



— —
nucleare
e ambiente



We protect the present
We guarantee the future



4

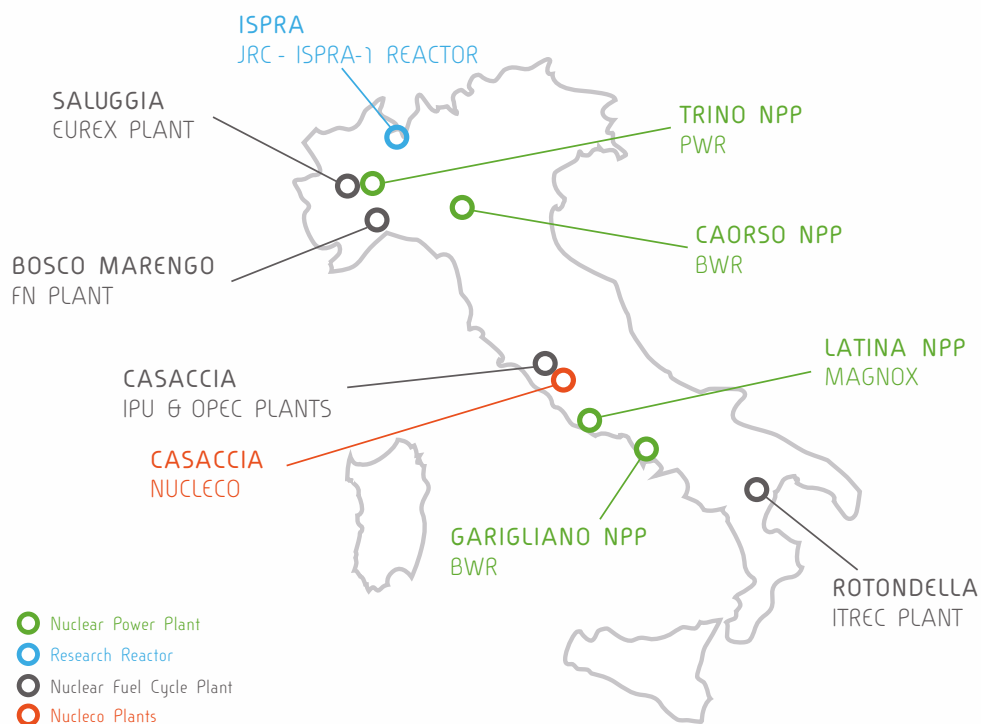
Sogin is the public company supervising the decommissioning of Italy's nuclear plants and the management of radioactive waste. It is also responsible for locating, designing, building and managing the National Repository, a surface infrastructure where all the radioactive waste produced in Italy will be safely stored.

Together with the National Repository, a Technology Park will be built, which will be a research centre open to international collaborations where activities in the field of energy, waste management and sustainable development will be carried out, in agreement with the area concerned.

Sogin is wholly owned by the Italian Ministry of Economy and Finance and operates according to the strategic guidelines of the Italian government.

In addition to the four nuclear power plants in Trino, Caorso, Latina and Garigliano and the FN plant in Bosco Marengo, Sogin manages the decommissioning of the EUREX fuel cycle research plant in Saluggia, OPEC and IPU in Casaccia, ITREC in Rotondella and the ISPRA-1 reactor, located in the European Commission's Joint Research Centre (JRC) complex in Ispra.

Thanks to the experience gained in Italy, Sogin operates abroad in the development of nuclear decommissioning & waste management activities.





SOGIN GROUP

Sogin, founded in 1999, acquired in 2004 a 60% of the share capital of Nucleco S.p.A., the national operator qualified for the collection, treatment, conditioning and temporary storage of radioactive waste and of sources from nuclear medicine and scientific and technological research activities.



The people of Sogin and Nucleco, most of whom are nuclear, civil, mechanical, environmental, physics, chemists, geologists, radiation protection experts and biologists, constitute the most significant pool of professional expertise in Italy in the field of radioactive waste management and decommissioning of nuclear plants.

