



Sustainability report 2024

Surfing
the
Probiotic
Galaxy
together



CHI SIAMO

We are a Biotech Company, offering solutions for improving people's quality of life



We develop some of the most innovative probiotics in terms of activity and health application – a range of natural solutions to foster well-being.

A synergistic ecosystem devoted to evolution and discovery

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1. LETTER TO STAKEHOLDERS

DEAR Probiotal Stakeholders,

With great pride, we present our first **Sustainability Report** in accordance with the **GRI principles**, a significant milestone in our path of growth and innovation. Since our company was founded in 1985, we have been guided by a clear vision: to improve people's health and well-being through the research and development of probiotics and prebiotics. Today, this vision is enriched by a strong commitment to sustainability, which integrates our family roots with a responsibility towards future generations.

Innovation, which has always been the driving force of our business, is not limited to the creation of new products but extends to every aspect of our production and logistics chain. We are constantly committed to improving our production processes and **reducing our environmental impact**, thus contributing to the United Nations **Sustainable Development Goals** (SDGs).

This report testifies to the **milestones** achieved, but it is also a commitment to continue with transparency and determination. ESG principles are now an integral part of every area of our company, with the awareness that only through **responsible management** can we generate lasting value for all our stakeholders.



A special thanks goes to our employees, the beating heart of Probiotical, whose expertise and passion turn innovative ideas into concrete solutions that improve quality of life. We will continue to create a work environment that fosters the development of our employees' skills, encourages collaboration, and values each individual's contribution. We also express our gratitude to our **partners, suppliers**, and the **local community**, whose support is essential for achieving our business objectives.

Our gaze is turned toward the future, with the awareness that only through a responsible approach can we face global challenges and uphold our commitment to the community and the environment.

Vera Mogna
Probiotical CEO



Our mission: Health and well-being, delivered through an ethical and sustainable supply chain .

Our vision: New microorganisms, new market areas, and the strengthening of clinical research—placing our colleagues and the moral principles with which we have grown at the center.

With these premises, we present the results in our Sustainability Report.

The direction is set, the conviction is strong, and the determination is demonstrated not only through words but also through the **actions** of Probiotal, a historic company characterized by a strong territorial identity, a deep commitment to sustainability, and a genuine attention to stakeholder expectations.

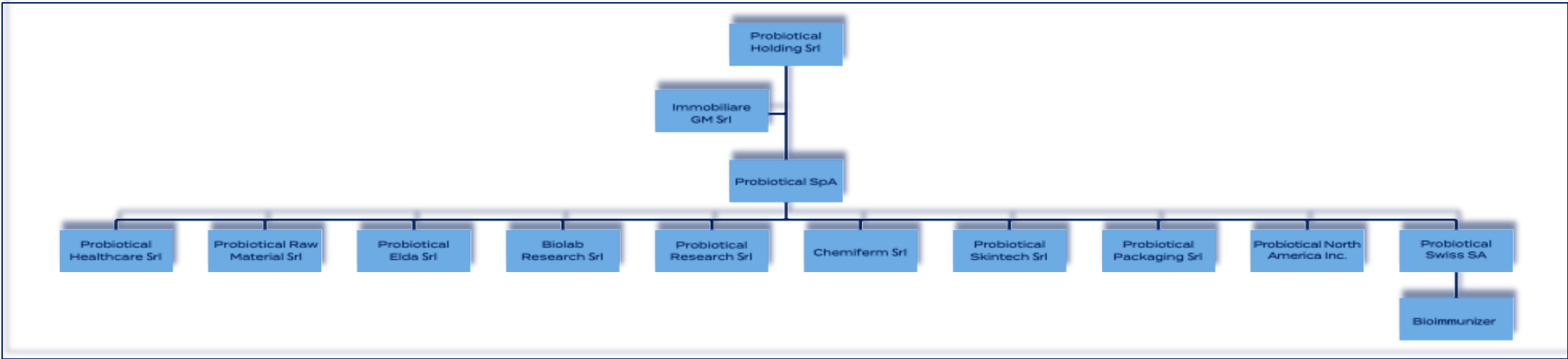
Development always. But sustainable.

We aim to foster a culture oriented toward collaboration across company functions and promote initiatives to strengthen our **team spirit**—the most important of all our resources. We uphold the principles of **equal opportunities** and **inclusivity** and reject any discrimination based on gender, racial or ethnic origin, nationality, age, political opinions, religious beliefs, health status, sexual orientation, or socio-economic conditions.



2. METHODOLOGICAL NOTE

This Sustainability Report concerns the companies of the **PROBIOTICAL GROUP** included within the scope of the consolidated financial statement:



The indicators refer to the three-year period 2022–2024.

This report has been prepared in accordance with the Sustainability Reporting Standards published in 2021 by the **Global Reporting Initiative (GRI Standards)** (with the “with reference to” application level), for which external verification was requested from Certiquality S.r.l.

The vast majority of the data is presented in a consolidated form at the **group** level, except where details at the individual company or plant level provide a more accurate understanding of the data, or where there is a need or opportunity to highlight specific aspects. Unless otherwise specified, the reporting scope covers the entire group. Production data refer to invoiced quantities, without considering changes in inventory.

Further details on the assumptions and calculation methodologies used are provided directly in the text, where appropriate.

For any information, clarification, or suggestions regarding the contents of this document, please contact:

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3. PROBIOTICAL GROUP

3.1. HISTORY

FIRST FERMENTATION PROCESS 1945	MARIO MOGNA FOUNDED ALCE 1950	EXPANSION OF STRAINS PORFOLIO 1965	GIOVANNI MOGNA FOUNDED PROBIOTICAL 1985	FIRST DEPOSIT OF A <i>LACTOBACILLUS</i> STRAIN & FIRST STRAINS DLVP 1988	EXPLORATION OF STRAINS FOR VAGINAL HEALTH 1990s	
FIRST INDUSTRIAL BATCH <i>L. RHAMNOSUS</i> GG 1999	NEW PROBIOTICAL FACILITIES OPENING GMP FOOD GMP PHARMA 2001	FIRST PROBIOTIC PATENT 2002	FIRST CLINICAL TRIAL ON IBS 2004	FIRST ALLERGEN FREE PRODUCTION AND FINISHED PRODUCT 2005	BIOLAB - ACCREDIA FIRST FLOW CYTOMETRY TEST 2006	
DOUBLING PRODUCTION CAPACITY & CHEMIFERM JOINS THE GROUP 2008	EUROPEAN MKT GROWTH IN-HOUSE FINISHED PRODUCTS 2010	FIRST DERMATOLOGY CLINICAL TRIAL PUBLICATION & MD PRODUCTION 2011	FIRST PEDIATRIC CLINICAL TRIAL PUBLICATION 2014	FIST TRIAL WITH FLOW CYTOMETRY ENUMERATION 2016	OVERSEAS MARKET EXPANSION 2017	FIRST FDA INSPECTION 2018
FIRST CLINICAL TRIAL ON GUT-BRAIN AXIS 2019	START NEW BUILDINGS CONSTRUCTION - ENERGY OPTIMIZED 2022	NEW BUSINESS UNIT PROBIOTICAL SKIN TECH FOR COSMETIC 2023	NEW APPLICATIONS: ORAL CARE, GUT-EYE AXIS 2024	NEW PROBIOTICAL BUILDINGS OPENING TOTAL 29,000 SQM 2025	STAY TUNED...	

The **Probiotal Group** is headquarter is located in **Novara** and manufactures its products in three plants, two located in Novara and one near Lodi. At the end of 2024, the Group employed a total of 123 staff, in addition to about twenty temporary workers integrated into production.

The Probiotal Group is characterized by a globally distributed customer network. Its clientele is highly diverse and complex, given the wide range of sectors and target markets. As a company operating in the **Business-to-Business (B2B)** sector, its clients also include processing companies of varying sizes.

