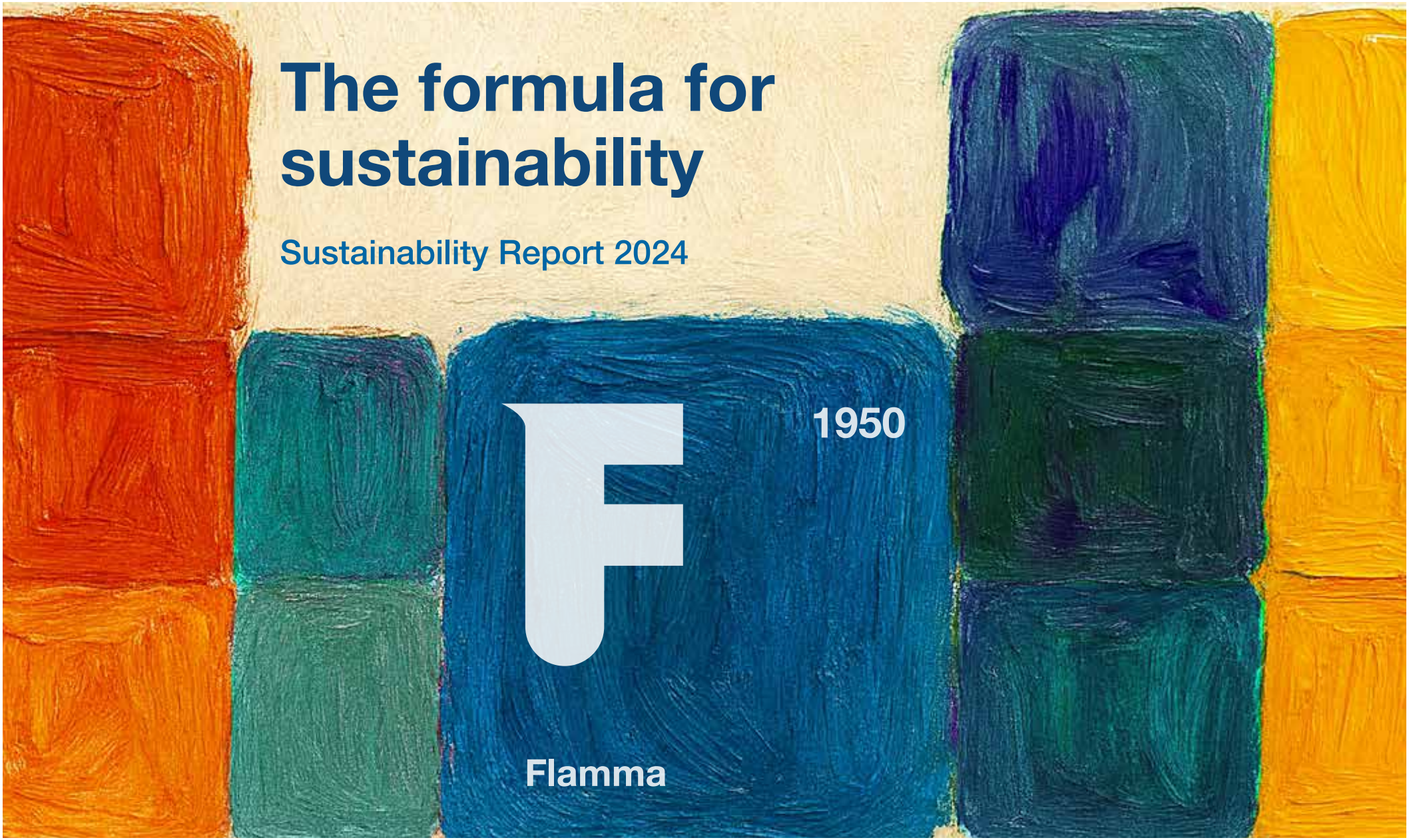
The formula for sustainability

Sustainability Report 2024



Flamma GROUP

Letter to stakeholders

2024 was a year of growth and consolidation for Flamma.

We have continued to invest in development of the Group, strengthening our international presence and enhancing our research and manufacturing capabilities, enabling us to respond daily to the needs of customers and patients.

Our identity is rooted in an integrated model, with science and industry in constant dialogue. We work at the most critical point in the pharmaceutical value chain, that of APIs (Active Pharmaceutical Ingredients). The focus of our operations ranges from R&D to industrial-scale production with a clear goal: to transform the complexity of chemistry into reliable, safe and affordable solutions. Having set this course, we continue to engage our professional expertise with great passion for the work, improving processes and technology and directing research towards more efficient and responsible production.

Here at Flamma, innovation is not an end in itself but a question of industrial pragmatism, resulting in carefully considered strategic choices. In 2024, this vision translated into greater energy efficiency and plant and organisational improvements at our Italian facilities, enabling us to optimise processes while continuing to guarantee high standards of quality and safety. The same process of improvement in China has allowed us to achieve a substantial increase in production and, consequently, in economic value generated and distributed in the areas where we operate. We have continued to invest in our new state-of-the-art facility, set to come on line in 2025, bringing important benefits in terms of production and HSE in the coming years.

Research has always been another key area of investment. Through development of the Solvent Eco-Impact Metric, we are now able to accurately evaluate the entire production process from a sustainability perspective, identifying the most efficient and sustainable reactions to create a given finished product. This implies better management of resources, aimed at reducing waste and driving down operating costs.

Every decision is led by our values: acting with care, building together, making the complex simple, and operating responsibly and transparently. These principles have always united our team and shape the way we face our daily challenges. We understand sustainability not as an end, but as a means of operating in line with our history and culture. It is a daily responsibility expressed through the quality of our work, the safety of our people, and our care for the environment, and it is recognised and appreciated by our stakeholders.

The elements outlined above form the pillars of our business, enabling us to develop innovative solutions that meet market demands for quality and safety in a dynamic and flexible environment. We will continue to meet these demands with the same passion and results that have always distinguished our company, improving people's lives by harnessing science with a human touch.

Gian Paolo Negrisoli – Chief Executive Officer
Gianmarco Negrisoli – Executive Director, Corporate Development.

Methodological note

This is the first Sustainability Report drawn up by the Flamma Group and it aims to provide a transparent and accessible overview of the Group's commitment to responsible development, documenting the key aspects of its environmental, social and economic performance in 2024.

REPORTING SCOPE

The scope of the Report includes all activities carried out during 2024 (1 January to 31 December) by the Group's Italian and Chinese companies:

- **Flamma Italia S.p.A.**
- **Flamma Honkai Pharmaceutical Co., Ltd**

The Group's US branches, headed by Flamma USA, are not included in this year's reporting.

STANDARDS AND REFERENCES

This Report has been drafted on a voluntary basis, in accordance with the **Voluntary Sustainability Reporting Standards for SMEs (VSME)** published by EFRAG. The aim is to provide a clear picture that is proportionate to the size of the Group.

Reporting is based on the **Basic** and **Comprehensive** modules, including aspects relevant to the sustainable management of European SMEs, with a specific focus on corporate sustainability strategy, adopting a step-by-step, accessible and continuous-improvement-oriented approach.

METHODS FOR GATHERING INFORMATION ON SUSTAINABILITY

Working with specialised suppliers, the Group conducted:

- an **internal assessment** aimed at identifying policies, formalised procedures, certifications and best practices linked to the three ESG pillars (Environment, Social and Governance). Documentation gathered was accompanied by qualitative interviews with key function managers involved in the reporting process
- an **external assessment** involving an industry benchmarking analysis, aimed at mapping the reporting practices of the main competitors in the market, with particular reference to the choice of material topics and stakeholder mapping
- **quantitative data collection**, based on the requirements of the aforementioned standards. The latter took place between October and November 2025, through direct involvement of Flamma's corporate functions and operational contacts.

Where data was unavailable or not systematically tracked, a path for improvement was identified or estimates were used, highlighting this where appropriate.

Methodological note on calculation of GHG emissions

The calculation of Flamma's greenhouse gas (GHG) emissions for the reporting year 2024 was conducted by **Sphera Consulting**, in accordance with the international standards of the **Greenhouse Gas Protocol –Corporate Accounting and Reporting Standard (2004)** and the **ESRS E1 – Climate Change** guidelines of the **Corporate Sustainability Reporting Directive (CSRD)**.

The inventory was drawn up following the **five fundamental principles of the GHG Protocol** — relevance, completeness, consistency, transparency and accuracy — and adopting the **criterion of financial control** for definition of organisational boundaries. Production sites in **Italy and China** were included, while data for **US** sites was **extrapolated** based on production volumes and revenue.

Direct emissions (Scope 1) include energy consumption and fuel sources owned by or under direct control of the company.

Indirect emissions from purchased energy (Scope 2) were calculated according to market-based and location-based approaches. After a comprehensive analysis of all Scope 3 categories, it was found that only upstream categories were applicable to Flamma, namely: purchased goods and services, capital goods, fuel and energy-related activities, inbound transportation, waste, business travel and employee commuting.

The conversion factors used are sourced from **proprietary Sphera MLC (Material Lifecycle Calculation) databases** and from **EEIO (Environmentally Extended Input-Output) factors for economic sectors** regarding items calculated with a spend-based method. Methodologies adopted include **supplier-specific, hybrid, average-data** (based on weight in kg) and **spend-based** approaches, in line with the **GHG Protocol – Corporate Value Chain (Scope 3) Standard (2011)**.

1. IDENTITY AND STRATEGY

Our formula

About us

Flamma is an example of Italian excellence, founded in 1950 and operating in the chemical and pharmaceutical industry.

Specialising in the production of active pharmaceutical ingredients (APIs) and complex chemical intermediates, particularly amino acids and derivatives, Flamma is recognised for its quality solutions and expertise in the development of innovative, efficient and safe manufacturing processes.

The Group has a global presence with **five production sites located in Italy, China and the US**.

Flamma has consolidated its position through partnerships with international companies and close collaboration with universities and research institutes.
The company's philosophy integrates chemical and pharmaceutical science and research with corporate responsibility and the passion of its people.

This is the basis of Flamma's values, which have been formalised through discussion and engagement at every level of the company and laid down in the *Chemistry of Values*.

VALUES AND PURPOSE
Chemistry of values

In 2023, Flamma launched a structured process for the definition of its **purpose**, **corporate values** and **areas of strategic impact**, with the aim of consolidating its identity and ensuring future growth of the Group is aligned with these elements.

