



Chemistry with a human touch

TITLE

subtitle.

Smart Report 2023

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INTRODUCTION

INNOVATING WITH RESPONSIBILITY

Dear readers,

It is with great pride that we present Flamma's first Smart Sustainability Report. This document represents an important milestone in our growth path, which today can no longer be separated from a careful assessment of our impact on society, local communities and the environment. As a family business that has existed for three generations, we are aware of our role in contributing to the well-being of the people and the territory in which we operate.

Flamma was founded in the early 1950s by my father, a medical man with a more social than commercial vision. His dream of using amino acids to fight world hunger was clearly unrealisable, but the basic values on which he founded the company - respect, honesty and concern for others - have remained firmly at the heart of everything we do.

In my 46 years at Flamma, I have had the privilege of guiding the company through its evolution in a world that has changed and is still changing at a very high speed, especially in the areas of technology, quality, safety and the environment. It has been an exciting and thrilling journey, through challenges, fears, falls, successes in which we have nevertheless kept our identity intact. Today, we are different in size, organisation, technological and industrial capabilities, and financial solidity, but we have maintained our original values, the great attention to the human aspect of our business. We have grown together with our employees, their families and the communities that surround us. Today Flamma is at the side of about a thousand families and this, for me, is a reason for great satisfaction.

Not only for them, but for everyone, we must resolutely face the new, important challenge of more sustainable growth. We must go beyond mere compliance with environmental regulations and start rethinking production not only in terms of quality and safety but also on the basis of the impact on the environment and society. It will be a complex and difficult challenge, a long time, many resources to devote to it, but we cannot lose it because we have our values, the desire to innovate and the ability to make the best use of technology with us.

Fortunately, the world of Life Sciences, where Flamma operates, is by vocation geared towards the wellbeing and health of people and is therefore united and determined to meet this challenge. We will make our contribution, working with passion and dedication to grow, not only economically, but also as a responsible company, capable of offering wellbeing to people and respecting the environment in which we operate.

I hope this report will provide a clear view of our efforts and future goals.
Thank you for your interest and support.

Gian Paolo Negrisoli, CEO at Flamma

WHO WE ARE

Flamma is an Italian company of excellence in the chemical-pharmaceutical sector, with a long tradition of innovation and quality.

Founded in 1950, Flamma specialises in the production of active pharmaceutical ingredients (APIs) and chemical intermediates, with a particular focus on amino acids and their derivatives. Thanks to our experience and commitment, we have become a benchmark for global pharmaceutical companies, offering customised solutions and comprehensive support from process development to commercial-scale production.

Flamma boasts an international presence, with production plants in Italy, China and the United States, and a strong vocation for research and development. The company actively collaborates with universities and research institutes to explore new technologies and continuously improve its processes. Our intention is to provide customers with products of the highest quality while contributing to the advancement of science and medicine.

At a time when sustainability has become a core value, Flamma is committed to reducing the environmental impact of its activities and promoting responsible practices throughout the value chain. This commitment is reflected in our continuous search for more efficient processes, the adoption of innovative technologies and our strong focus on the safety and well-being of our employees.

ADHESIONS

Flamma participates in the following initiatives, which we support and with which we share the same values.



United Nations
Global Compact

- UN Global Compact: The UN Global Compact is a voluntary initiative of the United Nations that encourages companies around the world to adopt sustainable and socially responsible practices based on ten principles covering human rights, labour, environment and anti-corruption.
/ unglobalcompact.org



- PSCI: leading association for pharmaceutical and healthcare companies, whose vision is to bring excellence in safety, environmental and social outcomes across the entire global pharmaceutical and healthcare value chain by promoting industry collaborations and responsible practices.
/ pscinitiative.org



- Responsible Care: Through Federchimica, we join Responsible Care, a voluntary commitment by the global chemical industry to promote continuous improvement and achieve excellence in environmental, health, safety and security performance.
/ federchimica.it/responsible-care



- CO2alition: Launched on 15 June 2022, CO2alition is the initiative promoted by the Foundation for Sustainable Development and NATIVA, aimed at accelerating the transition of companies towards climate neutrality, facilitating a pathway for companies to evolve and share strategies and best practices, and enabling them to keep abreast of the best available solutions and technologies.
/ co2alizione.eco

AUTHENTICITY, ETHICS, INNOVATION

OUR HISTORY

Flamma was founded in 1950 by Dr Marco Maria Negrisoni and Dr Edmea Kullmann. Together they infused FLAMMA with their passion for chemistry, but also carried on their strong principles of ethics and great humanity.

The foundation of Flamma dates back to 1950, a crucial year for Italy, which was trying to recover from its post-war difficulties. It was in this context that Dr Marco Maria Negrisoni, a doctor, and Dr Edmea Kullmann, a chemist and pharmacist, decided to set up a company in the chemical-pharmaceutical sector to contribute to the health and wellbeing of people.

The two founders, driven by a strong sense of responsibility and ethical commitment, chose to call their company 'Flamma,' a name derived from 'Fabbrica Lombarda Ammino Acidi'. This name was not only a geographical reference to the Lombardy region, but also a clear indicator of the company's core business: the production of amino acids.

Initially, Flamma focused on the production of amino acids and derivatives, filling a significant gap in the Italian and European markets. Demand for these products was high, and the company responded promptly, demonstrating an ability to adapt and innovate that would become one of its distinguishing features.

The fundamental principles that guided the founders - ethics, humanity and commitment - have remained central to Flamma's business and development. These values have enabled the company to build strong relationships with customers and to contribute positively to the communities in which it operates.

1950 - Foundation and Start of Activities

Flamma S.p.A. is founded in Bergamo, Italy. Flamma started its business by extracting amino acids from animal and plant proteins for the Italian and European food and pharmaceutical industries.

1996 - Expansion and Relocation

The company moved to Chignolo d'Isola, also in the province of Bergamo, due to the need for larger premises. This move included the construction of a new production plant.