SAFETY AND FINANCING

Safety is the basis of our work.

All activities, which are subject to systematic checks by the relevant Institutions and Authorities, are carried out in compliance with national regulations, which are among the most stringent in Europe, and with IAEA (International Atomic Energy Agency) guidelines.

They are carried out according to specific authorisation procedures, based on nuclear safety, radiation protection and environmental compatibility criteria.

The financing of the activities, as established by the Italian Authority for the Regulation of Energy Networks and the Environment (ARERA), is guaranteed through a component of the electricity tariff.



DECOMMISSIONING OF NUCLEAR PLANTS

Decommissioning is the last phase in the life cycle of a nuclear plant.

This term sums up the following operations:

- plant safety maintenance
- removal of spent nuclear fuel
- decontamination and dismantling of nuclear installations
- management and securing of radioactive waste, pending its transfer to the National Repository
- final radiological characterisation*

When all plant structures are demolished and all radioactive waste is conditioned and stored in temporary storage, ready to be transferred to the National Repository, an intermediate phase called 'brown field' is reached. After the gradual transfer of radioactive waste to the National Repository, the dismantling of the temporary repositories also takes place. At this point, the area, once the absence of radiological constraints has been verified, reaches 'green field' status, which enables the site to be returned to the community for re-use.

SPENT NUCLEAR FUEL MANAGEMENT

Before starting the more complex decommissioning operations, it is necessary to remove the spent fuel from the plant in order to safely store it and transfer it for reprocessing.

Reprocessing makes it possible to separate reusable materials from the final waste, and to condition the latter in a chemical-physical form that ensures its safe transport and long-term storage.

Almost all of the spent fuel produced during the operation of Italy's nuclear power plants has been sent abroad for reprocessing.

RADIOACTIVE WASTE MANAGEMENT

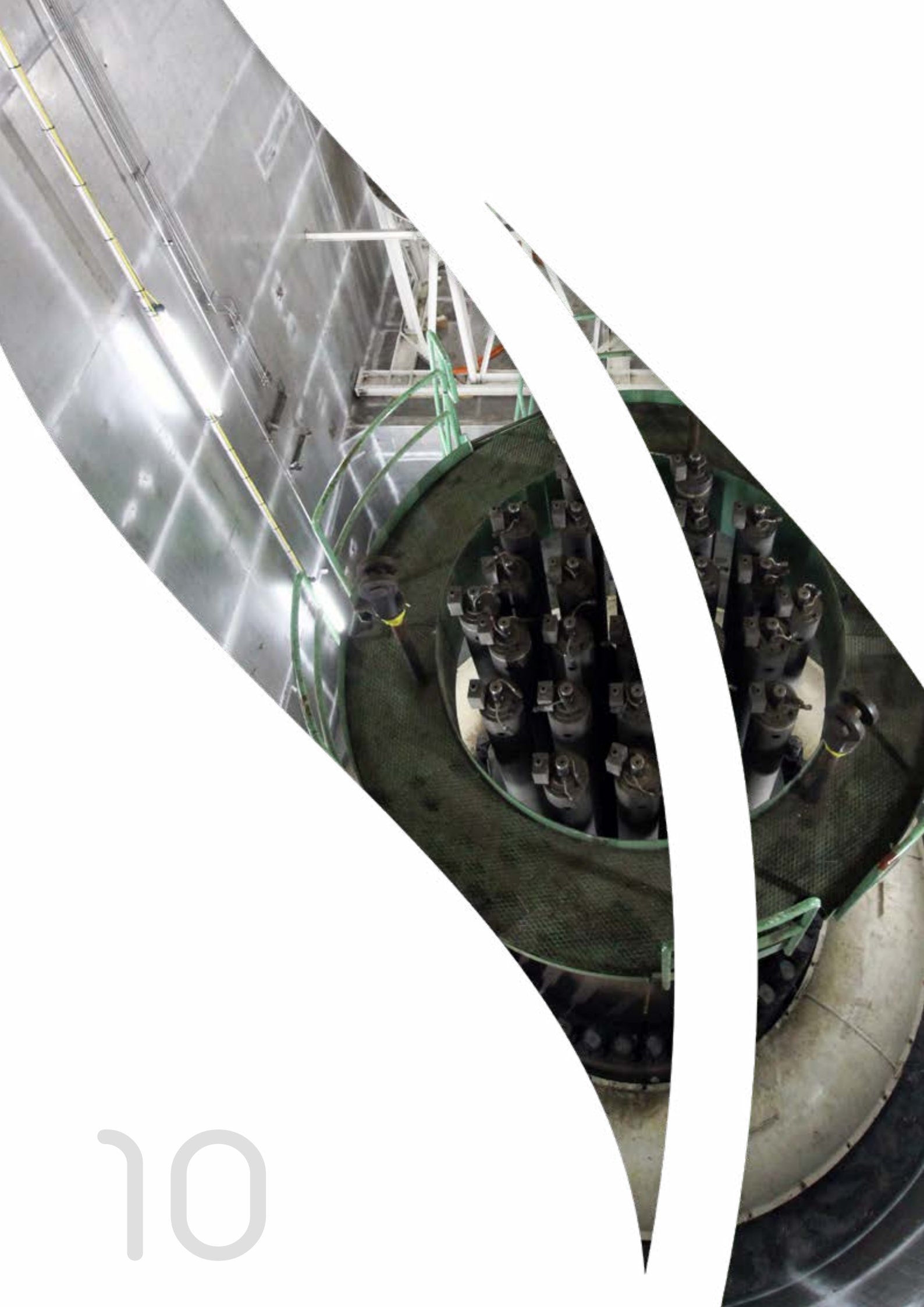
Sogin safely manages the radioactive waste produced by the past operations of nuclear plants and their decommissioning.