This process arose from the desire to translate Flamma's long-standing principles into a common language. In order to do this, the company opted for a participative approach, involving all company functions, from top management to middle managers and operational teams, in a process of co-creation.

Harnessing the **Kelter Design Canvas**, a methodology that alternates individual reflection and collective work, Flamma has identified the six underlying values of its corporate culture: *Act with care, Be open-minded, Get in the game, Make it simple, Build together, and Be accountable*.

Each value has been linked with clearly defined behaviours, identified directly by employees, making their daily commitment to apply them in their work tangible. This approach has enabled the creation of an authentic manifesto that reflects the reality of the company and its people.

Chemistry with a human touch

Alongside this, work on the purpose statement **"We embrace challenges to improve people's lives by furthering science with a human touch"** has enabled clarification of Flamma's mission: **to put science at the service of people's wellbeing** through a model of responsible innovation that combines research, ethics and sustainability. Hence also the four main impact areas identified by the company — *Sustainable Innovation, People, Community, and Environment* — that guide current strategy and reporting.

Our Story

1950
Flamma is founded in Bergamo with the vision of Dr Marco Maria Negrisoli and Dr Edmea Kullman, driven by a passion for chemistry and a strong sense of ethics and responsibility.

1996
The company, now well established in the Italian and European markets, builds a new production facility in Chignolo d'Isola, in the province of Bergamo.

2001
Flamma begins its expansion in China through a joint venture in Gongan and opening of the Shanghai Flamma Bioscience laboratory in 2005.

2005
The Paris office opens.

2011
Dalian Honkai is acquired.

2012
The company continues its growth in Italy with acquisition of the facility in Isso.

2017
Plant investments are made to increase production capacity in Dalian.

2019
A new plant is acquired in Malvern, Pennsylvania (USA).

2020
The Boston office opens.

2022–2024
The company further increases its capabilities with acquisition of the Bulciago site and construction of the Honkai 2 site in Dalian.

Flamma in figures: 2024

All of these operations allowed Flamma to double production, increase the capacity of its Italian and Chinese facilities, reach the 800-employee mark and lay the foundations for future growth.

€ 209 MILLION
Group turnover

24.09
Average hours of training per employee

80
Students involved in projects

123,091 tCO_2e
Total GHG emissions
(Scope 1, Scope 2 market-based and Scope 3)

13
Reactors upgraded at Bulciago site

5
Number of production sites

833
Total employees

Participation in international networks

Flamma participates in several **industry programmes** and **international initiatives**.

Joining global networks such as these means working with **shared standards**, adopting best practices and strengthening the commitment to responsible process and value chain management.

> “Here at Flamma, innovation is never an isolated act, but an ongoing process arising from the integration of research, experience and responsibility. Every new idea must result in a measurable improvement, for the process, for people and for the environment.
>
> **Massimo Verzini**
> Chief Technology Officer

UN GLOBAL COMPACT, RESPONSIBLE CARE, CO2ALITION

WE SUPPORT UN GLOBAL COMPACT

RESPONSIBLE CARE™ Driving Safety & Sustainability

coalizione

Flamma’s certifications

Certifications are an essential part of Flamma’s path towards an **increasingly structured and responsible operating model**. **Ongoing work to gain management-system certification** demonstrates the company’s commitment to quality, safety and continuous improvement.

ISO 14001 ISO 45001

Flamma Honkai site
(gained in 2025)

Innovation: chemistry rooted in scientific rigour and craftsmanship

For Flamma, innovation is a continuous process arising from the integration of **research, industrial expertise, passion and responsibility towards people and the environment**.

The Group’s value chain is based on an integrated production model that combines **R&D** with the **production** of active pharmaceutical ingredients (APIs), new chemical entities (NCEs) and complex intermediates on behalf of **international pharmaceutical companies**. As a Contract Development and Manufacturing Organisation (CDMO), Flamma supports its customers through **all stages of the product life cycle,** from definition of the synthesis strategy to full-scale production and final delivery.

This model involves a network of **specialised and interconnected sites**. The Bulciago site is dedicated to the production of APIs and high-volume intermediates and flow chemistry[1], the Isso site to the production of high-tech intermediates, and the Chignolo site to the production of innovative APIs. The Honkai site supports the Italian sites with the production of critical starting materials, while the Malvern site is focused on new products in the clinical phase. Together, these plants complete a global value chain capable of quickly transferring expertise, people and processes, ensuring operational continuity, consistent quality and a strong ability to respond to market needs.

[1] Unlike traditional chemistry, where reagents are mixed in a static vessel, flow chemistry involves pumping reagents continuously through a reactor.

At the heart of this integrated model, the **R&D** division is the driver of innovation. Research has **two complementary components**: on the one hand, it involves **support to customers** in the clinical development of active ingredients and the refinement of chemical processes, and on the other, it involves **building a proprietary technological asset** that increases the number of reactions and processes that can be handled safely, efficiently and sustainably. This approach also harnesses the company's **logic of "sustainability by design"**, introducing environmental and social impact assessment from the earliest stages of product development, helping to reduce risks and optimise resources throughout the production cycle. **Process innovation** also takes shape at this stage. This is supported by the introduction of technologies such as flow chemistry, biocatalysis[2] and measurement of the environmental impact of solvents in current synthesis routes using the **Solvent Eco-Impact Metric**, an in-house methodology that promotes more sustainable and measurable choices.

Quality management and **analytical control** are an integral part of the production process, along with compliance with international standards and customer technical support.
In recent years Flamma has invested significantly in process industrialisation, with **advanced automation systems that improve efficiency, safety and traceability**. New technologies make it possible to quickly transfer syntheses developed in the laboratory to production scale, reducing the risk of error and critical issues typical during scale-up. **The ability to combine scientific rigour, craftsmanship and intuition is one of the Group's main competitive advantages.**

At Flamma, innovation is also cultural: it is fuelled by **cooperation with universities and research centres, shared training programmes** and **constant dialogue with the international scientific community**. It is a path generating not only technological but also human value, helping to build a more efficient, ethical and future-oriented chemical and pharmaceutical industry.

> "We have built a system capable of supporting itself from within: each site supports the others, ensuring continuity, quality and a solid response to global challenges.
>
> **Giorgio Bertolini**
> General Manager, Italy

[2] Biocatalysis is the use of biological catalysts, such as enzymes or whole microorganisms, to efficiently and sustainably accelerate useful chemical reactions. It is a key field of **green chemistry** because it often involves more moderate conditions than traditional catalysis, with less waste and a reduced environmental impact.

Solvent Eco-Impact Metric

The Solvent Eco-Impact Metric is a tool developed in-house by Flamma to objectively and comparatively assess the environmental and safety impact of solvents used in chemical processes. The metric arises from the need for a transparent, scientific criterion to guide choices towards more sustainable solutions, without compromising efficiency, yield or process safety.

The method is based on an evaluation matrix that gives each solvent a weighted score based on multiple parameters, including toxicity, flammability, volatility, difficulty of disposal, bioaccumulation potential and direct and indirect environmental impacts. The approach integrates quantitative and qualitative data and enables development of a corporate benchmark: each new process or solvent substitution is compared with the average score in order to accurately measure progress and ensure continuous improvement of environmental performance.

The Solvent Eco-Impact Metric now represents a benchmark for designing processes with a "sustainability-by-design" approach and an effective tool for dialogue with customers and partners, used to share common evaluation criteria and to transparently demonstrate the results achieved in terms of impact reduction.
In addition to its technical value, the metric reinforces the culture of scientific responsibility and promotes an approach to innovation that is rooted in knowledge, measurement and continuous improvement.

Our vision

2024 saw Flamma translate its identity into a shared vision, integrating corporate culture, sustainability goals and a long-term view.

The path of defining **values, purpose and strategic impact areas** initiated by Flamma in 2023 laid the foundations for an integrated and measurable approach to sustainability.

DOUBLE MATERIALITY ASSESSMENT

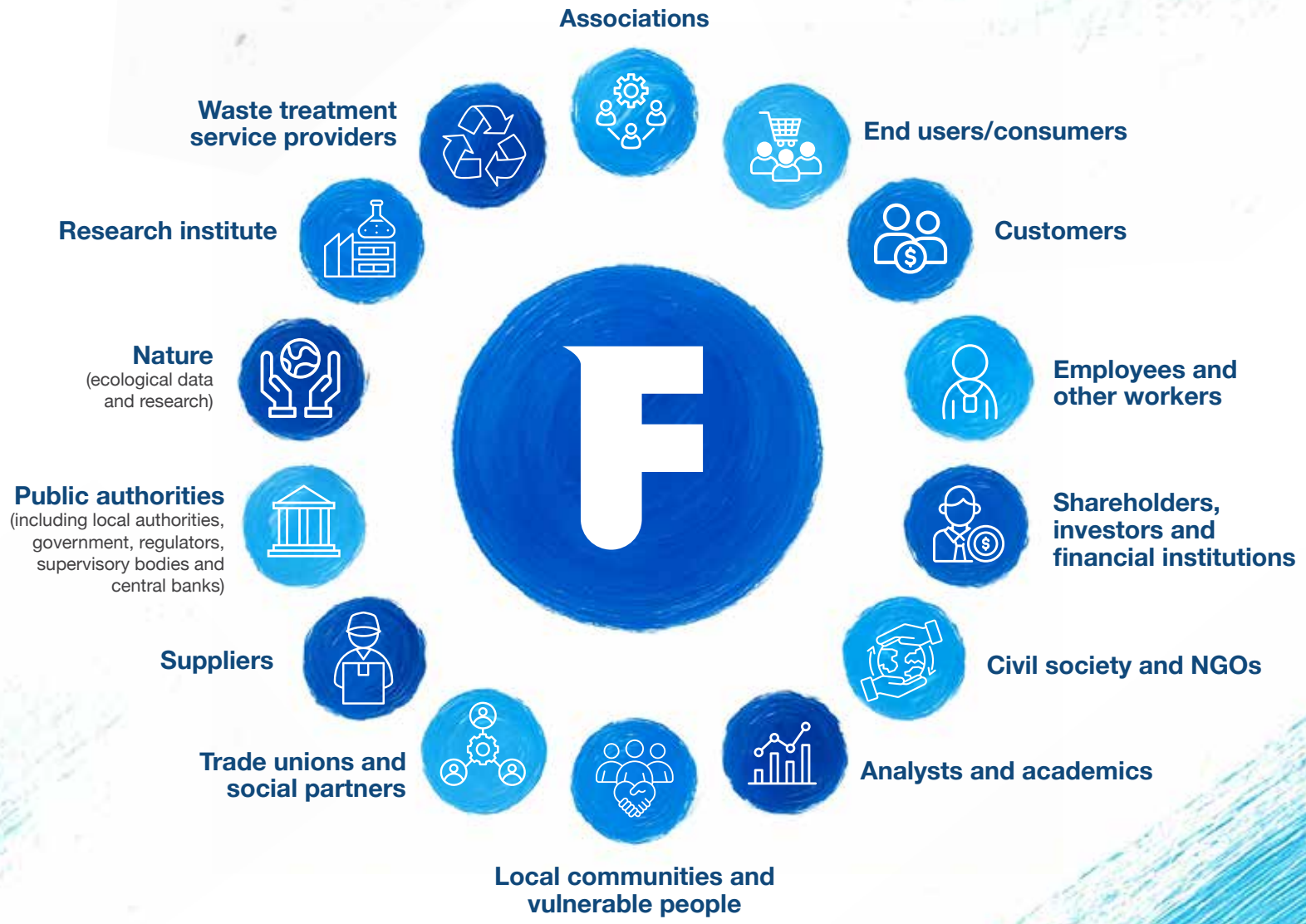
Continuing this strategic approach, in 2024, the company conducted its first **double materiality assessment**, with the aim of identifying the **impacts, risks and opportunities (IRO)** most relevant to the organisation and its stakeholders, in accordance with **ESRS 1** standards and EFRAG's Draft Implementation Guidance 1 (December 2023). This analysis represents an operational step translating corporate values into strategic sustainability and reporting priorities.
The process involved four stages:

