia" Act concerning "residual need" for the recovery of energy from waste in Italy
		Presentation of logistical and operational aspects of the new collection system (Brescia)
		Redevelopment initiatives for various areas of the Municipality of Pioltello to spread a waste cycle culture (Milan)
		Networks and Heat BU
		Review of network service calls in the fashion district during sales season (Milan)
		Rate and service management issues (Varese)
		Corporate BU
		Organisation of multi-stakeholder forums (Valtellina, Bergamo and Milan)

Stakeholders involved	Mode of communication and involvement	Issues addressed during engagement activities, identified by BU
Multi-stakeholder Forums	• Multi-stakeholder forum in Bergamo	Working groups formed by representatives of various categories to share ideas and promote new local projects: networks and infrastructure, circular economy, support for and relationships with the local community, digitalisation and smart cities (Bergamo)
	• Multi-stakeholder forum in Valtellina Valchiavenna	Working groups formed by representatives of various categories to share ideas and promote new local projects: economic, environmental and social responsibility and relationship with local communities (Sondrio)
Shareholders Investors	• Meetings (physical, telephone and Web)	**Corporate BU**
		Presentation of results for 2015, 2016-2020 Strategic Plan and announcement of 2016 quarterly results (Milan, London and Lugano)
		Update on business performance and strategic options (Milan)
		Presentation of environment, networks and heat, generation and trading business units
		Relevant aspects of regulation (Milan)
Customers	• Customer satisfaction surveys • Convention/ press conferences/ events • Surveys	**Commercial BU**
		Survey to measure the contribution and impact of the communications campaign concerning the LED kit (Milan)
		Analysis of the results of the initiatives promoted on the Facebook page of A2A Energia (Milan)
		Quantitative and qualitative customer satisfaction surveys (main communities served)
		Large customer retention programmes (Milan)
		Presentation of 2016 Cerved Energy Monitor results (Brescia)
		Quantitative and qualitative surveys to identify the concept of free market offer best suited to the customer base's needs (Milan)
		Multi-client national survey to investigate the needs of Italian consumers in the area of energy efficiency in order to structure commercial measures (Milan)
Local community Citizens Civic committees	• Meetings (physical, telephone and Web) • Events • Surveys • Roundtables/ focus groups • Convention	**Generation and Trading BU**
		Open-door days at plants allowing members of the local community to visit
		School needs during award ceremonies for schools involved in the educational project "Messaggi dallo Spazio" (Milan)
		Environment BU
		Issues relating to the presence of several plants in the area (Pavia)
		Presentation of the organisational aspects of sorted waste collection in the Yellow and Blue Zones (Brescia)
		Presentation to foreign communities in the Brescia area
		Corporate BU
		Company presentations at universities – Career day/orientation day initiatives for recent graduates (Milan/Brescia)
		UNIversoA2A event: visit to the Silla2 facility and presentation of the Group's business (Milan)

Stakeholders involved	Mode of communication and involvement	Issues addressed during engagement activities, identified by BU
Media	• Meetings (physical, telephone and Web) • Convention • Press conferences	**Networks and Heat BU**
		Presentation of progress of urban LED lighting (Brescia)
		Presentation of the Brescia Smart Living project (Brescia)
		Environment BU
		Presentation of the new sorted waste collection system (Brescia)
		Presentation of completion of revamping of Verziano treatment system (Brescia)
		Commercial BU
		Results of the 2015 Cerved Energy Monitor on customer satisfaction level (Brescia)
		Presentation of partnership between A2A Energia and UBI Banca (Brescia)
		Corporate BU
		Presentation of the memorandum of understanding signed by A2A and Brescia Mobilità (Brescia)
Employees	• Meetings (physical, telephone and Web) • Events • Focus groups • Studies/surveys	**Networks and Heat BU**
		Network Day 2016: event to share the results achieved in one year of activity (Lombardy)
		Corporate BU
		Psychological assistance service assessment questionnaire
		Diversity and work/life balance (Melograno project and Smart Working Project)
		"AD Incontra" initiatives
		Environment BU
		Team-building initiatives (Milan)
		Commercial BU
		Gathering of observations, impressions and suggestions concerning the proposed layout for the new bill 2.0 (Milan)
		Team-building initiatives (Milan)
		Generation and Trading BU
		"La Potenza dell'Acqua" skill development project (Sondrio)
Category associations/ professional orders	• Work group/ committee • Meetings (physical, telephone and Web)	**Environment BU**
		Biomethane (Rome)
		Networks and Heat BU
		District heating development (Milan)
		Energy efficiency, district heating support systems and white certificates (Rome)
		Commercial BU
		Equal protection, invoicing, complaint management, commercial processes/SII, RAI tax (Milan/Brescia)
		Generation and Trading BU
		Capacity market and effective imbalance regime (Brussels)
		Remit, aggregators, European Market Design, ETS, RDE and energy security (Brussels)

Stakeholders involved	Mode of communication and involvement	Issues addressed during engagement activities, identified by BU
Multi-stakeholders	• Convention/ press conferences/ events • Plant visits • Work groups/ committee • Meetings (physical, telephone and Web) • Studies/surveys	**Environment BU**
		Presentation of sorted waste collection in Brescia and Como and awareness-raising of cultural activities of sorted waste collection (Brescia/Como)
		Presentation of the project involving verification of the adequacy of the qualitative and quantitative parameters of the Aprica service (Bergamo)
		Progetto Scuola activity (Naples)
		Visits to waste-to-energy plants (Bergamo/Brescia)
		ASPEM service quality charter (Varese)
		Presentation of AMSA services data (Milan)
		Presentation of IPSOS customer satisfaction data (Bergamo)
		Commercial BU
		Work groups on the issue of "excessive debt" (Milan)
		Corporate BU
		Smart City Lab event (Brescia)
		Progetto S.C.U.O.L.A.: seminar for experimental illustration of the project (Brescia)
		Presentation of academic projects (Brescia)
		Presentations of 2015 Local Sustainability Reports (Brescia, Bergamo and Valtellina Valchiavenna)

Figure 23 | Material aspects and scope of application [G4-20_21]

Material themes for A2A	GRI correspondent aspects	Scope/ Internal boundary	Scope/ External boundary
Promotion of ESG criteria with investors and integration into investment processes	ECONOMIC PERFORMANCE	Group	
Creation of shared economic value	ECONOMIC PERFORMANCE INDIRECT ECONOMIC IMPACTS	Group	Shareholders/Institutions
Technological innovation and smart cities	DEMAND SIDE MANAGEMENT RESEARCH AND DEVELOPMENT	Group	Institutions
Efficient management of plants and networks	ENERGY PRODUCTS AND SERVICES	Group	
Circular economy	MATERIALS EFFLUENTS AND WASTE	Environment BU Networks and Heat BU	Community
Efficient water use	WATER	Group	Suppliers*
Climate change and energy efficiency	EMISSIONS ENERGY	Group	Suppliers*
Land protection	BIODIVERSITY	Group	Institutions
Waste water treatment	EFFLUENTS AND WASTE	Group	
Transport and logistics management	TRANSPORT	Group	Suppliers*
Responsibility, Safety and Quality in the provision of services and products	CONSUMER HEALTH AND SAFETY CONSUMER PRIVACY LABELLING OF PRODUCTS AND SERVICES COMMUNICATION AND MARKETING	Commercial BU Environment BU Networks and Heat BU	Institutions
Relationship with the local community	LOCAL COMMUNITY INDIRECT ECONOMIC IMPACTS	Group	Communities/Institutions
Accessibility of the service	ACCESS	Group	
Responsible management of the supply chain	PROCUREMENT PRACTICES SUPPLIER ASSESSMENT ON ENVIRONMENTAL ISSUES SUPPLIER ASSESSMENT ON LABOUR PRACTICES SUPPLIER ASSESSMENT ON IMPACTS ON THE COMPANY SUPPLIER ASSESSMENT ON HUMAN RIGHTS	Group	Suppliers*
Citizen education	LOCAL COMMUNITY	Group	Community
Lobbying and public policy	PUBLIC POLICY	Group	Institutions
Protection of health and safety at work	HEALTH AND SAFETY AT WORK	Group	Suppliers
Development of human capital	EMPLOYMENT DEVELOPMENT AND TRAINING	Group	
Diversity and company welfare	DIVERSITY AND EQUAL OPPORTUNITY EQUAL REMUNERATION FOR MEN AND WOMEN	Group	
Union relations	INDUSTRIAL RELATIONS	Group	
Ethics, integrity and compliance with laws and regulations	ANTI-COMPETITIVE BEHAVIOUR ANTI-CORRUPTION COMPLIANCE COMPLIANCE ON ENVIRONMENTAL ISSUES COMPLIANCE ON SOCIAL ISSUES PRODUCT COMPLIANCE	Group	Institutions

Material themes for A2A	GRI correspondent aspects	Scope/ Internal boundary	Scope/ External boundary
ESG elements in corporate governance	DIVERSITY AND EQUAL OPPORTUNITY MARKET PRESENCE COMPLAINT MECHANISM	Group	
Human rights	INVESTMENTS NON-DISCRIMINATION FREEDOM OF ASSOCIATION CHILD LABOUR FORCED LABOUR ASSESSMENT COMPLAINT MECHANISM	Group	Suppliers*

* Limited scope: reporting relates solely to direct suppliers and not to level-two suppliers.