The Group has adopted an investment policy aimed at **modernizing** and **optimizing** production facilities to **meet specific market requirements**.



The Group has invested over €21 million in the construction of the new “Probiotal 2” plant, adjacent to the current Novara site. The facility has been designed to **improve** product quality **performance**, **expand production capacity**, and **minimize environmental impacts**, with over €17 million spent during the 2022–2024 period.

The construction, scheduled for completion in 2025, has involved local companies and workforce, generating positive effects on the municipal and regional territory both economically and in terms of employment. The project also includes the installation of new machinery eligible for 4.0 and 5.0 tax credits, thanks to the use of **advanced technologies** and **energy efficiency measures**, which were among the Management’s objectives for the new plant.

Furthermore, the installation of **solar panels** at the two Novara plants aims to increase the use of **renewable energy** and, consequently, enhance sustainability.



Another opportunity is linked to the development of **new products**: the design process is always active and operational, allowing us to monitor and keep track of new requests from our clients or the progress of products arising from internal needs or new ideas. **Probiotal Research** actively manages this process.

Increasing market share is a goal to be pursued continuously. The Group's sales force works consistently to achieve this objective, enhancing customer focus and the ability to provide technical responses regarding product features and issues.

Total production in 2024 amounted to approximately 1,236 tons of finished products. During the same period, the Group's laboratory provided services to **third parties**, generating revenue of over €250,000.

The Group participates in and is a member of **industry associations** such as Federchimica, Confindustria, Unione Italiana Food, and API – FAPI.



3.2 GOVERNANCE

The Probiotal Group is controlled by the **Mogna family**, which holds the entire shareholding through Probiotal Holding.

Strategic and operational management is defined by the **Board of Directors**. Medium-term strategies and assessments regarding the impacts of the Group's activities on environmental, social, and economic sustainability are delegated to the legal representative, director, proxy, and chairman (depending on the company), Gianmaria Camanna.

To further strengthen its governance, in 2024 Probiotal **adopted a new Code of Ethics**, aligned with the most advanced sustainability criteria. The document, under revision in 2025, will become the **Code of Ethics and Conduct**.



The **Employers**, including Camanna himself, are responsible for evaluations and actions related to the more operational aspects, including hygiene, safety, and environmental matters.

Communication within the various organizations—both between operational staff and Management, and between Management and the Board of Directors—is ensured through numerous **meetings**, some formally minuted and others informal, involving different corporate levels depending on the topics under discussion. During these meetings, **strategic plans** are established, later translated into operational plans, and roles and responsibilities are assigned to ensure their implementation and the achievement of the set objectives.

As a testament to the Group's close **relationship with the territory** in which it operates, it should be noted that all directors and senior managers reside within 50 kilometers of the company sites, in many cases within the same municipality as the sites themselves.

The **Code of Ethics and Conduct** exists and has been updated in accordance with applicable ESG regulations. It provides for compliance with the principles of non-discrimination, equal opportunities, gender equality, and, more generally, with the standards set out by the **International Labour Organization (ILO)**.

In 2024, the ratio between the highest **annual remuneration** and the average remuneration within the Group was **2.18**.

Finally, it should be noted that the governing bodies of the Group's companies include **female members**: the Chairperson of the Board of Directors is Vera Mogna.

3.3 PRODUCTS

From product design to the finished product, the manufacturing cycle is 100% in-house, comprehensive and safe.

23.000
sqm

3
production facilities



FERMENTATION

48.000
litres



PRODUCTION AND PACKAGING

Units sold/year


Sticks	30 M
Sachets	15 M
Capsules	40 M
Bottles	4 M




FREEZE-DRYING

400
sqm


PRODUCT FORMATS




BULK POWDER




SEMI-FINISHED PRODUCT




FINISHED PRODUCT




OROSOLUBLE POWDER




HYDROSOLUBLE POWDER




CAPSULE




CHOCOLATE COMFIT




OIL DROPS




LIQUID SHOT



TOPICAL APPLICATION



SPRAY

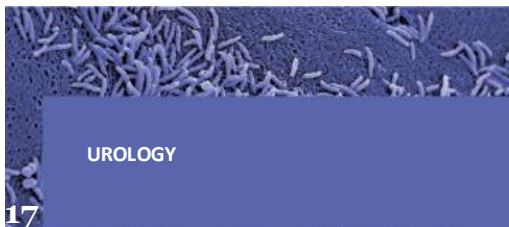
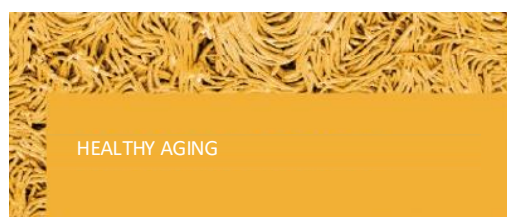
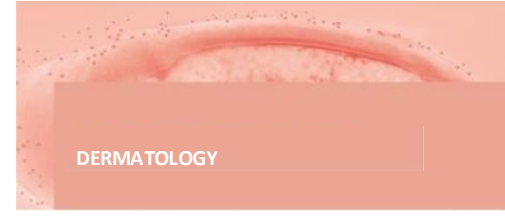


GUMMIES

IL MERCATO



AREE DI APPLICAZIONE



4. THE GROUP AND SUSTAINABILITY



RESEARCH & INNOVATION

Our **strong expertise** in **probiotics** allows us to continuously raise the bar of **innovation** and to supply **best in class products**.



COMMITMENT TO QUALITY

Our **strong expertise** in **probiotics** allows us to continuously raise the bar of **innovation** and to supply **best in class products**.



CUSTOMIZED SOLUTIONS

Our **uniqueness** is to offer absolute **tailor made solutions** and **counselling support**, to meet customer expectation.

The Group is constantly committed to **ensuring respect** for all parties interacting with it and who may be negatively affected by the impacts arising from its activities, guaranteeing prompt action to resolve any issues caused to internal and external stakeholders. In addition, a procedure has been implemented for the management of legislative compliance, which includes constant updates on regulations, **periodic checks on compliance** with applicable, mandatory, and voluntary requirements, and the implementation of any adjustment actions in the event of new obligations or discrepancies.

Thanks to the **consistent application** of this management approach, it has been possible to minimize cases of non-compliance with applicable requirements: in fact, no cases have occurred in the last three years.

In order to further improve the internal reporting mechanism, the Group is implementing a procedure to **protect whistleblowers**, to ensure that everyone—whether employees (for whom the process is already active) or third parties (e.g., suppliers, customers, local communities)—can report issues and concerns related to company management in a confidential and protected manner.

This principle continues to take on numerous forms year after year.

CREATION OF VALUES FOR EMPLOYEES

- Respect human rights and ensure the solidity of the employment relationship
- Protect health and safety
- Enhance professionalism through mentoring, training, and career development paths
- Engage people through daily dialogue and the Group's information and communication tools

RESEARCH & DEVELOPMENT

75

years
of experience
in microbial selection,
production,
and validation.

UP TO **10%**

our turnover
invested
every year
in research, patent
and innovation

160+

clinical trials
published,
on offered strains.

300+

granted patents
in 22 countries
& territories



CERTIFICATIONS

REGULATORY AFFAIRS

Regulatory expertise in probiotics for food, food supplements, pharma, cosmetic application.

Pharma

(AIFA – ITALIAN MEDICINES AGENCY)



- GMP for API production
- GMP for MEDICINAL PRODUCTS in bulk production

ISO

- ISO 9001:2015 Quality management system
- ISO 13485:2016 Quality management system for medical devices
- ISO 22000:2018 Food safety Management



Environment

- ISO 14001:2015
- ECOVADIS Gold Medal



Food/Supplements

- GMP for FOOD SUPPLEMENTS production – ITALIAN MINISTRY OF HEALTH
- FDA registration



Product certifications

- KOSHER
- HALAL



Cosmetics

- ISO 22716:2007



QUALITY SERVICES

BIOLAB

We are committed to **excellence in probiotic-based products**. Driven by innovation, we continuously evolve to **provide outstanding services**.

