



HERA GROUP **Engagement with biodiversity**

We are determined to preventing and minimizing the impact of our activities on biodiversity wherever we operate





Hera for the Planet, People and Prosperity

This, in essence, is our purpose, our scope, and in a broader sense, the *raison d'être* of our Group.

By taking care of the Planet, and protecting its stability, regeneration and biodiversity, Hera can encourage the rebalanced use of the natural resources on which the very services it provides depend and, when possible, their regeneration.

Sustainability and creating shared value are the fundamental traits of our company and define its purpose.

Cristian Fabbri, Executive Chairman
Orazio Iacono, CEO



At the heart of the agenda of the G20 chaired by Italy in 2021, the requests underlying “planet, people and prosperity” well reflect the demands that have emerged globally from crises of various kinds, which have definitively dismissed the possibility of planning society’s well-being within watertight compartments. They also provide a comprehensive summary of the value-related horizon common to the most significant new business and development models that are currently being developed. These are important cornerstones, which focus on the central role played by stakeholder value and on the driving role of the company’s social purpose. As such, Hera has largely anticipated these issues, and is now able to include under these three “P”s the many results achieved over the years, the historical evolution of its approach to sustainability, its mission and, ultimately, its very purpose, which in 2021 became an integral part of the company’s Articles of Association.

[Hera Purpose art. 3.2 of By Laws](#)

BIODIVERSITY Commitment



In line with its **Quality and Sustainability Policy** and recognizing the value of biodiversity as an essential resource for long-term global sustainability, the Hera Group **promotes the sustainable development** of its activities, committing itself to the **prevention and minimization of the impacts** they generate on biodiversity:

By respecting the local environment, **minimizing losses in biodiversity in its operations** and promoting a sustainable future, Hera **contributes to 11 out of 17 UN's 2030 Agenda SDG's**.

The **commitment of the Group to respecting biodiversity** is inspired by the guidelines and goals expressed in the main international documents on the subject and defined on the basis of the materiality analysis conducted by the company.

To preserve the environment, Hera is **committed to avoid developing any sort of operations in protected** (IUCN Category) **and World Heritage areas**. Furthermore, the Group carries out the **appropriate actions to ensure the supply chain's compliance** with this commitment.

The prevention of negative impacts is based on **full compliance with biodiversity protection regulations** as well as on **additional voluntary initiatives** implemented by the Group.

To achieve both **NPI and>NNL on biodiversity** the Group supports a number of awareness projects and **reforestation campaigns** (see our “No Deforestation Commitment”).

In managing its activities which may have a direct or indirect impact on air, water resources, soil, ecosystems and species that inhabit it, **Hera implements a mitigation hierarchy** to avoid, minimize and recover impacts on natural ecosystems.

NO DEFORESTATION Commitment



To not contribute to global deforestation phenomena (Zero Net Deforestation) and to **achieve zero impact**, Hera manages its activities aiming to **minimize the operating impacts of its plants and services in forested areas**, particularly when it operates, directly or indirectly through its contractors, in periods of drought and in areas with a high risk of forest fires.

No deforestation is associated with our business operations nor with commodities that we trade or sell. Even if no impacts on forestation have been reported, we are constantly committed to **protecting biodiversity and reducing CO2 emissions**. Furthermore, it is committed to favoring the procurement of cellulose and wood materials that are recycled or from certified forests (Forest Stewardship Council; Program for the Endorsement of Forest Certification Schemes).

We are intensifying and extending tree planting in the served areas to **fight climate change, reduce emissions and stop global warming**. In particular, we carry out many tree-planting projects both to **protect biodiversity and air quality and raise awareness** among the local communities and actively involving them. The plantings are mainly the result of reward mechanisms associated with specific virtuous behaviour, such as delivering sorted waste to ecological stations or requesting electronic bills instead of paper bills. **With Eco Trees campaign we aim to reach the target of 10,000 trees planted by 2024.**

Besides **reforestation campaigns**, the Group promotes also the long-term project “Lets Green Madagascar” to **counteract the practice of slash and burn**. Learn more on “other initiatives”.

