Sustainability and Resilience Report 2020

Essentials



This is not just a Sustainability Report.

During such a difficult year, we rediscovered the value of being a team. The challenges we faced turned into reflection, willpower, commitment and, in the end, also into an opportunity for growth. We were able to achieve this thanks to that inexhaustible strength called Resilience: today more than ever it is synonymous with our desire to evolve and build a better future for everyone.

Resilience

It is the ability of an individual, or an organization, to face and overcome a traumatic event or a difficult time.

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Foreword

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For RadiciGroup, as for any other company, the 2020 Sustainability Report is set against a background profoundly marked by the global pandemic and its health, social and economic consequences.

RadiciGroup was able to rise to the pandemic challenge with determination and resilience, the Group's distinguishing characteristics. Collaboration and synergy were additional essential elements of the strategy the Group adopted to deal with an evolving crisis. The strategy focused, in the first place, on protecting the Workers' Health and Aafety and also on keeping plants running to the extent allowed by the pandemic, while strictly abiding by the safety protocols introduced.

Some of the major safety measures undertaken by the Group were:

- Implementation of enhanced Health and Safety protocols with special attention to workers, customers and suppliers.
- Engagement of Employees through listening sessions and internal communication on health and safety issues down to the individual level.
- Adoption of digital tools for smart and remote working to allow Employees to work safely and, in many cases, to reconcile the need to manage family and work responsibilities under the new conditions.
- Active supply chain monitoring in order to mitigate the difficulties related to transport, border closures and inevitable delays in the flow of supplies.
- Constant dialogue with Customers to address issues together and limit the inconveniences arising from the situation.

Innovation, our answer to the coronavirus pandemic.

On the positive side, the year 2020 also saw the launch, in response to the pandemic, of a **new business line dedicated to the manufacture of certified nonwovens** for medical protective devices such as gowns, boots and head coverings.

Started as a community initiative, the business line has subsequently acquired an industrial dimension, **leading** to the rebirth of a Made-in-Italy supply and production chain aimed at reshoring strategic production to Italy.

Furthermore, earlier this year RadiciGroup officially launched **Radici InNova**, a consortium for sustainability-driven innovation. Setting up this Group entity was an important step towards meeting future challenges concerning low-impact processes, higher-performance materials, biotechnology and innovative industrial applications.





"

"A sustainable future belongs to those who make it happen, not to those who just imagine it".

These are the opening words of this Sustainability Report 2020. With these same words, I want to begin this introductory letter to the Report, which represents for me, today more than ever, much more than a list of figures and results. This Report is the story of a year 2020 that put us to the test, but also made us rediscover the value of working as a team, the importance of facing difficulties with resilience, an inexhaustible force within each of us and the symbol of our desire to grow and evolve towards a better tomorrow for everyone.

A tomorrow that we have not only imagined but that we are already building today by realizing important projects, such as those described in this Report. I would like to mention, for example, the sustainable products that we have produced for the apparel, automotive and furnishings sectors. What is more, the supply and production chain created in record time to provide personal protective equipment (PPE) to the medical staff at the Bergamo hospital. Set up in collaboration with local businesses who, like us, reacted to the crisis with courage and entrepreneurial spirit, the PPE initiative started small as a response to a critical need in our local community and then grew in size and importance to become a structured production business. That experience has taught us how essential it is for certain strategic supply chains to be localized in Europe and how important it is to be a **manufacturing group with** solid roots, yet a flexible organization able to weather the storm and adapt to change.

Thanks to our positive attitude, I am proud to say, we have been a reference point for our communities and our Stakeholders, Employees, Customers and Suppliers, with whom we have shared many challenges. What we experienced last year and are still experiencing this year has made us more vulnerable, but it has also increased our awareness of the importance of our individual actions in achieving common goals...

The concept of sustainability has been strengthened during the pandemic, as evidenced by the initiatives of the European Union and individual member states on emissions reduction, use of renewable resources and promotion of social equity. Today we look ahead, mindful that some of the issues characterizing 2020 will stay with us in the future. First and foremost, attention to health and safety, and then digitalization, agile working, research on products and materials with limited impact and attention to the social needs of local communities. These ideas are not new to us, yet they have gained new momentum.

RadiciGroup strategy is aligned with the **United Nations Agenda 2030 and the European Goals:**social sustainability and mitigation of exposure to climate-related risks are and will continue to be key factors of competitiveness in the future.

The results reported in this Sustainability Report are important in that they were achieved in this atypical year, or better still, in spite of this very atypical year. Regardless of the numbers and figures, which, however, still remained positive in all areas, these results bear witness to our determination in the pursuit of

sustainability goals. Here I would also like to stress the excellent results achieved in the area of renewable energy; in fact, we have substantially fulfilled all our commitments on emissions and resources. The Group's work on an innovative, circular and low-impact range of products was especially significant. We plan to continue this line of work with resolve and, in that spirit, in 2020 we created Radici InNova, our consortium specifically dedicated to innovation.

I would like to thank all RadiciGroup Employees, also on behalf of my family, not only for your achievements, but also for the tenacity and courage you have shown during 2020 and are still demonstrating during an equally challenging 2021.

To all of you, I say "molamia!", which in our Bergamo dialect means "do not give up": not just a motto, but our way to be leading players in a truly sustainable future.

Angelo Radici
President of RadiciGroup

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Who we are

RadiciGroup is one of the world's leading producers of a wide range of chemical intermediates, polyamide polymers, high performance polymers and advanced textile solutions, among which nylon yarn, polyester yarn, yarn made from recovered and bio-sourced materials, nonwovens and personal protective equipment for the healthcare field.

RadiciGroup products are the result of the Group's outstanding chemical expertise and vertically integrated polyamide production chain and have been developed for use in a variety of industrial sectors.

The basis of the Group's strategy is a strong focus on innovation, quality, customer satisfaction, and social and environmental sustainability.

"

To be one of the leading chemical groups in the polyamide, high performance polymers, and advanced textile solutions production chain.

Our Mission

- To promote the development of our businesses while pursuing our Group values and culture.
- To pursue our Vision by valorizing and optimizing our resources, establishing alliances and searching for new markets, including niche markets...
- To embed sustainability into new product and application development.

Our Values

In February 2021, on Valentine's Day, RadiciGroup released a new corporate video, shot with the participation of the Atalanta Football Club. A little over a minute that portrays the Group's guiding values through evocative images and key concepts. The video protagonists are RadiciGroup people who work "in the field" every day. A few Employees of the Group's Italian companies, together with a few players of the Atalanta team, bring to life the emotional parallels between the everyday operations at the Group sites and the typical plays of a football team.

Watch the video highlighting our values



"

United Nations Sustainable Development Goals (SDGs)

Sustainability acquired new characteristics and further relevance in the framework of the 2030 Agenda for Sustainable Development, a plan of action for people, the planet and prosperity adopted on 25 September 2015 by the governments of the 193 country members of the United Nations.

It incorporates the **17 Sustainable Development Goals**, SDGs, in a grand plan of action with a total of 169 targets.

RadiciGroup shares the Sustainable Development Goals and contributes tangibly to their implementation in many ways, identified in the various Report chapters with the relevant SDG icons.







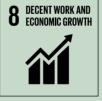
































Group Quality, Environment, Energy, Health and Safety Policy

The Group Quality, Environment, Energy, Health and Safety Policy is an important instrument adopted for the implementation of the values and principles governing the RadiciGroup sustainability strategy and the UN 2030 Agenda for Sustainable Development.

This policy document, signed by **President Angelo Radici** and **Vicepresident Maurizio Radici**, is an expression of the desire to increase the Group's level of sustainability by acting on key strategic and operational levers. The policy also sets forth the Group's aim to improve on information transparency and relations with stakeholders.



"Looking at added value from a broad perspective, ensuring continuity and being inclusive of all Stakeholders. This is how RadiciGroup brings to life its corporate values – centrality of people, reliability, fairness and transparency – in its day-in and day-out operations. By following these guidelines, the Group ensures the Quality of its products, promotes occupational Health and Safety, and carries on business with respect and care for the Environment. A long-term commitment to the pursuit of truly sustainable social, economic and environmental development driven by innovation and research is the foundation for the engineering and advancement of the Group's technology, processes and products

Within the above framework, RadiciGroup pursues the objective of increasing cooperation and synergy among the functions of the Group Business Areas to build a path towards the optimization and excellence of each process through the continual improvement of activities, transparency in operations and communications, and quality and performance of products and services – all in close collaboration with stakeholders...

Diligent compliance with the laws and regulations on the Environment, occupational Health and Safety, and prevention of harmful incidents potentially affecting products and production processes is the fundamental basis of every Group business activity. To this end, RadiciGroup companies have adopted Quality, Environmental, Energy, Health and Safety Management Systems, duly certified by recognized certification bodies and based on a set of well-defined procedures, understood at all organization levels.

In order to ensure the **Quality of its products** and services. the Group has numerous tools at its disposal that enable its companies to develop robust and reliable processes. meet the most exacting requirements and foster continual improvement. As regards the **Environment** and **Energy**. RadiciGroup is engaged in optimizing performance and working towards targets that can be seen and measured. by investing financial, human and technological resources to monitor and reduce environmental impact. At the same time, the Group is engaged in promoting commitment to the Environment among its Customers, Suppliers and Workers. in particular through activities aimed at getting all stakeholders involved. The Group's environmental agenda covers its entire production value chain, including the calculation of the environmental footprints of the main products and services and feasibility assessments of using ecodesign and circular economy principles, wherever possible.

RadiciGroup management is aware of the fact that worker Health and Safety is always a top priority and of central importance. Thus, management ensures the application of the safety standards set out in the applicable laws and regulations, regularly verifies compliance with said standards and assesses their effectiveness, with the aim of improving accident prevention and reducing accident risk. Group management also promotes transparent and collaborative relationships with local authorities and communities, furthers the implementation of worker consulting mechanisms and encourages worker participation in corporate processes. Moreover, the Group invests sizeable resources in training workers to increase knowledge and raise awareness of how important the contribution of each single worker is in achieving the overall result.



Angelo Radici

Maurizio Radici

President of RadiciGroup

Vicepresident of RadiciGroup

June 2019

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Figures making a difference

Personnel

roughly **3,000** employees

2020 sales

1,019

million €

Network

>30

units in Europe, North and South America, and Asia

A global presence



Americas

Argentina

Buenos Aires

Rio Grande

Brazil

Araçariguama

São José dos Campos

Mexico

Ocotlán

USA

Wadsworth

Asia

China

Shanghai

Suzhou

India

New Delhi

Italy

Andalo Valtellino

Ardesio

Buronzo

Casnigo

Chignolo d'Isola

Gandino

Novara

Villa d'Ogna

Europe

Czech Republic

Podborany

France

Saint Priest

Germany

Lüneburg

Selbitz

Tröglitz

Hungary

Szentgotthard

Switzerland

Stabio

United Kingdom

Wakefield

Romania

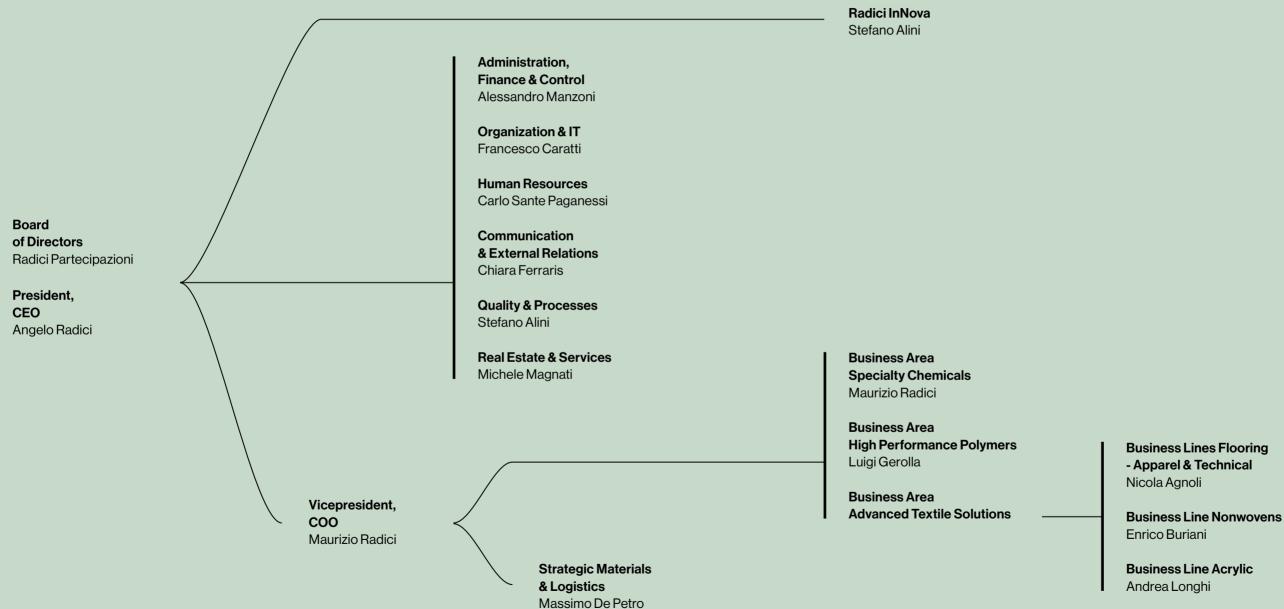
Savinesti

Spain

Barcelona

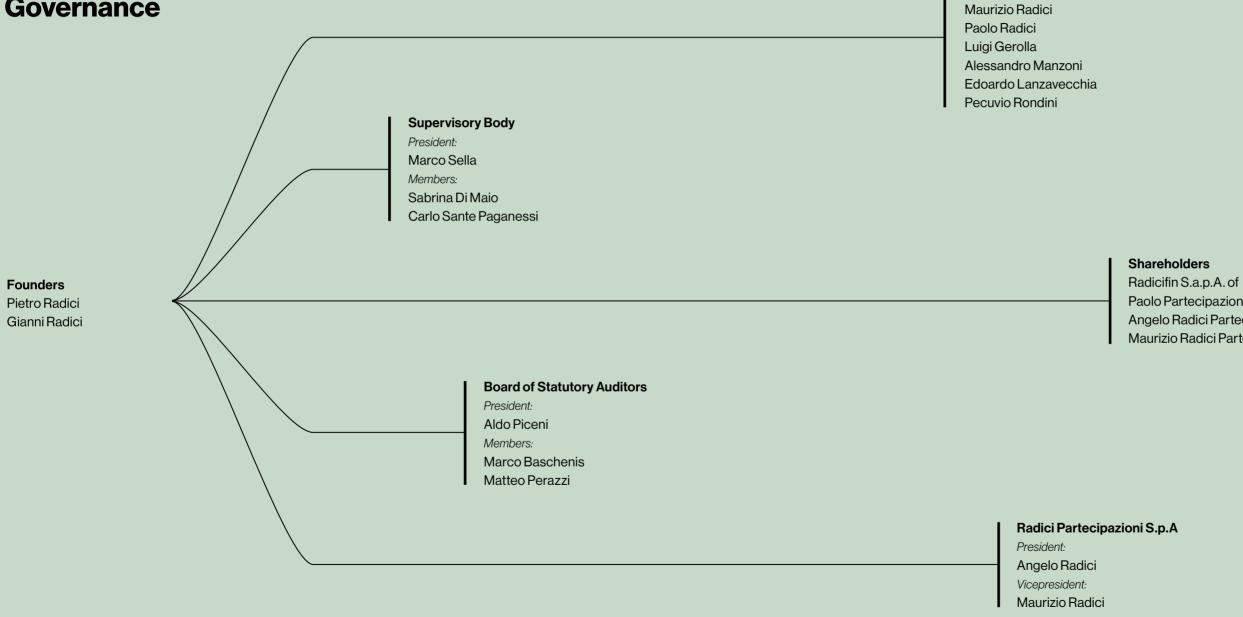
production and sales

RadiciGroup Governance





RadiciGroup Governance



Board of Directors Angelo Radici

> Paolo Partecipazioni S.r.l. Unip. Angelo Radici Partecipazioni S.r.I. Unip. Maurizio Radici Partecipazioni S.r.l. Unip.

RNOIC

Group organizational structure



The three business areas were joined by **Radici InNova**, company established in December 2019, with the objective of pooling the competencies of all RadiciGroup companies. The **main object** of the new company, which is outside the reporting boundary of this Sustainability Report, is **the development of new research and innovation projects** in **line with the RadiciGroup sustainability strategy**.