Our expertise spans **key strategic** areas:



Microbiological Analysis

cutting-edge methodologies for broad microbial assessment.



Stability Studies

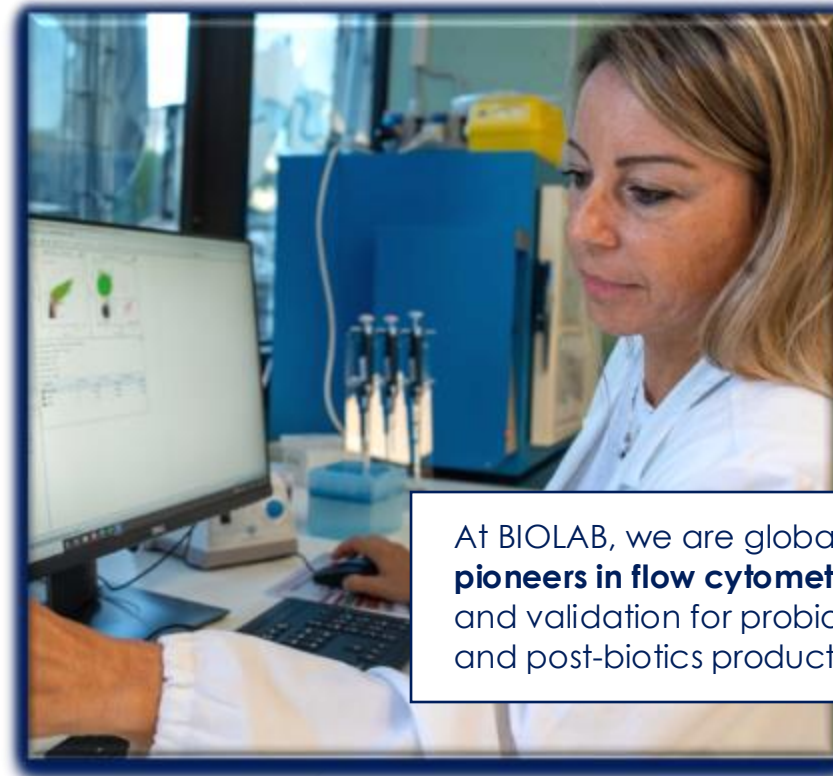
Predictive* and/or continuous monitoring of product stability over extended periods.



Method Comparisons and Performance

rigorous evaluation to ensure the highest standards in analytical methods.

BIOLAB is an Accredia certified analysis laboratory, part of the Probiotal group.



At BIOLAB, we are globally recognized **pioneers in flow cytometry** testing and validation for probiotic and post-biotics products.

PROPRIETARY TECHNOLOGIES



**ALLERGEN
FREE**

Avoid the use of any potential allergen, both in the probiotic strains and finished dosage forms



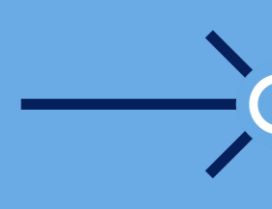
**STRAINS
IN OIL**

Avoid the use of any potential allergen, both in the probiotic strains and finished dosage forms



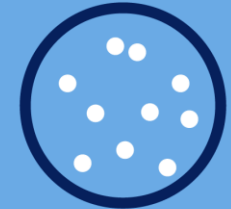
MICROBAC

Microencapsulated probiotic strains.
Better stability
More accurate cells count (AFU)



**LYOBAC
AFU**

Clean label
Infant products suitable.
Better stability
More accurate cells count (AFU)

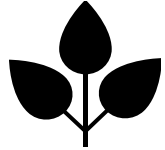


**LYOBAC
CFU**

Clean label
Infant products suitable

OBJECTIVES FOR CREATING SUSTAINABLE VALUE

ESG



SUSTAINABLY SOURCED, VEGAN INGREDIENTS

- 20% of water consumption



WASTE REDUCTION

73% WASTE GO TO RECOVERY / RECYCLING
MORE THAN 99% OF WASTE IS NOT DANGEROUS



ZERO CO2 EMISSIONS

SCOPE 2 (from energy)



GREEN BUILDINGS

SOLAR PANELS - GREEN ENERGY
SELF PRODUCTION

EcoVadis Gold Medal



For our commitment to the
environment
work practices
and ethics

Probiotal's sustainability according to ECOVADIS

The Ecovadis sustainability assessment is a service that evaluates a company's sustainability impact based on concrete data. The result of the Ecovadis sustainability assessment is expressed in medals: Probiotal has been awarded the **GOLD MEDAL**, a distinction achieved by only 5% of all companies evaluated by Ecovadis—truly at the top!

What does sustainability mean for Probiotal?

The United Nations Commission on Environment and Development defines sustainable development as meeting “the needs of the present without compromising the ability of future generations to meet their own needs.” Probiotal's three pillars of sustainability—**social, environmental, and economic**—are described based on the **2030 Agenda**.



SUSTAINABLE DEVELOPMENT GOALS



SOME STRATEGIC OBJECTIVES

- Start production at the **new plant**
- Implement an integrated **environmental and safety** management system
- Implement an information **security** management system
- First preparation of the Group's **sustainability report**
- Increase the share of **renewable energy**
- Promote the concepts of **Lean Management** and Learning by Doing
- Raise awareness regarding the **ethical principles** of service providers

SOCIAL CAPITAL

1. Implementation of integrated management systems QHSE ESG
2. Collaboration with UPO - Università degli Studi del Piemonte Orientale
3. 2026: development of corporate welfare
4. Lean training, enhancement of language training, and management of the technical services area



HUMAN CAPITAL

Probiotal è sostenibile perché crediamo nella parità di genere: al 31/12/2024 più del 50% del personale era femminile come lo è oggi. Nel 2026 abbiamo l'obiettivo della certificazione della Parità di Genere secondo la PDR125:2022 per l'intero gruppo



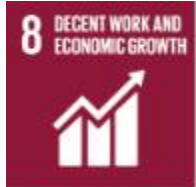
NATURAL CAPITAL

Probiotal is sustainable because we believe in gender equality: as of December 31, 2024, more than 50% of the workforce was female, as is the case today. By 2026, we're aiming for gender equality certification according to PDR125:2022 for the entire group.



GOVERNANCE

Probiotal is sustainable because it distributes value by investing in the company, creating new jobs, and building buildings with a lower environmental impact. In 2025, we plan to achieve LEED certification for our facilities under construction, and in 2026, for those already built.