At each plant, the waste is characterised, treated, conditioned and stored in temporary repositories at the site of origin, with a view to its transfer to the National Repository. At the end of decommissioning operations, the temporary storages will be dismantled.

Through Nucleco, Sogin also collects and manages the radioactive waste produced daily by nuclear medicine, industrial and scientific research activities.

* The final radiological characterisation involves a series of radiological measurements to verify that the final residual radioactivity is of the same level as the natural background environment.





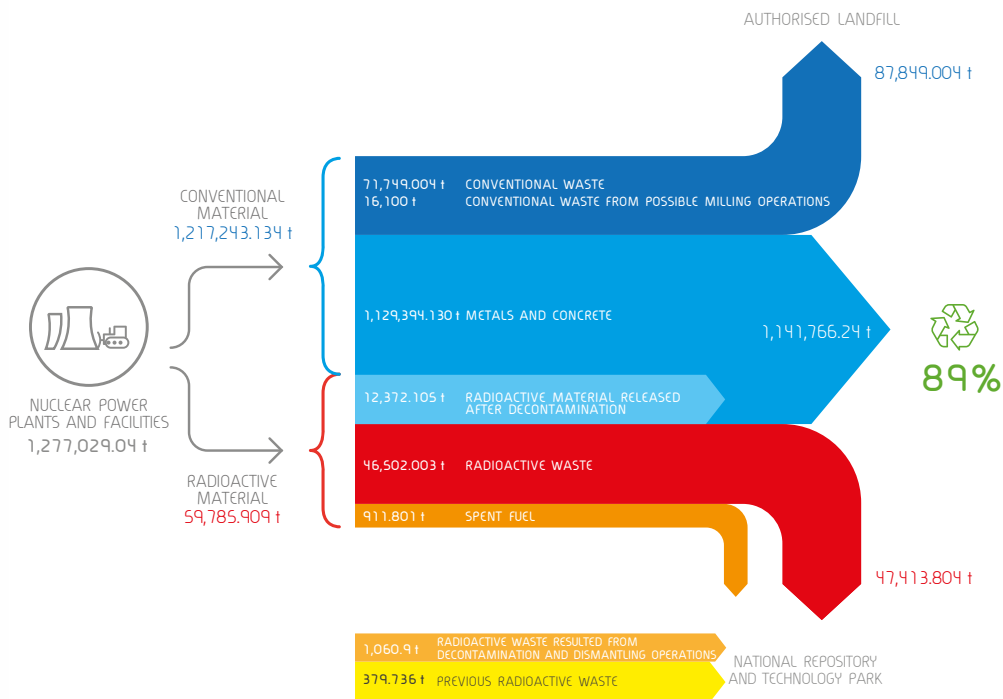
10

CIRCULAR ECONOMY

Inherent in Sogin's mission, i.e., the decommissioning of Italian nuclear plants and the management of radioactive waste, is the concept of circular economy.

The Company is committed to a circular economy strategy based on minimising radioactive waste by decontaminating metal and concrete materials from radioactivity, improving energy consumption efficiency, sending conventional waste produced by decommissioning to recovery, and reusing plant buildings so as not to build new ones.

For instance, in waste management, Sogin adopts strategies to reduce its production through innovative technologies and processes and to recover conventional or otherwise decontaminated materials generated by plant decommissioning. Even in the various stages of the procurement process, Sogin takes into account environmental and social criteria to identify goods and services that reduce environmental impact and increase social benefits throughout the life cycle.



Power Plants and Plants under Decommissioning - Destination of Materials



NATIONAL REPOSITORY AND TECHNOLOGY PARK

The National Repository will be a surface infrastructure where all Italian radioactive waste already produced and to be produced in the next 50 years will be secured.

The Technology Park will be built together with the Repository. Collaboration with research bodies, universities and industrial operators will enable the Technology Park to integrate with the economic and research system and contribute to the sustainable development of its host region.

DESIGN OF THE NATIONAL REPOSITORY