2001-2010 - International Expansion

In 2001, Flamma started operations in China, establishing a joint venture in GongAn, Hubei Province, and subsequently founded Shanghai Flamma Bioscience, an R&D laboratory in Shanghai. Subsequently, in 2008, it moved to Dalian, doubling its headcount, and in 2011, it took a 100% stake in Dalian Honkai, which was acquired in 2013. In 2006, a sales office was opened in Paris and in 2010 in Boston.

2012-2019 - Acquisitions and Growth

In 2012, Flamma acquired the Isso plant, doubling its production capacity in Italy. In 2017, it doubles its production capacity in Dalian with a new plant and the construction of new offices and laboratories. In 2019, a plant, R&D, Kilolab and Pilot was acquired in Malvern, Pennsylvania, USA.

2022 - Acquisition of the Bulciago site and construction of the Honkai 2 site

Flamma acquires the Bulciago site, adding further production capacity with the aim of strengthening the production footprint in Italy, with a backup of Chinese production and the possibility of API re-shoring. With this acquisition the total capacity rises to 1,000 m³ and the number of employees to over 800

2023 - Construction of the Honkai 2 Site

Covid's stalled expansion project in China restarts with the construction of a new site, totally independent but interconnected to the previous one, in Songmudao Park, Dalian. With this investment, production capacity is doubled, with the possibility of a further increase.

THE NUMBERS FOR OUR **GROWTH**

Flamma has come a long way since 1950. Today, we are an internationally expanding company. To maintain this growth and prosper over time, it is essential that we continue to evolve, enriching our core competencies to effectively address the technological, environmental and social challenges that the world and society are experiencing.

6 production sites worldwide 3 in Italy 1 in the United States of America 2 in China	Over 850 The number of our employees 125 people employed in R&D	Over 200 M€ turnover in 2023
74 Years of evolution and growth	33 M€ of investments in 2023	

VALUE AND GROWTH WITH A CLEARLY DEFINED PURPOSE

Dear readers,

When I reflect on the evolution of Flamma, it is extraordinary to see how much we have grown. Since our grandfather founded Flamma 75 years ago, it has grown from a small family business into a global partner for the world's leading pharmaceutical companies. Today, we have the unique opportunity to treat patients with innovative molecules, collaborating with companies at the forefront of pharmaceutical research and sustainable development.

However, our growth is not only limited to economic success. Flamma's reason for existing has never been profit for its own sake. From its very beginnings, Flamma has been centred on people and the desire to generate a positive impact.

When we asked ourselves what makes Flamma unique and why we exist, we answered with a purpose that guides our direction: 'Embrace challenges to benefit people's lives, pursuing science with a human touch'.

We like to call ourselves Artisans of Chemistry, and our mission is to help customers overcome technological challenges. It is not just about producing drugs, but about doing so in a practical way through sustainable innovation that respects people, the community and the environment.

In 2024, we decided to consolidate the values inherited from our founder and, together with our employees, we co-created and made these values an integral part of our corporate culture. This co-creation process with employees has given the values an authentic depth, making them representative of what Flamma is, and wants to become. This approach, based on integrity and shared vision, is what sets us apart.

We chose to formalise Flamma's purpose and values not only to declare them, but to live them on a daily basis and use them as a guide in our decisions and development.

We are convinced that creating a positive impact in the areas of people, community, sustainable innovation and the environment is the only way to ensure solid and lasting growth that will sustain Flamma for generations to come.

As we prepare to celebrate our 75th anniversary in 2025, I am excited to continue this journey, together with all our employees and partners, inspired by our values and purpose.

GianMarco Negrisoni

Executive Director, Corporate Development, Flamma Group

MANIFESTO

REDISCOVERING OUR FOUNDATIONS

Flamma has defined its purpose and values, encapsulated in a new manifesto, and complemented by aims of common benefit.

In early 2024, we embarked on a journey of discussion and co-creation with an interdisciplinary team to redefine our purpose and values. Putting them down on paper is a crucial step for us, aimed at building a shared corporate culture that enables us to work in a consistent and structured way, towards our internal and external stakeholders.

MANIFESTO

CHALLENGE: Flamma is growing at an accelerated pace and is increasingly international. In order to continue to progress with a positive impact, we are called upon to evolve by integrating our uniqueness with new competencies to be able to contribute to the technological, environmental and social challenges that the planet and our society are facing.

CHEMISTRY OF VALUES: At Flamma, we act by taking care of people and the ecosystem of which we are a part. For us, care extends to plant safety, product quality and the value of human relations. We strive for simplicity, which for us is the key to putting the customer at the centre, making every action aimed at a tangible result. We approach our growth path with openness and curiosity, feeling responsible for integrating new skills and perspectives to face future challenges with determination and innovation.

PURPOSE: We embrace challenges to benefit people's lives, pursuing science with a human touch.

The manifesto encapsulates the result of a long process of visioning and rationalising the culture of Flamma, described in the following two paragraphs.

PART 1

Co-creating the Values of Flamma: A New Vision for the Future

The creation of Flamma's values was driven by the need to build a shared corporate culture that truly reflects the identity and aspirations of all employees. For this reason, we chose to collaborate with [Smartive](#), an expert partner in visual thinking and facilitation of participatory processes.

The BEAT project represents the first step of a corporate journey towards change and evolution, based on a collaborative approach that inspires and involves different voices and perspectives, in a process of co-creation and continuous confrontation. It is a 'growing wave' path, which therefore requires patience and dedication, since - to achieve concrete results in an initiative of this magnitude - time is needed.

Each contribution, in fact, enriches the process and makes it more solid:

BEAT therefore represents for

Flamma a collective narrative in continuous evolution, fuelled by the commitment and participation of everyone, destined to grow, adapt and transform itself over time, reflecting the shared values and common aspirations of the company and the people who live there every day.