Financial capital

Figure 24 | Statement of calculation of global value added [G4-EC1_EC4]

(millions of euro)		2014	2015	2016
+A)	Production value	4,984	4,921	**5,093**
	Revenue from sales and services (- revenue adjustments)	4,742	4,715	**4,808**
	Change in inventory of products in progress, semi-finished products and finished products	-	-	**-**
	Change in contract work in progress	19	17	**5**
	Other revenue and income	223	189	**280**
	Government grants	-	-	**-**
- B)	Intermediate production costs consumption	3,472	3,623	**3,526**
	Raw materials and consumables consumption	158	169	**181**
	Energy and fuel	2,210	2,135	**2,010**
	Costs for services	698	704	**790**
	Other operating costs	86	78	**108**
	Bad debt provision for current receivables	27	22	**24**
	Provisions for risks	30	57	**61**
	Other write-downs of fixed assets	159	359	**261**
	Sundry operating expenses	123	117	**105**
	Material own work capitalised	-19	-18	**-14**
	GROSS CORE VALUE ADDED	**1,512**	**1,298**	**1,567**
- C)	Financial balance	-64	-12	**-41**
	Financial income	7	9	**16**
	Financial expenses other than interest on loans	-26	-17	**-53**
	Unrealised gains and losses on equity investments in associates	-45	-4	**-4**
- D)	Auxiliary and extraordinary components	-56	-23	**108**
	+/- auxiliary balance	-65	-22	**52**
	+/- extraordinary balance	9	-1	**56**
	GROSS GLOBAL VALUE ADDED	**1,392**	**1,263**	**1,634**
	- Depreciation and amortisation	446	395	**429**
	NET GLOBAL VALUE ADDED	**946**	**868**	**1,205**

Figure 25 | Statement of distribution of gross global value added - millions of euro [G4-EC1_EC4]

	2014	2015	2016
REMUNERATION OF PERSONNEL	**493**	**466**	**477**
Wages and salaries	412	414	**416**
Employees' leaving entitlement (TFR)	25	25	**26**
Other costs	56	27	**35**
REMUNERATION OF EQUITY CAPITAL	**121**	**-17**	**141**
Profits distributed	102	113	**126**
Minority net profit for the year	19	-130	**15**
REMUNERATION OF DEBT CAPITAL	**146**	**125**	**117**
TRANSFERS TO THE GOVERNMENT	**234**	**261**	**304**
Direct taxes for the Treasury	77	97	**139**
Other taxes and duties for the Treasury	1	1	**1**
Social security charges	156	163	**164**
TRANSFERS TO THE LOCAL COMMUNITY	**91**	**73**	**68**
Direct taxes for local authorities	37	14	**28**
Local taxes and duties	49	54	**36**
Sponsorships	2	2	**1**
Contributions to AEM and ASM foundations, aid, donations and charity	3	3	**3**
COMPANY REMUNERATION	**307**	**355**	**527**
Reserves	-139	-40	**98**
Depreciation and amortisation	446	395	**429**
GROSS GLOBAL VALUE ADDED	**1,392**	**1,263**	**1,634**

Figure 26 | Gross operating margin by business unit - millions of euro

	2014	2015	2016
Generation and Trading	328	348	**404**
Commercial	87	102	**144**
Environment	222	210	**240**
Networks and Heat	61	353	**397**
EPCG	66	53	**69**
Other services and corporate	-21	-18	**-23**
Total	**743**	**1,048**	**1,231**

Figure 27 | Balance sheet - millions of euro

	2014	2015	2016
Net fixed capital	6,194	5,829	**6,129**
Working capital	348	180	**277**
Assets/liabilities held for sale	-	147	**1**
Net capital employed	6,542	6,156	**6,407**
Shareholders' equity	3,179	3,259	**3,271**
- Attributable to the Group	2,579	2,646	**2,717**
- Attributable to minorities	600	613	**554**
Net financial position	3,363	2,897	**3,136**
Total sources	6,542	6,156	**6,407**
Gross debt	4,124	3,815	**3,817**

Figure 28 | Main financial indicators

	2014	2015	2016
Turnover by permanent worker (millions of euro)	0.41	0.4	**0.38**
GOM per permanent worker (millions of euro)	0.08	0.09	**0.09**
Average number of permanent workers	12,212	12,338*	**13,438**

* Updated figure with respect to the 2015 Sustainability Report.

Figure 29 | CAPEX - Capital expenditures by business unit - millions of euro

	2014	2015	2016
Generation and Trading	42	65	**36**
Commercial	6	4	**8**
Environment	41	59	**79**
Networks and Heat	183	177	**213**
International	25	27	**27**
Other services and corporate	10	9	**23**
Total	**307**	**341**	**386**

Figure 30 | Share performance

	2014	2015	2016
Average capitalisation (millions of euro)	2,639	3,405	3,685
Capitalisation at December 31 (millions of euro)	2,624	3,929	3,853
Average volumes	15,847,798	17,204,368	11,140,269
Average share price* (euros per share)	0.842	1.087	1.176
Maximum share price* (euros per share)	1.029	1.352	1.287
Minimum share price* (euros per share)	0.701	0.792	0.956

* Euros per share (source: Bloomberg)

Manufacturing capital

Energy production

Figure 31 | Average availability factor for all plants [G4 - EU30]

Average availability factor (%)	2014	2015	2016
Traditional coal-powered	80%	81%	89%
Traditional heavy fuel oil	85%	73%	80%
Combined cycle natural gas	79%	68%	79%
Run-of-the river hydroelectric	79%	76%	78%
Basin hydroelectric	76%	86%	88%
Storage hydroelectric	85%	78%	88%

Figure 32 | Net electricity generated by type of plant and source - GWh [G4-EU2]

			2014	2015	2016
Generation and Trading Business Unit	Thermoelectric plants	High-yield natural gas combined cycle	2,252	3,797	4,424
		Multi-fuel plants	3,192	4,333	3,448
	Hydroelectric plants		6,066	4,451	4,218
	Photovoltaic plants (including energy consumed)		3	3	3
Networks and Heat Business Unit	Cogeneration plants		229	229	187
Environment Business Unit	Waste-to-energy plants (including biogas) and natural gas boilers		1,095	979	1,002
Total			**12,837**	**13,792**	13,282

Figure 33 | Net heat energy generated by type of plant and source - GWh [G4-EU2]

		2014	2015	2016
Environment Business Unit	Waste-to-energy plants (including biogas) and natural gas boilers	1,066	1,238	1,348
Networks and Heat Business Unit	Cogeneration plants	527	576	480
	Natural gas heating plants	331	411	421
	Renewable source heating plants (heat pumps, biogas engines and solar panels)	25	23	30
Generation and Trading Business Unit	Heat recovery	0	23	20
Total		**1,949**	**2,271**	2,299

Figure 34 | Percentages of electricity generated by type of source [G4-EU2]

	2014	2015	2016
Renewable sources (hydraulic, renewable fraction of waste*, biogas, solar)	51.7%	36.0%	35.6%
Coal	14.3%	16.2%	17.5%
Natural gas**	19.3%	28.4%	33.9%
Petroleum products	10.6%	16.0%	9.3%
Non-renewable fraction of waste	4.1%	3.4%	3.7%

* For non-hazardous waste, a renewable fraction of 51% was assumed (ref. Decree of the Ministry of Economic Development of December 18, 2008). Consequently, the non-renewable fraction was assumed to be 49%.
** The 2014 and 2015 figures have been modified since they did not take account of energy produced by cogeneration.

Figure 35 | Energy generated by waste-to-energy processes [G4-EU2]

	2014	2015	2016
Heat energy from waste-to-energy and biogas	52.6%	51.7%	55.7%
Electricity from waste-to-energy and biogas	8.5%	7.1%	7.5%

* The figure 2015 has been modified since it did not consider the electricity generated by the Verziano plant.

Figure 36 | Energy performance [G4-EN5_G4-EU11]

	2014	2015	2016
Average yield of thermoelectric plants	37.9%	39.0%	41.1%
Yield of high-yield natural gas combined cycle plants	47.3%	49.0%	49.9%
Yield of multi-fuel plants	33.2%	33.2%	33.6%
Average yield of cogeneration of fossil fuel plants	81.0%	80.3%	78.0%
Average electricity generated from 1 t of waste (KWh/t)	828	773	803
Average heat energy generated from 1 t of waste (KWh/t)	722	899	918

Electricity distribution

Figure 37 | Electricity, heat and gas injected into the network [G4-EU12]

	2014	2015	2016
Electricity distributed (GWh)	10,782	10,227	11,027
Network electricity losses (GWh)	192	383	323
Heating and cooling energy (GWh)	1,993	2,324	2,351
Natural gas* (Mm^3)	1,809	1,995	2,010

* Includes natural gas supplied directly to users by Retragas.

Figure 38 | Public lighting - number

	2014	2015	2016
Light points	204,498	206,587	210,805
Light towers	466	465	462
Lampposts	139,427	135,656	137,855
Suspended lights	11,214	11,291	11,304
Lighted complexes	98	127	130

Figure 39 | Traffic lights (Milan) - number

	2014	2015	2016
Traffic light regulators	726	728	729
Supports	11,288	11,541	11,600
Traffic lights	22,044	22,368	22,397
Lamps	65,662	66,674	66,776

Figure 40 | Security systems (Milan) - number

	2014	2015	2016
Video cameras	1,573	1,716	**1,902**
Traffic monitoring	160	-	**-**
SoS stations	174	174	**196**
Monitoring stations	N/A	45	**48**
Digital islands	27	29	**29**
Wi-Fi antennae	1,100	900	**1,140**
Remote natural gas reading concentrators	-	-	**170**
Environmental sensors installed	-	-	**50**

Integrated water cycle

Figure 41 | Procurement and distribution

	2014	2015	2016
Wells (no.)	262	261	**262**
Springs (no.)	232	243	**243**
Drinking water plants (no.)	67	63	**65**
Total network length (km)	4,747	4,814	**4,878**
Water supplied to users (Mm^3)*	68	63	**62**
Water withdrawn (Mm^3)	112	120	**112**
Network leaks and unmetered water (Mm^3)**	33	39	**38**
Potability analysis – samples (no.)	19,266	21,966	**19,567**
Potability analysis – total parameters (no.)	268,235	260,211	**264,454**

* Until 2014 the figure included water actually supplied but not metered. Starting in 2015, the figure refers to actual water supplied to users and metered.
** Until 2014 the figure referred solely to network losses.

Figure 42 | Collection and treatment

	2014	2015	2016
Sewers - network length (km)	2,155	2,186	**2,203**
Waste water treated (Mm^3)	57	49	**46**
Treatment facilities (no.)	59	57	**54**
Loads treated – COD (t)	13,235	14,941	**17,905**
Loads treated – BOD (t)	6,180	6,799	**8,339**
Loads treated - Total nitrogen (t)	1,469	1,712	**1,780**
Loads treated - Phosphorus (t)	206	222	**244**

Waste management

Figure 43 | Waste collected, transported and intermediated - t

	2014	2015	2016
Urban waste collected	1,232,906*	1,282,786	**1,320,938**
Special waste intermediated	134,805	159,261	**109,790**

* Updated figure with respect to the 2015 Sustainability Report.

Figure 44 | Waste treated by type of facility* - t

	2014	2015	2016
Waste-to-energy plants	1,342,222	1,385,574	**1,411,423**
Landfills	465,198	397,324	**192,451**
Bio-drying plants and production of RDF	451,258	468,449	**480,834**
Other recovery plants	390,536	471,227	**502,542**
Total	**2,649,214**	**2,722,574**	**2,587,250**

* All incoming waste to the Group's plants is considered.

