



# SUSTAINABILIT REPORT 2017

### SUSTAINABILITY REPORT 2017





What makes a material transparent is that it lets light through. Everything passed through by light is in itself a symbol of cleanliness and clarity. In its symbolic value it is a sign of a thought that it is easy to recognise, even in the complexity of its nuances and the necessary distinctions.

The ability to understand a thought, project or challenge is proportional to its transparency and it is determined by the active participation of everyone involved. The gaze which passes through something transparent is naturally led to "look beyond" without stopping at contingency, but is pushed onwards to a vision that guides the thoughts and choices towards other destinations and borders.

The symbolic value of the transparency of a clear sky, crystal clear waters and clean air is also combined with an ecological and ethical approach to respect for the environment.

In works of art glass is the material chosen par excellence because it allows visions that no other material allows and, at the same time, gives a shine that is not easily dulled. Glass pushes the gaze of the observer into the body of the object in order to make out nuances and details.

The understanding of what is shown is proportional to its transparency.

TRANSPARENCY OF A CLEAR SKY, CRYSTAL CLEAR WATERS AND CLEAN AIR IS ALSO COMBINED WITH AN ECOLOGICAL AND ETHICAL APPROACH TO RESPECT THE ENVIRONMENT.

THE SYMBOLIC VALUE OF THE

Nives Marcassoli



With these words Nives Marcassoli, contemporary artist who merges painting, drawing and fused glass into her works accepted the invitation from RadiciGroup to select a number of images from her work to accompany the chapters of the Report as a sign of the transparency that, as the artist stresses, is an essential element for narrating, understanding, looking beyond appearances and fostering involvement.

#### **DISCOVER MORE:**

www.nivesmarcassoli.com



#### LIST OF NIVES MARCASSOLI'S WORKS SHOWN IN THE REPORT:

FEELINGS	PAG. 3
CAREZZA (CARESS)	PAG. 9
ENERGIA (ENERGY)	PAG. 33
GIOVINEZZA (YOUTH)	PAG. 45
DIALOGO (DIALOGUE)	PAG. 61
/ITA (LIFE)	PAG. 75
VAVES	PAG. 91
EQUILIBRI (BALANCE)	PAG. 97
SETA (SILK)	PAG. 103
DELICATE CHIFFON	PAG. 169

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DISCLOSURE 102-16

**OUR VISION** 

**OUR MISSION** 

**OUR VALUES** 

"To be one of the leading European chemical groups in the synthetic fibres production chain—from chemicals to plastics, from synthetic fibres to non wovens."

"To promote the development of our businesses while pursuing our Group values and culture.

To pursue our vision by valorising and optimizing our resources, establishing strategic alliances and searching for new markets, including niche markets.

To embed sustainability into new product and application development."

"Putting people at the centre of everything we do, respect for their right to physical and cultural integrity.

Efficiency and effectiveness of our management systems to improve our business.

Fairness and transparency of our management systems to comply with all applicable laws and regulations.

Attention to the needs and expectations of our Stakeholders in order to create a feeling of belonging and satisfaction.

Reliability of our management and operating systems to ensure the safety of our Employees, our community and the environment.

Our responsibility as a company for our workers, production sites and communities."

# FROM RADICIGROUP'S CODE OF ETHICS

## FROM THE RADICIGROUP SUPPLIER CODE OF CONDUCT

# FROM RADICI CHIMICA'S CODE OF ETHICS

### FROM RADICI PLASTICS SUZHOU'S "EMPLOYEE HANDBOOK"

"The success of a company is always based on values such as transparency, credibility and loyalty; these principles are the fundamental and inalienable heritage of a company, its reputation." (...)

"Sustainability is a key element in RadiciGroup's values and is an integral part of the business strategy. This is a complex and ambitious objective that RadiciGroup seeks to achieve together with all its stakeholders, sharing the difficulties and solutions, but also processes of shared growth and continuous improvement."

"The new challenges presented by sustainable development and the need to consider the interests of all the stakeholders reinforce the importance of clearly defining the values and objectives which RadiciGroup identifies, shares and undertakes to build a better future for all."

"Each Employee is a valuable resource for the company. The company embraces the concept of mutual respect and undertakes to support individual initiative. It also promotes the principles of proper collaboration and fair competition. Employees are encouraged to express their own potential and intellectual resources freely while taking part in the operation, innovation and renewal of the Company."

DISCLOSURE

102-16

Reliability, fairness and transparency. Putting people at the centre of everything RadiciGroup does. These are some of the distinctive features of RadiciGroup. The Group's business operations have always been based on values and conduct aimed at safeguarding and promoting health and safety in the workplace, respect for the environment and real sustainable development.

Through the continual improvement of its business activities, communication transparency, and product and service quality and performance, RadiciGroup's main mission is the satisfaction of its Stakeholders: customers, shareholders, Employees and the local communities where it operates.

Such a policy, however, cannot be implemented without diligently observing environmental and worker health and safety regulations, as well as regulations aimed at the prevention of incidents that could harm products and/or production processes. To this end, RadiciGroup has adopted Quality, Health and Safety, Energy and Environmental Management Systems at its companies. These systems are certified by accredited certifying bodies and are based on well-defined procedures, which are understood by everyone at all levels of the organization. Furthermore, the adopted management systems are subject to continual improvement in line with technical advancements, the latest scientific knowledge and market demand.

To ensure the quality of the products and services supplied, the Group has adopted tools, such as Six Sigma methodology, to implement robust and reliable processes, capable of reducing or preventing non-conformities and meeting the most stringent requirements.

CORPORATE
OUALITY, HEALTH,
SAFETY AND
ENVIRONMENTAL
DOLLOW

/12

As regards the environment, RadiciGroup has long striven for continuous improvement in performance and has achieved visible and measurable results, by investing funds and human and technological resources for monitoring and reducing its environmental footprint and encouraging the environmental commitment of its customers and suppliers. To this aim, the Group has taken into consideration its entire supply chain and has measured the environmental footprint of its main products and services. Moreover, whenever possible, it has applied principles inspired by eco-design and the circular economy.

RadiciGroup management is aware that its workers' health and safety is a priority and of central importance – market success and productivity notwithstanding. Group management ensures compliance with safety standards provided for by the applicable laws and regulations and has long pursued an agenda of enhancing prevention and control in order to reduce accident risks. Furthermore, management promotes transparency and collaboration in relations with local authorities and communities.

As part of its commitment to sustainable development, RadiciGroup will be reporting on Corporate Social Responsibility (CSR) according to the guidelines set forth by the Global Reporting Initiative (GRI), the leading internationally recognized framework for reporting economic, environmental and social sustainability.

Moreover, to raise the sense of awareness and responsibility of its Employees as for the abovementioned principles, to encourage people to act according to such principles, RadiciGroup continuously invests in specific training programmes.

This Group Policy is supplemented by the policies of the individual Group companies, as well as by the guidelines set forth in the annual Sustainability Reports.

March 2017

Il Presidente
Angelo Radici

Il Vicepresidente Maurizio Radici

THE GROUP'S BUSINESS OPERATIONS HAVE ALWAYS BEEN BASED ON VALUES AND CONDUCT AIMED AT SAFEGUARDING AND PROMOTING HEALTH AND SAFETY IN THE WORKPLACE, RESPECT FOR THE ENVIRONMENT AND REAL SUSTAINABLE DEVELOPMENT.

DISCLOSURE

102-14

Every year it is a source of pride for me to introduce RadiciGroup's Sustainability Report, the result of the commitment of over three thousand people who, all over the world, give life to our idea of a competitive system, which acts in respect of people and the environment. The data in the 2017 edition present a sound Group and an outstanding economic situation, although operating in very diverse scenarios, some of which are characterised by high levels of uncertainty.

After the excellent environmental performance of recent years, thanks to the important investments made at all sites, emission, energy and raw material usage trends remain upbeat, albeit with less striking results. Today our mitigation work focuses mainly on particular aspects, having already successfully addressed the main elements responsible for impacts in our production plants.

I am also particularly happy to present the data on the workers in our Group, which are growing in terms of human resources, not only from a numerical point of view, but also in terms of professionalism. In fact, training hours are constantly rising. In particular, our challenging plan to increase safety awareness and training has been successful. The downward trend in injuries clearly shows the effectiveness of the path we have taken.

After the considerable progress made in all these areas, future challenges are still many and exciting. The largest of all will be linked to the circularity of the economy, recycling and recyclability and the efficient use of resources, mainly with regard to production volumes, which I hope will continue to grow as in recent years. Particular attention will surely be reserved for emissions, in light of an increasingly restrictive legislative scenario. There will then be no shortage of energy challenges. I would like us to seek out new paths, especially within the framework of renewable sources, creating a mix of different sources that is able to ensure consistently high levels of green energy.

THE PRESIDENT

From the point of view of people, I am firmly convinced that we will have to increasingly work towards structured and continuous involvement of our Stakeholders, going beyond the confines of the RadiciGroup system, downstream, toward our reference sectors and toward the end consumers. I would like us to demonstrate the value of sustainable development through a scientific approach, not based on emotions or impressions, but on measured and verified data.

As regards the Group's Employees, it should be stressed that we must never lower our guard on safety matters, rather the opposite. Employee attention, training and motivation must remain central, especially in light of the technological and organisational developments that the future will bring. Our particular commitment will always be to stand beside our people in their professional growth and guide them through the changes.

For two years now my family and I have supported Atalanta, the team of our town Bergamo that have always made us proud. Let me then end with a footballing metaphor. We have played RadiciGroup's game towards sustainability Report after Report. We know perfectly well that we find ourselves up against difficult matches, with undeserved penalties or even own goals to contend with. Let's keep going, we have ninety minutes to play with, an effective strategy and the best players possible ... we are hungry to win!

AND MOTIVATION MUST REMAIN CENTRAL, ESPECIALLY IN LIGHT OF THE TECHNOLOGICAL AND ORGANISATIONAL DEVELOPMENTS THAT THE FUTURE WILL BRING.

**EMPLOYEE ATTENTION, TRAINING** 

Angelo Radici
President of RadiciGroup



### REPORTING PRINCIPLES

**GRI 101: FOUNDATION** 

DISCLOSURE

102-1

GRI Standards - Core Option reporting model.

Twenty-two production sites and the holding company have supplied their data for this edition:

DISCLOSURE

102-45 102-46

102-54

CORDONSED SA Argentina
LOGIT Sro Czech Rep.
NOYFIL SA Switzerland
NOYFIL S.p.A. 2 sites, Italy

This document is the Sustainability Report of Radici Partecipazioni S.p.A. and its subsidiaries, collectively referred to as "RadiciGroup" or "the Group" in the text. It has been drawn up in compliance with the

RADICI CHEMIEFASER GmbH RADICI CHIMICA DEUTSCHLAND GmbH

RADICI CHIMICA S.p.A.

RADICI FIL S.p.A. RADICI NOVACIPS S.p.A.

RADICI PARTECIPAZIONI S.p.A. RADICI PLASTICS GmbH

Radici PLASTICS BV

RADICI PLASTICS Ltda RADICI PLASTICS MEXICO S. de R.L. de C.V

RADICI PLASTICS USA Inc.

RADICI YARN S.p.A. RADICIFIBRAS Ltda SC YARNEA Srl

TESSITURE PIETRO RADICI S.p.A.

RADICI PLASTICS SOUZHOU Co. Ltd.

Switzerland
2 sites, Italy
Germany
Germany
Italy
Italy
2 sites, Italy
Italy
Germany
Netherlands
Brazil
Mexico
China
USA

2 sites, Italy

Brazil

Italy

Romania

The current edition has seen the inclusion, for the first time, of the recently acquired company Radici Plastics BV into the scope of the report.



As usual, the holding company only provided the data relating to its staff as its environmental impacts are extremely limited.

The companies listed above represent over 98% of RadiciGroup's turnover. Sales companies and those not included in the scope of the chemical, plastic and synthetic fibre businesses are excluded.

The reporting principles set out below form the foundation of this Report. These are the preconditions which corroborate the Group's intention to prepare a document that is representative of its sustainability strategy, the targets reached and those still to be achieved.

These are important instruments that, when applied, allow results and expectations to be shared with Stakeholders, in a transparent, balanced way, open to discussion.

#### **INCLUSIVENESS OF STAKEHOLDERS**

RadiciGroup has mapped its Stakeholders, as described in detail in the chapter devoted to them, and has considered their legitimate expectations, described in the table entitled "Mapping of Stakeholders, legitimate expectations and risks". *Table 19*.

These expectations have influenced both the policies and the determination of the material aspects of the Group and have encouraged RadiciGroup to invest more and more in transparent, efficient and targeted communication, as illustrated by the examples shown in the part dedicated to engagement.

**DISCLOSURE** 

The following categories of Stakeholders have been considered in 102-40 this Sustainability Report:

#### **Internal Stakeholders**

Shareholders **Employees** 

RadiciGroup Companies

#### **External Stakeholders**

Customers

Suppliers

Competitors

Banking and Insurance Institutions

Trade Associations

Trade Union representatives

Local communities

Schools and the academic world

Monitoring and Regulatory Bodies

Media

Community

Environment

DISCLOSURE

102-44

Through the Report, and in particular through the part on environmental aspects, RadiciGroup intends to satisfy the Stakeholders' need for answers regarding, for example, the use of resources and emissions.

#### SUSTAINABILITY CONTEXT

The sustainability context forms the foundation upon which all the information in this document is provided. Each material aspect is included within a broad strategy.

This is supported by an analysis of the RadiciGroup context that also provides a local dimension to the strategies and targets.

#### **MATERIALITY**

The founding Mission, Vision and Values, the analysis of the context and Stakeholders' legitimate expectations have guided the Group in establishing their material aspects. The accurate process for identifying these aspects, described in the materiality matrix, and guided by a dedicated Corporate Procedure, has permitted the topics that RadiciGroup has focused its strategies and resources on in the field of sustainability to be revealed clearly.

THROUGH THE REPORT,
AND IN PARTICULAR THROUGH THE
PART ON ENVIRONMENTAL ASPECTS,
RADICIGROUP INTENDS TO SATISFY THE
STAKEHOLDERS' NEED FOR ANSWERS
REGARDING, FOR EXAMPLE, THE USE
OF RESOURCES AND EMISSIONS.

#### COMPLETENESS, ACCURACY, BALANCE

This Sustainability Report shines a light on all issues relating to material aspects, valid for all the companies that have supplied their data for 2017 and the two previous years. These companies make up all of RadiciGroup's turnover, ensuring that the report provides a true picture of the relevant social, economic and environmental aspects.

The numerical data was collected in a disaggregated form. Each production site has provided its results, then centrally aggregated for the report. This report shows the trends over three years to give a real indication of the Group's performance. Where six-year trends are mentioned, the data can be found in previous editions of the Sustainability Report published in the "sustainability" area of the RadiciGroup website.

Results and aspects are illustrated transparently and in a balanced way in the numbers and in comments even where they are not positive. The calculation methods and units of measurement are indicated where appropriate, and any estimates are mentioned as well. The margin of error was assessed as being less than 2%.

#### **COMPARABILITY**

DISCLOSURE

102-48

102-49

Core Option model. Previous editions were prepared in accordance with the GRI 3.1 or GRI 4 Core Option model. This fact does not allow an immediate and direct comparison to be drawn between this document and the previous ones. The reporting scope also changed

in 2017 parallel to the expansion of RadiciGroup.

In any case, the indication of the three-year trends of all the numerical indicators, including those whose formulation has changed with the variation of the reporting models, gives Stakeholders an idea of the Group's performance. Omission of data or any significant deviations from what is shown in previous editions of the Report are appropriately indicated and explained. Similarly any retroactive adjustments are indicated.

This Report has been prepared in accordance with the GRI Standards:

# THE CERTIFICATION BODY HAS VERIFIED THE ACCURACY AND RELIABILITY OF BOTH THE PRIMARY DATA AND THE AGGREGATED DATA, THE CONSISTENCY AND ACCURACY OF THE STATEMENTS MADE AND THE OVERALL COMPLIANCE OF THE DOCUMENT WITH THE MODEL INDICATED.

#### **CLARITY**

The formulation of the texts and the inclusion of numerous tables in the Report are designed to make it easier to read and understand.

The text in its full edition, available in Italian and English, is backed by numerous smaller versions, called "Report Bites" that give the essentials in various languages in a very succinct form with pictures and short texts.

The "bites" are addressed, in particular, to the majority of Stakeholders who are interested in the RadiciGroup sustainability project but don't have much time or vast technical knowledge.

The dissemination of the Report through the numerous traditional and social channels that the Group uses means the document reaches a wide audience and is potentially able to reach all Stakeholders.

#### RELIABILITY

The decision-making processes underlying the contents of the Report are illustrated or documented in the text, with particular reference to the corporate procedure PR 8 MANAGEMENT METHODS FOR SUSTAINABLE DEVELOPMENT. In the view of sustainable reporting, the procedure particularly focuses on:

- Definition of the RadiciGroup context.
- Mapping of Stakeholders and their legitimate expectations.
- Identification of the material aspects.

#### DISCLOSURE 102-56

In addition, the Report is certified by the independent certifying agency CERTIQUALITY in compliance with the GRI Standards: Core Option reporting model.

The certification body has verified the accuracy and reliability of both the primary data and the aggregated data, the consistency and accuracy of the statements made and the overall compliance of the document with the model indicated.

As regards the financial and economic data presented in the DISCLO-SURE 201-1 indicator, these were subject to voluntary auditing by Deloitte & Touche as part of the more general audit of the consolidated financial statements of RadiciPartecipazioni S.p.A.

#### **TIMELINESS**

102-50

102-51

102-51

The RadiciGroup Sustainability Report has been published annually since 2004. This report refers to data and circumstances relative to the 2017 calendar year (DISCLOSURE 102-50) and, as usual, it has been published approximately a year after the previous version, which was published in September 2017.

Any data and information not referring to 2017 are appropriately indicated, and are shown in order to guarantee that the Report is as up-to-date as possible.

#### **PRECAUTION**

DISCLOSURE 102-11

RadiciGroup is acutely aware of the potential risks to the environment and people arising from its activities. For this reason it highlights the principle of precaution, with the presence of the ISO 14001 environmental certification and the OHSAS 18001 certification in all the main companies in the Group. This is the best guarantee that a careful assessment of the risks is conducted on the sites and that appropriate prevention and mitigation measures are always implemented.



### RADICIGROUP

DISCLOSURE

102-2

102-4

102-6

With approximately 3,000 Employees, a consolidated turnover of 1,147 million Euros in 2017 and a network of production units and sales offices located throughout Europe, North and South America and Asia, RadiciGroup is the world leader in the production of chemical intermediates of nylon, polyamide polymers, engineering plastics, synthetic fibres and non-wovens. A burgeoning business to business group whose headquarters and historical production sites are in Italy, but has long been able to count on global know-how, resources and organisation.

RadiciGroup operates through three business areas.

Thanks to the Specialty Chemicals area, RadiciGroup is one of the best qualified producers of polyamides in the world, in particular polyamide 6 and polyamide 66, and chemical intermediates such asadipic acid, nitric acid and hexamethylenediamine. Technological innovation aimed at improving and optimizing traditional processes and technical skills and the ability to cater to the needs of a market traditionally subject to cyclical fluctuations are the salient features of this sector of the Group.

The Performance Plastics Area, mainly specialising in the production of nylon and polyester-based engineering plastics is, in turn, characterized by high levels of quality and products with special physical and mechanical characteristics for highly specialised markets and state-of-the-art R&D facilities joined by productive flexibility and a global distribution network.

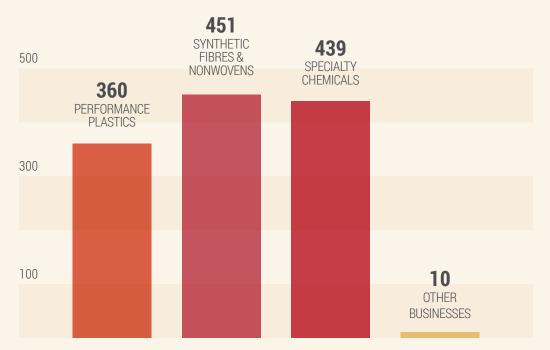
Finally, the Synthetic Fibres and Nonwovens Area, a historical sector of RadiciGroup, is a leader in the production of a wide range of nylon and polyester yarn, destined for the clothing and furniture industry as well as the auto industry, available with a large number of finishes and additives. The main manufacturing is complemented by the production of nylon staple fibres, acrylic fibres, yarns for polyolefin-based synthetic grass and spunbonded nonwovens.

DISCLOSURE 102-7

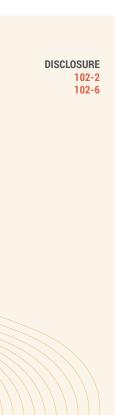
#### THE GROUP'S KEY NUMBERS

RADICIGROUP CONSOLIDATED TURNOVER 2017

**1,147 MILLION EUROS** 



**SALES - CONSOLIDATED FOR EACH BUSINESS AREA** (Millions of Euro)



THE PRODUCTS AND THEIR SECTORS OF APPLICATION

The Group's products, all recyclable, are developed for use within the scope of the following main areas:

#### PRODUCTS FOR CLOTHING

- Raw and dyed yarns for outdoor clothing, underwear, socks and swimwear.
- Nonwovens for disposable protective clothing and hygienic uses.
- Engineering plastics for clothing accessories and finishes.

#### PRODUCTS FOR THE BULDING/FURNISHING SECTOR

- Raw and dyed yarns for curtains, upholstery, carpets and rugs.
- Engineering plastics for furniture and components, accessories in the house.
- Synthetic grass yarn for inside and outside decorative use both for the residential market and for the contract market
- Nonwovens for buildings, roof insulation, steam barrier, water proofing, filtration, furnishing, table cloths and disposable items.

#### PRODUCTS FOR THE AUTOMOTIVE SECTOR

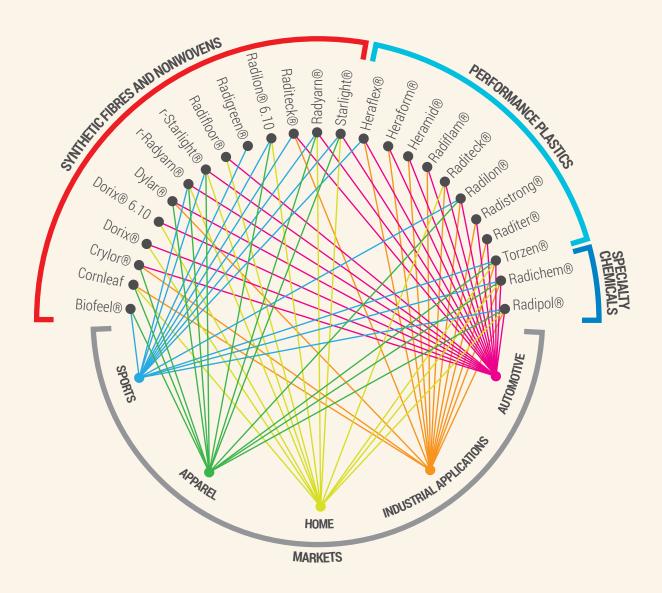
- Engineering plastics for under-bonnet and car interior applications.
- Raw and dyed yarns for car interiors, seats, carpeting.
- · Yarns for airbag fabrics and tyre reinforcements.
- Nonwovens for car interiors, soundproofing systems, car protection, airbag encasing.

#### PRODUCTS FOR INDUSTRY

- Adipic acid and other chemical intermediates for polyamide polymers, polyurethanes, plasticisers, adhesives, solvents and other chemical products.
- Engineering plastics for the electrical/electronics sector and for numerous industrial and technical applications.
- Yarns for technical and specialist uses.
- · Nonwovens for filtration and specialist industrial uses.

#### PRODUCTS FOR THE SPORTS SECTOR

- Raw and dyed yarns for sport clothing, accessories and equipment.
- Synthetic grass yarn for sporting environments.
- Engineering plastics for equipment and accessories for sport and sporting environments.



#### A GLOBAL PRESENCE

DISCLOSURE 102-4

THE RADICIGROUP'S INTERNATIONALIZATION PROCESS HAS BEEN UNDERWAY FOR SOME TIME AND IS IMPLEMENTED THROUGH AN EVER GROWING NUMBER OF COUNTRIES IN WHICH THE GROUP'S BUSINESSES OR DISTRIBUTION NETWORK ARE PRESENT.

**ASIA** 

China

Shanghai Suzhou

India

New Delhi

**AMERICA** 

**Argentina**Buenos Aires

Buenos Aires Rio Grande

Brazil

Araçariguama São José dos Campos

Mexico

Ocotlán

USA

Wadsworth

EUROPE

France

Saint Priest

Italy

Andalo Valtellino

Ardesio Casnigo

Chignolo d'Isola

Gandino Novara

Villa d'Ogna

Germany

Hamburg Lüneburg Selbitz

Tröglitz

The Netherlands

Born

**United Kingdom** 

London

**Czech Republic** 

Podborany

Romania

Savinesti

Spain

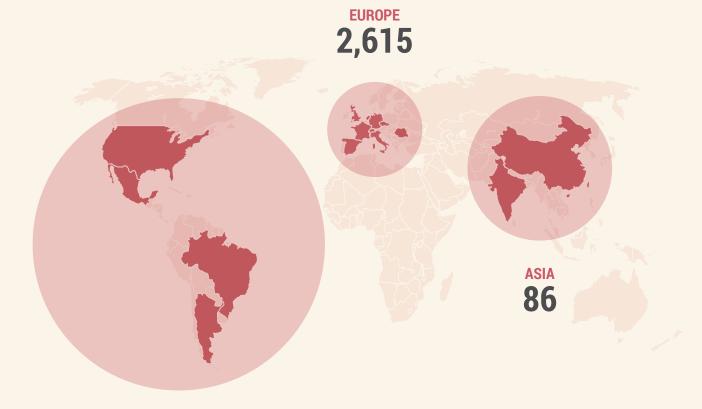
Barcelona

**Switzerland** 

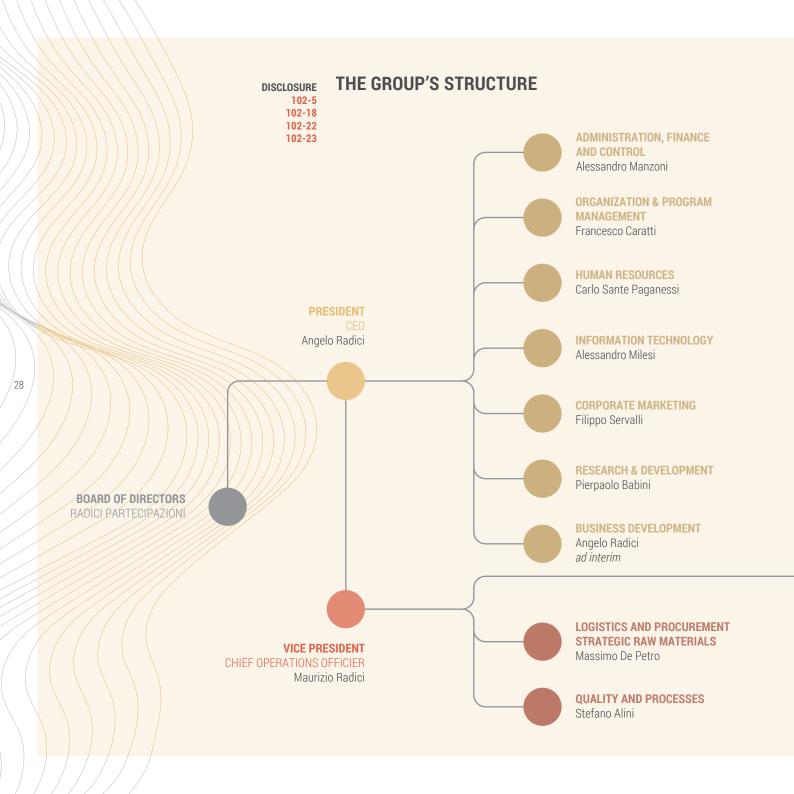
Stabio

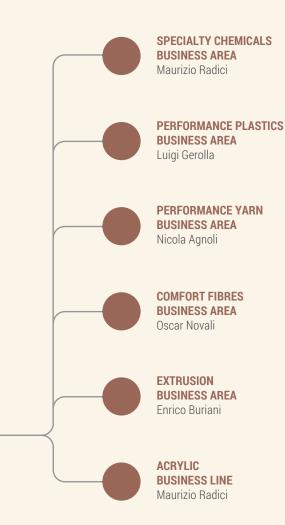
Hungary

Szentgotthard



AMERICA 352







#### Radici Partecipazioni BOD

Angelo Radici Maurizio Radici Paolo Radici Luigi Gerolla Alessandro Manzoni Edoardo Lanzavecchia Pecuvio Rondini



#### **Ethics Committee**

President:

Alessandro Manzoni

Members:

Carlo Sante Paganessi Francesco Pezzotta Aldo Piceni Filippo Servalli



#### Founders

Pietro Radici Gianni Radici



#### Shareholders

Radicifin S.a.p.A. di Paolo Partecipazioni S.r.l. Unip. Angelo Radici Partecipazioni S.r.l. Unip. Maurizio Radici Partecipazioni S.r.l. Unip.



#### **Board of statutory auditors** President:

Aldo Piceni

Members:

Marco Baschenis

Matteo Perazzi



#### Radici Partecipazioni S.p.A. President:

Angelo Radici

Vice President:

Maurizio Radici

DISCLOSURE 102-5 102-23

The organisational model chosen by RadiciGroup is based on direct managerial control by the Radici Family, which owns all the shares in the Group and formulates strategies in consultation with the Board of Directors.

Angelo, Maurizio and Paolo Radici, in their capacities as President, Vice President and Advisor, supervise business performance daily and operationally. The involvement of the Shareholders in the management of the Group manifests itself through the direct control exerted on the Corporate functions and on the Business Areas (in this regard see the organisational chart) and through all the systems entailing the involvement of the Senior Management provided for by the integrated management systems.

The holding company Radici Partecipazioni S.p.A. directs and coordinates the activities of all of RadiciGroup's subsidiary companies in the chemical, plastic, synthetic fibre and nonwovens sectors, in accordance with the guidelines laid down by the Board of Directors. It also provides a number of centralised services for the subsidiaries through the corporate functions (for this purpose, see the organisational chart). Radici Partecipazioni is entirely controlled by the holding company Radicifin S.A.p.A.

The bodies that the holding company uses for administration and control are the Board of Directors with strategic and administrative functions and the Board of Statutory Auditors. The Board of Directors consists of three members in office for three years with the function of controlling the administration. The Board of Directors, in office for one year, consists of seven members. It comprises the majority shareholders together with directors who provide their specific experience in economic, financial, administrative and legal matters.