INFRASTRUCTURE CAPITAL

Probiotal is sustainable because it does not use animal derivatives and allergens, it does not use carcinogenic and mutagenic raw materials



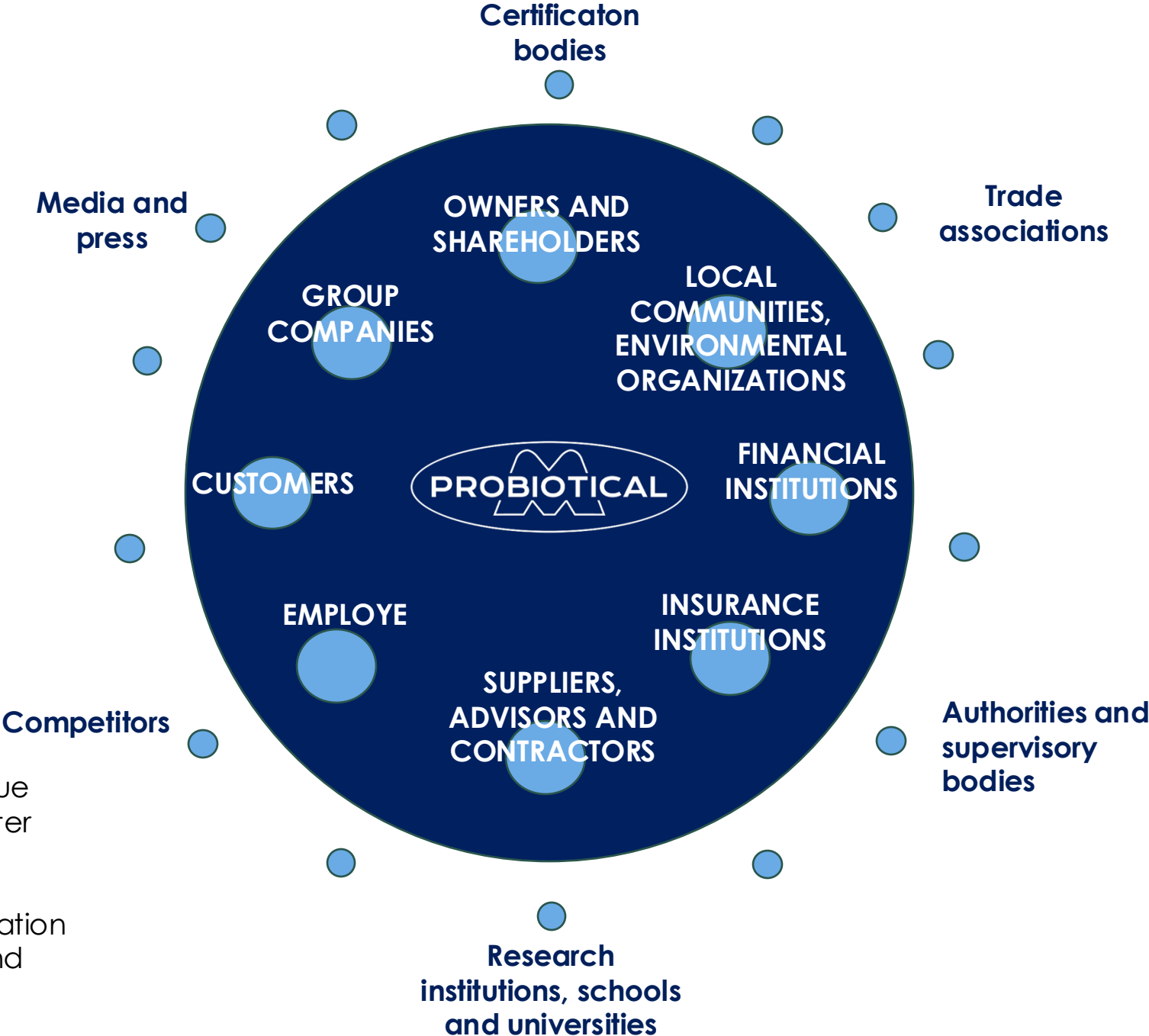
5. STAKEHOLDER ENGAGEMENT

Starting in 2023, the Probiotal Group embarked on a process of reflection on relevant sustainability issues, completing its first **materiality analysis**.

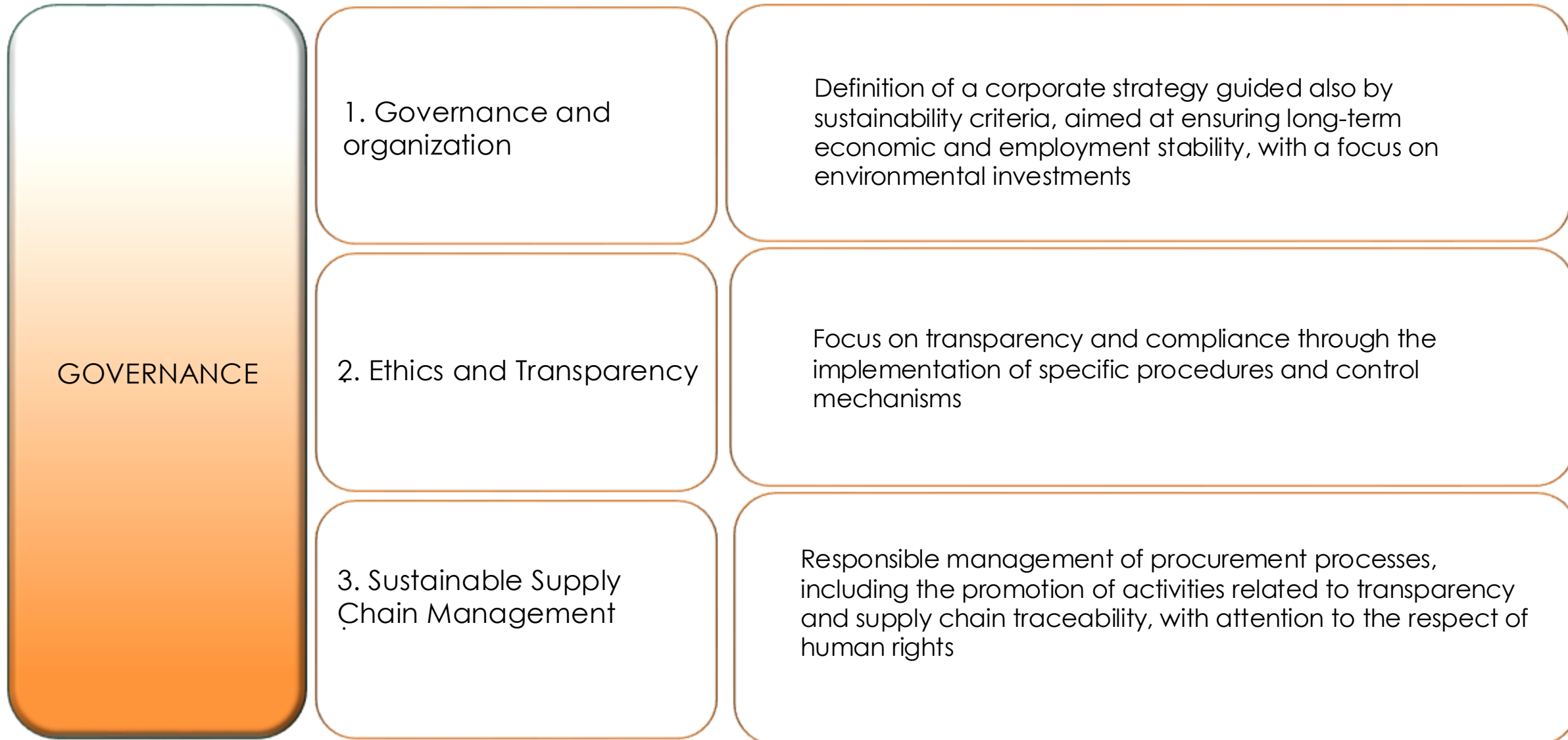
The process of identifying the most relevant issues was developed through an analysis of the external context.

Starting from a benchmarking activity that included the main national and international competitors and customers (with a particular focus on their requests) and the **analysis of industry trends, public policies, and national and international regulations** on sustainable development, it was possible to identify the issues relevant to the sector.

We believe open and effective dialogue with our stakeholders is essential to better inform our corporate decisions and strategies. As shown in the chart, each stakeholder has dedicated communication channels, designed to ensure timely and constructive dialogue.