1. **Contextualisation and benchmarking**, with analysis of the chemical and pharmaceutical industry and benchmark best practices
2. **Preliminary identification of topics**, combining the ESRS 1 – AR 16 list (excluding topics that are not relevant) with company-specific topics relevant to a CDMO such as Flamma. The **15 topics** resulting from this initial selection, 11 of which were ESRS-related and 4 Flamma-specific, underwent voting and validation by key stakeholders.
3. **Stakeholder engagement**, through seven qualitative interviews with internal subject-matter experts and **an online survey** involving 135 internal and external stakeholders. There was a 61% response rate, with a clear majority of respondents from within the company. Finally, 93 opinions were gathered and analysed
4. **Final evaluation and validation of the topics**, through qualitative and quantitative analysis of impact and financial scores, discussed in dedicated workshops and in a final validation meeting.

Stakeholder map

Stakeholder mapping was important for Flamma to understand the relationships that influence and are influenced by the Group's operations. Through the analysis and involvement of internal and external stakeholders, Flamma identified shared expectations, needs and responsibilities, consolidating an ongoing dialogue that has always guided the Group's decisions, priorities and paths towards improvement.

The infographic on the right shows the internal and external stakeholders identified by Flamma and involved in the definition of material topics.



Results of double materiality assessment

Topical standard	IRO	SDG	Flamma value
E1 Climate change and energy	Negative impacts, financial risks	13 CLIMATE ACTION	Make it simple Act with care
E2 Pollution	Negative impacts, financial risks		
E3 Water resources	Negative impacts, financial risks	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	
E5 Resource use and waste	Negative impacts, financial opportunities		
S1 Own workforce, health and safety, and equality	Positive and negative impacts, financial risks and opportunities	3 GOOD HEALTH AND WELLBEING 8 DECENT WORK AND ECONOMIC GROWTH	Act with care Be open-minded Get in the game
S2 Workers in the value chain	Positive impacts, financial risks		
S3 Local communities	Positive impacts, financial opportunities	17 PARTNERSHIPS FOR THE GOALS	Build together Be accountable
G1 Business conduct	Positive impacts, financial risks		

The company-specific topics identified (Process innovation, Management of regulatory environment, Economic value creation and sustainable growth, and Cybersecurity), as well as the topical standard S4 (Consumers and end-users) were excluded from 2024 reporting, as the Group does not come into direct contact with the end-users of products packaged and sold to the public by their main customers (pharmaceutical-industry players).

Our sustainability governance

The journey described in the preceding sections is formalised in our **Sustainability Policy**, approved in October 2024.

This document dictates the Group's strategy regarding ESG matters and consolidates an integrated approach to sustainability, defining five key objectives, which overlap with the main impact areas identified: **people, community, sustainable innovation, environment and sustainable profit**.

The Policy enshrines the Group's commitment to integrate sustainability into all business functions and decision-making processes, to promote dialogue with stakeholders and to monitor performance through a set of universal KPIs, including training, safety, waste reduction, carbon footprint, personnel development and inclusion.

The strategy is based on dedicated governance, which assigns the **ESG Director** and the **Executive Committee** the task of guiding and monitoring policy implementation, in line with the principles of care, simplicity, openness and accountability that characterise the corporate culture.

FLAMMA'S ESG POLICIES

The Sustainability Policy is implemented through a system of sector-specific policies regulating the **three ESG areas**, Own Workforce, Ethics and Environment, ensuring a coherent oversight of strategic and operational dimensions.

- The **Own Workforce policies** define Flamma's commitments to **human and labour rights, inclusive culture and sense of belonging, and health and safety**, fostering a working environment characterised by dignity, wellbeing and equal opportunities.
- The **Ethics policy** ensures the integrity of conduct within the company, with guidelines on **anti-bribery, conflict of interest, data protection and ethics training**, safeguarding transparency and accountability in decision-making.
- The **Environmental policies** translate the strategy into concrete action on **energy and climate change, water, waste, pollution and the circular economy**, outlining a path of continuous improvement towards a low-emission, resource-efficient business model.

These policies are accompanied by other instruments such as the Code of Ethics, Code of Conduct and policies dedicated to Whistleblowing and Procurement, discussed in more detail in the specific section on Business Ethics.

All policies share a common approach: sustainability treated as an integral part of the business model, definition of measurable targets, two-yearly review of results and greater responsibility of each corporate function. Together, these guidelines provide the framework of Flamma's **ESG strategy**, geared towards the creation of sustainable value for people, the community and the environment.

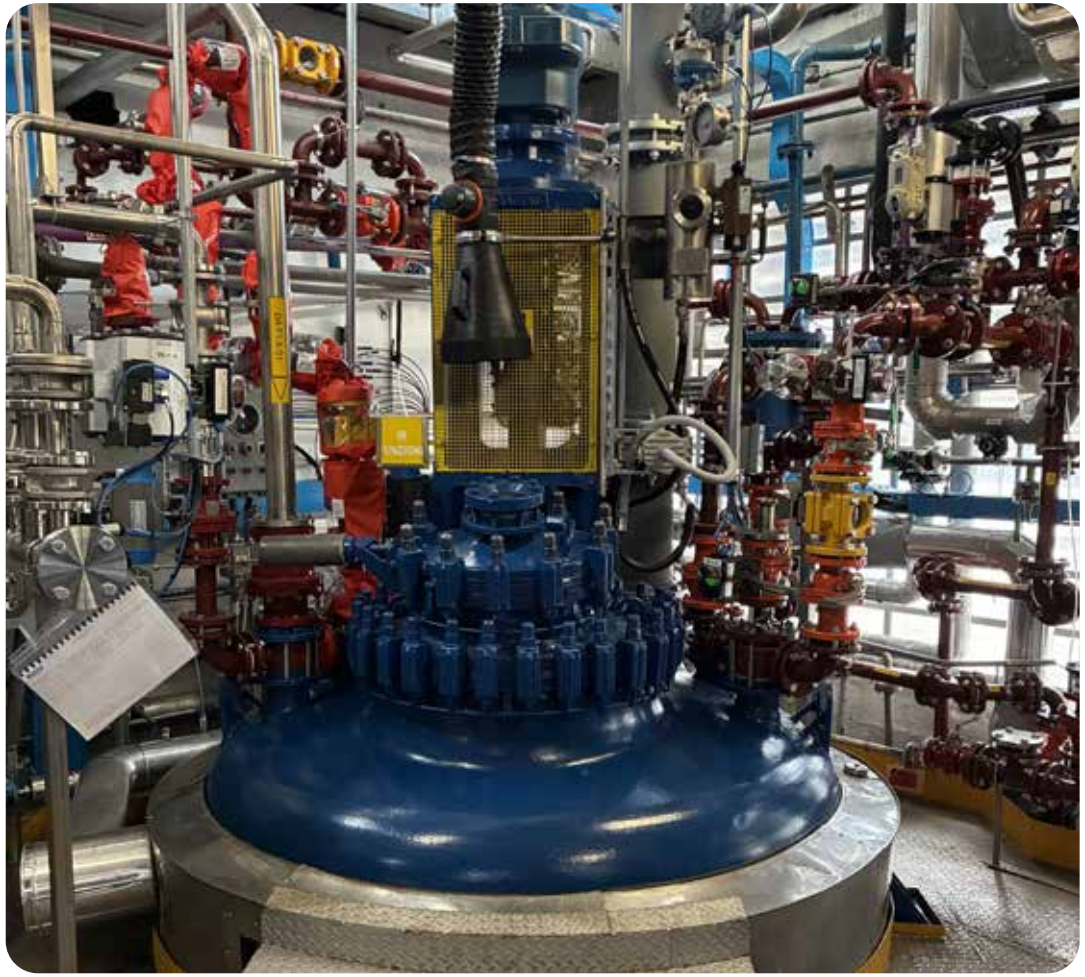
THREE ESG AREAS

Own workforce Ethics Environment

2. ENVIRONMENT

Balance of elements

Balance of elements



Energy management and the reduction of environmental impacts represent an important strategic opportunity for Flamma in terms of performance and positioning.

In an industry characterised by **resource-intensive processes** and strict quality requirements, the company has chosen to integrate this focus into its decision-making principles.

Actions taken to **optimise energy efficiency** are not only a technical aspect of Flamma's production model, but a **source of greater competitiveness and resilience** for the whole organisation.

Environmental Policy

Flamma takes an integrated approach to environmental management, undertaking to prevent pollution, use resources responsibly and progressively reduce impacts. The policy is based on strict regulatory compliance and the promotion of an internal culture geared towards care for ecosystems and transition to a more sustainable economic and production model.

Its implementation is led by the HSE function, with the support of site managers, and is shared within the company through training sessions and regular communications that clearly outline roles, expected behaviours and operational responsibilities.

Climate change and energy efficiency

In 2024, Flamma significantly increased its **ability to monitor and reduce impacts** related to production processes, through management and operational measures in all relevant areas.