The Group's productive and commercial activities are entrusted to the operating facilities that, in accordance with the mandate of the Board of Directors, implement the Group's business plan. Defined in accordance with the production type or the process technology, the business areas are each led by a manager designated by the Radici Partecipazioni Board of Directors. Sometimes the Business Area Managers also perform the roles of managing directors of the respective companies, with the limits of ordinary administration.

Through periodic alignment meetings, Business Area Managers discuss the results obtained by the different companies and issues and opportunities, as they emerge from their respective businesses, with the Board of Directors.

### THE ETHICS COMMITTEE, THE GRI COORDINATION GROUP AND THE SUSTAINABILITY TEAMS

Different bodies assist the Group's senior management as regards sustainability issues: the Ethics Committee, the GRI Coordination Group, and the teams that supervise process and product sustainability in the companies.

The RadiciGroup Ethics Committee consists of representatives of the following functions:

- a Director representing the Board of Directors of the holding company who chairs the Committee;
- the Chairman of the holding company's Board of Auditors;
- the heads of Human Resources, Legal-Credit, Marketing and Sustainability corporate functions.

The Committee particularly focuses on the application of the Code of Ethics in the different companies and, together with the GRI Group, supervises sustainability issues.

The GRI Coordination Group consists of one or more representatives for each business area. It features various professions that range from quality to marketing, sustainability to human resources and the management of the supply chain. The Group is involved in projects for the implementation of the many sustainability issues that the GRI model suggests year after year. It also has the task of identifying the material aspects that are then subject to the scrutiny of the senior management, to draw up the Sustainability Report and oversee its dissemination.

In 2017 the GRI Coordination Group supervised the refinement of the modelling of the Group context, revising the mapping of Stakeholders, and establishing a system more closely linked to the operational realities with regard to the material aspects.

There are then many teams dealing with product sustainability at the individual company level, business area level or across the board involving multiple areas of the Group. Projects linked to microplastics, the circular economy and recycling and the measurement of the impacts of various products were of interest in 2017. Some of the projects that the teams worked on are described in the part of the Report linked to product sustainability, one of the aspects emerging from the materiality analysis.





## RADICIGROUP PEOPLE

DISCLOSURE 102-8: INFORMATION ON EMPLOYEES AND OTHER WORKERS In 2017 RadiciGroup's workforce grew thanks to company acquisitions and recruitment. Recruitment focused on young people in particular, called on to contribute their skill sets in line with the current market requirements and able to produce a useful fusion with the Group's historical skills. A part of the selection and inclusion of the newly-recruited production personnel was carried out in collaboration with local employment agencies to find the most suitable people for the company's needs with a view, in most cases, to them joining the company in the future.

Table 1 RADICIGROUP WORKFORCE

		MEN			WOMEN			TOTAL		
		2015	2016	2017	2015	2016	2017	2015	2016	2017
n	Total Employees*	2,156	2,165	2,227	811	799	826	2,967	2,964	3,053
n	Total Workforce*	2,198	2,250	2,345	818	817	842	3,016	3,067	3,187

<sup>\*</sup> data updated to 31/12/2017

When considering the Employees, while the intermediate age range (30-50 years) remains prevalent, the under thirty category is being strengthened (see the graph below) especially in companies in Europe and the United States. Also due to the gradual increase of the retirement age, the band of workers over fifty remains significant, whose skills remain updated thanks to the continuous training schemes discussed below in the Report.

Table 2 RADICIGROUP WORKFORCE BY AGE GROUP

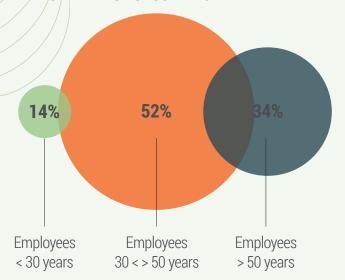
		MEN			WOMEN			TOTAL		
		2015	2016	2017	2015	2016	2017	2015	2016	2017
n	Employees < 30 years	200	219	272	104	111	165	304	330	437
n	Employees 30 <> 50 years	1,258	1,185	1,130	542	511	454	1,800	1,696	1,584
n	Employees > 50 years	698	761	825	165	177	207	863	938	1,032

34

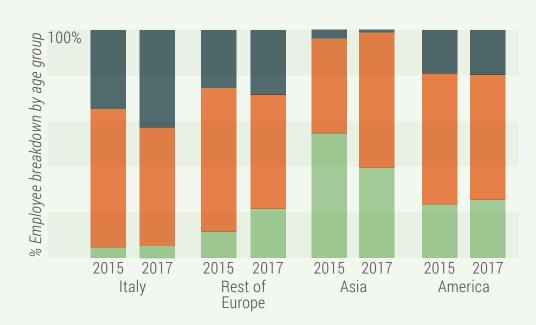
Table 3 RADICIGROUP WORKFORCE BY AGE GROUP AND BY GEOGRAPHICAL AREA

			MEN		1	WOMEN			TOTAL	
		2015	2016	2017	2015	2016	2017	2015	2016	2017
	ITALY									
n	Employees < 30 years	56	51	58	19	21	24	75	72	82
n	Employees 30 <> 50 years	744	685	632	192	185	174	936	870	806
n	Employees > 50 years	453	510	560	83	88	100	536	598	660
n	Total	1,253	1,246	1,250	294	294	298	1,547	1,540	1,548
	REST OF EUROPE									
n	Employees < 30 years	63	72	122	56	58	109	119	130	231
n	Employees 30 <> 50 years	339	330	296	306	282	238	645	612	534
n	Employees > 50 years	189	189	206	71	79	96	260	268	302
n	Total	591	591	624	433	419	433	1,024	1,010	1,067
	ASIA									
n	Employees < 30 years	20	31	20	9	14	14	29	45	34
n	Employees 30 <> 50 years	20	20	44	2	3	7	22	23	51
n	Employees > 50 years	1	1	1	1	1	0	2	2	1
n	Total	41	52	65	12	18	21	53	70	86
	AMERICA									
n	Employees < 30 years	61	65	72	20	18	18	81	83	90
n	Employees 30 <> 50 years	155	150	158	42	41	35	197	191	193
n	Employees > 50 years	55	61	58	10	9	11	65	70	69
n	Total	271	276	288	72	68	64	343	344	352
n	TOTAL WORKFORCE	2,156	2,165	2,227	811	799	826	2,967	2,964	3,053





## EMPLOYEE BREAKDOWN BY AGE GROUP AND GEOGRAPHICAL AREA



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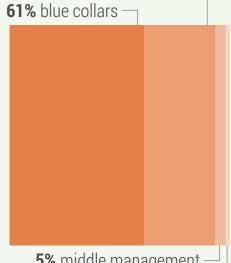
Table 4 EMPLOYEES BY AGE GROUP AND GENDER

			MEN		1	WOMEN			TOTAL	
		2015	2016	2017	2015	2016	2017	2015	2016	2017
	MANAGEMENT									
n	Employees < 30 years	0	0	0	0	0	0	0	0	0
n	Employees 30 <> 50 years	43	33	29	10	13	11	53	46	40
n	Employees > 50 years	27	40	33	2	4	5	29	44	38
n	Total	70	73	62	12	17	16	82	90	78
	MIDDLE MANAGEMENT									
n	Employees < 30 years	5	0	1	1	1	2	6	1	3
n	Employees 30 <> 50 years	80	85	75	30	30	29	110	115	104
n	Employees > 50 years	52	39	48	8	10	11	60	49	59
n	Total	137	124	124	39	41	42	176	165	166
	WHITE COLLARS									
n	Employees < 30 years	22	32	26	36	40	43	58	72	69
n	Employees 30 <> 50 years	202	198	201	168	172	167	370	370	368
n	Employees > 50 years	100	128	153	40	41	56	140	169	209
n	Total	324	358	380	244	253	266	568	611	646
	BLUE COLLARS									
n	Employees < 30 years	173	187	245	67	70	120	240	257	365
n	Employees 30 <> 50 years	933	869	825	334	296	247	1,267	1,165	1,072
n	Employees > 50 years	519	554	591	115	122	135	634	676	726
n	Total	1,625	1,610	1,661	516	488	502	2,141	2,098	2,163
n	TOTAL EMPLOYEES	2,156	2,165	2,227	811	799	826	2,967	2,964	3,053

	WON	/IEN	ME	N
	n	%	n	%
Management	16	1.9%	62	2.8%
Middle management	42	5.1%	124	5.6%
White collars	266	32.2%	380	17.1%
Blue collars	502	60.8%	1,661	74.6%
Total Employees	826	100%	2,227	100%

## **PERCENTAGE OF WOMEN BY CATEGORY** 2017

32% white collars



5% middle management -2% management

## **PERCENTAGE OF MEN BY CATEGORY**

2017

17% white collars - **75%** blue collars



3% management

The geographical location of the Employees is the result of an internationalization process that began in the 1990s with a specific philosophy: the enhancement of the entrepreneurial culture of each country. Today RadiciGroup is ever more a global reality that sees a more or less equal weighting of Italian workers (51% of the workforce) and workers from other parts of the world. This is a condition that poses many challenges to guaranteeing all individuals of the group the same safeguards and opportunities for growth, adapting them however to the different cultural contexts.

GRI 102-8:
TOTAL WORKFORCE
BROKEN DOWN BY
EMPLOYMENT TYPE,
CONTRACT, REGION
AND GENDER

Table 6 WORKFORCE BY GEOGRAPHICAL AREA\*

		MEN			V	VOMEN		TOTAL		
		2015	2016	2017	2015	2016	2017	2015	2016	2017
n	Italy	1,287	1,297	1,342	300	301	312	1,587	1,598	1,654
n	Rest of Europe	596	597	633	433	429	443	1,029	1,026	1,076
n	Asia	44	60	67	13	18	21	57	78	88
n	America	271	296	303	72	69	66	343	365	369
n	Total	2,198	2,250	2,345	818	817	842	3,016	3,067	3,187

<sup>\*</sup>The workforce includes: temporary Workers and Employees

Table 7 EMPLOYEES BY GEOGRAPHICAL AREA

		MEN			V	VOMEN		TOTAL		
		2015	2016	2017	2015	2016	2017	2015	2016	2017
n	Italy	1,253	1,246	1,250	294	294	298	1,547	1,540	1,548
n	Rest of Europe	591	591	624	433	419	443	1,024	1,010	1,067
n	Asia	41	52	65	12	18	21	53	70	86
n	America	271	276	288	72	68	64	343	344	352
n	Total	2,156	2,165	2,227	811	799	826	2,967	2,964	3,053

Table 8 TEMPORARY WORKERS IN RELATION TO WORKFORCE

		MEN			WOMEN			TOTAL		
		2015	2016	2017	2015	2016	2017	2015	2016	2017
%	Temporary workers in	1.9%	3.8%	5.0%	0.9%	2.2%	1.9%	1.6%	3.4%	4.2%
n	relation to workforce	42	85	118	7	18	16	49	103	134

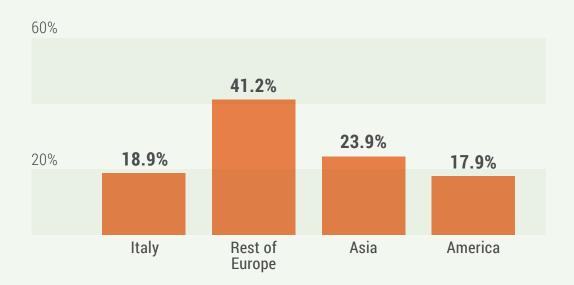
Table 9 PERCENTAGE OF FEMALE WORKFORCE BY GEOGRAPHICAL AREA\*

/		2015	2016	2017
%	Europe (Italy + Rest of Europe)	28.0%	27.8%	27.7%
%	Italy	18.9%	18.8%	18.9%
%	Rest of Europe	42.1%	41.8%	41.2%
%	Asia	22.8%	23.1%	23.9%
%	America	21.0%	18.9%	17.9%

<sup>\*</sup>The workforce includes: temporary Workers and Employees

## THE PERCENTAGE OF THE FEMALE WORKFORCE BY GEOGRAPHICAL AREA\* 2017





An important form of worker protection is bargaining agreement: at RadiciGroup we encounter a high degree of collective bargaining whether national or company-specific. In 2017 it totalled 87.4%. The National Collective Labour Agreement (CCNL) of the various relevant sectors is applied to all Italian RadiciGroup workers. At the European sites, mainly company contracts are applied. Alternatively, the worker and employment market protection legislation in each country indicate contractual standards and the wages that pertain to them.

The type of contracts in place is proof of the importance that is always given by the Group to the continuity of the working relationship, with 91% of contracts open ended, slightly down over the three-year period (-3%).

GRI 102-8: EMPLOYEES BROKEN DOWN BY GENDER AND EMPLOYMENT AND CONTRACT TYPE

ble 10 RADICIGROUP'S WORKFORCE AND EMPLOYEES BROKEN DOWN BY GENDER, EMPLOYMENT AND CONTRACT TYPE

		MEN WOMEN				TOTAL				
		2015	2016	2017	2015	2016	2017	2015	2016	2017
n	Permanent Employees	2,066	2,064	2,065	737	728	719	2,803	2,792	2,784
n	Temporary Employees	90	101	162	74	71	107	164	172	269
%	Permanent Employees of total Employees	95.8%	95.3%	92.7%	90.9%	91.1%	87.0%	94.5%	94.2%	91.2%
n	Full Time (permanent)	2,044	2,025	2,036	636	628	613	2,680	2,653	2,649
n	Part Time (temporary)	22	39	29	101	100	106	123	139	135
%	Full Time (permanent) of total Employees	98.9%	98.1%	98.6%	86.3%	86.3%	85.3%	95.6%	95.0%	95.2%
n	Full Time (temporary + permanent)	2,134	2,126	2,198	710	699	720	2,844	2,825	2,918
n	Part Time (temporary + permanent)	22	39	29	101	100	106	123	139	135
%	Full Time of total Employees	99.0%	98.2%	98.7%	87.5%	87.5%	87.2%	95.9%	95.3%	95.6%

Table 11 PERMANENT EMPLOYEES BY GEOGRAPHICAL AREA

		MEN			WOMEN			TOTAL		
		2015	2016	2017	2015	2016	2017	2015	2016	2017
n	Italy	1,241	1,239	1,230	286	285	289	1,527	1,524	1,519
n	Rest of Europe	557	551	553	378	375	367	935	926	920
n	Asia	2	5	7	1	1	2	3	6	9
n	America	266	269	275	72	67	61	338	336	336

		TOTAL EMPLOYEES	PERMANENT EMPLOYEES	TEMPORARY EMPLOYEES	% PERMANENT EMPLOYEES
n	Italy	1,548	1,519	29	98%
n	Rest of Europe	1,067	920	147	86%
n	Asia	86	9	77	10%
n	America	352	336	16	95%

## PERCENTAGE OF TIME PERMANENT AND TEMPORARY EMPLOYEES BY GEOGRAPHICAL AREA – 2017



Table 13 PERCENTAGE PART TIME FEMALE EMPLOYEES OF TOTAL PART TIME EMPLOYEES

	2015	2016	2017
%	82.1	71.9	78.5

Table 14 PART TIME EMPLOYEES BY GEOGRAPHICAL AREA

		MEN			WOMEN			ALL		
		2015	2016	2017	2015	2016	2017	2015	2016	2017
n	Italy	16	16	14	79	75	82	95	91	96
n	Rest of Europe	6	23	15	20	23	23	26	46	38
n	Asia	0	0	0	0	0	0	0	0	0
n	America	0	0	0	2	2	1	2	2	1

87.4

88.6

Table 15 EMPLOYEES BY TYPE OF BARGAINING AGREEMENT AND GEOGRAPHICAL AREA - 2017

		EMPLOYEES	PART TIME	FULL TIME	% PART TIME
n	Italy	1,548	96	1,452	6.2%
n	Rest of Europe	1,067	38	1,029	3.6%
n	Asia	86	0	86	0.0%
n	America	352	1	351	0.3%

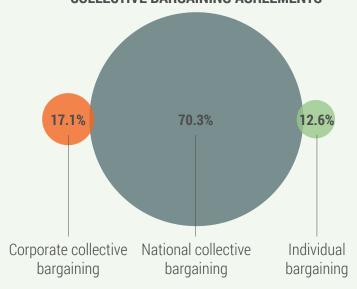
GRI 102-41:
PERCENTAGE OF
EMPLOYEES COVERED BY
COLLECTIVE BARGAINING
AGREEMENTS

**TYPE OF BARGAINING AGREEMENT** Table 16 n National collective bargaining 2,229 2,121 2,146 Corporate collective bargaining 124 504 521 Individual bargaining 386 n 614 339 **Total Employees** 2,967 2,964 3,053 % Individual bargaining percentage 20.7 11.4 12.6

GRI 102-41 PERCENTAGE OF EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENTS

79.3

**Collective bargaining percentage** 







## BUSINESS TRENDS

Text taken from the Directors' Management Report of the Consolidated Financial Statements at 31 December 2017.

#### DISCLOSURE

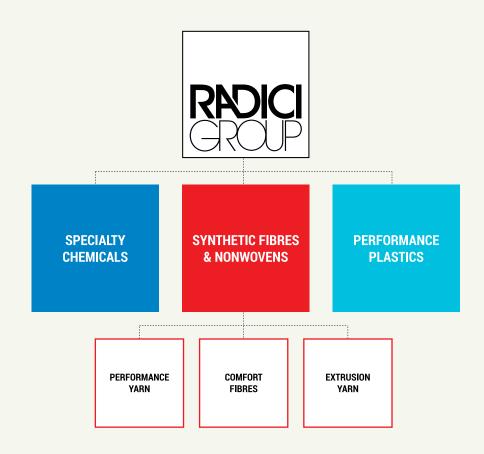
102-2

102-6

102-7

The Group has long continued to pursue the strategy of focusing on its strategic core businesses, nylon chemistry, engineering plastics and synthetic fibres. The aim is to improve the competitive position in the market by achieving substantial equilibrium among the geographical areas where the group operates, in order to be less dependent on the trends of individual markets and to strengthen the cash flow, intended both to reduce indebtedness as well as to fund new initiatives in the strategic businesses.

The Consolidated Financial Statements at 31 December 2017 showed very satisfactory results with a produced value of 1,110,580 thousand Euros, a gross operating profit of Euro 161,553 thousand Euros and an operating income of 119,709 thousand Euros. The profit for the year, net of depreciation and writedowns, was 81,837 thousand Euros. The results of the first quarter of 2018 are good: turnover recorded an increase compared with both the same period of the previous year (+5%) and the budget (+5%) where margins are positive and confirm the trend of 2017.



# SPECIALTY CHEMICALS BUSINESS AREA

THE RESULTS OF THE BUSINESS AREA SHOWED AN UPSWING IN SALES COMPARED TO 2016 IN TERMS OF BOTH VOLUMES AND AVERAGE PRICES IN THE TWO MAIN PRODUCT AREAS: POLYMERS AND ADIPIC ACID.

The Specialty Chemicals Area is present in the intermediaries and polymers sector for the plastics industry, through the production of adipic acid, used in the production of 6.6 polyamides, polyurethanes and plasticisers. The 6.6 Polyamide and the relative copolymers are widely used in the textile, compounds, moulding and extrusion sectors. The introduction into the product range of the PA6.10 and PA 6.12 long chain polymers has been positive in the markets for compounds, injection moulding for manufactured goods and again in the textiles industry. In a context where world production capacity has increased, the Specialty Chemicals Area has kept its competitive position among world producers of adipic acid thanks to the two production facilities located in Novara and Zeitz; it is also one of the few European manufacturers with an integrated polymer process.

The results of the Business Area showed an upswing in sales compared to 2016 in terms of both volumes and average prices in the two main product areas: polymers and adipic acid. The Business Area's turnover is therefore 35% higher than in 2016, supported by average sales prices, which went hand in hand with trends in the main raw material costs, but benefiting especially from the high levels of market demand. The contribution margin remained positive, up on last year, and allowed structural costs and depreciation to be amply covered.

As regards the market position, the Business Area has kept its level with respect to its main competitors, relying on the ability to supply customers even when faced with limitations in its general product range and keeping delivery to customers and the guarantee of product quality as its strengths.

The economic performance of the Business Area in the first quarter 2018 remained very positive. Demand maintained the high levels of the previous year, the production sites are exploiting their production capacity to the maximum, even managing to improve on 2017's average monthly production. Turnover is up (+11%) compared to the same period in 2017 and the gross operating margin is considerable and better than expected.

## PERFORMANCE PLASTICS BUSINESS AREA

THE GOOD LEVELS OF QUALITY AND INTEGRATION ACHIEVED BY THE COMPANIES ALONGSIDE THE COMPETITIVE ADVANTAGE CREATED OVER THE YEARS ARE THE ELEMENTS OF A STRATEGY THAT HAS REWARDED THE EFFORTS THE AREA HAS MADE OVER THE LAST THREE YEARS. THE ENTIRE UNIT IS NOW ENTIRELY FOCUSED ON THE CUSTOMERS SO THEY CAN RECEIVE AN INCREASINGLY COMPREHENSIVE SERVICE AND, ABOVE ALL. AN EXPANDING PRODUCT RANGE.

The Performance Plastics Area is active in the processing of the 6.6 polyamide acquired from the Chemical Area and of the 6 Polyamide almost entirely acquired from the Performance Yarn area thanks to the Group's integrated supply chain.

Polyamide polymers are compounded and colours, fibre glass and elastomer fibres are added, resulting in a wide range of high performance products. Plastics customers are extrusion and moulding companies, while the end-use sectors are electrical and electronic, traditional and e-mobility automotive and, furnishing and appliances.

Over the 2017 financial year the Performance Plastics Business Area was confronted with changing conditions in the raw materials market. Prices in this market rose significantly in all areas where the Business Area sites are located, albeit in different proportions depending on the country, inevitably causing a contraction of margins. At the same time, however, sales volumes significantly improved and the implementation of "Operation Invista" dated October 2016 has allowed significant growth in turnover (+21%) to be achieved as well a result in terms of gross operating margins in line with budget forecasts.

In the course of 2017, in fact, the Dutch site Radici Plastics BV has produced the Torzen materials, formerly Invista, and at the same time supported the other European sites in the Business Area at the times of greatest saturation. The transfer of assets acquired by Invista to the site of the American Radici Plastics USA was completed. As a general consideration, the operation concluded with Invista opened new scenarios and offered the Business Area significant growth opportunities.

A new production line was put into operation in Germany In June: an investment of considerable importance in order to face the constant growth of sales volumes in Europe. Again from the point of view of increasing production capacity, two new production lines are to be inserted (one of them to replace an old one). They will be installed during 2018 at the Villa d'Ogna site.

The good levels of quality and integration achieved by the companies

alongside the competitive advantage created over the years are the elements of a strategy that has rewarded the efforts the Area has made over the last three years. The entire unit is now entirely focused on the customers so they can receive an increasingly comprehensive service and, above all, an expanding product range.

In the first quarter of 2018 the Business Area has recorded a higher level of growth compared to the same period last year. Sales volumes were up 7.7% and the turnover 12%. The impact of the cost of raw materials on turnover is still growing, but the increase in volumes and the containment of fixed costs make it possible to achieve higher revenues than last year.

# SYNTHETIC FIBRES & NONWOVENS BUSINESSES

The following Business Lines are part of this Business Area:

#### Table 17

Comfort Fibres	B.L. POLYAMIDE B.L. POLYAMIDE BRASILE B.L. POLYESTER		
	B.L. ACRYLIC		
Performance Yarn	B.L. FLOOR COVERING&INDUSTRIAL		
Extrusion Yarn	B.L. SPUNBOND (Dylar®) B.L. SPECIALTY (Radigreen®)		

### **COMFORT FIBRES BUSINESS AREA**

The Business Area gathers together many of the Group's companies and operates in the manufacturing sector of PA6 polymer and staple fibres, polyamide 6, 6.6 and 6.10 yarn; as well as virgin and recycled polyester yarns, mainly intended for the clothing, furniture and car interior markets.

#### **POLYAMIDE BUSINESS LINE**

The main reference sectors in this Business Line are:

- Warp-knitted knitwear and elastic fabrics.
- Weaving.

- Male and female hosiery.
- Circular knitting, tapes and bandages.
- Discontinuous fibres (staples) for clothing and nonwoven fabrics.
- Discontinuous fibres (staples) for flooring fabrics.

In 2017 the Polyamide Business Line sold its products, intended for different uses, according to a geographical distribution with a clear prevalence of Italian and European markets over the rest of the world. These are difficult markets that require high performance products with a high degree of customization.

IN 2017 THE POLYAMIDE BUSINESS
LINE SOLD ITS PRODUCTS, INTENDED
FOR DIFFERENT USES, ACCORDING TO A
GEOGRAPHICAL DISTRIBUTION WITH A CLEAR
PREVALENCE OF ITALIAN AND EUROPEAN
MARKETS OVER THE REST OF THE WORLD.
THESE ARE DIFFICULT MARKETS THAT
REQUIRE HIGH PERFORMANCE PRODUCTS
WITH A HIGH DEGREE OF CUSTOMIZATION.

Over the course of the year, these markets reached a certain stability of demand and the overall and regional economic growth recorded in 2017 has had a moderate impact on the growth of reference sectors, albeit with some positive exceptions.

The sales trend for the first half of 2017 was markedly different from the second. The first half was characterized by demand exceeding expectations which then however dropped in the second half of the year to usual and expected levels. The main reasons for this phenomenon were:

- The continuous increase in the prices of the main materials that caused many customers to stock up on products;
- The sudden recovery of Asian demand, Chinese in particular, reduced the power to purchase imported products;
- The unexpected growth of demand from European clothing distribution chains.

As a general consideration, when compared to 2016, sale were up on the whole with significant increases in both value and volume.

With regard to the marked rise in primary raw materials in the first half of 2017, an effort was made to transfer these cost increases to the sales prices of the products. In the second half of 2017 the effects of a strong appreciation of the Euro against the US dollar was seen, which made imports from the Asian areas more competitive and therefore aggressive without making the Business Area more competitive in sales in the dollar area as a quid pro quo. Moreover the marked cost differential of some primary raw materials recorded between Europe and Asia increased the competitiveness of Far Eastern competitors.

In this context, the repositioning of sales and the product diversification have been reinforced, in order to contain the physiological contraction of the demand for commodities, and more generally, to develop items of greater value, which are less susceptible to attacks from the competition.

The end of 2017 showed a certain weakness in demand, accompanied by stability in price trends for the main raw materials, even if price increases on all fronts are expected throughout 2018.

The Business Area's gross operating margin was close to that recorded for last year. This, commensurate with the trend in the cost of raw materials and the market situation, reflects good management, product and commercial performance overall. In addition, the Business Area, consistently with the choices made, set itself the objective of retaining its position in the market while maintaining the current satisfactory levels of plant capacity utilization and implementing policies oriented towards maintaining a good balance between pricemargin and service. In addition to this, as specific objectives for 2018, the business area intends to pursue the strengthening of product development with greater value and high competitive barriers and the generation of a good level of marginality, including through a constant monitoring of costs and incisive performance optimization.

#### **POLYAMIDE BRAZIL BUSINESS LINE**

The main reference sectors for this Business Line are:

- Knitwear and warp-knitted knitwear (elasticized fabrics).
- Texturing.

2017 saw a slight recovery in economic activity in Brazil with a GDP of 1%, after two years of deep recession.

The main growth factors were:

- Improvement in the trade balance that closed with the positive figure of \$ 67 billion;
- 2. Record agricultural production with 240 million tonnes of grains (soya, maize and wheat), most intended for export;
- In the first part of the year, good government stability that allowed the launch of some important reforms and a good economic programming law that introduced cost cutting to the government apparatus;
- 4. Control of inflation and reduction of interest rates on loans. In this context the Business Area also showed an improvement in revenues (+10%) and gross operating margin in 2017.

Brazilian economic forecasts for 2018 are encouraging, although still uncertain, and potentially very dependent on how the political situation develops. Despite positive signs and forecasts, the political



2017 SAW A SLIGHT RECOVERY IN ECONOMIC
ACTIVITY IN BRAZIL WITH A GDP OF 1%,
AFTER TWO YEARS OF DEEP RECESSION.
IN THIS CONTEXT THE BUSINESS AREA
ALSO SHOWED AN IMPROVEMENT
IN REVENUES (+10%) AND GROSS
OPERATING MARGIN IN 2017.

uncertainty, the huge number of politicians under investigation and sentenced as part of the action by the Judiciary and the Federal Police means that that investor confidence continues to be very low.

In this context the Business Area also sees its performance conditioned by the heavy increase in the cost of raw materials, exacerbated by the unfavourable exchange rate with the Euro, in a market that has the US dollar as its reference currency. In light of this fact, it is planned to strengthen the partial change of the sales mix in order to significantly improve margins and especially to drive the sale of standard products. The great attention to cost management, to production yields and product quality will be a corollary to the sales operations outlined above in order to maximize the competitiveness of the organisation and aim to achieve a positive result in 2018 as well.

#### **POLYESTER BUSINESS LINE**

The reference market sectors for this Business Line are mainly:

- · Warp-knitted fabrics.
- Weaving.
- Texturing.
- · Technical fabrics.
- Furniture.
- Car interiors.

In 2017 the Polyester Business Line sold its products, intended for different uses, according to a geographical distribution with a clear prevalence of markets in Italy and Europe over the rest of the world. These are difficult markets that require high performance products with a high degree of customization.

As regards the scenario, the same considerations expressed previously for the Polyamide Business Line apply to this sector of the Group. In this context, when compared to those in 2016, sales were up on the whole with significant increases registered in both value and volume.

In particular, considering the marked rise in raw materials in the first half of 2017, commercial steps were taken intended to transfer these cost increases to the sales prices of the products. However, as is well known, there is always a delay between the occurrence of the two effects and this has had a slightly negative impact on the financial results of the period.

Similarly to what happened for the Polyamide Business Line, the effects of a strong appreciation of the Euro against the US dollar was

also seen In the second half of 2017, which made imports from the Asia more competitive and therefore aggressive without, however, making sales more competitive in the dollar area.

The Business Line is not currently able to competitively produce and self products that can be classified as "commodities", normally the prerogative of Asian producers, for which it is suitably positioned in the market niches ("specialties") that, due to the type of items and the service required, are not just virtually unassailable by Far-Eastern competitors but offer opportunities for revenue in line with the high production costs in Europe.