This analysis led to the identification of the following **15 material topics**:



SOCIAL

4. Health and Safety

Promotion of health and safety at work through safe and healthy environments, incident analysis, monitoring, and prevention

5. Working conditions and Human rights

Promotion of work policies and practices aimed at protecting workers' human rights

6. Employee well-being and engagement

Promozione del benessere dei dipendenti offrendo strumenti concreti per la conciliazione della vita-lavoro e venendo incontro alle necessità dei singoli

7. Training and skills developement

Promotion of employee well-being by providing practical tools for work-life balance and addressing individual needs

8. Diversity, inclusion and equal opportunities

Promotion and respect of diversity, inclusion, and equal opportunities

9. Product quality and safety

Focus on producing products that meet the highest standards of quality, safety, and environmental sustainability.

10. Developement of local communities

Enhancement of economic and social development opportunities for local communities

ENVIRONMENT

11. Climate change

Improvement of energy efficiency, sourcing of renewable energy, and monitoring of greenhouse gas emissions through control systems, adoption of industry Best Available Techniques, and containment and reduction policies

12. Waste management

Responsible waste management, particularly of hazardous waste, promoting and implementing methods and practices to reduce waste generation

13. Water resource management

Responsible management of water resources, implementing and monitoring effective measures for proper management of industrial wastewater discharges

14. Management of resources and raw material

Assessment and optimization of raw material management

15. Product innovation and sustainability

Development of products and production processes that reduce environmental impacts

Analysis of measures and internal relevance

After identifying the material topics for the sector, an analysis was conducted to assess how these issues are managed internally and their level of importance to company management.

Based on the results obtained, further stakeholder engagement actions have been identified, which will be implemented starting in 2025 in preparation for the next edition of the report, specifically:

- Engagement of group company employees through questionnaires and participation in targeted focus groups;
- Direct engagement of local authorities through interviews;
- Engagement of key clients and suppliers through targeted interviews.

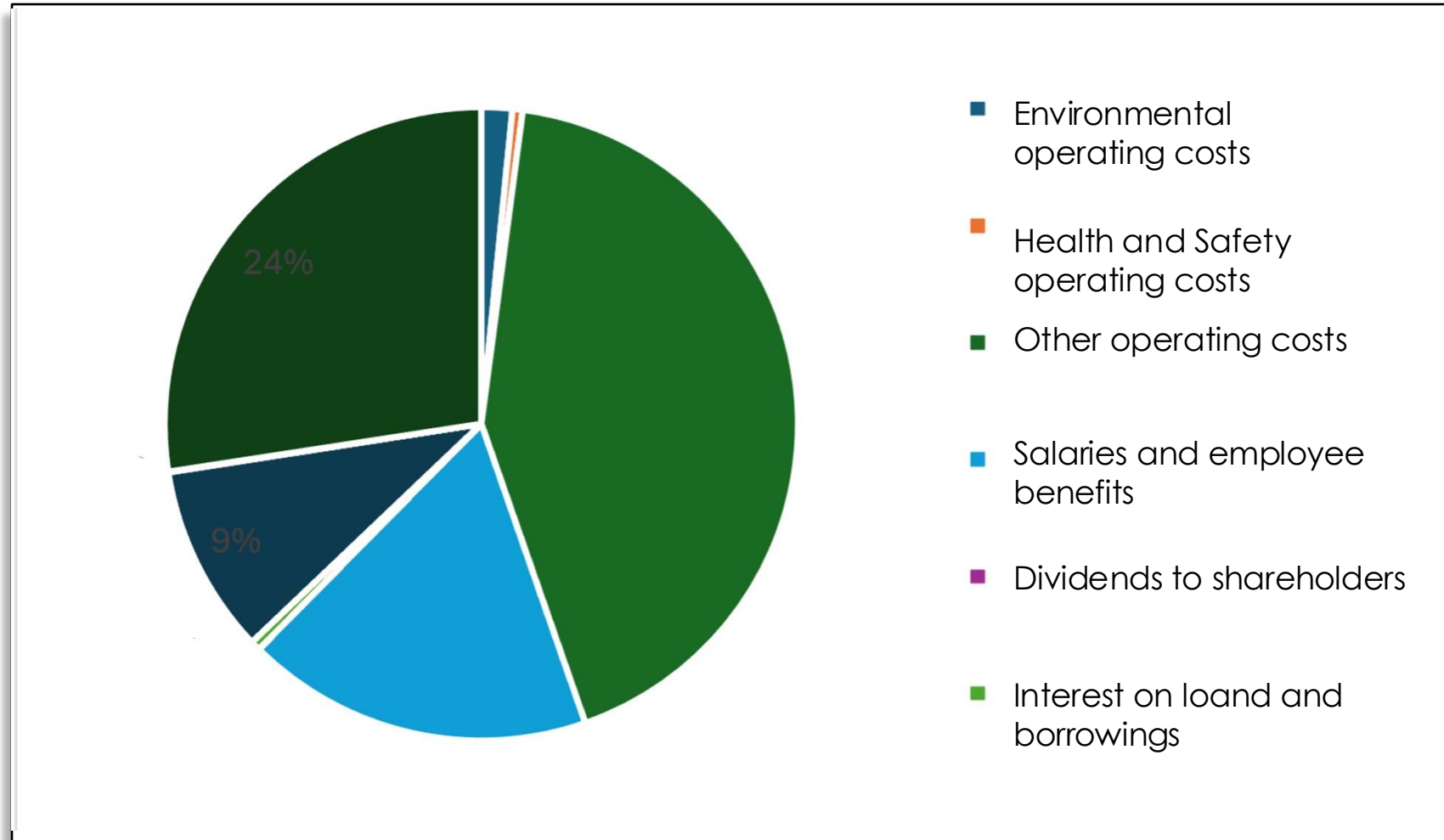
6. ECONOMIC ASPECTS

The following table shows **the trend of value** generated over the three-year period under review; it also reports the **value added** (calculated as value generated minus the cost of raw materials) and its **distribution among stakeholders**.

The information presented for 2022 is based on a pro-forma consolidated financial statement of the companies that currently make up the Probiotical Group, while data for 2023 and 2024 are based on the consolidated financial statements of Probiotical Holding Srl, audited by the sole statutory auditor – GRI reference 201.1. It should be noted that the figures presented do not include the results of foreign companies belonging to the Group (Probiotical North America, Probiotical Swiss, and Bioimmunizer), as they are essentially non-operational

	2022	2023	2024
Generated value	€ 42.275,38	€ 49.824,34	€ 58.389,29
Cost of main raw materials	€ 6.115,97	€ 7.433,62	€ 8.285,08
Total added value	€ 36.159,41	€ 42.390,72	€ 50.104,21
Environmental operating costs	€ 548,59	€ 529,96	€ 699,58
Health and Safety operating costs	€ 55,52	€ 86,49	€ 231,16
Other operating costs	€ 16.972,79	€ 17.772,81	€ 18.895,05
Salaries and employee e benefits	€ 5.645,44	€ 6.328,52	€ 7.863,73
Dividends to sharholders	€ 0,00	€ 0,00	€ 0,00
Interest on loans and borrowings	€ 119,49	€ 30,56	€ 222,83
Payments to public authorities/Taxes paid	€ 1.537,20	€ 2.585,73	€ 4.284,48
Investments in local communities	€ 12,00	€ 13,50	€ 15,00
Total distributed value	€ 24.891,02	€ 27.347,58	€ 32.211,82
Depreciation/Amortization	€ 5.322	€ 5.867	€ 5.726
Retained value	€ 5.946,49	€ 9.176,59	€ 12.166,34

ADDED VALUE DISTRIBUTION



As shown, more than half of the value added translates into direct or indirect impacts on the local area: costs of main raw materials, other operating costs, and salaries and employee benefits.