The Repository will be a structure featuring a series of engineering and natural barriers, designed on the basis of the best international practices and according to the most recent IAEA standards, which will allow the final storage of about 78,000 cubic metres of very low and low-level waste and the temporary storage of about 17,000 cubic metres of medium and high-level waste, pending their final storage in a geological repository.

Approximately 95,000 cubic metres of radioactive waste will therefore be delivered to the National Repository over time: 60% come from the past operation and decommissioning of nuclear plants, and the remaining 40% from daily nuclear medicine, industrial and research activities.

The transfer of radioactive waste to a single facility will ensure its efficient and rational management, make it possible to complete the decommissioning of nuclear plants and comply with European directives, thus bringing Italy into line with countries that have been operating similar repositories on their territory for some time.

FINDING A LOCATION FOR THE NATIONAL REPOSITORY AND TECHNOLOGY PARK

Italian Legislative Decree No. 31 of 2010 introduced, for the first time in Italy, a participatory process for the realisation of a strategic infrastructure for the country.

Indeed, the process of identifying the site that will host the National Repository and Technology Park is based on three fundamental principles, namely information, transparency and involvement. On the basis of these principles, Sogin ensures the integration of aspects of a technical-scientific nature and public participation, as established by law, with the aim of listening to the needs and proposals of local communities and stimulating expressions of interest from the institutions of the regions involved.





RADWASTE MANAGEMENT SCHOOL

The Radwaste Management School (RaMS) is the training centre of the Sogin Group. RaMS ensures professional training at a high level and promotes management and technological innovation based on the experience and specialised know-how in the field of safety, which make Sogin a major player on the national and international industrial scene.



RaMS is also open to external parties from institutions and companies and contributes to the dissemination of a safety management model in industrial processes.

SOGIN ABROAD

Sogin was one of the first companies in the world to tackle the challenges of nuclear decommissioning and dismantling.