RadiciGroup Business Areas

Area Specialty Chemicals

Specialty Chemicals is the **Group business area engaged in the production of chemical intermediates**, PA6, 6.6, 6.10 polymers and specialty polymers, all of which serve as raw materials for the manufacture of a variety of products, both by Group companies (further processing and the production of high performance polymers and fibres) and by customers.

Area High Performance Polymers

High Performance Polymers specializes in the manufacture of high-performance engineering polymers, also from bio-source and recycled materials. RadiciGroup engineering polymers are materials that can feature different chemical, physical and mechanical characteristics depending on the type of application for which they are intended. They are raw materials directed to a variety of industries, including automotive and e-mobility, electrical and electronics, plumbing and heating, and industrial sectors.

Area Advanced Textile Solutions

The Advanced Textile Solutions Business Area is engaged in the manufacture of numerous kinds of products, from polyester to nylon yarn and nonwovens. Different types of processing, finishing and functionalization are currently available in the Group. These advanced textile solutions are used in numerous industries, including automotive, sportswear, fashionwear, furnishings and medical, wherever applications require components featuring high performance in terms of mechanical resistance, comfort, protection, durability and safety.

Main application sectors

RadiciGroup products are present in every aspect of everyday life. Their technical characteristics, including durability, high performance and sustainability, make them the ideal choice for the most diverse application needs.









E&E



Automotive



Medical Sector



Industrial Sector



Sport

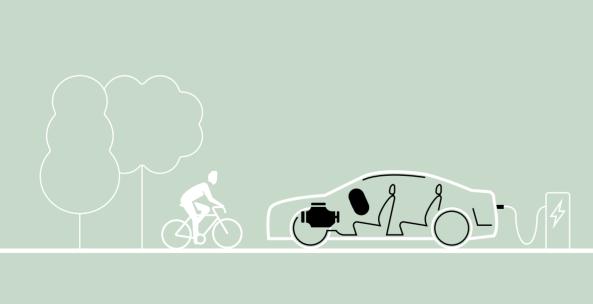


Interior & Outdoor

Automotive

A relevant presence as for engineering plastics in the car structural parts and in engine components, batteries and charging systems of electric and hybrid vehicles. Advanced textile solutions with yarns and nonwovens for car interiors: mats, seats, trunk lining, airbags and tires. A cutting-edge know-how to ensure safety, performance and sustainability of materials.



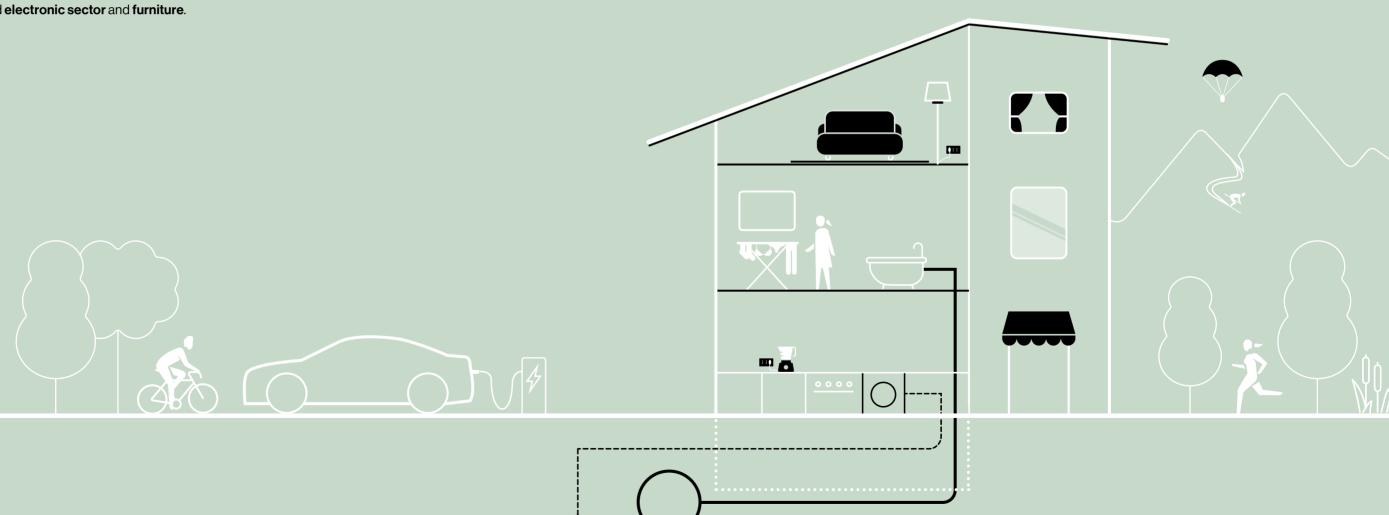




Interior & Outdoor

Innovative textile solutions with yarns for flooring, curtains, sun protection systems, upholstery of furnishing accessories such as sofas and armchairs. Nonwovens for the construction and roofing sectors. Engineering polymers for household appliance components, water management systems, along with the electrical and electronic sector and furniture.

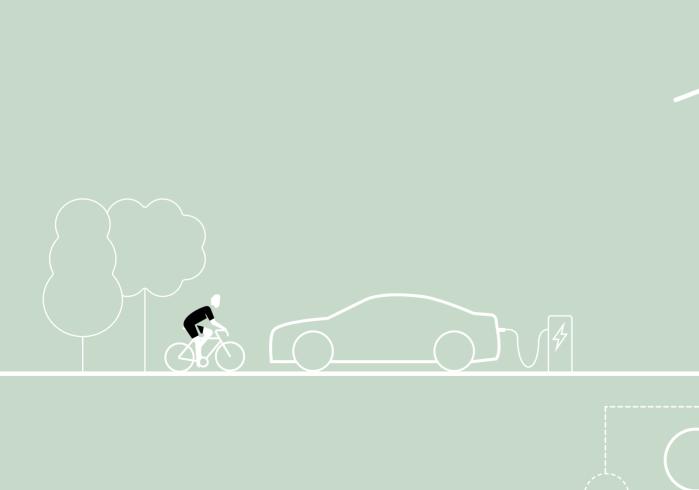




RADICI

Apparel

Cutting-edge know-how for applications in clothing, from sportswear to underwear, from hosiery to athleisure and beachwear. Functionalized yarns to enhance garment comfort, wearability, durability and performance, with special focus on reducing their environmental impact.





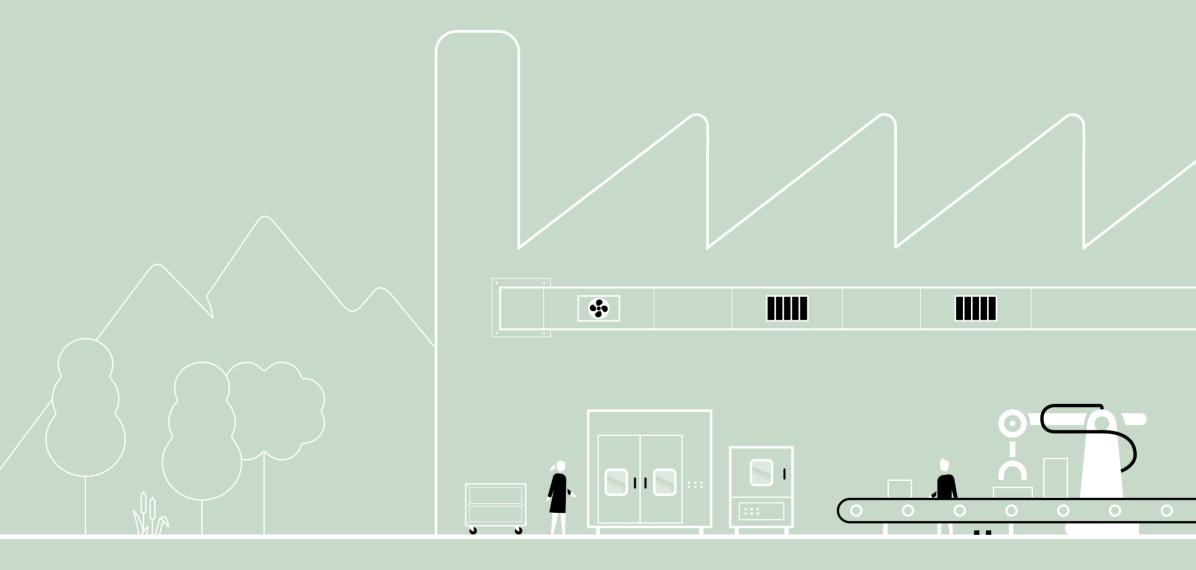
Medical Sector

Safe and high-performance materials that contribute to daily well-being and health. Med-tech yarns for braces, sheaths sportswear, bandages, graduated compression stockings and clothing for healthcare personnel. Nonwovens for medical protective devices such as gowns, suits, caps, shoe covers and face masks.



Industrial Sector

Range of engineering polymers and advanced textile solutions for industrial applications such as energy chains, solenoid valves industrial and filtration systems. Materials endowed with high mechanical strength and stiffness for structural valves, high abrasion resistance as for gears and excellent chemical resistance for exposition to harsh environment.



RadiciGroup: one Group, multiple worlds

RadiciGroup: one Group, multiple worlds RadiciGroup is a structured and multifaceted reality that, in addition to its core businesses described above, **is also part of a larger industrial organization** that includes textile machinery (Itema), energy (Geogreen) and the hotel (San Marco) businesses.

itema

Itema is a multinational group with more than 1,000 employees. Itema is a leader in the supply of advanced weaving solutions, such as cutting-edge looms, spare parts and integrated services. It is the only world manufacturer producing looms with the three best weft insertion technologies without shuttle: gripper, air and bullet.

Today Itema is:

- A leader in the supply of advanced weaving solutions, such as cutting-edge looms, spare parts and integrated services.
- The only world manufacturer producing looms with the three best weft insertion technologies without shuttle: gripper, air and bullet.
- A global player thanks to its sales and after-sales service facilities in India, Japan, USA, Hong Kong and the United Arab Emirates.
- A world-leading company with Itemalab®, since 2014 the research lab dedicated to the development of innovative weaving solutions.





Geogreen, with its companies GeoEnergie SpA and Geogreen SpA, is currently one of the most qualified suppliers of an integrated system of products and services. They include the supply of renewable electricity and natural gas, the production of hydroelectric power and thermoelectric Energy from Cogeneration, the development of projects in the renewable energy and district heating sectors, along with consulting services as for energy efficiency and trading of energy efficiency certificates (white certificates).

- Supply of renewable electricity and natural gas.
- Production of Hydroelectric Power and Thermoelectric Energy from Cogeneration.

- Development of projects in the renewable energy and district heating sectors.
- Consulting services for increasing energy efficiency, managing quotas and CO₂ emission allowances.
- Trading of energy efficiency certificates (white certificates) and Guarantees of Origin for energy from renewable sources (GO).
- Geogreen has been always been committed to environmental protection and, specifically, to water protection as a key resource to its activities. The Group actually conducts its business according to the most advanced sustainability standards and in harmony with the communities which host its power plants and to which its offer of 100% renewable energy is mainly destined.



A prestigious hotel in the heart of Bergamo (Italy), located at the feet of the famous uptown medieval citadel which attracts tourists from all over the world. The hotel San Marco has the possibility of hosting refined catering and banqueting services thanks to the Roof Garden restaurant.

 A choice of rooms equipped with state-of-the-art facilities and with advanced technical and audiovisual services for hosting business meetings and receptions.

- Possibility of hosting refined catering and banqueting services thanks to the Roof Garden restaurant.
- A cuisine that combines traditional Italian flavors and aromas with innovation and experimentation thanks to cutting-edge techniques and products.
- A structure suitable for a wide range of purposes, banquets, business lunches and special celebrations.

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RADICI

A sustainability story

Wool waste recovery

initiatives were approached with the first **textile companies** of RadiciGroup.

1950

RadiciGroup partnered with **Geogreen** for purchasing **renewable energy**.

2000

RadiciGroup published its first "Social Report".

2004

The first **Product**

Category Rules (PCRs)

drafted by RadiciGroup became industry standards for the textile fibres and engineering polymers industries.

2013

Radici Novacips and RadiciFil achieved **EPD certifications**

2015

for their products.

 $Radici Group \, invests \,$

on innovation and circularity,

and it works for the **creation of value** shared with its Stakeholders.

It is within this framework that

Radici InNova is launched as

RadiciGroup consortium

for innovation driven by sustainability. RadiciGroup Sustainability Report

reaches its 15th edition.

2020

1981

RadiciGroup developed its know-how as for polymer recycling.

2003

RadiciGroup subscribed to the

Responsible Care® protocol.

2012

The Global Reporting Initiative

model became the reference framework for the Group's Sustainability Report.

2014

RadiciGroup, through Radici Chimica SpA, became the first chemical group in Europe to

obtain **OEF** (**Organization**

Environmental Footprint)

and PEF (Product

Environmental Footprint)

 $certificates\, of\, conformity.$

The first **Ecodesign** projects were launched and Radici

Novacips SpA obtained **EPD**

Process Certification.

2018

RadiciGroup published its third party-certified

Sustainability

Report in conformity

with the most advanced

GRI Standards.

Stakeholders

Environment Competitors

Trade associations Suppliers

Group companies Banks and insurance companies

Shareholders Workers
Board of Directors and management Media

Customers Academic and research institutions

Communities (discussion and interest groups) Control and monitoring bodies

Local communities and territories Trade union organizations

Some of **principles** underpinning the relationship between **RadiciGroup** and its **Stakeholders** are:

- Common goals for social, economic and environmentally sustainable growth.
- Shared planning and participation, especially with value chain members.
- Transparent relationships and respect for the roles of everyone.
- Openness to discussion and mutual enrichment resulting from dialogue and collaboration.



Ever since the 1950s, when RadiciGroup founder Pietro Radici started recycling textile waste from wool blankets, attention to resources, together with special consideration for Workers, has been a cornerstone of the Group's production activities. From internationalization and international management respecting local cultures and local environments to investments in the reduction of environmental impacts, all the main steps on the path to sustainability have had the imprint of the founders. With time, a more rigorous approach has been adopted, utilizing the measurement of the environmental impacts and full transparency in communicating environmental and social performance.

Today, the RadiciGroup sustainability strategy is aligned with the UN Sustainable Development Goals, and among the most important challenges is the creation of long-lasting value that is shared with its Stakeholders, the "architects" of the Group's success. A principle that, year after year, has diverse objectives:



- Personal engagement of RadiciGroup shareholders in social and environmental issues.
- Management style characterized by economic non speculative choices.
- Protection of employment as an absolute principle.
- Investments in sustainable product and process innovation.
- Sound **cooperation** with all the Stakeholders.
- A virtuous system for the creation of value added with redistribution of this value favouring the Group's Workers.

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Creating value for the entire Value Chain

RadiciGroup commitment is to create durable, safe, high-performance products, with limited and measured impact, undoubtedly constitutes a competitive advantage for RadiciGroup and significant added value for the entire value chain.

- Investing in innovation as a strategic driver.
- Making products that are long-lasting, safe, high-performance and with limited and measurable impact, thus creating continual sustainable value in the value chain.

Creating value for the Environment

To us, creating value for the Environment means protecting it every day, with really sustainable ideas and solutions. Here are our milestones:

- Recognizes the Environment as a privileged Stakeholder and protects it through its strategies, investments and targeted actions.
- Preserves the intrinsic value of resources and makes best use of them.
- Decouples the use of resources from its economic growth, as much as possible.
- Invests in the sustainable innovation of its processes.

- Engages in the ecodesign of reduced-impact products.
- Promotes energy transition by using renewable source energy and fights against climate change by reducing emissions.
- Measures the performance of all its production sites on regular basis and communicates its environmental performance in a transparent manner in its Sustainability Report and through all available internal and external communication channels.



Creating value for the Workers

Teamwork, working seriously, but serenely, towards a common goal.

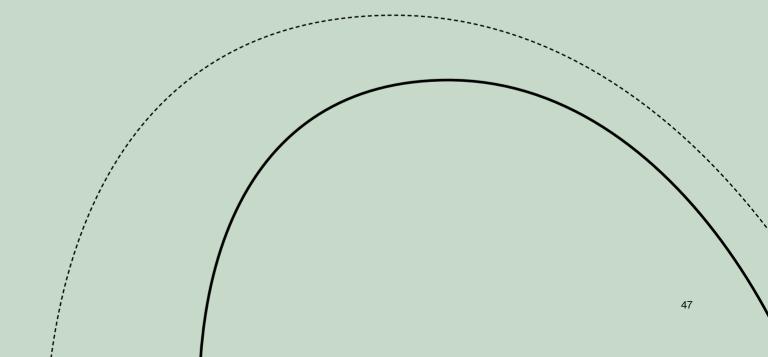
RadiciGroup was born in its territory, has been growing over time while creating wealth and jobs, always investing in people. People embody RadiciGroup belief made of performance, ethics, and the pursuit of continual improvement.

