



2008 SUSTAINABILITY REPORT

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# INTRODUCTION TO THE 2008 SUSTAINABILITY REPORT



Communication is a fundamental tool to serve these principles and objectives.

Accountability, transparency and ethical conduct: these are the cornerstones of the RadiciGroup Sustainability Report. Sustainable development and corporate social responsibility are the goals of the Group's business activities, day in and day out.

Communication is a fundamental tool to serve these principles and objectives.

Some changes have been introduced to the 2008 report compared to prior years so as to recognize some new principles that will soon be included in the ISO 26000 standard.

These changes reflect the new path the Group intends to follow in order to progress from a reactive approach, dictated by market requirements and the laws and regulations in force, to a proactive approach, dictated by greater awareness of the importance of environmental, social and financial sustainability in terms of ethics and strategy.

# LETTER FROM CHAIRMAN ANGELO RADICI

While getting ready to write the introduction to the 2008 Sustainability Report, I began to wonder about the meaning of this instrument in relation to the current, undeniably grave, crisis. I asked myself how we could accomplish our mission and achieve our values using the tools provided by the Responsible Care initiative and our environmental management systems, and, in a hopefully not so distant future, by our social management systems. I also wondered about how these tools could help us today.

As is well known, the action plan of the sustainability report is focused on RadiciGroup stakeholders, who are also its primary audience. Our stakeholders are internal and external partners with whom RadiciGroup has long carried on an open dialogue based on transparency, with the goal of developing responsible relations and creating true economic and intangible value.

By voluntarily participating in the Responsible Care programme, we have chosen not to dodge confrontation with the external world, but rather to face it, aware that in today's world one must not only accept difficult challenges, but at times, even go out looking for new ones. The Responsible Care programme defines some of the challenges that we cannot afford to ignore any longer.



The sustainability report also helps to integrate our concerns about the social and environmental impact of our production processes into the corporate decision-making process at all levels. Furthermore, it makes sustainability a priority in everyday activities on the corporate agenda, side by side with research and development. In this regard, I would also like to point out that the United Nations declared 2008 the International Year of Planet Earth dedicated to the Earth and its natural resources.

These issues have been the focus of our most recent efforts, which have been directed at synergies, sustainability and innovation, as well as paying greater attention to the demands of a difficult and uncertain market. In times of rapidly changing economic trends requiring greater attention to costs, reducing energy consumption, recycling and transport rationalization, corporate good practices become elements of vital importance.

Lastly, I firmly believe that the principle of continual improvement, which should be built into every environmental and social management tool, is fundamental to how we should face the crisis: it must become a frame of mind for every one of us in our search for the right motivation for our everyday commitment.

Angelo Radici  
*Chairman of RadiciGroup*

# RADICIGROUP. OUR VALUES AND MISSION



Among the Group's key strengths is the synergistic vertical integration of its polyamide (nylon) production.



## THE GROUP

RadiciGroup is one of Italy's leading chemicals multinationals, a diversified group specializing in chemicals, plastics, and synthetic fibres. Among the Group's key strengths is the synergistic vertical integration of its polyamide (nylon) production.

RadiciGroup has total control over its production chain, from chemical intermediates, such as adipic acid, to polyamide 6 and 66, engineering plastics and synthetic yarn. Our experience and know-how allow us to satisfy the needs of our customers and provide tailored, quality products and services. With 3,700 employees worldwide, the Group closed the 2008 financial year with consolidated sales revenue of EUR 957 million. Our production and sales sites are located in Italy, as well as other European countries, Asia, North America and South America.

Our products are exported all over the world for use mainly in applications such as automotive, apparel, sports, furnishings, construction, electric/electronics and household appliances.

## RADICIGROUP MANUFACTURES AND SELLS:

- Polyamide 6 and 66 (RADIPOL®) and related intermediates (RADICHEM®)
- Polyamide and polyester engineering plastics (RADILON® - RADIFLAM® - RADITER®), acetal copolymer (HERAFORM®), thermoplastic elastomers (HERAFLEX®) and polyethylene infill for synthetic turf playing fields (RADILENE®)
- PA 6 yarn and staple, and PA 66 yarn (RADILON® - RADICINYLON®); polyester yarn and microfibre (RADYARN® - MICRELL® - STARLIGHT® - NANOFEEL - MICROVACUUM - SUPERMICRELL - KRISTALL); flame retardant polyester yarn and microfibre (RADYARN® FR - MICRELL® FR); PBT yarn (RADYARN® - STARLIGHT®); PES/PA two-component yarn (MICRALON®); PES/PP two-component yarn (SKIN-CORE); PES/PES two-component yarn (Sunshield); PA 6, PA 66 and PP BCF (RADIFLOOR®); PA 66 high tenacity yarn (RADITECK® - RADITECK® DYNA); acrylic yarn and top (CRYLOR®); elastane fibre (RADELAST®); and PP, PE and PA yarn for synthetic turf (RADIGREEN®)
- PP spunbond nonwovens (DYLAR®), PA6 and PA66 microfibre fabrics, and PES microfibre for apparel and linings (RADICITESSUTI®)



## OUR VALUES

As a chemicals Group, we, more than others, have to and want to pursue a profit in full compliance with all the applicable laws and regulations in the fields of environmental protection and health and safety in the workplace. We want to make a tangible contribution to the protection of the environment and the sustainability of natural resources, thus ensuring the sustainability of our own industrial activities. Efficiency and quality of production processes, products and services, together with safeguarding the environment. Moreover, putting people at the centre of everything we do, respect for our human resources and attention to the needs of our stakeholders.

These elements are all part of our corporate commitment and are fundamental components of our corporate management system.

For these reasons, we recognize the values established by GBS (Study Group for Social Reporting):

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.