Within the framework of decommissioning programmes, radioactive waste management and improving safety in the nuclear field, the company has always been committed internationally, with two foreign offices in Moscow and Bratislava, on three main lines:

- Development of relations and collaboration with international organisations and foreign public and private operators to foster the exchange of know-how applicable to the decommissioning of Italian nuclear plants
- Business development through the acquisition of projects, studies, consultancy and technical services on plant decommissioning, radioactive waste management and safety and radiation protection
- Supporting Italian institutions to fulfil international treaties and commitments.







Cooperation agreement
General Nuclear Power Group
CHINA

Technical Assistance
Nuclear Decommissioning Research Center
Hanyang University
SOUTH KOREA

Training & capacity building
Doosan Heavy Industries
SOUTH KOREA

Training & capacity building
Nuclear Safety Authority
CHINA

Training & capacity building
TaiPower
TAIWAN

Training & capacity building
MOST/VINATOM
VIETNAM



RELATIONS WITH STAKEHOLDER

Sogin promotes engagement and continuous dialogue with its stakeholders at an international, national and local level, with the aim of creating shared long-term value and building relationships based on transparency, fairness and mutual trust.

Open Gate is the main expression of this commitment. With this initiative, created in 2015, Sogin opens the doors of the Italian nuclear power plants that are being decommissioned to citizens, families, associations, journalists and other stakeholders.



Getting to know decommissioning activities by entering a nuclear plant, accompanied by the technicians who work there on a daily basis, and living the unique experience of retracing a piece of the country's industrial history is the spirit of Open Gate.

Around 10,000 people have so far entered the heart of the plants, discovering the cutting-edge technologies and processes that are used for their decommissioning. A questionnaire that Sogin proposed to the visitors revealed great satisfaction with the project: 92% of the participants considered the visit to have lived up to expectations, 95% gave a positive assessment of the welcome and 99% hoped it would be repeated.





20

SUSTAINABILITY

Sustainability has always been an integral part of the Sogin Group's actions.

Through its activities, the Company is committed to achieving a 'more sustainable society' in order to guarantee the safety of its citizens, safeguard the environment and protect future generations, contributing to the achievement of the goals of the United Nations 2030 Agenda.

This commitment is accounted for in the Sustainability Report, in which the main economic, industrial, social and environmental data and performance on radioactive waste decommissioning and safety activities are reported.

The Sustainability Report is prepared according to the 'in accordance-core' option of the Sustainability Reporting Standards of the Global Reporting Initiative, in compliance with the principles of inclusiveness, materiality and responsiveness issued by AccountAbility*.

In order to govern business processes in a coherent and controlled manner, integrating quality, environmental protection and occupational health and safety aspects, Sogin has also developed an Integrated Management System, certified according to international standards UNI EN ISO 9001, UNI EN ISO 14001 and UNI EN ISO 45001.

Sogin has obtained the EMAS (Eco-Management and Audit Scheme) registration certificate for the activities carried out at the Caorso and Trino power plants and for the Eurex plant in Saluggia. EMAS is a voluntary tool proposed by the European Community with which companies and public bodies can assess and improve their environmental performance and provide the public and all interested parties with information regarding environmental management.

*AccountAbility is an independent, multistakeholder, non-profit association that works internationally to promote and develop sustainability tools and strategies to serve individuals and organisations.



Editing by:

Communication and Sustainability – Sogin

Last update:

May 2022

Sogin S.p.A. – Società Gestione Impianti Nucleari

Registered office: Via Marsala 51 C, 00185 Rome - Italy

Rome Registrar of Companies - Tax Code and VAT no. 05779721009

R.E.A. registration no. 922437

Sole Shareholder Company

Share capital of Euros 15,100,000 fully paid up

Contacts:

info@sogin.it

for tours: opengate@sogin.it



Follow us:

sogin.it - nucleco.it - depositonazionale.it