- Ensuring a solid relationship through mostly permanent employment contracts and collective bargaining agreements.
- Respecting human rights in every country in the world.
- Protecting Health and Safety.
- Building professional growth through mentoring side by side with more experienced partners, training, and a career path.
- Engaging people through daily dialogue, as well as information and communication tools made available by the Group.

Creating value for Local Communities

Offering **employment** possibilities, contributing to preserving the **know-how** and **continuity of their production chains** in the various regions. To RadiciGroup this means having a positive social impact on its territories.

- Actively contributing to the vitality of the host territories, which are often disadvantaged by geographical location and lack of infrastructure.
- Helping the younger generation, so that they will be able to find opportunities for growth and work in their home communities.
- Supporting local sports and cultural activities.



RadiciGroup materiality and sustainability matrix

The Radici Group materiality matrix, which was created as described in the section "Building the Report", explains how sustainability was incorporated into the daily operations at Radici Group on the basis of specific topics.

The material topics are those environmental, social, economic and product issues that are of absolute relevance to the Group. The following sections will analyse these topics in detail, report the measured values for Group performance indicators, and highlight the numerous cases of excellence in company operations during 2020.

RadiciGroup Material Topics



	Energy
	Emissions
Environmental	Water
Development	Waste
	Raw materials
	Sustainable product innovation and measurement of product impacts
	Employement
Social Development	Occupational health and safety
	Employee training and education
	Economic performance
Economic	Customer satisfaction
& Management Development	Compliance
	Certifications and integreted mangement systems



A quality-based Value Chain, also for the Environment

Our value chain is made of values before being made of products. it is made of dialogue and constant collaboration with our Suppliers, our Customers all our Stakeholders.

Our value chain **looks at the future of our planet** to create high quality, sustainable products for the **good of all**.





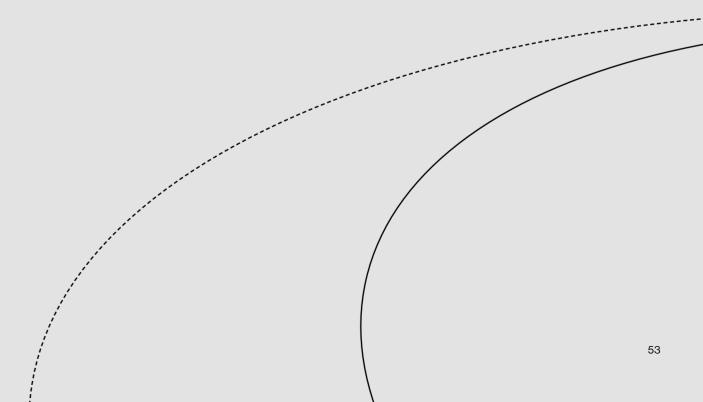
For the complete version of the Sustainability Report have a look here: https://www.radicigroup.com/en/documentation/corporate/report

Sustainability is our key investment

Consistently with its well-established strategy and in accordance with the principles set forth by the EU, in 2020 RadiciGroup continued to invest in decarbonization, energy transition, use of renewable resources and production efficiency at all its production sites.

In addition, a few major investments were made in innovation, which are described in the Radici InNova section of this document.

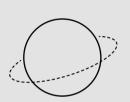




Value Chain

RadiciGroup product sustainability comes from afar

RadiciGroup is an industry forerunner in recycling waste: already in the 1950s, wool blankets - the products that led to the start of the Group's business activities - were collected at the end of their life and reused for the production of other textile products.



For about

40 years

production scraps from the processes of all Group companies and others have been reused in extrusion lines, thus avoiding the waste of any virgin raw material.



For about

20 years

Group companies have powered their plants with green energy.



For about

Group companies have used post-consumer materials to produce PET yarn and engineering polymers.



15 years

have measured the of their main families of products, using the life-cycle which provides an



For about

10 years

Group companies environmental impact assessment approach, analysis of the entire life cycle.



Today, RadiciGroup lower impact products are developed in the context of specific sustainability commitments:

- Develop circular products with a life cycle thinking approach, that is, thinking of the end-of-life from their origins, favouring the use of recyclable raw materials with limited environmental impact and designing formulations that ensure long durability and high performance, as well as high value-added recyclability, during the full life cycle of products.
- Make the best use of raw materials. select renewable source materials, reduce scraps and waste.

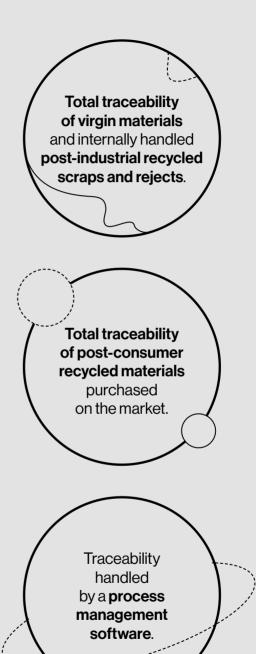
- Optimize processes and measure their impacts using scientific methods that put the Group's choices on solid ground, while ensuring transparency and traceability.
- Work with Suppliers, Customers, Associations and scientific partners to create a sustainable Value Chain.

Traceability turns into system traceability

During recent years, as a result of an increased awareness of the importance of each production stage with regard to Quality, Health, Safety and conformity to current laws and regulations, a key element of the RadiciGroup sustainability strategy has become the ability to precisely trace the different steps and sources in material procurement and processing.

With regard to the traceability of Group products:

- Total traceability of virgin materials and internally handled post-industrial recycled scraps and rejects.
- Total traceability of post-consumer recycled materials purchased on the market. In fact, GRS certification or certification to applicable ISO standards for goods delivered by RadiciGroup or Oeko-tex® certification require total traceability.
- Every step of the production chain at each production site is managed by process management software. Thus, for each lot of materials, it is always possible to find detailed information concerning the raw material, the production line and the various processes, together with data on packaging and shipping.





Value Chain

Why choose RadiciGroup low-environmental impact products?

Because
all RadiciGroup
materials are recyclable
and durable, key
elements in terms
of circularity.

Because many of them are:

Manufactured using recycled materials to reduce the use of valuable virgin raw materials and give newlife to pre - and postconsumer scrap.

Manufactured using green energy, which decreases dependence on fossil fuels.

Bio-based or manufactured, entirely or in part, from natural raw materials, made from vegetable sources that do not compete with plants cultivated for food.

Bio degradable: able to separate into their different components thanks to bio-chemical processes. **Solution-dyed**, thus reducing water, energy and emissions.

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RADICI

RadiciGroup low-environmental impact products

		JA	\$
Product	ВА	Green energy	Bio-based
Radipol®	Specialty Chemicals	•	
Radipol® 6.10	Specialty Chemicals		•
Heramid®	High Performance Polymers	•	
Radilon®	High Performance Polymers	•	
Radilon® D	High Performance Polymers		•
Radilon®	Advanced Textile Solutions	•	
Radifloor®	Advanced Textile Solutions	•	
Dorix [®]	Advanced Textile Solutions		
Radyarn®	Advanced Textile Solutions		
Starlight®	Advanced Textile Solutions		
Dylar [®]	Advanced Textile Solutions	•	
Radimelt™	Advanced Textile Solutions	•	
Renycle®	Crossing Business Areas	•	
Repetable®	Crossing Business Areas		
Respunsible®	Crossing Business Areas	•	
Biofeel®	Crossing Business Areas		•
Biofeel® PLA	Crossing Business Areas		•

∭∭	Z ← C	है। Recyclable	Biodegradable
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Value Chain

Innovation is no novelty for RadiciGroup

Throughout the years, **innovation has been a key attribute of RadiciGroup**, enabling it to expand into different sectors and bring competitive, cutting-edge products and solutions to the market.

By pooling the know-how and expertise of its various business areas, RadiciGroup has always been in a position to develop advanced integrated research projects inspired by the principles of environmental protection and the circular economy, so as to ensure constant growth and a better future for coming generations.



Radici InNova. The Source of InNovation

At the end of 2019, Radici InNova, the Radici Consortium for Research and Innovation was born, a key element for RadiciGroup's sustainable growth and a fundamental support for its strategic choices and for strengthening its sustainability system. An autonomous body, while remaining fully integrated into the vision of RadiciGroup, Radici InNova can count on a streamlined structure, ready to quickly intercept Stakeholders' needs and opportunities Radici InNova vision is contained in its own name: to identify and develop opportunities for "disruptive innovation" in line with the corporate vision and the sustainability philosophy of RadiciGroup. This will be achieved also in collaboration with universities, research institutes and scientific centers, in order to create intangible value through the exchange and growth of knowledge.

- Development of solutions for the circular **economy** by managing the end of life cycle of products starting from their origins, in order to increase their useful life and performance and promote their effective recycling.
- Development of industrial processes for the synthesis of chemical intermediates from materials of biological origin, which are the building blocks for the production of sustainable polymers used to manufacture a wide range of products.
- Development of polyamides obtained from renewable source materials destined for applications in a variety of sectors, including automotive, textile and apparel.
- Optimization of industrial processes to increase sustainability and improve performance.
- **Demonstration of the value of Group processes** and products, through objective measurement of performance and impacts, with renewed commitment to rigour, transparency and the scientific approach.
- Identification of new business opportunities, including market opportunities for existing Group products.

The different activities of the consortium are focused on: In spite of the pandemic crisis, in 2020 Radici InNova undertook several relevant activities:

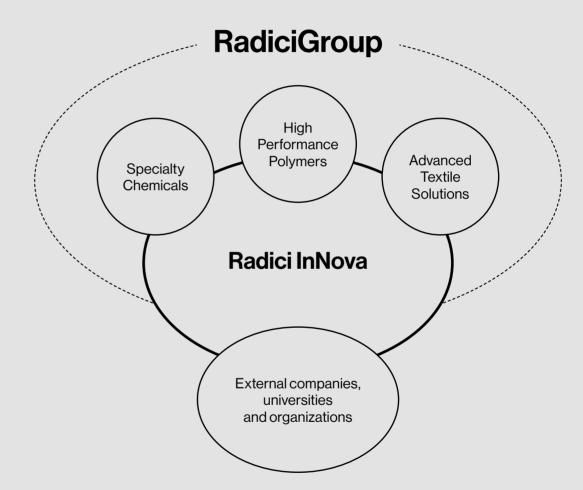
- Definition of the preparatory stages for several research and innovation projects considered strategic for the Group and started the search for possible collaborations of interest.
- A system was set up for coordinating and monitoring project stages in order to ensure structured, shared and transparent management of activities.

Projects in the following areas were launched:

- Development of certified materials for the medical sector.
- New materials for the automotive industry, in particular thermoplastic composites, materials for additive manufacturing and 3D printing.
- Alternative processes to obtain the chemical intermediates necessary for the production of the Group's strategic polymers from renewable raw materials.

During 2020, Radici InNova also devoted specific attention to the development of recycling processes from pre- and post-consumer waste, and, at the same time, ecodesign and codesign initiatives were implemented with customers to help them create durable products that are easy to recycle at the end of their lives.

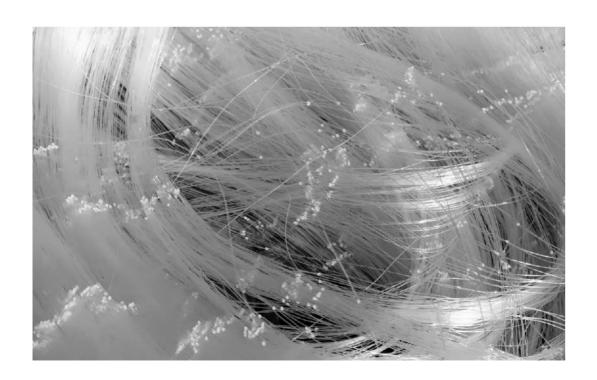




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Case History

Bio-based polyamides: a new challenge for RadiciGroup





Developing polyamides from renewable raw materials

This is the ambitious innovation project called "Ulisse" that RadiciGroup has pursued from 2018 to 2021, demonstrating the feasibility of producing an innovative range of polyamides, partially (PA56, PA69, PA610 and PA612) or fully (PA510, PA59 and PA56BIO) bio-based

and specialty (high performance) polymers.

The first goal achieved by the Group was the construction of a new polymerization line to start

production of the polyamides, designed with the aim of setting up a versatile production system capable of responding to the needs of several sectors in parallel. Furthermore, with the support of Rynetech Bio, an American company with expertise in industrial biotechnology, **several tons of bio adipic acid**, a key polyamide component, were produced.

The industrialization of the above polyamides is the final goal of a project called "Ulisse"*. These materials not only deliver the quality and performance required by current standards, but also meet the sustainability agenda of several of the Group's strategic sectors, in line with the European targets for the development of a low-emission economy.



The ULISSE project received a financial contribution from the Region of Piedmont under the programme POR FESR 2014-2020-Asse I Azione I.1b.1.1

RADICI

Case History

Protective face visors: an innovative process and product to respond to the emergency



From 3D printing to injection moulding for a faster response to the demand for personal protective equipment for health care workers. To realize this objective, RadiciGroup donated its polyamide 6 materials for the manufacture of 3,000 frames needed to make protective face visors used by medics.

The initiative was made possible by a partnership between the Group and some local entrepreneurs, schools and social organizations of the Province of Bergamo, which made available their expertise and equipment in the field of plastic moulding, 3D printing and design, as well as provided economic support for the project.

This important solution for the face visor was simple.

A frame - moulded (or 3D-printed) from engineering polymers produced by the RadiciGroup High Performance Polymers Business Area - was attached to a PVC sheet. Thus, a new protective device was added to the certified PPE needed by health care workers, in particular family doctors and paediatricians working in the local communities.

From snorkelling masks to enginnering plastics face visors.

That was not the only product and process innovation put in service for the community rather than the market. Actually, the first challenge taken up by RadiciGroup was the printing of valves for the rapid conversion of snorkelling masks to oxygen masks for the treatment of Covid-19 patients. Then, the Group moved on to the printing of protective visor frames – both simple and more complex versions – using the Group's high performance polymer RADILON® CS.

Transparency has a significant impact

A transparent, **replicable and scientific quantification** of life cycle environmental impacts is essential to qualify the products illustrated above as sustainable.

In matters of product environmental communication, the Group's job is facilitated most of all by the **ISO** standards governing environmental labelling.

In particular, for the High Performance Polymers and Advanced Textile Solutions Business Areas, the registered and public Environmental Product Declarations (EPDs), based on Life Cycle Assessment (LCA) studies, completed and prepared according to the related product rules, aid the Group in maintaining a high level of transparency.

LCA

(Life Cycle Assessment)

The LCA method has been employed by the Group for all of its main polyamide and polyester based products since 2010, and each product has been examined over the entire life cycle to fully reveal its interactions with the environment. LCA data are used by the Group, both to simulate the potential environmental impact of a new product in the pre-industrial phase and as a basis for creating an Environmental Product Declaration (EPD) and calculating the Product Environmental Footprint (PEF).



EPD

(Environmental Product Declaration)

An EPD, issued by a company running an ISO 14025-certified EPD process, communicates the environmental performance of a product. As of today, EPDs have been developed and published by the RadiciGroup High Performance Polymers and Advanced Textile Solutions Business Areas. All EPDs are published online on a dedicated site operated by an EPD programme operator. For this service, the Group has chosen the International EPDR System, one of the world's most reputable EPD programme operators.

PEF

(Product Environmental Footprint)

(PEF) is a methodology, promoted by the European Union, that establishes the rules for calculating, assessing and communicating the environmental performance of goods and services to stakeholders. PEFs have been issued by the RadiciGroup Specialty Chemicals and Advanced Textile Solutions Business Areas.

Value Chain

Circular economy, sustainability at 360°

The circular economy is a new way of designing, producing and using goods and services within the boundaries of our planet, its resources, limitations and opportunities. It is an economic system that is conceptually and operationally regenerative. Today, circularity is fostered by favourable legislative initiatives, such as the EU Circular Economy Package and the European Green Deal, and has also found financial support among big global operators, who have started to invest in circularity.

Circularity is the basis of most of the sustainability choices made by RadiciGroup, for which it is:



- A driver for process and product innovation, especially when implemented by adopting ecodesign, that creates opportunities for product development in unexplored sectors, such as the Group's range of 100% recyclable products and portfolio of products made from recycled and biobased materials.
- A stimulus for production and system efficiency, through the reduction of waste and operating costs.
- An important lever for the transformation and integration of the value chain, through partnerships for the adoption of best practices, support of best technologies and optimization of transport.
- A contribution to the creation of highly specialized and resilient local production chains, which are "light" because they are local and flexible and capable of reacting swiftly in a changing context, as happened in the case of the production of personal protective equipment for medical use during the Covid-19 crisis.