To define our values, we adopted the Kelter Design Canvas, an innovative approach that favours visual thinking. The working methodology was divided into 'halo-together' phases, which allowed us to combine individual reflections with group discussions. The process of creating Flamma's values was unique: it was not only the managers who designed the values, but rather a co-creation that involved middle managers and involved employees. This innovative approach led to the definition of expected behaviours to demonstrate the



he BEAT Project: Bottom - Up - Empowerment, Top - Down - Alignment, i.e. to bring out and nurture, at all levels, the Values of Flamma, while ensuring a shared alignment.

adoption of each value in the professional context. Employees themselves outlined the expected behaviours of their managers, creating a system of values and practices that truly reflects the day-to-day reality of working at Flamma.

The Flamma Manifesto of Values

THE CHEMISTRY OF VALUES

At FLAMMA, we face challenges guided and inspired by our values, which shape our culture. These principles, focused on people, sustainable innovation, our customers, and the ecosystem, catalyze our daily work, transforming our environment into a community where individual contributions fuel collective growth.

- 1 Act with care**
Responsibility, for us, means taking care of people, ensuring safety, maintaining facilities, and upholding product quality. It involves valuing differences, learning from mistakes, optimizing processes, and, above all, identifying goals and defining actions while continuously evaluating their human and social impact. Our primary objective is to promote health and well-being worldwide, starting with our community and our customers.
- 2 Be open minded**
We are open to all that embodies the future. We value change as an opportunity for enrichment and growth. We enthusiastically welcome new ideas and people, ready to shift perspectives and experiment with innovative approaches. Driven by curiosity, we strive to overcome challenges through the power of science, creativity, and talent.
- 3 Get in the game**
A dynamic and stimulating work environment is the first step to success. Our productivity is built on commitment, passion, and teamwork. We recognize that a positive work environment is crucial for both professional and personal development. This approach transforms our workspace into a catalyst for well-being, both individually and collectively. We view the time spent together as an opportunity for growth.
- 4 Make it simple**
Simplicity is the first prerequisite for efficiency. To create value, we base our choices-ranging from the simplest to the most strategic-on measurable data. We aim to make decision-making processes agile and strive to be pragmatic in our daily actions, focusing on what is essential. Simplifying also involves reducing waste and conserving energy, always acting in a direct and clear manner.
- 5 Build together**
We collaborate with partners and customers, aiming to work effectively together while cultivating co-creation processes rooted in cooperation, trust, and active listening. Our approach is innovative and inclusive, intertwining perspectives and granting everyone the freedom to share their ideas in a generative environment.
- 6 Be accountable**
Accountability is a key principle at Flamma. It encompasses not only acting with responsibility and reliability but also maintaining clarity and consistency in our interactions with others. Each of us is called to take full responsibility for our role within the organization and for the responses we provide each day. We promote autonomy and a results-oriented mindset, recognizing the learning value of mistakes and the importance of transparent communication.

Transform our values into everyday elements: let these principles shape your decisions and actions, thereby contributing to the shared success of FLAMMA.

CHEMISTRY WITH A HUMAN TOUCH. **Flamma** GROUP

BOX HIGHLIGHT

This project was characterised by a deep and authentic collaboration, where each contribution generated meaningful reflections that everyone was able to listen to and rework. As a partner, I felt part of a cohesive team, driven by a passion for 'well thought out' and 'well done', with the common goal of making FLAMMA more dynamic and agile. It is the human factor and the shared value that have made the difference, fuelling the growth path with commitment and passion.

Francesca Maria Montemagno, Founder & CEO of Smartive Company

The feeling was that we were not only included but could really lead the change in defining values. I worked on the project with commitment and determination, using my previous experience in other realities to bring it into this one. To experience a company that is capable of change and declares it is very motivating.

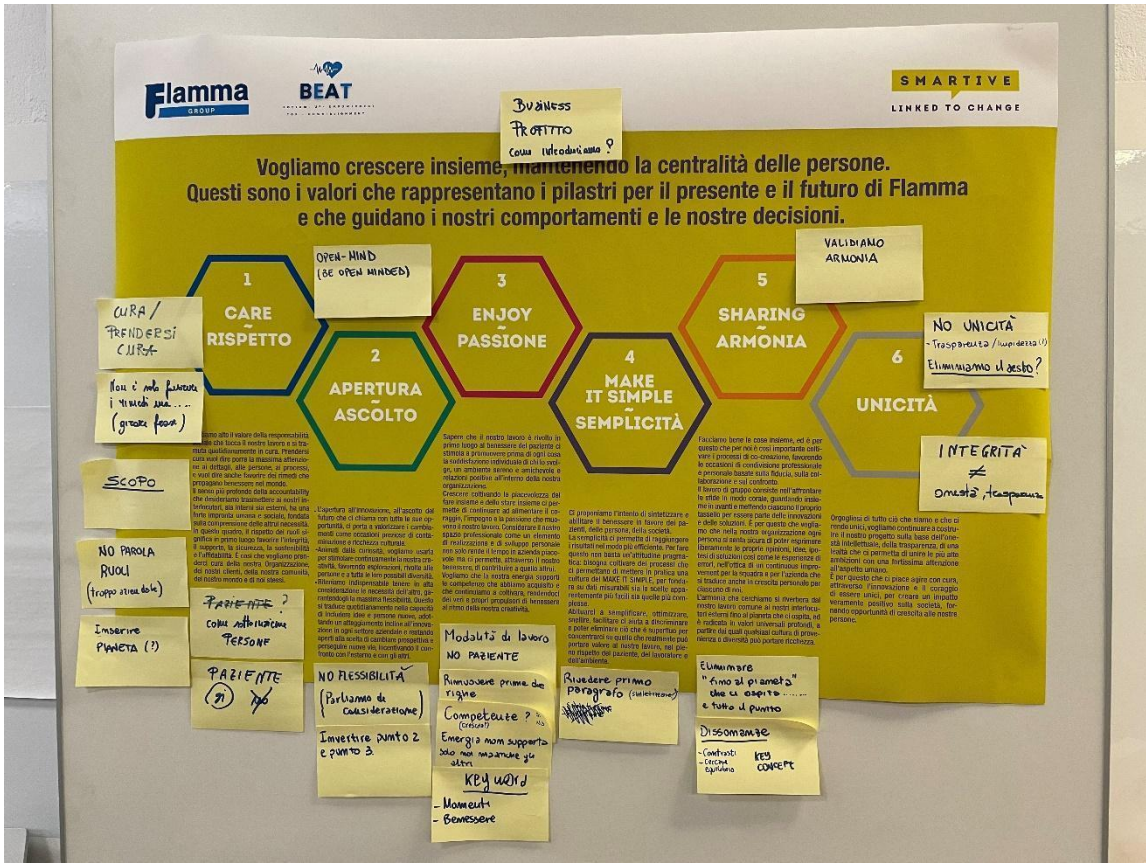
Fabio Merlini, Corporate IT Director at Flamma Group

During the BEAT project, I felt very much involved and actively engaged. The meeting sessions created a space and time for open dialogue and discussion with colleagues involved in different roles.