Biodiversity Risk Assessment

At Hera, **risk assessment is carried out using the Enterprise Risk Management** approach, which envisages the identification of risk scenarios that are likely to occur at Group plants or locations, with financial and/or reputational consequences.

As part of the **Group's Environment Management System**, implemented in accordance with **ISO 14001:2015**, Hera has defined with an internal procedure the methodology for **identifying environmental aspects** related to the activities, services and plants managed and their **potential impacts**. A subsequent **assessment of the significance** of the aspects and risks related to each is also foreseen.

As required by the ISO 14001 standard, Hera has implemented the "**Risk Based Thinking**" approach in its environmental management system.

The severity related to risk scenarios concerning the environmental aspects of representative plants/services is given by the combination of probability of occurrence and impact, in which the reputational factor was considered of particular importance.

The likelihood is defined on 4 increasing levels (from 1 unlikely to 4 highly likely), based on the estimated occurrence of an event, related to the environmental aspect and over the Business Plan period;

The impact is evaluated on 4 increasing levels based on the combination of 3 factors:

- **possible environmental offense**, according to Decree 231/01 and subsequent amendments and additions,
- **local sensitivity** (the vulnerability of the area and stakeholders' interest),
- **difficulty of removing the damage** (temporal persistence and severity for health/environment).

Based on this assessment and the **Double-Materiality analysis**, conducted every year by the Group, **no significant Biodiversity risks have been identified**. The Group however puts in place concrete actions to mitigate climate change and global warming caused by global environment negative impacts.

Our mitigation hierarchy steps

AVOIDING

Situations are identified in which impacts can be avoided as early as in the planning and design stages with **full compliance with biodiversity protection regulations** such as the Strategic Environmental Assessment (SEA).

- ✓ Hera conducts the Environmental Impact Assessment (EIA) procedure and implements the European “Habitats” Directive (92/43/EEC) and “Birds” Directive (79/409/EEC) in line with the “Guidelines for the management of Natura 2000 sites” issued by the Ministry For Environment, Land and Sea Protection. All the simulations carried out include an accurate characterization of the sources and the assessment of the most unfavorable scenario, so as to provide a precautionary analysis.

REDUCING

Once impacts have been assessed, **specific mitigation measures are identified, where necessary, so as to reduce them** and, if that is not possible, specific compensatory measures are implemented.

- ✓ Our urban forestation projects, now operational in several towns, made it possible to **improve air quality and mitigate the negative effects of climate change**: since 2012, 15,077 trees have been donated to territories in Emilia-Romagna, Veneto and Friuli Venezia Giulia, for a **total of almost 1,500 tons of carbon dioxide absorbed each year**, and a further 4,293 trees will be planted in the coming years through numerous initiatives involving employees, Hera Group customers and citizens served.

TRANSFORMING

Constant attention is paid to the process of **transforming industrial activities in a circular economy logic** with a view to recovering materials and energy.

- ✓ Hera owns the **Sant’Agata Bolognese biomethane production plant**, that in 2022 generated 7.6 million cubic meters of biomethane thanks to approximately 123,000 tons of organic waste and lignocellulosic waste processed. It was also possible to produce around 19,000 tons of quality compost. The biomethane produced was fed into the network and destined for automotive use and public transport. Hera **produces also Hydrogen with a renewable and environmentally harmless energy cycle**: low-cost green energy from WtEs can be used to separate water into hydrogen and oxygen. The oxygen released can be used in the wastewater purification process in the integrated water cycle while the hydrogen produced can be stored or distributed to end customers through the gas distribution network.

REGENERATING

Affected ecosystems are restored and rehabilitated through actions to reverse damages done to our environment, encouraging greater resilience and protection.

- ✓ Hera Spa manages **seventeen phytodepuration plants** of small to medium capacity. Phytodepuration is a natural process for **treating polluted water based on taking advantage of the soil-vegetation system** as a natural filter for water purification and is made up of biological ponds and macrophyte vegetation. **This type of treatment also contributes to the recovery of marginal areas**, creating aesthetically pleasing natural environments and landscapes, often chosen as a refuge for various species of birds, amphibians and reptiles.