RADICI

RadiciGroup circularity principles

- Ecodesign: RadiciGroup increasingly collaborates with customers and suppliers to design circular products. Special attention is paid to the principle of monomateriality (sometimes called unimateriality), which means making objects using a single material or only a few compatible materials, so as to ensure the desired level of performance together with direct life-end recyclability, preferably via mechanical treatment following the disassembly of the various components.
- Materials: durable, recyclable and recycled materials are widely represented in RadiciGroup's product offering. The creation of Radici InNova opened up a new field of action in which the Group is already investing: new and increasingly sustainable sources of raw materials, including bio-based materials and others obtained through innovative and technologically pioneering processes.
- Processes: The Group invests to optimize every aspect of production, from raw material usage to energy resources, while trying to eradicate all forms of waste. Scientific and rigorous measurements are carried out on a regular basis to verify the environmental impacts of the processes. The latter are managed using certified Quality, Environmental and Energy Management Systems, which help to keep Group companies in step with the world's best practices.

- Durability: RadiciGroup products are based on carefully selected, high-performance raw materials originating from traceable, qualified supply chains. Nylon, in particular, is designed to last over time and confer the same characteristic to its customers' products.
- Recyclability: all Group materials, thanks to their thermoplastic nature, are intrinsically recyclable and, if used alone or in combination with different but compatible materials, can be recycled at the end of their life through mechanical processes with limited energy and environmental impact. Recovered materials can thus be processed into new polymers for the most challenging sectors, from automotive to technical textiles.
- Quality recycling: Thanks to RadiciGroup's recognized experience in waste recovery and reutilization, waste is processed into new resources. The Group is able to sort the various waste materials, thus enhancing their intrinsic qualities and directing them to the most appropriate second life, based on the desired technical, environmental and market performance.
- Renewable resources: Renewable resources, especially energy resources, besides having intrinsic circularity are a key factor in RadiciGroup's sustainability policy. Thanks to its 20-year partnership with Geogreen, for quite some time now, the Group has had an energy mix with more than 40% clean energy.

 Extended producer responsibility: RadiciGroup adopts extended producer responsibility schemes and thus contributes to implementing structured, controlled and efficient circular economy models. **Ecodesign**

Materials

Processes

Durability

Reciclability

Quality recycling

Renewable resources

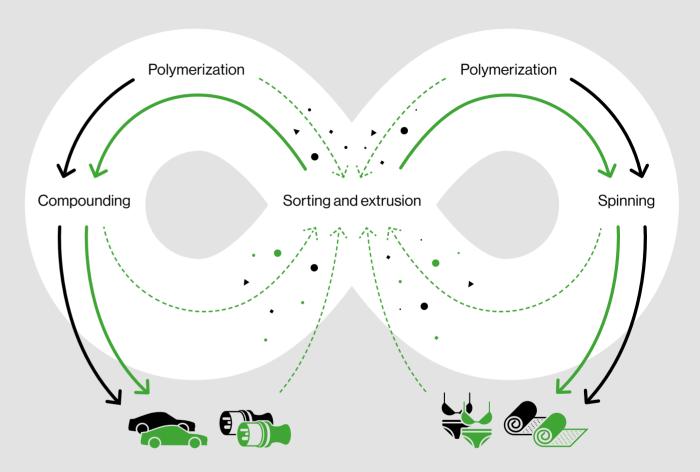
Extended producer responsibility

Value Chain

Nylon recycling system for circularity

RadiciGroup, thanks to its long-standing know-how in material formulation and recycling, is able to convey scraps either in the same industry which originated them or in a different one. This depending on of the specific characteristics of the materials and the performance expected from final applications, choosing the most sustainable solution. This applies to pre-consumer recycling, i.e. related to the industrial waste process, and to post-consumer recycling, linked to to real objects that have already experienced a first life.





Legend

Virgin raw materials

Recycled raw materials

-- Recycling process

Scraps

Renycle®: an inexhaustible source of stories





RENYCLE®

This is a story you have never heard. A story that begins anew again and again, but each time with a different ending.

It is a story of Renycle®, a nylon range derived from recycling, entering the offer of RadiciGroup limited-impact products in 2019.

Renycle®, an optimal solution for applications in the textile-fashion, interiors and automotive industries, boasts extremely advantageous environmental performance compared to PA6 virgin polymer.

Based on the first in-house measurements, Renycle® polymer allows for energy saving of over 87% and water saving of over 90%, all the while maintaining the same quality performance with respect to its virgin equivalent. Furthermore, CO2 emissions are cut by almost 90%, a record result, which strengthens the commitment of RadiciGroup - on the front line for some time - to fight against climate change.

In addition to 100% recyclability at end of life, this product reduces the need to resort to new raw materials of fossil origin. Thanks to its 30-year-long experience in recovering and valorizing process scraps, RadiciGroup, after engineering plastics, becomes also a protagonist in the world of sustainable textiles.

Being sustainable is a great responsibility... hence Respunsible® is born.





RESPUNSIBLE®

At RadiciGroup we never cease looking for ideas and solutions to decrease the environmental impact.

All our efforts are focused on answering this question: How can we be responsible towards the environment? Now we have the answer: **Respunsible**[®].

Born in 2020, Respunsible® is the brand name of the Group's **sustainable spunbond**, made from **mechanically recycled polypropylene**, a material appreciated for its excellent chemical properties and versatility.

Its high technical performance, comparable to that of virgin material, makes it suitable for any applications, even the most demanding ones in terms of strength and durability for numerous sectors such as automotive and construction, agriculture and HO.RE.CA.

Through recovery and recycling, production waste is converted into polymer and then into spunbond, eliminating the need for valuable new non-renewable raw materials.

Since 2020, Tessiture Pietro Radici, the Group company that produces Respunsible®, has also adhered to the ISCC PLUS (International Sustainability and Carbon Certification Plus) scheme. The latter is a certification of traceability for circular materials allocated using the mass balance approach.

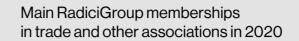
Value Chain

Working together, always: trade associations and competitors

RadiciGroup attaches ever-greater importance to being a member of trade, industrial and scientific **associations**. These organizations cover the whole production chain from upstream to downstream and are important pre-competitive resources, where it is possible to:

The Group's presence in the various organizations, together with the presence of numerous competitors in an open and direct setting, testifies to RadiciGroup's full respect for all players on the scene and for the rules of commercial fairness.

- Collectively develop research projects and address key present and future challenges related to products and systems.
- Share competencies and potential risks in the development of common solutions to meet new needs arising in the market.
- Have one's voice heard at the institutional level and give authoritative support to government bodies in their decision-making and legislative processes, as well as work to build consumer awareness and culture.





ABRAFAS - Associação Brasileira de Produtores de Fibras Artificiais e Sintéticas	Federchimica Assofibre
AICQ	ICESP-Italian Circular Economy Stakeholder Platform
Association of Plastics Industry	IHK (Industrie- und Handelskammer)
Camera di Commercio e Industria di Neamt	Nordostchemie
Camera di Commercio italiana in Cina	OMA - Ohio Manufacturer's Association
Camere di Commercio Italo-Ceca	PINFA - Flame Retardants Association
CEFIC - European Chemical Industry	Plastics Europe AISBL (BE)
Chemie Wirtschaftsfoerd GMBH	Plastics Europe Italia
CIESP - Centro das Indústrias do Estado de São Paulo	Proplast
Cirfs	SINDTEXTIL - Sinditêxtil Sindicato Indústria Fiação Tecelagem Estado São Paulo
Comitato Elettrotecnico Italiano	Sistema Moda Italia -Tex Club Tech
Confindustria Bergamo	Spring
Confindustria Novara -Vercelli -Valsesia	Tessile e Salute
Consorzio IBIS	Tecnici Materie Plastiche
Edana	Uniplast-Ente Italiano di Unificazione delle Materie
Ellen MacArthur Foundation	Plastiche
EPCA - European Petrochemical Association	VTB: Verband der Bayerischen textil und Bekleidungesindustrie
Federazione Patronale Tessile	Wadsworth Chamber of Commerce

Also in 2020, RadiciGroup maintained a strong membership presence in various trade associations. In many of them (such as CIRFS, Responsible Care, Confindustria, ICESP and Sistema Moda Italia), the Group actively participated in specific projects on sustainability, often as members of the coordinating

bodies, which allows for a wider view on the diverse

issues. Among the main challenges dealt with were sustainable fashion, e-mobility, safe and low-impact products, the circular economy and a growth model based on low emissions of carbon dioxide.



RADICI

Sustainability, in facts

237 million €

investments to support the competitiveness

of Group companies over the 2016-2020 five-year period.

Of wich

49 million €

the amount invested in 2020.

The future of energy is today.

We promote energy transition by using renewable source energy.

We decouple resource consumption from economic growth.

In our production sites the use of raw materials, water and energy is curbed thanks to plant efficiency, and the Best Available Techniques.

Resources, nothing is more precious.

We make the best use of raw materials, reduce the amount of waste and scrap, recover and recycles waste whenever it cannot be avoided, and we constantly work on the quality, durability and performance of our materials, which are all recyclable.

Light for the Environment, transparent in communication.

We communicate our activities and achievements in our Sustainability Report and through all available internal and external communication channels.

3.4 million €

environmental investments made in 2020

related to the introduction of Best Available Techniques, efficiency improvement, emission abatement, and research and development activities directed at the development and adoption of low-impact processes and products.

3.4 million €

Costs for environmental management and protection

(certifications, waste disposal, wastewater treatment, etc.) at the Group companies in Italy.

The Environment as a priviledged stakeholder.

We protect it through its strategies, investments and concrete, targeted actions.

Eco-design, safe and responsible.

We engage in the ecodesign of reduced-impact products, which are safe for the manufacturer, the user and the Environment.

Less emissions, more innovative products.

We fight climate change by reducing emissions and introducing innovative products with a smaller carbon footprint.

Achievements which help to improve.

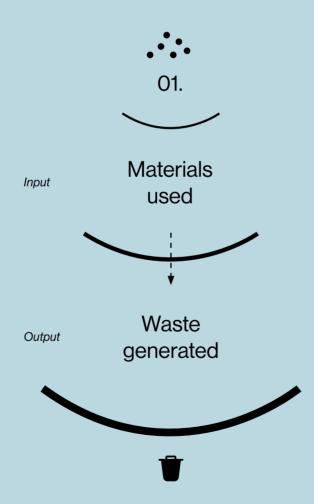
We constantly measure the performance of all production sites, with a view to achieving continuous improvement and reducing environmental risks.

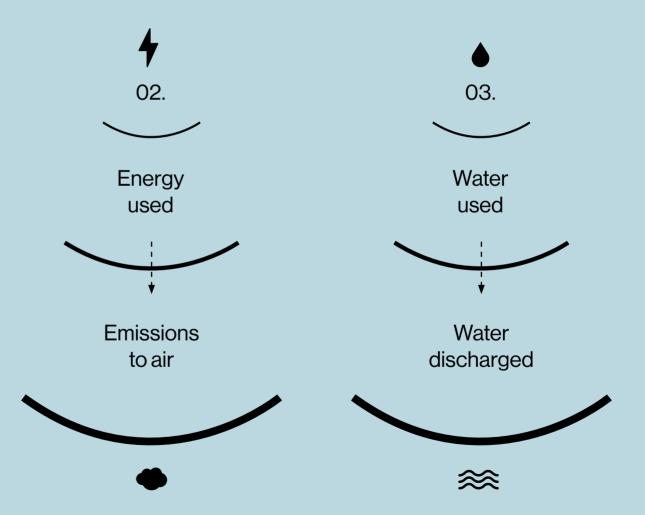
Goals achieved

The following sections provide an **overview of RadiciGroup's environmental results** grouped by complementary data inputs (received from the Environment) and outputs (delivered to the Environment).

As a general consideration, it must be observed that, because of the Covid-19 pandemic, in the first half of 2020 all production sites experienced temporary production stoppages. While that led to a decrease in all environmental parameters in absolute value, production yields also inevitably worsened with a similar ripple effect on the indicators.

However, the Group's well-established and prudent environmental policies ensured that the negative results were limited as much as possible and were partially offset by a return to a situation of relative normality in the second half of the year.





01. Materials used

The materials we use are our new resources

In 2020, as a result of the health crisis, the quantity of material used declined overall by 17.1% compared to 2018, total direct materials amounted to about 397 thousand tons. With regard to packaging, the Group prefers to transport bulk materials in octabins, big bags and, more generally speaking, packaging with an optimized design in size and shape. Common practice in all the Group sites is the internal reuse of reusable paper and plastic packaging. Total renewable packaging over the three-year period remained practically unchanged.





GRI 301-1 Materials used by type and weight

Ma	terials used by type	2018	2019	2020
t	Direct materials*	478,505	415,271	397,372
t	Accessory materials	2,699	2,348	1,936
t	Packaging**	17,479	16,075	14,098
t	Total	498,683	433,694	413,406
No	n-renewable materials			
t	Non-renewable direct materials	476,828	413,139	395,871
t	Non-renewable accessory materials	2,699	2,347	1,934
t	Non-renewable packaging**	1,700	1,560	1,430
t	Total	481,227	417,046	399,235
Rei	newable materials			
t	Renewable direct materials	1,577	2,132	1,501
t	Renewable accessory materials	0	2	2
t	Renewable packaging**	15,780	14,515	12,668
t	Total	17,357	16,649	14,171
% renewable packaging** to total packaging 90.3% 90.3% 89.9%				
% r	enewable direct materials to total direct materials	0.33%	0.51%	0.38%
% r	enewable materials to total materials	3.48%	3.84%	3.43%

^{*} Intragroup flows of raw materials are excluded from this disclosure, since they are not resources drawn from outside the Group.

^{**} The percentage of renewable packaging increased for all three years in the table, compared to what had been reported in the past, because some packaging had erroneously been considered non-renewable.

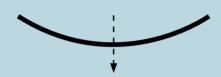
01. Waste generated

Too valuable to be called waste

All RadiciGroup companies work to contain the generation of scrap and waste through rigorous process management. Procedures for waste identification, sorting and storage have always been in place at all Group sites, in compliance with current legislation and voluntary standards.

In the context of the Group waste reduction and recycling policy, in 2020, performance with regard to waste slightly worsened compared to the prior two years.

Due to production interruptions, the ratio "process waste per unit produced" (which does not include waste from renovation) went from 9.41 kg/t to 9.70 kg/t (+3.1%). Non-hazardous waste directed to recovery also decreased in absolute terms (-20%) compared to 2018. Non-hazardous waste directed to internal recovery represents a precious resource for RadiciGroup strategy of pre-consumer recycling. In 2020, compared to the two previous years, there was a 12.3% decrease in absolute value of the waste directed to external treatment.



84.9%

non-hazardous waste recovered in 2020

-12.3%

process waste directed to external treatment (2018-2020)

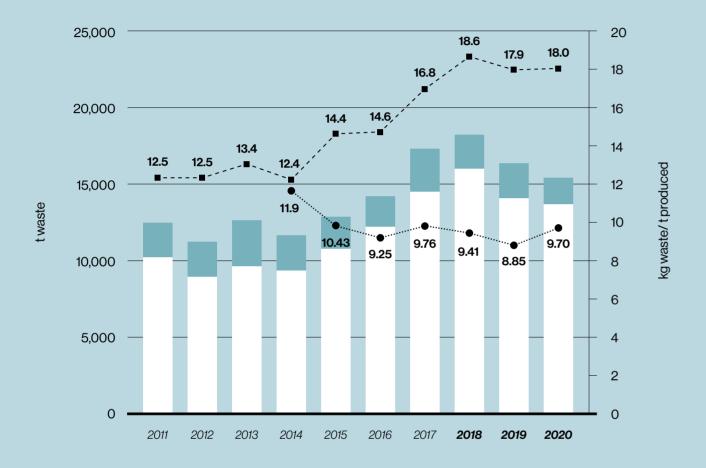


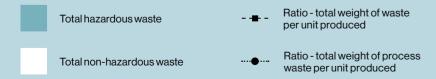
GRI 306-2 Total waste by type, disposal method and weight*

2018 2019	2020
t Total 19,365 17,015	15,917
t Total hazardous waste 2,490 2,591	1,949
t Hazardous waste directed to recovery 540 690	561
t Hazardous waste directed to disposal 1,950 1,901	1,388
t Total non-hazardous waste 16,875 14,424	13,968
t Non-hazardous waste directed to recovery 14,817 12,935	11,852
t Non-hazardous waste directed to disposal 2,058 1,489	2,116
of which	
t Occasional non-process waste (building renovations, maintenance, etc.) 2,104 645	826
t Non-hazardous waste (formerly by-products) 7,459 7,966 directed to internal recovery	6,494
t Process waste directed to external treatment 9,802 8,404	8,597
kg/t Ratio - Process waste per unit produced 9.41 8.85	9.70
kg/t Ratio - Total waste per unit produced 18.59 17.92	17.96

^{**}Based on the documentation held by the Group and provided by the companies in charge of waste management and treatment, it is not possible to give more detailed information, as required by the GRI model, concerning the actual disposal method.