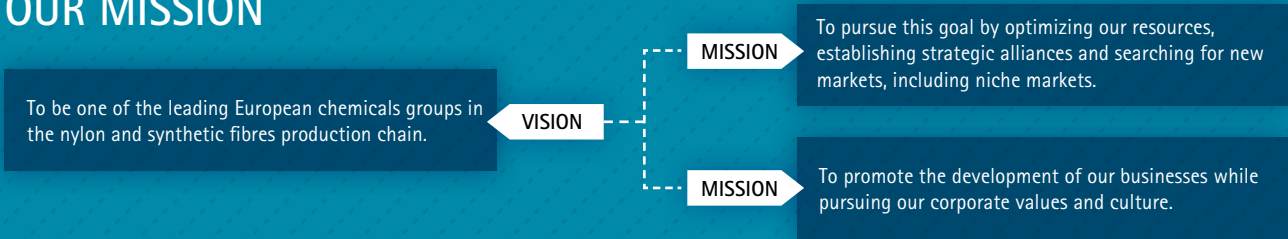
Our responsibility as a company for our workers, production sites and communities.

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.

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

## OUR MISSION



# OUR STORY

## ORIGINS

Talking about RadiciGroup means looking back over a story that has lasted more than fifty years and has witnessed the growth, development and transformation of a traditional textile company into an internationally recognized Group. We are a solid, reliable and flexible Group whose industrial activities have been marked by rapid growth. It all began with the entrepreneurial spirit of one man, Pietro Radici, who set up a series of production operations that were the precursors of a true success story.

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### 1941 – 1950s

RadiciGroup's history started back in 1941, when Pietro Radici founded his first company, Tessiture Pietro Radici, situated in the province of Bergamo. At first the company manufactured only blankets and bedspreads. Later on in the 1950s, when the reins of the company were handed over to Gianni Radici, Pietro Radici's son, the company started a process of horizontal diversification expanding from blankets and bedspreads to rugs, fabrics, carpeting and car mats. Dynamic management, international breadth and progressive non-stop diversification laid a solid foundation for the company's future activities.

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### 1960s – 1980s

From 1960 to 1970, RadiciGroup continued on the diversification path started in the 1950s: first, through vertical integration, by adding the manufacture of polymers and synthetic



fibres, and, later on, by developing new markets, from chemicals to polymers. In fact, during the 1980s, the Group started focusing on the production of synthetic fibres and industrial chemicals. In 1986, Radici bought a former Montedison production site in Novara, Italy, and founded Radici Chimica SpA. The Group started to expand into the engineering plastics market and to develop new production technologies.

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#### 1990s - 2000s

During the 1990s new strategic businesses were developed, including the energy business, at first through investments in cogeneration projects, and later through the creation of Geogreen, a RadiciGroup partner involved in the energy sector.

Geogreen, besides supplying electricity and gas to the Group, provides an integrated range of products, services and consulting to third parties: supply of electric power, production of hydroelectric and thermoelectric power (through its cogeneration plant), development of projects and special services in the sectors of biomass, thermal and photovoltaic solar energy, wind power and gas. In the 1990s, RadiciGroup took steps towards further vertical integration, by strengthening its presence in the engineering plastics market and boosting its chemicals production, in particular, through the creation of Radici Chimica Deutschland GmbH in 2001.

Today this plant is one of the most advanced production facilities of its kind in Europe and is involved in the production of adipic acid, nitric acid and cyclohexanol/cyclohexanone mix.

## RADICIGROUP TODAY

Throughout the years, RadiciGroup has become one of the most active enterprises worldwide in the chemicals and synthetic fibres sectors, and one of the major players in the nylon sector. The nylon market has undergone and is still going through profound changes, but it is a market we continue to believe in and want to stay in.

As a Group, we conduct our operations with respect for the cultures of the communities that host our businesses. We work towards environmentally compatible development and the safety of our employees, the community and the environment. Quality and sustainability are the keystones of the way we do business. From now on, we will focus on the efficiency and quality of our production processes, products and services, using the latest technology and innovative systems proven to be compatible with the environment and safe for people.



## STAGES TOWARDS SUSTAINABILITY

2003 / 2004 / 2005 / 2006 / 2007 / 2008

### RESEARCH AND INNOVATION, QUALITY AND SAFETY.

RadiciGroup has made a concrete commitment to sustainable development. Every year, the Group uses the tools provided by the Responsible Care programme to evaluate its performance, set objectives and find ways to improve in the future.

Below are listed some of the 2008 events that marked important steps in the Group's path towards greater ethical, social and environmental responsibility.

**MARCH** - RadiciGroup continued to pursue its production plant optimization policy (thanks to continual investment, Radici Chimica Deutschland GmbH is one of the most advanced chemical plants in Europe). Because technology opens up new market spaces and development possibilities, while reducing waste and pollutant emissions.

**MAY** - RadiciGroup participated in a conference sponsored by TMP, the Italian Association of Plastics Technicians. At the proceedings, the Group presented its point of view on the reuse of recycled plastics. Because a corporate recycling policy can turn waste back into first-grade material.

**MAY** - RadiciGroup inaugurated Greentainer, a non-invasive modular, highly environmentally friendly micro-locale, featuring minimum usage of non-renewable energy resources. Because an environmentally compatible way of life can meld perfectly with everyday corporate life.

**JUNE** - US subsidiary RadiciSpandex sponsored the event "Stretch to the Future" for the ninth consecutive year. The company provided its products for the scholarship design competition at the prestigious Fashion School of Kent State University and awarded scholarships to the winners. Because giving young talent the space they deserve and promoting interaction between the academic and corporate worlds are necessary conditions for improvement.