Resources and materials used

Figure 45 | Resources used in the Generation and Trading Business Unit [G4-EN1_ EN3_ EN4_EN8]

	2014	2015	2016
Fuel (TJ)			
Natural gas	17,249	27,758	**31,661**
Coal	18,928	22,100*	**23,315**
Petroleum derivatives (heavy fuel oil, diesel)	16,375*	25,856*	**14,771**
Automotive fuels (TJ)			
Petrol	2.9	0.8	**1.5**
Diesel	3.9	7.9	**5.1**
Methane	0.5	-	**-**
Electricity (TJ)	837	578	**618**
Water resources consumed (thousands of m³)			
From aqueducts	104	106	**87**
From wells	2,728	3,122	**3,239**
From surface water	987	1,064	**660**
Chemical products and materials (t)			
Mineral acids	304	288	**307**
Water additives/conditioners	154	95	**77**
Ammonia (solution)	464	906	**1,191**
Lime and sold neutralisers	26,412	36,884	**30,399**
Active carbon	-	-	**-**
Cement, sand and inert materials	-	-	**-**
Sodium chloride	4	-	**5**
Technical gases (nitrogen, CO_2, hydrogen and oxygen)	54	32	**39**
Sodium hydroxide (solution)	196	267	**227**
Methane, solvents and other products	9	8	**8**
Odorants	-	-	**-**
Oils and lubricants	57	7,149	**98**
Urea (solution)	-	-	**-**

* Updated figures with respect to the 2015 Sustainability Report.

Figure 46 | Resources used in the Environment Business Unit [G4-EN1_ EN3_ EN4_EN8]

	2014	2015	2016
Fuel (TJ)			
Natural gas	393*	463*	**464**
Petroleum derivatives (heavy fuel oil and diesel)	30	27	**24**
Waste, biomass and CSS	16,063	15,572	**15,889**
Biogas (from landfills and treatment facilities)	782	683	**624**
Automotive fuels (TJ)			
Petrol	5	6	**6**
Diesel	346	379	**398**
Methane	94	99	**96**
Electricity (TJ)	178*	220*	**189**
Water resources consumed (thousands of m³)			
From aqueducts	857*	898*	**871**
From wells	2,746	2,649*	**2,495**
Chemical products and materials (t)			
Mineral acids	1,236	1,748	**1,771**
Water additives/conditioners	290	291	**310**
Ammonia (solution)	4,973	4,739	**5,223**
Lime and solid neutralisers	24,527	22,768	**26,068**
Active carbon	924	1,064	**1,052**
Cement, sand and inert materials	231,436	161,030	**136,605**
Sodium chloride	102	2,434*	**98**
Technical gases (nitrogen, CO_2, hydrogen and oxygen)	717	851	**848**
Sodium hydroxide (solution)	2,424	3,386	**3,131**
Methanol, solvents and other products	1,703	1,074	**1,486**
Odorants	-	-	**-**
Oils and lubricants	263	76	**58**
Urea (solution)	1,873	1,714	**1,139**

* Updated figures with respect to the 2015 Sustainability Report..

Figure 47 | Resources used in the Networks and Heat Business Unit [G4-EN1_ EN3_ EN4_EN8]

	2014	2015	2016
Fuel (TJ)			
Natural gas	3,133*	3,356*	**2,804**
Coal	1,593	1,812	**1,846**
Petroleum products (diesel)	0.1*	0.3	**0.5**
Biogas (from the Group's treatment facilities)	8	8	**7**
Automotive fuels (TJ)			
Petrol	11.4	11.8	**11.8**
Diesel	19.5	17.6	**17.7**
Methane	12.9	10.4	**10.0**
Electricity (TJ)	481	493	**465**
Heat energy (TJ - purchased from external sources)	913	1,216	**1,385**
Water resources consumed (thousands of m³)			
From aqueducts	609*	722*	**673**
From wells	2,930	1,990	**1,857**
Chemical products and materials (t)			
Mineral acids	408	505	**554**
Water additives/conditioners	7,867	8,098	**8,581**
Ammonia (solution)	-	-	**-**
Lime and solid neutralisers	1,215	1,391	**1,420**
Active carbon	52	60	**50**
Cement, sand an inert materials	-	-	**-**
Sodium chloride	15	8	**1**
Technical gases (nitrogen, CO_2, hydrogen and oxygen)	166	153	**162**
Sodium hydroxide (solution)	104	159	**176**
Methanol, solvents and other products	583	633*	**738**
Odorants	38	50	**48**
Oils and lubricants	28	11	**22**
Urea (solution)	492	474	**439**

Figure 48 | Resources used in the Corporate Business Unit [G4-EN1_ EN3_ EN4_EN8]

	2014	2015	2016
Water (thousands of m³)	178	165	**184**
Electricity (TJ)	53	64	**61**
Fuel (TJ)			
Diesel	-	-	**-**
Methane	26	35	**35**
Fuels (TJ)			
Petrol	1.4	1.6	**1.5**
Diesel	9.7	12.1	**11.6**
Methane	2.5*	2.0	**1.8**

* Updated figure with respect to the 2015 Sustainability Report.

Effluents and Waste

Figure 49 | Industrial waste water - volumes - thousands of m³ [G4-EN22]

		2014	2015	2016
Networks and Heat Business Unit	Discharged into sewers	233*	296*	**372**
	Discharged into surface water	168	151	**170**
	Recovered in the production cycle	3.1	1.5	**3.8**
	Water used for cooling	64	14	**18**
Generation and Trading Business Unit	Discharged into sewers	-	-	**-**
	Discharged into surface water	2,378	2,180	**2,131**
	Recovered in the production cycle	1,138	1,364	**1,088**
	Water used for cooling	1,021,832	1,488,828	**1,172,849**
	Water extracted for hydroelectric generation	6,106,498	3,659,612	**2,432,901**
Environment Business Unit	Discharged into sewers	439	402	**284**
	Discharged into surface water	960	1,405	**1,402**
	Recovered in the production cycle	376	384	**363**
	Used for cooling	902	792	**709**

* Updated figure with respect to the 2015 Sustainability Report.

Figure 50 | Industrial waste water - discharges of pollutants into surface water - t [G4-EN22]

		2014	2015	2016
Networks and Heat Business Unit	BOD	1.2	0.9	**0.9**
	COD	3.3	2.6	**3.3**
Generation and Trading Business Unit	BOD	10.5	10.4	**14.0**
	COD	47.8	38.4	**47.6**
Environment Business Unit	BOD	15.3	26.4	**26.5**
	COD	49.7	82.9	**114.4**

Figure 51 | Non-hazardous special waste produced by the Group - t [G4-EN23]

	2014	2015	2016
Networks and Heat Business Unit	30,355*	32,737*	**32,333**
Generation and Trading Business Unit	66,198	53,848	**36,040**
Environment Business Unit	498,791*	492,071*	**443,791**
Corporate Business Unit	84	48	**48**
Total	**595,429**	**578,703**	**512,212**

* Data updated with respect to the 2015 Sustainability Report to reflect different allocation of waste to BUs.

Figure 52 | Hazardous special waste produced by the Group - t [G4-EN23_EN25]

	2014	2015	2016
Networks and Heat Business Unit	120*	262*	**275**
Generation and Trading Business Unit	4,221	4,522	**4,903**
Environment Business Unit	85,395*	79,970*	**84,306**
Corporate Business Unit	11	51	**26**
Total	**89,746**	**84,805**	**89,510**

* The figures in question have been updated compared to the previous year to reflect a different allocation of waste to the BUs.

Figure 53 | Cross-border hazardous special waste exported by the Group - t [G4-EN23_EN25]

	2014	2015	2016
Total*	21,237	21,530	**24,012**

* Including waste from treatment facilities (neutralisation).

Figure 54 | Special waste produced by the Group (hazardous and non-hazardous) sent for recovery [G4-EN23]

	2014	2015	2016
Networks and Heat Business Unit	92%	90%*	**92%**
Generation and Trading Business Unit	97%	66%	**72%**
Environment Business Unit	41%	46%	**47%**
Corporate Business Unit	97%	100%	**90%**
A2A Group average figure.	**49%**	**50%***	**52%**

* Updated figure with respect to the 2015 Sustainability Report.

Emissions

Figure 55 | Total emissions of CO_2 from combustion processes - t [G4-EN15]

	2014	2015	2016
Networks and Heat Business Unit	341,069*	365,706*	**338,675**
Generation and Trading Business Unit	4,001,183	5,603,561*	**5,047,153**
Environment Business Unit	992,436*	930,520*	**904,171**
Corporate Business Unit	1,482	1,938*	**1,940**
Total	**5,336,172**	**6,901,725**	**6,291,939**

* Updated figures with respect to the 2015 Sustainability Report.

Figure 56 | CO_2 emissions from motor vehicles - t [G4-EN15]

	2014	2015	2016
Networks and Heat Business Unit	2,926	2,734	**2,721**
Generation and Trading Business Unit	526	635	**483**
Environment Business Unit	31,279*	33,893	**35,060**
Corporate Business Unit	953	1,120	**1,070**
Total	**35,684**	**38,382**	**39,334**

* Updated figure with respect to the 2015 Sustainability Report.

Figure 57 | Other emissions: greenhouse gases and ozone layer depleting substances- kg [G4-EN15_EN20]

	2014	2015	2016
Sulphur hexafluoride (SF_6)	60	65	**86**
R134a	2,002	1,453	**1,277**
R22 (HCFC22)	27	-	**138**
R407C	74	241*	**297**
R410A	108	209	**221**
R422	352	285	**288**
Other refrigerant fluids	90*	91	**183**
Methane (CH_4) - losses from natural gas distribution networks**	19,077,148	21,228,448	**21,326,185**
Methane (CH_4) – biogas losses released in landfills	1,946,418	1,683,126	**1,753,297**

* Updated figures with respect to the 2015 Sustainability Report.
** Figure calculated as the difference between the amount injected into the network and the amount supplied or estimated.

Figure 58 | Total direct emissions (Scope 1) - tCO_2eq

	2014	2015	2016
Combustion	5,336,172	6,901,725*	**6,291,939**
Motor vehicles	35,684*	38,382	**39,334**
Fluoride gases	5,570*	5,183	**6,005**
Dispersion of methane from the distribution networks	534,160	594,397*	**597,133**
Dispersion of methane from landfills	54,500	47,128*	**49,092**
Total	**5,966,086**	**7,586,815**	**6,983,503**

* Updated figures with respect to the 2015 Sustainability Report.

Figure 59 | Indirect emissions of greenhouse gases - Scope 2 - t [G4-EN16]

	2014	2015	2016
Networks and Heat Business Unit	45,523*	46,106*	**41,854**
Generation and Trading Business Unit	79,285	54,074	**55,647**
Environment Business Unit	16,889*	20,576*	**16,982**
Corporate Business Unit	5,051	5,967	**5,454**
Total	**146,747**	**126,723***	**119,937**

* Updated figures with respect to the 2015 Sustainability Report.