This process will continue over the next few years. In parallel to this, it is the intention of the Business Line to reinforce and expand the collaboration with other companies of the Group, in particular with the companies belonging to the Polyamide Business Line - operating in the similar textile sector- in order to make the overall sales, marketing, production and organisation operation even more competitive by offering even higher levels of service and innovation. The Business Area's gross operating margin was close to that recorded for last year. This, commensurated with the particular trend in the cost of raw materials and the market situation, reflects good management, product and commercial performance overall.

After the end of 2017 with contained demand, moderate growth was recorded at the start of the new financial year and the first half of 2018 was in line with both the turnover and margin results expressed in 2017 and with the budget forecasts for 2018.

The Business Line, consistent with its own commercial and management decisions, also set itself the goal in 2018 of continuing to hold an appropriate market position while maintaining the usual levels of capacity utilisation and further strengthening trade policies focused on the balance between price/margin and service.

#### **ACRYLIC BUSINESS LINE**

The activities of the Acrylic Business Line with headquarters in Argentina concern the processing and marketing of acrylic fibre, mainly intended for clothing.

The Argentine economy was characterised as being generally weak in 2017 as well, with very high inflation rates. Purchasing power decreased still further, negatively impacting domestic demand. The production system was much affected by the greater competitiveness of manufacturers in neighbouring countries, in particular Brazil and Chile. Manufacturing in Argentina has become

extremely onerous, a fact echoed in textile production which dropped by about 6.7 % in 2017 mainly due to the increased imports of intermediate products and semi-finished goods (up by over 33% on 2016).

As regards Cordonsed, mainly thanks to a profound streamlining of production costs carried out in the last two years, the improvement of the logistics and after-sale assistance, together with the recovery of certain customers, the company has succeeded in maintaining the sales of tops and of staples almost unchanged compared to 2016. As regards the sale of yarns, thanks to the purchase of new machinery and the revamping of the existing machines, installed production capacity almost doubled, allowing the market trend to be followed toward an increase in consumption of yarns at the expense of sales of tops; the annual sale of yarn grew by 47% with a great impact on the company's profitability.

The first quarter of 2018 was characterized by declining sales of tops and by strong growth in the cost of raw materials while the positive trend of yarn sales continued. The strategic goal of the company for 2018 is mainly the development of new products that better meet the needs and demands of the market and customers, focusing on quality rather than on sales prices.

## PERFORMANCE YARN BUSINESS AREA

This Area includes the companies that produce, process and sell nylon 6 and 66 yarns for carpets, textile flooring, car interiors, airbags and technical uses.

2017 saw a strengthening of domestic and global economic growth that has favoured the exports of the Business Areas and of their customers in Europe and in the rest of the world and, in particular, European growth has proved sound and has involved all countries. The rise of the Euro/dollar exchange rate from the lows at the beginning of 2017 is the reflection of European growth. sShould the high levels achieved toward the end of the year persist in 2018 as well, however, they might adversely affect the Business Area's exports outside Europe.

Despite the good price of oil, situated around 50 dollars on average, in the first half of the year the main raw materials in the polyamides industry underwent considerable increases as a result of the recent streamlining of the European supply that led to shortage situations and a sudden spike in prices.



During 2017, in the Business Area's main reference markets, the good economic performance, alongside a greater consumer confidence, however positively influenced purchases in the various sectors in which the Business Area operates. As regards sales, 2017 confirmed the company's leadership position in the automotive sector once again, thanks to the colored polyamide 6 solution dyed yarn used for the flooring fabrics in cars in the premium and SUV segments.

Sales in the polyamide 6.6 filament high tenacity segment have also benefited from the favourable period the car industry was experiencing.

As regards the BCF yarns for domestic and commercial fabric flooring, sales in 2017 were in line with forecasts and stable compared to 2016. There is a growing interest in the coloured solution dyed yarns in these markets too.

Finally, as regards polymers, demand in the period was once again very good but negatively influenced by the reduction in volumes of caprolactam, the raw material necessary for the production of polyamide 6.

For 2018, in the absence of ever possible significant changes in the macroeconomic and geopolitical picture, the scenario provides for very stable economic growth in Europe. Consumers' improved purchasing power bodes well for the demand for the Business Area's products. In particular improvement margins can be observed in the areas of BCF yarns for furniture and special polymers for the extrusion of film for food packaging. In the automotive sector, after four years of constant increases in new registrations in Europe, greater caution is essential and indeed the 2018 forecast from the main study centres put growth at no more than 1 - 2%.

### **EXTRUSION YARN BUSINESS AREA**

The Business Area is represented by Tessiture Pietro Radici SpA that carries out its activity in the production and marketing in two different product areas: the "Dylar®" non-woven fabric in polypropylene, and the "Radigreen®" synthetic grass yarn predominantly, in polyethylene and in polypropylene.

Tessiture Pietro Radici, as a whole, achieved a gross turnover in 2017 substantially in line with that achieved the previous year and higher than budget forecasts. The result in terms of margins was however lower as the result of the higher fixed costs. In particular,



labour costs were higher as a result of the inclusion of new workers in the Dylar Spunbond area, for appropriate training with a view to the start up of the new production line installed at the end of 2017, and maintenance technicians to support installation work related to the new investment.

R&D costs related to the development of innovative nonwoven fabrics to be produced on the new line and an energy efficiency project for lighting the storage department grew at the same time.

#### **DYLAR®**

2017 was characterized by a better industrial output than the previous year together with slightly higher sales volumes. The prices of the raw material (polypropylene) were higher, sales prices reflected the trend in raw materials even though, in terms of average price, the increase in raw materials was only partially recovered, because of a different production mix.

In particular, the percentage of sales in the agricultural sector increased, due to a timely development of the commercial presence in a very attractive market for the additional volumes that are available from the end of the first quarter of 2018 thanks to the new line.

The search for new outlets continued through systematic marketing surveys, followed by visits and sample gathering from Customers in industrial sectors other than building insulation, now a consolidated sector for the company.

The first three months of 2018 confirmed the good performance of the business area again, even though, compared to the budget forecast, volumes sold were lower as the start up of the new line was later than planned. The gross margin was also lower than expected, albeit to a limited extent, due to the average sales prices that only partially managed to offset the increase of raw materials.

#### **RADIGREEN®**

2017 was characterised by a slightly lower industrial output compared to the previous year and a reduction in the total sales volumes. The average purchase price of polyethylene was seen to be in line with 2016 whereas polypropylene recorded an increase. Sales prices remained almost constant in all the product families, with a consequent decrease in margins compared to 2016 due to the increase in the price of polypropylene.

In the first three months of 2018, the sales trend has substantially confirmed the budget forecasts, even if the margin was decidedly

smaller than expected due to a smaller industrial output and average sales prices which were reviewed against the competitive picture of the market.

However, as happened in previous years, unlike the Dylar Spunbond area, the market dynamics for this Business Area in terms of both price and demand complicate the short and medium/long term analysis, thereby not giving a clear view of the trend until the end of the financial year.

#### In conclusion:

- In the Dylar Spunbond area, the positive results recorded in recent years were repeated in 2017;
- In the Radigreen area the market issues recorded in the last five years, partially offset by the policy of gradual discontinuation of less profitable products and by maintaining a significant position in the United States, where market prices allow a greater margin than that resulting from the sale of equivalent products in Europe, continue to be present.





# SUPPLIERS, CUSTOMERS AND TRADE ASSOCIATIONS: MARKET STAKEHOLDERS

No company can be thought to exist in a dimension where it only looks at its own performance, without comparing itself daily to the context in which it operates. Strategic for group performance, Stakeholders linked to the market stay close to the day by day activities of the companies through the supply and manufacturing chain, or through the collective contexts in which the industrial players meet and compete.

Through the understanding of the role of these Stakeholders and their everyday relationship with the Group it is possible to better understand RadiciGroup itself and its unique features.

## THE SUPPLY CHAIN

DISCLOSURE

102-9 102-10 The RadiciGroup supply chain is extremely complex because it is a true reflection of the Group's operations that, with more than twenty production sites described in this report, spans the fields of chemistry, plastics and synthetic fibres with a very broad product portfolio, many of which with limited environmental impact.

The RadiciGroup supply chain is focused mainly in Europe, Asia and the Americas, where the plants are located. The types of Suppliers range from big players in the chemical world (suppliers of strategic raw materials) to medium-size national suppliers, for example for utilities or transport services used by the production sites. At local level, for procurement related to good day-to-day functioning of the companies, the supplier may also be very small, for a precise choice that favours companies in the area, sometimes even family-run establishments, for services relating to the ordinary maintenance of the installations, cleaning, management of canteens and communal areas on-site.

RADICIGROUP WILL PRIORITISE
TRANSPARENT, HONEST PROCESSES
WHEN SELECTING SUPPLIERS.
SUPPLIERS WILL BE EVALUATEDON THE
BASIS OF QUALITY AND THE PRICES
OF THEIR PRODUCTS OR SERVICES
AND WILL BE TREATED FAIRLY

As reported in its Suppliers' Code of Conduct, prepared in 2016 and now available on the RadiciGroup website <a href="https://www.radicigroup.com/en/sustainabiLity/ethical-guidelines/conduct-code">www.radicigroup.com/en/sustainabiLity/ethical-guidelines/conduct-code</a> the principle underlying supplier selection, whatever the type of service provided, is transparency.

"For its part, RadiciGroup will promote transparent and fair processes for the selection of suppliers. Suppliers will be assessed for the quality and prices of their products or services and will be treated fairly".

Alongside the requirements indicated above, other factors are considered equally relevant in the choice of suppliers. Where the Code extensively deals with respect for Human Rights and Workers rights, health and safety and the environment, RadiciGroup

"RadiciGroup therefore invites all its suppliers to share and implement the principles expressed in this Code of Conduct, compliance with which will be increasingly important with regard to supplier assessment and selection."

In keeping with the structure of the supply chain, there are two business functions responsible for its management: the "Strategic Raw Materials" function and the "Logistics&Procurement" function.

### THE "STRATEGIC RAW MATERIALS" FUNCTION

In accordance with the holding company procedure "PR 04 Strategic Raw Materials Procurement", the main objective of the function of the same name is to define the purchasing methods, the regularity of supply and the best market conditions for supplies of caprolactam, phenol, olone, ammonia, adiponitrile, or of the intermediates of polyethylene or polyester polymers, defined as "strategic raw materials (...) the costs and volumes of which impact heavily on the variable costs of the finished product." In fact, most of the Group's products could not exist without these input materials.

There are about seventy strategic raw material suppliers, operating worldwide, and linked to the Group through framework agreements. They cover about 70% of Group procurement expenditure.

## THE "LOGISTICS&PROCUREMENT" FUNCTION

The aim of the "Logistics&Procurement" function is the definition of the strategic and operating factors of its portion of the supply chain, optimising the logistical, qualitative and economic aspects in relation to all purchases of goods or services that do not fall within the definition of strategic raw materials. Particularly important for this function, for example, are the supplies of materials needed for packaging Group products and the establishment of framework agreements for transport from a viewpoint of "standardisation and optimisation" as indicated in the "PR 05 Procurement and Logistics" corporate procedure.

Find below a breakdown of the Group's suppliers by turnover and geographical location:

#### CLASSIFICATION OF TYPES OF SUPPLIERS BASED ON THE 2017 TURNOVER

STRATEGIC RAW MATERIALS PACKAGING AND TRANSPORT MAINTENANCE AND UTILITIES OTHER GOODS OR SERVICES

between 550 and 630 million Euros around 60 million Euros around 112 million Euros around 51 million Euros

#### GEOGRAPHICAL BREAKDOWN OF RADICIGROUP SUPPLIERS BASED ON 2017 TURNOVER

EUROPE around 85% turnover\*
ASIA around 10% turnover
AMERICAS around 5% turnover

\*Of which around 20 key Suppliers have turnovers exceeding 10 million Euros.

In view of the complexity involved in managing a global supply chain for RadiciGroup, the market is constantly being monitored as are the suppliers' organisational structure, for the entire supply chain. This job means the risk of serious deficiencies related to possible disruptions in supply or sudden variation in the prices of raw materials is constantly kept under control.

DISCLOSURE 102-10

In the reporting year no significant phenomena occurred regarding the suppliers' corporate structure, with particular reference to the suppliers of strategic raw materials that have fulfilled their contractual commitments and regularly guaranteed the supply to Group companies.

### SUSTAINABILITY IN THE SUPPLY CHAIN

"RadiciGroup's relationship with its Suppliers, who are extremely important Stakeholders, is based on the principles of legality, transparency, fairness, trust and collaboration."

"The Supplier Code of Conduct is designed for ever closer cooperation in order to strengthen these principles while building together a supply chain focused not only on the quality of products or services, but also on the environment and social and working conditions where the supplied products or services are designed and manufactured."

None of the RadiciGroup Suppliers can be defined as labourintensive, for the type of activities and the predominantly European geographical location.

However, great attention is paid by the Group to increasing the awareness of Suppliers regarding workers' rights, as reported in the introduction and in the text of the Suppliers' Code of Conduct. This Code of Conduct was sent by email to Suppliers between the end of 2016 and early 2017, from the corporate offices and the logistics and supply offices of the individual sites. Some three hundred and fifty suppliers were contacted, to whom the code was sent, accompanied by a letter which explained its purpose and that it should read in the context of collaborating to build an increasingly sustainable supply chain. In light of this collaboration an email address was also provided to ensure that Suppliers could freely indicate if they detected any differences between the behaviour of RadiciGroup Employees and the values expressed in the Code.

At the time of sending, around sixty codes sent voluntarily by suppliers were also collected. A general analysis of the contents of these documents reveals a large focus on personal integrity, environmental protection, respect for the law and the transparency of internal and external relations of the different businesses. All regardless of the size or geographical location of the Supplier.

With the publication of this Suppliers' Code of Conduct, which is added to the other ethical documents, RadiciGroup intended to publicly express its commitment to building a sustainable supply chain: it also intended to respond to the growing need for information relating to how workers' rights were approached , expressed by Suppliers and the market.

As a further component in the study of the supply chain an internal investigation concerning customers, competitors and key

Group suppliers was also conducted in 2017, an analysis aimed at assessing the commitment to topics of sustainability through public evidence and commitment (the drawing up of Sustainability Reports, the regular publication of environmental data, the presence of sections on websites linked to environmental and social sustainability).

In this case the result of the analysis was also largely positive and reassures RadiciGroup surrounding the commitment of its suppliers. Approximately 70% of the 20 suppliers considered proved to be attentive to the issue of sustainability through the publication of a Sustainability Report, frequently in line with the GRI model, or through the large amount of space on their websites dedicated to data and trends in the field of health, environment, safety and workers' rights.

## THE CUSTOMERS

RadiciGroup has Customers all over the world, served through both internationalised production (in particular in the Performance Plastics Area) with facilities in the major world markets, and through a global distribution network. RadiciGroup's clientele is well organised and very complex, with very diversified sectors and markets.

As it is a group that operates in the Business to Business sector, the Customers are, in turn, processing companies of different sizes. In the Fibre area, there are a lot of medium and medium/small businesses whereas there are more medium and large businesses in the plastic and chemical materials area.

The annual analysis carried out by the Group on Stakeholders' expectations has long highlighted, in the case of Customers, the need for joint research and planning in order to create products with high added value, a qualifying factor which is joined by the daily supply of materials by the Group's companies. Activity in the business areas is characterized by a systematic R&D driven primarily by the market, that is constantly "hungry" for new products or eager to improve the performance characteristics of existing products.

There have been many research and development projects, often cutting across all the various companies, which saw RadiciGroup in the front line in 2017. The guidelines that have guided the R&D were often inspired by environmental sustainability, as can be seen from the main projects of 2017:

- Polyamide monomers from renewable sources.
- Polyamides from renewable sources and their derivatives in the field of fibres and plastics.
- Long chain polyamides in the Performance Plastics Business Area.
- Metal Replacement materials for the automotive sector.
- Polyamide staple fibres for technical applications
- Copolyamides and semi-aromatic polyamides.

## A TRADITION IS RENEWED: THE RADICIGROUP PERFORMANCE PLASTICS BUSINESS AREA REWARDED FOR THE EXCELLENCE OF ITS PRODUCTS.

After the large number of awards received over time, Radici Novacips Spa, a company belonging to the RadiciGroup Performance Plastics Business Area, won an award recognising its reliability, ability to innovate, closeness to the customer and the global dimension again in April 2017.

It was the prestigious "Supplier of the Year 2016" award promoted by STIHL, an important customer company manufacturing chain saws and other tools for outside use including brush cutters, lawn mowers and leaf blowers.

In the current scenario Radici Novacips plays a key role in the development of new solutions in the plastics field and is the strategic partner of its customers, as emphasised by STIHL. The German company then backed up its choice by indicating that the award was intended to be a recognition for RadiciGroup's enthusiasm, patience and strong motivation in the provision of innovative engineering plastics and quality.

As evidence of the correct R&D strategy and the relationship with Customers put in place, the trends of all business areas shown in this Report are testimony to the growth of the Group. In consideration, however, of an international scenario that poses a large number of critical issues, careful monitoring of market trends and the customer performance was carried out by RadiciGroup in 2017 as well, similarly to what occurs in the case of Suppliers. The credit risk, linked to possible delinquencies, has been managed as usual by the Credit Management function of the holding company Radici Partecipazioni S.p.A., which is constantly carrying out preventive solvency analysis together with a continuous monitoring of the flow of payments, as also shown in the table relating to the "Mapping of Stakeholders, legitimate expectations and risks" *Table 19*.

In addition to this, insurance policies are also taken out every year on a significant amount of trade receivables.

#### RADICIGROUP CUSTOMERS AND SUSTAINABILITY

The internal analysis mentioned above for Suppliers has shown great attention to sustainability in the case of Customers, too, that is even greater than in the case of Suppliers. In fact, 83% of the Group's keycustomers consistently publish a report or statement outlining their commitment to social and environmental issues.

It was not the only source of information available to the Group. Faithful to its commitment contained in the Customer Code of Conduct:

"With a view to continuous improvement, RadiciGroup undertakes to conduct regular Customer Satisfaction surveys among Customers, and to take improvement measures as a result of the what is shown by the survey."

RadiciGroup has used the findings of the customer satisfaction analysis to find out the extent to which they are aware of and are involved in sustainability issues. The two-yearly Customer Satisfaction Survey conducted in 2016 had in fact denoted the importance given to sustainability, with a percentage of 65% of respondents defining product sustainability as "very important" or "extremely important". The sample, consisting of more than four hundred key customers in all areas of the Group, identified the cornerstones of a virtuous production system as products which can be recycled (27% of respondents) and energy from renewable sources (26% of respondents). Finally, 52% of the sample had also attributed a high score to the measurement of performance, in particular through the PEF and OEF systems that quantify the environmental footprint of the product and the organisation, respectively.

This is of course a very strong input for the Group that has strengthened its communication and engagement campaign towards the Customers on numerous issues.

In particular, a specific code of conduct was developed between 2016 and 2017, similar to what was done for Suppliers, and it is available on the Group website in seven different languages

WWW.RADICIGROUP.COM/EN/SUSTAINABILITY/ETHICAL-GUIDELINES/CLIENT-CONDUCT-CODE

Circulated in the spring of 2017 through the Group newsletter, the code has potentially reached customers all over the world and is the most important corporate communication instrument in addition to the website.

Transparency and safety issues, for example, were covered extensively in this document where RadiciGroup first stated its commitment and then called on customers to commit in a similar way.

"RadiciGroup will not practice nor tolerate any type of corruption, extortion or misappropriation.

In light of said consideration, Customers undertake not to offer RadiciGroup Employees bribes or other illegal incentives or even gifts or other personal benefits unless they are of such a nature or are closely associated with good manners that they cannot be interpreted as aiming to obtain favourable treatment.

RadiciGroup undertakes, in turn, to not request, directly or indirectly, nor accept these illegal incentives or gifts".

"RadiciGroup undertakes to comply with national health- safety- and environment-related regulations, as well as to obtain, maintain and update all the necessary permits, licenses and registrations relating to its products and processes.

On the contrary, Customers will apply these good practices in the field of quality, health and safety along the entire supply chain."

As regards the product, RadiciGroup has reserved a lot of time and space to collaborating with customers from a viewpoint of sustainability. Starting from the Materiality Matrix, which sees product sustainability as a significant aspect, then moving on to the parts of the Report devoted to research and development, to case histories related to the production of articles of clothing or single material objects, ending up with reporting on product impact measurement thanks to life cycle analyses (LCAs), to Environmental Product Declarations (EPDs) or to the Product Environmental Footprint (PEF).

## DISCLOSURE 102-13

### TRADE ASSOCIATIONS

Together with its Customers, Suppliers and Competitors, RadiciGroup is also an actor on the market through the trade associations to which it belongs. There are numerous reasons for participation in such a large number of organisations, many of which are international in nature. In the first place, the need for open, direct and frank discussion with all market players, including competitors. Secondly, the willingness to participate in the exchange of knowledge and experience that is always produced in these contexts, exchange that is vital for growth

and safeguarding both individual companies and entire industries. In conclusion, thanks to life in the association, presence and influence in international contexts, in relation to certain issues of importance for the different reference sectors, not least environmental sustainability, is shared and is therefore more effective.

Activity in the associations and the simultaneous adhesion to their codes of conduct are clear indication not only of RadiciGroup's willingness to be an active part of the scenario alongside all its interlocutors, but also its respect for the principles of the free market and competition.

Find below a list of the main associations to which RadiciGroup belongs, with specific mention of associations in which Group representatives hold decision-making roles.

Table 18

2017 LIST OF THE MAIN ASSOCIATIONS TO WHICH RADIGROUP BELONGS		
Chamber of Commerce, Industry, Trades and Services in the Canton of Ticino		
Confindustria		
IHK Industrie- und Handelskammern		
VTB: Verband der Bayerischen textil und Bekleidungesindustrie		
Italo-Czech Chambers Of Commerce		
Confindustria		
Federchimica with Assofibre		
CIPS GmbH Chemie Wirtschaftsfoerd. GmbH		
Italian Electrotechnical committee		
Confindustria		
Federchimica		
Plastics Europe AISBL (BE)		
Plastics Europe (IT)		
PROPLAST		
TMP		
UNIPLAST		

	AICQ		
	CIRFS		
DADIOI DADTEOIDAZIONII O.: A	Confindustria		
RADICI PARTECIPAZIONI SpA	EPCA		
	Tessile e Salute		
	TEX CLUB TECH		
	Association of Plastics Industry		
RADICI PLASTICS USA	OMA – Ohio Manufacturer's Association		
	Wadsworth Chamber of Commerce		
DADIOIOUIMICA CLU	IHK		
RADICICHIMICA GmbH	NORDOSTCHEMIE		
	Federchimica		
	AIN – Ass. Industriali Novaresi		
DADIOIOIIIMICA CA	CEFIC		
RADICICHIMICA SpA	Federchimica		
	IBIS – Consorzio per la Chimica Sostenibile		
	SPRING		
RADICIYARN	Confindustria		
	Confindustria		
TECCITIDE DIETDO DADICI COA	EDANA		
TESSITURE PIETRO RADICI SpA	ESTO AISBL		
	STC		
YARNEA	The Neamt Chamber of Commerce and Industry		
TANNEA	Federazione Patronale del Tessile		

#### They include in particular.

- RESPONSIBLE CARE ITALIA: The Group holds the vice-presidency.
- ASSOFIBRE: the Group holds the presidency.
- Associazione Tessile e Salute and TEXCLUBTEC: participates in the Governing Council of both these associations.
- ESTO: RadiciGroup is a member of the Management Board and of the artificial grass yarn team. It is also the founder and holds the presidency of the Environment group.
- CIRFS: the Group has long had its own representatives on the Board of Directors, in the ECOLIS/ENERGY environmental committee, in the R&D Committee and the Technical Committee. RadiciGroup also chairs the Statistical Committee and the Economic Committee.

The activities within the following organisations that addressed some of the most topical issues in the market with regard to sustainability were of special importance:

- PLASTICS EUROPE, RadiciGroup is part of the "LIFE CYCLE THINKING AND SUSTAINABILITY" team, dedicated to thinking about the life cycle of the product and the eco-efficiency of the processes and products. In 2017 the team adopted the PEF (Product Environmental Footprint) system as the system for measuring impacts as regards polyamides.
- As regards PLASTICS EUROPE Italia, on the other hand, RadiciGroup contributed to the work of the "MARINE LITTER" team, that is to say it addressed the difficult matter of the dispersion of plastics in the waters through actions to strengthen the culture of re-use and recycling, to reduce the dispersion of waste and for a more efficient general use of resources.
- ESTO, RadiciGroup established the ENVIRONMENT team between 2017 and 2018. The specific objective of this team, which acts in synergy with the other groups in the association, is the quest for "green" solutions for the entire life cycle of artificial grass surfaces. From the design and production of each individual component (wire, infill, shock-absorbing layers and draining elements) to the recycling of the surfaces installed, and even the rigorous measurement of the impacts of each step.
- SPRING ITALIAN CLUSTER OF GREEN CHEMISTRY: In 2017 the Group also worked as part of this association to develop bio-industrial projects in the name of sustainable chemistry from the social, environmental and economic performance points of view.
- CONFINDUSTRIA: membership was important not only from the point of view of promoting industrial activities in themselves, but also from the point of view of cooperation for an increasingly fruitful exchange between businesses and society. In this context the relationship with the academic world was important, through a number of projects that saw RadiciGroup awarded by Confindustria for the excellence of its school-work alternation plans. Similarly, awards were presented to individual RadiciGroup workers, again by Confindustria, which intended to reward the pathway, human and professional qualities, the results achieved and the dedication to the company.

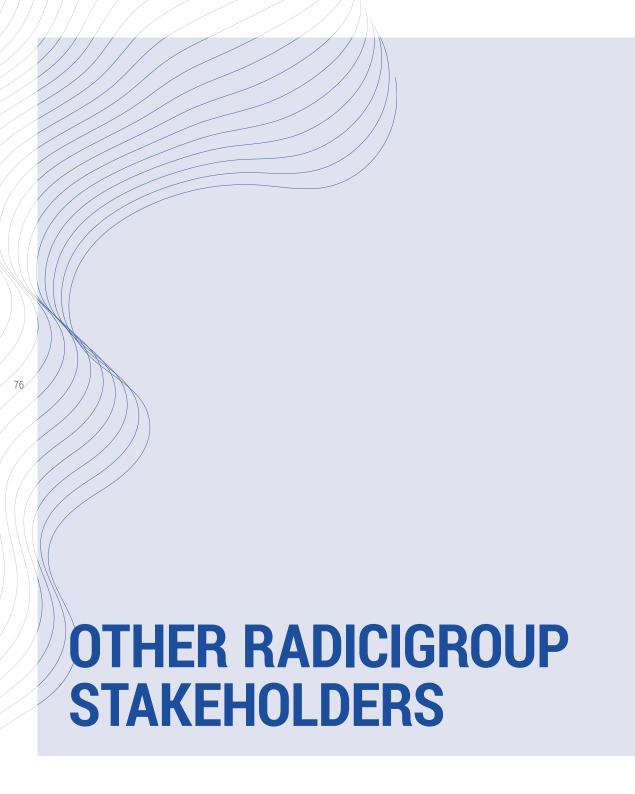
DISCLOSURE

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Finally, since 2015 RadiciGroup has also been a member of the "Appello delle Imprese e delle Organizzazioni della Green Economy" ('Manifesto of the Companies and Organisations of the Green Economy') for an effective international agreement on climate, supporting the implementation, in Italy, of significant impact mitigation measures, policies for the growth of renewable energies and of the most sustainable soil management models.







Together with the Workers, Customers, Suppliers and Trade Associations, the Group has many other social partners. Every year an analysis is carried out for everyone aimed at understanding the needs and legitimate expectations, risks involved in not meeting these needs and opportunities that could arise from a prompt response to requests advanced by Stakeholders.

In 2017 the Stakeholder mapping of 2016 was revised within the corporate work team that follows the themes of sustainability in relation to new emerging needs and to the transformation of corporate contexts. The mapping was also submitted for the attention of the Business Area Managers or the senior management of different companies to further verify its compliance with the reality of the Group. A useful synergy therefore led to "fusion" between the corporate model and the needs of the different production facilities.

The findings that emerged constitute the updating of the table concerning "MAPPING OF THE STAKEHOLDERS, RELATED EXPECTATIONS AND RISKS" already shown in the 2016 Sustainability Report. The number of Stakeholders has not varied but some factors have changed on the basis of the comments received from the individual Business Areas.

The mapping is a concise, overall view of RadiciGroup's position. It was essential, alongside the analysis of the Group's context, to produce the matrix of the material aspects described below. It was also the guideline for dialogue and engagement with the social partners. Some of these tasks are described in detail in the different parts of the Report and are easily linked to both the mapping shown below and the material element that inspired them through the table "MATERIAL ASPECTS".