**JULY** - At the proceedings of the XVII National Congress of the Industrial Chemical Division of the Italian Chemical Society, RadiciGroup presented a project on using air as an oxidizing agent in place of nitric acid for the production of adipic acid. Because only through research is it possible to develop new resources.

**JULY** - RadiciGroup unveiled its new Fibres website. Almost 70 thousand files were downloaded from all Group sites during the year and the e-newsletter service was upgraded. By using these new web communication tools instead of traditional media entailing paper consumption and transport, RadiciGroup considerably reduced the environmental footprint of its communication activities.

**OCTOBER** - RadiciGroup participated in the 47th Dornbirn Man-Made Fibres Congress dealing with topics related to research and development and safety, in particular. The Group representative gave a talk on RadiciGroup's important innovative developments and achievements in synthetic fibres production.

**NOVEMBER** - RadiciGroup attended the seminar "REACH, EU Regulation No. 1907/2006" organized by TMP, the Italian Association of Plastics Technicians, and IMQ, the Italian Institute for Quality Certification. At the end of the month, REACH pre-registration of chemicals would take place. REACH is an EU regulation that has established an integrated system for the registration, evaluation, authorization and restriction of chemicals.



**DECEMBER** - Radici Yarn SpA, an Italian company belonging to the RadiciGroup Fibres Business Area, obtained UNI EN ISO 14001:2004 certification for its environmental management system related to the development, manufacture and marketing of polyamide 6 polymer and polyamide 6 and 66 masterbatches, staple fibre and continuous filament yarn (Radilon®).

**DECEMBER** - To close 2008 and celebrate the beginning of the new year in the spirit of continual improvement, RadiciGroup decided to dedicate its 2009 calendar to Geogreen, its totally environmentally responsible energy supplier. This decision was made to reconfirm the Group's conviction that, in today's world, sustainable development is both an ethical and a strategic choice. Because a company can always grow while protecting the environment.



RESPONSIBLE CARE

# RESPONSIBLE CARE: A PRACTICAL TOOL FOR CONTINUAL IMPROVEMENT



By embracing the Responsible Care voluntary programme, the Group has, in fact, renewed its commitment to put into practice principles fostering increasingly responsible conduct in the areas of employee health and safety and environmental protection.

The fairness and transparency of our management systems in compliance with all applicable laws and regulations. This is a value RadiciGroup firmly believes in.

By embracing the Responsible Care voluntary programme, the Group has, in fact, renewed its commitment to put into practice principles fostering increasingly responsible conduct in the areas of employee health and safety and environmental protection.

For a heterogeneous and diversified company such as RadiciGroup, adherence to the Responsible Care initiative is an opportunity to identify its own weaknesses and, consequently, to set into motion whatever is needed to overcome existing performance limitations in social and environmental matters.

Transparency has been a distinguishing and dynamically evolving value for RadiciGroup businesses for over fifty years. The Group has always worked towards environmentally compatible development and has always openly reported on its performance.

The Responsible Care programme, especially when it forces a company to find and recognize its limitations, is a valuable tool that provides the necessary inputs in order to achieve continual, significant and tangible improvements.



# INTRODUCTION TO THE RESPONSIBLE CARE PROGRAMME

Responsible Care® is the chemical industry's global voluntary initiative under which companies implement a set of guiding principles on employee health and safety and environmental protection, and commit to openly report on their performance.

The national programme promoted by FEDERCHIMICA, the Italian Chemical Industry Federation, covers all the corporate functions grouped into four main improvement areas:

## 1.EMPLOYEE HEALTH AND SAFETY.

Ensuring employee health protection and safety through an integrated approach that includes: workplace organization, safety management, health protection against harmful substances and state-of-the-art industrial procedures.

## 2.ENVIRONMENTAL PROTECTION.

Implementing proactive environmental strategies in order to ensure compliance with defined environmental standards, as well as using eco-compatible products and processes

with adequate environmental management systems and effective installations to reduce emissions and waste.

### 3.PROCESS SAFETY.

Operating in a proactive, systematic and exhaustive manner in matters concerning safety. In the case of a chemical plant, one must identify, eliminate or reduce operating risks, ensure that plant construction and maintenance operations comply with safety standards, promote error prevention and/or allow for error tolerance.

### 4.PRODUCT STEWARDSHIP.

Implementing responsible product management centred on health, safety and environmental protection during the entire product life cycle from design to disposal.



**Responsible Care**





# INVESTMENT IN HEALTH, SAFETY AND THE ENVIRONMENT



Health, safety and the environment are vital issues for RadiciGroup. Our Group is constantly committed to providing training to its human resources to increase employee awareness of their shared responsibility with respect to health protection, safety and the latest environmental protection issues.



Health, safety and the environment are vital issues for RadiciGroup. Our Group is constantly committed to providing training to its human resources to increase employee awareness of their shared responsibility with respect to health protection, safety and the latest environmental protection issues. In keeping with this commitment, during 2008 RadiciGroup increased its investment in personnel training, firmly believing that that choice was a necessary pre-condition for truly sustainable growth.

An analysis of the available data shows that operating costs decreased in 2008. As already mentioned in prior social reports, our annual investment increases or decreases depending on planning and ordinary and extraordinary cost management.

Every year RadiciGroup budgets an amount between 2.5 and 3 million euros to cover the expenses related to health, safety and the environment. In 2008, this investment rose compared to the prior year. The increased funds allotted to personnel training are a concrete sign of RadiciGroup's commitment to improving safety in the workplace and in the surrounding environment.