Arianna Ganzi, Sales & Marketing Director at Flamma Group



Leadership Team and Middle Managers united to build the Values of Flamma together.



The Path to Defining the Manifesto of Values



Working to nurture the Future of Flamma, starting from its roots



Flamma's commitment to **co-create** corporate values

PART 2

The Purpose and Purposes of Common Benefit

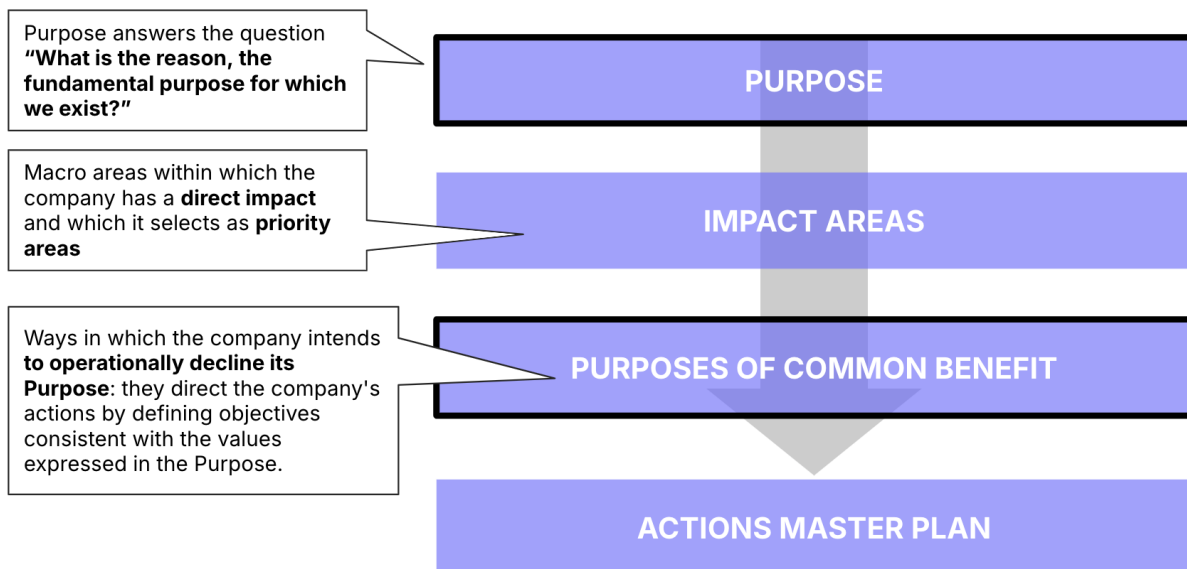
The definition of the Purpose helps guide the company's strategic choices in the field of sustainability, maintaining a profound coherence with the values underpinning the Group.

To bring out the Purpose, we adopted the 'Human Exploration' methodology of [NATIVA](#), regenerative design company, which consists of moments of active and deep listening. This process aims to create an authentic connection with the interlocutors, accompanying them in the exploration of their personal purpose and its link with the company vocation.

Those who characterise Flamma and shape its future through strategic decisions participated in this process. The conversations played a central role, revealing the deep-rooted motivations, values, attitudes and visions for the future of the people and, consequently, of the company itself.

**We embrace challenges
to improve people's lives,
pursuing science
with a human touch.**

The purpose does not remain an exercise for its own sake, but is part of Flamma's path of benefit expression.



To make the purpose operational and functional to support Flamma's strategy, we identified four key areas where the company has a direct impact on its stakeholders, selecting them as priorities. In each of these areas, we operationally declined the purpose, aligning the objectives with our aspirations and values, to ensure sustainable and consistent growth.



PURPOSES OF COMMON BENEFIT

People

We are committed to creating the best conditions to ensure the well-being and professional development of our employees, through the promotion of a culture of collaboration, trust and a sense of responsibility.

Community

We are committed to contributing to the development of the community and territory in which we operate and to promoting benefit activities related to health, culture and inclusiveness.

Sustainable innovation

We are committed to implementing innovative business practices and industrial processes guided by principles of quality, health and sustainability, collaborating with the entire value chain.

Environment

We are committed to fostering an environmentally conscious internal culture, operating with respect for the ecosystems impacted by our activities, and implementing a progressive evolution of our business model towards a climate-neutral economy.

IMPACT AREA: PEOPLE

OUR PEOPLE

We are committed to **creating the best conditions to ensure the well-being and professional development** of our employees, through the promotion of a culture of **collaboration, trust and a sense of responsibility.**

Flamma is committed to creating an environment that focuses on the well-being of people, with the aim of improving the health of employees and society. We are not just a company that pursues profit, but a means of offering those who work with us opportunities for professional and personal growth. We firmly believe that a positive working environment, where everyone feels protected, valued and free to learn, even from mistakes, is fundamental to collective success.

We want to be a vehicle of development not only for our employees, but also for our territory. Our aim is to provide the best working conditions, meeting the needs of the new generations and creating flexible spaces that foster personal well-being and fulfillment. For us, being part of Flamma means being part of a large family, where individual growth is also reflected in the company's success.