Figure 60 | Global impact indicators

	2014	2015	2016
Total emissions of ozone layer depleting gases (KgR11eq)	0.9	-	**4.7**
Total acidifying emissions (tSO_2eq)	3,365	3,865	**3,372**

Figure 61 | Impact indicators due to the purchase and use of fossil fuels [G4-EN33]

	2014	2015	2016
Carbon footprint (tCO_2eq/year)	730,829*	1,015,031*	**863,223**
Water footprint (thousands of m^3 of water)	23,397*	35,215*	**24,048**

* Updated figure with respect to the 2015 Sustainability Report.

Figure 62 | Greenhouse gas emissions - t CO_2 eq [G4-EN15_EN16_EN17_EN33]

	2014	2015	2016
Total greenhouse gas emissions - Scope 1	5,966,086*	7,586,815*	**6,983,503**
Indirect greenhouse gas emissions - Scope 2	146,747	126,723*	**119,937**
Other indirect greenhouse gas emissions - Scope 3	1,437,635*	1,781,924*	**1,638,017**

* Updated figure with respect to the 2015 Sustainability Report.

Figure 63 | Total NO_x emissions - t [G4-EN21]

	2014	2015	2016
Networks and Heat Business Unit	193	210	**203**
Generation and Trading Business Unit	2,584	2,757	**1,881**
Environment Business Unit	631	611	**621**
Total	**3,408**	**3,578**	**2,705**

Figure 64 | Total particulate emissions - t [G4-EN21]

	2014	2015	2016
Networks and Heat Business Unit	1	0.4	**0.4**
Generation and Trading Business Unit	84.4	106.6	**113.7**
Environment Business Unit	3.5	3.2	**2.8**
Total	**89.0**	**110.3**	**116.9**

Figure 65 | Total SO_2 emissions - t [G4-EN21]

	2014	2015	2016
Networks and Heat Business Unit	127	144	**118**
Generation and Trading Business Unit	839	1,206	**1,348**
Environment Business Unit	13	11	**16**
Total	**979**	**1,361**	**1,482**

Figure 66 | Micro-pollutants [G4-EN21]

	2014	2015	2016
Polycyclic aromatic hydrocarbons (kg)	0.63	0.09	**0.06**
Mercury (kg)	6	25	**18**
Other metals (Sb + As + Pb + Cr + Cu + Mn + Ni + V + Sn+Cd+Tl) (kg)	746*	513	**495**
Dioxins (grams - toxic equivalency)	0.020	0.024	**0.016**
Dioxin-like PCBs (polychlorinated biphenyls) (grams - toxic equivalency)	0.006	0.004	**0.004**

* Updated figure with respect to the 2015 Sustainability Report.

Figure 67 | 2016 environmental sanctions [G4-EN29]

	2016
Number	3
Value (euro)	10,800
Descriptive note	The only significant sanction (10,000 euros) concerns the failure to file with the EPRTR (European Pollutant Release and Transfer Register) by a production facility.

Composition of personnel

Figure 68 | Personnel by category and type of contract [G4-10_LA1_LA12]

	2014			2015			2016		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Managers	128	26	154	121	24	145	**121**	**24**	**145**
Supervisors	357	114	471	368	112	480	**381**	**112**	**493**
White-collar workers	2,927	1,095	4,022	2,879	1,137	4,016	**2,844**	**1,141**	**3,985**
Blue-collar workers	4,600	199	4,799	4,600	193	4,793	**4,527**	**193**	**4,720**
Permanent workers	**8,012**	**1,434**	**9,446**	**7,968**	**1,466**	**9,434**	**7,873**	**1,470**	**9,343**
of which, on-the-job training and first job contracts	-	-	-	*10*	*3*	*13*	**5**	**-**	**5**
Fixed-term workers	**134**	**31**	**165**	**183**	**22**	**205**	**406**	**28**	**434**
Workers under international contracts	**3**	**-**	**3**	**-**	**-**	**-**	**-**	**-**	**-**
TOTAL	**8,149**	**1,465**	**9,614**	**8,161**	**1,491**	**9,652**	**8,279**	**1,498**	**9,777**
Workers with part-time contracts	110	249	359	34	242	276	**51**	**244**	**295**
Workers with full-time contracts	8,039	1,216	9,255	8,127	1,249	9,376	**8,228**	**1,254**	**9,482**
Workers with non-standard contracts* (temporary/interns)	144	44	188	37	11	48	**26**	**9**	**35**

* Workers under non-standard contracts do not include consultants.

Figure 69 | Personnel by type of contract applied [G4-10_11]

	2014	2015	2016
Executive contracts	155	146	**146**
Electrical contracts	3,333	3,251	**3,160**
Single natural gas and water contracts	1,271	1,275	**1,250**
Commercial contracts	283	328	**341**
Urban hygiene contracts	4,053	4,068	**4,246**
FISE contracts	360	429	**456**
Chemical contracts	159	155	**178**
Other contracts	-	-	**-**
International contracts	-	-	**-**
Total	**9,614**	**9,652**	**9,777**

Figure 70 | Personnel by workplace [G4-10]

Region	2014			2015			2016		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Abruzzo	52	6	58	51	5	56	**51**	**5**	**56**
Calabria	83	1	84	77	1	78	**79**	**1**	**80**
Campania	194	15	209	192	15	207	**192**	**15**	**207**
Emilia Romagna	49	7	56	45	6	51	**47**	**6**	**53**
Friuli Venezia Giulia	194	4	198	188	5	193	**156**	**5**	**161**
Lazio	2	2	4	2	2	4	**2**	**1**	**3**
Lombardy	7,264	1,407	8,671	7,290	1,427	8,717	**7,491**	**1,440**	**8,931**
Piedmont	64	13	77	99	24	123	**78**	**21**	**99**
Puglia	68	3	71	54	2	56	**28**	**-**	**28**
Sicily	169	4	173	158	4	162	**151**	**4**	**155**
Veneto	7	3	10	-	-	-	**-**	**-**	**-**
International	3	-	3	5	-	5	**4**	**-**	**4**
Total	**8,149**	**1,465**	**9,614**	**8,161**	**1,491**	**9,652**	**8,279**	**1,498**	**9,777**

Figure 71 | Number of hires and turnover rate, by age, gender and geographical area* [G4-LA1]

Age brackets	2014			2015			2016		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Permanent workers									
Up to age 30	14	10	24	132	54	186	**83**	**12**	**95**
From 31 to 40	18	10	28	71	12	83	**67**	**8**	**75**
From 41 to 50	26	3	29	35	3	38	**36**	**6**	**42**
Over 50	15	0	15	17	1	18	**34**	**-**	**34**
Fixed-term workers									
Up to age 30	85	19	104	319	65	384	**224**	**24**	**248**
From 31 to 40	64	5	69	135	29	164	**144**	**8**	**152**
From 41 to 50	31	4	35	69	5	74	**58**	**2**	**60**
Over 50	9	-	9	27	1	28	**22**	**-**	**22**
Total	**262**	**51**	**313**	**805**	**170**	**975**	**668**	**60**	**728**
New hires as a percentage of total headcount (%)	**3.2**	**3.5**	**3.3**	**9.9**	**11.4**	**10.1**	**8.1**	**4.0**	**7.4**

* In 2014-2016 one male worker under age 30 was hired abroad under a fixed-term contract (in 2014).

Figure 72 | Workers departures during the year and turnover rate, by gender and geographical area* [G4-LA1]

	2014			2015			2016		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Retirement	91	8	99	177	11	188	133	7	140
Voluntary resignation	50	3	53	101	45	146	88	22	110
Decease	14	-	14	13	2	15	9	1	10
Dismissal	254	54	308	81	16	97	132	13	145
Other (e.g., end of fixed-term contract)	161	12	173	426	71	497	239	20	259
Total	**570**	**77**	**647**	**798**	**145**	**943**	**601**	**63**	**664**
Turnover rate (%)**	**7.00**	**5.26**	**6.73**	**9.78**	**9.73**	**9.77**	**7.30**	**4.20**	**6.80**

* Outside of Italy, one female contractor left in the three-year period 2014-2016 - in the "Other" category (2014).
** The turnover rate was calculated according to the following formula: (departures) / (workforce) at December 31.
The term "departures" refers to the departures of workers due to retirement, voluntary resignation, decease or dismissal.

Figure 73 | Workers departures during the year and turnover rate, by age bracket and geographical area* [G4-LA1]

	2014					2015					2016				
	Up to 30	31-41	41-50	Over 51	Total	Up to 30	31-41	41-50	Over 51	Total	Up to 30	31-41	41-50	Over 51	Total
Retirement	-	-	-	99	99	-	-	-	188	188	-	-	-	140	140
Voluntary resignation	10	17	6	20	53	73	32	16	25	146	23	27	16	44	110
Decease	-	-	3	11	14	-	2	1	12	15	-	1	3	6	10
Dismissal	6	17	35	259	308	13	7	14	63	97	-	8	11	126	145
Other (e.g., end of fixed-term contract)	95	49	19	10	173	272	130	73	22	497	113	74	39	33	259
Total	**111**	**83**	**63**	**399**	**647**	**358**	**171**	**104**	**310**	**943**	**136**	**110**	**69**	**349**	**664**
Turnover rate (%)**	**16.49**	**4.66**	**1.74**	**11.28**	**6.73**	**48.44**	**9.78**	**3.05**	**8.25**	**9.77**	**16.77**	**6.08**	**2.16**	**8.81**	**6.80**

* Outside of Italy, one female contractor in the age bracket 31-41 left in 2014-2015 (2014).
** The turnover rate was calculated according to the following formula: (departures) / (workforce) at December 31.
The term "departures" refers to the departures of workers due to retirement, voluntary resignation, decease or dismissal.