## INVESTMENT IN HEALTH, SAFETY AND THE ENVIRONMENT

<i>Thousands of Euros</i>	2003	2004	2005	2006	2007	2008
HEALTH AND SAFETY	827	1,765	1,821	785	563	2,034
ENVIRONMENT	2,188	968	1,921	2,266	1,932	1,726
TOTAL	3,016	2,732	3,741	3,051	2,495	3,761

## OPERATING COSTS FOR HEALTH, SAFETY AND THE ENVIRONMENT

<i>Thousands of Euros</i>	2003	2004	2005	2006	2007	2008
HEALTH AND SAFETY	2,089	2,135	1,793	1,687	1,722	1,755,10
ENVIRONMENT	5,972	6,060	5,828	7,292	13,348	6,945,77
TOTAL	8,060	8,194	7,622	8,979	15,069	8,701

## HEALTH, SAFETY AND THE ENVIRONMENT (HSE) TRAINING HOURS

<i>Number of hours</i>	2003	2004	2005	2006	2007	2008
Health, safety and the environment (HSE) TRAINING HOURS	16,194	23,668	17,729	17,645	15,602	17,389.50

## HEALTH AND SAFETY IN THE WORKPLACE

RadiciGroup maintains that prevention is the best way to make the workplace safer and more secure.

Clinical tests are the number of laboratory tests performed on employees.

Other tests shown in the table include electrocardiograms, spirometry and audiometry performed on employees.

Workplace health monitoring tests are readings during "film badge" campaigns from portable instruments assigned to individuals by technicians responsible for the testing.

In 2008 the number of "Other tests", medical checks and clinical tests increased, while workplace health monitoring tests decreased.



## PREVENTIVE ACTIONS

Number	Medical checks	Clinical tests	Other tests	Workplace health monitoring tests	Per RADICI employee
2005	3,315	3,175	4,630	154	2.80
2006	3,624	2,741	3,561	66	2.46
2007	3,388	2,797	2,143	231	2.21
2008	2,925	3,093	2,559	25	2.38

RadiciGroup needs to go the extra mile to ensure a safer workplace and further decrease the number of injuries. In analyzing the published data it must be borne in mind that such data were collected from 22 Group production sites located all over the world, including countries where workplace conditions are not regulated by the law, unlike in European nations.

The adoption of company based and corporate and Health & Safety management system helped RadiciGroup to reduce work accidents over the last few years. With the aim to achieve a continual improvement, some companies of RadiciGroup chose to adopt the Occupation Health and Safety Assessment Series OHSAS18000. Other companies have undertaken the same path. This choice was made not only to comply with existing laws and to reduce the exposure of employees and other parties to occupational health

and safety risks associated with the organizations activities, but also as a proof of a consistent management approach to H&S risks.

In 2008, the total number of injuries decreased, but the Group must still set a goal to further reduce this number in coming years and more actively promote worker safety.

## LOST TIME INJURIES OR INCIDENTS

Number	2003	2004	2005	2006	2007	2008
Fatalities	0	0	0	0	0	0
1- to 3-day injuries	68	44	28	36	33	18
Workers' compensation injuries (>3 days)	199	203	174	168	190	178
Workmen's compensation commuting injuries	5	13	10	10	10	14

## TIME LOST TO INJURIES

Number	2003	2004	2005	2006	2007	2008
1- to 3-day injuries	692	455	85	107	135	40
Workers' compensation Injuries (>3 days)	6,198	5,148	4,901	5,567	6,347	5,897







## PROTECTION, DISCHARGES TO WATER AND EMISSIONS TO AIR

The main reason RadiciGroup voluntarily implemented the Responsible Care initiative is that it considers this programme a tool for continual improvement. As in the case of the other indicators, the data on discharges to water and emissions to air collected from 22 RadiciGroup production sites is taken as a starting point for performance improvement. The collected data is essential in identifying where to intervene and determining what actions should be taken in order to improve Group environmental performance concerning discharges and emissions.

### DISCHARGES TO WATER

tons	2003	2004	2005	2006	2007	2008	
COD	280.3	1,589.6	1,699.1	3,067.3	2,110.3	1,567.7	CHEMICAL OXYGEN DEMAND
N	591.1	440.0	465.2	188.0	301.0	308.4	NITROGEN
SUSPENDED SOLIDS	0.5	74.3	77.2	221.7	132.3	111.3	
P	1.7	1.9	2.6	0.8	2.4	2.3	PHOSPHOROUS
HG	-	-	-	-	-	-	MERCURY
CD	-	-	-	-	-	-	CADMIUM
PB	-	-	-	-	-	-	LEAD
CrVI	1.7	2.0	1.7	2.0	1.9	-	CHROMIUM VI
AS	-	-	-	-	-	-	ARSENIC
ZN	1.1	0.4	0.3	0.2	0.6	0.6	ZINC
CU	4.1	4.1	1.8	1.4	0.9	0.8	COPPER
NI	0.2	0.2	0.2	0.2	0.4	0.3	NICKEL
TOTAL HEAVY METALS	7.2	6.7	4.0	3.7	3.8	1.8	

In 2008, nitrogen oxide emissions fell. This reduction was achieved primarily through the innovations introduced in the Group's Chemicals Area. In fact, since 2006, a new technology for the abatement of nitrous oxides in the production of adipic acid has been used at two of the most important RadiciGroup production sites, Radici Chimica SpA in Italy and Radici Chimica Deutschland GmbH in Germany. This innovation has helped to reduce nitrous oxide emissions to air, as well as air pollution.



RadiciGroup believes that the achievements in the Chemicals Area can be reproduced in its downstream production chain. Among the big advantages of the Group's vertically integrated production is the ability to monitor and manage every step of the process in a totally autonomous manner. In coming years, the Group will have to set a goal to significantly reduce pollutants discharged to water or to air.