STORY 1

Turning the Impossible into Possible: a Story of Solidarity

Flamma is a united community that promotes a culture based on care, attention and mutual support, with the aim of ensuring the well-being of people and their families. The company is committed to creating an environment where everyone feels supported, encouraging a spirit of collaboration and shared responsibility.

One of our employees, due to an illness, had to have a leg amputated. The prosthesis provided by the ASL was not the best, and there were advanced prostheses available but at a high cost.

We have reorganised the physical layout of the offices to improve accessibility and, using unspent corporate welfare, led a collective effort to finance an advanced prosthesis for our colleague. This gesture of solidarity has significantly improved his quality of life.

BOX HIGHLIGHT

In 2010, due to early health problems, I changed role at Flamma, first becoming a guardsman and then, in 2017, a General Services Officer.

Despite the move, in December 2021, intensifying health problems made it necessary to have surgery for the amputation of my right leg, followed by a second amputation: daily life and work became a challenge for me.

The change came thanks to the solidarity and collective commitment of all the people at Flamma. Indeed, the temporary prosthesis I was using was making daily activities difficult, limiting my mobility and compromising my quality of life.

The arrival of the new electronic prosthesis at the end of July 2024 was therefore a significant turning point for me. I was very relieved, as this technology now allows me to adjust the movement of my knee and ankle, offering greater ease of movement and smoother walking. A period of rehabilitation will also follow so that I can learn to use it to the fullest, but I hope to improve my balance and be able to overcome the tolerance problems of the temporary prosthesis.

Knowing that I have concrete help allows me to be confident in facing the path of improvement, aimed at gaining more confidence in my movements.

So I would like to thank the company, the Human Resources Department and also all colleagues, RSUs and trade unions at the 3 sites.

Colleague who received the prosthesis

Flamma supported an important solidarity initiative, embodying the company's values of unity and community at its best. The Human Resources Management, in collaboration with the site RSU and the RSUs of Chignolo and Isso, initiated a series

of meetings and assemblies to discuss and obtain approval for a colleague support initiative through collective company welfare.

The concrete support of the company and the solidarity of all colleagues has therefore enabled our colleague to face this journey with more confidence, improving not only his safety in movement but also his general quality of life.

This story is a perfect example of how seemingly 'impossible' challenges can be turned into reality.

Beyond that, Flamma's corporate values, starting with the first one, 'Act With Care', are also fully reflected in this initiative. Because our first goal as a company is to continue to bring health and wellness to the world, starting with our own community.

Flamma Group Human Resources Management

STORY 2

Investing in People: Development Initiatives in Flamma

People development is at the heart of our strategy, because we believe that the company's success depends on the growth and enhancement of our talents. Our approach is based on a competence mapping system that allows us to identify and cultivate the potential of each individual, facilitating both internal and external development paths. This approach aims to create an inclusive and stimulating working environment that allows our employees to express their true potential.

At Flamma, we actively promote the cross-fertilisation of ideas and skills. We encourage our employees to participate in external training courses, master's degrees and other professional development paths. We foster an inclusive environment that allows everyone to be themselves, supporting diversity and openness to dialogue. This approach not only enriches individual skills but also contributes to a dynamic and innovative corporate culture.

BOX HIGHLIGHT

I had the chance to follow an executive MBA course at the Politecnico di Milano for two years, to which was added the possibility of taking Academy courses for another two years. Returning to study in a young and motivating environment was an exceptional opportunity to get back into the game and I am happy to have had this opportunity.

Duccio Pagani, Executive Director Engineering & Technical Services at Flamma Group

I had the opportunity to follow a Master's course at the 24ore Business School aimed at acquiring transversal skills on business management topics that I deal with on a daily basis in my company.

The Master's course was very transversal, which allowed me to acquire skills in certain aspects of work on which I had never been trained but which I had to and will have to deal with in my current position in the company. I found this training intense and challenging, but of great value.

Alessandro Ghitti, Site Director at Flamma Group

STORY 3

Take 5 for Your Safety: Promoting a Culture of Safety in Flamma

Spreading and rooting a safety culture is crucial for Flamma. To raise risk awareness and promote responsible behaviour, we are introducing the 'Take 5 for Your Own Safety' method.

The 'Take 5 for Your Own Safety' campaign, launched during the training day, offers a five-step approach to assessing risks before starting a job. Starting in September, this method will become an integral part of our operations.

"Take 5" invites every employee to take a break before starting a task, reflecting on potential risks and taking appropriate precautions. During the training day, we explained the five steps in detail, giving practical examples to facilitate understanding and daily use. This training aims to create a safer working environment and reduce accidents.

The next step will be to extend the use of the 'Take 5' method to all our sites, thus ensuring that safety is a top priority wherever we operate. With this initiative, we are committed to protecting employees and promoting a deep-rooted and lasting corporate safety culture.

TAKE FIVE MINUTES FOR YOUR OWN SAFETY



BOX HIGHLIGHT

The system presented will help us, in a quick and easy way, to raise our people's attention even on routine, everyday activities, providing a better perception of the risks associated with what we do. The methodology can be applied to all our activities and requires no special training on HSE issues, so everyone can use it.

Mauro Ghisetti, Production Manager at Flamma Group

The Take Five session made me think about how important it is to think carefully before committing actions that may jeopardise safety.

Training Day participant

The benefit of this approach lies in its simplicity and memorability: it is easy to remember, memorise and even share in meetings and alignments between colleagues as a 'common language'. I also appreciate the Take Five approach because it is empowering. The emphasis shifts from abstract and/or top-down security to acted security where each of us plays a role in our daily lives.

Maria Ilaria Angelicchio, HR Learning and Development Manager at Flamma Group

IMPACT AREA: COMMUNITY

COMMUNITY

We are committed to **contributing to the development of the community and territory** in which we operate and to promoting benefit activities related to **health, culture and inclusiveness**.

Our company is deeply connected to the communities in which we operate, to which we offer not only work but also an active and concrete contribution. Our initiatives go beyond mere charity: we strive every day to make a difference, with an approach that puts social responsibility at the centre. We are particularly passionate about promoting culture and inclusion, taking a holistic view that aims to improve the quality of life in the areas where we operate.