The transition to a less carbon-intensive production model requires a broad vision that not only looks at reducing consumption but also how the company **designs, manages and innovates** its production system. For Flamma, responsible energy management is integral to corporate strategy and finds its expression in the policies issued in October 2024, which define the objectives of promoting efficient use of resources, integrating environmental criteria into technical decisions and investing in solutions and technologies that reduce the climate implications of industrial operations.

In 2025, this translated into a process for **calculation of the Group's carbon footprint** across all production sites[3] in a single integrated analysis based on GHG Protocol guidelines. The results of the analysis provide a solid basis from which to orient efficiency measures and define objectives for the coming years.

Alongside the measurement of emissions, evolution of **energy governance** is also important, with investments in digitalisation of controls, optimisation of cooling systems, reduction of methane consumption and adoption of energy management solutions. The role of the **Italian sites**, with technical and plant engineering expertise serving the entire Group, has been central in identifying and testing measures that can be replicated at other facilities.

[3] Italian and Chinese sites were subject to detailed analysis. The US site was included in the overall analysis by estimating GHG emissions based on production volumes and revenue.

Energy-efficiency strategy and environmental management systems

In 2024, Flamma initiated a structured process for the **consolidation of environmental governance**. With adoption of the new environmental policies, for the first time, the Group has defined a set of coherent principles, criteria and responsibilities for all locations, while promoting a "sustainability-by-design" approach.

The activity of the **HSE area** falls into this context, as it lays **the foundations for implementation of an integrated management system**, with the aim of its adoption at corporate level in 2026. Data collection and evaluation enabled the identification of priority action areas, definition of KPIs and definition of a shared vision for Italian and foreign sites. Internal restructuring of the HSE area and introduction of more clearly structured roles and responsibilities have enabled **increased oversight of energy and environmental aspects** with a more coordinated approach.

Energy-efficiency measures introduced in 2024 show significant evolution compared to the past. A **new flow-chemistry plant** was set up in Bulciago, reducing reaction volumes, optimising yields and allowing recovery of a portion of the solvents and reagents, thereby reducing consumption and operational risks. At the same site, upgrading **of 13 reactors** began, with the introduction of a Distributed Control System[4] to automate and monitor production process.

Inverters were also installed to modulate energy consumption according to actual needs.

At the Isso facility, the **replacement of chiller units** with higher performance models has improved gas heat exchange and reduced the energy impact of cooling systems. In addition, **obsolete and energy-intensive compressors and equipment have been replaced** across all facilities.

One particularly significant project concerns the new office building in **Chignolo d'Isola**, designed as an **all-electric premises**, eliminating the use of natural gas. The laboratories have been equipped with around sixty intelligently controlled hoods and reversible heat pumps that optimise the flow of hot and cold air to ensure the best possible working conditions within the rooms. These design choices have resulted in a 70% saving in electricity consumption compared to a traditional premises.

> "Energy efficiency is not an abstract goal: it stems from the ability to properly analyse data and understand where to take action. Today, the environmental cost of energy is increasingly reflected in business costs. We must therefore be prepared, with more stable installations and more conscious consumption.
>
> **Duccio Pagani**
> Corporate Engineering & Technical Services Director

[4] Digital control system used to monitor and manage reactions, temperatures and flows in real time, ensuring greater process reliability and reduced energy consumption.

In addition to the Italian facilities, the **Honkai site** in Dalian, has made a significant contribution to the Group's energy efficiency, introducing **advanced technical solutions** that integrate recovery, waste reduction and heat-flow optimisation. With the cost of steam high (currently partly self-produced and partly purchased from the industrial park, especially during winter months), a **condensate recovery system** has been developed that allows thermal energy to be re-used and reduces the demand for "fresh" steam, with a direct benefit on overall consumption and water use.
A second major initiative is the project to **recover liquid nitrogen** used in cryogenic reactions. Instead of the gas being released into the environment after use, it is recovered on site, re-compressed and reintroduced back into the existing usage line, where it is produced from air using membranes. This solution **significantly reduces associated emissions**, avoiding the dispersion of approximately 300 cubic metres per hour into the atmosphere during reactions.

Energy efficiency and the reduction of environmental impacts also depend on the design and management of production processes. Flamma understands process innovation not only as improving yields and quality, but also as adopting **solutions that reduce waste, consumption and operational risks**. In 2024, the R&D area carried out analyses aimed at optimising production cycles, introducing decisions aimed at minimising impacts from laboratory development phases and then scaling them up to industrial level.

Over the coming years, Flamma plans to further improve measurement of energy consumption using **monitoring systems**, in pursuit of environmental and economic benefits. The pathway to a more efficient energy model therefore has three strands: **governance, technology and in-house expertise**, integrated within the Group's future environmental management system.

Energy-Management and Climate-Change Policy

The Group is committed to improving energy efficiency, promoting renewable sources and reducing climate-changing emissions, in line with the main European and international benchmarks. The policy is aimed at progressive decarbonisation of facilities and a corporate culture oriented towards the measurement, continuous monitoring and mitigation of climate impacts.

Implementation is coordinated jointly by Engineering & Technical Services and HSE, which define priorities and actions. It is shared through internal communications, energy reports and the dissemination of best practices in technical departments.

Energy consumption and GHG emissions

In 2024, Flamma consolidated its energy consumption and emissions monitoring system, **combining Italian and Chinese sites into a single analysis for the first time**.

Total Group energy consumption is driven by the Italian facilities, which are responsible for more than two-thirds of energy used, while energy requirements in China are significantly lower, consistent with their different production structure. The **portion of electricity from renewable sources** is attributable to Italy, while the non-renewable share is consistent with the energy mix of the areas in which the facilities are located.

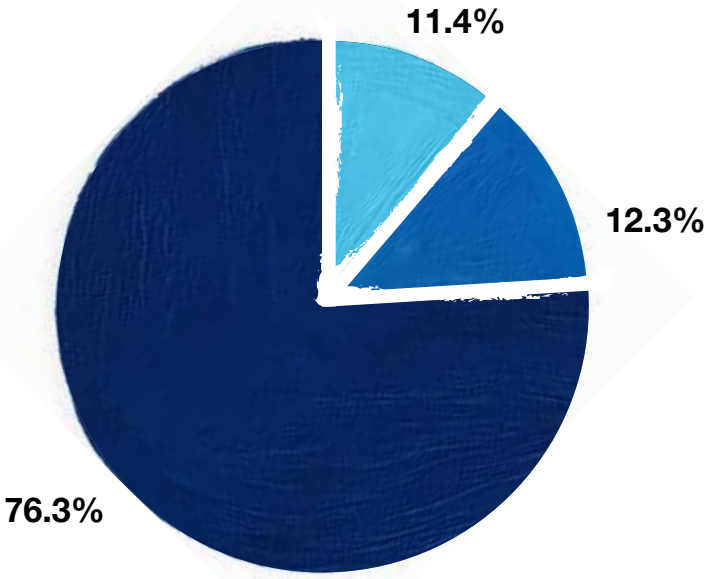
Direct emissions (Scope 1) correspond mainly to **natural gas consumption at Italian facilities**, while the impact of liquid fuels is marginal and regards both countries. Indirect emissions (Scope 2) from purchased electricity, analysed according to both the location-based and market-based approaches, show a **differential impact between Italy and China**, reflecting the characteristics of their respective electricity systems and tariffs applied.

Scope 3 emissions represent the **predominant share of Flamma's carbon footprint** and, among the sources mapped upstream in the value chain, the most significant category is **purchased goods and services**, reflecting the impact of solvents used in synthesis processes.
The overall contribution of direct and indirect emissions is consistent with the Group's operational profile and provides a basis from which to develop more specific reduction targets.

78,801 MWh
Total energy consumption related to own operations

58%
Percentage of electricity from renewable sources at Italian sites

GHG emissions



Prevention and control of pollution

Management of atmospheric emissions, including those not analysed by the GHG Protocol, is a key aspect of Flamma's environmental performance, as it concerns both air quality and plant operational safety.

The approach is based on **three complementary elements: prevention at source, efficiency of abatement systems and operational continuity of facilities**.

Italian facilities have introduced advanced off-gas treatment systems. At the Isso and Chignolo facilities, **optimisation of combustion parameters and review of treatment cycles** has helped to reduce the organic load treated, improving the overall system stability.

At the Honkai 2 site, the integrated system, consisting of **DFTO** (Direct Fired Thermal Oxidiser)[5] and **activated carbon filters**, guarantees more effective treatment even under variable operating conditions, reducing odours, volatile organic compounds and potentially damaging gaseous residues. In the future, this system will serve as a **backup to the more efficient RTO** (Regenerative Thermal Oxidiser)[6] technology. Introduction of RTO systems at the Flamma Honkai 2 site will further improve energy efficiency of treatment, recovering heat and reducing consumption for combustion processes.

Alongside this, improved solvent management, **reduced volatilisation and minimised waste** have direct and indirect effects on air quality and site emissions. Testing activity on vents and the doubling of gaseous emissions treatment plants in China complete the measures launched in 2024.

[5] A thermal oxidation system that destroys volatile organic compounds through direct combustion at high temperatures, providing effective abatement of industrial off-gases.

[6] High-efficiency thermal oxidation system using ceramic beds to recover heat, reducing energy consumption in off-gas treatment and improving overall abatement efficiency.

> "Reducing emissions means taking action before they are generated. Recovering heat, gases and condensates to limit waste and release of pollutants is a daily goal.
>
> **Paolo Pretin**
> Dalian Engineering Director

Pollution Policy

The policy lays down the Group's approach to the prevention and control of air, water and soil pollution, in full compliance with European directives (water, waste, industrial emissions, Seveso III). These provide for control, monitoring and continuous-improvement systems, with the aim of reducing the substances released into the environment and supporting the transition to zero emissions into the air, water and soil.

This is handled by the HSE department, supported by maintenance teams and department managers. Implementation relies on specific procedures and training to ensure the correct handling of substances and abatement systems.

Water management

Water plays many roles in chemical and pharmaceutical production processes. It is used for industrial production, plant and equipment, environmental treatment, laboratories, process temperature control, air-conditioning systems, utilities, toilets and canteens, fire-fighting systems, showers and eyewashes, and effluent management. Efficient use and management of water resources are therefore important aspects for Flamma to monitor and implement.

In 2024, the Group **mapped water flows** within its facilities, distinguishing the different types of water used and identifying the most water-intensive areas in order to plan new **reduction solutions**. This provided operational indications applicable in the context of **optimisation of cooling systems, adjustment of thermal parameters and enhancement of monitoring tools**.