## EMISSIONS TO AIR

tons	2003	2004	2005	2006	2007	2008	
S02	649.5	579.3	455.0	867.8	12.1	19.0	SULPHUR DIOXIDE
NOX	976.7	2,569.8	889.5	1,140.2	596.0	518.6	NITROGEN OXIDES
POLVERI	82.7	79.6	70.2	19.2	20.3	22.1	
COV	48.8	67.2	69.3	105.8	143.5	130.3	VOLATILE ORGANIC COMPOUNDS
CIV	-	-	-	-	6.1	7.2	VOLATILE INORGANIC COMPOUNDS
CO	29.7	27.6	27.5	47.3	7.3	19.4	CARBON MONOXIDE
HG	-	-	-	-	10.8	0.6	MERCURY
CD	-	-	-	-	-	-	CADIUM
PB	-	-	-	-	-	-	LEAD
CR	-	-	-	-	-	-	CHROMIUM
AS	-	-	-	-	-	0.1	ARSENIC
NI	-	-	-	-	-	-	NICKEL
TOTAL HEAVY METALS	-	-	-	-	10.8	0.7	
Average daytime noise level at the site boundaries Db (decibels)							

## ENERGY CONSUMPTION

TEP (Tons of oil equivalent)	2003	2004	2005	2006	2007	2008
Solid fuels	-	-	-	-	-	-
Liquid fluids	27,222.6	28,555.9	23,816.9	2,700.1	2,135.9	1,976.1
Gas fuels	97,604.4	89,023.5	66,443.5	82,703.8	78,561.4	70,945.2
Steam purchased	9,599.3	17,718.8	40,738.5	40,438.1	42,493.0	38,095.5
Steam sold	10,023.4	9,582.5	9,938.0	9,535.0	9,755.0	8,590.3
Total	124,402.8	125,715.7	121,060.9	116,307.0	113,435.3	102,426.6



In 2008 consumption of gas, which remained RadiciGroup's number-one energy source, was reduced. On the contrary, consumption of electricity, supplied in part by Geogreen hydroelectric plants, stayed high.

## ELECTRICITY PURCHASED

<i>TEP (Tons of oil equivalent)</i>	2003	2004	2005	2006	2007	2008
Electricity Purchased	468,959	534,651	553,839	517,564	621,027	533,911

Total energy consumption, including purchased and self-generated electricity, is shown in the table below. Electricity and steam sold are not included.

## TOTAL ENERGY CONSUMPTION

<i>TEP (Tons of oil equivalent)</i>	2003	2004	2005	2006	2007	2008
Total energy consumption	611,433	674,342	686,239	643,136	745,568	647,002

The technology for the abatement of nitrous oxide, which has been operational since 2006 at our two chemical plants in Novara, Italy, and Zeitz, Germany, helped to reduce the emissions to air of this gas by 80.5%. This success puts us under the Kyoto protocol limits and underlines RadiciGroup's commitment to the health and the environment of the communities where our companies are situated.

## EMISSIONS OF GREENHOUSE GASES FROM ADIPIC ACID, NITRIC ACID AND CYCLOHEXANOL

<i>tCO<sub>2</sub> eq.</i>	2003	2004	2005	2006	2007	2008
Nitrous oxide (N <sub>2</sub> O)	6,341,001	7,682,502	6,286,224	1,827,590	1,240,471	850,038
Other greenhouse gases	33,400	35,562	58,347	59,352	56,612	68,495

In 2008 emissions of carbon dioxide from gas fuels decreased.

During the year, emissions of carbon dioxide from liquid fuels were reduced as well, in line with the corresponding reduction in the use of such fuels, thanks to a change in the Group's energy mix.

## EMISSIONS OF CARBON DIOXIDE FROM LIQUID FUELS

	2003	2004	2005	2006	2007	2008
Emissions of carbon dioxide (CO <sub>2</sub> ) from gas fuels	100	91	68	85	80	73
Emissions of carbon dioxide (CO <sub>2</sub> ) from liquid fuels	100	105	87	10	8	7



RadiciGroup has to improve its performance in the water resources and hazardous waste areas. It must implement a comprehensive management policy, including the promotion of water recycling in some production phases, an overall rationalization of production cycles, and an appropriate industrial waste disposal system.

## WATER RESOURCES USAGE

<i>Cubic metres of water</i>	2003	2004	2005	2006	2007	2008
Mains water	6,785,957	6,757,151	4,292,678	5,694,027	5,698,716	10,572,502
River water	12,212,126	7,274,070	6,732,361	3,342,255	4,150,234	5,073,198
Sea water	-	-	-	-	15	-
Well water	5,612,120	6,299,776	6,719,992	4,912,610	5,045,044	4,779,084
Well water in a closed-circuit system (%)						

## WASTE MANAGEMENT DATA

<i>tons</i>	2003	2004	2005	2006	2007	2008
Hazardous wastes	2,981.3	2,798.2	2,453.1	1,795.4	1,923.1	2,866.8
Non-hazardous wastes	9,377.5	10,422.5	8,548.1	9,527.0	8,192.0	7,675.92

## HAZARDOUS WASTE DESTINATIONS

<i>tons</i>	2003	2004	2005	2006	2007	2008
Incineration on site	1.00	1.00	1.00	0.75	-	-
Incineration off site	2,328.26	1,798.78	1,369.58	1,699.11	2,045.04	1,640.15
Dumping on site	-	-	-	-	-	-
Dumping off site	1,182.47	1,415.75	1,327.59	466.6	1,232.33	1,094.94
Reclamation on site	15.00	19.00	19.00	14.00	12.00	12.00
Reclamation off site	3,479.05	3,088.21	3,179.73	3,991.66	1,799.65	2,051.22
Other destinations	243.15	378.96	235.57	162.46	181.43	150.46