Welfare and diversity

Figure 74 | Personnel by age bracket [G4 – LA12_EU15]

Age brackets	2014					2015					2016				
	Managers	Supervisors	White-collar workers	Blue-collar workers	Total	Managers	Supervisors	White-collar workers	Blue-collar workers	Total	Managers	Supervisors	White-collar workers	Blue-collar workers	Total
Up to age 30	-	1	263	410	674	-	-	303	436	739	-	1	302	508	811
From 31 to 40	9	79	700	995	1,783	6	80	676	986	1,748	5	75	698	1,031	1,809
From 41 to 50	68	185	1,513	1,853	3,619	59	189	1,384	1,777	3,409	56	171	1,260	1,710	3,197
Over 50	78	207	1,587	1,666	3,538	81	212	1,691	1,772	3,756	85	247	1,766	1,862	3,960
Total	**155**	**472**	**4,063**	**4,924**	**9,614**	**146**	**481**	**4,054**	**4,971**	**9,652**	**146**	**494**	**4,026**	**5,111**	**9,777**

Figure 75 | Personnel belonging to protected categories [G4 – LA12]

	2014			2015			2016		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Prot. cat. (Art. 18 (2) L.68/99)	36	16	52	33	16	49	34	16	50
People with disabilities	327	92	419	344	94	456	329	88	417
Disadvantaged groups (Mobility-redundancy)	5	-	5	5	-	5	5	-	5
Total	**368**	**108**	**476**	**382**	**110**	**510**	**368**	**104**	**472**

Figure 76 | Personnel by position and company seniority [G4-EU15]

	2014						2015						2016					
	Managers	Supervisors	White-collar workers	Blue-collar workers	TOTAL	%	Manag-ers	Super-visors	White-collar workers	Blue-collar workers	Total	%	Manag-ers	Supervi-sors	White-collar workers	Blue-collar workers	TOTAL	%
Up to 10 years	60	143	1,082	2,083	3,368	35.1%	56	138	1,066	2,018	3,278	34.0%	**58**	**145**	**1,066**	**2,142**	**3,411**	**34.9%**
From 11 to 20	49	83	626	955	1,713	17.8%	44	100	671	1,107	1,922	19.9%	**42**	**102**	**631**	**1,125**	**1,900**	**19.4%**
From 21 to 30	38	173	1,655	1,434	3,300	34.3%	36	167	1,500	1,378	3,081	31.9%	**35**	**160**	**1,495**	**1,403**	**3,093**	**31.7%**
Over 30	8	73	700	452	1,233	12.8%	10	76	817	468	1,371	14.2%	**11**	**87**	**834**	**441**	**1,373**	**14.0%**
Total	**155**	**472**	**4,063**	**4,924**	**9,614**	**100%**	**146**	**481**	**4,054**	**4,971**	**9,652**	**100%**	**146**	**494**	**4,026**	**5,111**	**9,777**	**100%**

Figure 77 | Personnel by academic qualification

	2014				2015				2016			
	Men	Women	Total	%	Men	Women	Total	%	Men	Women	Total	%
Undergradu-ate degree	620	369	989	10.3%	653	390	1,043	10.8%	**703**	**408**	**1,111**	**11.4%**
Secondary school diploma	3,001	738	3,739	38.9%	3,153	763	3,916	40.6%	**3,195**	**706**	**3,955**	**40.5%**
Vocational degree	712	92	804	8.4%	611	83	694	7.2%	**606**	**78**	**684**	**7.0%**
Compulsory education	3,816	266	4,082	42.5%	3,744	255	3,999	41.4%	**3,775**	**252**	**4,027**	**41.2%**
Total	**8,149**	**1,465**	**9,614**	**100.0%**	**8,161**	**1,491**	**9,652**	**100.0%**	**8,279**	**1,498**	**9,777**	**100.0%**

Personnel training and development

Figure 78 | Training by position [G4-LA9]

	2014		2015		2016	
	Number of hours	Average annual hours of training per employee	Number of hours	Average annual hours of training per employee	Number of hours	Average annual hours of training per employee
Managers	2,387	15.4	2,805	19.2	**4,322**	**29.6**
Supervisors	13,110	27.8	11,700	24.3	**15,935**	**32.3**
White-collar workers	76,752	18.9	61,629	15.2	**78,124**	**19.4**
Blue-collar workers	51,473	10.5	63,425	12.8	**65,443**	**12.8**
Total	**143,722**	**14.9**	**139,559**	**14.5**	**163,824**	**16.8**

Figure 79 | Training by gender* [G4-LA9]

	2014		2015		2016	
	Number of hours	Average hours per employee	Number of hours	Average hours per employee	Number of hours	Average hours per employee
Men	124,154	15.24	121,322	14.9	**144,317**	**17.4**
Women	19,568	13.36	18,237	12.2	**19,507**	**13**

* The number of personnel as at December 31 was used to calculate the average hours of training per employee.

Figure 80 | Health and safety training

	2014	2015	2016
Training hours	79,282	84,689	**86,492**

Figure 81 | Training costs

	2014	2015	2016
Millions of euro	1.95	2.04	**1.80**

Figure 82 | Employees trained during the year

	2014	2015	2016
Percentage of the total	83%	75%	**87%**

Figure 83 | Percentage of employees who regularly receive performance assessments [G4-LA11]

	2014	2015	2016
Percentage of the total	46%	48%	**47%**

Figure 84 | Number of employees of third companies involved in health and safety training activities

	No. employees involved	Training hours provided
2014	93	372
2015	n.a.	n.a.
2016	1,691	6,011

Health and safety at work

Figure 85 | Accident data [G4-LA6]

	GENERATION AND TRADING BU			ENVIRONMENT BU			NETWORKS AND HEAT BU			COMMERCIAL BU			CORPORATE BU			OTHER COMPANIES			A2A TOTAL		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
No. accidents (excluding commuting)	15	8	**4**	449	417	**471**	42	33	**46**	1	1	**3**	9	3	**2**	10	13	**30**	526	475	**556**
No. of days of absence	854	238	**91**	11,034	10,366	**10,765**	1,126	844	**1,306**	11	40	**74**	95	89	**19**	500	417	**1,068**	13,620	11,951	**13,323**
Average duration	56.9	29.75	**22.75**	24.57	24.86	**22.86**	26.81	25.58	**28.39**	11	40	**24.67**	10.56	29.67	**9.5**	50	32.08	**35.6**	25.89	25.16	**23.96**
Frequency index FI	6.9	4.01	**2.21**	62.26	53.56	**62.60**	11.67	9.36	**13.13**	1.45	1.43	**3.91**	6.63	5.14	**54.69**	19.58	25.13	**1.42**	34.00	29.79	**35.72**
Severity index SI*	0.4	0.12	**0.05**	1.53	1.38	**1.43**	0.31	0.24	**0.37**	0.02	0.06	**0.10**	0.07	0.06	**1.95**	0.98	0.81	**0.01**	0.88	0.78	**0.86**
Incidence index II*	10.9	6.56	**3.58**	12.61	13.82	**13.51**	19.44	15.72	**8.55**	2.23	2.19	**14.20**	13.73	5.59	**12.83**	-	12.35	**5.87**	10.53	10.46	**11.00**
Commuting accidents*	2	-	**4**	58	67	**64**	24	22	**18**	7	6	**7**	12	5	**12**	-	4	**2**	103	104	**107**

* The figures for the Environment BU (and thus also the total figures) have been modified for 2014 and 2015 due to a change in the calculation method.
When calculating indices, only professional accidents that result in at least one day of absence, not including the day of the event, are considered. Medications and precautionary absences and unrecognised accidents are therefore excluded. Professional accidents also include those that occur in transit, with or without a vehicle. All accidents involving workers are considered, regardless of the type of work (e.g., temporary labour contract). Commuting accidents: accidents suffered by workers while commuting from home to work and vice-versa (but not while in service).
FI = frequency index (no. accidents x 1,000,000: hours worked)
SI = severity index (no days of absence x 1,000: hours worked)
II = incidence index (no accidents x 1,000: headcount): it is calculated on the number of commuting accidents.
Commuting accidents: accidents suffered by workers while commuting from home to work and vice-versa (but not while in service).

Figure 86 | Number of professional accidents by gender

	Gender	No. of accidents
2014	Women	47
	Men	479
2015	Women	38
	Men	437
2016	**Women**	**50**
	Men	**506**

Figure 87 | Accident indices for contractors and subcontractors in construction and maintenance work [G4-EU17]

	No. of hours worked by contractors	No. of accidents	Days lost	Frequency index	Severity index
2014	1,526,436	9	150	5.9	0.1
2015	1,776,465	15	467	8.44	0.26
2016	**1,720,753**	**11**	**464**	**6.39**	**0.27**

Figure 88 | Health data for 2016 by BU

	Generation and Trading BU	Commercial BU	Environment BU	Networks and Heat BU	Corporate BU
No. visits	722	152	4,119	1,513	454
No. audits	1,414	95	7,604	1,793	366

Figure 89 | Percentage of workers represented in formal health and safety committees [G4-LA5]

	2014	2015	2016
Percentage of the total	100%	100%	**100%**

Absenteeism

Figure 90 | Absenteeism: working days lost [G4-LA6]

	2014			2015			2016		
	No. days	% incidence	Working days per staff member	No. days	% incidence	Working days per staff member	No. days	% incidence	Working days per staff member
Illness	109,949	4.6%	11.2	109,510	4.8%	11.1	**111,989**	**5.0%**	**11.5**
Unpaid leave/ absence	6,820	0.3%	0.7	8,301	0.4%	0.8	**7,442**	**0.3%**	**0.8**
Company strikes	105	0.0%	0.01	398	0.0%	0.04	**3,135**	**0.1%**	**0.3**
National strikes	1,458	0.1%	0.2	68	0.0%	0.01	**439**	**0.0%**	**0.04**
Accidents*	16,260	0.7%	1.7	14,113	0.6%	1.4	**14,867**	**0.7%**	**1.5**
Total	**134,592**	**5.6%**	**13.8**	**132,390**	**5.8%**	**13.5**	**137,871**	**6.1%**	**14.1**

* It should be noted that the figures presented in this table refer solely to working days lost due to accidents and not to calendar days lost, which are used to calculate the severity index.

	2014	2015	2016
Average number of employees in service	9,789	9,829	**9,748**
Total working days*	2,413,114	2,398,493*	**2,253,718**
Total hours worked	15,578,853	15,888,689	**15,622,092**
Per capita days of absence out of total possible working days	5.3%	5.5%	**5.8%**
Annual average per capita days of absence	13.75	13.47	**14.14**

* The figures for 2015 and 2016 are not comparable with the figure for 2014 because the method of calculation was changed. In 2014 the number of working days was calculated by multiplying the number of possible working days during the year by the number of employees at December 31. The figures for 2015 and 2016 were calculated by adding the number of working days to the number of days of absence.