Over the past three years, the Group has benefited from the following public contributions – GRI reference 201.1

€000	2022	2023	2024
Superbonus 110%	€ 0,00	€ 522,30	€ 522,30
Energy and gas-intensive industry incentives	€ 125,75	€ 198,85	€ 0,00
Patent Box	€ 1.389,68	€ 1.579,70	€ 2.328,48
Sabatini Interest Contribution	€ 9,34	€ 18,67	€ 18,67
R&S	€ 166,53	€ 98,46	€ 81,20
Capital goods/Equipment	€ 14,86	€ 0,00	€ 0,00
Patents+	€ 36,33	€ 0,00	€ 0,00
Co.finance projects Finpiemonte (P. Research)	€ 88,41	€ 0,00	€ 0,00
Training credit	€ 153,49	€ 0,00	€ 0,00
Grant funding DM Prevent	€ 0,00	€ 36,76	€ 0,00
Total contributions	€ 1.984,4	€ 2.454,74	€ 2.950,66

7. L'AMBIENTE



Probiotal is today a significant industrial and research organization, structured across **three facilities**. Two of these are located in **Novara** (one of which is in the start-up phase), housing the state-of-the-art Research Center and the probiotics production area.

Probiotal S.p.A. was established in **1985** within the Mofin Alce Group, with the purpose of **producing lactic ferments** and implementing research and development activities for the entire Group, pursuing objectives and strategies with a higher innovative content, including applications beyond the dairy sector.

Probiotal was tasked with coordinating and managing all research activities, both basic and applied, related to the programs included in the Group's strategy. Specifically, Probiotal develops fundamental studies aimed at better understanding the **physiological and metabolic aspects of lactic bacteria**, with a particular focus on probiotic strains of Lactobacillus and Bifidobacterium.

The other facility, **Chemiferm**, dedicated to the production of **bioactive peptides, natural colorants, and flavors**, is located near **Lodi**, in Lombardy.

Where we are



RESEARCH
PACKAGING
SKIN TECH



ChemiFerm



7.1 TERRITORY

The **Probiotal group headquarter** is located in the southwest part of the city of **Novara**, in an area characterized by the presence of various industrial, artisanal, and commercial establishments, identified in the current General Urban Plan (PRG) as a “**Production Area**”. The site does not present any environmental or landscape restrictions, nor notable natural, environmental, historical, or cultural features requiring landscape protection.

The current and planned land use foresees the construction of production facilities with equipment and services in the immediate surroundings.

Probiotal is situated on flat terrain, with a surface layer composed of fluvio-glacial and fluvial deposits

The Province of Novara, particularly its flat area occupied by the city of Novara, is characterized by a complex and widespread water and irrigation system that has developed over the centuries and defines the **landscape of the plains**. From a hydrogeological perspective, the area belongs to the **Po River basin**.

The fluctuations of the shallow groundwater levels are strongly influenced by both climatic and anthropogenic factors, with maximum levels typically occurring at the beginning of summer and in late autumn.

Agricultural practices, particularly **rice cultivation**, which involves the annual flooding of nearly all arable land, lead to significant local rises in groundwater, occasionally causing the water table to reach the surface. Due to these combined characteristics, the shallow aquifer across almost the entire Novara plain is classified as **highly vulnerable**.



The **Chemiferm plant** is located in the municipality of Livraga, which is crossed by provincial roads S.P. 107 and S.P. 167. In its eastern sector, the municipality also borders the route of the Autostrada del Sole.

The **“Water Resource Protection Plan”** of the Lombardy Region classifies the territory of Livraga as a **“Zone of Attention”** for nitrate vulnerability. Furthermore, it falls within a groundwater protection area as a **“reserve macro-area included in the plains’ hydrogeological basins.”**

There are no specific geological or technical constraints to urbanization.



Considering the activities carried out, their related impacts, and the territorial contexts in which the group's production sites are located (predominantly industrial areas, away from residential centers, except for the Livraga site), it can be stated that the group's activities do not result in significant impacts on the surrounding territory, because:

- **investigations have shown that noise impact limits have always been respected;**
- **air emissions have always complied with the limits established in the permits issued by the competent authorities;**
- **particular attention is paid to the reduction and management of water used in production processes.**

7.2 MATERIALI



Completely Allergen Free manufacturing processes

Strain isolation



Fermentation



Fermentation

Micro-encapsulation
Proprietary technology



Freeze-drying



Freeze-drying



Research and labs

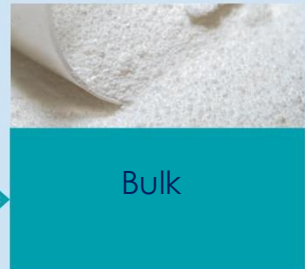
Single strains and blended formulas



In vitro and clinical trials



Raw material
Single strain



Bulk

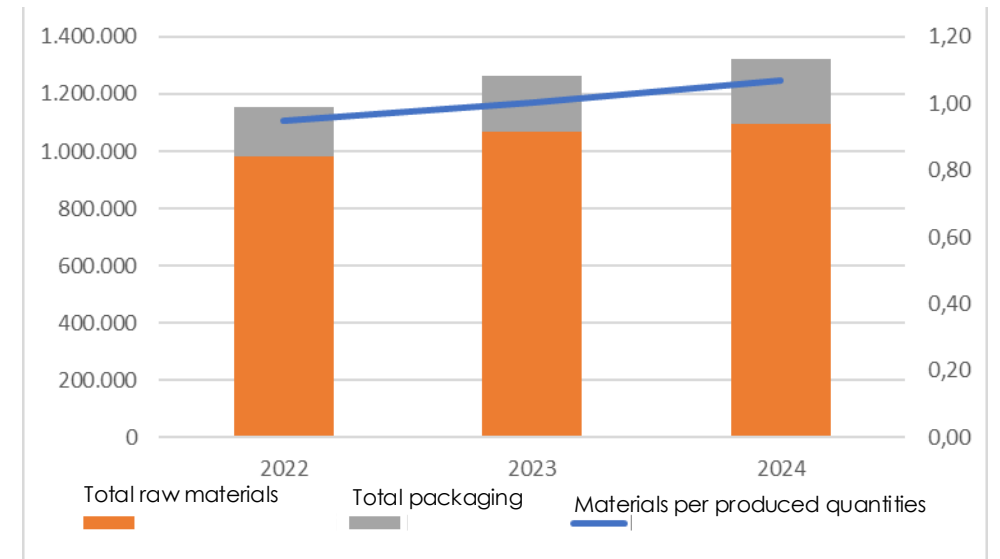


Finished product



Total material (kg)	2022	2023	2024
Total raw material ¹	983.181	1.068.604	1.093.901
Total Packaging	171.420	195.866	228.701
% Renewable packaging (wooden pallets)	0,00%	0,00%	11,81
% recyclable packaging (plastic and cardboard packaging)	20,30	17,53	30,31
Total materials used	1.154.601	1.264.470	1.322.602
Materials per produced quantities	0,95	1,00	1,07

Material consumption



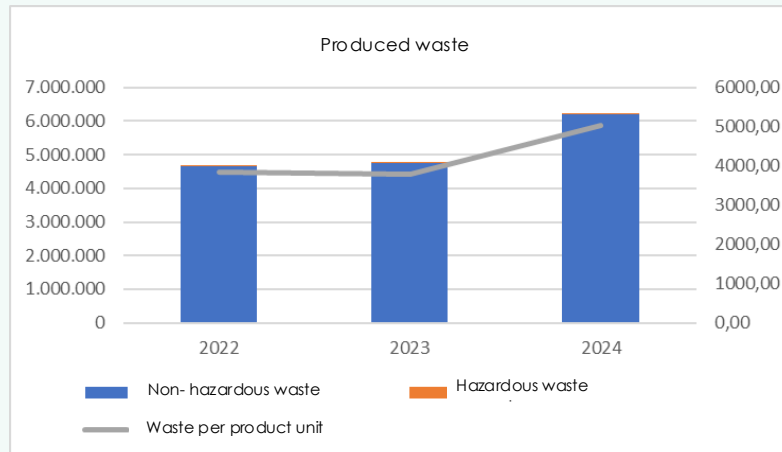
¹ This type of product does not involve the use of recycled raw materials



7.3 WASTE

Waste by type (kg)	2022	2023	2024
Non-hazardous waste	4.668.450	4.749.861	6.211.495
Hazardous waste	8.750	15.674	13.016
Total waste	4.677.200	4.765.535	6.224.511

The increase in waste generated in 2024 is linked to the diversification of the **commercial offering**, which requires more frequent cleaning of the facilities and, consequently, an increase in specific waste, representing approximately 95% of the total.