Responsible-Water-Management Policy

The policy establishes principles and responsibilities for the sustainable use of water resources, from reducing consumption to protecting the quality of wastewaters. The focus is on ensuring efficient water use and preserving water ecosystems, maintaining full compliance with regulatory limits and promoting internal best practices.

Responsibility is shared by HSE and those in charge of thermal and process systems, monitoring consumption and waste.
The policy is communicated through internal procedures and initiatives to raise awareness of everyday behaviour that impacts water resources.

Waste Management and the circular economy

Waste management is one of the most relevant environmental issues for the chemical and pharmaceutical industry, because it reflects the complexity of processes and the nature of substances handled. In 2024, Flamma strengthened its approach by introducing **more accurate mapping tools**, improving **waste classification** and expanding **reuse and recovery solutions**. The Solvent Eco-Impact Metric is an eco-design tool that enables the definition of synthesis routes using safer, less impactful and easier-to-recycle solvents. The reaction phase, on the other hand, is supported by **automation and control systems** that reduce waste, increase operational stability and minimise unwanted volatilisation.

The aim is to progressively reduce the amount of hazardous waste, increase the proportion of recovered materials and support an industrial model that minimises impacts throughout the production cycle.

This approach is based on **three main pillars**. The first is **reduction at source**, supported by more efficient process design, the **selection of solvents with less impact** and **greater automation of production departments**. The second is **potential** and concerns the **recovery of materials**: distillation systems in Italian facilities could enable a portion of the solvents used to be regenerated, reducing the amount of liquid waste sent for disposal. The third currently takes the form of a **feasibility study**, launched in 2024, to identify new chains of recovery and transformation of waste into by-products. This analysis, which remains ongoing, could generate economic opportunities and reduce the dependence on external disposal.

The most advanced recovery systems make it possible to regenerate up to 95% of the solvents used in some plants, with significant economic and environmental benefits.

The Honkai site in China is an example of the application of circular economy principles to complex chemical processes. Measures introduced in recent years have been aimed at reducing waste, improving the quality of effluents and optimising the recovery of critical materials.

The main solutions adopted include:

- Complete cryogenic nitrogen recovery, enabling the nitrogen used in cryogenic reactions to be re-compressed and reintroduced into the production cycle, avoiding its release into the atmosphere.
- Reduction of hazardous waste through separation of hazardous and non-hazardous substances during the pre-treatment phase.
- Stripper, a new evaporation system that increases the efficiency of effluent pre-treatment, reducing heat consumption and the volume of waste generated.
- Mapping of incoming flows, enabling better isolation and treatment of effluents, improving the performance of evaporation and filtration systems.

> “The Solvent Eco-Impact Metric allows us to weigh every choice at the design stage: environmental impact, recovery potential, energy consumption and risk level. We use this practical tool to improve processes right from the start and increase the recovery of resources.
>
> **Massimo Verzini**
> Chief Technological Officer

Waste Policy

The policy establishes a waste management system based on prevention, reduction and recycling, in accordance with European and national waste legislation. It provides for the timely control of flows, correct substance classification and adoption of solutions that favour recovery over disposal. The aim is to reduce the hazard level and volume of waste, promoting a circular model.

HSE coordinates the implementation of these measures, while each facility ensures traceability of its own flows. The policy is communicated through operational procedures and dedicated sessions with production teams to ensure awareness and consistent behaviour.

Circular-Economy Policy

Flamma promotes the use of secondary and recycled materials in production processes, integrating principles of circularity in the design and management of operations. The policy aims to minimise use of virgin resources, increase internal reuse and regenerate materials through innovative processes. This systematic approach enables environmental and economic benefits throughout the product life cycle.

The ESG area establishes and monitors procurement criteria and recovery processes throughout the supply chain, while the R&D and production departments apply the principles for process design. The policy is communicated through internal guidelines and integration into continuous-improvement projects.

19,870 t

Total waste generated in Italy

8,968 t

Total waste generated in China

3. SOCIAL

The human element

The value of people

People are central to Flamma's growth and represent one a cornerstone of the Group's business model.

In 2024, Flamma consolidated its commitment to a working environment rooted in caring, listening and responsibility, reinforcing a **common culture** across the **three countries** in which it operates.

Here, we describe this journey: **a set of coordinated actions** to attract talent, support development, promote inclusion and wellbeing, and build a professional community that can grow together.

OUR PEOPLE

Flamma's people are integral to its business model. In 2024, the Group continued to strengthen its corporate culture based on the values *"Act with care"* and *"Be open-minded"*, progressively introducing colleagues from the US and China to a **path of shared identity building**.

The Corporate HR function played a key role in maintaining consistency across sites, drafting **common guidelines** and **harmonised processes** for selection, development and enhancement of skills. This approach, while respecting the specific regulatory and cultural profiles of each country, has promoted the integration of teams and an increased sense of belonging.

In 2024, the Group also hired **52 new employees** across its Italian and Chinese facilities. This figure confirms the company's solidity and its ability to attract qualified talent to support growth. The new hires strengthen key areas of the production sites and support the expansion of operations, particularly in terms of research, development and industrialisation projects.

Confirming the effectiveness of the HR strategy, **constant improvement in the retention rate** has been seen over the three years 2023–2025, with turnover in Italy falling from 11.9% in 2023 to 9.5% in 2024 and an estimated 5% in 2025. This positive trend likely reflects the Group's growing reputation, **improved internal communication** and the involvement of a network of **internal ambassadors** who promote conduct consistent with the company's values across the company's various sites.

Our commitment to people also translates into the strengthening and enhancement of skills through periodic **performance reviews** and training courses to consolidate **technical and managerial expertise**, which are key elements in a highly specialised sector such as the chemical and pharmaceutical industry.

> "Our task is to ensure consistency across different countries, without losing sight of specific local phenomena. A corporate culture grows when people, wherever they are, identify with the same values and carry them into their daily lives.
>
> **Mariella Gioia**
> HR Corporate Director

833
Employees

52
Total net new hires
(figure calculated by comparing the number of employees at the beginning and end of the reporting period)

WELLBEING AND WORK-LIFE BALANCE

In 2024, Flamma doubled down on its commitment to people's wellbeing by developing a coordinated set of initiatives aimed at **promoting quality of life, listening and balanced working conditions**, in line with the value "Act with care".

Corporate welfare was extended with new benefits and economic measures introduced through a trade union agreement, improving accessibility to services and increasing flexibility for employees. 2024 also saw the formalisation of already established practices, such as **flexitime** and the option of **homeworking**, introduced by the company before the Covid-19 pandemic and now an integral part of the organisational model.

In addition to economic welfare, Flamma has invested in perceived wellbeing through **continuous feedback mechanisms**. An **instant survey** on internal communication was conducted during the year, to gather direct feedback on the corporate climate, identifying areas for improvement and outlining a process for the standardisation of future surveys.

There was a positive evolution of the Group's welfare policies globally in 2024, with increasing alignment of people's needs and the company's sustainability vision, understood as the balancing of results, working conditions and quality of life in the different countries where Flamma operates.

Human Rights and Workers' Rights Policy

Flamma's commitment to human rights was formalised in 2024 through its Human Rights and Workers' Rights Policy, applied across all Group sites. This policy, which is aligned with international standards such as the Universal Declaration of Human Rights, ILO (International Labour Organisation) conventions and OECD (Organisation for Economic Co-operation and Development) Guidelines, prohibits all forms of discrimination, child and forced labour and guarantees fair, safe and dignified working conditions.

Responsibility for its implementation is shared: the Executive Committee promotes the principles contained in the policy, the Corporate HR function ensures its operational application and all employees are called upon to observe its provisions and report any violations through internal channels. This approach fosters a working environment rooted in respect, equity and transparency, consistent with the Group's values.

Inclusive culture and belonging

Diversity, Equity & Inclusion Policy

Flamma's DE&I Policy promotes a diverse, equitable and respectful working environment where every individual can make an authentic contribution. It safeguards against all forms of discrimination and values diversity, guaranteeing equal opportunities at all stages of professional life.

Implementation of the policy is founded on shared responsibility: the Executive Committee integrates DE&I principles into corporate strategy, the Corporate HR function coordinates their implementation in the various countries, and management incorporates them into day-to-day team management. All employees are involved through training, awareness-raising initiatives and internal channels for dialogue and reporting any issues. The DE&I Policy is a central pillar of the Group's inclusive culture.

In 2024, Flamma furthered its efforts to build an inclusive and participatory culture, focusing on recognition of the **uniqueness of people** and the value of **cooperation** across sites, functions and countries. The ***"Be open-minded"*** principle guides this process, promoting listening, openness and respect for diversity as essential features of a **cohesive and growth-oriented work environment**.

Systematic dissemination of corporate values through the BEAT project and publication of the Manifesto of Values continues to be a **participatory process**, involving company management, middle management and operational teams. In particular, the **Digital Breakfast** sessions, for collective discussion and listening, have been a valuable opportunity for dialogue within the organisation, enabling people from the Italian sites to share best practices and explore how the values translate into daily practice. Initiatives at international sites also made a significant contribution to fostering a sense of belonging. In China, in particular, the dissemination of values required a dedicated ***"transcreation"*** process, adapting languages, cultural references and training tools to the local context. This process, which resulted in the creation of a **Manifesto** and a **Guide to Values in Chinese**, has fostered a deeper understanding of expected behaviour and greater alignment across Group sites.

2024 also saw progress on the gender-equality front, with **two more women entering top roles (+3 from 2022)**.

-1.73%
Average gender pay gap

20% women
80% men
Gender gap in managerial positions (excluding production)

Training and growth

Training is a **strategic component of the Group's growth model**. It enables the company to support business development, strengthen process safety and consolidate a shared corporate culture across the different countries in which it operates.

In addition to compulsory training, Flamma provides its people with training plans geared towards the consolidation of skills that are strategic for the company. In 2024, in particular, proposals focused **on development of technical, managerial and value-based skills**.

The regeneration and co-creation of corporate values, initiated with the leadership team and middle management, progressively involved all levels of the organisation. Dedicated **workshops** and opportunities for discussion such as "Digital Breakfasts" allow teams to further their understanding of corporate values and translate them into **everyday actions**, strengthening cohesion between colleagues from different countries and functions.

In 2025, there are plans for an **e-learning platform** accessible to all employees, offering digital content and bitesize training dedicated to the development of soft skills and leadership expertise, with the support of AI tools.