QUALITY -----

RADICIGROUP PRODUCTION SITE	Standard ISO 9001:2000	Standard Iso/ TS 16949:02	Standard ISO 14001
<b>CHEMICALS</b>			
Novara, Italy	X		X
Zeitz, Germany	X		X
<b>PLASTICS</b>			
Villa d'Ogna, Italy	X	X	X
Chignolo d'Isola, Italy	X		
Lüneburg, Germany	X	X	
Araçariгуama, Brazil	X	X	
<b>Suzhou, China</b>			
Provaglio d'Iseo, Italy			
<b>FIBRES</b>			
Casnigo, Italy	X		
Podborani, Czech Republic			
Villa d'Ogna, Italy	X		X
Pistoia, Italy	X		X
Ardesio, Italy	X		
Casalmoro, Italy	X		
Savinesti, Romania	X		X
Sao Jose dos Campos, Brazil	X		
Chignolo d'Isola, Italy	X		
Stabio, Switzerland			
Andalo Valtellino, Italy	X		
Tuscaloosa, USA	X		
Gastonia, USA	X		
<b>TEXTILES</b>			
Gandino, Italy	X		

\*Certifying Body (always third party) Accredited by SINCERT (in Italy) and IQNET (in the rest of the world)



\*EXTERNAL ORGANIZATION

PRODUCT CERTIFICATION

CERTIQUALITY

DQS

IIP

IIP

TUV

BVQI

CERTITEX

OekoTex100

no

CERTITEX

Oeko Tex Standard 100

CERTITEX

Oeko Tex Standard 100

CERTITEX

Oeko Tex Standard 100

CERTITEX

Oeko Tex Standard 100

SRAC ROMANIA

FUNDAÇÃO VANZOLINI

RINA

OekoTex100

RINA

OekoTex100

National Quality Assurance USA

National Quality Assurance USA

CERTITEX

OekoTex100 + FIRA

# RADICIGROUP ENVIRONMENTAL POLICY



The Group works towards environmentally compatible development with transparent reporting of its results.

RadiciGroup has always believed in balanced growth, a better quality of life, and a more harmonious relationship between the individual and the environment. The Group works towards environmentally compatible development with transparent reporting of its results.

Reliability of our management and operating systems so as to provide the maximum safety for our employees, the community and the environment; compliance with the laws in force; respect for the communities where we operate; and energy conservation. These are the fundamental values of the RadiciGroup environmental philosophy.

Regarding environment issues, RadiciGroup has decided to go well above and beyond formal compliance with applicable laws. Its objective is to build the necessary foundation for a global environmental management policy in order to ensure continual improvement in performance.

Strengthening our environmental commitment is a primary objective to be fully achieved at each and every RadiciGroup site. The action plan includes:

- Improving production efficiency.
- Optimizing plant technologies.
- Monitoring and process control at every stage of the production chain.
- Rationalizing energy consumption.
- Using alternative and renewable energy sources.
- Reducing emissions of pollutants.
- Proper industrial waste treatment and disposal.
- Waste recycling for reuse in new product life cycles.
- Obtaining or extending 14001 environmental certification.

RadiciGroup believes in transparency, and this is one of the reasons it decided to participate in the Responsible Care programme on a voluntary basis.

The Group aspires to implement the guiding principles and operate in an increasingly responsible manner with regard to employee health and safety and environmental protection, striving for continual, noticeable and tangible improvement.

RadiciGroup sees its participation in the Responsible Care initiative as a valuable tool for improvement.

Only in this way can we develop viable plans along the two fundamental guidelines: minimizing direct environmental impact and maximizing the quality of life, by protecting the atmosphere, the local environment and the health and safety of its inhabitants.

## THE INTERNATIONAL YEAR OF PLANET EARTH

The United Nations proclaimed 2008 as the International Year of Planet Earth. The aims of this celebration were to raise our collective awareness on the latest environmental issues and to lay a solid foundation upon which to achieve truly sustainable development. RadiciGroup decided to take the opportunity to add a special section dedicated to the environment to this 2008 corporate Sustainability Report.

The goals of this decision were to reconfirm the Group's commitment to environmentally responsible growth and to increase awareness, especially among its employees, of key environmental issues, by deploying the necessary resources for environmentally responsible growth and progressive improvement in environmental performance.



## RADICIGROUP TAPS GEOGREEN AS ITS ENERGY SUPPLIER OF CHOICE

Optimizing energy consumption by using more efficient energy production plants and renewable alternative energy sources. These are the tenets of the environmental policy adopted by Geogreen SpA for itself and its customers, with the conviction that, today, sustainable development is both an ethical and a strategic choice. Renewable energy sources, in particular, are totally eco-sustainable and are becoming a more and more valid alternative to traditional fuels.

Putting its environmental responsibility policy into action, RadiciGroup has chosen Geogreen, an environmentally responsible partner and valuable collaborator, as its energy supplier. Working within the framework of achieving optimal overall environmental performance, the Group is committed to further strengthening its collaboration with environmentally compatible suppliers and partners.

## GREEN VISION PROJECT: A BEST PRACTICES MODEL

Radici Yarn S.p.A., a company belonging to the RadiciGroup Fibres Business Area, is promoting "Green Vision", an awareness-raising project concerning corporate eco-sus-



tainability issues. The project's integrated transversal environmental management action plan includes a series of activities grouped under four topic headers:

- **Process efficiency:** Production cycle monitoring, with the complete use of raw and auxiliary materials (caprolactam, H<sub>2</sub>O, etc.); alternative use of non-conforming materials and total reuse of production waste.
- **Energy efficiency:** Co-generation plant and optimal use of energy produced (internal consumption of self-generated electricity and direct use of steam produced); consumption monitoring and rationalization; investment in environmentally friendly technologies (new turbine with reduced NO<sub>x</sub> emissions)
- **Environmental responsibility:** Reduction of environmental footprint, monitoring of discharges to water and emissions to air, separate waste collection, reclamation of packaging materials (pallets, paper, wood, plastics), and proper industrial waste disposal (possibly involving energy production from waste).
- **Effective management system:** Integrated monitoring of production activities, quality and environmental certification, investment in the environment and safety, integrated environmental authorization, etc.