STORY 1

Art and Sustainability: Flamma sponsors 'Sacred Conversations' at the Carrara Academy

Art funding not only feeds a company's soul, but also its image and reputation, reflecting its value and commitment to creativity and inspiration.

Flamma played a major role in the celebration of Bergamo-Brescia Italian Capital of Culture 2023 by sponsoring a work of art at the Accademia Carrara. The project was born from our desire to support local culture and promote art as a tool for innovation and social cohesion.

We sponsored the work 'Sacred Conversations' by the Californian duo Fallen Fruit, consisting of David Allen Burns and Austin Young. This permanent installation, an astonishing wallpaper that envelops visitors in a visionary world, is displayed in the connecting spaces between the floors of the museum accessible by stairs and lift.

'Sacred Conversations' is a celebration of the collection, the museum and the city of Bergamo. The work is inspired by hundreds of photos of Carrara masterpieces, drawings and engravings, as well as images of Bergamo's streets, historic buildings and archives. It integrates natural elements, vibrant colours, flowers, fruits, birds, small animals and pictorial details, creating a wallpaper that transports the visitor from half-light to light, symbolising daily regeneration and renewal.



Flamma visiting the Accademia Carrara, in the connecting spaces between the museum floors



The collaboration between Accademia Carrara and Flamma



Detail of 'Sacred Conversations



Detail of 'Sacred Conversations'

BOX HIGHLIGHT

Collaborating with Flamma was an honour. The work 'Sacred Conversations' not only enriches our museum, but also strengthens the link between art and community.

Representative of the Carrara Academy

“Sacred Conversations” is a permanent work in the museum, included in the traditional tour. From a communication point of view, it has had a great impact, both in the media and on social media, becoming the most photographed work in the museum. Since its reopening, the Accademia Carrara, with the new layout and the permanent work of Fallen Fruit, has recorded over 180,000 admissions to date. We are very proud of this work and satisfied with the resonance it has had and continues to have within the community.

*Andrea Rossato, Head of Communication, Marketing and Museum Development,
Accademia Carrara*

STORY 2

Promoting Chemistry for a Sustainable Future: Flamma's Commitment to the 'CoValent Links' Project

Promoting chemical knowledge at the local level consolidates our leadership in the sector and improves public awareness of the importance of chemistry in everyday life and sustainable community development.

The 'Legami CoValenti' project was born from the collaboration between Confindustria Bergamo, the technical institutes Natta of Bergamo, Marconi of Dalmine, Archimede of Treviglio and the Istituto Erba of Castellana Grotte, with the aim of strengthening the connection between school and the world of work. The initiative involves about 400 students from third to fifth grade in a three-year course of co-designing teaching units integrated into the school curricula.

Flamma opened the doors of its Chignolo d'Isola plant, welcoming male and female students for company visits, workshops and practical activities related to projects assigned by the companies. During these visits, the students had the opportunity to explore the Production departments, Quality and Research and Development laboratories, gaining a deeper understanding of the reality of the chemical-pharmaceutical sector.



Young students visiting the Flamma factory in Chignolo d'Isola

BOX HIGHLIGHT

The collaboration with Flamma and the other companies enabled our students to apply their knowledge in real-life contexts, preparing them well for the world of work.

Natta representative

The experience in Flamma was incredible, I learnt a lot and saw first-hand how a chemical-pharmaceutical company works.

Project student

Investing in young people and their training is crucial for the future of the sector and the sustainable development of the region.

Francesco Ponzini, R&D Director at Flamma Group

IMPACT AREA: SUSTAINABLE INNOVATION

SUSTAINABLE INNOVATION

We are committed to implementing **innovative business practices and industrial processes guided by principles of quality, health and sustainability**, collaborating with the entire value chain.

Flamma, inspired by the vision of greener production of active pharmaceutical ingredients (APIs), is committed to developing medicines that improve people's quality of life. Our innovation, rooted in the concept of 'green chemistry', and research and development activities focus on continuous process optimisation, ensuring rigorous evaluation and constant improvement of processes.

Innovation is part of Flamma's DNA, as demonstrated by the significant investment in R&D, to which 17% of our global workforce is dedicated, with approximately 125 people working in this area. Our approach aims at adopting safer, more efficient and environmentally friendly chemical practices, thus contributing not only to industrial excellence, but also to collective well-being. This commitment enables us to meet future challenges with innovative solutions, geared towards responsible and last-longing growth.

STORY 1

Innovation in production processes towards circularity

Flamma stands out as a leader in the production of amino acid derivatives (both natural and synthetic) and small amino acid sequences used in the pharmaceutical industry for the production of APIs. Among all production lines, the preparation of protected amino acids with Fmoc group represents an extremely important category for Flamma. However, in past years, processes for the preparation of these products have been developed without a shared strategic vision to optimise production efficiency, reduce energy consumption and increase the recyclability of the resources used.

For this reason, Flamma decided to review the production processes of Fmoc-amino acids in order to optimise production costs and reduce the use of resources, with a view to circularity. To this end, a technology platform was created for the synthesis of a wide range of Fmoc-amino acids, harnessing economies of scale and limiting the use of unnecessary solvents by recycling the remaining ones.

The revision process for the production of Fmoc-amino acids started three years ago and required months of work by various resources to research, develop and industrialise a large number of processes in order to optimise the value chain. The main objective was to find a solvent that was safe for health and the environment, readily available on the market and recoverable, and reaction conditions that would allow good yields and very high purity of the final product. Objective achieved: we can now recycle 70% of the solvent, drastically reducing the disposal of solvents and reaction mother liquors, significantly decreasing energy costs and process cycle times and consequently reducing the cost of production. For Flamma, this project was a challenge motivated more by internal scientific and economic objectives than by external commercial demand, as is usually the case. The success achieved is the result of the company's continuous commitment to evolution and great teamwork.