RESTORING

If the previous stages proved to be insufficient, **offsetting measures are adopted as a last resort**, seeking net gains for biodiversity

- ✓ Hera has a business unit related to ‘**environmental remediation**’ offering to **clean-up and reclamation services aimed at securing and recovering contaminated urban areas and industrial sites**. The remediation of contaminated sites makes it possible to **preserve the natural capital and reduce the impact on biodiversity**. The service is offered to public and private clientele including oil companies, chemical and pharmaceutical industries, steel mills, real estate and reclamation consortia, among others.

No Net Loss Targets



ENHANCE WATER CYCLE AND ITS CIRCULARITY

“Rimini Seawater Protection Plan” produced noteworthy **environmental benefits, reducing marine pollution** (by avoiding effluents) and improving the quality of the water on the coast. **By 2026** it will be fully operational and **will gradually eliminate up to 90% of the polluting impact**, measured in terms of COD. Part of measures planned under this Plan are merging into the broader coastal redevelopment project Sea Park.

Ongoing projects aimed at **recovering wastewater** allowed that **reusable purified wastewater has reached 7.3% of the total in 2022** (was 6% in 2021). **Target to 2026 is 13%, and 18% by 2030**. Further Programme Agreements for the reuse of wastewater have been signed with several Municipalities and consortiums aimed to increase wastewater recovering and reusing for irrigation purposes. In 2023, a severe case of flood incurred in the region; thanks to Hera prevention plan and asset development the entire area was 100% saved from any damage and pollution of the sea, guaranteeing clean sea water in a crucial period for tourism (main local economic activity).




INCREASE SOIL PROTECTION

Procedures and methodologies aimed at **minimising the use of virgin land on construction sites** have been implemented. Hera Group identifies technical solutions with external partners, aimed at reusing areas that have already been developed and/or **preserving the natural context of the land subject to intervention**. Key design criteria for networks foresee extensions carried out using existing roads and/or urban fabric while for plants reusing existing/already occupied infrastructure and areas is expected. **Construction of infrastructures (networks and plants) completed in 2022 involved the use of about 27,000 m² of land, of which about 72.9% was already occupied** by existing infrastructures. **In the period 2022-2026** most of the infrastructure works are expected to be carried out on land which is already occupied while continuing to limit the use of virgin soil: **a further 246,000 square meters of soil will be reused, bringing to 80.8% the amount of soil reused in works completed from 2018 to 2026** (equal to about 888,000 sqm). **Target to 2030 is > 80%.**



IMPROVE AIR QUALITY

Thanks to initiatives planned, including additional expansion of **district heating, electric transportation** infrastructure networks, **energy upgrading for buildings**, investment in **cogeneration plants** and other new projects, Hera set a **goal of a 37% reduction in emissions by 2030** consistent with the 'Well below 2°C' scenario and validated by the SBTi. **By 2026** energy-saving measures already in place and those planned will allow a **decrease by 37% of carbon intensity index** of energy sales and **-50% by 2030**, compared to 2019. But Hera's commitment goes beyond its own business operations, with specific **actions for suppliers** (rewarding those who use low environmental impact vehicles), **employees** (providing shuttle bus services and additional quota in welfare plan for sustainable transportation), **public administration** (energy efficiency of the public lighting service) and **customers** (100% green offers and energy efficiency solutions such as sales and installation of photovoltaic panels, air conditioners with heat pumps, efficient boilers).



Hera Group's Quality, Safety & Environmental Policies



CERTIFICATIONS & REGULATIONS

The Hera Group manages its activities through certified management systems: **UNI EN ISO 9001 "Quality"**, **UNI EN ISO 14001 "Environment"**, **UNI ISO 45001 "Safety"**, **UNI IEC EN ISO 50001 "Energy"** and **ISO 37001 "Prevention of corruption"** are some of the certifications adopted by the Group, which is also committed to an **EMAS registration project (Regulation (EC) No 1221/2009)** for the most significant plants and in particular those related to waste selection and treatment. By integrating its environmental management system with the requirements of a Circular Economy project management system Hera Spa adopts also the new **AFNOR XP X30-901 certification**.



COMPANY POLICIES

All activities and processes are compliant with the Group's **Code of Ethics**, the **Quality and sustainability policy**, the **Personal Data protection policy**, the **Remuneration policy** and the **Corruption Prevention Model** (all available on the Group's website).