For managers in particular, training has focused on the development of key competences for the **management of work teams**, including listening, acceptance of different points of view and inclusive leadership. The company has also run **mentorship and coaching courses** dedicated to specific strategic roles, with the aim of supporting those in key functions through periods of change and professional growth.

The final component of the professional-development framework is a year-round performance and competence evaluation process. Through structured dialogue and a shared methodology across Italy, the US and China, this system enables transparent **monitoring of professional development** and identification of growth pathways aligned with the needs of the different business areas.

24.09 hours

Average hours of training per employee (calculation based on weighted average of Italy and China)

Health and safety

1.26
Accident rate

In 2024, a structured pathway was initiated to strengthen the **health and safety governance**, in line with the value ***"Act with care"*** and the commitments formalised in the Health and Safety Policy.

The past year has been a turning point for **the HSE area**, which has been **restructured** with a review of roles and responsibilities, introduction of new dedicated resources and definition of universal procedures and standards applicable to all Group sites.

This process forms the basis of the integrated HSE management system, which is scheduled for full implementation by 2026.

Flamma has also joined the international **Responsible Care** programme, which sees chemical companies commit to continuous improvement in worker protection, risk prevention and responsible process management. Joining this initiative has resulted in the introduction of **common tools for reporting and learning from incidents**, including internally shared safety alerts, documenting the dynamics, causes and preventive measures of incidents recorded at company sites. To support this, **a unified classification system for accidents and near misses** has been developed, accompanied by a strengthening of **risk assessment** in key production activities.

The ***Take 5 for Your Safety*** programme played a central role in cultural change, after introduction in August 2024. This tool is based on analysis of the recurring causes of injuries, often arising from daily activities being carried out too quickly or habitually. It establishes five essential steps to assess risks before starting any operation, verifying the availability of appropriate information, skills, protective equipment and conditions.

Alongside this, the HSE department drafted a set of ten **golden rules** for the company, which will provide an **operational framework for risk prevention** at Italian, US and Chinese sites. Activities continue with training and continuous dialogue, with the aim of making safety a shared and internalised practice at every level of the organisation.

Overall, in 2024 **Flamma** laid the foundations for **a structural evolution of its safety culture**, moving the organisation towards higher standards of protection, awareness and collective responsibility.

Health and Safety Policy

The Group's Health and Safety Policy lays down its commitment to safe, controlled working environments that protect people's health, affirming the principle that every individual has the right to work with the highest level of safeguards. The document sets out clear obligations regarding prevention, risk management, continuous training and monitoring of operating conditions, in line with international standards, ILO conventions and local regulations in the countries where the Group operates. The policy expressly prohibits unsafe practices, promotes responsible behaviour and recognises safety as a shared responsibility. Implementation of the policy involves the coordinated involvement of the Executive Committee, the HSE Corporate function, site management and workers. Safety governance is based on structured risk-assessment processes, mechanisms for reporting and managing incidents and near misses, and training programmes aimed at increasing awareness and skills. The framework defined by the policy guides all operational activities, fostering continuous improvement and contributing to a corporate culture in which the protection of people is a core value.

Community and social impact

PATIENTS

Although Flamma does not have a direct relationship with patients, the most significant value generated by the company is seen in the health sector. The main contribution of a CDMO such as Flamma is to ensure that active ingredients and complex intermediates developed for pharmaceutical companies meet the highest **standards of quality, safety and production continuity**.

APIs (Active Pharmaceutical Ingredients) sit at the heart of the pharmaceutical value chain, producing the therapeutic effects for which each drug was developed and approved, thereby making them critical for patients.

Each improvement to a synthesis process, each increase in quality-control accuracy, and each advance in plant safety and process sustainability, has a downstream impact on patients' lives. **Technical expertise is translated into therapeutic reliability**, reducing risks throughout the supply chain and contributing to the **stability of drug supply**.

In 2024, thanks to the portfolio of managed products and volumes developed at Italian, US and Chinese sites, Flamma enabled the production of a significant number of treatments for acute and chronic diseases.

A partnership accelerating innovation for rare diseases

The partnership between Flamma and Acadia stems from the common goal of offering **innovative therapeutic solutions** to patients suffering from rare and complex diseases. In this process, Flamma has supported Acadia in the production and validation of the **drug** production process, accompanying its evolution from laboratory to industrial scale, through to regulatory stages and clinical trials, involving prolonged, delicate development processes with a high probability of failure. The success of this partnership is founded on **three key elements**.

The first is the ability to address and overcome scientific and regulatory challenges with a **rigorous yet flexible approach**, integrating chemical expertise, advanced technologies and solid regulatory support. Flamma's commitment to providing excellent customer service, utilising state-of-the-art technology in development and providing solid regulatory expertise and strategy is greatly valued by Acadia. This approach has allowed us to advance our programmes in a compliant, cost-effective manner that is fully aligned with regulatory requirements. The second is **industrial management**: Flamma succeeded in developing and scaling up the process on schedule and on budget, despite unforeseen technical issues, guaranteeing operational continuity, quality and speed, key aspects to ensure **patients with rare diseases gain access to innovative treatments**. Flamma developed and validated the improved process for our product from laboratory through to industrial scale. Obstacles arose along the way, but their ability to react appropriately and stay on course was far beyond that usually observed in the CDMO sector. Their ability to keep to an ambitious schedule enables us to achieve our goal: to ensure that patients receive innovative drugs in the shortest possible time.
The third element is the **human dimension** of the partnership, **strengthening the sense of purpose and motivation for both parties**. Acadia likes to share patient stories with its suppliers, creating a bond throughout the supply chain. Flamma's response to these testimonies, from warehouse staff to the CEO, was authentic and immediate. This can only come from a company that is determined to serve patients with the same dedication as Acadia.

These aspects have helped to consolidate a **relationship of mutual trust** and a **shared vision**, working to reducing the time it takes for innovation to reach patients.

> "Flamma combines technical excellence, responsiveness in the face of the unexpected and a genuine commitment to patients. Their scientific, regulatory and operational support has been instrumental in advancing our projects in a compliant, effective and timely manner.
>
> **Silvia Armaroli**
> Senior Director Manufacturing, Acadia

> The difference lies not only in the profit we generate, but in how we create and redistribute value to the people and communities that surround us.
>
> **Giorgio Bertolini**
> General Manager, Italy

Three-year project with Gruppo Aperto

The partnership between Flamma and the Gruppo Aperto association was launched to promote social inclusion and dialogue between the worlds of work and art. Operating in and around Bergamo since 1991, the association involves **people with disabilities, families and volunteers in cultural and creative initiatives** that foster integration, independence and participation.

In 2024, Flamma launched a **three-year art project** combining artistic expression and scientific culture: creative portraits of company personnel reinterpreted by young people (Year 1), large panels dedicated to chemistry and its history (Year 2) and abstract works inspired by processes for the transformation of matter (Year 3). The project, supported by the company and run in cooperation with the professionals and volunteers of Gruppo Aperto, represents a concrete form of social responsibility, in which art, inclusion and science become tools to help people grow and build lasting relationships with local areas.

LOCAL INITIATIVES

Flamma's relationship with the areas in which it operates is founded on mutual responsibility: growing together with communities, contributing to their wellbeing and giving back value in the form of care, attention and an active presence. In 2024, the company organised and supported several local initiatives reflecting this commitment, combining **direct engagement, structured partnerships** and **activities organised spontaneously** by company personnel.

In the municipality of Isso, home to one of its Italian facilities, Flamma continued support for the **improvement of public spaces**, contributing to the care and maintenance of urban green areas. Attention to local community needs also takes the form of partnerships with local organisations, such as Gruppo Aperto, with which the company delivers ongoing support and engagement initiatives.

The social commitment of Flamma's people is further demonstrated by **spontaneous initiatives** organised by its teams. These include the collection and donation of shoes and clothing for charity purposes. This simple gesture reinforces a sense of belonging and demonstrates how social responsibility can become a part of everyday life.

In 2024, the programme enabled around 80 students to get to grips with application-focused activities, practical workshops and projects assigned by participating companies, including Flamma.

DIALOGUE WITH SCHOOLS AND ACADEMIA

In addition to initiatives aimed at the local community, Flamma's social commitment also involves **building solid relations with schools, technical colleges and universities**, contributing to the training of future generations of technical personnel and researchers.

For years, the company has opened the doors of its Chignolo d'Isola facility to students from technical colleges in the province of Bergamo and the Nuove Tecnologie della Vita Academy, giving them a close-up look at production departments, quality laboratories and R&D activities. These visits are part of the Legami CoValenti project, an initiative run by Confindustria Bergamo that involves **four local technical colleges** (Natta, Marconi, Archimede and Erba) in a **three-year learning co-design project**.

Alongside activities aimed at higher-education institutions, the Group maintains a well-established relationship with several Italian universities, supporting doctoral scholarships and research projects with universities such as Milan's Politecnico di Milano and the University of Pavia. These partnerships foster the development of new methodologies and application solutions in the field of process chemistry, allowing young researchers to work closely with Flamma technical personnel and integrate scientific creativity and industrial rigour.

4. GOVERNANCE

Ethics in application

Corporate governance structure

As a public limited company (*SpA*), Flamma's corporate governance is based on a system of different **bodies with complementary functions**, aimed at guaranteeing sound management, transparency and accountability throughout the decision-making chain.

The **Shareholders' Meeting** sits at the top of structure and defines long-term strategic objectives.

The **Board of Directors, chaired by the CEO of the holding company that owns the company's shares**, exercises overall governance of the company, oversees management and ensures alignment of business, industrial, innovation and sustainability goals, also drawing on dedicated internal committees, as set out in the Code of Ethics.

The CEO, supported by the technical, operational and corporate functions, is responsible for implementation of strategies and risk management, ensuring continuity of production and process development.

Completing the system of internal governance bodies are the **Board of Statutory Auditors**, which oversees administrative and accounting activity, and the **Supervisory Body** pursuant to Model 231, responsible for monitoring the effectiveness of procedures and compliance with internal and external regulations.

In addition to internal governance and control bodies, Flamma's corporate governance system is completed by the contribution of an **auditing firm**, responsible for auditing the company's accounts. This independent party has an essential role, verifying the formal and substantive correctness of the financial statements, the adequacy of administrative processes and the transparency of financial reporting.

Together, these bodies ensure an **integrated governance model** based on ethics, checks and accountability, and capable of supporting the Group's international expansion and evolution towards an increasingly well-structured management system.

Ethical business model

Flamma's ethical business model is based on an integrated approach combining responsibility, scientific rigour and industrial quality.