Now begins the long process of qualifying the various Fmoc Amino Acids with our customers, who are as committed as we are to achieving the goal of a more sustainable chemistry, but obviously the need to ensure the safety and health of patients takes priority and justifies the time. However, we aim to conclude this phase as soon as possible and start production with the new platform as soon as possible.

BOX HIGHLIGHT

Personally, I was enthusiastic about the process of harmonisation between sites and the transfer of optimised processes to existing processes. This is not only a project, but a mindset that continues with a concrete application on a wide range of FMOC-AA. The aim is to harmonise our sites by involving different departments to standardise processes so that they are simpler, economically sustainable and have less environmental impact.

Beatrice Trucchi, R&D Project Manager at Flamma Group

Taking part in this project has been a fulfilling experience, as it allowed me to contribute to sustainable innovations that enhance efficiency and promote environmental responsibility.

Xinjun Zhao, R&D Manager at Flamma Group

IMPACT AREA: ENVIRONMENT

ENVIRONMENT

We are committed to fostering an environmentally conscious **internal culture, operating with respect for the ecosystems** impacted by our activities, and implementing a **progressive evolution** of our business model towards a **climate-neutral economy.**

Flamma is strongly committed to environmentally sustainable practices, placing respect and protection of the environment at the heart of our activities. We actively promote a sustainable culture, in which each employee makes a concrete contribution to reducing environmental impact and protecting the planet. We believe that effective environmental management, based on constant internal education and collective awareness, is essential for our long-term success.

We continue our commitment to circular economy models and innovation in the use of materials, favouring renewable resources and processes with a low environmental impact. Our priority is to measure and continuously improve environmental performance, guided by hard scientific data. Every decision is an opportunity to make a difference, actively contributing to a more sustainable future.

STORY 1

Building the Pillars of an Effective Environmental Management System

We recognised the importance of harmonising and standardising environmental information and data both at company level and at each site. We therefore decided to develop an integrated environmental management system to optimise our environmental practices and increase the transparency of our operations.

Our main goal is to create a central database of key performance indicators relating to the consumption of resources such as water, gas and waste. This will allow us to compare the performance of our plants, identify best practices and set measurable and realistic environmental targets.

Creating benchmarks will help us identify areas to work on to improve performance, allowing us to provide timely support to ensure everyone is aligned with our environmental goals. In addition, we plan to extend the database and implement an ongoing monitoring system to ensure that our plants maintain high standards of performance over time.

Through an ongoing commitment to environmental sustainability, the circular economy and reducing environmental impact, we aim to constantly adapt and improve our strategies to meet future challenges and take advantage of opportunities.

BOX HIGHLIGHT

Achieving regulatory compliance is the minimum goal of an ambitious environmental system, which rather aims at implementing and sharing best practices that go beyond legal compliance to protect the environment and influence the culture of the company's workers, suppliers and customers.

The first step in the creation of a real and concrete environmental management system is a deep awareness of the environmental impacts of FLAMMA's activities for a shared creation of real improvement targets.

Alessandro Bolognesi, HSE Manager at Flamma Group

The introduction of an effective Environmental Management System becomes crucial to integrate sustainable and shared practices, reduce environmental impact and ensure responsible resource management.

A key factor in making it effective is to acquire awareness and a sense of responsibility in all employees.

Fostering a corporate culture that values sustainability also means encouraging a collective commitment to the protection of people and the environment driven by continuous improvement of business practices.

Andrea Magnani, Site Director at Flamma Group

STORY 2

Towards Circularity: Innovations and Goals of Flamma

Circularity is becoming increasingly important to Flamma, representing a fundamental pillar of our sustainable development path. Currently, most liquid waste is incinerated to create energy, but our aim is to reduce this practice and find more circular reuse solutions.

To meet this challenge, we are investing significantly in upgrading or building waste water treatment plants. These plants will allow us to treat more waste water internally, reducing waste sent externally and improving the biological parameters of the output water. The aim is to manage and recover water resources more efficiently.

A further initiative is the recovery of water from the reverse osmosis plant, which is reused in the cooling towers. In addition, we are implementing waste separation systems that will facilitate waste recovery and recycling, integrating with the wastewater treatment plant project to further reduce external waste.

The next steps in our journey include the implementation of a new wastewater treatment plant in Chignolo and the construction of a new plant in China. These developments represent a crucial step towards our vision of increasingly internal and circular waste management.

BOX HIGHLIGHT

I believe that adopting a clear management system with well-defined roles and objectives can really make a difference, enhancing the skills and responsibilities of the different company functions to identify the most effective solutions in terms of reducing the environmental impact and, at the same time, the costs of treating or disposing of the waste from production processes, with a view to a circular economy.

Paolo Pitò, Senior Corporate Project Engineer at Flamma Group

With a view to continuous improvement, in parallel with a project to rediscover corporate values that has facilitated more direct and transparent internal communication, working groups are building new paths and strategies with the aim of making existing corporate flows more effective and efficient.

Giovanna Lux, Technology Director at Flamma Group

The construction of in-house sewage treatment plants is one of the fundamental building blocks to achieve the challenging commitments Flamma has towards the environment that surrounds us and in which we live.

Being part of this project was an opportunity to see how all plant functions contribute to the common goals of sustainability and cost reduction.

Nicola Matto, Corporate Environmental Manager at Flamma Group

SUSTAINABILITY AT THE HEART OF FLAMMA'S FUTURE

As Flamma's ESG Corporate Director, my role signifies how sustainability has become a core, strategic pillar for the company. The investment in my position and collaborations with expert consultants underline this commitment from Flamma's ownership.

Historically, Flamma has always prioritized its people, but today, sustainability must evolve beyond compliance—it must be embedded across all functions, sites, and processes.

This has begun with the definition of our purpose, the co-creation of our values, the launch of bottom-up initiatives like the Sustainability Change Agents Network and setting the foundations for a 360-degree approach to ESG.