COMMITMENTS

The Hera Group has signed the commitment declarations **UN CEO Water Mandate**, **New Plastics Economy Global Commitment**, **European strategy for plastics - voluntary pledges**, adheres to the **UN Global Compact**, is member of the **Ellen MacArthur Foundation** and supports the **Task force on Climate-related Financial Disclosure (TCFD)**. By signing the **WBCSD's CEO Guide to human rights** the company has also declared its commitment for the respect of Human rights, and **against discrimination and/or harassment**.



ANNEX 2022

**KEY COMMITMENTS AND ACTIVITIES
BY GROUP'S STRATEGIC AREAS**



Group's commitments: WASTE



HAZARDOUS WASTE REDUCTION

Hera offers **drop-off points for disposing** of a wide range of categories of third parties (household and business clients) waste (including certain hazardous waste) and a **door-to-door collection** of certain types of hazardous waste (such as batteries and pharmaceuticals) at specific businesses. **Hazardous waste treatment facilities are constantly monitored through screenings, EIA and audits.** To encourage the reduction of hazardous waste production, Hera is implementing a **"Pay for Use" billing** which rewards responsible waste sorting and recycling; **to reduce hazardous waste improper treatments**, the Group has started a **partnership with Eni Rewind** to strengthen the certified activities. **Hera do not produce nor handles radioactive waste** (Italian law enforces to have a special license for this activity).



SOLID WASTE REDUCTION

Hera approach to own and third parties waste management follow the circular economy principles: starts from **minimizing waste at source**, then to **material and energy recovery** and, only as last resort, disposal in landfills. The Group is committed to further **decrease solid waste production and the use of landfills**: thanks to efficient measures carried out on treatment processes and plants, the use of complex technologies to recover as much as possible material from the incoming flow and **awareness campaigns to promote recycling, sorted waste and/or their reuse** (i.e "Scart", "Cambia il finale", "FarmacoAmico", "Rifiutologo", "Trashware"), the Group expect to achieve ambitious targets (having already achieved in advance UN '30 goals on landfill disposal).

Targets	2026	2030
Reduce use of landfills for urban waste	<4%	<2%
Increase recycling rate in urban waste	73%	>80%
Increase plastic recycled by Aliplast	+102% vs 2017	+150% vs 2017



ALIPLAST & THE NEW PLASTICS ECONOMY GLOBAL COMMITMENT

Hera is the only Italian multiutility company that signed the New Plastics Economy Global Commitment, launched by the Ellen MacArthur Foundation in collaboration with UNEP. The Group has committed to **increase by 2025 plastics collected in the served areas by 30%; plastics sorted and sent to be recycled by the Group's plants by 50% and plastic recycled by Aliplast by 70%** (group company). Aliplast manages the integrated plastic cycle, transforming waste into a finished product, mainly PE film, PET sheet and granules/flakes of the main polymers. To further improve the business, Hera will also: 1) complete an innovative plant by 2024, for the **production of high-quality recycled polymers for the IT and electronic sector** in Modena; 2) complete a new plant by 2025, for the **recycling of carbon fibre**, which is especially reusable in the automotive sector.



Group's commitments: WATER



EFFLUENTS

Hera own activities produce negligible wastewater. As 2nd Italian player in Water business, the Group manages more than 400tmc of fresh water/y and the wastewater of about 4 million customers. **Group procedures for discharges of wastewater are applied** to schedule controls and to handle anomalies and non-conformities with rules and regulations at EU, Italian, regional, and provincial level, in the served areas. **The Group is committed to reduce, reuse and recycle effluents as much as possible:** to improve performances Hera is developing the “**Monitoring of sewage lifting and pump maintenance**” tool to minimize disservices and intervention times with clear reverberations on the environmental quality of the discharges.