## ENVIRONMENTAL RESPONSIBILITY IN ACTION

RadiciGroup thinks that environmental responsibility can become a way of life even in the corporate world, if adopted at all levels by implementing a virtuous cycle of best practices. In 2008 RadiciGroup took concrete action towards achieving greater environmental sustainability. Below we describe the series of steps taken by the Group during the year in its quest for greater environmental responsibility and total respect for the environment, the individual, and the community at large.

### ENVIRONMENTAL RESPONSIBILITY...

Reduction of polluting emissions is the first duty of an environmentally responsible company. Continual technological innovation of production plants, starting from the Chemicals Area, is the first step towards a considerable reduction in polluting emissions all along the entire production chain.

### ... IN ACTION:

#### *RadiciGroup chemical sites reduce polluting emissions from production processes*

Since 2006, a new technology for the abatement of nitrous oxide in the production of adipic acid has been used at two of the most important RadiciGroup production sites, Radici Chimica in Italy and Radici Chimica Deutschland GmbH in Germany. This innovation helped to significantly reduce nitrous oxide emissions to air, as well as air pollution.

#### *Vertical responsibility: from Chemicals all the way down the production chain*

The chemical industry is at the forefront in the reduction of greenhouse gases and climate changing emissions. The chemical world plays a leading role because it can provide solutions for other industrial sectors as well. The internal synergy of the RadiciGroup production chain gives it a big competitive advantage, but above all, provides a unique opportunity for environmentally responsible development, which can be monitored upstream as well as downstream.

Ever since Radici Chimica implemented new nitrous oxide emission-free technology for the production of adipic acid at its Novara, Italy, and Zeitz, Germany, plants, benefits have also been felt in the downstream sectors of the production chain. Thanks to its vertical integration, RadiciGroup is in a position to monitor and autonomously manage every process at each single stage, from chemicals to plastics, from synthetic fibres to the finished product.

#### *Technological innovation and optimization of plant performance*

Continual technological innovation and optimization of production site performance improves product quality and minimizes consumption and waste, thereby achieving corporate growth while respecting the environment. In addition to improving plant efficiency, new technologies enhance product sustainability

Capital investments have transformed Radici Chimica Deutschland GmbH into one the most state-of-the-art chemical plants in Europe. In the USA, RadiciSpandex Corp. is improving its performance by investing to make its Tuscaloosa, Alabama, plant one of the most technologically advanced in the world and at the forefront in its sector. A group of companies can create a virtuous cycle of

and, at the same time, improve product quality.

best practices, but, in order to do so, they must all share the philosophy that, nowadays, sustainability is both an ethical and a strategic choice.

### *Responsible Care: a practical tool for RadiciGroup*

Responsible Care® is the chemical industry's global voluntary initiative under which companies implement a set of guiding principles on employee health and safety and environmental protection, and commit to openly report on their performance.

For RadiciGroup, participating in the Responsible Care initiative is an opportunity to identify its own weaknesses and, consequently, to set into motion whatever is needed to overcome existing performance limitations in social and environmental matters.

### *Research and Development: where the academic and business worlds meet*

In July 2008, the XVII National Congress of the Industrial Chemical Division of the Italian Chemical Society was held. It was a major event at which the academic and the industrial worlds met to discuss topics of interest to industrial chemists..

At the proceedings of that Congress, RadiciGroup presented a research project carried out in collaboration with the Università di Bologna (Bologna University, Italy) on the topic: an evaluation of using air as an oxidizing agent in place of nitric acid in the production of adipic acid.

### *Recycling gives plastics a second chance*

The use of recycled plastics is a topic on which legislation is lacking and little is still known from an engineering standpoint. The reuse of recycled materials not only gives a company a notable competitive advantage but also reduces the quantity of waste dumped into landfills, clearly limiting the environmental impact. Recycling in general, and in the corporate world in particular, is a choice that is both ethical and strategic.

At a conference sponsored by TMP, the Italian Association of Plastics Technicians, and held in Padua, Italy, during the month of May, RadiciGroup presented its point of view on the reuse of recycled plastics, that is, through recycling, plastics can have a second chance and be returned to the production cycle. RadiciGroup promotes the reuse of production waste not only in its Plastics Area, but also at all production sites.

### *Using alternative and renewable energy sources*

Nitrogen oxides and related mixtures are considered pollutants for the air stream and are also considered hazardous to human health. Some of these mixtures, under the effect of solar radiation, can react with oxygen forming ozone or contribute to so-called "acid rain".

In 2008, Radici Yarn of the Fibres Area installed a new DLE turbine in its co-generation plant. This led to a noticeable reduction in nitrogen oxide emissions. RadiciGroup, with the support of Geogreen, promotes the use of more environmentally friendly alternative and renewable energy sources.

*Integrated environmental authorization*

An integrated environmental authorization is a permit that enables a plant or part of a plant to operate according to certain conditions in accordance with European Community Directive No. 96/61/EC, known as IPPC (Integrated Pollution Prevention and Control), transposed into Italian law by Legislative Decree No. 59 of 18 February 2005.

The Region of Lombardy has granted Radici Yarn SpA an integrated environmental authorization, an official permit by which the company takes on further responsibilities towards the environment and the community hosting its production site, in that the company's operation will be subject to periodic audits and inspections by public bodies in charge of verifying compliance with applicable laws on environmental matters.

*ISO 14000 Environmental Management Certification*

ISO 14001 is a voluntary international standard that defines how to develop an effective environmental management system. This standard is equally applicable to all types of companies. ISO 14001 certification is issued by an accredited independent body and recognizes a company's concrete commitment to minimizing the environmental impact of its production processes, products and services, as well as the reliability of its environmental management system.