	102-40 102-42	Table 19 STAKEHOLDER	MAPPING OF THE STAKEHOLDERS, RELATED E	EXPECTATIONS AND RISKS  RESPONSES BY RADICIGROUP
		SHAREHOLDERS	Return on invested capital     Business profitability     Increased intangible value	<ul> <li>Strategic plans with the related budgets</li> <li>Management system</li> <li>Acquisitions</li> <li>Reorganizations</li> </ul>
		WORKERS	<ul> <li>Ethical work relationship</li> <li>Stable work relationship</li> <li>Health and safety</li> <li>Proper remuneration</li> <li>Career path</li> <li>Training</li> </ul>	Compliance RadiciGroup Code of Ethics Voluntary policies and management systems (QSA) Assessment and training plans Succession plans Assessment plans
8/		GROUP COMPANIES	<ul> <li>Products and/or services which comply with the expectations</li> <li>Correctness and transparency in relationship</li> <li>Production chain strengthening and involvement</li> </ul>	<ul> <li>Guidelines and Procedures</li> <li>Assistance and consulting</li> <li>Networks</li> <li>Synergies</li> <li>Knowledge sharing</li> </ul>
		CUSTOMERS	<ul> <li>Products and/or services whic comply with the expectations</li> <li>Correctness and transparency of relations</li> <li>Collaboration and proximity</li> <li>Combined R&amp;D</li> <li>Consultancy on the needs of the final market, on global problem solving and compliance obligations</li> </ul>	<ul> <li>Clear definition of the specifications</li> <li>Policies of consistency and improving quality</li> <li>Carrying out the accuracy principles in the Code of Ethics</li> <li>Team dedicated to combined projects</li> <li>Dedicated and committed resources</li> </ul>

RISKS FOR RADICIGROUP	RISK MITIGATION	OPPORTUNITIES FOR RADICIGROUP	ENGAGEMENT
Market Risks (SR)     Financial Risk (FR)     Reputational Risk (RR)	<ul> <li>Risk Prevention and Response Actions</li> <li>Control Activity</li> <li>Vigilant MKT and Communication Policy</li> </ul>	<ul> <li>Business continuity and profitability</li> </ul>	<ul><li>Daily involvement in strategic operations</li><li>Communication</li></ul>
<ul> <li>Demotivation (RR+OR+FR)</li> <li>Non-alignment (OR)</li> <li>Absenteeism (OR)</li> <li>Corruption (RR+FR+PR)</li> <li>Fraud (RR+FR+PR)</li> <li>Reputational Risk (RR)</li> </ul>	<ul> <li>Code of Ethics</li> <li>RadiciGroup Human Resources Policy</li> <li>MBO and Benefits</li> <li>Career management</li> <li>Engagement</li> <li>Active training</li> </ul>	<ul><li>Trust</li><li>Motivation</li><li>Efficiency</li></ul>	<ul> <li>Internal communication</li> <li>Engagement</li> <li>Ad hoc events</li> <li>MBO and benefits</li> <li>WHP</li> </ul>
Misalignment of policies between Holding Company and subsidiaries (OR)     Reputational Risk (RR)	<ul> <li>Integrated Management System</li> <li>Across-the-board work projects and groups</li> <li>Coordination activities</li> </ul>	<ul><li>Synergies</li><li>Optimisation</li><li>Business opportunities</li></ul>	<ul> <li>Networking and business meetings</li> <li>Transversal teams</li> <li>Knowledge sharing</li> <li>Communication</li> </ul>
Complaints (OR) Non-solvency (FR) Loss of customers (OR+FR) Ineffective strategy with combined MKT and R&D (OR) Reputational risk (RR) Supply chain risk for lost market (OR)	Technical assistance Complaint handling Credit management Financial controlling activities Operative and strategic marketing R&D CRM activities Customer loyalization Potential customer research Customer satisfaction survey Supply chain monitoring Production and replacement processes	Market leadership     Reputation     Loyalization     Business continuity and profitability     Conquest of new markets	<ul> <li>Networking and business meetings</li> <li>Sharing knowledge</li> <li>Partnerships and shared development</li> <li>Communication</li> <li>Ad hoc events and fairs</li> </ul>

STAKEHOLDER	STAKEHOLDERS' LEGITIMATE EXPECTATIONS	RESPONSES BY RADICIGROUP	RISKS FOR RADICIGROUP
COMPETITORS	• Accurate and transparent relations • Fair competition • Joint development of applicable sectors	Carrying out the principles of the Code of Ethics     Carrying out the Mission, Values and Vision of RadiciGroup     Research and development for more competitive products and businesses	Loss of market quotas (OR+FR)     Ineffective joint MKT-R&D strategy and management system (OR)     Reputational risk (RR)
SUPPLIERS	<ul> <li>Fair price</li> <li>Stable business relation</li> <li>Fair business relation</li> <li>Solvency of RadiciGroup</li> <li>Joint R&amp;D projects</li> </ul>	`suppliers' code of conduct     Procurement procedures     Payment guidelines	Non-conforming products and services (OR) Non-guarantee of business continuity (PR) Corruption (RR+FR+PR) Frode (RR+FR+PR) Abuse of RadiciGroup's intellectual property (PR) Ethical aspects: respect of human rights, workers' rights and the environment (RR+PR) Reputational Risk (RR)
BANKING INSTITUTIONS	<ul> <li>Profit</li> <li>Stable business relation</li> <li>Fair business realtion</li> <li>RadiciGroup solvency</li> </ul>	Policies, short and medium term economic/financial plans Clear economic/financial reporting which complies with the legislation Third part report certification Policy for debt reduction	Increase in interest rates (FR) Lack of funds (FR) Failure of financial institute (FR)
TRADE UNION REPRESENTATIVES	<ul> <li>Freedom of association</li> <li>Dialogue</li> <li>Trust</li> <li>Collaboration</li> <li>Communication</li> </ul>	Respect of requirements     RadiciGroup Code of Ethics     Trade union organisation presence     Compliance	Strikes (OR)     Reputational risk (RR)     Legal actions (OR+FR+RR)
LOCAL COMMUNITIES	Protection of the environment and security Working policies attentive to the area (local resources, disabilities, young people) Economic and social support Transparency and communication Leadership for the training of local resources	Medium and long term responsible environment policies     Working policies that take care of the areas resources     Sustainability Report and constant communication     Social and philanthropic marketing	<ul> <li>Environmental risks (PR)</li> <li>Health and safety risks (PR)</li> <li>Reduction of employment in the area (PR)</li> <li>Risk of degradation in a social context (PR)</li> <li>Reputational risk (RR)</li> </ul>

- · Strategic and operative marketing activity
- R&D
- CRM activity
- Customer loyalization
- · Finding new customers
- · Customer satisfaction activities

- Collaboration through the trade association is protecting the market
- Sector innovation
- Reputation
- · Collaboration through the trade association in · Networking and business meetings
  - Association meetings
  - Communication

- · Business continuity activities
- Controlling activities
- Supplier's code of conduct
- · Supply procedures
- · Surveillance activities

- Reputation
- · Business continuity
- Synergy
- Development

- · Networking and business meetings
- · Sharing knowledge
- Partnerships
- · Signing of the Code of Conduct
- Communication

- Direct and continual collaboration with the banks
- Policies and plans to reinforce the solidity of RadiciGroup assets and reputation
- Controlling activities
- Activities in finding financers with better rates
- · Careful supervision of banking institutes
- Reputation
- Trust
- · Business continuity

- · Networking and business meetings
- Sharing of information
- Partnerships
- Communication

- Coordination
- · Joint projects
- Legal actions

- Reputation
- · Working environment

- · Meetings and dialogue
- Coordination
- · Development of joint projects
- Communication

- · Respect of requirements
- RadiciGroup policies for sustainability and integrated management systems
- Implementation RadiciGroup working policies
- Keeping relations with the local area (e.g. Open Days)
- Reputation
- Mutual support
- Local professional pool

- Communication
- · Ad hoc events
- Activities envisaged by the Sustainability Report

Trust Innovation  Training and information Sharing of knowledge and experience Sharing of knowledge and experience Training and information Sharing of knowledge and experience Of lobbying capacity (RR) Reputational risk (e.g. Activist organisations)  Reputational risk for lack of information (RR)  Reputational risk for lack of information or dissemination of negative information (RR)  SCHOOLS AND SCHOOLS AND Normation  Natival trust  Inconsistency between skills offered and skills required by RadiciGroup (DR) Support  Normation  Internships Inconsistency between skills offered and skills required by RadiciGroup (DR) Reputational risk (RR)  COMMUNITY  A better world Satisfaction of needs  Sustainable development  AMBIENTE  Continuity Protection Respect Balance  CONTROL BODIES  Compliance  Compliance  Compliance  Sanctions (OR) Sequester and closure of plants	STAKEHOLDER /	STAKEHOLDERS' LEGITIMATE Expectations	RESPONSES BY RADICIGROUP	RISKS FOR RADICIGROUP
- Transparency - Consistent relations - Mutual trust  SCHOOLS AND THE ACADEMIC WORLD  - Knowledge sharing - Job opportunities - Support  - Support  - Support  - A better world - Satisfaction of needs  - Sustainable development - Sustainable development - Continuity - Protection - Respect - Balance  - Compliance  - Compliance  - Compliance  - Communication - mation or dissemination of negative information (RR)  - Inconsistency between skills offered and skills required by RadiciGroup (OR - Reputational risk (RR)  - Market risks (SR) - Reputational risks (RR)  - Lack of raw materials (OR) - Catastrophic events (PR) - Sanctions (OR) - Sequester and closure of plants	TRADE ASSOCIATIONS	• Trust	Transparency and communication     Training and information	Impoverishment of networks and loss of lobbying capacity (RR)     Reputational risk (e.g. Activist
THE ACADEMIC WORLD  • Job opportunities • Support  • Market risks (SR) • Reputational risks (RR)  • Market risks (SR) • Reputational risks (RR)  • Continuity • Support  • Support  • Support  • Market risks (SR) • Reputational risks (RR)  • Continuity • Protection • Protection • Respect • Balance  • Compliance  • Compliance  • Compliance  • Sanctions (OR) • Sequester and closure of plants	MEDIA	<ul><li>Transparency</li><li>Consistent relations</li></ul>	Marketing policies and RadiciGroup communication	mation or dissemination of negative
Satisfaction of needs     Reputational risks (RR)      Continuity     Protection     Respect     Balance      Compliance     Compliance     Compliance     Satisfaction of needs     Reputational risks (RR)      Lack of raw materials (OR)     Catastrophic events (PR)      Catastrophic events (PR)      Sanctions (OR)     Sequester and closure of plants	THE ACADEMIC	<ul> <li>Job opportunities</li> </ul>	Training days	Inconsistency between skills offered and skills required by RadiciGroup (OR)     Reputational risk (RR)
Protection Respect Balance  CONTROL BODIES Compliance Catastrophic events (PR)	COMMUNITY		Sustainable development	Market risks (SR)     Reputational risks (RR)
<ul> <li>Sequester and closure of plants</li> </ul>	AMBIENTE	<ul><li>Protection</li><li>Respect</li></ul>	Sustainable development	Lack of raw materials (OR)     Catastrophic events (PR)
(OR+RR) • Sentences and convictions (OR) • Reputational risk (RR)	CONTROL BODIES	• Compliance	Compliance	Sequester and closure of plants (OR+RR)     Sentences and convictions (OR)

PR – PURE RISK SR – STRATEGIC RISK FR – FINANCIAL RISK

### COMMUNICATION AND ENGAGEMENT OF STAKEHOLDERS

DISCLOSURE

The essential element of the engagement activities presented in the table is the commitment to transparent and ongoing communication that deserves to be looked at in greater detail here, since it unites all categories of social partners and is the main instrument through which the engagement work brought to fruition. The many issues addressed through the work shown below have often fulfilled the need expressed by Stakeholders to gain further insight into a number of issues concerning sustainability, for example sustainable fashion, green chemistry or the impacts of synthetic materials.

Starting from 2017 an important project has been underway aimed at renewing the mapping of Stakeholders and establishing a mediumterm structured engagement plan for each category considered as a priority. A measurement of interactions and engagement will be implemented, from 2018 onwards, not only to test the effectiveness of RadiciGroup's actions, but also and above all to make the collection of the needs of the Group's social partners more incisive and continuous. This last step will be implemented from 2019 onwards.

#### THE MEDIA

A serious communication policy that is attentive both to the reliability of the content and the timeliness of the information has always defined the Group in its relations with the media. Press office numbers are constantly growing parallel to the importance that RadiciGroup holds as a market player.

Stakeholders in the plastics sector in regular contact with the Group rose from three hundred in 2016 to four hundred in 2017. Similarly, fibre sector publications increased thanks to the careful monitoring of newspapers and magazines and the widespread engagement of journalists.

With its approximately sixty communications and press releases in 2017, the Group has updated its Stakeholders on a weekly basis, primarily the world of press, and at the same time the approximately ten thousand registered recipients of the Group's newsletter, including Customers, Suppliers and Employees. On some occasions, adverts were produced to provide information about special innovation and sustainability schemes.

There have been a many activities that, between 2017 and the

beginning of 2018, have substantiated the intention of RadiciGroup to cooperate constructively with the media, starting from an update of the trade press mailing list and that of the general and local press. This will be supported throughout 2018 by other lists of specific contacts, linked to the Group's reference sectors in order to reach targeted recipients quickly. Finally, the press release service activated in 2018 will allow a daily review of the effectiveness of the Group's communications. Further initiatives in 2018 to strengthen relations with the media and Stakeholders concern the organisation of press events in order to create opportunities for dialogue on issues at the heart of RadiciGroup's business strategy.

#### **SOCIAL MEDIA**

In 2017 the role of social media was once again essential for communicating with all the Group's Stakeholders, in particular Stakeholders linked to the business and to the territories. The wide resonance that these channels are able to give the news and the interactivity that they promote through comments, shares and "likes" make them a high priority for the Group in terms of listening and dialogue.

#### Twitter and Twitter for Sustainability

Both channels have seen a growth of the Group's "followers" In the case of Twitter for Sustainability, in 2017 ample space was dedicated to recycling, the circular economy, low impact chemistry and sustainable fabrics, promoting not only RadiciGroup's initiatives, but those of all the Stakeholders related to these topics (Customers, Trade Associations, research institutes) to create awareness and engagement.

Table 20

CHANNEL	MONTH	FOLLOWERS
TWITTER	December 2017	1,634
	December 2016	1,421
	December 2015	1,073
TWITTER FOR SUSTAINABILITY	December 2017	469
	December 2016	327
	December 2015	336

#### Facebook World and Facebook Italia

Both Group profiles have seen a good increase in followers and interactions, proof of the growing interest in the Group's activities.

In 2017, Facebook World, a channel linked to the business, promoted the Group's Italian initiatives, participation in congresses, fairs and events.

Facebook Italia, on the other hand, continued its mission to create engagement among Employees and in the local communities through numerous posts dedicated to the social events for Workers (work walks, sporting events and training). It also continued to promote the most interesting local events. In 2017 this service was also extended to the Novara area. Now, by following the Facebook Italia channel, it is possible for RadiciGroup's people, their families and the residents of surrounding communities to have a complete and up-to-date overview of a large number of musical, tourist and cultural events aimed at making the most of the area and spread this knowledge to the local inhabitants.

Table 21

CHANNEL	MONTH	FOLLOWERS
FACEBOOK WORLD	December 2017	759
	December 2016	481
FACEBOOK ITALIA	December 2017	1,069
	December 2016	838

#### LinkedIn

LinkedIn is the social media most closely linked to the world of business. Originally it was intended for looking for and offering jobs, it has increasingly evolved as a communication tool useful for marketing in order to achieve targeted contacts in the world of business and for sales in order to locate potential contacts and new sectors. RadiciGroup has been using this instrument since 2012 precisely in order to send its communications more effectively, to boost participation among the Stakeholders involved and to deepen knowledge of sectors with high strategic potential.

Table 22

CHANNEL	MONTH	FOLLOWERS
LINKEDIN	December 2017	12,413
	December 2016	10,506

### LINKEDIN AND SECTOR MARKETING: A NEW FRONTIER FOR GETTING TO KNOW THE MARKET

An innovative project was conducted through LinkedIn in 2017 involving a number of sectors in which RadiciGroup products are used, in particular the sporting and automotive worlds.

A the companies and the influencers in these industries present online were thoroughly mapped. Individual contacts holding decision-making positions were also mapped via LinkedIn. Moreover, all the components and accessories promoted by these companies in the European and American markets were studied as well as the communication methods used.

An important consideration that emerged from the analysis was the attention to the topic of sustainability which, in the sports sector and the outdoor segment in particular, saw over 60% of the companies analysed show interest in the subject and/or offer consumers sustainable items.

The reference sector analysis project continued in 2018, extended to the clothing, furnishing and automotive industries. The final objective, in addition to the knowledge of the players from the social media point of view, was also the use of contacts for brand awareness campaigns aimed at Customers' customers and the influencers in different sectors.

#### THE WEBSITE

The institutional website is a comprehensive means of communication that is well structured and that all Stakeholders may use for information about the Group. This tool is not only at the disposal of external Stakeholders, but also Workers who can stay updated, in their own reference language, on what is happening in the group. In 2017, in particular, the Sustainability Section of the website was expanded with new content, starting from Customer and Supplier Codes of Conduct, and with a more user-friendly graphic interface.

Website visit data, which is constantly monitored, show extremely high interest with visits from over 168,500 accounts in 2017, up 29% on 2016 and most of them new (74%). An analysis of the target users has highlighted that there is a prevalence of those estimated to be aged between 25 and 55, a business audience in line with the Group's objectives, and mainly male (65% of users). The soundness of the choice to build a version of the site in different languages - in

addition to English and Italian - to benefit Customers and Employees was again shown in the 2017 data. |Visit to the sections in Chinese, Portuguese and German in fact showed growing trends and interest.

### THE SUSTAINABILITY REPORT AND COMMUNICATION

The Sustainability Report is a priority in the Group's communication work. All the traditional and social instruments shown above were used for its circulation in 2017. In particular, in addition to the online publication and the production of the usual small versions or "bites", posts or short news items explaining key contents in depth were produced, communications that were circulated through all the Group's channels.

Presentations events, starting from "Sustainability Day", were not neglected. This initiative was held in October 2017 and saw the official presentation of the 2016 Report at a round table of multiple Stakeholders. In addition to RadiciGroup, representatives from the trade unions, the business world and certification institutes were present. This was the first time the Report was presented in public and the first public opportunity for constructive dialogue and discussion based on the content of the Report.

The key elements of the Report were also presented in all the RadiciGroup companies in Italy and in some of its European sites through meetings that involved the sales and technical assistance staff, marketing and departmental personnel. The engagement recorded was good and was substantiated through the many questions that participants asked regarding the Group's commitment, mainly with regard to environmental sustainability.





# RADICIGROUP'S SUSTAINABILITY STRATEGY

The definition of RadiciGroup's sustainability strategy is based on what is stated in the Group's Vision, Mission, Values, in the Quality, Environment, Health and Safety policy and the overall business plan. This strategy is implemented through a multifunctional approach involving RadiciGroup's senior management, the GRI Coordination Group and the teams involved in the different projects relating to sustainability.

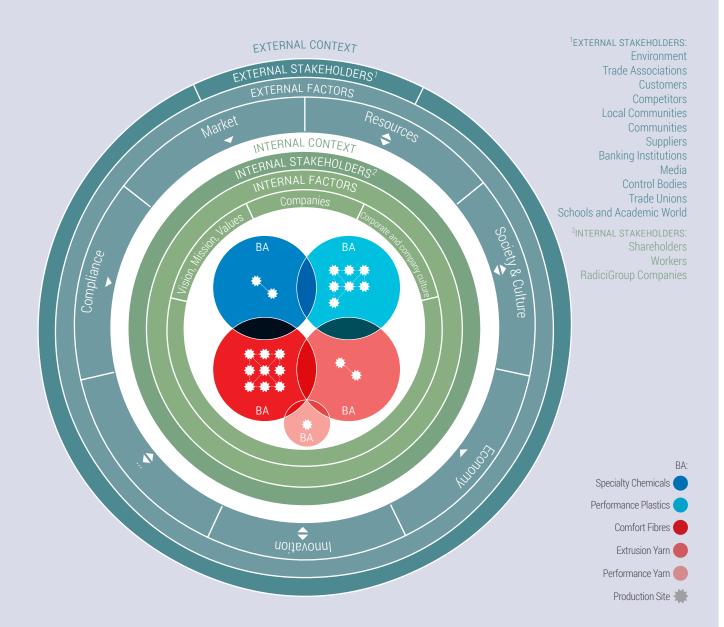
This primarily takes into account the internal and external context in which the Group operates, the interaction among the various companies and between them and the market and the ceaseless exchange between the various Stakeholders whose expectations have already been described. The awareness that is obtained from the combined analysis of all these factors is crucial because it becomes the basis for actions intended to positively influence the context itself, thereby creating a virtuous circle of analysis and continuous improvement.

#### THE CONTEXT OF RADICIGROUP

The analysis of RadiciGroup's context was previously extensively described in the 2016 Sustainability Report, which should be consulted for greater detail

#### WWW.RADICIGROUP.COM/EN/DOCUMENTATION/CORPORATE/REPORT

The use of the context was also essential in 2017 for the definition of the material aspects, thanks also to the validation of the model by the different business areas. The image below represents the world of RadiciGroup together with the endogenous and exogenous factors that characterize it. Interpretation of the context helps to explain the complexity of the dynamic equilibriums that underpin the Group.



#### ANALYSIS OF THE ECONOMIC AND FINANCIAL RISKS

Alongside the context analysis and the analysis of the risks associated with the relationship with the Stakeholders, as occurs every year, an ad hoc study aimed at highlighting the uncertainties in the economic and financial scenario that may affect RadiciGroup activity's was also conducted by the Corporate Administration, Finance and Control function in 2017. The brief overview of these risks presented below might be interesting for a better understanding of the Group and its dynamics.

#### **MARKET RISKS**

The Group is exposed to market risk associated with competition and the fluctuations of volumes and prices. To cope with such eventualities continuous monitoring of the market was also performed in 2017 in order to promptly see the signs in terms of both potentially risky situations and opportunities.

#### **FINANCIAL RISKS**

RadiciGroup is exposed to certain financial risks associated with its operations in relation to which supervision by the centralised Finance, Credit Management and Procurement function is continuous. This is in order to evaluate potential negative scenarios in advance and take appropriate actions to mitigate them. In particular, the Group monitored the following potential risks in 2017:

- credit risk (already described in the part relating to Customers);
- liquidity risk;
- interest rate risk:
- exchange rate risk.

#### LIQUIDITY RISK

Liquidity risk can manifest itself with the inability to find, under favourable economic conditions, the financial resources necessary for the operation and development of industrial and commercial activities. At RadiciGroup, policies have long been adopted to optimize the management of financial resources and reduce liquidity risk, for example through the maintenance of an adequate level of availability, obtaining suitable credit lines and the systematic control of liquidity conditions, paying particular attention to the collection of receivables.

#### INTEREST RATE RISK

The Group uses external financial resources in the form of debt. Variations in market interest rates affect the cost of forms of financing with an effect on the level of net financial charges. The



interest rate risk is linked to some medium-long term loans negotiated at variable rates and is constantly kept under control with the support of the centralised Corporate Finance function.

#### **EXCHANGE RATE RISK**

The Group is exposed to exchange rate risks as it makes purchases or sales outside the euro area. In certain situations, the related financial assets and financial liabilities that are generated from sales or purchases in foreign currency (mainly dollars and pounds) are offset thanks to the use of fixed-term contracts and thanks to advances in foreign currencies, with the support of competences provided by the Finance function.

This study integrates the process of defining the material aspects. As a result of this analysis, it was shown that the organisation as a whole does not present particularly risky situations, either internal or external, and the aspects illustrated may be classified as significant but not strategic, albeit subject to precise continuous monitoring.

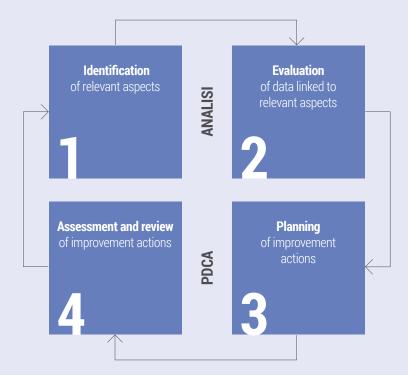




## MATERIALITY ANALYSIS

The operating method adopted for the analysis of the material aspects at the heart of the Report is the practical implementation of the principles recently introduced by the new rules relating to management systems and it aims to create a conceptual and operational synergy between management systems present in the Group and the GRI model. A special section within the PR 8 procedure is dedicated to this analysis: Management Methods for Sustainable Development signed by the President of RadiciGroup. Undertaken along these lines in 2016, the analysis is gradually subjected to a management review of its main aspects, refined and reported in the various Sustainability Reports. The guidelines were developed by the holding Company and tested by the operating companies who contributed actively to the continuous improvement of the model proposed with the aim of making it more and more robust.

The analysis consists of four phases that must ensure reproducibility, correctness and completeness. The initial steps are the identification of the material aspects and their relevant evaluation, which find application in the analysis of the RadiciGroup context in the identification of issues common to all business areas and in the simultaneous allocation of a degree of significance. The following stages of the Programming and Evaluation instead correspond to improvement plans and evaluation thereof carried out.



To go into greater detail, the identification phase saw the definition of the RadiciGroup context model with the relevant factors and the identification of the main interactions between the reality internal and external to the Group (image see context circles on page 93). This is accompanied by the mapping of the Stakeholders and legitimate expectations (Stakeholder expectations table on page 78) and a specific and qualitative evaluation of the economic and financial risks prepared by the centralised Administration, Finance and Control function.

The Assessment phase applied an analysis of the strengths and weaknesses of each factor/subfactor mentioned in reference to Stakeholders and their legitimate expectations and in relation to the possible risks and/or opportunities associated with the safeguarding (or otherwise) of each issue. Therefore:

- A rating from 1 to 4 was given to define the level of significance of the opportunities that were presented to RadiciGroup in proactively responding to the legitimate expectations of Stakeholders.
- A rating from 1 to 4 was given to define the level of significance of the risks run by RadiciGroup in not meeting the legitimate expectations listed.

Score 1 = NOT IMPORTANT
Score 2 = NOT IMPORTANT
Score 3 = IMPORTANT
Score 4 = VERY IMPORTANT

Depending upon the location of the result within the table shown here by way of example, three levels of significance levels were obtained:

- A. IMPORTANT AND STRATEGIC ASPECTS (or MATERIAL) = Areas of interest and intervention critical for both RadiciGroup and for Stakeholders, which need to be taken into consideration by Management as they are strategic.
- B. IMPORTANT BUT NOT STRATEGIC ASPECTS = areas relevant to business performance and the Stakeholders, but not central to the business strategy (some issues can be considered considered with a view to future strategies, especially those surrounding which the Stakeholders' attention is growing).
- C. UNIMPORTANT Aspects = Low-priority areas for RadiciGroup and Stakeholders, but must be monitored anyway.

			OPPOR	TUNITY	
		1	2	3	4
	1	С	С	В	A
2	2	С	С	В	A
RISK	3	В	В	В	A
	4	A	A	A	A

The Programming and Evaluation phases have seen then the adoption or consolidation, based on relevant aspects, of improvement strategies and plans, accounted for in this Report in the parts relating to RadiciGroup's approach to sustainability, measured by the quantitative and qualitative indicators provided for by the GRI model and supported by the Stakeholder engagement activities and by the many case histories presented in this report. Each material aspect is an integral part, across the board, of the different processes that guarantee the operation of the companies.







## MATERIAL ASPECTS

DISCLOSURE

104

102-46

102-47

Consistently with the desire to adopt sustainability strategies that are not related to individual sites, but valid for the whole group, only relevant aspects common to all RadiciGroup business areas have been considered in this Sustainability Report.

The diagram below summarizes the material aspects identified and links them to RadiciGroup's strategy and operation in the name of an ever greater interpenetration between the ethical sustainability elements and daily operations. The aspects identified by the analysis sometimes apply to multiple disclosures mentioned in the GRI Standards model. For clarity, the corresponding disclosures were mentioned simultaneously with the related material aspect.

Table 23

#### MATERIAL ASPECT

Creation of added value in respect of people and the environment, shared with the Stakeholders (ECONOMIC PERFORMANCE, ENERGY, EMISSIONS, PUBLIC POLICY, LOCAL COMMUNITIES)

#### RADICIGROUP APPROACH

Creating added value by making the best use of resources.

Operating transparently towards all Stakeholders.

Redistributing this value with special attention to Employees.

Constantly invest in support of the Business Areas with special consideration given to the safeguarding of jobs at the local level.

Carrying out investments for redeveloping the companies and improving the working environment.

Not forgetting roots in local communities.

SUPPORTING DISCLOSURES, INDEXES, CASE HISTORIES	STAKEHOLDERS INVOLVED	METHODS OF ENGAGEMENT	OBJECTIVES
DISCLOSURE 201-1 DISCLOSURE 302-3 DISCLOSURE 305-4 DISCLOSURE 413-1 DISCLOSURE 415-1	All RadiciGroup Stakeholders	GENERAL DISCLOSURES 102-43 e 102-44	Creation of added value using resources ever more effectively (investments to make plants more efficient and impact mitigation).  Creation of a structured plan for
The section of the report devoted to business trends.			Stakeholder engagement.
Reporting on communication aspects.			
Case History "LinkedIn and sector marketing : a new horizon for getting to know the market".			
Reporting on Donations and Sponsorship .			
Case History "Logit and the territory, a continuing partnership".			
Case History "The black and blue day at RadiciGroup: Atalanta pop-up shop and players' autographs for Employees".			

sectors (furniture, clothing, with high-performance processes and products with increasingly low impact. (MATERIALS, ENERGY, WATER / EMISSIONS, EFFLUENTS AND WASTE sectors (furniture, clothing, impact. MARKETING AND LABELLING)

106

Leadership in the main reference Research and Development activities associated with the sustainability needs automotive and industrial goods) expressed by the market.

> Impact Measurement and Mitigation through investment and BATs.

DISCLOSURE 201-1 DISCLOSURE 301-1 DISCLOSURE 306-2 DISCLOSURE 302-1

DISCLOSURE 302-3 and relative extension to waste, water and emissions

DISCLOSURE 305-1

DISCLOSURE 305-2 **DISCLOSURE 305-7** 

DISCLOSURE 303-1

DISCLOSURE 303-3 DISCLOSURE 306-1

Case history "The Day of the Owl ... Noyfil makes a home for endangered birds of prey".

Case History "Leffe, cutting edge RadiciGroup yarns for the locally produced artificial grass field of the oratory".

Case History "Recovery: a strategic choice that the measurement of environmental impacts confirms to be winning".

Leadership/in the main reference automotive and industrial goods) with high-performance processes and products and increasingly low (CUSTOMER HEALTH AND SAFETY,

Product certification and labelling.

LCA Studies.

PFF

**EPDs** 

Research and Development from the

viewpoint of a circular economy (ecodesign,

recyclable products, recycling strategies).

Reporting on Research and Development activities.

Overview of RadiciGroup's limited impact products.

Studies on the theme of microplastics.

Engagement with trade associations on the themes of recycling and the environmental impact of the products.

Case history "Fifteen projects, one material: Nylon".

Case history "A tradition is renewed: the RadiciGroup Perfomance Plastics Business Area rewarded for the excellence of its products".

Integrated management systems aimed at continuous improvement.

Table of Certifications.

Case History "Group Quality and Processes: training project for cutting edge auditors launched in the 2016-2018 period".

STAKEHOLDERS INVOLVED	METHODS OF ENGAGEMENT	OBJECTIVES
All RadiciGroup Stakeholders	General Disclosures 102-43 and 102-44 and in particular, joint partnerships and developments with Customers.  Ad hoc activities with universities and research centres.  Customer Satisfaction Activities.	Continuation of the intervention policy to make plants more efficient with investments earmarked for BATs and the improvement of the environmental impact.
All RadiciGroup Stakeholders	General Disclosures 102-43 and 102-44 and in particular, joint partnerships and developments with Customers.  Ad hoc activities with Universities and Research Centres.  Participation in trade associations' activities and decision-making processes.	Continuation of the quest for low-impact products.  Passing the knowledge acquired on to Stakeholders: Customers (including those in downstream markets), Suppliers, Trade Associations, Schools and the Academic world, Community.