Waste by hazard category	2022	2023	2024
Non-hazardous waste	4.668.450	4.749.861	6.211.495
Hazardous waste	8.750	15.674	13.016
Total waste	4.677.200	4.765.535	6.224.511
% Non-hazardous waste	99,81	99,67	99,79
Waste per product unit (kg/t)	3843,50	3785,96	5037,04

Waste by destination (kg)	2022	2023	2024
Material recovery	2.334.140	3.395.110	5.237.526
Other forms of recovery	1.640	1.580	1.891
Disposal	2.343.060	1.370.425	986.985
Total waste	4.677.200	4.765.535	6.224.511
% Recovery	50%	71%	84%

The progressive increase in waste sent for recovery is due to the commitment to maximize this form of treatment by carefully selecting the destination facilities.



7.4 WATER CONSUMPTION AND DISCHARGES

As with waste, water withdrawal has also increased in the past year due to the higher number of cleaning operations required.

Source of supply	Unit of measure	2022	2023	2024
Municipal water supply	Thousand m ³	15,82	11,38	9,86
Groundwater (Well)	Thousand m ³	16,22	16,34	49,47
Total	Thousand m³	32,04	27,71	59,33
Groundwater in high water stress areas	Thousand m ³	0	0	0
Specific water withdrawal	m³/t produced	26,33	22,02	48,01



7.5 ENERGY CONSUMPTION

		2022	2023	2024
Fuel consumed (natural gas)	Sm ³	388.938	476.413	501.929
Fuel consumed (natural gas)	GJ	13.744	16.892	17.861
Electricity consumed	kWh	5.702.959	5.716.430	5.926.276
Electricity consumed	GJ	20.531	20.579	21.335
Total electricity consumed	GJ	34.275	37.471	39.195

Energy mix/Composition by source (location based)		2022	2023	2024
Renewable sources	%	37,0%	46,3%	46,3%
Fossil sources	%	58,2%	49,2%	49,2%
Other sources	%	4,9%	4,5%	4,5%

GJ/t produced		2022	2023	2024
Fuel energy intensity	GJ/t	11,29	13,42	14,45
Electricity intensity	GJ/t	16,87	16,35	17,26
Total energy intensity	GJ/t	28,17	29,77	31,72

Composizione per fonte (market based)		2022	2023	2024
Renewable sources	%	97,0%	97,3%	97,3%
Fossil sources	%	2,8%	2,4%	2,5%
Other sources	%	0,2%	0,2%	0,2%

The increase in energy intensity is, as with other previously presented indicators, linked to the rise in the number of batches produced, which leads to a higher number of production changes and, consequently, a slight decrease in overall process efficiency.

The percentage of electricity from renewable sources is expected to increase, also thanks to the photovoltaic systems currently being installed at the two Novara sites.



7.6 EMISSIONS TO AIR

As previously mentioned, the choices made regarding the sourcing of purchased electricity are reflected in the 'market-based' emissions indicator, which is significantly better than the corresponding 'location-based' indicator.

t of CO _{2eq}		2022	2023	2024
Scope 1: Direct emissions		774	955	1.013
Scope 2: Indirect emissions location based		1.671	1.342	1.179
Scope 2: Indirect emissions market based		80	66	60
Total emissions (Scope 1+2) location based		2.445	2.296	2.192
Total emissions ((Scope 1+2) market based		855	1.021	1.073
Emission intensity (Scope 1+2) location based		2,01	1,82	1,77
Emission intensity (Scope 1+2) market based		0,70	0,81	0,87
Scope 3:	Transport	Inbound transport of raw material		289
		Outbound transport of finished products		2.286
		Home-to-work commuting of employees		236
		TOTAL Transport		2.812
	Inbound material	Raw material		3.824
		Packaging		481
		TOTAL inbound material		4.305
TOTAL Scope 3		7.117		
Total emissions (Scope 1+2+3) location based (t)				9.309
Total emissions (Scope 1+2+3) market based (t)				8.190
Emission intensity (Scope 1+2+3) location based (kg CO_{2eq}/kg product)				7,53
Emission intensity (Scope 1+2+3) market based (kg CO_{2eq}/kg product)				6,63

8. OUR PEOPLE

With regard to **remuneration**, there are no predetermined differences between genders or plant locations; any differences are essentially linked to the specific roles held. Benefits granted to employees are provided regardless of contract type (fixed-term or permanent); in the case of part-time contracts, benefits may be proportionally adjusted based on working hours.

Over the years, with the acquisition of various plants and the strengthening of production capacity and business, the **workforce has grown**. This growth has particularly involved young people, called upon to contribute their know-how in line with current market needs and capable of generating a valuable exchange with the Group's established expertise, especially in technical areas such as R&D and Laboratories.

Considering the employee base, while the intermediate age group (30–50 years) remains predominant, the share of employees under 30 has also increased among new hires. Women account for just over 50% of the total workforce, with a substantially **equal presence** in administrative, managerial, process control, R&D, and production roles.







All employees are covered by the National Collective Bargaining Agreement (**CCNL**) of the relevant sector (Chemicals). The national contract is further integrated by company-level agreements, specific to each site. The types of contracts in place reflect the importance the Group has always placed on **continuity of employment**, with permanent contracts accounting for around 95% of the total, a figure that has remained essentially stable over the three-year period. Fixed-term or agency contracts are used mainly for production staff.

As for the **distance** between employees' **residences** and the Group's **facilities**, 44% live within 10 km and 78% within 20 km of their workplace.







8.1 GENERAL DATA



Employees by gender and contract type (Fixed term and Permanent)		2022	2023	2024
Males 	Fixed term	2	4	0
	Permanent	44	48	55
Females 	Fixed term	2	3	3
	Permanent	46	59	65
Total	Fixed term	4	7	3
	Permanent	90	106	120



Dipendenti per genere e tipologia contrattuale (tempo parziale e tempo pieno)		2022	2023	2024
Males 	Part-time	0	0	0
	Full-time	46	52	55
Females 	Part-time	5	5	4
	Full-time	43	56	64
Total	Part-time	5	5	4
	Full-time	89	108	119

	2022	2023	2024
Total employees	94	113	123
Agency workers	20	15	21

New hires and Terminations by gender		2022	2023	2024
New hires	Males 	14	15	7
	Females 	7	16	9
	Totali	21	31	16
Terminations	Males 	7	9	4
	Females 	2	3	2
	Totali	9	12	6

Dipendenti neoassunti e cessati per classe di età		2022	2023	2024
New hires	< 30 anni	2	10	5
	between 30 and 50 years old	15	15	8
	> 50 years old	4	5	3
Terminations	< 30 years old	0	0	0
	between 30 and 50 years old	6	8	5
	> 50 years old	3	4	1

Employees by gender and job level		2022	2023	2024
Males 	Workers	26	30	29
	Employees	15	18	17
	Middle management	2	3	6
	Managers	3	2	3
Females 	Workers	4	8	8
	Employees	32	41	47
	Middle management	10	11	12
	Managers	1	1	1
Total	Workers	30	38	37
	Employees	47	59	64
	Middle management	12	14	18
	Managers	4	3	4

Percentage distribution of employees by gender in 2024				Total
	Workers	78,4	21,6	100%
	Employees	26,2	73,8	100%
	Middle management	33,3	66,7	100%
	Managers	75,0	25,0	100%
	Total	44,4	55,6	100%



8.2 HEALTH AND SAFETY

Probiotal places the highest importance on safety in its strategy and is committed to balancing the production needs of its facilities with the protection of the well-being of employees and local communities. To achieve this, the Company continuously works to:

- **Assess, prevent, and mitigate risks** through well-structured organizational systems that are attentive to potentially hazardous situations and ready to act promptly.
- **Introduce the best available technologies** in its facilities, not only from a production and environmental perspective but also in terms of health and safety.
- **Foster a safety-oriented mindset** among all employees, starting from top management, emphasizing the contribution each individual can make to improving the overall safety culture



Within the framework of an integrated system for managing health and safety, we have appointed the same consultant as the **Responsible for the Prevention and Protection Service** for all facilities, and an internal person, who also serves as an auditor of management systems, as the **HSE Manager**. During specific training and information sessions, both in the classroom and on-site, hazardous situations reported by employees are also simulated. The **integrated system for quality, environment, health, safety**, and corporate social responsibility is currently being implemented across all facilities.