The transversal nature of sustainability is both a challenge and an opportunity, requiring us to collaborate internally across functions and externally with our customers and suppliers. We are privileged to work with some of the world's most progressive pharmaceutical companies, which are at the forefront of sustainability, and their push to accelerate the transition is a challenge we enthusiastically welcome. This partnership not only drives us to raise our standards but also enables us to contribute—albeit in a small way—to curing patients and improving lives worldwide.

In 2023 and 2024, we laid the solid strategic groundwork necessary for our sustainability journey. The journey ahead presents challenges, such as navigating the complex requirements of the CSRD and Taxonomy and investing in our production and supply chain fast enough to have an impact in this crucial decade. We aim to accomplish this without slowing down our growth, while ensuring the Return on Investment necessary to sustain it.

We remain dedicated to driving change and ensuring Flamma fully embraces sustainability across all facets of the business.

As we approach 2025, we aim to implement and roll out multiple initiatives across all our sites and functions, ensuring that sustainability becomes an integral part of our day-to-day operations, guiding us toward long-term success and positive impact.

Flamma's future is not only about business growth but about being a force for good in the world. We aim to become a truly sustainable company, with all our employees on board, fully aligned with our purpose and the values we've created together.

Anne-Lise Kopp

ESG Corporate Director at Flamma Group

METHODOLOGICAL NOTE

This document illustrates our evolutionary path, as Flamma Group, towards a future-proof business model. It aims to make our stakeholders aware of the choices we are making to integrate sustainability principles into the way we do business.

The document is organised to follow the declination of Flamma's purpose in the four impact areas identified as priorities: People, Community, Sustainable Innovation and Environment. In each of these sections, through stories and testimonials, the main positive impacts achieved are illustrated, highlighting our commitment to promoting responsible growth consistent with our values.

The document covers practices and initiatives implemented in 2023 in Italy. The information on which it is based was gathered through internal data analysis, specific interviews and written communications, involving a cross-functional and inter-departmental team.

Flamma collaborated with [NATIVA](#), a regenerative design company, in the co-creation of the purpose and its operational integration within the company & in the construction of the concepts and drafting of the report.

This document is the first step towards the complete and periodic reporting of the performance of all our sites in Italy, China and the United States and of our social and environmental objectives. We are working on continuously improving the completeness and accuracy of our reporting initiatives and adopting international standards and the latest European directives.

The quantitative data collection in the annex was developed on the Chignolo site in Italy, which was used as a model for the development of our ESG data framework; when not available for the site, we included data on Italy. Flamma aims to develop an ESG Data Framework model covering all its sites.

If you have any questions regarding this report, please contact www.flammagroup.com/contacts/

ANNEX 1

QUANTITATIVE DATA

ENVIRONMENT

Energy & GHG	Unit	2023	Scope
Total energy consumption related to own operations	MWh	15.398	Chignolo
Total energy consumption from fossil sources	MWh	12.508	Chignolo
Total energy consumption from renewable sources	MWh	2.890	Chignolo
Fuel consumption from crude oil and petroleum products	MWh	590	Chignolo
Fuel consumption from natural gas	MWh	6955	Chignolo
Percentage of renewable sources in total energy consumption	%	19%	Chignolo
Total gross Scope 1 GHG emissions	TCO2e	6.813	Italy
Total gross Scope 2 GHG emissions (Location Based)	TCO2e	4.978	Italy
Total Gross Scope 3 Upstream GHG emissions	TCO2e	36.169	Italy
Pollution	Unit	2023	Scope
Emissions of inorganic pollutants	Ton	0,170	Chignolo
Total weight of air pollutants	Ton	2,749	Chignolo
Total weight of VOCs emitted to the atmosphere	Ton	0,645	Chignolo
Total weight of pollutants emitted to water	Ton	0,160	Chignolo
Water	Unit	2023	Scope
Total water consumption	m3	124.914	Chignolo
Discharged water	m3	106.253	Chignolo
Residual water in exhausted waste	m3	2.993	Chignolo
Resource Use & Waste	Unit	2023	Scope
Total Waste generated	Ton	7.756	Chignolo
Total Waste Recovered	Ton	5.521	Chignolo
Non-recycled waste	Ton	2.235	Chignolo
Percentage of non-recycled waste	%	28,8%	Chignolo
Total amount of hazardous waste	Ton	7.649	Chignolo

Total amount of non - hazardous waste	Ton	107	Chignolo
Total amount of radioactive waste	Ton	-	Chignolo

COMMUNITY

Community	Unit	2023	Scope
Total amount of charitable donations	€	144.778	Italy

ETHICS

Ethics	Unit	2023	Scope
Number of convictions for violation of anti-corruption and anti-bribery laws	#	0	Italy
Amount of fines, penalties, and compensation for damages as result of incidents of discrimination, including harassment and complaints filed	Euro	0	Italy

PEOPLE

Own Workforce	Unit	2023	Scope
Percentage of employee turnover	%	14,7%	Italy
Total net new hires	#	95	Italy
Average unadjusted gender pay gap	%	2,70%	Italy
Percentage of women at top management level	%	20%	Italy
Percentage of women employed in the whole organisation	%	23%	Italy
Percentage of women within the organisation's board	%	17%	Italy
Average hours of training per employee	Hours	31	Italy
Number of fatalities in own workforce as result of work-related injuries and work-related ill health	#	0	Italy
Lost time injury (LTI) frequency rate for direct workforce		15,91	Italy
Lost time injury (LTI) severity rate for direct workforce		0,47	Italy

PEOPLE - FOCUS: GENDER AND DISABILITY

Scope: Italy

Year: 2023

Organ	Description	Total	# Women	# People with disabilities
Board	Flamma SPA (Italy)	6	1	0
Chairman	Dr Negrisoni	1		0
Executive committee	-	8	1	0
Chairman -1 Level		10	2	0
People managers	All employees having responsibility for managing people	44	10	0
All employees	All employees	460	105	14

/headcount	Total	Female
Number of employees	460	105
Number of permanent employees	420	101
Number of temporary employees	40	4
Number of non-guaranteed hours employees	NA	NA
Number of full-time employees (FTE)	448	105
Number of part-time employees	12	11