 $Continuation \ of \ the \ work \ of \ disseminating \ integrated \ management \ systems.$ 

Constant updating and training people involved in such systems throughout the Group.

All RadiciGroup internal Stakeholders

DISCLOSURE 403-2.

Case History "A show to tell the story of safety: Ocjo... safety is on the stage".

Case history "Personalized safety glasses with prescription lenses: safety and comfort for Noyfil employees".

Constant education and training of RadiciGroup people. (EMPLOYMENT, DIVERSITY AND EQUAL OPPORTUNITY) Safeguarding and growing know-how, especially through the introduction of new technical and technological skills.

DISCLOSURE 404-1

Explanatory text linked to the "Education" project.

Case History "Students at the Guardia di Finanza Academy visiting RadiciGroup".

Case History "Education and training: RadiciGroup rewards outstanding performance".

STAKEHOLDERS INVOLVED	METHODS OF ENGAGEMENT	OBJECTIVES
All of RadiciGroup internal Stakeholders	Communication RadiciGroup for Safety project.	Continuation of the work to promote health and safety in the workplace through training, awareness raising and the constant monitoring of safety-related data.
All of RadiciGroup internal Stakeholders Schools and the Academic World.	Training projects. The Group's Education Project.	Educational projects aimed at training people in an increasingly appropriate way and guiding them through professional and organisational changes.

# CREATION OF ADDED VALUE IN RESPECT OF PEOPLE AND THE ENVIRONMENT, SHARED WITH STAKEHOLDERS

(ECONOMIC PERFORMANCE - PUBLIC POLICY)
DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED, ENERGY INTENSITY

MANAGEMENT APPROACH The creation of added value, i.e. a company's ability to produce wealth and then distribute it

103-2

103-3

It has always been a central element for RadiciGroup that, through the redistribution to Stakeholders, substantiates its concept of economic sustainability. This Report provides detail of the percentage redistribution of added value totalling Euro 258,860,287 to the different Stakeholders with a view to transparency. In 2017 the lion's share, over 50%, was allocated to Employees by means of remuneration, the key element to attract, motivate and retain the best talent. The centrality of the workers and the safeguarding of jobs at a local level were therefore also relevant in the economic data presented here.

Investments to support the Business Areas were also important in the Group's panorama. State-of-the-art technology for maintaining competitiveness, upgrading the companies and improving the working environments are deemed to be key elements for the performance of RadiciGroup.

The added value allocated to the payment of taxes, presented in detail below, is testimony to the full compliance with legal requirements. In addition, the low percentage of added value intended for the remuneration of lenders is a clear indication of the excellent state of health of the RadiciGroup balance sheet.

As usual, the local communities and the areas in which RadiciGroup operates benefited once again in 2017 from the tangible support of the Group companies, as illustrated in detail in the part of the Report devoted to donations and sponsorships.

The Group's future challenges will certainly be related to maintaining the leadership position in the market, increasingly making sustainability the key element in its strategy and operations. Disclosure 302-3, which correlates energy use with added value (and extensions of the concept to water and emissions) clearly show how an industrial reality can be profitable using fewer resources thanks to a strategy consisting of investments, efficiency enhancement and the ability to embrace technological challenges quickly.

		1	

ITEMS	3	31/12/2015	31/12/2016	31/12/2017
A)	PRODUCTION VALUE	993,769,060	946,065,498	1,164,318,842
1	Revenue from sales and services	1,011,118,534	945,147,279	1,146,294,145
2	Changes in inventories of work in progress, semi-processed and finished products	(17,534,599)	690,516	17,814,922
3	Custom change in work in progress	-	-	-
4	Increase in capital assets for internal work	185,125	227,703	209,775
5	Other operating income			
B)	INTERIM MANAGEMENT COST	770,772,971	704,765,147	867,422,758
6	Costs for the purchase of raw and subsidiary materials, consumables and goods	576,061,208	531,064,736	691,480,119
7	Costs for services	179,927,810	171,424,093	175,835,802
8	Costs for use of third party assets	5,117,266	3,986,722	5,401,205
9	Change in inventories of raw subsidiary materials, consumables and goods	769,270	(4,316,132)	(7,591,811)
10	Provisions for risks	300,567	163,374	361,174
11	Other provisions	299,199	845,395	76,341
12	Other operating expenses	8,297,650	1,596,959	1,859,929
	GROSS ADDED VALUE (A-B)	222,996,089	241,300,351	296,896,084
+/-	Accessory and extraordinary components	523,339	4,431,631	3,755,696
	TOTAL GROSS VALUE ADDED	223,519,428	245,731,982	300,651,781
-	Depreciation	40,034,852	38,805,292	41,791,493
	TOTAL NET VALUE ADDED	183,484,576	206,926,689	258,860,287

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Table 25 STANDARD STATEMENT OF ADDED VALUE DISTRIBUTION

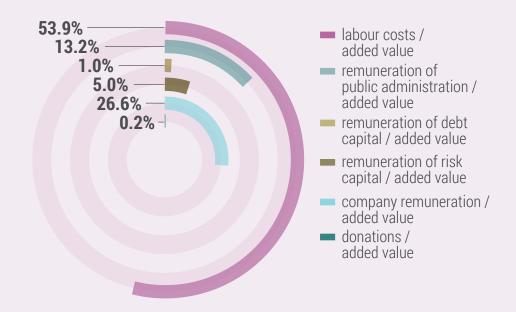
ITEM	5	31/12/2015	31/12/2016	31/12/2017
A)	REMUNERATION OF STAFF	130,196,142	133,767,454	139,538,473
	Non-employees Employees	7,397.897	6,332.576	6,622,828
	Employees	122,798,245	127,434,878	132,915,644
	a) direct remuneration	97,595,292	101,559,121	106,367,081
	b) indirect remuneration	25,202,953	25,875,757	26,548,563
B)	REMUNERATION OF PUBLIC ADMINISTRATION	16,404,674	19,185,700	34,177,994
	a) Current taxes	20,781,715	19,982,948	30,229,218
	Direct taxes	17,127,826	16,337,995	26,369,692
	Indirect taxes	3,653,889	3,644,953	3,859,526
	b) Deferred taxes	(3,973,424)	(230,889)	4,437,491
	c) Grants for operating expenses	(403,618)	(566,360)	(488,715)
C)	REMUNERATION OF CREDIT CAPITAL	6,081,958	3,366,290	2,694,396
	Charges for short-term capital assets	6,081,958	3,366,290	2,694,396
	Deferred charges for long-term capital assets			
D)	REMUNERATION OF RISK CAPITAL	4,020,000	9,000,000	12,991,285
	Dividends (income distributed to shareholders)	4,020,000	9,000,000	12,991,285
E)	REMUNERATION OF THE COMPANY	26,252,265	41,044,229	68,845,420
+/-	changes in reserves	26,252,265	41,044,229	68,845,420
F)	EXTERNAL DONATIONS	529,538	563,016	612,720
	TOTAL NET VALUE ADDED	183,484,576	206,926,689	258,860,287

The following tables follow the GBS model – Gruppo di Studio per il Bilancio Sociale (study group for the social report) <a href="https://www.gruppobllanciosociale.org">www.gruppobllanciosociale.org</a>

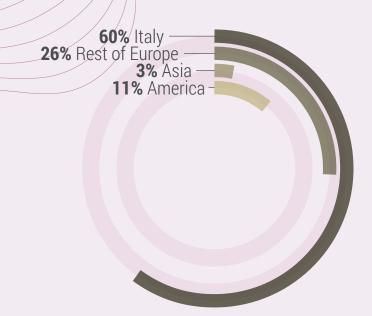
The data refers to the consolidated Report of Radici Partecipazioni S.p.A.. As noted in the consolidated report the economic flows deriving from operations carried out amongst the companies included in the consolidation are removed. The Report is subject to voluntary auditing by Deloitte&Touche and includes, as well as the group leader, the Italian and non-Italian companies of which RadiciGroup holds, directly or indirectly, the majority of the share capital and controls the management as stipulated by article 2359 of the Italian Civil Code.

**Table 26 ADDED VALUE DISTRIBUTION** 

%	LABOUR COSTS / ADDED VALUE	53.90%
%	REMUNERATION OF PUBLIC ADMINISTRATION / ADDED VALUE	13.20%
%	REMUNERATION OF DEBT CAPITAL / ADDED VALUE	1.04%
%	REMUNERATION OF RISK CAPITAL / ADDED VALUE	5.02%
%	COMPANY REMUNERATION / ADDED VALUE	26.60%
%	DONATIONS / ADDED VALUE	0.24%



#### VALUE ADDED BY GEOGRAPHICAL AREA



The soundness of RadiciGroup's balance sheet, which in recent years has been progressively reinforced, is also testified in 2017 by the ratio between its own resources and the resources of third parties. This is a guarantee of reliability that, from a point of view of social sustainability, translates into a commitment to the continuity of employment in all the territories where the Group operates.

Table 27 RIPARTIZIONE MEZZI DI TERZI E MEZZI PROPRI

Third party resources	Euro/1,000	165,632
Own resources	Euro/1,000	409,461
Total net invested capital	Euro/1,000	575,093

In the reporting year, the investments which have also concerned the following areas, among others, were also important:

- 177 million Euros: In investments to support the competitiveness of Group companies in the 2013-2017 period.Out of this, 45 million invested specifically in 2017 (including the environmental investments under reported by 2.9 million Euros in 2017).
- 2.9 million Euros: Environmental investments carried out in 2017 used for the introduction

- of Best Available Techniques, striving for energy efficiency, lowering emissions, funding R&D activities for the implementation of low-impact processes and products.
- 2.9 million Euros: Cost of environmental management and protection (such as costs for certifications, waste disposal, waste water treatment etc.) for the Italian companies.

Table 28 TAXATION BY COUNTRY (expressed in Euros)

	COUNTRY	EURO
€	ARGENTINA	64,517
€	GERMANY	4,254,878
€	ROMANIA	432,941
€	CZECH REPUBBLIC	54,736
€	HUNGARY	8,810
€	SWITZERLAND	11,154
€	ITALY	18,690,362
€	CHINA	1,363,006
€	MEXICO	-
€	LUXEMBOURG	-
€	BRAZIL	735,894
€	SPAIN	-
€	INDIA	337,954
€	UK	11,130
€	THE NETHERLANDS	20,150
€	USA	384,159
€	TOTAL	26,369,692

### DISCLOSURE 102-7

Faced with 484,000 tonnes of products sold by RadiciGroup in 2017, the sustainable development policies with regard to resources drawn from the environment are evidenced in the disclosure which follows, and in the relative extensions to water, waste and emissions. This indicator shows the proportion of resources extracted and how much RadiciGroup returns in terms of added value. In the case of the Group, the growth of added value in the last few years is mirrored by a decrease in the use of resources, which makes the proportion absolutely "virtuous" and supports the concept, always expressed by the Group, that it is possible for an industrial reality be profitable in a responsible and sustainable way.

29 I	OTAL PRIMARY ENERGY COMPARED TO THE TO	OTAL NET ADDED VALU	JE					
		2015	2016	201				
<del>T</del>	otal primary energy (GRI302-1)	6,304,184	6,178,598	6,611,640				
Т	otal net added value	183,484,576	206,279,587	258,860,28				
to	otal primary energy (direct + indirect) ompared to the total net added value	0.034	0.030	0.02				
30 T	OTAL EMISSIONS COMPARED TO THE ADDED V	ALUE						
		2015	2016	2017				
	otal emissions into the atmosphere GRI 305-1 and 305-2)	530,942	489,829	521,637				
T	otal net added value	183,484,576	206,279,587	258,860,287				
	otal emissions into the atmosphere (GRI 305-1 nd 305-2) compared to the total net added value	2.89	2.37	2.0				
31 W	WATER RESOURCES COMPARED TO THE ADDED	VALUE						
11	NDEX	2015	2016	2017				
	Vater resources (GRI 303-1) compared to the otal net added value	0.48	0.43	0.35				
32 <b>W</b>	WASTE SUBJECT TO DISPOSAL WITHOUT RECOVERY COMPARED TO THE ADDED VALUE							
11	NDEX	2015	2016	2017				
W 3	Vaste subject to disposal without recovery (GRI 06-2) compared to the total net added value	0.021	0.020	0.021				

#### **ROOTS IN THE LOCAL COMMUNITIES**

DISCLOSURE 413-1

GRI 302 Energy intensi

> GRI 305 GHG EMISSION INTENSI

116

A name (Radici means "roots"), a commitment of the Radici Family to its area of origin and the local communities where the companies are located. A tradition started by Gianni and Luciana Radici who knew only too well the demand for jobs and the social needs that were appearing in the production sites. A commitment that continues even today, thanks to the real presence of shareholders in the governance of the Group.

As already indicated previously, for many years RadiciGroup has been redistributing a proportion of its added value to not-for-profit associations and initiatives, characterized primarily by the local nature, the fact of being associative, the commitment to those who are in situations of difficulty and the high cultural value.

In 2017, after many years of philanthropic activity, work was carried out within the Group and in particular within the Corporate Marketing Function, which determines the direction of these activities alongside Shareholders, in order to reflect on the meaning of the support to its local territories. From this contemplation an evolution was born that is closely bound to the evolution of the role of the company towards all its social partners, who are called on to play an increasingly active role.

From this point of view RadiciGroup and its operations are committed not only to offering economic support, but also to working together with the organisations. This context also includes a number of initiatives that were conceived in 2017 and came to fruition in 2018 that have seen, for example, the provision of sports team uniforms for cycling, athletics and skiing at three sports clubs, all made with RadiciGroup yarn. In a new "win win" logic these clubs have received new uniforms while RadiciGroup will receive valuable information on the performance of these garments thanks to the active collaboration of the athletes who will test them.

It has thus evolved from a concept of "Philanthropic Marketing" to a concept of "Social Marketing oriented towards Stakeholders". In this logic the intention of being physically present at the side of the organisations and institutions, where they become actors and not merely recipients, has nonetheless remained firmly in tact. Contributions and donations are increasingly becoming joint projects, where possible.

From this new point of view, donations in the true sense of the word have nevertheless continued to play an important part, especially to those who help people in situations of social and economic hardship to ensure the continuity of important projects, thanks to the support of the Group. In 2017, these were accompanied by a number of cultural initiatives designed specifically to redevelop the area in which the Group operates.

#### LOGIT AND THE TERRITORY, A CONTINUING PARTNERSHIP

Logit SRO, a RadiciGroup company operating in the field of machining polyamide yarn for textile flooring, renewed its partnership with the territory once more in 2017 through numerous initiatives that concerned the area of Podborany (Czech Republic) and the neighbouring regions.

Through the fund specifically intended for local activities, Logit supported, for example, the creation of an area dedicated to sports and leisure activities for children and young people. It was a project born at the initiative of the families in the village of Petrohrad who, because they did not have suitable facilities, asked the regional authorities for a permit to transform a part of the public gardens into an area for play and sport with the economic support of Logit. The company has also actively contributed to the purchase of a first aid kit to enable children at the Kryry primary school to start to learn first aid and it has supported the basic training of young fire fighters through a special training course intended for young people. Finally, there was no lack of special attention paid to the historical heritage of Podborany, through the financing of the restoration of the church of St. Jiljí. An important Gothic monument that had been falling

#### **CONTRIBUTIONS AND DONATIONS 2017**

Through the online management system set up in 2012016, the Group effectively monitors all the requests for contributions that it receives. In the year referred to in this Report 73 eligible requests were received. Fifty-one were accepted on the basis of territoriality, and the aggregative, social or cultural value previously described. These criteria have been explained, with a view to transparency, accompanying the electronic sponsorship request form.

#### Discover more:

#### WWW.RADICIGROUP.COM/EN/RADICI-CONNECT/SPONSORSHIP/INTRO

Table 33

	2015	2016	2017
Health Care and Prevention, Humanitarian Associations	51,168	141,638	149,428
Territory, Culture and Training	195,670	96,378	76,987
Sports*	292,140	338,000	411,105
Total	538,978	576,016	637,520
Total relative to RadiciGroup**	529,538	563,016	601,520

<sup>\*</sup>Total referring to sport does not include the sponsorship of Atalanta BC.

The sports sector was of particular importance in 2017. The Group has always supported a large number of amateur yet high level teams. The RadiciGroup Ski Club, the Recastello RadiciGroup Athletics Club and the Pietro Radici Nuoto swim team have obtained excellent results thanks to promising youngsters, who have associated the Group's logo with outstanding performance.

The panorama of sporting activities was missing football, and in particular the Atalanta team, to which the Radici family and many of the Italian Employees are traditionally linked. An important initiative has thus saw the RadiciGroup associated with Bergamo's black and blues (Atalanta) as the main sponsor for the Europa League and the TIM Cup between 2017 and 2018. It was a real adventure with unhoped-for results, where Group Employees were able to take part through an initiative that saw them as protagonists alongside the team.

<sup>\*\*</sup>The previous values refer to RadiciGroup activities together with Geogreen, a production plant belonging to the Radici family, but not controlled by the Radici Partecipazioni S.p.A. holding company. The management of donations and contributions is in fact shared.

## THE BLACK AND BLUE DAY AT RADICIGROUP: ATALANTA POP-UP SHOP AND PLAYERS' AUTOGRAPHS FOR EMPLOYEES

The main sponsor of the Atalanta football team for the adventure in the Europa League and in the TIM Cup 2017-2018, RadiciGroup organized a true black and blue day at the offices of the holding company in Gandino: exclusively for Employees, RadiciGroup and Atalanta set up a pop-up shop where football shirts bearing the Radici trademark could be bought at a special price. Over 3,000 football shirts were distributed on this occasion bearing witness to the strong fandom of company Employees but also footballing faith in the Bergamo team.

All this is accompanied by the presence of some players from the "Spring" team on hand for photo ops and signing autographs and the possibility, thanks to the Atalanta staff, to customize shirts purchased, there and then.

It was also an opportunity to meet colleagues from different production sites throughout Italy, who came to the headquarters of the holding company and were thus able to "team up", so to speak.

#### DISCLOSURE 415-1

The list of contributions in 2017 contains no economic contribution to political parties directly or otherwise, in accordance with the in-house Code of Ethics, signed by the President of RadiciGroup and updated in 2013, and in particular with the following:

"RadiciGroup may not give direct or indirect contributions in any form nor allocate funds or loans to support public entities (e.g. political parties, committees), except when admitted and permitted by the law and the rules currently in force and then after it has been approved by the Radici Partecipazioni S.p.A. Board of Directors"

# INCREASING PROTECTION OF HEALTH AND SAFETY IN THE WORKPLACE

MANAGEMENT APPROACH

(OCCUPATIONAL HEALTH AND SAFETY)

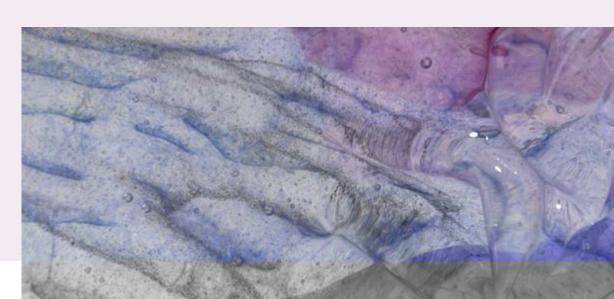
Safety is care for what we are doing and how we do it with respect to ourselves first of all, respect for those who work with us and with respect to the places and instruments through which the work gets done.

Safety is the awareness of the responsibilities and even more of the contribution that each person is called to provide to make the working environment healthy and free from dangers as far as possible.

Angelo Radici

RadiciGroup management is aware that its workers' health and safety is a priority and of central importance – market success and productivity notwithstanding. Group management ensures compliance with safety standards provided for by the applicable laws and regulations and has long pursued an agenda of enhancing prevention and control in order to reduce accident risks. Furthermore, management promotes transparency and collaboration in relations with local authorities and communities.

The Group's Quality, Health, Environmental and Safety policy



RadiciGroup attaches a degree of utmost importance to safety in its strategy and undertakes to combine the production requirements of the facilities with the safeguarding of worker welfare and local communities.

To do this, the Group works relentlessly to:

- Assess, prevent and mitigate risks through well structured corporate organisations, ready to detect potentially dangerous situations and take prompt action.
- Introduce the best technologies available on the market into plants, not only from the point
  of view of production, but also from the point of view of health and safety.
- Develop each worker's prospects, starting from senior management, relative to the contribution that each can make to improve the climate of safety.
- Transmit, formally and otherwise, the value of safety as a competitive and distinctive element both internally and externally to RadiciGroup.
- Communicate its progress in this field transparently and continuously through the Sustainability Report.

#### MANAGEMENT APPROACH

103-1

103-2

103-3

#### THE RADICIGROUP SAFETY PROJECT

Assessing risks, preventing them and adopting measures to minimise them. All the companies in the RadiciGroup have been performing these activities with great commitment for some time. Nevertheless, what has been done up to now is no longer sufficient. It is necessary to move from risk management to the promotion of safety activities in each of our companies, not just theoretically but in practice too.

An unwaivable commitment entrusted to each of us personally.

This is why, alongside RadiciGroup's Human Resources function, we have decided to launch"RadiciGroup for Safety", a special campaign that aims to work on safety at grass roots level. A commitment to training and awareness-building on the contribution that each of us can and must give on this subject.

Angelo Radici

Four hundred people involved, 60 senior managers and 200 supervisors, 8800 hours of training. With the words of President Angelo Radici and with these numbers, the project RadiciGroup for Safety, one of the most important training paths ever undertaken by the Group, is launched. The objective of the project, which started in 2016 and ended in 2017, was to refine and develop cross-cutting skills in the management team and among the supervisors with special reference to the culture of health and safety. It is a well structured path with experiential and emotional exercises and I activities that involved all the Italian RadiciGroup sites, one site in Switzerland and many Stakeholders, including Confindustria, the trade unions and a number of schools

The strengthening of the "Safety Vision", a veritable, all-round vision of safety that affects the work and personal life of Workers, has been massively reflected in accident-related data reported in this budget, especially with reference to the Italian sites, which were directly affected by the project (39% fewer accidents in absolute terms, over the three-year period, an accident rate down 42% and a severity index that was halved over the same period).

Also at the level of the entire Group, accidents fell in absolute terms from 85 to 70 (-18%) in the 2015-2017 period. The severity index, which essentially halved in the same period, passing from 122 to 53 days, and the injury rate index that recorded a decrease of over 20% showed considerable improvements. In this context absenteeism remained substantially stable. In the reporting year no fatal accidents were reported. There were three serious injuries, with initial prognoses of at least thirty days, and 67 injuries not classed as serious, with initial prognoses of less than thirty days. Six occupational diseases were also registered. In this respect it should be noted that occupational diseases are accounted for in the Report in the relevant year at the end of the investigation process on the part of the relevant entity. Therefore this indicator may be subject to retroactive corrections.

GRI 403-2:

RATES OF INJURY, OCCUPATIONAL DISEASES, LOST DAYS, AND ABSENTEEISM, AND NUMBER OF WORK RELATED FATALITIES BY REGION AND BY GENDER\*

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\*The rules followed in the preparation of the data relating to this disclosure are shown below:

- all the workers in the company are subject to this disclosure
- the hours worked are the hours actually present in the workplace (sum of ordinary hours and overtime hours);
- only an event that leads to an absence of at least one day in addition to that of the accident is considered an injury;
- accidents on the journey to and from work are not considered;
- the days of absence are the total calendar days that elapse from injury to the resumption of work, and not working days, excluding the day on which the accident occurred.

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Table 34 WORKERS\*

			MEN			WOMEN			TOTAL	
		2015	2016	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	3,755,672	3,782,760	3,939,357	1,262,553	1,327,016	1,323,441	5,018,225	5,109,775	5,262,798
days	Total days lost	2,689	1,661	1.312	376	305	79	3,065	1,966	1,391
n	Total number of accidents	73	67	64	12	15	6	85	82	70
n	Total number of occupational diseases	5	3	5	0	0	1	5	3	6
days	Average days of absence	10	9	8	10	9	10	10	9	9
days	Average working days	225	216	215	214	217	210	222	216	214
n/200,000h	IR (Injury Rate)	3.9	3.5	3.2	1.9	2.3	0.9	3.4	3.2	2.7
n/200,000h	ODR (Occupational Disease Rate)	0.27	0.16	0.25	0.00	0.00	0.00	0.20	0.12	0.23
d/200,000h	LDR (Lost Day Rate)	143.2	87.8	66.6	59.6	46.0	11.9	122.2	77.0	52.9
d/200,000h	AR (Absentee Rate)	8,588	8,239	7,440	9,703	8,454	9,891	8,880	8,296	8,076
n	Total Employees updated to 31/12	2,156	2,165	2,227	811	799	826	2,967	2,964	3,053
n	Total Workforce updated to 31/12	2,198	2,250	2,345	818	817	842	3,016	3,067	3,187
%	Absence	4.3%	4.1%	3.7%	4.9%	4.2%	4.9%	4.4%	4.1%	4.0%

<sup>\*</sup>The workforce includes: contract Workers, Temporary Workers and Employees

Table 35 EMPLOYEES

			MEN			WOMEN			TOTAL	
		2015	2016	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	3,642,831	3,626,974	3,719,776	1,244,084	1,281,230	1,290,606	4,886,914	4,908,203	5,010,382
days	Total days lost	2,672	1,637	1,296	376	305	68	3,048	1,942	1,364
n	Total number of accidents	70	66	61	12	15	5	82	81	66
n	Total number of occupational diseases	5	3	5	0	0	1	5	3	6
days	Average days of absence	10	9	8	10	9	11	10	9	9
days	Average working days	223	216	214	214	215	209	220	216	213
n/200,000h	IR (Injury Rate)	3.8	3.6	3.3	1.9	2.3	0.8	3.4	3.3	2.6
n/200,000h	ODR (Occupational Disease Rate)	0.27	0.17	0.27	0.00	0.00	0.00	0.20	0.12	0.24
d/200,000h	LDR (Lost Day Rate)	146.7	90.3	69.7	60.4	47.6	10.5	124.7	79.1	54.4
d/200,000h	AR (Absentee Rate)	8,791	8,510	7,728	9,812	8,710	10,059	9,061	8,564	8,347
n	Total Employees updated to 31/12	2,156	2,165	2,227	811	799	826	2,967	2,964	3,053
%	Absence	4.4%	4.3%	3.9%	4.9%	4.4%	5.0%	4.5%	4.3%	4.2%

		/ /	MEN	/ )		WOMEN			TOTAL	
		2015	2016 /	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	112,842	155,786	219,581	18,469	45,786	32,836	131,311	201,572	252,416
days	Total days lost	17	<b>/24</b> /	16	0	0	11	17	24	27
n /	Total number of accidents	3	1	3	0	0	1	3	1	4
n//	Total number of occupational diseases	0	0	0	0	0	0	0	0	0
n/200,000h	IR (Injury Rate)	5.3	1.3	2.7	0.0	0.0	6.1	4.6	1.0	3.2
n/200,000h	ODR (Occupational Disease Rate)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d/200,000h	LDR (Lost Day Rate)	30.1	30.8	14.6	0.0	0.0	67.0	25.9	23.8	21.4
d/200,000h	AR (Absentee Rate)	1,483	1,624	2,302	201	388	2,442	1,320	1,349	2,319
n	Total temporary workers updated to 31/12	42	85	118	7	18	16	49	103	134
%	Absence	0.7%	0.8%	1.2%	0.1%	0.2%	1.2%	0.7%	0.7%	1.2%

Table 37 DISTRIBUTION OF INJURIES BY GEOGRAPHICAL AREA

,	/ / /			ITALY		RE	ST OF EUROPI	E
/			2015	2016	2017	2015	2016	2017
/	hours	Total hours worked	2,473,062	2,526,971	2,590,246	1,639,844	1,683,820	1,757,779
/	days	Total days lost	1,338	930	698	518	437	265
/	n / /	Total number of accidents	51	40	31	20	21	21
/	n /	Total number of occupational diseases	5	3	6	0	0	0
/	days	Average days of absence	8	8	7	14	12	13
/	days	Average working days	204	206	203	223	222	219
	n/200,000h	IR (Injury Rate)	4.1	3.2	2.4	2.4	2.5	2.4
	n/200,000h	ODR (Occupational Disease Rate)	0.40	0.24	0.46	0.00	0.00	0.00
	d/200,000h	LDR (Lost Day Rate)	108.2	73.6	53.9	63.2	51.9	30.2
/	d/200,000h	AR (Absentee Rate)	7,846	7,858	6,938	12,693	10,600	11,783
\	n	Total Employees updated to 31/12	1,547	1,540	1,548	1,024	1,010	1,067
	n	Total Workforce updated to 31/12	1,587	1,598	1,654	1,029	1,026	1,076
/	%	Absence	3.9%	3.9%	3.5%	6.3%	5.3%	5.9%

#### A SHOW TO TELL THE STORY OF SAFETY: OCJO... SAFETY IS ON THE STAGE

In 2017 at the conclusion of the demanding RadiciGroup for Safety project, the Group organized six performances of "Ocjo...Safety is on the stage". It was an innovative training format that entrusted the task of conveying the message of safety as a quality factor in life and work to a theatre piece transforming the concepts expressed into emotion and narration. Thanks to the testimony of the two main actors, one of whom personally experienced the tragedy of a serious injury, the audience was invited to reflect on the central role that prevention and the accurate application of the rules in one's daily activities should occupy.

Performed at different times and on different days to allow workers from the various production plants to choose the most convenient option, this travelling show made a stop at the Group after numerous other appointments in schools and factories around Italy. The Group's senior management, a number of delegates from institutions, trade union representatives and schools were also involved in the project to show how the topic was important across the board.

At the end of the show, as a token gift the Companies that took part in the project, were given a mirror with the signatures of the participants, to underline once again the role that each person is called upon to play in order to raise the level of safety in their workplace.