WASTEWATER PURIFICATION QUALITY IMPROVEMENT

In 2022 the Hera Group managed the sewerage and purification service in 227 municipalities. Hera is committed to **achieve a performance beyond compliance** with a specific action plan. According to our compliance plan for the **sewage and depuration** sector, by 2023 we expect to achieve **100% compliance for urban areas >2,000 p.e.** while in urban areas of 10,000 p.e. and more, additional **27 interventions to upgrade the urban wastewater discharges treatment** will be implemented **by 2030**. Furthermore, our "smart" treatment plant of Servola, a wastewater purification plant has ZERO-impact on local marine species and it is currently purifying 100% of the treated water.



REDUCE CONSUMPTIONS & LOSSES

Hera is strongly committed to **reduce both internal water consumption and water consumption by customers and suppliers**. Indeed, Hera offers tools (Consumption Report for residential users; Water Management portal for business users) to help customers to reduce their water consumption. **Internal water consumption registered a 20.5% reduction in 2022 (vs 2017) due to specific water saving activities** and we expect to achieve a **22% reduction by 2026 and 25% by 2030**.



RECOVERY AND REUSE OF WASTEWATER

For the coming years several projects have been defined to allow the **recovery and reuse of wastewater** which would otherwise be discharged into public sewage. Huge efforts have been made to **enhance the search for hidden leaks** downstream of meters (cosmic rays, radar on aircraft, predictive algorithms for breakage risks) and network losses. In 2022 further consolidation and inclusion in corporate systems of the project for monitoring water sources have been made. **Leak detection was consolidated with predictive algorithms**. The objective is to **reduce linear losses to 9.3 m³/km/day by 2026**.



Group's commitments: ENERGY



GHG EMISSIONS REDUCTION

Fight climate change is embedded in Hera strategy which aims to **reduce GHG emissions by 37% by 2030** (certified SBTi) vs. 2019: -28% Scope 1 and Scope 2; -30% Scope 3 from downstream sale of gas; -50% carbon intensity index of electricity sales. Furthermore, **by 2023 the Group will offer 100% electricity from renewable sources for domestic consumption.**



NON-GHG EMISSIONS REDUCTION

To further improve the air quality in the served areas, **also non-GHG are monitored and the Group is committed to keep them as lower as possible.** Values for nitrogen oxides (mainly related to waste treatment plants devoted to reduce third parties' environmental impacts) are stable since 2016 and concentrations measures at the chimney in 2022 for all pollutants (monitored 24/7 and publicly available in real-time) were once again **significantly lower than the regulatory limits** (i.e., at least 61.5% for nitrogen oxides and up to 96.8% in the case of sulphur oxides).

Atmospheric emissions from Hera's waste-to-energy plants* and target to 2026

Dust		Hydrochloric acid		Nitrogen Oxides		Sulphur oxides		Carbon monoxide		Hydrofluoric acid		Total Organic Carbon	
2022	2026	2022	2026	2022	2026	2022	2026	2022	2026	2022	2026	2022	2026
5.9	≤ 5.5	20.7	≤ 20.0	667.3	≤ 660.0	19.5	≤ 19.0	82.2	≤ 80.0	0.7	≤ 0.7	9.5	≤ 9.0

* Source: Sustainability report 2022



ENERGY PARKS

The **energy parks, patented by the Hera Group**, includes cutting-edge technologies such as **agrivoltaics** (photovoltaic panels raised off the ground so as not to subtract land for cultivation) and **precision agriculture** (use of digital techniques and tools to monitor and optimize processes). Besides **energy self-sufficiency of cities** through modular and scalable solutions, they allow to **improve the well-being of local citizens** through services such as **solar farms, hydrogen platform and Urban forests** (a green belt in the urban area for carbon sequestration and the promotion of biodiversity) including areas with community services.



DISTRICT HEATING

District heating is an **answer to the city's air pollution problems** as it allows the replacement of domestic boilers by using high-efficiency, renewable energy or energy recovered from other processes to generate heat. **Hera operates 12 cogeneration plants, of which 4 are trigeneration plants** for a total nominal electrical power of over 113MW which in 2022 produced approximately 170,000MWh of thermal energy. Thanks to district heating systems, **in 2022 over 41,000 tons of oil equivalent, 63,000 tons of greenhouse gases, and 126 tons of nitrogen oxides were saved**, if compared to a traditional system. For the coming years Hera aims to **further development district heating and increase in the volume served (+7% to 2026 vs 2021)**