Figure 91 | Number of working days lost by gender [G4-LA6]

	2014		2015		2016	
	Men	Women	Men	Women	Men	Women
Illness	92,196	17,752	92,800	16,710	**94,360**	**17,629**
Unpaid leave/absence	4,990	1,830	6,569	1,732	**5,761**	**1,681**
Company strikes	78	2	316	82	**2,926**	**209**
National strikes	1,463	161	65	2	**410**	**29**
Accidents	14,544	1,716	12,959	1,154	**12,884**	**1,983**
Total	**113,271**	**21,461**	**112,709**	**19,680**	**116,340**	**21,531**

Figure 92 | Lost days rate* (number of total days lost to accident or illness of total hours worked by the workforce during the reporting period) [G4-LA6]

	2014	2015	2016
Hours lost due to occupational illness**	-	-	**-**
Hours lost to accidents	105,627	92,261	**90,962**
Lost days rate	0.68%	0.58%	**0.58%**

* "Lost days" are days that cannot be worked due to an accident or occupational illness. They are not counted if there is a partial return to working activity.
** "Occupational illness" is defined as an illness caused by the working environment or professional activity (e.g., stress or regular exposure to harmful chemical substances) or resulting from an accident.

Figure 93 | Parental leave [G4-LA3]

	2014		2015		2016*	
	Men	Women	Men	Women	Men	Women
Employees who took parental leave	68	117	102	128	**119**	**133**
of whom, employees who returned to work in 2014	55	85	-	-	**-**	**-**
of whom, employees who returned to work in 2015	13	31	80	87	**-**	**-**
of whom, employees who returned to work in 2016	-	1	19	38	**103**	**103**

* Employees who have not yet returned to work in 2016 have not necessarily left service; their period of leave may be ongoing.

Figure 94 | Union membership

	2014		2015		2016	
	no.	%	no.	%	no.	%
Italy - members of union federations	3,738	38.9%	3,716	38.5%	**3,424**	**35.0%**
Italy - members of other unions	1,265	13.2%	1,105	11.4%	**1,062**	**10.9%**
Employees not enrolled in unions	4,608	47.9%	4,826	50.0%	**5,287**	**54.1%**
International - Employees not enrolled in unions	3	0.0%	5	0.1%	**4**	**0.0%**
Total	**9,614**	**100.0%**	**9,652**	**100.0%**	**9,777**	**100.0%**

Figure 95 | Hours of strikes

	2014		2015		2016	
	Total strike hours	Strike hours per capita*	Total strike hours	Strike hours per capita*	Total strike hours	Strike hours per capita*
No. of hours	10,848	1.11	3,526	0.4	**22,700**	**2**

* Per capita hours are calculated on the average headcount.

Figure 96 | Contributions to recreational and welfare associations [G4_LA2]

	2014	2015	2016
Total	4,741,928	4,591,981	**4,631,251**

Relations with customers

Electricity and natural gas sales service

Figure 97 | Electricity supply contracts by type of market [G4 - EU3]

	2014	2015	2016
Protected market	767,781	717,353	**674,551**
Free market	202,627	267,717	**321,746**
Total	**970,408**	**985,070**	**996,297**

Figure 98 | Electricity supply contracts by type of customer [G4 - EU3]

	2014	2015	2016
Domestic	795,136	804,341	**820,420**
SME	112,395	119,864	**111,179**
Large customers	28,765	27,021	**30,954**
Condominiums	34,112	33,844	**33,744**
Total	**970,408**	**985,070**	**996,297**

Figure 99 | Natural gas supply contracts by type of market [G4 - EU3]

	2014	2015	2016
Protected market	941,604	881,530	**813,729**
Free market	170,281	215,950	**276,898**
Total	**1,111,885**	**1,097,480**	**1,090,627**

Figure 100 | Natural gas supply contracts by type of customer [G4 - EU3]

	2014	2015	2016
Domestic	1,038,640	1,026,914	**1,022,433**
SME	55,927	55,446	**53,859**
Large customers	7,339	5,454	**4,997**
Condominiums	9,979	9,666	**9,338**
Total	**1,111,885**	**1,097,480**	**1,090,627**

Figure 101 | Geographic breakdown of electricity sales volumes

	2014	2015	2016
Lombardy	81%	84%	**78%**
Rest of Italy	19%	16%	**22%**

Figure 102 | Geographic breakdown of natural gas sales volumes

	2014	2015	2016
Lombardy	94%	91%	**88%**
Rest of Italy	6%	9%	**12%**

Figure 103 | Number of activations of Bollett@mail email billing service

	2014	2015	2016
A2A Energia	225,187	244,398	**284,700**
Aspem Energia	1,548	4,240	**4,913**
Total	**226,735**	**248,638**	**289,613**
Increase (%)	15.8%	9.7%	**16.5%**

Figure 104 | Number of enrolments in the Chiara2a programme

	2014	2015	2016
A2A Energia	147,191	196,843	**257,075**
Increase (%)	23%	34%	**31%**

Figure 105 | Green energy sold

Market segment	2014	2015	2016
Government	31%	13%	**1%**
Mass market	49%	64%	**71%**
Others	20%	23%	**29%**
Total GWh	**383.7**	**630.2**	**768.7**

Figure 106 | "Cerved Energy Monitor" survey on customer satisfaction

Service supplied		2014			2015			2016		
	Business segment	Customer satisfaction index	Market standard	Position	Customer satisfaction index	Market standard	Position	Customer satisfaction index	Market standard	Position*
Natural gas	Domestic	90.8	88.9	3 of 8	90.7	88.1	1 in 7	**91.6**	**91.2**	**2 of 7**
	VAT reg. & SME	87.9	87.4	2 of 7	90.9	86.0	1 of 6	**93.3**	**89.7**	**1 of 6**
Electricity	Domestic	91.7	87.1	1 of 10	92.3	89.4	1 of 8	**93.0**	**90.4**	**2 of 8**
	VAT reg. & SME	89.0	85.8	2 of 11	89.9	85.5	2 of 10	**92.0**	**87.4**	**1 of 10**

*The position in the rankings derives from the comparison of the performance of A2A Energia with that of the main market players, apart from the macro category of "Other suppliers", which combines several operators and whose results cannot be read individually due to the number of associated interviews.

Figure 107 | Quality of call centres [G4 – PR5]

	AEEGSI target	A2A Energia			Aspem Energia		
		2014	2015	2016	2014	2015	2016
Percentage of successful calls	>=80%	98.5%	99.4%	**95.5%**	96.0%	97.7%	**98.1%**
Accessibility of lines and services (time when line is free vs operator presence time)	>=80%	100.0%	99.9%	**98.8%**	100.0%	100.0%	**100.0%**
Average waiting time on the telephone	<=240"	86"	77"	**131"**	75"	48"	**54"**

Figure 108 | Electricity and natural gas complaint trends

	2014	2015	2016
Number of complaints	3,008	2,672	**2,823**
% "simple" complaints out of average no. of customers*	0.15%	0.14%	**0.14%****

* AEEGSI defines complaints as "simple" when they refer exclusively to the seller and do not require any data pertaining to the distribution company in order to prepare the answer.
** The complaint index is calculated according to the number of customers as at June 30, 2016. The figure as at December 31, 2016 is not yet available.

Figure 109 | Mediation procedures

	2014	2015	2016
Applications received	**39**	**28**	**24**
Of which			
Problems relating to metering	77%	61%	**89%**
Invoices for anomalous amounts	4%	-	**-**
Contractual changes	19%	8%	**-**
Problems relating to invoicing	-	15%	**11%**
Unrequested contracts	-	8%	**-**
Credit management	-	8%	**-**
Outcome of mediation procedures			
Successful	72%	75%	**37%**
Mediation failed	22%	10%	**10%**
Pending resolution	6%	15%	**53%**

Figure 110 | Electricity bill cost trends (in euro) for a typical household*

	2014	2015	2016
Sales services	256.57	226.53	**216.05**
Network services	190.63	219.78	**215.35**
Tax	21.78	21.77	**21.79**
VAT	46.90	46.81	**45.32**
Total	**515.88**	**514.89**	**498.51**

* For electricity, the Authority took as an example a resident domestic use contract, with 3 kW of available power and an average annual use of 2,700 kWh.

Figure 111 | Cost trends in the natural gas bill (in euro) for a typical household*

	2014	2015	2016
Sales services	542.22	477.82	**401.88**
Network services	209.69	224.98	**209.62**
Tax	231.15	242.46	**224.68**
VAT	180.15	169.03	**170.55**
Total	**1,163.21**	**1,114.30**	**1,006.73**

* For natural gas, domestic use with independent heating in the north-east and an annual use of 1,400 m^3 was taken as the example.

Figure 112 | Office visits*

	2014	2015	2016
Total number of customers served**	314,253	275,288	**300,814**
Average office waiting time in minutes***	9'58"	5'03"	**13'48"**

* Figures for the Milan office include payment service.
** The figure refers to the offices in Milan, Brescia and Bergamo and, for 2016, Varese.
*** The figure refers to the offices in Milan, Brescia and Bergamo.

Figure 113 | Number of visits to the commercial websites

	2014	2015	2016
Total number of visits	1,955,652	1,956,964	**2,686,178**

Electricity and natural gas distribution service

Figure 114 | Extension of the electricity distribution service [G4 – EU3_EU4]

	2014	2015	2016
Km of electricity network	13,837	13,952	**14,039**
of which underground cable	*11,787*	*11,922*	***12,013***
Customers connected	1,121,954	1,120,197	**1,135,038**
Municipalities served	54	54	**50**

Figure 115 | Customers of the electricity distribution service by geographical area [G4 - EU3]

	2014	2015	2016
Lombardy	1,121,954	1,120,197	**1,135,038**
of which, Milan	*886,338*	*887,976*	***896,728***
of which, Brescia	*235,616*	*232,221*	***238,310***

Figure 116 | Extension of the natural gas distribution service [G4 – EU3_EU4]

	2014	2015	2016
Km of natural gas network	8,033	8,055	**8,057**
End customers connected	1,259,986	1,260,233	**1,259,287**
Municipalities served	204	204	**203**

Figure 117 | Customers of the natural gas distribution service by geographical area [G4 - EU3]

	2014	2015	2016
Lombardy	1,217,309	1,217,304	**1,216,053**
Other regions of Northern Italy	13,305	13,277	**13,303**
Rest of Italy	29,372	29,652	**29,931**

Figure 118 | Technical quality of electricity [G4 – EU29_EU28]

Service continuity indicator	Milan											
	High density area				Medium density area				Low density area			
	2014	2015	2016	2016 AEEGSI objective	2014	2015	2016	2016 AEEGSI objective	2014	2015	2016	2016 AEEGSI objective
Average annual minutes of outage per LV user due to long outages without notice	23.79	23.77	**26.63**	25	44.63	41.75	**36.67**	40	n.a.	n.a.	**n.a.**	/
Average annual number of outages per LV user due to long outages without notice	1.21	1.31	**1.54**	1.14	1.96	2.11	**1.71**	2.04	n.a.	n.a.	**n.a.**	/

Service continuity indicator	Brescia											
	High density area				Medium density area				Low density area			
	2014	2015	2016	2016 AEEGSI objective	2014	2015	2016	2016 AEEGSI objective	2014	2015	2016	2016 AEEGSI objective
Average annual minutes of outage per LV user due to long outages without notice	6.34	5.80	**5.24**	25	14.49	14.06	**9.92**	40	29.56	24.96	**21.77**	60
Average annual number of outages per LV user due to long outages without notice	1.06	0.81	**0.69**	1	1.61	1.5	**1.33**	2	2.60	2.18	**2.46**	4

Figure 119 | Specific indicators for technical quality of electricity [G4 – EU28]

	MILAN			BRESCIA		
	2014	2015	2016	2014	2015	2016
No. MV customers with more than six outages a year for high density areas	25	5	**0**	2	0	**0**
No. of MV customers with more than nine outages a year for low density areas	n.a.	0	**0**	6	0	**0**

In the event of an electricity shortfall, Terna - National Electrical Network requests that distributors implement a scheduled rotating outage plan in order to avoid a general blackout. There are five levels of severity of electricity shortfall used to determine the number of users involved and the frequency of outages. Terna informs customers of the outages, which have a maximum duration of 90 minutes, with advance notice of 30 minutes, and they may occur at any time during the hourly periods indicated, not necessarily at the beginning of each period. The scheduled outage plan prepared by Unareti, by day and time slot, is available from the company's website.