Table 37	DISTRIBUTION OF INJURIES BY GEOGRAPHICAL	ADEA
Table 37	DISTRIBUTION OF INJURIES BY GEOGRAPHICAL	AREA

		AMERICA			ASIA	
	2015	2016	2017	2015	2016	2017
Total hours worked	775,387	738,167	723,966	129,932	160,817	190,807
Total days lost	987	531	376	222	68	52
Total number of accidents	12	19	13	2	2	5
Total number of occupational diseases	0	0	0	0	0	0
Average days of absence	6	6	4	6	4	4
Average working days	289	251	245	296	186	217
IR (Injury Rate)	3.1	5.1	3.6	3.1	2.5	5.2
ODR (Occupational Disease Rate)	0.00	0.00	0.00	0.00	0.00	0.00
LDR (Lost Day Rate)	254.6	143.9	103.9	341.7	84.6	54.5
AR (Absentee Rate)	4,309	4,587	3,436	3,758	4,541	3,359
Total Employees updated to 31/12	343	344	352	53	70	86
Total Workforce updated to 31/12	343	365	369	57	78	88
Absence	2.2%	2.3%	1.7%	1.9%	2.3%	1.7%
	Total days lost  Total number of accidents  Total number of occupational diseases  Average days of absence  Average working days  IR (Injury Rate)  ODR (Occupational Disease Rate)  LDR (Lost Day Rate)  AR (Absentee Rate)  Total Employees updated to 31/12  Total Workforce updated to 31/12	Total hours worked         775,387           Total days lost         987           Total number of accidents         12           Total number of occupational diseases         0           Average days of absence         6           Average working days         289           IR (Injury Rate)         3.1           ODR (Occupational Disease Rate)         0.00           LDR (Lost Day Rate)         254.6           AR (Absentee Rate)         4,309           Total Employees updated to 31/12         343           Total Workforce updated to 31/12         343	Total hours worked         775,387         738,167           Total days lost         987         531           Total number of accidents         12         19           Total number of occupational diseases         0         0           Average days of absence         6         6           Average working days         289         251           IR (Injury Rate)         3.1         5.1           ODR (Occupational Disease Rate)         0.00         0.00           LDR (Lost Day Rate)         254.6         143.9           AR (Absentee Rate)         4,309         4,587           Total Employees updated to 31/12         343         344           Total Workforce updated to 31/12         343         365	Total hours worked         775,387         738,167         723,966           Total days lost         987         531         376           Total number of accidents         12         19         13           Total number of occupational diseases         0         0         0           Average days of absence         6         6         4           Average working days         289         251         245           IR (Injury Rate)         3.1         5.1         3.6           ODR (Occupational Disease Rate)         0.00         0.00         0.00           LDR (Lost Day Rate)         254.6         143.9         103.9           AR (Absentee Rate)         4,309         4,587         3,436           Total Employees updated to 31/12         343         344         352           Total Workforce updated to 31/12         343         365         369	Total hours worked         775,387         738,167         723,966         129,932           Total days lost         987         531         376         222           Total number of accidents         12         19         13         2           Total number of occupational diseases         0         0         0         0           Average days of absence         6         6         4         6           Average working days         289         251         245         296           IR (Injury Rate)         3.1         5.1         3.6         3.1           ODR (Occupational Disease Rate)         0.00         0.00         0.00         0.00           LDR (Lost Day Rate)         254.6         143.9         103.9         341.7           AR (Absentee Rate)         4,309         4,587         3,436         3,758           Total Employees updated to 31/12         343         344         352         53           Total Workforce updated to 31/12         343         365         369         57	Total hours worked         775,387         738,167         723,966         129,932         160,817           Total days lost         987         531         376         222         68           Total number of accidents         12         19         13         2         2           Total number of occupational diseases         0         0         0         0         0           Average days of absence         6         6         4         6         4           Average working days         289         251         245         296         186           IR (Injury Rate)         3.1         5.1         3.6         3.1         2.5           ODR (Occupational Disease Rate)         0.00         0.00         0.00         0.00         0.00           LDR (Lost Day Rate)         254.6         143.9         103.9         341.7         84.6           AR (Absentee Rate)         4,309         4,587         3,436         3,758         4,541           Total Employees updated to 31/12         343         344         352         53         70           Total Workforce updated to 31/12         343         365         369         57         78

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Table 38	ITALY - EMPLOYEES		/	1						
			MEN	/ )		WOMEN			TOTAL	
		2015	2016 /	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	1,961,096	1,980,032	1,987,305	404,043	428,505	429,380	2,365,138	2,408,536	2,416,684
days	Total days lost	1,225	880	663	96	26	8	1,321	906	671
n //	Total number of accidents	41	36	26	7	3	1	48	39	27
n//	Total number of occupational diseases	5	3	5	0	0	1	5	3	6
days	Average days of absence	8	9	7	6	6	5	8	8	7
days	Average working days	200	200	193	181	187	180	196	197	190
n/200,000h	IR (Injury Rate)	4.18	3.64	2.62	3.46	1.40	0.47	4.06	3.24	2.23
n/200,000h	ODR (Occupational Disease Rate)	0.5	0.3	0.5	0.0	0.0	0.0	0.42	0.25	0.50
d/200,000h	LDR (Lost Day Rate)	124.9	88.9	66.7	47.5	12.1	3.7	111.7	75.2	55.5
d/200,000h	AR (Absentee Rate)	8,452	8,533	7,553	6,435	6,176	5,767	8,101	8,111	7,234
n	Total Employees updated to 31/12	1,253	1,246	1,250	294	294	298	1,547	1,540	1,548
n	Total Workforce updated to 31/12	1,287	1,297	1,342	300	301	312	1,587	1,598	1,654
%	Absence	4.2%	4.3%	3.8%	3.2%	3.1%	2.9%	4.1%	4.1%	3.6%
Table 38	ITALY - TEMPORARY WORKERS									
////			MEN			WOMEN			TOTAL	
		2015	2016	2017	2015	2016	2017	2015	2016	2017

			MEN			WOMEN			TOTAL	
	/ / )	2015	2016	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	93,096	100,651	149,150	14,828	17,784	24,412	107,924	118,435	173,561
days	Total days lost	17	24	16	0	0	11	17	24	27
n /	Total number of accidents	3	1	3	0	0	1	3	1	4
<u>n</u>	Total number of occupational diseases	0	0	0	0	0	0	0	0	0
n/200,000	h IR (Injury Rate)	6.44	1.99	4.02	0.00	0.00	8.19	5.56	1.69	4.61
n/200,000	h ODR (Occupational Disease Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
d/200,000	h LDR (Lost Day Rate)	36.5	47.7	21.5	0.0	0.0	90.1	31.5	40.5	31.1
d/200,000	h AR (Absentee Rate)	1,808	2,457	2,513	260	1,076	3,001	1,621	2,266	2,578
n	Total temporary Workers updated to 31/12	34	51	92	6	7	14	40	58	106
%	Absence	0.9%	1.2%	1.3%	0.1%	0.5%	1.5%	0.8%	1.1%	1.3%

Table 39 REST OF EUROPE

			MEN			WOMEN			TOTAL	
		2015	2016	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	980,884	990,243	1,043,251	658,960	670,913	701,739	1,639,844	1,661,156	1,744,990
days	Total days lost	401	233	229	117	204	36	518	437	265
n	Total number of accidents	16	13	18	4	8	3	20	21	21
n	Total number of occupational diseases	0	0	0	0	0	0	0	0	0
days	Average days of absence	13	11	11	15	13	15	14	12	13
days	Average working days	224	218	217	221	220	217	223	219	217
n/200,000h	IR (Injury Rate)	3.26	2.63	3.45	1.21	2.38	0.86	2.44	2.53	2.41
n/200,000h	ODR (Occupational Disease Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d/200,000h	LDR (Lost Day Rate)	81.8	47.1	43.9	35.5	60.8	10.3	63.2	52.6	30.4
d/200,000h	AR (Absentee Rate)	11,981	10,053	10,374	13,687	11,673	13,971	12,693	10,733	11,856
n	Total Employees updated to 31/12	591	591	624	433	419	443	1,024	1,010	1,067
n	Total Workforce updated to 31/12	596	597	633	433	429	443	1,029	1,026	1,076
%	Absence	6.0%	5.0%	5.2%	6.8%	5.8%	7.0%	6.3%	5.4%	5.9%

Table 39 REST OF EUROPE - TEMPORARY WORKERS

		MEN				WOMEN		TOTAL		
		2015	2016	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	0	1,479	12,517	0	21,185	272	0	22,664	12,789
days	Total days lost	0	0	0	0	0	0	0	0	0
n	Total number of accidents	0	0	0	0	0	0	0	0	0
n	Total number of occupational diseases	0	0	0	0	0	0	0	0	0
n/200,000h	IR (Injury Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n/200,000h	ODR (Occupational Disease Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d/200,000h	LDR (Lost Day Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d/200,000h	AR (Absentee Rate)	0	0	574	0	0	25,641	0	0	1,182
n	Total temporary Workers updated to 31/12	5	6	9	0	10	0	5	16	9
%	Absence	0.0%	0.0%	0.3%	0.0%	0.0%	12.8%	0.0%	0.0%	0.6%

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Table 40	AMERICA		/							
			MEN	/ ]		WOMEN			TOTAL	
		2015	2016 /	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	604,327	534,160	542,046	156,025	144,228	124,640	760,352	678,388	666,686
days	Total days lost	824	456	352	163	75	24	987	531	376
n //	Total number of accidents	11	15	12	1	4	1	12	19	13
n//	Total number of occupational diseases	0	0	0	0	0	0	0	0	0
days	Average days of absence	7	7	4	2	3	5	6	6	4
days//	Average working days	291	246	244	283	275	251	289	251	245
n/200,000h	IR (Injury Rate)	3.64	5.62	4.43	1.28	5.55	1.60	3.16	5.60	3.90
n/200,000h	ODR (Occupational Disease Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d/200,000h	LDR (Lost Day Rate)	272.7	170.7	129.9	208.9	104.0	38.5	259.6	156.5	112.8
d/200,000h	AR (Absentee Rate)	4,989	5,483	3,643	1,670	1,958	3,720	4,309	4,755	3,657
n	Total Employees updated to 31/12	271	276	288	72	68	64	343	344	352
n	Total Workforce updated to 31/12	271	296	303	72	69	66	343	365	369
%	Absence	2.5%	2.7%	1.8%	0.8%	1.0%	1.9%	2.2%	2.4%	1.8%
Table 40	AMERICA – TEMPORARY WORKERS									
			MEN			WOMEN			TOTAL	
		2015	2016	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	13,482	52,962	49,128	1,553	6,817	8,152	15,035	59,779	57,280
dave	Tatal dave last	0	0	0	0	0	0	0	n	0

///			MEN			WOMEN			TOTAL	
/ <u>//</u> /	/ /	2015	2016	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	13,482	52,962	49,128	1,553	6,817	8,152	15,035	59,779	57,280
days	Total days lost	0	0	0	0	0	0	0	0	0
n /	Total number of accidents	0	0	0	0	0	0	0	0	0
<u>n</u>	Total number of occupational diseases	0	0	0	0	0	0	0	0	0
n/200,000h	IR (Injury Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n/200,000h	ODR (Occupational Disease Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d/200,000h	LDR (Lost Day Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d/200,000h	AR (Absentee Rate)	0	0	0	0	0	0	0	0	0
\\n	Total temporary Workers updated to 31/12	0	20	15	0	1	2	0	21	17
%	Absence	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 41 ASIA

			MEN			WOMEN			TOTAL	
		2015	2016	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	96,524	122,539	147,174	25,056	37,584	34,847	121,580	160,123	182,021
days	Total days lost	222	68	52	0	0	0	222	68	52
n	Total number of accidents	2	2	5	0	0	0	2	2	5
n	Total number of occupational diseases	0	0	0	0	0	0	0	0	0
days	Average days of absence	6	5	3	3	3	2	6	4	3
days	Average working days	286	190	206	249	173	223	278	186	210
n/200,000h	IR (Injury Rate)	4.14	3.26	6.79	0.00	0.00	0.00	3.29	2.50	5.49
n/200,000h	ODR (Occupational Disease Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d/200,000h	LDR (Lost Day Rate)	460.0	111.0	70.7	0.0	0.0	0.0	365.2	84.9	57.1
d/200,000h	AR (Absentee Rate)	4,472	4,763	3,150	2,188	3,537	1,396	4,006	4,499	2,705
n	Total Employees updated to 31/12	41	52	65	12	18	21	53	70	86
n	Total Workforce updated to 31/12	44	60	67	13	18	21	57	78	88
%	Absence	2.2%	2.4%	1.6%	1.1%	1.8%	0.7%	2.0%	2.2%	1.4%

Table 41 ASIA – TEMPORARY WORKERS

			MEN			WOMEN			TOTAL	
		2015	2016	2017	2015	2016	2017	2015	2016	2017
hours	Total hours worked	6,264	694	8,786	2,088	0	0	8,352	694	8,786
days	Total days lost	0	0	0	0	0	0	0	0	0
n	Total number of accidents	0	0	0	0	0	0	0	0	0
n	Total number of occupational diseases	0	0	0	0	0	0	0	0	0
n/200,000h	IR (Injury Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n/200,000h	ODR (Occupational Disease Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d/200,000h	LDR (Lost Day Rate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d/200,000h	AR (Absentee Rate)	0	18,182	22,756	0	0	0	0	18,182	22,756
n	Total temporary Workers updated to 31/12	3	8	2	1	0	0	4	8	2
%	Absence	0.0%	9.1%	11.4%	0.0%	0.0%	0.0%	0.0%	9.1%	11.4%

## PERSONALISED SAFETY GOGGLES WITH PRESCRIPTION LENSES: SAFETY AND COMFORT FOR NOYFIL EMPLOYEES

Between 2016 and 2017, following a number of injuries, Noyfil SpA decided to experiment with protective goggles with prescription lenses and adjustable frames according to personal requirements for their Employees, in particular those who work with texturing machines and less than perfect eyesight. After testing over-glasses for the workers concerned, with almost negative results because this solution was uncomfortable and only partially effective, it was decided to go with almost "tailor-made" safety glasses.

The aim of this was to ensure the safety of the staff while doing their job while encouraging comfort and ergonomics in the use of this individual protection device. The glasses were made available in different models, chosen by workers with bifocal, mono-focal or progressive lenses according to the specific needs of each person.

The company's fulfilment of a safety-related mandatory requirement was combined with the direct involvement of the people when selecting the type of safety glasses and recorded a high degree of satisfaction among users.

A corollary of the health and safety commitment, the WHP (Workplace Health Promotion) project conceived by ATS Bergamo and the Lombardy Region has affected a number of Italian companies since 2015. Said companies, as recalled in the previous editions of the Sustainability Report, are called upon to work pro-actively together with the Employees to implement correct and healthy lifestyles in the workplace too. The WHP initiatives were numerous and various 2017, for example the creation of break rooms at the holding company to promote socialisation and the organisation of walks or inter-company soccer and volleyball tournaments. There was no lack of classroom lessons, with the support of experts on the subject of alcoholism and gambling addiction, or regarding road safety.

Discover more:

RETEWHPBERGAMO.ORG/WHP

MANAGEMENT APPROACH

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(EMPLOYMENT)

CONSTANT THEORETICAL AND PRACTICAL TRAINING OF RADICIGROUP'S PEOPLE

In the face of a growing average worker age and an increasingly complex market scenario, promoting the development of skills, staff involvement and improvement is crucial for increasing the efficiency and competitiveness of the companies in the Group. A precise strategy thus links continuous training to the operation of the business in order to upgrade the skills of Workers and to accompany them along the trajectory of the companies' evolution.

In light of these considerations, the following were the cornerstones of the Group's strategy regarding training in 2017 as well:

- Accurately and continuously mapping individual skills to understand the strengths and weaknesses of each Worker in relation to their duties and to continuous evolution of technological tools.
- Finding state-of-the-art tools, able to improve the quality of training by responding to the goals of the company with an increasingly high degree of awareness and involvement by the Workers.
- Safeguarding and enhancing the individual and collective know-how of workers across the board through the introduction of new technical and technological skills.
- · Rewarding the commitment of Employees who choose to study in parallel to their work.
- Extending the concept of training beyond the boundaries of the company, involving local schools, for example.

In the 2015-2017 period the hours of training per capita increased from 17 to 21 (+25%) as evidence of RadiciGroup's tangible commitment. The increase concerned European companies in particular (+8 hours per capita) and the white and blue collar categories. Although we are seeing a decrease in respect of the companies in America and Asia, the hours of training per capita of the latter are clearly higher than in European countries. Looking closely at Italian sites (+4 hours per capita), an important contribution was provided by the "RadiciGroup for Safety" project previously mentioned in this report. The difference between men and women as regards per capita training hours is largely due to the fact that this training is aimed primarily at production staff, positions mainly held by men within the Group.

GRI 404-1:
AVERAGE HOURS OF
TRAINING PER YEAR PER
EMPLOYEE BY GENDER,
AND BY EMPLOYEE
CATEGORY

Table 42 TRAINING FOR EMPLOYEES

		2015	2016	2017
hours	Total hours of training	49,366	53,228	63,719
hours	Management	2,318	2,855	1,858
hours	Middle management	2,421	4,523	4,529
hours	White collars	7,704	9,013	13,877
hours	Blue collars	36,923	36,837	43,455
n	Total Employees	2,967	2,964	3,053

Table 43 INDEX - HOURS OF TRAINING PER CAPITA

	/////	2015	2016	2017
hours	Management	28	32	24
hours	Middle management	14	29	29
hours	White collars	14	15	21
hours	Blue collars	17	18	20
n	Hours of training/Employees	17	18	21
Table 44	HOURS OF TRAINING PER CAPITA BY GENDER	}		
		2015	2016	2017
hours	Woman	11,756	11,499	13,011
n	Employees	811	799	826
h/Employee	Hours/woman	14.5	14.4	15.8
hours	Man	37,610	41,729	50,708
n	Employees	2,156	2,165	2,227
h/Employee	Hours/man	17.4	19.3	22.8
Table 45	INDEX - HOURS OF TRAINING PER CAPITA BY	GEOGRAPHICAL AREA		
		2015	2016	2017
h/Employee	Italy	10	10	14
h/Employee	Rest of Europe	17	20	25
h/Employee	America	40	32	25
h/Employee	Asia	44	43	39



GRI 404-1 HOURS OF TRAINING PER CAPITA BY GEOGRAPHICAL AREA 2015-2017



RadiciGroup university scholarships were awarded to Employees and their children at Italian and foreign companies in October 2017. About thirty thousand Euros were made available for this initiative, which accepted thirty-four applications from Italy, Europe, America and Asia, with the assignment of different amounts depending on the type of degree, technical specialisation or other branch of study.

For scholars at Italian companies in the Group - located in the provinces of Bergamo, Novara and Sondrio - a ceremony was also organised in Bergamo for the official presentation with a subsequent evening at the Teatro Sociale, to watch a show promoted by the Group in collaboration with the BergamoScienza event.

"Education has always been one of the cornerstones of the RadiciGroup - commented Maurizio Radici, vice president of the group - and we are particularly proud to have rewarded some of our Workers who, as well as the children of Employees, with grit and determination, have obtained the important goal of a degree while successfully performing their jobs at the company".

#### THE EDUCATION PROJECT

The Education Project is an interesting interpretation of the concept of training. For several years now it has seen the companies in the Group take on the role of "teachers" or "tutors" for the students of some local schools and universities that offer a study path similar to the skill set required by the Group. The aim of the project is to establish a fruitful exchange between the business reality and the students. First of all it has been given the task of helping young people to understand which professional skills are in greatest demand. Students, potential future workers of RadiciGroup, are instead asked to give proof of their skills, which are often cutting edge and in line with the latest technological developments.

In 2017, the Education Project took shape through various initiatives, including numerous visits by classes to the Group's plants and as many lessons by RadiciGroup staff at technical institutes or university departments. In addition, internships have been particularly important, which affected almost all the Italian companies, alongside school-work alternation. The latter is an educational method that, through practical experience, helps to consolidate the knowledge acquired in the classroom, a solution that is particularly close to the way the Group has conceived the topic of training. Proof of this is the fact that, in 2017, the "Polyamide Class" project, born from the collaboration between the Natta Institute of Bergamo, RadiciGroup and Confindustria Bergamo, received an award at national level for its standard of excellence.

#### STUDENTS AT THE GUARDIA DI FINANZA ACADEMY VISITING RADICIGROUP

In the context of the Education project, about seventy Officers, Students in their third year at the Guardia di Finanza Academy in Bergamo dropped in at Radici Partecipazioni, the Group's

holding company and two other production plants in July 2017. The object of the visit was getting to know a large industrial enterprise in the area and understanding its production processes and organisational aspects.

"Thank you for choosing RadiciGroup as the centre for your "training in the field" - the President of RadiciGroup Angelo Radici said in his welcome speech - We are very pleased to have you here today so we can show you up close how we work and what we do. We have always opened the doors of our plants to all our Stakeholders, and in particular to schools, universities, and other local organisations. With special attention to young people who, in our opinion, represent the future of our companies".

After a presenting the main activities of the Group and an in depth examination of the Sustainability Report, the Officers were taken to the plants of RadiciFil in Casnigo and Tessiture Pietro Radici in Gandino. In the first case they were able to gain further insight into certain aspects related to processes in the production of polymer and nylon yarns for the manufacturing of car mats, carpets or airbags.

At Tessiture Pietro Radici the students were able to examine aspects linked to the production of yarns for artificial grass and spunbond, the nonwoven fabric used, for example, in the construction, automotive and agriculture sectors.

# LEADERSHIP IN THE MAIN REFERENCE SECTORS (FURNITURE, CLOTHING, AUTOMOTIVE AND INDUSTRIAL GOODS) WITH HIGH-PERFORMANCE PROCESSES AND PRODUCTS WITH INCREASINGLY LOW IMPACT.

#### MANAGEMENT APPROACH 103-1

(MATERIALS, ENERGY, WATER /EMISSIONS, EFFLUENTS AND WASTE)

Production is in the DNA of RadiciGroup. More than 20 sites all over the world work incessantly for the production or transformation of chemicals, plastics and synthetic fibres. Leadership in reference markets is the lifeblood for the development of the Group which operates in highly competitive scenarios characterised by a considerable degree of complexity, as described in the part relating to the trends of the various business. For nearly a decade the Group has made sustainability an element of competitiveness which is joined by the ethics that inspires strategies. For a long time indeed comparison with other market players was also based on the value of sustainability, which only seemed to be intangible.

The final balance of all the productive activities that inevitably use resources cannot escape rigorous monitoring, rendered objective by a consolidated measurement system and by a clear desire to manage impacts pro-actively. This strategy can be expressed in three ways: one related to the processes and functioning of the sites, one to the integrated management systems, and one to the products.

#### MANAGEMENT APPROACH

103-1 103-2

103-3

#### **PROCESSES**

As regards processes, the current scenario sees the Group base its activities mainly on raw materials from non-renewable sources, coming from oil. The good performance of the companies ensures that the need for these materials and the energy required to power the plants is on the increase. This is also complemented by a growing worldwide attention to the use of resources, which are increasingly expensive and hold the potential to become increasingly scarce.

The intertwining of these factors has meant that for some time the Group has been focusing on:

- The construction of a circular business model that focuses on recyclable products, optimises the usage of resources, keeps value inside the production chain and reduces the quantity of waste products through recycling.
- The rigorous measurement of impacts, through scientific and replicable methods, to understand the processes upon which to concentrate its efforts.
- The mitigation of these impacts at all sites, with particular attention to water, energy, emissions and waste. This work of mitigation has often seen the synergy between the reduction of consumption and the choice of options for renewable energy that are 'lighter' for the environment.
- Integrated management of Quality, Safety, Environment and Energy in the companies to create organisations that apply the principle of continuous improvement alongside the principle of sustainability, an extremely effective combination for accelerating innovation.

All the following disclosures and case histories support these RadiciGroup principles with data and trends. As a general consideration, it should be mentioned that, in the last ten years, very gratifying results have been obtained thanks to the introduction of new technologies at the sites. Today, after the first significant improvements the work of mitigation is reaching its natural limits and is focusing more and more on minor aspects, after successfully addressing the causes of larger impacts, as described in previous editions of the Report. The general aim - and challenge- of the Group is still the continuous improvement of all environmental performance.

#### GRI 301-1: MATERIAL USED BY WEIGHT

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#### **USED MATERIALS**

Table 46 USED MATERIALS BY TYPE

		2015	2016	2017
t	Direct Materials*	434,602	434,023	472,634
t	Accessory materials	1,915	2,184	2,547
t	Packaging	17,460	17,467	18,483
t	TOTAL	453,977	453,674	493,664

<sup>\*</sup>Compared with what has been reported in previous editions of the report an average downward variation of 4.5% compared to the 2015 and 2016 reports has been made here due to the erroneous double calculation of material sold and purchased among Group companies.

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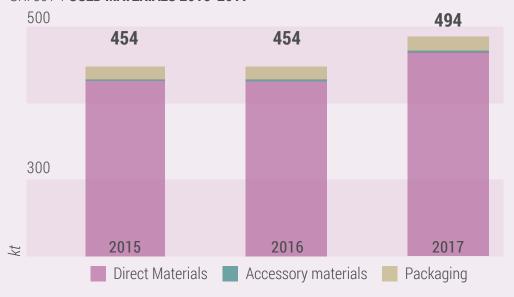
Table 46

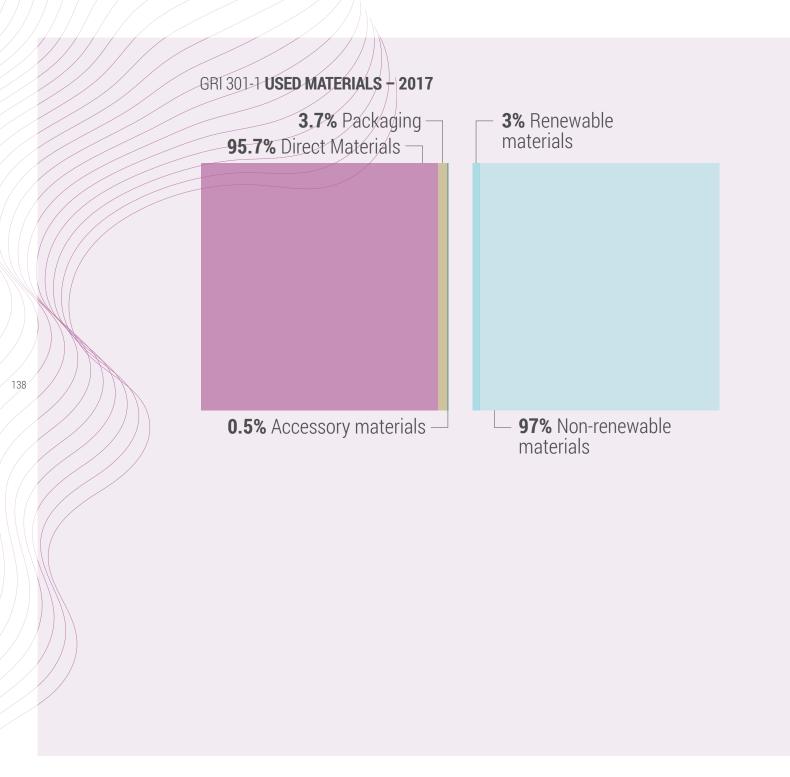
	NON-RENEWABLE MATERIALS	2015	2016	2017
t	Non-renewable direct materials*	429,515	433,615	471,277
t	Non-renewable accessory materials	1,915	2,184	2,547
t	Non-renewable packaging	3,803	4,056	4,419
t	TOTAL NON-RENEWABLE MATERIALS	435,233	439,855	478,243
%	% of renewable packaging of the total packaging	78%	77%	76%
	RENEWABLE MATERIALS	2015	2016	2017
t	Renewable direct materials	5,087	408	1,357
t	Renewable accessory materials	0	0	0
t	Renewable packaging	13,657	13,411	14,064
t	TOTAL RENEWABLE MATERIALS	18,744	13,819	15,421

<sup>\*</sup>Compared with what has been reported in previous editions of the report an average downward variation of 4.5% compared to the 2015 and 2016 reports has been made here due to the erroneous double calculation of material sold and purchased between Group companies.

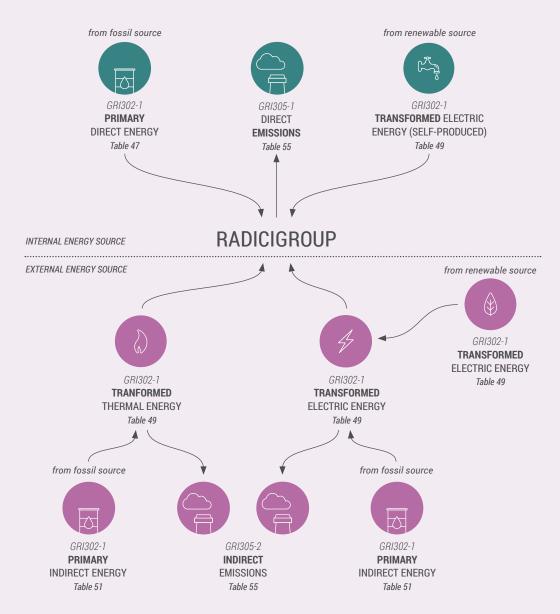
While on the one hand the excellent performance of all the Group companies confirms its leading market position, on the other hand it caused the demand for raw materials to increase for all categories, which therefore directly relates to the generalised increase in the volume produced and sold. Although this mainly regards non-renewable materials, figures relating to renewable packaging, which still stand at 76%, are interesting.

GRI 301-1 **USED MATERIALS 2015-2017** 





WITHIN RADICIGROUP



		2015	2016	2017
GJ	from NATURAL GAS*	1,901,290	1,798,344	1,848,817
GJ	from DIESEL	1,841	1,494	1,534
GJ	from LPG	2,975	5,363	5,853
GJ	from BURNING OIL	778	822	1,104
GJ	SUB TOTAL - NON RENEWABLE FUEL CONSUMED	1,906,884	1,806,023	1,857,308
<b>GJ</b>	SUB TOTAL - NON RENEWABLE FUEL CONSUMED from BIO GAS	<b>1,906,884</b> 65,814	<b>1,806,023</b> 55,472	<b>1,857,308</b> 55,038

<sup>\*</sup>converting natural gas from Nm3 to GJ conservatively used a factor of 39.01 (conversion factor source GRI 3.1) for all companies.