GRI 306-2 Waste by type



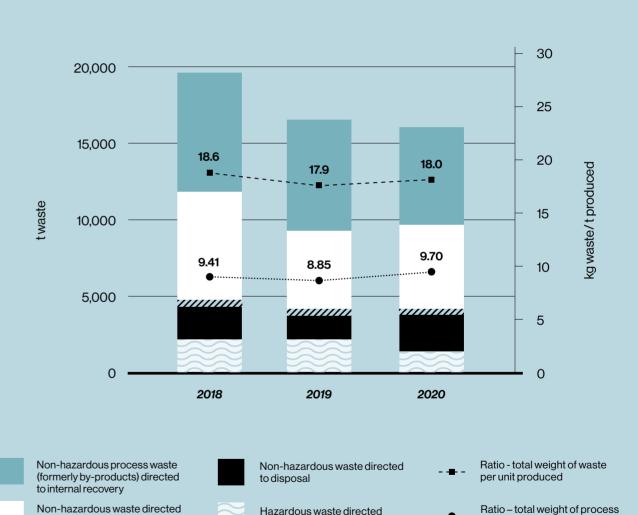


GRI 306-2 Waste by type and disposal method

to external recovery

to recovery

Hazardous waste directed



to disposal

95

waste per unit produced

02. Energy

Our footprint is our mark of sustainability

The RadiciGroup carbon footprint mainly consists of the emissions from energy consumption needed to operate its production sites. This is because energy consumption and emissions are closely related.

The Group regularly monitors consumption, carefully chooses energy sources and develops projects for reducing CO₂.

In 2020, the Group recorded an 11.8% decrease in total fuel consumption compared to 2018, due to the slowdown in production activities. In contrast, the ratio "consumption per unit produced" increased from 1.76 to 1.82. It should be kept in mind that, in the face of the health crisis, which had a profound impact on the first half of the year, production was kept running for operating reasons at most of the sites, albeit at reduced capacity with negative effects on efficiency.

The ratio of indirect primary energy from non-renewable fossil sources consumed for electricity per unit produced was 13.6% lower, compared to 2018, while the ratio of total primary energy from non-renewable fossil sources per unit produced increased by 1.4%.











-11.8%

direct energy consumption 2018-2020

-12%

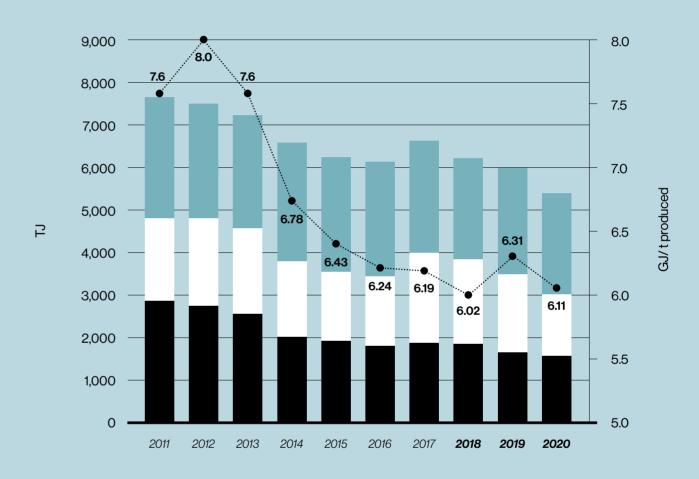
transformed energy consumption 2018-2020

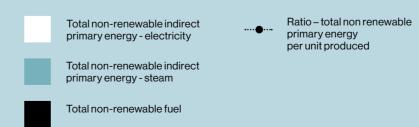
-13.8%

primary energy (direct+indirect) from non-renewable sources



GRI 302-1 Total Primary Energy Consumption within RadiciGroup (from fossil sources)

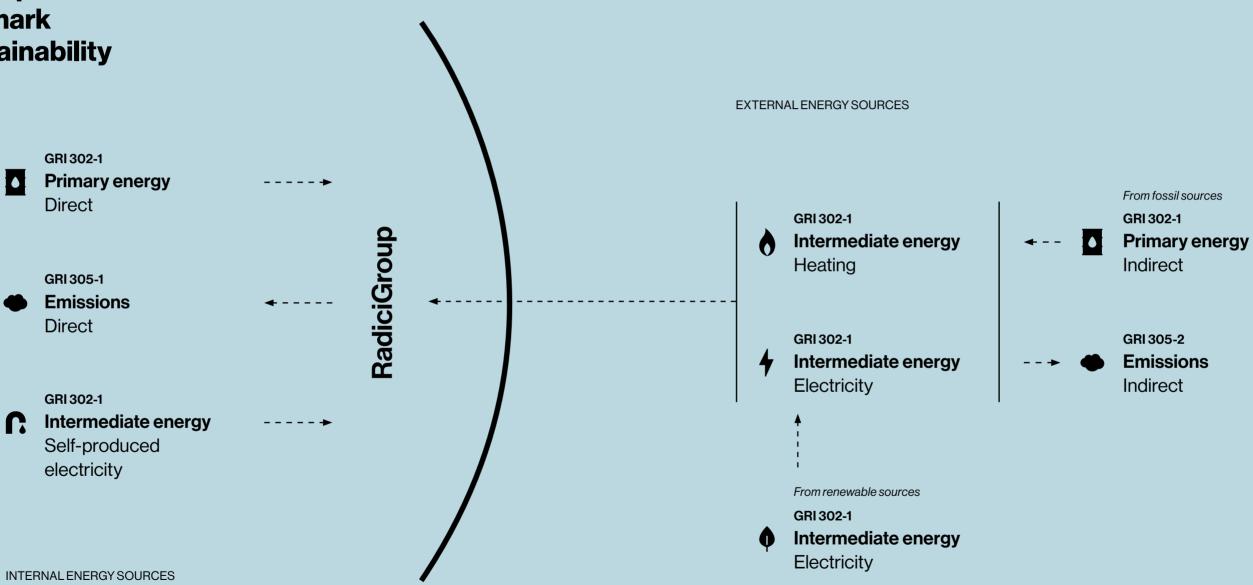




RADIC

02. Energy

Our footprint is our mark of sustainability



02. Energy

Our footprint is our mark of sustainability

GRI 302-1 Electrical energy mix

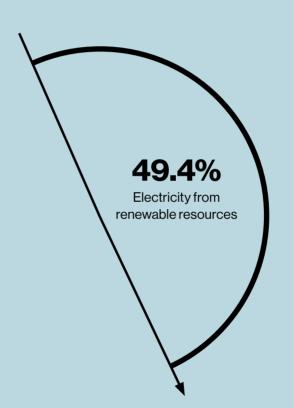
green electricity over the three-year period went from

43.7% to 49.4%, which made it possible to power an increasing number of production sites with electricity from 100% renewable energy. In 2020, Tessiture Pietro

Radici joined the list of the companies powered by

100% renewable energy.

1.7% Electricity from other fossil sources **5.4%** Electricity from nuclear 0.5% Electricity from burning oil 49.4% **9.3%** Electricity from coal Electricity from renewable resources 33.6% Electricity Electric energy mix 2020 from natural gas In 2020 the commitment to ecological transition continued through the purchase of significant amounts of renewable energy. More specifically, the quota of



Companies using 100% or mostly renewable source energy

100%

Companies using 100% renewable source energy:

- Radici Novacips (Villa d'Ogna) Italy
- Radici Novacips (Chignolo d'Isola) Italy
- Radici Plastics Brazil
- Radici Plasitcs Germany
- Radici Yarn (Ardesio) Italy
- Radici Partecipazioni (Gandino) Italy
- Tessiture Pietro Radici (Gandino) Italy NEW 2020

Plants using 100% green energy

- Polymerization Radici Yarn (Villa d'Ogna) Italy
- Polymerization Radici Fil (Casnigo) Italy

80%

Companies using 80% green energy

• Radici Fibras - Brazil

+6%

Renewable-source electricity 2018-2020

02. Emissions

We aim low only when our target is emissions

In 2020, total emissions recorded a 5% decrease compared to 2018, while indirect emissions decreased by 14.9%. Globally, total CO₂eq emissions generated by Group activities in 2020 amounted to slightly more than 441,000 tons, a result credited to RadiciGroup investments in emission abatement and the use of an energy mix aligned with its responsible and well-established environmental choices.

Mindful of the environmental effects caused by the use of fossil resources, the Group adopts an energy mix for electricity with a 49.4% quota of renewable energy. A comparison of the emissions generated by the energy mix of the Group with the emissions generated by the standard energy mixes available nationally in the countries where RadiciGroup companies are based shows that, in 2020, the Group saved 31.8% of greenhouse gas emissions into the atmosphere. These results are important intermediate stages along the Group's path towards a smaller environmental footprint.

As for energy, the parameters of CO_2 emissions into the atmosphere were influenced by the pandemic. In fact, the absolute value was lower, but the ratio "tCO $_2$ eq/t produced" recorded a 11.7% increase compared to the two prior years.



- 5% total emissions compared to 2018

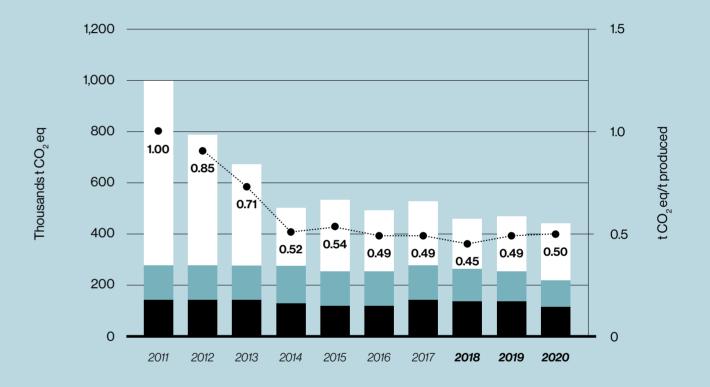
- 14.9% indirect emissions compared to 2018

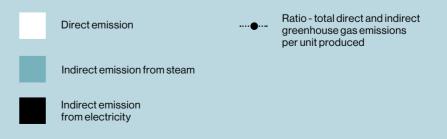
-31.8%

GHG emissions compared to the use of standard national energy mixes



GRI 305-1 / GRI 305-2 Total direct and indirect greenhouse gas emissions





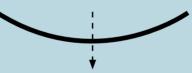
03. Water used

Saving water is our second nature

Water is precious for our life, and it is equally precious for RadiciGroup, since it is essential for cooling purposes in plants. All the ancestral companies of the Group are located in Northern Italy, an area characterized by good water availability in the form of surface water and groundwater, which has always been considered a strategic factor for local development.

The Group uses little or no water in its products and does not create long-term water reserves for its production activities that could deprive local communities of their water supply. The same water is used several times within the plants for cooling purposes, then treated in accordance with the legislation in force in the various countries in which the Group operates and, finally, is returned intact to the environment, mainly into surface streams.













GRI 303-3 Water withdrawal by source

		2018	2019	2020
ML	Total*	86,464	86,029	77,010
ML	Total surface water	35,481	38,279	32,056
ML	Other water	0	0	0
ML	Freshwater	35,481	38,279	32,056
m³	from rivers/canals	35,013,017	37,755,178	31,452,056
m³	from springs	468,049	523,829	603,606
ML	Total groundwater	9,477	9,436	8,085
ML	Other water	0	0	0
ML	Freshwater	9,477	9,436	8,085
m³	from wells	9,476,849	9,436,032	8,084,676
ML	Total third-party water	41,506	38,314	36,870
ML	Other water	0	0	0
ML	Freshwater	41,506	38,314	6,870
m³	from aqueducts	155,355	135,576	126,942
m³	from private utilities	41,350,964	38,178,805	36,743,061

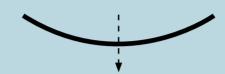
^{*}For sites where the quantity of water discharged is not measured, such quantity is set equal to the water withdrawn. Similarly, in those cases where only water discharged is measured, the water withdrawn is generally set equal to the water discharged.

03. Water released

At the source of recycling

In 2020, the practice of recycling cooling water saved up to 70%, the same as in prior years. Conversely, the intensity ratio "water consumption per unit produced" increased by 4.76%, compared to 2018.

As in previous years, Radici Chimica Deutschland GmbH followed a special water management policy. For the operation of its plants, the German company draws water from a water loop managed by the industrial park where the company is located, which also handles the recycling of output water. Formally, water recycling happens outside the company premises and, thus, the contribution of Radici Chimica Deutschland GmbH to the "saving ratio" is set to zero. If the German company Radici Chimica Deutschland GmbH is excluded from the boundary considered, the percentage of water saved in 2020 rises to 134%, and the "saving ratio" jumps to 2.34.



1mln

cubic meters saved in 2018-2020, corresponding to the average water consumption of 6,300 families

70%

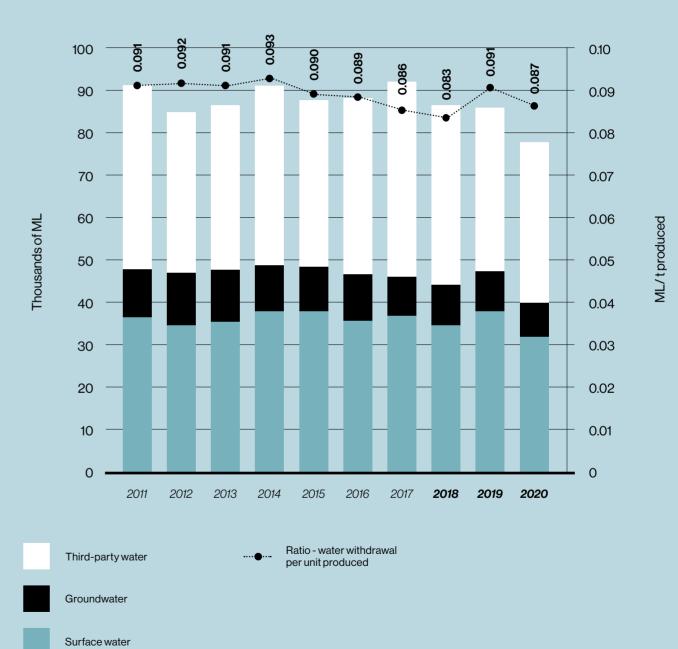
water saved compared to theoretical requirement

from 1 to 60.5

water is used from from 1 to 60.5 times in the Group plants



GRI 303-3 Water resources withdrawal by sources



RadiciGroup corporate vehicle fleet drives towards the future of sustainability





To RadiciGroup the respect for the Environment depends also on mobility choices.

Today the composition of the corporate vehicle fleet, with long-term leasing of greener cars, is evolving towards a more eco-conscious mobility model.

In fact, if in 2018 and 2019 only one employee out of four could travel in a low-environmental-impact car, in 2020, as the result of a new corporate policy directed at increasing the quota of electric and hybrid cars in its corporate fleet,

the percentage of cars with electric motors more than doubled to 47%.

In anticipation of significant further growth in Plugin and Full Electric vehicles, in 2021 RadiciGroup installed electric vehicle EV charging stations on the infrastructure at its main Italian sites. These EV charging points are powered by 100% renewable energy from the Group supplier-partner Geogreen. The EV charging infrastructure will accelerate the transition to electric vehicles and strengthen the Group's commitment to the environment, thanks to the special sensitivity of Group employees to such issues.