Other initiatives



ENVIRONMENTAL EDUCATION | SCHOOL PROJECTS

Hera acts also in **children's and young people's education area** (schools ranging from kindergarten to lower secondary school) to preserve biodiversity, with programs such as "The Great Engine of the World" and "A well of science" to **raise awareness among young people** about sustainability and respect for the resources of the planet. Focus are mainly on environmental issues of the core business: **scarcity of resources, biodiversity and the reduction of polluting sources**. Overall, **in 2022, 111,091 students and 9,432 teachers were involved**. To help teachers to guide, enrich and complete the school curriculum for young people Hera has designed **31 brand new high-level educational courses, specific for educators**. Over time, it has become an important reference point for increasing children's knowledge and awareness of environmental issues (water, energy and waste), the circular economy and the most topical social issues, offering incentives to **make behaviour and lifestyles more sustainable for the planet**. Hera also carries out specific awareness-raising campaigns for students of all levels and backgrounds aimed at **promoting the rule of the 5 R's: Recycle, Reduce, Reuse, Recover, Regenerate**.



LOW IMPACT SERVICES AND OFFERS FOR CUSTOMERS

Raise-awareness campaigns addressed to customers have been created to help them to reduce their consumption as well as to **stimulate and increase virtuous and conscious behaviour in the use of resources** (Green Loyalty, Smart Sustainable Community, Green Wallet). The Group also continues to **help its customers to reduce their carbon footprint** offering them solutions such as sale of electricity from renewable sources and methane gas with offsetting of CO2 emissions, additional services to households and businesses for energy efficiency, development of district heating, energy efficiency and renewable electricity in public lighting, energy upgrading of buildings, support for urban electric mobility. Furthermore, Hera provide customers with applications to help them **monitoring and reducing their consumptions** (Rifiutologo, Acquologo, MyHera).



PROTECTION OF AIR, LAND, AND BIODIVERSITY

Our commitment to protecting biodiversity and air quality continues: with Eco Trees we aim to reach the **target of 10,000 trees planted by 2024**; "The Air Factory" **foresees the exclusive planting of indigenous species** and, where possible, pioneer plants, for a total of 5,000 trees, which are important for **regenerating degraded soils and favouring the colonisation of other species**, fundamental for creating ecological corridors and the establishment of birdlife. The "Lets Green Madagascar" **project instead aims to counteract the practice of slash and burn**, which involves burning entire areas of forest and old farmland, by offering the alternative of an **integrated agroforestry system capable of protecting biodiversity**. To date, **the first target of 3,500 trees has been reached**, which will allow roughly 9,257 tons of carbon dioxide to be absorbed in 10 years.

PARTNERSHIPS & COMMITMENTS



Hera, for some time now, has been making specific public commitments in various fields, **finding itself already concretely on the road to climate neutrality by 2050, mapped out by the European Union, in line with the objectives set out in the UN Agenda 2030.**

In order to **trigger systemic change**, with a view to progressive transformation, the Group is committed to **promoting, both internally and towards its stakeholders and along the value chain, a culture focused on raising awareness of biodiversity protection**, by promoting training, research and conservation activities, awareness-raising campaigns and sponsorship activities.

To do so, in 2022 the Group **took concrete actions and developed projects in close partnership with Institutes, Universities and Associations** such as Emilia Romagna Region, Arpae, Ausl of Bologna, Atersir and Consorzio Bonifica Renana, University of Bologna, Milan Polytechnic University, Department of Civil Protection Agency, Marche Polytechnic University, Arpav, Province of Padua, Municipality of Padua, Romagna Acque, Basin Authority of the river Po District, Azzero CO2, CNR-IIA, La Sapienza University, Treedom Foundation Non-Profit Organisation and Marevivo Non-Profit Organisation, among others.

The Hera Group adheres to the **Ellen MacArthur Foundation**, the **UN Global Compact**, the **Circular Economy Network**, the **Sustainability Makers** and the **Fondazione Global Compact Network Italia**.

Hera is also a member of a specific working group created by the Italian Ministry for Environment, Land and Sea Protection and regularly collaborates with reference Bodies and Authorities for the environment protection.