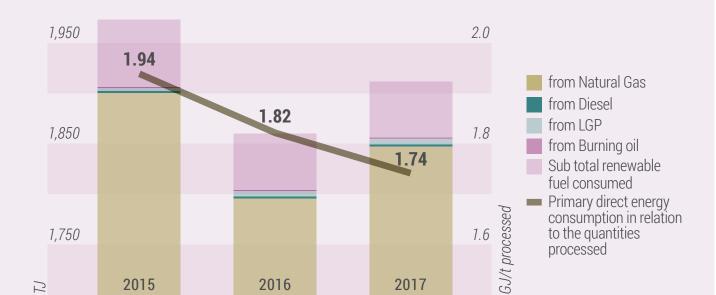
Table 48 INDEX - PRIMARY DIRECT ENERGY CONSUMPTION IN RELATION TO THE QUANTITIES PROCESSED

		2015	2016	2017
GJ/t	primary direct NON renewable energy	1.94	1.82	1.74
GJ/t	total primary direct energy (renewable + non renewable)	2.01	1.88	1.79

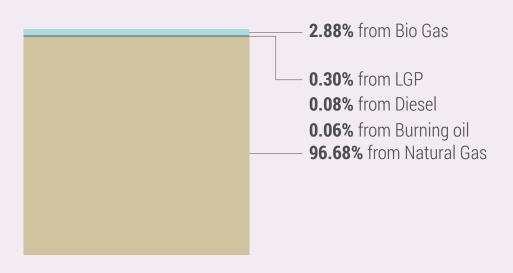
From the point of view of fuel consumption, 2017 also saw a reduction per tonne processed, which rose from 1.94 to 1.74 GJ showing a decrease of 10.5%. Considering a medium-term scenario of 6 years the reduction was equal to 41.2%. From the point of view of absolute values, 2017 saw a slight decrease, which fits in a scenario that, on the one hand, sees the aforementioned increase in the volumes produced and on the other a drastic effort to reduce consumption that has led to an overall decrease of 32.6% in 6 years for primary non-renewable energy.

99.5% of non renewable fuels used by the Group companies is natural gas, the choice with a proven lower impact. Natural gas also corresponds to 96.7% of all the fuel used and a further 2.9% was constituted by bio-gas. In the three-year period considered for the purposes of this Report, an increase of LPG used for powering the forklifts instead of diesel may be noted, even if most of these vehicles are electrically powered. Diesel is now predominantly considered as a solution for UPS units.

#### GRI 302-1 PRIMARY DIRECT ENERGY (FUEL) CONSUMPTION 2015-2017

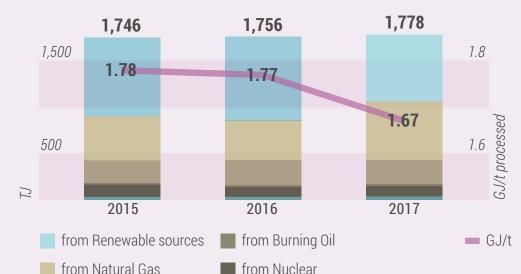


GRI 302-1 PRIMARY DIRECT ENERGY CONSUMPTION - 2017



	STEAM, HEATING, COOLING)			
		2015	2016	2017
GJ	TOTAL TRANSFORMED ENERGY	3,739,147	3,726,772	3,708,39
	of which			
	ELECTRICITY CONSUMPTION			
GJ	SUB TOTAL ELECTRICAL ENERGY CONSUMPTION	1,746,185	1,756,188	1,778,482
GJ	Electricity consumption from renewable sources	846,878	905,296	715,908
GJ	of which self-produced (hydroelectric power)	56,338	56,538	51,358
%	Electricity from renewable sources of total electricity consumed	48.5%	51.5%	40.3%
GJ	Electricity consumption from non renewable sources	899,308	850,892	1,062,57
GJ	from Natural Gas	479,298	420,352	633,698
GJ	from Coal	238,398	271,938	262,00
GJ	from Burning Oil	15,554	17,821	17,97
GJ	from Nuclear	129,939	106,673	106,32
GJ	from other non renewable sources	36,119	34,108	42,58
	STEAM CONSUMPTION			
GJ	SUB TOTAL STEAM CONSUMPTION	1,992,962	1,970,584	1,929,90
GJ	from Natural Gas	1,992,962	1,970,584	1,929,90
	HEATING CONSUMPTION			
GJ	SUB TOTAL HEATING CONSUMPTION	-	_	
GJ	from non renewable sources	-	_	
	COOLING CONSUMPTION			
GJ	SUB TOTAL COOLING CONSUMPTION	-	_	
GJ	from non renewable sources	-	-	
Table 50	INDEX - INTERMEDIATE ENERGY CONSUMPTION IN RELATI RELATED TO ELECTRICAL ENERGY)	ON TO THE QUAI	NTITIES PROCES	SED (VALUE
		2015	2016	201
GJ/t		1.78	1.77	1.67

Many of the Group's sites, in this present case the Italian ones, are energy intensive, or potential consumers of large amounts of electricity. Particular figures are active at these sites, the Energy Managers, whose task is the mapping and optimization of consumption. Thanks to their work and to the particular sensitivity of the operators at all the plants in the 2015-2017 period the RadiciGroup scenario remained largely positive and consumption was optimized, for example, with a reduction in the GJ per tonne processed. It in fact passed from 1.1.78 GJ/T 1.1.67 GJ/t with a reduction of 6.4% (15.15.3 % in six years). The increase that is seen in terms of absolute value can be attributed to the increased volumes produced, a factor linked to the positive trend of the Group, which influenced all 2017 indicators.



GRI 302-1 **ELECTRICAL ENERGY MIX 2015-2017** 

from Coal

Shifting the focus onto the electricity mix, the smaller amount of energy from renewable sources is due to the very dry year that saw rainfall in Italy, the main user of green energy, drastically reduced (30% less precipitation than during the 1971-2000 period). It was not therefore possible for Geogreen, supplier partner of RadiciGroup, to provide the usual quantities of hydroelectric energy. Nevertheless, the mix did remain good with a percentage from renewable sources of 40%.

from other Non Renewable sources

# GRI 302-1 ELECTRICAL ENERGY MIX - 2017

35.6% from Natural Gas

14.7% from Coal

1% from Burning Oil

6% from Nuclear

2.4% from Other

fossil sources

40.3%

OF ELECTRICAL ENERGY MIX FROM RENEWABLE SOURCES

# of which sites wholly or largely supplied with energy from renewable sources:

Radici Novacips – Villa d'Ogna, Italy

Radici Novacips - Chignolo, Italy

Radici Plastics - Brazil

Radici Plastics – Germany

Radici Yarn – Ardesio, Italy

Radici Partecipazioni – Italy

# powered with green energy at over 80%

Radici Fibras - Brazil

# powered with green energy at over 70%

Radici Yarn - Italy

# powered with green energy at 100%

Polymerization at Radici Yarn – Italy Polymerization at Radici Fil – Italy

Table 51		T) FROM NON RENEWABLE SOURCES

		2015	2016	2017
GJ	From fossil sources (non renewable)	5,304,184	6,178,598	6,611,640
Table 52	TOTAL INDIRECT ENERGY CONSUMPTION FROM NON RENEWABLE SOUR	ICES		
		2015	2016	2017
GJ	TOTAL	4,397,300	4,372,575	4,754,332

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Table 53 DIRECT + INDIRECT PRIMARY ENERGY CONSUMPTION FROM NON RENEWABLE SOURCES

		2015	2016	2017
GJ	Total non renewable fuel consumed (Table 47)	1,906,884	1,806,023	1,857,308
GJ	Total non renewable indirect primary energy - Electricity	1,689,821	1,703,863	2,118,438
GJ	Total non renewable indirect primary energy - Steam	2,707,479	2,668,712	2,635,895
GJ	Total non renewable indirect primary energy - Heating	0	0	0
GJ	Total non renewable indirect primary energy - Cooling	0	0	0

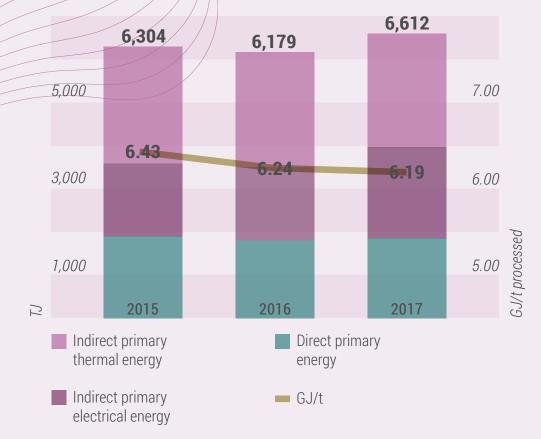
Table 54 INDEX - TOTAL PRIMARY ENERGY CONSUMPTION FROM NON RENEWABLE SOURCES IN RELATION TO THE QUANTITIES PROCESSED

		2015	2016	2017
GJ/t	Total primary energy (direct + indirect) from fossil source (Table 51)	6.43	6.24	6.19
GJ/t	Total indirect primary energy (Table 52)	4.48	4.41	4.45
GJ/t	Indirect primary energy - Electricity	1.72	1.72	1.98
GJ/t	Indirect primary energy - Steam	2.76	2.69	2.47
GJ/t	Indirect primary energy - Heating	0.00	0.00	0.00
GJ/t	Indirect primary energy - Cooling	0.00	0.00	0.00

Assessing then the use of fuels for the production of electricity in the three-year period considered, the quantities from fossil sources (non-renewable) remained substantially unchanged, just a slight increase in the absolute value due to the increase of the quantity processed seen. From the point of view of the index that correlates the consumptions and the quantities processed a marked improvement was seen. There was in fact a fall from 6.6.43 GJ/t to 6.19 GJ/t with a reduction of 3.6% in 3 years and 22% in six years.



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# RADICI YARN: INNOVATION AND PLANT SUSTAINABILITY, A WINNING COMBINATION

In the 2016-2017 period Radici Yarn S.p.A., a historic RadiciGroup company operating in the field od polymer and nylon yarn production, embarked on a major project for the optimisation of the performance and consumption of its compressed air circuit. The operation is one of the overall operations for the modernisation of installations carried out by the company gradually and constantly, and in particular for the modernisation of the compressor room servicing the 7barg compressed air circuit in order to ensure continuity, reliability and, last but not least, a smaller environmental impact.

In implementing this intervention a detailed analysis aimed at identifying the best solution in terms of energy efficiency and flexibility and service continuity was carried out. By carefully studying the demand profiles for compressed air, by comparing the performances of the different compressors available on the market and by analysing the management methods of the room pre-operation, a variable speed compressor was selected and installed that is capable of satisfying the needs of the company by itself, which until now had used multiple machines in parallel with a lower overall efficiency.

The annual post-operation report has allowed us to estimate a decrease in the specific consumption for this circuit in the order of 9.5%. This is an important result that rewards the company's investment not only from the savings point of view, but from an environmental point of view as well. Translating this percentage savings into absolute an value, this works out at around 271,470 kWh/year , that is about 51 tep, equivalent to about 73 tonCO $_2$ /year of non-emissions into the atmosphere, equal to the CO $_2$  emitted by a car on average travelling more than 225,000 km (having considered the emission coefficient of 0.323 kgCO $_2$ /km).

# GRI 305-1, 305-2: TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS BY TYPE AND WEIGHT

# **EMISSIONS**

Table 55 TOTAL DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS BY TYPE AND WEIGHT

		2015	2016	2017
t CO <sub>2</sub> eq.	Indirect emissions from ELECTRICAL ENERGY	114,750	116,644	137,956
t CO <sub>2</sub> eq.	Indirect emissions from STEAM ENERGY	150,861	148,701	146,872
t CO <sub>2</sub> eq.	Indirect emissions from HEATING	_	-	_
t CO <sub>2</sub> eq.	Indirect emissions from COOLING	-	-	_
t CO <sub>2</sub> eq.	INDIRECT EMISSIONS (GRI 305-2)	265,611	265,345	284,828
t CO <sub>2</sub> eq.	DIRECT EMISSIONS (GRI 305-1)*	265,331	224,484	236,809
t CO <sub>2</sub> eq.	TOTAL	530,942	489,829	521,637

<sup>\*</sup>The values quoted include the CO2 produced by combustion and the N2O resulting from the production of adipic acid and nitric acid.

# GRI 305-4: GHG EMISSIONS INTENSITY

Table 56

INDEX - TO PROCESSE	D INDIRECT	EMISSIONS	OF GREENHOUS	SE GAS IN	RELATION TO QU	ANTITIES
111002002				2015	2016	2017

t CO<sub>2</sub> eq./t 0.541 0.494 0.489

Emissions are directly linked to the topic of energy consumption. A more "lightweight" energy mix that favours low impact fuels or renewable sources, as practised by RadiciGroup, contributes largely to the containment of emissions.

This is in addition to the work done by the Specialty Chemicals Area with a drastic reduction of  $N_2O$  (nitrous oxide) emissions, which has produced excellent results in the past especially in the

2011-2013 period thanks to serious investments in BATs.

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Today the margins of improvement have been thinned and work is mainly carried out on a clever composition of the energy mix. As a general consideration, in the three-year period analysed for the purposes of this Report, the emission situation has proven to be generally stationary. Although less evident, improvements on direct emissions continue to be seen. They were reduced by 10.8% in three years (52.8% in 6 years and by 74.7% since 2010, the first year of reporting in line with the GRI model). The relationship between emissions and the quantity processed is also satisfying, which fell from 0.541 tCO<sub>2</sub>eq/t to 0.489 tCO<sub>2</sub>eq/t in the three years (in 2010 the ratio was 1.16 tCO<sub>2</sub>eq/t processed).

# GRI 305-1 & GRI 305-2 TOTAL DIRECT AND INDIRECT EMISSIONS OF GREENHOUSE GAS 2015-2017

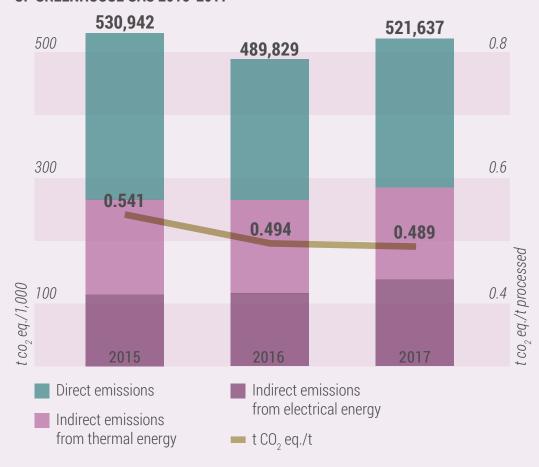


Table 57 NATIONAL STANDARD BENCHMARK MIX AND RADICIGROUP MIX (ELECTRICITY)

		2015	2016	2017
t CO <sub>2</sub> eq.	Indirect emissions from ELECTRICITY NATIONAL STANDARD MIXES	175,703	178,411	182,703
t CO <sub>2</sub> eq.	Indirect emissions from ELECTRICITY RADICIGROUP SELECTED MIXES	114,750	116,644	137,956
t CO <sub>2</sub> eq.	Difference	60,953	61,766	44,747
%	Difference	34.7%	34.6%	24.5%

Of particular interest, as it demonstrates the great attention that RadiciGroup pays to the environment, is the benchmark that correlates the standard energy mixes available at national level with the mix that the Group has selected for its activities. The specific choices made by the Group in favour of green electricity or lower impact fuels have in fact allowed sites to emit a good 24.5% less greenhouse gases than they would have done by sticking with the national energy mix available to them. This percentage value was obtained by calculating the emissions both based on the Group's actual mix and on the basis of the mix of the individual countries where the facilities are situated that fall within the scope of the report (data source <a href="https://www.ifa.org">www.ifa.org</a>).

GRI 305-7: NOX, SOX AND OTHER SIGNIFICANT AIR EMISSIONS BY TYPE AND WEIGHT

Table E0

Table 58	QUALITY OF EMISSIONS			
		2015	2016	2017
t	NOx	152	125	141
t	SOx	0	2	0
t	VOC	9	12	8
t	HAP	-	-	0.01
t	PM	8	11	8
t	Other air emissions	12	17	16
t	TOTAL	181	167	173

# RADICI CHIMICA AND TRANSPORTATION: A WINNING CHOICE FOR THE ENVIRONMENT

Radici Chimica Spa, the largest company in the Group and one of the main players in the field of chemistry, has long worked successfully to control direct emissions, through large-scale investments for the installation of reduction systems, without however neglecting the topic of indirect emissions. In addition to choosing an energy mix that is friendlier to the environment, in line with the Group's choices, the chemical industry with its headquarters in the industrial area of Novara is also attentive to the transport system, which is a key element for lightening its impact.

Every day large quantities of strategic raw materials essential for all the companies in the Radici Group arrive at Radici Chimica by train, thanks to a dedicated rail stop on-site. The percentage being transported by rail, which holds a distinct environmental advantage over the road alternative, is growing constantly and between 2015 and 2017 it was always higher than 85%. A similar choice has also been made for the products that leave the factory. In fact, logistics management relies more and more heavily on intermodal transport, especially for deliveries over three hundred kilometers away. Since 2015, the growth of intermodality has been considerable and Radici Chimica increased the use of intermodal transport for the overall quantity shipped from 20.71% to 26.48 % in 2017.

The choice of the right partner in the logistics sector, who shared the company's vision by providing cutting edge transport systems, has not only made it possible to lessen the impacts but also to offer a better service to customers due to the greater reliability of deliveries entrusted to intermodal transport, which is more structured and therefore less subject to uncertainties typical of road transport.

# THE DAY OF THE OWL ... NOYFIL MAKES A HOME FOR ENDANGERED BIRDS OF PREY

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It is not just water, energy and emissions that make up the Group's environmental policy. After the projects for the conservation of fish with the Geogreen hydroelectric energy supplier partner, RadiciGroup has also been adhering to another project for the protection of biodiversity, since 2017, through its Swiss company Stabio, Noyfil Sa, which specialises in the production and processing of polyester yarn.

In the context of actions designed to mitigate impacts on biodiversity related to the Mendrisio - Varese rail link, Noyfil was contacted by the Swiss Federal Railways and the Tratto Verde Association who have identified in the company's building as a potentially suitable place for installing a box especially designed for the nesting of the owl.

This bird of prey has long been on the Red List of endangered species and even in Mendrisiotto, the area where this Group site is situated, sightings are increasingly rare.

By taking part in the initiative, Noyfil has undertaken to install a box for the nesting of the owl in an area protected from prying eyes and possible disturbances for a duration of 5-10 years. In this period, the specialists of the Association will monitor the situation and perform the required maintenance. The aim of the initiative, which Noyfil believes to be in keeping with its own strong link with the geographical area, is to return to having nesting in the industrial area of Stabio, where another six nesting boxes have been installed as part of the same project.

# GRI 303-1: TOTAL WATER WITHDRAWAL BY SOURCE

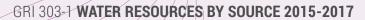
# WATER RESOURCES

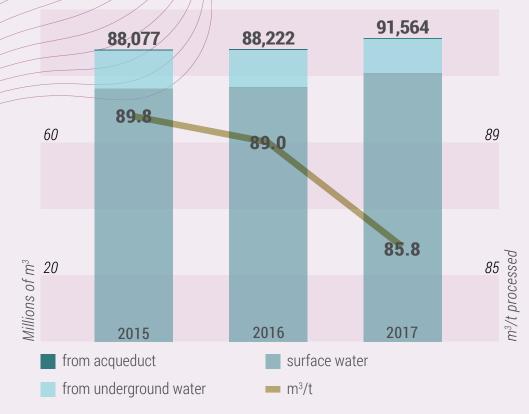
Table 59 TOTAL WATER WITHDRAWAL BY SOURCE

		2015	2016	2017
m³	from river / canal	76,171,511	76,431,778	80,720,167
m³	from spring	402,969	445,842	465,195
m³	Surface water	76,574,480	76,877,620	81,185,362
m³	from well	11,380,769	11,213,152	10,206,239
m³	Underground water	11,380,769	11,213,152	10,206,239
m³	from acqueduct	121,449	131,486	171,911
m³	Municipal water	121,449	131,486	171,911
m³	from tank	0	0	0
m³	Rain water	0	0	0
$m^3$	from other organizations	0	0	0
m³	Waste water	0	0	0
m³	TOTAL	88,076,698	88,222,258	91,563,512
Table 60	INDEX - USE OF WATER RESOURCES IN RE	LATION OF THE QUANTITIES P	ROCESSED	
		2015	2016	2017
m³/t		89.77	89.03	85.76

The topic of water has already been discussed above in relation to its key role in the production of hydroelectric energy. Water resources are however essential for other aspects related to the operation of the sites. Though not part of products, if not minimally, they are essential for cooling the plants. The companies in the Group are located in areas rich in water resources. RadiciGroup draws its own water mainly from rivers or canal, and treats it in compliance with the legislation in force in the various countries in which it operates, then returning it to the environment.

As a general consideration, where the volume of water used increased in absolute terms in 2017, the index that measures the quantity by processed ton fell by 4.5% down from 89.8 m2/t to 85.8 m2/t. This is proof of the work carried out towards streamlining consumption over a wide area in the awareness that, despite the abundance of water resources available to the sites, greater awareness about the careful use of water is necessary.





GRI 303-3: PERCENTAGE AND TOTAL VOLUME OF WATER RECYCLED AND REUSED

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Table 61 WATER RECYCLED AND REUSED

		2015	2016	2017
m³	water withdrawn	88,076,698	88,222,258	91,563,512
$m^3$	water recycled	55,776,506	58,834,609	57,995,089
$m^3$	water saved	63%	67%	63%
	WATER SAVINGS WITHOUT RADICI CHIMICA DEUTSCHLAND	)		
$m^3$	water withdrawn	48,389,785	47,037,364	46,880,024
$m^3$	water recycled	55,776,506	58,834,609	57,995,089
$m^3$	water saved	115%	125%	124%

In 2017 the water consumption situation, after years of favourable trends, showed a few ups and downs, linked in particular to the decline in the percentage of recycling, which fell from 67% to 63% compared to 2016. This percentage includes the German company Radici Chimica Deutschland GmbH which recycles water outside its own factory. The company in fact draws its resources from a ring channel that is subject to limited variations in volume linked to climate conditions (evaporation-rainfall). Recycling is external to the site and cannot fall within the calculation relative to Disclosure 303-3. If we were to exclude the German site, the recycling percentage would rise to 124% in 2017, although with a decrease of one percentage point compared to 2016.

GRI 306-1: WATER DISCHARGE BY QUALITY AND DESTINATION

Table 62 WATER DISCHARGED BY QUALITY AND DESTINATION

			2015	2016	2017
m <sup>3</sup>	Surface wa	ter	47,852,384	46,553,980	41,859,341
m³	Sewers		234,593	302,466	360,138
m³	TOTAL		48,086,977	46,856,446	42,219,479
	of which	WATER DISCHARGED BY TYPE			
m³		Water discharged directly	46,736,845	45,609,329	41,129,222
$m^3$		Water treated with internal purifier	1,350,132	1,247,117	1,090,257
m³		TOTAL	48,086,977	46,856,446	42,219,479
Table 63	INDEX - WA	ATER DISCHARGE IN RELATION TO THE QUAR	2015	2016	2017
m³/t			49.01	47.29	39.54
Table 64	WATER DIS	CHARGE BY QUALITY			
			2015	2016	2017
Кд	COD		1,412,379	1,548,314	1,577,728
Kg	Nitrogen		962,532	1,076,151	1,206,893
Kg	Suspended	solids	23,474	13,180	19,138
Kg	Metals*		7,961	7,158	8,405

<sup>\*</sup>Metals include: alluminium, chromium, iron, nichel, copper, vanadium, zinc.

# WASTE

In 2017 the trend of non-hazardous waste for material recovery increased due to the decision of the Italian headquarters to classify all the waste from the production and processing of the business areas of the Group, managed up to 2016 as byproducts, as "waste" thereby complying with the most restrictive interpretation of "waste".

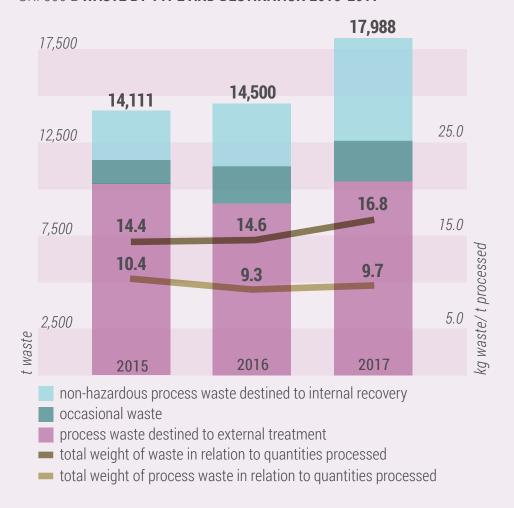
Table 65	WASTE BY TYP	E AND DIS	POSAL METHOD

		2015	2016	2017
t	Hazardous waste	2,263	2,153	3,121
t	Hazardous waste recovery	262	378	331
t	Hazardous waste disposal	2,001	1,775	2,790
t	Non-Hazardous waste	11,848	12,347	14,867
t	Non-Hazardous waste recovery	10,047	10,088	12,150
t	Non-Hazardous waste disposal	1,801	2,259	2,717
t	TOTAL	14,111	14,500	17,988
t	Occasional waste (Maintenance, building renovation, etc.)	1,246	1,986	2,168
t	Non-Hazardous process waste (formerly by products) destined to internal recovery	2,628	3,345	5,477
t	Process waste destined to external treatment	10,237	9,169	10,343
Table 66	INDEX - TOTAL WEIGHT OF PROCESS WASTE IN RELATI	ON TO QUANTITIES	PROCESSED	
		2015	2016	2017
Kg/t		10.43	9.25	9.69
Table 67	INDEX - TOTAL WEIGHT OF WASTE IN RELATION TO QU	ANTITIES PROCESS	ED	
		2015	2016	2017
Kg/t		14.38	14.63	16.85

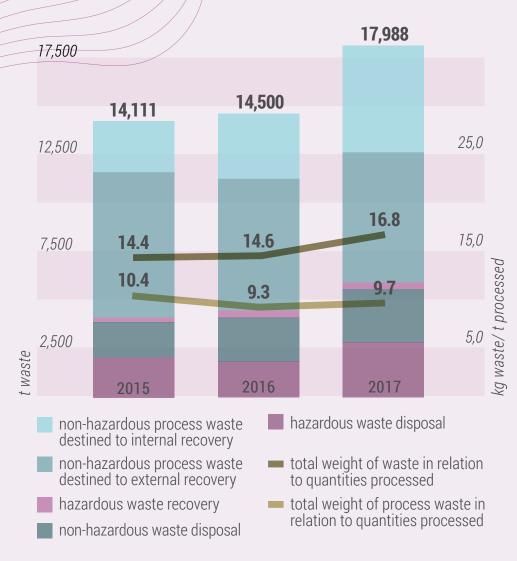
To manage such waste virtuously, the Radici Novacips plant has obtained authorisation to treat plastic waste. This enables the group to act ahead of time regarding the spirit of the EU's Circular Economy Package and to develop high-performance products starting from either byproducts or waste. The potential applications of recycled engineering plastics are boosted by a particular "quality" recovery that involves all RadiciGroup sites. The latter are called upon to carefully manage waste (polymers and fibers), where it is not possible to eliminate them, so that they can be transformed into the best possible compound based on their initial characteristics. The flow of

these materials destined for recycling is separated carefully by type beforehand, depending on the applications for which they are intended in the reprocessing phase. Accurate separation and control of the recovery chain allows mechanical recycling to be used. This is a system that is not very energy intensive with limited impact as documented by an ad hoc Environmental Product Declaration (EPD International® System, Environmental Product Declaration n. S-P-00708) drawn up in order to describe the environmental impacts of the recovery of material carried out by the Performance Plastics area, in a detailed and certified manner. The elements considered in the EPD also include the fact that the handling, storage and reuse of waste are carried out in a manner that complies with the legislation in force.

GRI 306-2 WASTE BY TYPE AND DESTINATION 2015-2017



# GRT 306-2 WASTE BREAKDOWN BY TYPE AND DESTINATION 2015-2017



# RECOVERY: A STRATEGIC CHOICE THAT THE MEASUREMENT OF ENVIRONMENTAL IMPACTS CONFIRMS TO BE WINNING

The Performance Plastics Business Area is an integrated compounder, whose strengths must be sought in the close integration with the entire RadiciGroup polymer and yarn production chain. The plant at Chignolo d'Isola was in fact built in the Eighties in order to recover plastic rejects and waste produced by the companies in the Group. In time, the growing favour of outlet markets with respect materials from recovery has allowed the Group to build on the experience and the technologies developed in the process optimization, which is now able to perform, even simultaneously, the recovery of selected secondary raw materials and the production of engineering plastics.

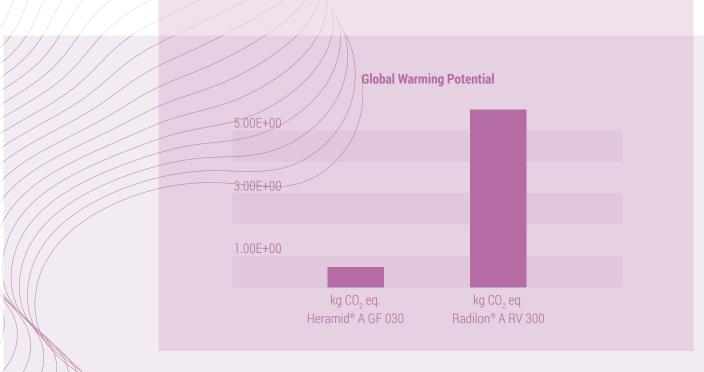
Therefore, integration and overall management of the RadiciGroup chain, which today includes the recovery of rejects and waste plastics "upstream". The latter are selected, ground by qualified suppliers and extruded at the Chignolo d' Isola plant where they produce articles in the Heramid® range, for which the recovered material is entirely intended.

At this plant, which is ISO 9001, ISO 14001 and OHSAS 18001 certified, the entire recovery process occurs with the maximum control of correct overall environmental management and with the maximum attention to the health and safety of Workers.

A strategic choice that the certified Environmental Product Declaration (EPD® n S-P-00708, www.environdec.com) proves to be wise: obtaining a kilogram of recycled polyamide at the Chiqnolo plant, entails the following environmental impact:

IMPACT CATEGORY	UNIT	TOTAL
Acidification	kg SO <sub>2</sub> eq.	1.99E-04
Eutrophication	kg PO <sub>4</sub> eq.	7.49E-05
Global warming (GWP100a)	kg CO <sub>2</sub> eq.	4.88E-02
Photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq.	9.55E-06

Once more, a certified Declaration for Heramid® (EPD® S-P-00707, www.environdec.com), highlights how, thanks to this very limited impact, the engineering plastics formulated using secondary materials obtained through the recovery process (Heramid® range) have much smaller impacts than the corresponding virgin materials (Radilon®) against comparable, although not exactly equivalent, technical characteristics.