Figure 120 | Commercial quality of electricity: specific indicators for the Milan-Brescia area [G4 – EU21]

Specific indicators	AEEGSI Level Res. 198/11	AEEGSI Level Res. 646/15 of January 1, 2016	Services provided on the indicated timetable (%)			Average time to execute the service (days)		
			2014	2015	2016	2014	2015	2016
Time to prepare estimate for work on the network	20 working days for LV 40 working days for MV	10 working days for LV 30 working days for MV	99.54%	99.26%	**99.61%**	7.33	6.76	**6.37**
Execution time for simple work	15 working days for LV 30 working days for MV	10 working days for LV 20 working days for MV	99.57%	99.56%	**99.71%**	5.56	5.75	**5.03**
Execution time for complex work	n.a.	50 working days	n.a.	n.a.	**100%**	n.a.	n.a.	**9.22**
Activation time for LV/MV supply	5 working days	5 working days	99.81%	99.81%	**99.89%**	1.13	0.91	**0.73**
Supply de-activation time	5 working days for LV 7 working days for MV	5 working days	99.67%	99.73%	**99.81%**	0.94	0.70	**0.65**
Reactivation time following suspension due to non-payment	1 working day	1 working day	99.41%	99.70%	**99.87%**	0.16	0.11	**0.10**
Observance of time bracket for appointments	Two hours	Two hours	99.64%	99.82%	**99.85%**	n.a.	n.a.	**n.a.**
Time to restore service following failure of meter equipment during business days from 8 AM to 6 PM on the LV network	Three hours	Three hours	87.99%	87.82%	**90.42%**	1.97	2.30	**1.77**
Time to restore service following failure of meter equipment during business days from 6 PM to 8 AM on the LV network	Four hours	Four hours	97.06%	92.22%	**98.28%**	1.83	2.19	**1.40**
Time to report results of testing of LV/MV meter equipment	15 working days	15 working days	99.57%	94.98%	**97.16%**	8.51	9.65	**9.18**
Time to report results of voltage test	20 working days	20 working days	100%	92.31%	**96.55%**	29.50	15.50	**15.76**

Figure 121 | Commercial quality of electricity: general indicators for the Milan-Brescia area [G4 – EU21]

Type of service	AEEGSI level - LV	Services provided on the indicated timetable (%)		
		2014	2015	2016
Percentage of requests to execute complex work completed within the maximum period of 60 working days*	85%	99.91%	99.94%	/
Minimum percentage of detailed responses to written complaints or requests for information provided within the maximum period of 30 calendar days	95%	95.29%	99.20%	**99.41%**

Type of service	AEEGSI level - MV	Services provided on the indicated timetable (%)		
		2014	2015	2016
Minimum percentage of requests to execute complex work completed within the maximum period of 60 working days*	90%	98.80%	100%	/
Minimum percentage of detailed responses to written complaints or requests for information provided within the maximum period of 30 calendar days	95%	97.18%	98.10%	**99.72%**

* Specific indicator since 2016, please refer to Figure 120.

Figure 122 | Technical quality of natural gas [G4 – EU21]

	Base level	Ref. level	2014 actual level				2015 actual level				2016 actual level			
			Milan	Brescia	Bergamo	Varese	Milan	Brescia	Bergamo	Varese	Milan	Brescia	Bergamo	Varese
Annual percentage of the high and medium pressure network inspected	30%	90%	71%	100%	99%	57%	58%	86%	100%	68%	**73%**	**100%**	**100%**	**65%**
Annual percentage of the low pressure network inspected	20%	70%	68%	74%	61%	90%	59%	58%	100%	92%	**62%**	**63%**	**100%**	**77%**
Annual number of leaks located per km of network inspected	0.8	0.1	0.084	0.065	0.068	0.189	0.134	0.091	0.037	0.169	**0.09**	**0.08**	**0.01**	**0.23**
Annual number of leaks located in response to reports from third parties per km of network	0.8	0.1	0.21	0.085	0.45	0.042	0.26	0.086	0.035	0.068	**0.23**	**0.08**	**0.03**	**0.06**
Conventional number of measurements of degree of natural gas odorant per thousand end customers	0.19	0.5	0.895	1.55	3.66	1.38	0.95	1.82	3.66	1.39	**0.94**	**1.73**	**4.80**	**1.39**

Figure 123 | Natural gas emergency service [G4 – EU21]

Annual number of calls to the switchboard with a time to arrival of the team at destination <= 60 min Base level 90% Ref. level 95%	2014	2015	2016
Milan	98.17%	98.78%	**98.85%**
Brescia	99.39%	99.85%	**99.72%**
Bergamo	100%	100%	**100%**
Varese	99.46%	99.74%	**100%**

Figure 124 | Natural gas commercial quality: specific indicators: Milan, Brescia, Bergamo and Chieti Area [G4 – EU21]

Type of service	AEEGSI Level Res. 574/13 of January 1, 2014	Services provided on the indicated timetable (%)			Average time to execute the service (days)		
		2014	2015	2016	2014	2015	2016
Estimate time (simple work)	15 working days	99.18%	99.46%	**96.33%**	6.34	7.09	**9.03**
Execution time (simple work)	10 working days	97.50%	98.03%	**92.72%**	6.12	7.14	**7.16**
Estimate time (complex work)	30 working days	93.11%	97.71%	**94.24%**	15.47	11.55	**15.09**
Supply activation time	10 working days	99.89%	99.93%	**99.93%**	2.79	2.85	**3.72**
Supply de-activation time	5 working days	99.86%	99.87%	**99.51%**	3.05	3	**3.09**
Reactivation time following suspension due to non-payment	2 working days	96.59%	96.42%	**97.59%**	1.15	1.15	**1.24**
Observance of time bracket for appointments	Two hours	99.83%	99.82%	**99.78%**	N/A	N/A	**N/A**
Time to notify results of testing of meter equipment	20 working days	N/A	67.57%	**62.86%**	N/A	22.92	**20.11**

Figure 125 | Natural gas commercial quality: specific indicators for Varese [G4 – EU21]

Type of service	AEEGSI Levels Res. 5743/13 of January 1, 2014	Services provided on the indicated timetable (%)			Average time to execute the service (days)		
		2014	2015	2016	2014	2015	2016
Estimate time (simple work)	15 working days	100%	100%	**100%**	6.7	4.2	**6.2**
Execution time (simple work)	10 working days	100%	100%	**100%**	2.5	3.2	**1.9**
Estimate time (complex work)	30 working days	100%	100%	**100%**	3.7	4.2	**6.0**
Supply activation time	10 working days	100%	100%	**100%**	1.3	1.8	**3.4**
Supply de-activation time	5 working days	100%	100%	**100%**	2.1	2.1	**2.1**
Reactivation time following suspension due to non-payment	2 working days	100%	99%	**100%**	1	1.1	**1.4**
Observance of time brackets for appointments	Two hours	100%	100%	**100%**	N/A	N/A	**N/A**
Time to notify results of testing of meter equipment	20 working days	N/A	N/A	**N/A**	N/A	N/A	**N/A**

Figure 126 | Natural gas commercial quality: general indicators [G4 – EU21]

Services provided on the indicated timetable (%)	AEEGSI level	Milan, Brescia, Bergamo and other provinces			Varese		
		2014	2015	2016	2014	2015	2016
Percentage of requests to execute complex work completed within the maximum period of 60 working days	90%	98.53%	99.54%	**99.70%**	100%	100%	**100%**
Percentage of detailed responses to written complaints or requests for information provided within the maximum period of 30 working days	95%	96.79%	99.50%	**99.21%**	100%	100%	**99.21%**

Integrated water service

Figure 127 | Extension of the integrated water service [G4 - EU3]

	Aqueduct service			Treatment service			Sewer service		
	2014	2015	2016	2014	2015	2016	2014	2015	2016
Municipalities served	108	108	**108**	66	66	**66**	69	69	**69**
Total customers	280,092	282,254	**283,479**	186,371	186,746	**187,431**	188,683	189,065	**189,589**
Inhabitants	813,466	812,948	**812,654**	546,937	549,636	**549,311**	564,051	563,887	**563,516**

Figure 128 | Quality of the A2A Ciclo Idrico call centre [G4-PR5]

	2014	2015	2016
Service accessibility rate (free lines with respect to operator presence time)	100%	100%	**100%**
Number of calls to the call centre*	87,607	81,761	**79,277**
Average telephone waiting time for calls from end customers (sec)	137	84	**73**
Percentage of successful calls	79.20%	88.10%	**87.70%**

* Figure also updated for 2014-2015.