GRI 302-3 Energy intensity - total primary energy to total net value added

		2018	2019	2020
GJ	Total primary energy (GRI 302-1)	6,272,943	5,991,117	5,408,531
€	Total net value added	280,219,710	259,489,575	253,092,544
GJ/€	Total primary energy (direct + indirect) to total net value added	0.022	0.023	0.021

GRI 305-4 Emissions intensity - total emissions to the atmosphere to total net value added

		2018	2019	2020
tCO₂eq	Total emissions to the atmosphere (GRI 305-1 and 305-2)	464,449	469,139	441,059
€	Total net value added	280,219,710	259,489,575	253,092,544
kgCO₂eq/€	Total emissions to the atmosphere (direct + indirect) to total net value added	1.66	1.81	1.81

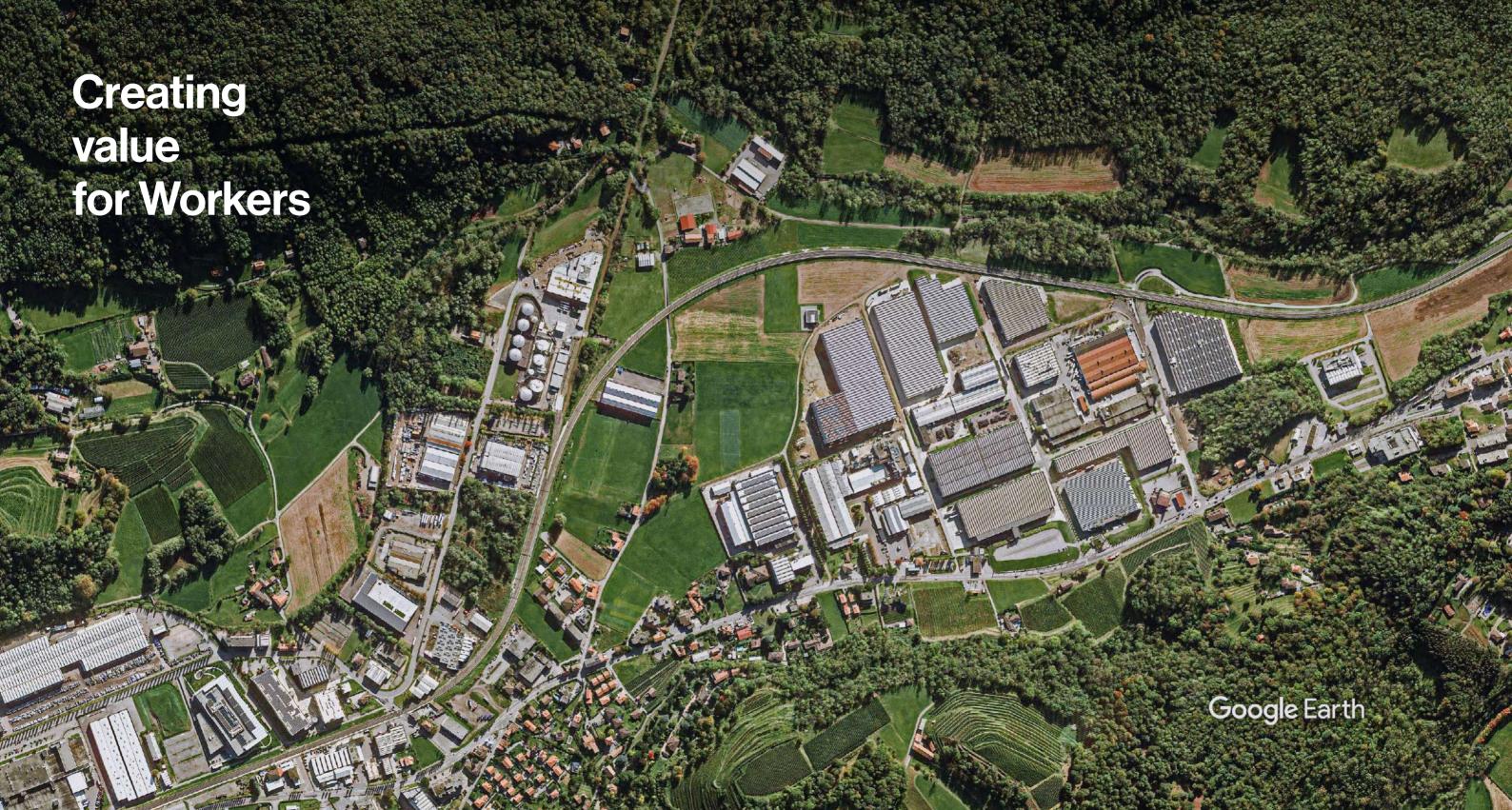
Water resources to total net value added



		2018	2019	2020
ML	Water resources (GRI 303-3)	86,464	86,029	77,010
€	Total net value added	280,219,710	259,489,575	253,092,544
ML/€	Water resources to total net value added	0.00031	0.00033	0.00030

Ratio-waste directed to disposal without recovery to total net value added

		2018	2019	2020
t	Waste directed to disposal without recovery (GRI 306-2)	4,008	3,390	3,504
€	Total net value added	280,219,710	259,489,575	253,092,544
Kg/€	Waste directed to disposal without recovery to total net value added	0.014	0.013	0.014



Team spirit is our best raw material





Starting in February 2020, in the space of a few weeks, people's daily lives, lifestyles and ways of working were disrupted. It was clear from the outset that the Covid-19 pandemic would not only lead to a health emergency crisis, but also to a serious economic crisis. In that context, the **Group's strategy to limit and contain the effects of Covid-19 on its Workers** was based on:

- Timely adoption of effective measures in line with the most stringent health protocols.
- Regular updating of the measures as the situation evolved, always maintaining a **high level of caution**.
- Keeping all working activities possible operational, strictly under safety conditions.
- Economic support to workers by prompt application of statutory emergency support measures.
- Building team spirit through communication, training and initiatives in support of institutions and social associations in the local communities to which employees belong.

Elements creating value

- Safeguard employment as the primary asset with collective, full time agreements.
- Respect the human rights of Workers everywhere in the world.
- Protect Worker Health and Safety by constantly monitoring the effectiveness of risk management processes and providing training on specific health and safety topics.
- Implement continuous and voluntary training programmes that aim at developing the skills of each employee in accordance with his/her aptitudes, work duties and professional career.
- Involve Workers through daily dialogue, and through all the information and communication instruments of RadiciGroup.

A breakdown of Employees by geographical area shows that about half of the employees work in Italy and half, in the rest of the world, thus demonstrating the Group's ongoing process of internationalization, not only commercially but also culturally.









GRI 102-8 Employees by region

	Men	2018	2019	2020
n	Italy	1,277	1,292	1,249
n	Rest of Europe	614	597	556
n	Asia	69	70	71
n	Americas	280	290	279
	Women			
n	Italy	311	312	313
n	Rest of Europe	423	418	369
n	Asia	24	26	29
n	Americas	66	69	76
	Total			
n	Italy	1,588	1,604	1,562
n	Rest of Europe	1,037	1,015	925
n	Asia	93	96	100
n	Americas	346	359	355

The data on RadiciGroup workers and employees are given as of 31 December of each year and are expressed in FTEs (Full Time Equivalents)

Workers

RadiciGroup Employees by gender, employment contract and employment type

			Men		Women Tota		Total			
		2018	2019	2020	2018	2019	2020	2018	2019	2020
n	Total Employees	2,240	2,249	2,155	824	825	787	3,064	3,074	2,942
	of wich									
n	Permanent contract Employees	2,092	2,146	2,062	762	768	732	2,854	2,914	2,794
n	Temporary contract Employees	148	103	93	62	57	55	210	160	148
%	Permanent Employees to total Employees	93.4%	95.4%	95.7%	92.5%	93.1%	93.0%	93.1%	94.8%	95.0%
n	Full-Time (permanent + temporary)	2,214	2,222	2,132	709	703	657	2,923	2,925	2,789
n	Part-Time (permanent + temporary)	26	27	23	115	122	130	141	149	153
%	Full-time Employees to total Employees	98.8%	98.8%	98.9%	86.0%	85.2%	83.5%	95.4%	95.2%	94.8%

Employees by type of bargaining agreement

		2018	2019	2020
n	National collective bargaining agreement	2,137	2,148	2,103
n	Corporate collective bargaining agreement	637	627	589
n	Individual Employment agreement	290	299	250
n	Total Employees	3,064	3,074	2,942
%	Individual employment agreement	9.5%	9.7%	8.5%
%	Collective bargaining agreement	90.5%	90.3%	91.5%

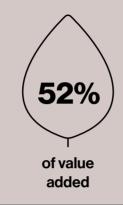
Workers

Our capital is, above all, human

Balancing the different facets of sustainability.

This is the challenge that RadiciGroup has taken on, with the deep conviction that economic, social and environmental interests must be harmonized for the sake of enhancing its corporate reputation and creating a virtuous cycle of improvement in its overall performance.

In addition to that, payments to government are proof of the Group's traditional correctness and contribution to the development of local communities.



2,942 Employees

GRI 201-1 Generation of value added

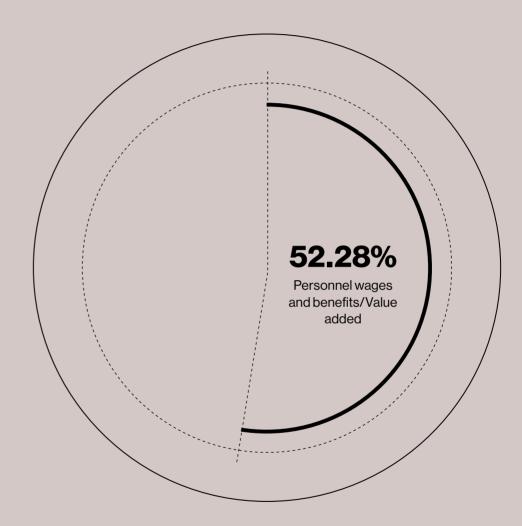
		2018	2019	2020
€	A) Production value	1,222,273,814	1,092,185,863	992,986,379
	Sales and service revenue	1,212,528,918	1,091,177,501	1,017,850,797
	Change in work progress, semi-finished goods and goods inventories	9,020,136	52,085	25,189,105
	Change in contract work in progress	-	-	-
	Increase in internally generated non-current assets	724,760	956,276	324,687
	Other revenue and income	-	-	-
€	B) Intermediate production costs	902,517,466	797,060,960	709,553,569
	Raw materials, supplies, consumables and goods for resale	730,444,796	611,032,681	489,678,028
	Services	176,591,194	171,448,387	204,011,759
	Lease and rentals	5,491,761	5,642,452	5,589,703
	Change in raw materials, supplies and goods for resale inventories	12,347,183	6,959,604	7,959,275
	Provision for liabilities and charges	405,357	200,277	215,640
	Other provisions	108,000	15,971	257,738
	Miscellaneous operating costs	1,823,541	1,761,590	1,841,425
€	Gross value added from operations (A-B)	319,756,348	295,124,902	283,432,810
	+/- Additional and extraordinary items	4,016,826	9,985,738	13,432,075
€	Gross total value added	323,773,174	305,110,640	296,864,886
	- Depreciation and amortization	43,553,464	45,621,065	43,726,957
€	Net total value added	280,219,710	259,489,575	253,137,929

GRI 201-1 Generation of value added

		2018	2019	2020
€	Personnel wages and benefits	139,889,046	143,530,512	132,331,564
	Contract workers	6,709,120	6,670,341	6,097,960
	Employees	133,179,926	136,860,170	126,233,604
	Direct compensation	106,741,571	110,024,451	101,210,043
	Indirect compensation	26,438,355	26,835,720	25,023,561
€	Payments to government	38,415,294	31,288,076	30,774,032
	Current taxes	37,501,150	32,044,656	37,184,830
	Direct taxes	34,128,382	28,757,519	34,314,961
	Indirect taxes	3,372,768	3,287,137	2,869,869
	Deffered taxes	1,266,829	65,623	3,381,104
	Revenue grants	352,685	690,958	3,029,694
€	Payments to loan providers	3,792,973	3,504,333	2,302,863
	Short-term loan interest	3,792,973	3,504,333	2,302,863
	Long-term loan interest	-	-	-
€	Retained value added	25,500,000	25,500,000	15,000,000
€	+/- Changes in reserves	72,008,872	55,136,155	72,181,028
	+/- Changes in reserves	72,008,872	55,136,155	72,181,028
€	Contributions and donations	613,525	530,500	548,442
€	Total net value added	280,219,710	259,489,575	253,092,544

Distribution of value added 2020





Training for professional growth

In spite of the impossibility to hold in-person meetings during the entire first half of the year, the Group managed to provide a good number of training hours per capita (12), living up to its commitment to training and education as tools for the professional growth of workers and the cultivation of the spirit of belonging.

- The New Hires course, an intercompany initiative for all workers at the Group's Italian companies. The RadiciGroup organization, sustainability strategy and safety policy are the key topics in this onboarding training course, designed to ensure that newly hired employees acquire the basic information about their new working environment, as well as to help the recruits to integrate and feel like active members of the Group from the very start.
- In addition to the training hours reported, RadiciGroup invested in a broad and structured information systems risk assessment project, which started in 2020 and continued in 2021. The project called "Kaspersky ASAP - Cyber Security" was extended to all workers worldwide having access to a RadiciGroup account and presumably will be extended to all newly hired employees in the future. Designed to handle the specific degree of risk linked to the various company functions and tasks, the training course uses concrete examples, exercises and simulations to examine all the best practices for recognizing and effectively managing real or potential threat situations, such as e-mail, internet access and password handling security risks and malware threats. This training project has become even more crucial in view of the sheer increase in digital interaction.
- The "Train your Talent" project was set up for the fibres area, specifically the staff of the sales, marketing, R&D and technical assistance departments, with the goal of developing and acquiring advanced commercial and relational skills through practical training and the mastering of tools that could then be used in daily work.



Concurrently, a **course** on the ISO 50001:2018 standard was held, which was extended to all functions that could potentially be concerned by the standard. The objective of the course was **to prepare** an increasing number of Group sites to achieve the Energy Management Systems standard certification, allowing them to establish and maintain the systems and processes necessary to improve energy performance. This programme has trained several internal ISO 50001 auditors, providing them with all the technical knowledge and methodologies necessary to achieve this qualification, which fosters the adoption and promotion of the internal auditing system among the various RadiciGroup companies.



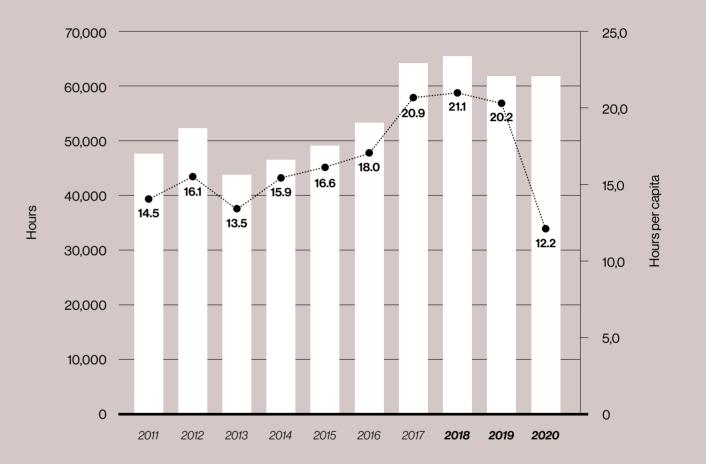
Workers

GRI 404-1 Training for Employees

		2018	2019	2020
hours	Total hours of training	64,608	62,207	35,911
n	Total Employees	3,064	3,074	2,942
hours/n	Hours of training per capita	21	20	12
	Men			
hours	Total hours of training	50,794	50,174	28,533
n	Total Employees	2,240	2,249	2,155
hours/n	Total hours of training per capita - men	23	22	13
	Women			
hours	Total hours of training	13,813	12,033	7,377
n	Total Employees	824	825	787
hours/n	Total hours of training per capita - women	17	15	9.4
hours	Total hours of training for Health and Safety	34,656	22,825	19,136
%	% hours of training for Health and Safety to total hours of training	54%	37%	53%
hours/n	Italy	9	10	6
hours/n	Rest of Europe	32	23	14
hours/n	Asia	58	48	37
hours/n	Americas	33	53	27

Training for Employees





Total hours of training

Total hours of training per capita

Workers

Health and safety at work

RadiciGroup safeguards the Health and Safety of workers monitoring performances as for:

- Risk analysis and management.
- Targeted Health and Safety projects.
- Raising the awareness of each Employee about his/her contribution to the safety management of the company.

A key role is assigned to the heads of the management system, who are for the most part Employees working at the various sites. They may have different titles depending on the legislative and regulatory framework of the various businesses worldwide. With regard to the Italian sites, the head of the prevention and protection service (RSPP) and the employer have the specific duty to organize and manage a risk prevention and protection system, in compliance with Legislative Decree [D.Lgs.] 81/2008.

Among the duties of these professional figures, who also have the responsibility to keep their skills up to date, include:

- The identification and assessment of risk factors.
- The development of preventive and protective measures.
- Worker training and information.

Indeed, all workers are called upon to develop and improve management systems. As already mentioned, training has a primary role: about 53% of the total hours of employee training were dedicated to Health and Safety topics. In addition to training courses, the most common means of engagement are operating instructions, circulars and instructional materials.