MANAGEMENT APPROACH

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# INTEGRATED MANAGEMENT SYSTEMS

Integrated management systems for quality, environment, safety and energy are an essential tool for maintaining the Group's leadership and for the materialisation of the desire to respond to the needs of the market through quality products made with processes that protect the environment and its resources. Their voluntary nature marries seriousness and rigour, now an inescapable requirement for the market. The mechanism of the audits and third party verifications give the systems further reliability and authority. Finally, the disclosure obligations which these tools envisage are important vehicles for the awareness and involvement of internal and external Stakeholders.

Management systems have always been a key instrument for RadiciGroup for structuring, managing, verifying and improving its efforts in the field of sustainability. The 2017-2018 period has seen the progressive completion of the panorama of certifications for the companies together with the transition of all Group sites to the 2015 version of the ISO 9001 standard, associated with the management of quality systems, and ISO 14001, associated with the environmental management systems. It was a necessary and important evolution in the name of the desire to remain at the cutting edge. RadiciGroup anticipated the time needed for transition to new versions, which it accompanied with an ad hoc training path, aimed at creating an increased cross-disciplinary nature between the competences of the Group's auditors

Finally, the accurate work of mapping the corporate contexts as part of the transition to the new versions of the standards by the Q&P Corporate Function has been one of the cornerstones in the formulation of the materiality matrix present in this Report because it has made it possible to understand the characteristics of RadiciGroup both in detail and in summary form.

RADICIGROUP QUALITY AND PROCESSES: IN THE 2016-2018 PERIOD THE TRAINING PROJECT FOR CUTTING-EDGE AUDITORS ("FORTY HOURS FOR THE QUALIFICATION OF AUDITOR" COURSES) WAS LAUNCHED.

An important training project that took shape in October 2016 and intended to be completed in the second half of 2018 with the aim of providing RadiciGroup auditors with a refresher course as regards the quality management, safety and environment systems and as required by the ISO 19011:2012 standard (Guidelines for the auditing of management systems). The participants deepened their knowledge on a structured four-module path. The common element was training relevant to ISO 19011:2012 accompanied by specific in-depth examinations related to standards ISO 9001:2015 (Quality Management Systems), ISO 14001:2015 (environmental management systems) and to ISO 45001:2018 (management systems for health and safety at work, intended to replace the OHSAS 18001standard), depending on the different needs of the auditors.

The twofold purpose of this course lasting a total of eighty-eight hours: an important refresher on the relentless regulatory evolutions in the different areas and the achievement of a common, shared basis of auditing skills among the participants. Through this path RadiciGroup intends to form a team of auditors with a high degree of professionalism capable of performing cross-cutting work aimed at evaluating the status of compliance with different management systems in a uniform way.

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	NADJEIGROUP SITE	industry code	180 9001;2015	ISØ 9001/2008	IATF 16949:2016	ISO/TS 16949:2009	ISO 14001:2015	ISO 14001:2004	OHSAS 18001:2007	ISO 50001:2011
	CORPORATE									
	RADICI PARTECIPAZIONI S.p.A.	EA 35	<u>√</u> /							
	SYNTHETIC FIBRES & NONWOVENS									
	RADICI FIL S.p.A.	IAF 4 e 29	*						<b>✓</b>	<b>✓</b>
	LOGIT Sro	IAF 4	*				*		<b>✓</b>	<b>✓</b>
	RADICI YARN S.p.A. – Villa d'Ogna	IAF 4	•				*		<b>⇔</b>	<b>#</b>
[ ] ,	RADICI YARN S.p.A. – Ardesio	IAF 4					*		₩.	<b>*</b>
	SC YARNEA Srl	EA 04	₩.	<b>/</b>			<b>#</b>	<b>✓</b>	<b>✓</b>	
	RADICI CHEMIEFASER GmbH	EA 04								<b>✓</b>
M	RADICIFIBRAS Ltda	EA 04	₩.	<b>✓</b>						
	NOYFIL S.p.A. – Chignolo d'Isola	IAF 4							<b>✓</b>	
/ /	NOYFIL S.p.A. – Andalo Valtellino	IAF 4							<b>/</b>	
	NOYFIL SA	IAF 4	*				<b>✓</b>			
	CORDONSED S.A.									
	TESSITURE PIETRO RADICI S.p.A.	IAF 04	*				<b>⇔</b>	<b>✓</b>	<b>/</b>	
	PERFORMANCE PLASTICS									
	RADICI NOVACIPS S.p.A. – Villa d'Ogna	IAF 14	•				*		<b>/</b>	
//	RADICI NOVACIPS S.p.A. – Chignolo d'Isola	IAF 14					*		<b>✓</b>	
	RADICI PLASTICS GmbH	IAF 14	*				•			<b>✓</b>
	RADICI PLASTICS Ltda	EA 14	₩.	<b>/</b>	<b>⇔</b>	<b>/</b>	•			
	RADICI PLASTICS Co. Ltd.	EA 14	₩	<b>/</b>	<b>⇔</b>	<b>/</b>	•			
\	RADICI PLASTICS USA Inc.	IAF 14	#							
	RADICI PLASTICS MEXICO S. de R.L.	IAF 14	*							
	RADICI PLASTICS B.V.	EA 14	<b>⇔</b>	*	<b>‡</b>	*	•			
	SPECIALTY CHEMICALS									
/ /	RADICI CHIMICA NOVARA S.p.A.	IAF 12	*				*		<b>/</b>	<b>✓</b>
	RADICI CHIMICA DEUTSCHLAND GmbH	EA 12	₽	<b>/</b>			<b>⇔</b>	<b>/</b>	<b>/</b>	<b>✓</b>
	Data updated to first semester 2018									

CERTIFICATION BODY 9001	CERTIFICATION BODY 16949	CERTIFICATION BODY 14001	CERTIFICATION BODY 18001	CERTIFICATION BODY 50001
Certiquality				
Certiquality		Certiquality	Certiquality	Certiquality
Certiquality		Certiquality	Certiquality	Certiquality
Certiquality		Certiquality		
Certiquality		Certiquality		
SRAC Romania		SRAC Romania	SRAC Romania	
				DEKRA
Fundação Vanzolin	ni			
Certiquality			Certiquality	
Certiquality			Certiquality	
Certiquality		Certiquality		
Certiquality		Certiquality	Certiquality	
Certiquality	Certiquality	Certiquality	Certiquality	
Certiquality		Certiquality	Certiquality	
TUV	TUV	TUV		TUV
Bureau Veritas	Bureau Veritas	Bureau Veritas		
TUV	TUV	Bureau Veritas		
SQA	SQA			
ABS Quality	ABS Quality			
DQS	DQS	DQS		
Certiquality		Certiquality	Certiquality	Certiquality
DQS		DQS	DQS	DQS
	Certifiied	🌣 In progress	★ New (2017)	* New(2018)

Radici Chimica S.p.A OEF / PEF (0EF001 e PEF001)	RADICIGROUP SITE LABELING
Certiquality	CERTIFICATION BODY
Radici Plastics USA Inc.ISO/IEC 17025:05 (0181.01)	RADICIGROUP SITE CERTIFICATION
A2LA	CERTIFICATION BODY
Radici Chimica S.p.A AEON – ASTM D6866 <sup>1</sup> ASTM	RADICIGROUP SITE CERTIFICATION CERTIFICATION BODY
Radici Novacips S.p.A PEF (PEF002) Certiquality	RADICIGROUP SITE LABELING CERTIFICATION BODY
Radici Novacips S.p.A EPD S-P-00554 <sup>2</sup> Certiquality	RADICIGROUP SITE CERTIFICATION CERTIFICATION BODY
Radici Novacips S.p.A EPD S-P-00707 <sup>3</sup> Certiquality	RADICIGROUP SITE CERTIFICATION CERTIFICATION BODY
Radici Novacips S.p.A EPD S-P-00708 <sup>4</sup> Certiquality	RADICIGROUP SITE CERTIFICATION CERTIFICATION BODY
Noyfil SA UNI 11505 – r-STARLIGHT (P2151)	RADICIGROUP SITE CERTIFICATION
Certiquality	CERTIFICATION BODY
Noyfil S.p.A. (for 2 sites) UNI 11505 - r-RADYARN® (P2175)	RADICIGROUP SITE CERTIFICATION
Certiquality	CERTIFICATION BODY
Radicifil S.p.A. EPD S-P-00454 <sup>5</sup>	RADICIGROUP SITE CERTIFICATION
	CERTIFICATION BODY

<sup>&</sup>lt;sup>2</sup> for RADILON® S (PA6) e RADILON® A (PA6.6)

³ for HERAMID® A (PA6.6)

<sup>&</sup>lt;sup>4</sup> for POLYAMIDE SCRAP RECOVERY SERVICE

<sup>&</sup>lt;sup>5</sup> for Radifloor<sup>®</sup> (PA 6 e PA6.6)

# MANAGEMENT APPROACH

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# THE PRODUCTS

RadiciGroup's sustainability efforts would be pointless without implementation in the product portfolio. The aim of the Group is to increase its range of low-impact products with high added value, combining performance and sustainability. An ethical and strategic choice, framed within the aforementioned context of a circular economy, ever more strongly supported by market demand. The customer satisfaction survey carried out in 2016 also emphasized the importance of product sustainability for 65% of the customers surveyed who were particularly sensitive to the subject of recyclability and green energy.

In 2017 there were three cornerstones in the Group's strategy from the perspective of product sustainability:

- Research and Development able to open new fronts, as shown in the section relating to Customers.
- The measurement and transparent communication of the products characteristics and their impacts.
- The production of polymers, yarns and plastics that are sustainable from the moment they are designed.

# IMPACT MEASUREMENT

Measuring the environmental impact of RadiciGroup's production chain from upstream to downstream, from the polymer to engineering plastics, synthetic fibres and nonwovens in a systemic and rigorous fashion, providing information based on scientific, verified and comparable data. This is the goal that RadiciGroup set itself starting from 2010, the year in which the first Life Cycle Assessment studies were conceived for the main products. In the following two years about 90% of polymers produced or purchased by RadiciGroup were subjected to LCA to verify the impacts from the extraction of the raw materials up to the companies' gates. The Life Cycle Assessment is a globally-accepted scientific method. Through this decision the Group combined the rigour of the system with the recognizability of the method in each country in which it operates and its market are located. Subsequently RadiciGroup companies have used the data thus obtained through:

- The PEF, (the Product Environmental Footprint). This is a methodology for the calculation of
  the environmental footprint introduced by the European Commission and tested in the initial
  phase by the chemicals area in collaboration with the Italian Ministry for the Environment and
  subsequently also developed by the fibre area of the Group.
- EPDs (Environmental Product Declaration), prepared respecting specific rules PCR (PRODUCT CATEGORY RULES) and the basis for third-party verification of the LCA studies on the products. The EPD have primarily concerned the plastics area and subsequently the fibre area.

To find out more about RadiciGroup's EPDs:

WWW.ENVIRONDEC.COM/DETAIL/?EPD=10813

WWW.ENVIRONDEC.COM/DETAIL/?EPD=10814

WWW.ENVIRONDEC.COM/DETAIL/?EPD=9332

WWW.ENVIRONDEC.COM/DETAIL/?EPD=10086

Today, alongside the work of updating the EPD data, RadiciGroup also develops LCAs not intended for public disclosure, but carried out to monitor impacts internally or to develop preventative, scientifically proven assessments on products, from the viewpoint of Ecodesign. Thanks to this system the Group verifies which might be the best formulations for combining performance and recyclability, for example, or ensuring the materials have the performance required by the market with the lowest environmental impact in a pre-industrial phase, in order to reach the actual production stage with a wealth of valuable information.

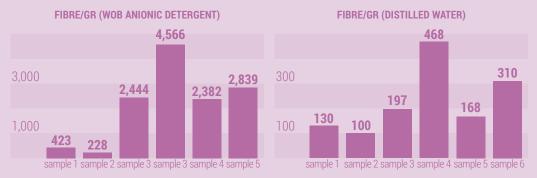
# MICROPLASTICS: MEASUREMENT AND A MULTI-STAKEHOLDER SOLUTION, RADICIGROUP'S PATH

The impact of microplastics on the marine ecosystem is a complex issue, which has had a great effect on public opinion, alarmed by the information that media disseminates on a daily basis. It is a multi-faceted phenomenon, one of which linked to the micro or nano plastics released by the process of washing synthetic or mixed textiles. An aspect that RadiciGroup, a leading synthetic fibre manufacturer, is addressing through collaboration with CNR-ISMAC, the Institute for the Study of Macromolecules of the Italian National Research Council, with which a series of preliminary tests on samples of RadiciGroup Radyarn® (polyester) and Radilon® (nylon) yarn were set up in 2017.

The aim of the tests was the actual quantification of the release of fragments of synthetic fibres, which can be classified as microplastics, under the simulated conditions of industrial clothes washing. The release of fragments was measured by filtering the washing solution with the aid of a membrane and the results made it possible to understand the factors that trigger the phenomenon. The graphs relating to polyester show how the action of the detergent is a key factor that can increase the dispersion of microplastics up to ten times more than simple water. This consideration is generally valid for nylon as well.

# RadiciGroup/CNR Ismac: releasing of microplastics fibres

PRELIMINARY LAB TRIALS LINETEST - ISO 105-C12. COLOR FASTNESS TO INDUSTRIAL WASHING POLYESTER FILAMENT YARN RADYARN®



ISO 105-C12; TEMPERATURE 75°C; TIME 60 MIN; ISO 105-C12: COLOR FASTNESS STANDARD, PART C12 COLOR FASTNESS TO INDUSTRIAL WASHING. THE TEST SIMULATES THE STRESSES CAUSED BY 5 TO 10 INDUSTRIAL WASHINGS.

In addition, the type of yarn and the corresponding processing steps are found to be extremely important. In fact, it was found that four times more fragments were released from yarns with staple fibres (discontinuous yarns), air textured continuous yarns and continuous microfibre yarns (yarns subject to numerous treatments) compared with the test pieces with standard textured yarns.

The results obtained confirmed RadiciGroup's intention, from 2018 onwards, to become the promoter of a multi-stakeholder round table together with producers of fabrics, detergents and washing machines to analyse what solutions each of the participants can put in place.

These solutions will enable RadiciGroup to help its customers and the final market to choose, depending on specific uses, the yarns or combinations of fibres which are better suited to ensuring performance and together ensuring low impact in terms of the release of microplastics.

DISCLOSURE 417-1

# PRODUCT COMMUNICATION

RadiciGroup's chemicals, polymers, plastics and yarns are not intended for final consumers but are used for further processing stages by the Customers. In any case, all products in the Group are subject to general safety and labelling obligations as required by European legislation and the legislation of the country in which they are manufactured or marketed. In many cases they are also subject to specific specifications or additional regulations concerning safety and the environment, on a voluntary basis, which are sometimes more restrictive than the binding regulations in force.

For example, synthetic yarns produced by the Group are certified according to the OEKO-TEX® Standard 100 in most cases. This is a voluntary monitoring and certification system for raw materials, semi-finished goods and finished textile products that sets itself the purpose of the complete absence of harmful substances. Controls on harmful substances comprise, in addition to the substances prohibited by law or the use of which is regulated, chemical substances that are harmful to health and to the environment. Checks are only carried out by authorised and independent research and textile control institutes.

Radici Chimica is able to provide declarations that attest to the absence of specific substances hazardous to health and the environment and the suitability of PA66 for contact with foodstuffs. Although at the moment the company does not possess product certifications relating to these aspects, it is able to provide test reports regarding contact with foodstuffs, flammability and the absence of certain hazardous substances for certain grades of polyamide.

As regards products from the plastics area, a safety data sheet is issued in accordance with REACH Regulations if requested by the customer, although there is no legal requirement. In particular, the REACH Declaration is issued for products (absence of hazardous substances or SVHC) from the plastics area and, for the majority, the RoHS declaration covering the restriction on the use of specific hazardous substances. The products intended for the automotive industry are accompanied by documentation as defined by ISO TS 16949.

Also by virtue of active participation in the technical round tables of trade associations, RadiciGroup

is constantly updated on the evolution of rules, regulations and good practices, using these to adapt quickly to any changes in the regulations or market. In this way it quarantees its customers a technical product communication that is fully in compliance with market expectations, protecting the users and the environment.

# DISCLOSURE

417-2 417-3

As evidence of the above, during the period considered by the Report no company has been involved in cases of non-compliance with product communication or labelling regulations or in cases of noncompliance with marketing communication regulations.

In addition to this technical communication, there were a great many occasions in 2017 in which the Group presented its products through other instruments: newsletters and posts on social media, information on the website, presence at trade fairs and conventions. As regards to this information disseminated to a wider audience, great attention was paid to maintaining a high standard of correctness, not least because the audience to whom it was addressed often did not possess technical notions and was therefore often not able to recognize statements that were unfair or misleading.

In this regard, the Group has had an internal "No green washing" communication code for a number of years. The Code, which is inspired by recognized international documents, first among them the UNI ISO 14063:2010 Environmental Communication standard, has the very purpose of promoting transparency and fairness in all types of communication concerning, in particular, environmental sustainability.

# MANAGEMENT APPROACH

# RADICIGROUP LIMITED ENVIRONMENTAL IMPACT PRODUCTS

103-1

103-2

103-3

Limited environmental impact products are the fruit of all the Group's efforts to measure and mitigate impacts as well as its steps in the direction of eco-design. An important element on which RadiciGroup focused in 2017 was recyclability. This is a characteristic already inherently present in all its products, but which has found a further expression in the Group's strategy RadiciGroup has worked actively to disseminate knowledge of the materials and collaborated with customers to ensure that the products and their applications find an adequate recycling solution at the end of their life from the economic and environmental point of view. Studies between 2017 and 2018 into making single-material garments or furnishing items, or making them with materials that are very compatible with each other, very easy to recycle mechanically at the end of their end of life, without further processing or lengthy separation of the different components, are part of this context.

Recycling strategies that see the Group companies maintain a different approach for nylon and polyester, due to the chemical and physical specifications of these two materials, have been particularly important in the context of product sustainability.

As regards nylon, RadiciGroup's core business, thanks to the integration of the Performance Plastics Area and the Synthetic Fibres & Nonwovens Area and with the backing of the LCA data, the Group's choice is to mechanically recycle all polymer fibre and plastics rejects, transforming them into engineering plastics, in line with a logic already illustrated in the section relating to environmental sustainability. The choice of mechanical recycling in fact involves far less energy use than the option of chemical recycling and allows plastics to be obtained with high performance "inherited"

from the initial formulation, which can immediately be used in sectors with a high technological content.

As regards polyester, on the other hand, the choice is that of using recycled material derived from bottles, mechanically reduced into flakes and transformed into polymer. This is the ideal technical solution to better enhance the properties of the recycled polymer intended for yarns in the clothing, furnishing and automotive industries.

These strategies have been joined by the traditional product sustainability guidelines presented below.



Products manufactured using recycled raw materials: such materials, in the light of circular economy, find a second life after a mechanical recycling process and turn into high performance polymers.

Heramid®: PA6 and PA6.6 engineering plastics r-Starlight®: polyester textile yarn r-Radyarn®: polyester textile yarn



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Products manufactured using clean energy, mainly hydroelectric power.

Radipol®: PA6, PA6.6 e PA6.10 polymers Radilon®: PA6 e PA6.6 engineering plastics Heramid®: PA6 and PA6.6 engineering plastics Radifloor®: PA6 and PA6.6 BCF yarn Radigreen®: PA artificial grass yarn Radilon® staple fibre: PA6 staple Radilon®: PA6 and PA6.6 textile yarn



Recyclable products which, in a circular economy perspective, can be used as secondary raw materials after a recycling process.

All products



Products manufactured using biopolymers obtained from renewable source materials not in competition with vegetable food cultivations.

Radilon® D: PA6.10-based engineering plastics
Radilon® 6.10: PA6.10-based textile yarns
dorix® 6.10: PA6.10-based staple fibre
Biofeel®: bio-based textile yarns
Radifloor® 6.10: bio-based BCF yarn
CornLeaf: Ingeo™ polylactic acid (PLA) yarn



Solution-dyed products, saving water and energy thanks to dyeing pigments added directly during the polymer extrusion phase.

Radifloor®: PA6 BCF yarn

Radifloor® 6.10: bio-based BCF yarn

dorix®: PA6 staple

Radilon® staple fibre: PA6 staple Radilon®: PA6 and PA6.6 textile yarn Radyarn®/Starlight®: polyester textile yarn r-Radyarn®/r-Starlight®: recycled polyester

textile yarn

Biofeel®: bio-based textile yarns

CornLeaf: Ingeo™ polylactic acid (PLA) yarn

To find out more about the features and applications of the various products: WWW.RADICIGROUP.COM/EN/DOCUMENTATION/CORPORATE/TO-BE-GLOCAL

# FIFTEEN PROJECTS, ONE MATERIAL: NYLON

Thanks to its know-how, RadiciGroup has long been the key player in innovative projects that bring particular aesthetic and environmental dimensions alongside the performance of the products. From this vision, and in particular the concept of recyclability, the collaboration was born with the Politecnico di Milano for "100% Nylon - Radici Nylon Dream", an ideas workshop that was established at the end of 2016 and developed in 2017 at the Politecnico of Milan, as curricular activities for the students on the Product Design for Innovation course.

The result of this workshop, which saw the involvement of students, designers and professors, was no fewer than fifteen projects from lighting to kitchen utensils, from seats to sporting items, united in the fact they were made entirely of nylon and drew their inspiration from eco-design. This means that they were designed using a material with characteristics suitable for both first use and a mechanical recycling post-consumption that is both environmentally and economically sustainable. It is precisely in this direction that RadiciGroup has also long collaborated with its customers in the definition of the formulations that make a product easily recyclable in order to obtain other products at the end of its life.

The aim is to ensure that awareness of the advantages of eco-design is spread to an ever wider audience and that an increasingly strong awareness of the reduced energy impacts of mechanical recycling is acquired.

# LEFFE, CUTTING EDGE RADICIGROUP YARNS FOR THE ARTIFICIAL GRASS FIELD OF THE LOCAL ORATORY

An Italian production and supply chain that is on its doorstep has been made available to one of the communities geographically and emotionally closest to RadiciGroup: Valgandino. The Leffe oratory's new artificial grass field was in fact inaugurated in autumn 2017, bearing the names of Gianni and Luciana Radici, deeply bound to their territory of origin.

The yarn used for the artificial grass, which is entirely recyclable when it reaches the end of its life, is of the RadiciGroup brand and made by Tessiture Pietro Radici, a Group company with over 75 years of experience in the textile world. This company supplied the raw material to Safitex Turf, the local company responsible for making and installing the entire surface.

An innovative, cutting edge yarn was selected for this field. This is Radigreen® Propeller, the characteristics of which allow the playing surface to be kept even over time. In fact, before they reach the market, all Radigreen® yarns must pass rigorous testing to ensure resistance to UV rays, weatherability and wear over the long term. The yarn used in Leffe is certified by FIFA and the Lega Nazionale Dilettanti (National Amateur League) and has already been used for areas used by some professional teams. Certainly a good omen for the amateur teams who will challenged themselves on the field at Leffe.





# SUSTAINABILITY REPORT COLLABORATORS

# DISCLOSURE 102-43

An important group of people, in every country in which the Group is located, contributes to drawing up the Report. With commitment and dedication, the GRI site teams become promoters of this document through the fundamental work of collecting data and information at the respective companies. In this way they contribute to shaping the Sustainability Report and involving other people in its preparation.

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# VALIDATION LETTER

DISCLOSURE 102-56

THE SUSTAINABILITY REPORT IS
THIRD-PARTY VALIDATED BY THE
CERTIQUALITY CERTIFICATION COMPANY
AS CONFORMING WITH THE "GLOBAL
REPORTING INITIATIVE" – GRI STANDARDS
CORE OPTION REPORTING MODEL.



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### AUDIT OF THE 2017 RADICIGROUP SUSTAINABILITY REPORT

### Audit Scope

Certiquality S.r.l. has been selected by Radici Partecipazioni S.p.A. to review the RadiciGroup Sustainability Report for the year 2017, in order to assess compliance with the guidelines of the Global Reporting Initiative (GRI) Standards in accordance with the Core option which incorporates the minimal standard disclosure and the valuation of at least one performance indicator for each identified material aspect. This letter describes the activities which were conducted and reports on the audit findings and on any recommendations for improvement.

The audit was carried out with reference to the "GRI Standards", as published by the GRI in 2016, with a particular focus on:

- checking which principles were used in defining Report Content (including stakeholder inclusiveness, sustainability context, materiality and completeness);
- proper Report Boundary Setting;
- checking which principles were used in ensuring the quality of the report (balance, comparability,
- accuracy, timeliness, clarity and reliability of the system for managing data and information);
   compliance of the Report Content in accordance with the guidelines of the GRI Standards (Core option)

The audit was conducted using audit procedures which were adopted by Certiquality in compliance with the UNI EN ISO 19011:2012 standard.

### Audit Methods

Audit activities were carried out by following the modus operandi below:

- analysis of the document entitled "Bilancio di Sostenibilità RadiciGroup 2017", with special reference to the principles and contents described in the GRI guideline (Report Boundary Setting, Standard Disclosures and Performance Indicators);
- interviews with the staff directly or indirectly involved in the preparation of the document and in the
  procedures for data and information management (from data collection to subsequent processing);
- review of documents and records available at the headquarters of Radici Partacipazioni S.p.A. in Gandino and in a representative sample of production plants included in the Report Boundary: Cordonsed Argentina (by conference call in Radici Group Gandino); Radici Chimica Novara; Radici Chimica Deutschland GmbH (by conference call in Radici Chimica Novara); Radici Novacips Chignolo d'Isola; Radici Plastics Mexico (by conference call in Radici Novacips Gingolo d'Isola; Radici Yam Ardesio. Applicable procedures for data collection, recording and processing as well as technical and regulatory aspects of company activities were analysed.

Economic and financial data were sourced from the consolidated balance sheet of Radici Partecipazioni Sp.A., which had been the object of a prior voluntary accounting audit (please refer to the Deloitte & Touche report dated  $30^h$  May 2018) and therefore were not further assessed.

Assessment of the management of the data and information contained in the report was conducted by sampling, taking care to ensure adequate coverage of all aspects touched upon in such document.

### Audit Findings and Recommendations

The 2017 RadiciGroup Sustainability Report is the first edition to have been drafted according to the GRI Standards.















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The report provides a comprehensive overview of the overall connections of the group companies to the context in which they operate. Numerical Performance Indicators are represented over a three-year period from 2015 to 2017, with some references to a longer 2012-2017 period being included in order to provide an assessment of performance trends since the start of the GRI project. Information is presented in a clear and balanced manner and the language used, supplemented where necessary by explanatory notes, makes the report intelligible to an audience which may not be technically-minded.

The Report Boundary does not contain any significant exclusion when compared to the boundary of the consolidated balance sheet of Radici Partecipazioni S.p.A. The exclusion of environmental aspects concerning the group's head office and the exclusion of all aspects concerning its business units, which are mentioned in the report, are not significant when taking the group into consideration and is therefore entirely justified.

Compared to the previous edition, reporting of the management approach to the various issues being dealt with has improved and is now better put into perspective. The adequacy of some of the indicators with respect to the requirements of the applicable guidelines has also improved. The actions which have been and are currently being undertaken to promote stakeholder engagement demonstrate the management's commitment to spreading sustainability values both within and outside the organization, as well as being a testimony to the policies of the group and of its constituent companies and to the numerous initiatives currently underway. The high level of involvement of individual company representatives in the GRI working group is also an indication of the desire to adequately spread sustainability culture in all business units. On the other hand, in spite of the additional stakeholder engagement activities carried out over the last year, the link between the outcome of such activities and the identification of the material aspects included in the document is not always clear.

The data collection and data processing system is sufficiently well-structured and documented and calculation processes are generally clear and repeatable, with rare exceptions.

The audit has revealed a few opportunities for improvement, and more specifically:

- the link between aspects deemed to be material according to company evaluations as well as stakeholder engagement activities and those listed in the GRI guidelines should be clarified;
- certain issues found to be material based upon the data and the information included in the document (e.g., gender equality, use of raw materials deriving from the recovery of waste produced by group companies) should be considered further:
- the particularities of certain aspects at the local level should be stressed upon, where appropriate, by increasing the geographic detail of some of the topics covered (e.g. distribution of added value).

### Audit Conclusions

The review of the 2017 \*\*Bilancio di Sostenibilità RadiciGroup\*\* 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. The audit activities conducted have not resulted in any findings to suggest that the Report does not meet the Core option requirement level.

27th July 2018

Certiquality S.r.l.
Il Direttore Generale
Umberto Chiminazzo













RADICIGROUP 2017 SUSTAINABILITY REPORT IS THE FIRST EDITION DRAWN ACCORDING TO GRI STANDARDS

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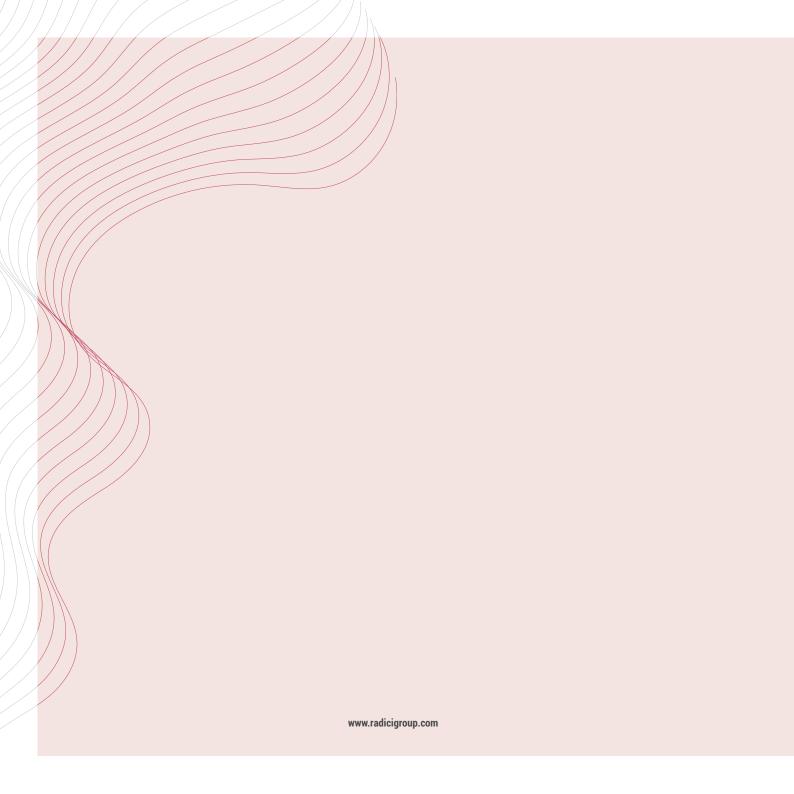
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