In 2024, the company formalised its ethics policies in a documentation system with the aim of regulating behaviour, defining organisational responsibilities and orienting management towards principles of legality, integrity and respect for stakeholders, as set out in the Code of Ethics and Model 231.

Policies are drafted with a common methodology. Starting from the values and purpose, this results in the definition of clear principles, areas of application, monitoring systems and continuous-improvement mechanisms. This allows the Group to ensure consistency across the various documents and guarantee the **alignment of organisational culture and daily operations** at its various sites.

The result is an ethical governance structure that supports the company's growth and serves to ensure transparency, safety and business continuity.

Code of Ethics

The Code of Ethics sets out the **basic principles** of integrity, fairness and legality that all persons working within or on behalf of Flamma must comply with.

The Code establishes clear rules to ensure **responsible behaviour** in internal relations, in the management of activities, in the use of company resources and in relations with customers, suppliers, institutional partners and local communities. Flamma places great importance on safeguarding human rights, health and safety and protection of the environment, fostering behaviour that complies with national and international regulations.

The **Risk and Compliance Committee** was created and charged with monitoring application of the above documentation system, ensuring uniformity in the interpretation and handling of any reports of violations. This body oversees the consistency of principles, conduct and operating procedures and ensures that the Code remains up-to-date with regard to regulatory changes and business needs.

Responsibility for its implementation is shared by **corporate management** and **function managers**, who are required to integrate its principles into operational processes. Flamma personnel are expected to know and follow the Code. Its contents is disseminated through training courses, onboarding programmes and corporate tools that facilitate consultation and promote awareness and participation.

Code of Conduct

The Code of Conduct translates the principles of the Code of Ethics into **practical rules** that guide decisions and ensure consistent behaviour across all Group sites, regardless of cultural context or the particular characteristics of functions.

The document regulates central aspects of corporate life, such as fairness in business dealings, information management, prevention of corruption, protection of workers' rights and compliance with safety, environmental and quality regulations.

It also establishes criteria for handling potentially critical situations, such as conflicts of interest, unfair business practices or misuse of company resources.

This Code is also aimed **at Flamma's suppliers and partners**, who are required to ensure high standards in terms of ethics, social responsibility and regulatory compliance, in line with internal rules. Relationships with suppliers may involve checks and audits, ensuring consistent behaviour throughout the value chain.

Whistleblowing

The whistleblowing system adopted by Flamma constitutes an essential safeguard of **integrity and transparency**. This policy, which complies with EU Directive 2019/1937 and Italian Legislative Decree 24/2023, provides secure and confidential channels through which employees, external personnel, suppliers and others can report unlawful conduct, irregularities, violations of the Code of Ethics or situations that may cause harm to persons, the environment or the company situation. The aim is to ensure confidentiality, protection of the whistleblower's identity and the exclusion of any form of retaliation. Reports are handled by authorised persons who ensure impartiality, prompt handling and fairness in the examination of cases. The process may include in-depth investigations, corrective measures and process improvements.

This tool reinforces an internal climate of trust, facilitates the immediate identification of critical issues and supports the Group's ethical governance mechanisms.

Ethical policies

Ethical policies complete the framework of Flamma's responsible governance model, translating the principles of the Code of Ethics and Code of Conduct into action. These documents specify roles, responsibilities, implementation measures and control systems for critical issues of corporate integrity, ensuring that the Group's ethical culture is reflected in verifiable behaviour and consistent processes across all international sites, strengthening the company's ability to prevent risks, protect people and ensure full regulatory compliance.
These are the main themes of ethical policies:

BRIBERY AND CORRUPTION

This establishes principles, preventive measures and operational checks to avoid all forms of corruption, fraud and improper conduct in transactions and interactions with third parties. It also defines the roles, responsibilities, training obligations and monitoring procedures assigned to the Risk and Compliance Committee.

CONFIDENTIAL INFORMATION AND DATA PROTECTION

It governs the secure management of confidential information and personal data, in accordance with the GDPR[7], and establishes responsibilities for employees, management and the DPO, including technical measures for security, integrity and regular data audits.

CONFLICTS OF INTEREST

This defines criteria and procedures for identifying, declaring and managing potential or real conflicts of interest that may compromise transparency and impartiality.
It provides for annual declarations, dedicated training courses and a monitoring system managed by the Risk and Compliance Committee.

FINANCIAL MANAGEMENT AND ANTI-MONEY LAUNDERING

This regulates financial checks, transparency obligations and tools to prevent money laundering and ensure compliance with international regulations.
It assigns oversight of the system to the CFO and provides for periodic audits to assess the effectiveness and integrity of financial processes.

LIFELONG LEARNING AND PROFESSIONAL DEVELOPMENT

This promotes a culture of lifelong learning, defining principles, objectives and responsibilities for personnel training and professional development.
It specifically concerns onboarding, development initiatives, educational partnerships and monitoring of compulsory training for all Group sites.

[7] General Data Protection Regulation: Regulation 2016/679/EU governing the processing of personal data.

The supply chain

Flamma's attention to the selection and management of its suppliers is essential to guarantee the quality of processes and conformity of products destined for the chemical and pharmaceutical industry. The Group draws on an **international network of qualified suppliers** that support research, production, logistics and specialised services. Supplier management is handled through structured processes with the aim of ensuring **operational continuity, supply security and regulatory compliance**.

Every new supplier is subject to **documentation checks and HSE compliance assessments**, while existing relationships are monitored through periodic updates, targeted audits and performance reviews.

The Group's ethical policies also apply to commercial relationships, ensuring that procurement decisions are transparent and fully compliant. This approach makes it possible to monitor the quality of the value chain and to minimise operational, regulatory and reputational risks associated with procurement.

Sustainable Procurement Policy

This policy provides the organisation with procurement guidance by ensuring transparency, traceability and responsible selection of suppliers. It establishes clear criteria for assessing quality, regulatory compliance and integrity of business partners, avoiding conflicts of interest and unfair practices.

It is reinforced through document checks, periodic audits and ethical requirements aligned with the Code of Conduct. The policy is shared with Flamma personnel through internal procedures to integrate it into the operational processes of relevant functions.

Appendix

Appendix

This appendix contains the information required by the VSME standard (Basic + Comprehensive Module). Certain requirements that are not applicable to Flamma's specific context have been removed from the table of contents.

GENERAL INFORMATION

Information on the report necessary for XBRL [Always to be reported]		
Name of the reporting entity	Flamma Group	
Identifier of the reporting entity (select and specify on the right)	-	-
Currency of the monetary values in the report	€	
Starting year	2024	
Starting month	January	
Starting day	01/01/2024	
Ending year	2024	
Ending month	December	
Ending day	31/12/2024	

B1 – Basis for Preparation and other undertaking's general information [Always to be reported]	
Basis for preparation (Basic Module Only or Basic & Comprehensive Module)	Basic & Comprehensive
List of omitted disclosures deemed to be classified or sensitive information	-
Basis for reporting (consolidated or individual basis)	Consolidated
Undertakings legal form	Group
Other undertaking's legal form specification	Parent company Flamma SpA
NACE sector classification code(s)	C21.1 (Italian ATECO code)
Size of balance sheet (total assets) in EUR	€ 291,237,019
Turnover in EUR	€ 209,213,992
Number of employees	833
Employee counting methodology (At the end of reporting period or as an average during the reporting period)	At the end of the reporting period
Employee counting methodology (Headcount or Full-time equivalent)	Headcount
Country of primary operations and location of significant asset(s)	Italy

B1 – List of subsidiaries [If applicable]

ID	Name	Registered Address
1	Flamma Honkai Pharmaceutical Co., Ltd	Jing 11 Road, Songmudao Chemical Industrial Park, Puwan New Area 116300 Dalian, P.R. China

B1 – Disclosure of sustainability-related certification(s) or label(s) [If applicable]	
Has the undertaking obtained any sustainability-related certification(s) or label(s)?	ISO 14001 ISO 45001 Both obtained by the Chinese production site Flamma Honkai (Dalian)
Description of sustainability-related certification(s) or label(s) including where relevant the issuers of the certification or label date and rating score	ISO 14001 International standard that defines how to manage environmental impacts in a structured way, improving performance and regulatory compliance. ISO 45001 International standard for managing health and safety at work, preventing accidents and risks through an organized system and continuous improvement.

B1 – List of site(s) [Always to be reported]

ID	Address	Postal Code	City	Italy
1	Via Bedeschi 22	24040	Chignolo	Italy
2	Via Cascina Secchi 217	24040	Isso	Italy
3	Via Briantea 83	23892	Bulciago	Italy
4	Jing 11 Road, Songmudao Chemical Industrial Park, Puwan New Area	116300	Dalian	China

B2 – Practices policies and future initiatives for transitioning towards a more sustainable economy [If applicable]	
Has the undertaking put in place specific practices of policies and or future initiatives for transitioning towards a more sustainable economy?	YES
Sustainability issues addressed by a practice policy and or future initiatives that the undertaking has put in place:	The company has developed and made available to its employees a set of policies that guide the management of sustainability-related aspects across the organisation. Flamma also carries out a series of initiatives related to the topical standards listed below, which are detailed in the relevant sections of the text. In particular:
Climate change	Box – Environmental Policy, Box – Energy-Management and Climate-Change Policy, para. Energy-efficiency strategy and environmental management systems
Pollution	Box – Pollution Policy
Water and marine resources	Box – Responsible-Water-Management Policy
Biodiversity and ecosystems	-
Circular economy	Box – Waste Policy, Box – Circular-Economy Policy
Own workforce	Box – Human Rights and Workers' Rights Policy, Box – Diversity, Equity & Inclusion Policy, Para. Training and Growth, Box – Health and Safety Policy
Workers in the value chain	Box – Sustainable Procurement Policy
Affected communities	Para. Community and social impact
Consumers and end-users	Sub-para. Patients
Business conduct	Para. Code of Ethics, Code of Conduct, whistleblowing and ethical policies
Undertaking has a practice policy and or future initiative that is publicly available	The policies are published on the corporate website.
Undertaking has set a target which is related to a policy	Within each corporate policy, specific objectives are defined. Every policy is reviewed on a regular basis and sets out the roles and responsibilities for implementation and monitoring progress.