Furthermore, at all RadiciGroup production sites in Italy, a Worker Safety Representative (RLS) is either appointed or elected. The task of this role is to collect and report complaints, problems and requests for information and clarification submitted by Workers, in order to generate a spirit of active participation in the practice of Health and Safety principles in the workplace.



Workers

GRI 403-9 Detailed injury situation – total Workers

		Total		
		2018	2019	2020
n	Total Workers*	3,381	3,348	3,227
hours	Total hours worked	5,578,590	5,481,290	4,880,086
n	Number of fatal injuries	0	0	0
n	Number of high-consequence injuries	13	14	12
n/200.000h	High-consequence injury rate	0.47	0.51	0.49
days	Total injury days lost	1,583	1,130	1,380
n/200.000h	High-consequence injury days lost rate	56.8	41.2	56.6
n	Number of non-high-consequence injuries	75	67	35
n/200.000h	Non-high-consequence injury rate	2.69	2.44	1.43
days	Total injury days lost	1,144	928	511
n/200.000h	Non-high-consequence injury days lost rate	41.0	33.9	20.9

Men		Women			
2018	2019	2020	2018	2019	2020
2,538	2,497	2,416	843	851	811
4,227,033	4,219,289	3,731,119	1,351,557	1,352,001	1,148,967
0	0	0	0	0	0
11	11	12	2	3	0
0.52	0.53	0.64	0.30	0.44	0
1,411	923	1,380	172	207	0
66.8	44.7	74.0	25.5	30.6	0
70	59	31	5	8	4
3.31	2.86	1.66	0.74	1.18	0.70
1,046	811	449	99	117	62
49.5	39.3	24.1	14.6	17.3	10.8

Workers

Protecting Health and Safety during the pandemic

RadiciGroup tackled the exploding Covid-19 crisis by putting in place a succession of measures focused on safeguarding its workers, with two objectives:

- Protection of the Workers' Health and Safety.
- Ensuring the continuity of production operations and employment in total safety.

The first set of rules was issued by the Human Resources Dept. during the very first days after the health crisis was announced. From that moment on, RadiciGroup has scrupulously adopted the emergency regulations and protocols issued by local and national health authorities at all Group sites.

Among the most important measures adopted:

- Personal protective equipment.
- Body temperature measurement.
- Sanitation of workplaces.
- Organization of operations in such a way as to avoid crowding.
- Organization of canteens and meeting spaces according to safety regulations.
- Use of smart working, as extensive as possible, for Workers, compatibly with the tasks to be performed.
- Cancellation of meetings and business travel not absolutely essential.

A booklet for simplified remote working and a leaflet on measures to contain the spread of contagion have been distributed at all sites to help those working from home make the smoothest possible transition from office work to remote working and to raise awareness of precautionary behaviour to protect Employees' and others' health.

Zero accidents is possible: the new safety-at -work campaign of Radici Plastics Ltda.





For RadiciGroup, social sustainability means the personal growth of people and the development of their skills.

The well-being and engagement of employees are two of the pillars of Group policies. With this perspective, in 2020 **Radici Plastics Ltda**, a Group company operating in Brazil, launched a robust training programme under the banner "**Zero accidents is possible**", which saw the engagement of all company personnel. Under that project, the company undertook

a massive training effort in which internal procedures and policies concerning Workers' Health and Safety (in line with the national laws in force) accounted by far for the preponderant portion of the overall training: a total of 2,200 hours, 30 hours per capita. All the related activities were carried out under the guidance of a team of professionals and consultants, who worked on raising the awareness of the Employees on the importance of individual behaviour for collective Safety.

The programme allowed the company to adhere to the most advanced occupational health and safety management plan and obtain certification to **ISO 45001**, the international standard for Occupational Health and Safety Management Systems, based on the best practices for Worker protection. Furthermore, inorder to ensure safe working conditions for employees during the pandemic, a significant part of the training hours in 2020 was dedicated to raising awareness of the measures to combat Covid-19.

RAOICI

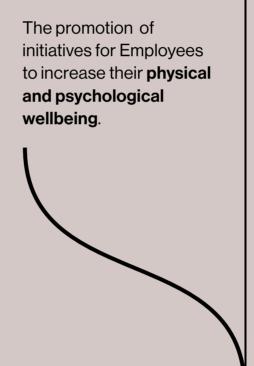
More time for ourselves, more value for our job

A serene private life is important to face daily work with enthusiasm and dedication. This is a fundamental principle to RadiciGroup which favours the balance of private and work life through concrete and consistent activities and initiatives.

Specifically in 2019 the "StoBene", (formerly called Workplace Health Promotion or WHP) project was launched, originally conceived by the Bergamo Local Health Unit and the Region of Lombardy to encourage workers to adopt a healthy lifestyle and a positive mental attitude.

For example, the canteens of the Group's sites have continued the **nutrition education campaign for a balanced** diet through the illustrated "storytelling" of the best combination of foods on the paper placemats of food trays. At Christmas, solidarity initiatives were launched to collect used toys in good condition and tools and accessories for drawing and creative activities for children in difficult situations.

The introduction of acomplementary corporate **welfare** system in some of its plants.



Workers' engagement through internal communication and involvement initiatives to boost their team spirit.

From China to Bergamo, solidarity knows no bounds.





In March 2020, **Radici Plastics Suzhou**, a RadiciGroup company specializing in engineering polymer production and based in Jiangsu Province in China, joined a

fund-raising drive promoted by the Italian community in Shanghai to send Papa Giovanni XXIII Hospital in Bergamo over 20,000 masks and other medical devices. In addition to the donation from Radici Plastics Suzhou, the Employees of the company (about one hundred strong) also wanted to participate in the drive by joining the initiative of the Italian community in Shanghai coordinated by some native Bergamascans who live and work in the city. A total of over EUR 35,000 was collected to help the Bergamo area cope with the coronavirus emergency.

The solidarity campaign continued further with materials and aid delivered to the Piario hospital in the Val Seriana, the area of the Province of Bergamo most severely affected by the pandemic and where some of RadiciGroup's ancestral companies are located.

So far, so close. Virtual greetings from across the world.





"

At the end of an atypical year, during which it has not been possible to meet in person either at the company or at the usual trade fairs, we would like to send a brief greeting to all our people around the world, aware that it is only thanks to everyone's contribution and teamwork that we can overcome even the most complex challenges.

That message was sent by Shareholders Angelo, Maurizio and Paolo Radici on 22 December 2020 to all RadiciGroup employees around the world to invite everyone to exchange virtual greetings and wishes on the occasion of New Year festivities.

About 100 co-workers were able to meet and exchange greetings in Zoom meetings, and a few of them even managed to meet in person. Each Nation expressed Christmas wishes in its language and in English in an informal and participatory manner.

On behalf of their respective companies, a group of employees wished Merry Christmas in their native language and in English in an informal and participatory manner. The Group Shareholders, on their part, greeted and thanked all the people of the Group for their special commitment and tenacity in facing 2020. It was an important and emotional event, which allowed the entire Group team to come together, albeit virtually, in the name of team spirit and friendship.

"



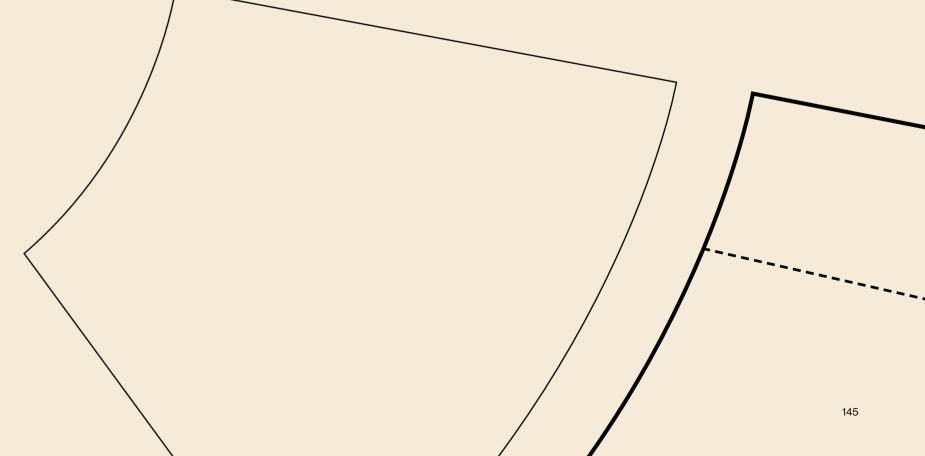
RNOIC

To be a reference point in the territory, for the territory

To us, the territory is much more than a physical space in which to operate. It is a part of us, it is in our very roots: we were born and grew here, we founded our companies here. Here, every day, we devote all our efforts and passion to create new opportunities and value. For this reason we want to improve our territory, and make it, day by day, a safer and healthier place in which to grow and to live.







The territory is in our roots

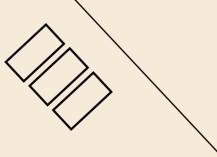
 RadiciGroup is a familyowned-and-operated business. Some members of the Radici family, including the Shareholders, reside and are physically present in the areas where RadiciGroup was established and operates.

• The first Group company, still in operation today, was established about 80 years ago in Val Gandino, one of the areas of choice of Bergamasque textile entrepreneurs. Over the years, the company has changed its type of production, market and technology several times, but it has never moved its headquarters.





The Workers are the residents of the host community. About 80% of RadiciGroup workers in Italy actually reside within a 20 km radius from the Group company where they work.



RACIP

Local Communities

RadiciGroup and Local Communities: a single entity

RadiciGroup is present in **15 different** nations and it communicates trough its official channels in **5 different** languages.

From RadiciGroup to Local Communities

- From RadiciGroup to Local Communities Production culture with high Health and Safety standards in all the world.
- Promotion of local social sustainability through welfare policies in the various countries.
- Engine of development in emerging countries and a solid employment opportunity for the younger generation in mountain areas.





From Local Communities to RadiciGroup

- Support and closeness witnesses also by their excellent attendance at public events organized by the Group.
- A unique and special know how, a vocation that local schools have cultivated.
- An inclination for organizational and production flexibility typical of local communities.
- Local Suppliers, with whom RadiciGroup has established a relationship of trust and loyalty.



Case History

RadiciGroup and Confindustria Bergamo support graduating students from Bergamo.



#maturitàmolamia



In June 2020, Radici Group joined the **#maturitàmolamia** (do not give up on the final exam) initiative promoted by **Confindustria Bergamo** and its member companies in support of the **8,503 upper secondary students** of the Province of Bergamo getting ready to take their graduation exams.

The students, survivors of a troubled school year, received an aid kit containing a notepad, an exercise book, hand sanitizer and a surgical face mask certified by the Italian National Institute of Health (Istituto Superiore di Sanità)

and made of nonwoven fabric from RadiciGroup, in collaboration with local companies in a 100% made-in-Bergamo supply chain.

RadiciGroup special attention to students is part of the Education project, dedicated to schools, which in spite of the Covid-19 crisis, did not to pause, but to continued its activities remotely, so as to continue to remain close to the students and be a beacon for their professional growth.

Local Communities

The future belongs to generations to come

The Group gives special attention to the younger generations who are the ones that will bring life to local communities and foster dialogue and relations with companies in the future.

The RadiciGroup "Education" project stems from the role in the community the Group envisions for its companies. For years now, this project has created and strengthened collaboration relationships between the Group and schools in areas where its companies operate.

- Work experiences at Group companies for students of local vocational schools.
- Internships for university students.
- Extra-curricular internships that have enabled students to be hired at Group sites.
- In-person visits and lectures at company sites, when allowed, and meetings with local entrepreneurs.
- Career interviews, under the supervision of RadiciGroup, to guide young people in planning their educational path in view of their professional future.
- Webinars conducted by RadiciGroup experts.

Once again in 2020, sustainability was the main topic of the joint school-company experiences. Particular attention was paid to topics such as sustainability reporting, measurement of product impact based on the Life Cycle Assessment methodology, engineering polymers and water.

Within the framework of the "Education" project, a special award, the "BAQ - Bollino per l'Alternanza di Qualità" [School-Work Alternation Quality Stamp], was given to Radici Novacips for the second year in a row by Confindustria Bergamo. The award recognizes companies that promote highly educational school-work alternation collaborative programmes for upper secondary and vocational school students.



Sport that coaches for life

RadiciGroup is highly focused on new generations and their education, which passes also through sport. Sport and work are in fact based on the same values: sacrifice, efforts and the will to always improve to achieve ambitious results.

For this reason, numerous sports associations are supported by RadiciGroup: local associations, mainly youth academies, which have the goal of teaching a sport, but above all, of contributing to the growth of young people. An example of this commitment is the **Group's support to Sci Club RadiciGroup**, a Bergamobased sports association that counts on over 100 athletes between 6 and 18 years old.

Furthermore, RadiciGroup is an official Sponsor of the Atalanta Bergamo Football Club, a team very close to Bergamo local communities and to all Group employees, who are invited to special engagement events featuring the participation of the Atalanta players.

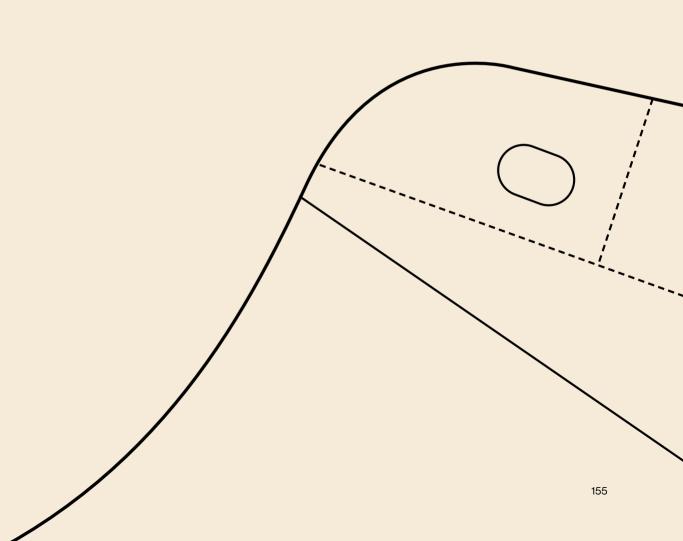




Attention and support to:

Schools

Sports associations





RADICI

Case History

RadiciGroup and Atalanta: sport and solidarity with the community.



In August 2020 **RadiciGroup** and **Atalanta B.C.** announced the continuation of their partnership during the 2020-2021 football season.

A testimony to their **shared values** and, above all, their deep attachment to the territory and communities.

At a time, in which Bergamo had been put to a tough test by the pandemic, the Group decided not only to renew its support to the football team, but also to have its logo in the heart position on the chest of the main jersey of the Italian Football Championship and Italian Cup. Such emotional and physical closeness with a strong symbolic meaning was also taken up in a RadiciGroup corporate video, released on Valentine's Day 2021, which was shot with the participation of Atalanta players. The clip visually narrates the emotional parallelism between the everyday actions at the company and the typical plays of a football team.

A partnership that goes beyond sport.

In the first months of 2020, the two partners decided to **support the field hospital** set up by the National Alpini Association [Associazione Nazionale degli Alpini] on the premises of the Bergamo Fairgrounds, by contributing to the purchase of all the oxygen therapy equipment needed for about 200 beds for the treatment of Covid-19 patients.



SPONSOR DEL CUORE ATALANTA



Case History

Logit and its engagement with the community





A common trait shared by all RadiciGroup companies is the propensity to create strong relationships with host communities.

For some years now, **Logit Sro**, the Group company operating in the Czech Republic, has also been supporting the local community through a foundation by the same name. The purpose of the Foundation is to support non-profit organizations and informal citizens' initiatives working to improve the quality of life of the Podbořany region inhabitants.

In 2020, Logit Sro showed its social commitment through the launch of initiatives focused on key social issues: **child protection**, **education**, **sport and inclusiveness**.

In a year of lockdowns and social restrictions, children of all ages had to give up school and all moments of socialization. In this context, the Logit Sro Foundation launched several initiatives aimed at helping the youngest children to overcome pandemic anxiety:

- A rehabilitative horse-therapy programme designed to stimulate the development of the emotional side of about thirty young children..
- An after-school **science learning course** with games and experiments tailored to primary school pupils.
- An initiative to support the local art and drama club in carrying on activities involving kindergarten and primary school children.
- The donation of uniforms and sports equipment for training and competition to the local football teams.
- A fishing competition involving some eighty-five children.