Figure 129 | Quality of the A2A Ciclo Idrico service (days)

	2014	2015	2016
Response time to estimate requests for aqueduct connections	3.83	3.98	**7.37**
Response time to estimate requests for sewer connections	3.5	3.3	**4.6**
Aqueduct connection times	12.7	12.1	**13.7**
Supply activation time	2.5	2.4	**2.7**
Sewer connection times	19.8	12.3	**19.3**

District heating and heat management

Figure 130 | Geographical distribution of the district heating service [G4 - EU3]

	2014		2015		2016	
	CUSTOMERS* (no.)	VOLUMES SERVED (Mm3)	CUSTOMERS* (no.)	VOLUMES SERVED (Mm3)	CUSTOMERS* (no.)	VOLUMES SERVED (Mm3)
Brescia and province	20,634	41.8	20,726	41.9	**20,392**	**42.1**
Bergamo and province	518	5.8	545	6.2	**585**	**6.5**
Milan and province	2,945	42.4	3,109	44.9	**3,181**	**47**
Varese and province	145	2.7	146	2.7	**145**	**2.7**
TOTAL	**24,242**	**92.7**	**24,526**	**95.7**	**24,303**	**98**

* Customers may be individual residential units in the case of independent heating or whole buildings in the case of centralised heating.

Figure 131 | Transformations completed by the heat management service*

	2014	2015	2016
Transformations (no.)	27	18	**13**
Capacity installed (kW)	37,340	9,394	**16,950**

* These refer to replacement of methane with methane with a condensing boiler, of methane with district heating, of diesel with methane with a condensing boiler and of diesel with district heating.

Integrated waste cycle

Figure 132 | Urban hygiene service: collection and sweeping [G4 - EU3]

	2014	2015	2016
Municipalities served	93	101	**117**
Population served	2,428,933	2,539,136	**2,645,886**

Figure 133 | Paid services: waste disposal and other services for individuals [G4 - EU3]

Customers served	2014	2015	2016
Amsa	8,045	8,167	**9,206**
Aprica	1,290	1,270	**1,357**

Figure 134 | Waste disposal service – A2A Ambiente [G4 - EU3]

	2014	2015	2016
Municipalities served	1,047	952	**962**
Companies served	1,960	1,844	**1,860**

Figure 135 | Satisfaction of Amsa customers – Milan [G4 – PR5]

Points in tenths	2014	2015	2016
Unsorted waste collection	8.06	8.18	**8.08**
Separate glass collection	8.48	8.47	**8.11**
Separate collection of paper, paperboard, cardboard and beverage packaging cardboard	8.43	8.44	**8.10**
Separate collection of plastic and metal	8.35	8.45	**8.10**
Fine sweeping	7.12	7.28	**7.30**
Massive sweeping	7.14	7.2	**7.37**
Comprehensive sweeping	7.18	7.32	**7.40**
Cleaning of tunnels and porticoes	7.57	7.57	**7.82**
Sidewalk cleaning	6.85	6.96	**7.53**
Cleaning of tree rows	6.83	7.01	**7.25**
Emptying of large/small bins	6.96	7.05	**7.04**
Temporary market cleaning service	7.77	7.73	**7.78**
Park cleaning service	6.94	7.06	**7.30**
Sump drainage and clearing service	6.16	6.49	**6.41**
Elimination of illegal dumps on public land	6.48	6.72	**7.03**
Cemetery services	7.54	7.51	**7.50**
Cleaning and waste collection service before and/or during and/or after events	7.4	7.54	**7.51**
Home collection of cumbersome waste	8.7	8.85	**8.69**
Removal of graffiti	7.6	7.88	**7.40**
Toll-free number	8.29	8.14	**8.06**
Office	8.1	7.89	**7.15**
Website	7.74	7.88	**7.58**
Online cumbersome waste collection	8.17	8.08	**7.89**
Organic collection (overall)	8.18	8.11	**8.05**

Contact channels

The A2A Group makes available a range of contact channels, as summarised in the following table, to promote the services it offers and permit constant dialogue with the customers and citizens it serves.

CHANNEL	ENERGY SALE	DISTRIBUTION HEAT	SERVICE WATER	URBAN HYGIENE SERVICES
LOCAL OFFICES	Bergamo and province, Brescia and province, Milan, Varese and province	-	Brescia and province	-
WEBSITE	www.a2aenergia.eu www.aspemenergia.it	www.a2acaloreservizi.eu www.vareserisorse.it	www.a2acicloidrico.eu www.aspem.it	www.amsa.it www.apricaspa.it www.aspem.it
ONLINE SERVICE	Yes	Yes	Yes	Yes
TELEPHONE NUMBER	Yes	Yes	Yes	Yes
CALL CENTRE	Yes	Yes	Yes	Yes
TOLL-FREE NUMBER	Yes	Yes	Yes	Yes
SELF-METER READING SERVICE	Yes	Yes	No	No
EMERGENCY SERVICE	No	Yes	Yes	No
APP	No	No	No	Puliamo
DEDICATED E-MAIL ACCOUNT	Yes	Yes	Yes	Yes

Relations with suppliers

Figure 136 | Number and value of orders by type of supply [G4-EC9]

Type	2014		2015		2016	
	No. orders	Amount (€)	No. orders	Amount (€)	No. orders	Amount (€)
Goods	3,250	276,124,834	2,865	220,661,934	**2,649**	**220,281,621**
Labour	1,535	260,742,046	1,538	238,039,579	**1,842**	**340,739,182**
Services	2,757	293,360,632	2,300	231,330,697	**2,088**	**273,847,724**
Total	**7,542**	**830,227,512**	**6,703**	**690,032,209**	**6,579**	**834,868,528**

Figure 137 | Geographical breakdown of orders - % of orders [G4-EC9]

	2014	2015	2016
Lombardy	64.7%	67.4%	**57.1%**
Other regions of Italy	31.8%	30.3%	**39.6%**
EU	2.7%	2.3%	**3.2%**
Non EU	0.8%	0.0%	**0.1%**

Figure 138 | Value of orders issued to fuel suppliers

	Coal	Heavy fuel oil	Diesel	Natural gas	Total
Millions of euro	67.3	61.0	1.4	635.6	**765.3**

Figure 139 | Suppliers with at least one certification

	2014	2015	2016
Total	2,377	2,768	**2,843**

Figure 140 | Value of orders issued entrusted to suppliers with at least one certification

	2014	2015	2016
Percentage	70%	76%	**77%**

Figure 141 | Qualified suppliers, by turnover

	2014	2015	2016
Large enterprises	233	395	**307**
Medium enterprises	663	763	**804**
Small enterprises	1,495	1,482	**1,745**
Micro enterprises	1,342	1,845	**1,854**
NA	388	255	**198**
Total	**4,121**	**4,735**	**4,908**

Dispute management

EMPLOYEES

There was a total of 73 ongoing or concluded disputes in 2016. Seven of these concerned appeal of dismissal, eight conversion to permanent contracts, and seven alleged occupational illnesses or workplace accidents (compared to six procedures for occupational illnesses initiated by the competent physicians or INAIL in 2016). The remaining disputes related to various claims, such as remuneration differences, demotion, appeals of sales of business units, appeals of disciplinary measures not involving termination, and appeals of transfers.

CUSTOMERS

At the end of 2016 there were still two cases of ongoing legal proceedings involving billing disputes relating to tax issues involving the application of VAT and the improper metering due to meter malfunctions. There were three ongoing cases involving damages claimed due to delays in the activation of supply. One customer whose service was suspended due to non-payment also lodged a complaint of interruption of a public service (the prosecutor assigned has moved that the case be dismissed).
In 2016 the Ufficio Metrico of CCIIA of Milan notified A2A Reti Elettriche of alleged administrative violations relating to 63 meters, levying an administrative fine of 500 euros per meter.
An administrative fine of 207 euros per meter was also levied against A2A Energia as the "intermediary" in the supply arrangement through the distributor's meters for 47 of the meters in question. All of the notices of violations and related penalties have been appealed by the two companies.

SUPPLIERS

There were 39 labour disputes in progress or concluded in 2016 initiated by workers of contracting firms that worked on contracts awarded by A2A Group companies. In such disputes, nine of the claimants sought compensation for damages caused by occupational accidents or illnesses, eight of the claimants sought recognition of salaried employment with the principal, and 15 sued the contractor that employed them and the A2A Group company as principal seeking a judgment ordering the companies to pay alleged remuneration differences, on the basis of joint and several liability pursuant to Art. 29 of Legislative Decree No. 276/2003 and Art. 1676 of the Italian Civil Code. Finally, seven of the claimants sought a judgment ordering the contractors and principal, jointly and severally, to compensate them for damages deriving from failure to grant them employment at the enterprise that they alleged intermediated in the cleaning contract ordered by the A2A Group company.

COMMUNITY

Accidents involving the public, including legal proceedings [EU25]

At the end of 2016 there were 55 cases of ongoing litigation in which citizens sought compensation, generally of modest amounts, for financial or property damage and 39 cases of requests for compensation for personal injuries. Of the 39 cases of personal injuries, two involved fatalities, the first of which was caused by a malfunction of the end customer's natural gas systems, whereas the other involved a Group company as responsible for traffic light management.

At the end of 2016 there was one case of ongoing litigation involving alleged violation of property rights (right of way) claimed by a citizen and an advance technical assessment of the state of maintenance of a heating system aimed at identifying any fumes and/or noise emissions that might prove a nuisance to the property of others.

Cases of non-compliance with voluntary rules and codes concerning the impact on health and safety of products/services during their life cycle [PR2]

At December 31, 2016 there were 15 ongoing or concluded environmental proceedings, of which three closed proceedings, one new proceeding and eleven already ongoing proceedings, concerning challenges in various capacities of integrated environmental permits (AIA) issued to Group companies, various alleged irregularities in waste management and other alleged violations of other laws or regulations.

ENVIRONMENT

On 08 and 09 March 2017, at the order of the Public Prosecution of Gorizia, the Monfalcone plant of A2A Energiefuture Spa was inspected, during which samples were taken (on stocked carbon, ash, fumes treatment residues, chimney stack issues) and documents acquired (on the emissions monitoring system, the fuel analysis forms, etc.).
During the inspection, the plant manager and two of his collaborators were served notices of investigation related to the development of the inquiry for an alleged crime of "environmental pollution" pursuant to Art. 452 bis of the Italian Criminal Code (crime introduced by Italian Law no. 68 of 2015 and constituting an "alleged crime" in accordance with Italian Legislative Decree no. 231/2001).
The employees investigated have appointed their own defence counsel.
At present, proceedings are in the early stages of preliminary investigations and it will need to wait for the results of the assessments arranged by the Public Prosecution of Gorizia.

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We would like to thank all our colleagues of A2A who worked on the preparation of this Report.

Graphic design and layout:
MERCURIO GP - www.mercuriogp.eu

Cover layout:
BOUTIQUE CREATIVA - www.boutique-creativa.com

Translation:
TransEdit Group - www.transeditgroup.com

Printed:
AGEMA S.p.A. - www.agema.it

FSC www.fsc.org MIX Paper from responsible sources FSC® C003526

Milan, April 2017

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