The core values and principles of Probiotical are expressed in the **Group's policies**, allowing for a structured sharing of the strong corporate culture and providing guidance for activities and behavior. The Group's **Code of Ethics and Conduct** is addressed to directors, managerial staff, employees, and workers, as well as all external collaborators, including, by way of example: suppliers, consultants, agents, and representatives; it is also made available to public authorities and supervisory bodies. Compliance with the Code is mandatory for all employees and collaborators, just as adherence to the laws of the jurisdictions in which they operate (national, supranational, or foreign) and the provisions contained in collective agreements is obligatory. Those in positions of responsibility or management must set an example for others, demonstrating that adherence to the Code of Ethics is a fundamental part of our daily work, and that business results must never be separated from the observance of the principles contained therein. We are all called upon to ensure compliance with the Code of Ethics.

The table reports data on workplace **injuries** over the past three years across the Group's sites. It should be noted that no fatalities or serious injuries occurred during this period.

Only three minor injuries were recorded over the past three years, which caused a slight increase in the injury indices; these remain well below (severity index, ≥ 0.27 over the 2019–2023 five-year period) or in line with (frequency index, between 6.3 and 13.7 in the same period) the benchmarks of the relevant industry sector.

Injury trends	2022	2023	2024
Number of injuries	0	1	2
Number of hours worked	146.354	199.896	233.413
Frequency rate (injuries per millions hours worked)	0,00	5,00	8,57
Severity rates (days lost per thousand hours worked)	0,00	0,07	0,11

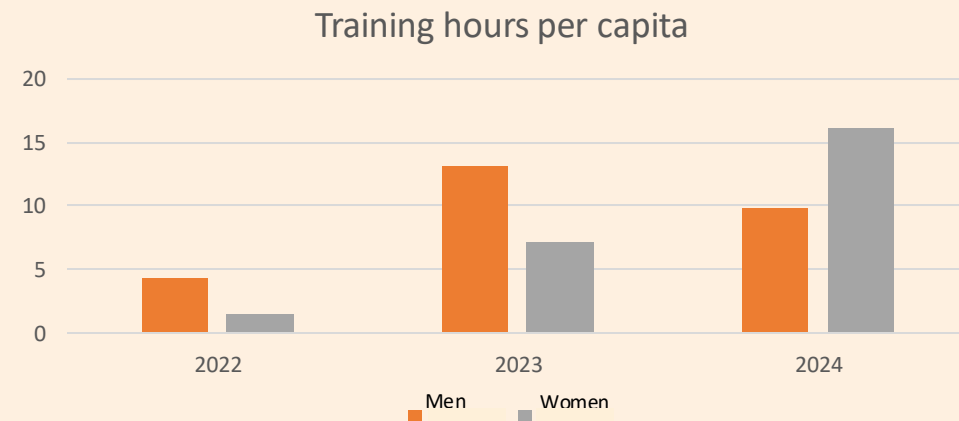
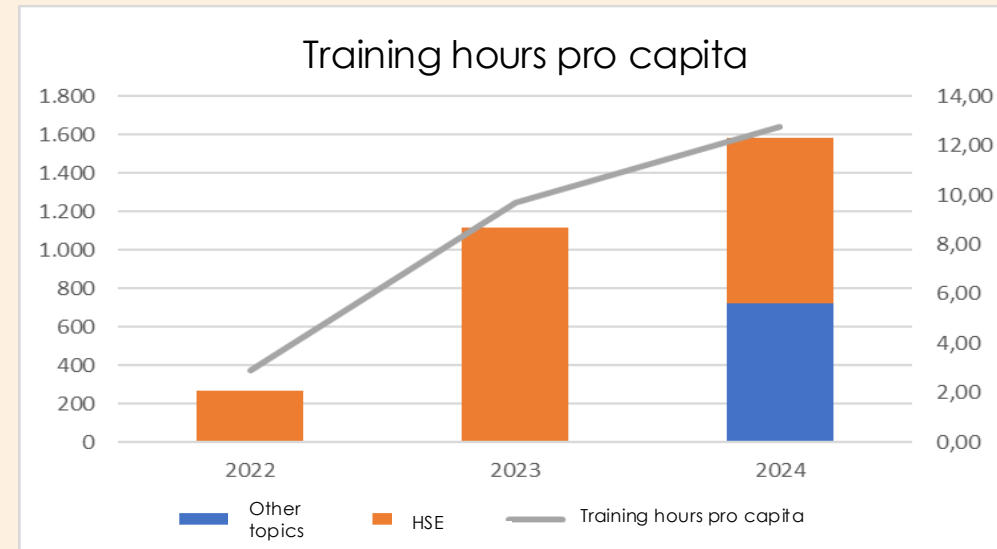


8.3 TRAINING

The commitment to training is strongly linked to the Group's growing size, the ongoing pursuit of process standardization, and the continuous improvement of quality, environment, health and safety, ethics, and sustainability.

Training hours	2022	2023	2024
HSE	270	1.116	864
Other topics	0	0	720
Total	270	1.116	1.584
Training hours per capita	2,90	9,70	12,76

Training hours per capita	2022	2023	2024
Males	4,3	13,2	9,8
Females	1,5	7,1	16,1
Employees	2,1	7,7	19,2
Workers	5,7	17,4	9,1
Total	2,9	9,7	12,8



9. I FORNITORI

No organization can think of existing without engaging daily with its context. Market-related stakeholders, strategic for the group's performance, are closely connected to the company's activities, either through the supply and production chain or within collective contexts where industry players meet and interact. Probiotal's supply chain is primarily focused in Europe.

Suppliers of raw materials range from major global chemical players, providing strategic resources, to medium-sized and national suppliers. For example, for citrus juices. Chemiferm sources from suppliers in Sicily.

At the local level, to ensure the smooth daily operation of the companies, suppliers become true partners. Territorial realities, often family-run, are preferred for services related to routine and extraordinary maintenance of the plants.

Particular attention is also given to the supplier selection process, which is based on criteria such as competence, competitiveness, objectivity, fairness, ethics, impartiality, price equity, quality of goods or services, and social responsibility.

The Supply Chain function is responsible for defining the strategic and operational elements of its portion of the supply chain, optimizing logistical, qualitative, and economic aspects.

Purchased services, on the other hand, follow a simpler path: once a supplier is identified, the goal is to establish a long-lasting relationship of trust, if one does not already exist, in order to achieve close and reliable collaboration.

By "exporting" service suppliers to other companies within the group, the supplier's position is consolidated and the relationship stabilized, demonstrating a commitment to increasing trust.

Within the framework of the integrated management system, the evaluation and qualification of suppliers also include environmental parameters, environmental certifications, and the management of impacts.



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