A sustainability system

Management Systems

Voluntary Quality, Safety, Environmental and Energy management systems, implemented according to the most advanced and recognized international standards, make up a framework of best practices and valuable tools for sustainable management. Over time, RadiciGroup has developed a path to sustainability, which is now a process in its own right, by making management systems a pivotal part of its strategy, which goes far beyond mere compliance. For the Group, the advantages of having management systems in place, in terms of sustainability and beyond, are numerous:

- Management systems are built with a risk-based thinking approach, which entails an accurate analysis of the business context and processes in order to measure, monitor and manage risks and opportunities with a view to, by way of example, the Environment, energy, and use of resources.
- Management systems lead to the organization of a systemic and process-based approach, on the basis of which procedures are streamlined ad synergies created among different companies or business areas for shared management of objectives, for instance, concerning Health and Safety aspects.

- Through documented and verified process management and the common language of the systemic approach, management systems allow for the evaluation of the results achieved over time both by individual companies and across the various functions, as part of strategic planning.
- Through the tool of system certifications, which are increasingly a sine qua non for accessing certain markets and highly specialized applications, management systems can be an important element for acquiring new business opportunities.

Certifications, in particular, attest to and strengthen RadiciGroup's commitment to quality, safety and the environment, as well as to transparent and third-party-verified product environmental impact communication.

Table of RadiciGroup Certifications (as at September 2021)

RadiciGroup Site	ISO 9001	IATF 16949	ISO 14001	ISO 45001	ISO 50001
Corporate					
Radici Partecipazioni S.p.A.	•				
Business Area: Specialty Chemicals					
Radici Chimica Novara S.p.A.	•		•	•	•
Radici Chimica Deutschland GmbH	•		•	•	•
Business Area: High Performance Plastics					
Radici Novacips S.p.A Villa d'Ogna	•	•	•	•	
Radici Novacips S.p.A Chignolo	•		•	•	
Radici Plastics GmbH	•	•	•	•	•
Radici Plastics Ltda (Brasil)	•	•	•	•	
Radici Plastics (Suzhou) Co. Ltd.	•	•	•	•	
Radici Plastics Usa, Inc.	•	•	•	•	
Radici Plastics Mexico S. De R.I.	•	•			
Business Area: Advanced Textiles Solutions					
Radici Fil S.p.A.	•		•	•	•
Logit Sro	•		•	•	•
Radici Yarn S.p.A Villa d'Ogna	•		•		
Radici Yarn S.p.A Ardesio	•		•		
S.c. Yarnea Srl	•		•	•	
Radici Chemiefaser GmbH					•
Radicifibras Ltda	•				
Noyfil S.p.A Chignolo	•			•	
Noyfil S.p.A Andalo Valtellino	•			•	
Noyfil Sa - Stabio	•		•		
Cordonsed Sa					
Tessiture Pietro Radici S.p.A.	•		•	•	

A sustainability system

Other strategic certifications in 2020

Environmental labels called Environmental Product Declarations (EPDs), based on ISO standards and Life Cycle Assessment (LCA) studies, completed and prepared according to the related Product Rules, aid the Group in maintaining a high level of transparency. In particular, the registered EPDs cover products of the High Performance Polymers BA with Heramid A (PA66), Radilon® S (PA6) and Radilon® A (PA66) - and the Advanced Textile Solutions BA with Radifloor® (PA6 and PA66) Bulk Continuous Filament and Refined Yarns.

The Advanced Textile Solutions area also added certifications of compliance to the Global Recycled Standard (GRS) for its nylon recycled products (Renycle®) and polyester recycled products (Repetable®), and International Sustainability and Carbon Certification (ISCC PLUS) covering traceability for circular nonwovens.

Certifications and contribution to SDGs

Certifications and contribution to SDGs The currently valid certifications held by the companies are a key factor for achieving the United Nations Sustainable **Development Goals** in a global sustainability context.

Certifications and contribution to SDGs

Certification	Sustainable development goals
ISO 14001:2015 - Environmental Management	6-7-9-13-14-15
ISO 50001:2018 - Energy Management	7-11-13
ISO 45001:2018 - Occupational Health and Safety	3-8-11
ISO 9001:2015 - Quality Management Systems	9 - 12
ISO 14044:2006 - Environmental management Life cycle assessment	9 - 12 - 13 - 14 - 15
ISO 14024:2018 - Environmental Labels and Declarations	9-12





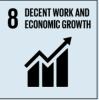
































Case History

Digitization at the service of management systems.



The Management System of Management Systems,

is the name of the **software officially** adopted in 2020 by the **RadiciGroup QHSE functions** to organically and strategically manage all the most relevant aspects of the Quality, Health, Safety, the Environment and Energy Systems.

The software package adopted - the result of a laborious selection process involving the main functions of the Group and the work of about thirty people worldwide - will be rolled out to all RadiciGroup sites, after a pilot testing phase in 2021, involving the High Performance Polymers Business Area.

This solution, adopted according to digitalization logic aimed at supporting the RadiciGroup dynamic business model, offers numerous advantages:

- sharing knowledge of all aspects covered by the software in order to be able to formulate comprehensive strategies, based on common and measured data and key performance indicators (KPIs).
- specifically in terms of sustainability, the software allows for **organic management of the risks and opportunities** related to key issues, such as, climate change, supply chain, Employee Health and Safety, which, after the Covid-19 experience, are becoming increasingly relevant.

The deployment of the software package at all Group companies will be fundamental, as will robust training and engagement activities for all staff who will be called upon to "feed" the software, which is capable of providing stratified scenarios at the individual company, business area and Group levels.



Assurance statement*



Certiquality Srl Via G. Giardino, 4 20123 Milano - IT

C.F. e PL 04591610961 R.I. MI 04591610961 R.F.A. MI 1759338 info@certiquality.it

VERIFICATION OF THE 2020 YEAR SUSTAINABILITY REPORT OF RADICI GROUP

Certiquality S.r.l. received by Radici Partecipazioni S.p.A. a limited assurance engagement for the Sustainability Report of Radici Group relating to the year 2020, in order to assess its consistency with the guidelines of the GRI (Global Reporting Initiative) Standards, with reference to the option "core", which indicates that the report contains the minimum information needed and the quantification of at least one performance indicator for each identified material topic. This letter describes the activities carried out, it reports on the audit findings and the recommendations for improvement.

The verification has been carried out with reference to the "GRI Standards" published in 2016 by the Global Reporting Initiative and partly updated at a later time, and it has concerned in particular:

- the verification of the definition principles of the report content (stakeholder inclusiveness, sustainability context, materiality, completeness);
- the correct definition of the report boundary;
- the verification of the principles for guaranteeing report quality (balance, comparability, accuracy, timeliness, clarity, reliability of the data and information management system);
- the compliance of the report contents with the ones set out by the GRI Standards guidelines for the "core" implementation level.

The verification has been carried out in compliance with the procedures implemented by Certiquality for audits complying with the UNI EN ISO 19011:2018 standard. Due to the COVID-19 emergency, the audit has been partially carried out off-site, by interviewing relevant staff in videoconference and by remotely examining the shared documentation.

The activity has been carried out in accordance with the following operating methods:

- analysis of the "2020 Sustainability Report of Radici Group" document, with particular reference to the principles and contents set out by the GRI guidelines (definition of the report boundary, standard information and performance indicators);
- interviews with the positions directly or indirectly involved in the drawing up of the document and in the processing of data and information (from collection to further processing);
- examination of documents and records in place at the operative site of Radici Partecipazioni S.p.A. in Gandino and at a representative sample of production sites included in the report boundary: Tessiture Pietro Radici Gandino; Radici Chimica GmbH (Germany); Radici Plastics GmbH (Germany); Radici Plastics Ltda (Brazil); Radicifil Casnigo; Cordonsed SA (Argentina);
- the analysis has concerned both the procedures implemented for the collection, filing and processing of data and the technical-normative aspects of the activities carried out.

The economic-financial data are taken from the consolidated balance sheet of Radici Partecipazioni S.p.A., that already underwent a voluntary auditing of accounts (as per letter by Deloitte & Touche of 25/05/2021), therefore they have not been further checked.

The verification activities concerning the management of the data and information contained in the report have been carried out on samples, taking care of ensuring that all the aspects handled in the document have been adequately covered.

Results and recommendations

Despite everything, in the year of the pandemic, the Sustainability Report of Radici Group shows good results, often improved compared to the previous year, as evidence of a good capacity of response to the problems encountered at a global level. Likewise, the drafting of the document has also progressed, in







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C.F. e PL 04591610961 R.I. MI 04591610961 R.F.A. MI 1759338 info@certiquality.it



some cases expanding the information reported and improving the classification of some issues within the Group's strategies and policies. The work relating to the collection and processing of data as well as the drawing up of the 2020 Sustainability Report of Radici Group is analogous to the one of the previous editions.

The document provides an exhaustive overall picture of the relationship of the group companies with the context in which they operate. Numerical Performance Indicators are represented over a three-year period 2018-2020, with some references in the text to a wider period, in order to enable an evaluation of the trend of performances from the start of the GRI design. Information is reported in a clear and balanced way and the language used, supplemented where necessary by some explanatory notes, allows it to be understood even by a not strictly technical public.

As far as the report boundary is concerned, there are no significant exclusions: the exclusion of the environmental aspects relating to the administrative headquarters of the group and the exclusion of all aspects relating to the commercial units, declared within the report, is not relevant within the group, and it is therefore justified. The dealing with environmental aspects is organized according to themes (materials used - waste; energy consumption - emissions into the atmosphere; water consumption - water drainages) which make it easier to read.

Both the standard information and the representation of indicators show a good degree of consistency with the requirements of the GRI Standards guidelines, further improved in comparison with the previous year: for example, the descriptions of the management approaches implemented by the group with reference to some of topics handled have been improved. Another positive aspect which has been confirmed is the specific implementation, even though partial, of new indicators (GRI-306 concerning the waste aspect), with the report of new data and information that complete a picture that is already wide and exhaustive.

The data collection and data processing system is sufficiently well-structured and documented at the central level and has been improved at the local level, even if from the verifications carried out on the sample sites some margin for improvement is confirmed, especially with respect to foreign sites. (e.g. waste classification, conversion factors among different units of measurement).

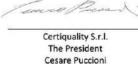
The audits carried out confirm some specific margins for improvement of limited relevance, inherent, for example, to the homogeneity in the collection of data in different contexts even in the face of very different regulations (e.g. classification and destination of waste, accidents). More generally, it is recommended to pursue further the constant improvement of the data management system, especially as regards the information transmitted to foreign sites regarding the criteria for data collection and the checks to be carried out on the collected data.

Conclusions and asseveration

The verification of the "Sustainability Report of Radici Group" concerning the year 2020 has not given rise to any significant issues, neither as regards compliance with the principles of the guidelines of the GRI Standards, nor as regards its content in terms of reported information or Performance Indicators, while still leaving some room for improvement.

In view of the above, the Sustainability report of Radici Group relating to the year 2020 is declared to be asseverated to the "core" option requirement level of the GRI guidelines.

October 26th, 2021











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Sustainability Report: hiips://www.radicigroup. com/en/documentation/

* This assurance statement

refers to the complete

version of RadiciGroup

corporate/report



Our places





Monte Pora, Bergamo - Italy

A special place located in the Bergamo area, but also a special place in the heart of the Radici family; here nature beauty blends with tradition and passion for skiing: the numerous facilities and the new illuminated ski slope are the main "gymnasium" for more than 100 athletes belonging to the historic Sci Club Radici Group.



Villa d'Ogna - Bergamo, Italy

Two of the main RadiciGroup companies are located here:

- Radici Novacips, the headquarters of the area High Performance Polymers, one of the most qualified multinational companies in the field of polyamide and polyester engineering polymers.
- Radici Yarn, a European leader in production of a wide range of nylon yarns and staple fibre.



Novara - Italy

Here, in 1986, RadiciGroup began its activities in the chemical sector. Gianni Radici, the founder of RadiciGroup, decided to acquire a former Montedison plant in Novara and to put it back into use. The plant had been inactive for almost three years and some departments were in a complete state of abandonment. Today Radici Chimica SpA is a strategic company producing a number of chemical intermediates and PA 6.6 polymers.



Ocotlán - Mexico

In 2015, the RadiciGroup plastics area strengthens its production presence in the North American market by acquiring Resinas TB, a Mexican industrial company with over 40 years of experience in the plastics sector. The company, located in Ocotlàn, near Guadalajara, can boast an annual production capacity of 8,000 tons.



Stabio - Switzerland

Noyfil SA, located in Canton Ticino, belongs to the Business Advanced Textile Solutions. The company is active in the design, production - by means of extrusion and spinning processes - and sale of continuous polyester yarn (PET) and polylactide-based yarn (PLA) in raw, solution-dyed and additivated versions.



Săvinesti - Romania

In July 2000, RadiciGroup expanded its twisting capacity by opening SC Yarnea srl plant in Săvinești, Romania. The company is active in the production and processing of PA6 and PA6.6 textile yarns either textured, FDY or twisted, along with PA6 warped yarns.



Bernina Glacier - Switzerland

Located between Lombardy and the canton Graubünden, it is one of the main and highest mountain massifs in the Alps and symbolically represents the "trait d'union" between RadiciGroup and its Swiss company Noyfil.



Yamunotri Glacier - India

The heart of RadiciGroup sustainability commitment beats also for glaciers around the world, and Yamunotri is one of them. It is considered sacred by Hinduism, it is the source of river Yamuna as well as the seat of goddess Yamuna or Yami, an important Indian deity.

Sustainability Report Collaborators

An important group of people collaborated on preparing the Sustainability Report, making a major contribution to the commitment to transparency and reporting made by the Group starting in 2003.

Nicola Agnoli	Gianluca Cesco Frare	Miroslav Kutha	Gerhard Pfeiffer
Stefano Alini	Claudia Ciurcan	Stefania Locatelli	Sergio Plascencia
Guillermo Ambrosio	Teresa Chen	Walter Locatelli	Matteo Poma
Pierluigi Arrighetti	Paola Corbani	Zaira Locatelli	Enza Prisco
Tiziana Arrighetti	Mauro Corsellini	Andrea Longhi	Alessandra Ramos
Fabio Artimiak	Francesca Dellino	Camilla Lorenzi	Shelly Ray
Luca Arzuffi	M. Giuditta Dentella	Marco Lupato	Arianna Restelli
Violetta Avram	Massimo De Petro	Rachel Ma	Angela Reuther
Petra Bannert	Sara Di Fiore	Michele Magnati	Dave Rischer
Rita Barbaini	Doria Dong	Alessandro Manzoni	Miguel Rodrigues
Roberta Beltrami	Daniele Dossi	Marco Manzoni	Davide Roncato
Elias Bernardo	Janina Egger	Franco Maretoli	Antonio Rottigni
Paolo Bertolotti	Lucas Estefani	Fabrizio Mastandrea	Cara Salveter
Maria Teresa Betti	Humberto Estrada	Marco Mascetti	Erivaldo Santos
Matteo Bettinaglio	Chiara Ferraris	Elena Matei	Stefano Savoldelli
Simone Bispo	Pamela Fleischer	Silvia Meloncelli	Nicole Seidel
Flavio Bonandrini	Paulo Freitas	Jens Metzner	Filippo Servalli
Alessandro Bonarini	Riccardo Galeazzi	Danilo Micheletti	Alberto Sessolo
Brian Boyle	Andrea Galla	Teresa Moon	Carlos Sotelo
Enrico Buriani	Marco Gamba	Monica Nava	Juliana Souza
Francesco Calamina	Pio Gazzini	Paolo Nava	Rafael Sousa
Ottavio Calia	Elisa Gelmi	Steve Neumann	Randy Steele
Alessandra Campana	Luigi Gerolla	Giorgio Ongaro	Katia Sutil
Jane Campos	Alberto Giana	Ervedo Oprandi	Mariagrazia Tateo
Paola Capella	Laura Grassini	Maddalena Orsini	Marta Uglietti
Susanna Caprotti	Marzia Gritti	Roberta Oscar	Gabriela Ursache
Marisa Carrara	Alessia Guadagni	Carlo Sante Paganessi	Valentina Verratti
Sara Carrara	Marco Guerini	Monica Paganoni	Vanessa Villasenor
Ana Caroline	Riccardo Guerini	Fabio Pandolfi	Uwe Wedekind
Alessandra Cassera	Gritt Hultsch	Martina Pandolfi	Amanda Xu
Antonella Castelli	Antonella Imberti	Paola Panzeri	Antonella Zaffaroni
Claudia Castelli	Mauro Invernizzi	Nicolangelo Peduto	Cristian Zanchi
Lucie Cecrlova	Susan Krause	Federico Percassi	
Maurizio Cerina	Jiří Kubica	Giorgio Pezzoli	