C2 – Description of practices policies and future initiatives for transitioning towards a more sustainable economy [If applicable linked with B2]	
Description of a practice policy and or future initiative towards a more sustainable future (In case the practice policy future initiative covers suppliers or clients the undertaking shall mention it)	Box related to policies (see B2 – Practices policies and future initiatives for transitioning towards a more sustainable economy)
Description of target related to a policy	
Most senior level within its employees that is accountable for implementing the policies when this has been determined by the undertaking	

C1 – Strategy: Business Model and Sustainability – Related Initiatives [Always to be reported]	
Description of significant groups of products and or services offered	Para. Our formula
Description of significant market(s) the undertaking operates in (e.g. B2B, wholesale, retail, countries)	
Description of main business relationships (such as key suppliers, customers, distribution channels)	Para. Our formula, para. The supply chain

C1 – Strategy: Business Model and Sustainability – Related Initiatives [If applicable]	
Has the strategy key elements that relate to or affect sustainability issues?	Box – Solvent Eco-Impact Metric
Description of those key elements in the strategy that relate or affect sustainability issues	Box – Solvent Eco-Impact Metric

ENVIRONMENT

B3 – Total Energy Consumption (in MWh) [Always to be reported]			
Has the undertaking obtained the necessary information to provide an energy consumption breakdown?			YES
	Renewable	**Non-renewable**	**Total renewable and non-renewable**
Electricity (as reflected in utility billings)	14,028	18,601	32,629
Self-generated electricity	-	-	-
Fuels	-	35,467	35,467

B3 – Estimated Greenhouse Gas Emissions considering the GHG Protocol Version 2004 (in tCO2e) [Always to be reported]	
Gross Scope 1 GHG Emissions	14,022
Gross Scope 2 location-based GHG Emissions	17,287
Gross scope 2 market-based GHG Emissions – May (optional)	15,173
Total Scope 1 and Scope 2 GHG Emissions (location-based)	31,309
Total Scope 1 and Scope 2 GHG emissions (market-based) – May (optional)	29,195
Is the undertaking disclosing entity-specific information on Scope 3 emissions (in tCO_2e)?	
1. Purchased Goods and Services	62,884
2. Capital Goods	7,120
3. Fuel- and Energy-Related Activities (Not Included in Scope 1 or Scope 2)	5,913
4. Upstream Transportation and Distribution	1,221
5. Waste Generated in Operations	15,465
6. Business Travel	355
7. Employee Commuting	939
Total Scope 3 GHG emissions	93,897
Total Scope 1 Scope 2 and Scope 3 GHG Emissions (location-based)	125,206
Total Scope 1 Scope 2 and Scope 3 GHG Emissions (market-based) – May (optional)	123,091

B3 – Greenhouse gas emission intensity per turnover (in tCO_2e) [Always to be reported]	
Scope 1 and Scope 2 GHG Emissions intensity (location-based)	0.000133
Scope 1 and Scope 2 GHG Emissions intensity (market-based) – May (optional)	0.000124
Total Scope 1 Scope 2 and Scope 3 GHG Emissions intensity (location-based)	0.000531
Total Scope 1 Scope 2 and Scope 3 GHG Emissions intensity (market-based) – May (optional)	0.000522

C3 – Transition plan for undertakings operating in high climate impact sectors [If applicable]		
Is the undertaking operating in high impact sectors?	Yes	
Status of implementation of a transition plan in relation to climate change mitigation	The drafting of a transition plan is scheduled for the future.	
Description of a transition plan for climate change mitigation including an explanation of how it is contributing to reduce GHG emissions – May (optional)	-	
Date of foreseen adoption of transition plan for undertaking not having adopted transition plan yet	Year	2026
	Month	12
	Day	31
		31/12/2026

B4 – Pollution of air water and soil [If applicable]	
Is the undertaking already required by law or other national regulations to report to competent authorities about its emissions of pollutants, or does it already voluntarily report on them according to an Environmental Management System?	Yes
Is this disclosure already publicly available?	No[8]

The unit used for reporting the amount is tonne

Row ID	Pollutant	Emission to air	Emission to water	Emission to soil
	Nitrogen oxides (NOx/NO2)	6.11		
	Sulphur oxides (SOx/SO2)	0.04		
	Ammonia (NH3)	0.05		
	Carbon monoxide (CO)	0.23		
	Methane (CH4)	0		
	Total nitrogen		4.11	
	Total organic carbon (TOC) (total C or COD/3)		32	
	Total phosphorus		0.38	
	Particulate matter (PM)		18.32	
	Non-methane volatile organic compounds (NMVOC)	187.07		

NOTE: Data on pollutants refers to Italian sites.

[8] The company reports its emissions to the competent authorities and completes questionnaires to meet the requirements of clients, UNGC, RC and Ecovadis. However, the reports containing the related results are not publicly available and are shared exclusively with the relevant bodies.

B6 – Water Withdrawal [Always to be reported]	
Total amount of water withdrawn from all sites (cubic meters m^3)	889,178
Amount of water withdrawn at sites located in areas of high water-stress (cubic meters m^3)	100,539

B7 – Description of circular economy principles [Always to be reported]	
Undertaking applies circular economy principles	Para. Waste management and the circular economy
Description of how it applies these principles	Para. Waste management and the circular economy

B7 – Waste generated [Always to be reported]				
			Italy	China
Total amount of waste generated by country	Total Hazardous waste generated (mass)	kilograms (kg)	18,876,781	8,968,912
	Total Non-Hazardous waste generated (mass)	kilograms (kg)	993,796	-
	Total waste generated (mass)	kilograms (kg)	19,870,577	8,968,912

NOTE: VSME standards require waste to be reported as a single total value, but Italian and Chinese data cannot be consolidated. In Italy, waste is classified according to EWC codes, while China uses different classification systems that are not fully equivalent. Data is therefore presented separately to ensure methodological accuracy and comparability.

SOCIAL

Employee counting methodology for the disclosures below (Headcount or Full time Equivalent, linked from B1)	Headcount
Employee counting methodology for the disclosures below (At the end of the reporting period or as an average across the reporting period, linked from B1)	At the end of the reporting period (2024-12-31)

B8 – Workforce – General characteristics – Type of contract [Always to be reported] – FTE	
Type of contract	**Number of employees**
Permanent contract	794
Temporary contract	39
Total employees (linked from B1)	**833**

B8 – Workforce – General characteristics – Gender [Always to be reported] – HC	
Gender	**Number of employees**
Male	658
Female	175
Total employees (linked from B1)	**833**

B8 – Workforce – General characteristics [If applicable] FTE	
Number of employees who left during the reporting period	77
Number of employees at the beginning of the reporting period	781
Number of employees at the end of the reporting period	833
Employee turnover rate [%] in the reporting period	**9.5%**

B9 – Workforce – Health and safety [Always to be reported]	
Number of recordable work-related accidents in the reporting period	9
Number of hours worked by one full-time employee in the reporting period	2,000 (IT); 2,008 (CHN)
Total number of hours worked in a year by all employees in the reporting period	1,425,945
Rate of recordable work-related accidents in the reporting period	**1.26**
Number of fatalities as a result of work-related injuries and work-related ill health	0

B10 – Workforce – Remuneration, collective bargaining and training [Always to be reported + If applicable]	
Employees receive pay that is equal or above applicable minimum wage determined directly by the national minimum wage law or through a collective bargaining agreement	Yes
Average gross hourly pay level of male employees (amount in EUR)- If applicable	18.62
Average gross hourly pay level of female employees (amount in EUR)- If applicable	18.94
Percentage gap in pay between the undertaking's female and male employees [%] – If applicable	**-1.73%**
Number of employees covered by collective bargaining agreements	487
Percentage of employees covered by collective bargaining agreements [%]	58%[9]
Female-to-male ratio at management level for the reporting period	0.256
Total self-employed workers without personnel that are working exclusively for the undertaking	-
Total temporary workers provided by undertakings primarily engaged in employment activities	-

[9] In Italy, 100% of employees are covered by a national collective labour agreement and therefore subject to collectively negotiated terms. In China, collective bargaining does not exist, so the rate is 0.

C6 – Additional own workforce information – Human rights policies and processes [Always to be reported]	
Does the undertaking have a code of conduct or human rights policy for its own workforce?	Yes
If yes, does this cover:	
child labour	Yes
forced labour	Yes
human trafficking	Yes
discrimination	Yes
accident prevention	Yes
other? (if yes, specify)	No
Specify other types of content covered by the code of conduct or human rights policy	The policy also includes: • A commitment to fair wages, reasonable working hours and decent working conditions • Reference to the UN Declaration, ILO Conventions and the UN Guiding Principles • A commitment to safeguarding workers' dignity and wellbeing • Integration with DE&I and Health and Safety practices
Does the undertaking have a complaint-handling mechanism for its own workforce?	Yes

C7 – Severe negative human rights incidents [Always to be reported]	
Does the undertaking have confirmed incidents in its own workforce?	No
Is the undertaking aware of any confirmed incidents involving workers in the value chain, affected communities, consumers and end-users?	No

GOVERNANCE

B11 – Convictions and fines for corruption and bribery [If applicable]	
Has the undertaking incurred in convictions and fines in the reporting period?	No

C8 – Revenues from certain sectors [If applicable]	
Is the undertaking deriving revenues from one of the activities listed below?	No
Revenue derived from controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and biological weapons)	-
Revenue derived from cultivation and production of tobacco	-
Revenue derived from coal	-
Revenue derived from oil	-
Revenue derived from gas	-
Total revenues derived from fossil fuel (coal, oil and gas) sector (i.e. the undertaking derives revenues from exploration, mining, extraction, production, processing, storage, refining or distribution, including transportation, storage and trade, of fossil fuels as defined in Article 2, point (62), of Regulation (EU) 2018/1999 of the European Parliament and the Council 17)	**-**
Revenue derived from chemicals production	-

C8 – Exclusion from EU reference benchmarks [Always to be reported]	
Undertakings are excluded from the EU Paris-aligned Benchmarks if they derive:	
1% or more of their revenues from exploration, mining, extraction, distribution or refining of hard coal and lignite	-
10% or more of their revenues from the exploration, extraction, distribution or refining of oil fuels	-
50% or more of their revenues from the exploration, extraction, manufacturing or distribution of gaseous fuels	-
50% or more of their revenues from electricity generation with a GHG intensity of more than 100g CO2 e/kWh	-
None of the above	Yes
Undertakings are excluded from any EU reference benchmarks that are aligned with the Paris Agreement	Yes

C9 – Gender diversity ratio in the governance body [If applicable]	
Does the undertaking have a governance body in place?	Yes
Number of female board members at the end of the reporting period	1
Number of male board members at the end of the reporting period	5
Gender diversity ratio in governance body	0.2