In December 2008, Radici Yarn SpA plants in Pistoia and Villa d'Ogna (BG) were awarded ISO 14001 environmental certification. Radici Novacips SpA and Radici Chimica Deutschland GmbH have been ISO 14001 certified since 2006, while Radici Chimica SpA in Novara is on track to receive its certification in June 2009. From chemicals to plastics, textiles and synthetic fibres, RadiciGroup believes and invests in certified environmental sustainability.

*RadiciGroup reduces CO2 emissions from its fleet of vehicles*

There are numerous ongoing projects, both in Italy and internationally, targeting the reduction of pollutant emissions, CO2 in particular, caused by corporate transport vehicles. The reason is well known: among the greenhouse gases, CO2 is considered the major cause of environmental problems, such as global warming and climate change.

A cut (even as small as 10%) in CO2 emissions to air from the vehicles fleet of a large company can have a great beneficial impact on the environment. Between 2007 and 2009, the RadiciGroup fleet reduced its emissions by more than 10% and further improvement is planned.

*Ecological transportation of goods: alternative transport systems*

It is imperative for all responsible companies to find alternative ways to transport goods that are more respectful of the environment. Some means of transport are considered environmentally friendly, as they have much lower emissions compared to the traditional ones

Radici Chimica SpA, a RadiciGroup company located in Novara, Italy, has chosen to shift more of its goods from road to rail, both in Italy and in Europe. By increasing its use of rail transport, the company has managed to achieve a considerable reduction in road traffic (5,000



and are often more functional and efficient as well. Rail transport is a good example of a valid alternative to road transport, offering a notably reduced environmental impact.

fewer trucks circulating on Italian roads alone in 2008) and improved efficiency and safety in load/unload and transport operations.

### *Greentainer: a modular micro-locale for an eco-friendly lifestyle*

Environmental responsibility can become a corporate way of life. This can be achieved through everyday practices aimed at reducing the company's environmental footprint and improving the quality of life in every workplace at all corporate levels. RadiciGroup is committed to delineating its environmental values so that they are customized in the most efficient way for each context.

In May 2008, during a local cultural event, RadiciGroup inaugurated Greentainer, a modular micro-locale to be used informally by company employees, but which could also be utilized for training courses, events or meetings. It is a non-invasive, highly environmentally compatible structure, with minimum usage of non-renewable energy sources.

### *New communication technology: the Web helps reduce paper usage*

The availability of new media offers great potential for communication. But that is not all. Online publication of brochures and certificates, and the distribution of e-newsletters are ways to significantly reduce printing costs and paper waste, and thus lower environmental impact to practically zero.

RadiciGroup website statistics show that, during 2008, a total of 69,388 files (brochures, certificates and other documents) were downloaded. If all that documentation had been printed and mailed, the environmental impact resulting from the huge paper consumption and transportation cost would have been considerable.

## MANAGING ECONOMIC GROWTH WHILE SAFEGUARDING THE ENVIRONMENT

An environmentally friendly approach to economic growth, with total respect for the environment, is a duty of every responsible company. RadiciGroup believes that a company can grow more effectively while respecting the environment. Therefore, notwithstanding the costs and the numerous constraints imposed by eco-compatible conduct, the Group is committed to continue implementing its action plan, which goes well beyond the laws and regulations currently in force.

RadiciGroup's vertical synergy, which enables monitoring the production chain from raw materials down to the finished product, not only yields a significant competitive advantage but also gives the opportunity to improve overall environmental performance. It is an assurance that environmental responsibility is monitored at every phase of the production process.

## CONTINUAL IMPROVEMENT

Nowadays, a responsible business transforms and evolves to achieve growth in harmony with the environment and the local community hosting it. RadiciGroup philosophy on this question is based on two fundamental aspects:

1. An actual assessment of the sustainability of its environmental performance (RadiciGroup fulfils this requirement by participating in the Responsible Care programme).
2. Development of a corporate management system that provides for comprehensive monitoring and overall rules of conduct for all Group companies.

Caucasian PET Company - located in Rustavi, Republic of Georgia, and part of the RadiciGroup Plastics Area - is engaged in the manufacture of PET preforms for the plastic bottling industry. Despite its small size and wartime difficulties, the company found its own way to cope best with the international crisis. Bold courage is needed to find new paths, alternatives and out-of-the-ordinary solutions. Caucasian PET has already devised a solution for its future: a PET bottle recycling project, soon to require a staff of 12, in addition to its current 41 employees. The new production activity, the first of its kind in Georgia, will help solve the country's PET bottle disposal problem..

All the images in this report are from "Caucasian PET: Economy at War", a documentary film dedicated to the Georgian company. An example of courage, hope, steadfast will and the need to move forward. A demonstration of how a company can evolve based on the context – aware of its limitations and conscious of its potential – and grow with total respect for the environment, the local community and the people who live there.





# PROFESSIONAL TRAINING AND DEVELOPMENT



We aim to create a corporate culture by recognizing and valuing the role of each and every professional in our companies...

Our employees and collaborators are our most important assets. For this reason professional education and training is a strategic asset that has always played a key role at RadiciGroup. The Group has always invested in training and plans to continue investing heavily in the future. We aim to create a corporate culture by recognizing and valuing the role of each and every professional in our companies as a member of a team and provide training that will allow the employees to improve their capability to interact with one another.

Highly skilled and competent human resources are a key distinctive factor that can create a competitive advantage in any business activity. Human capital is of fundamental importance for the strategic success of a company. Therefore, ongoing professional development and learning that promote constant personal growth are crucial in ensuring the sustainability of positive economic results in the long term.

In 2008, despite the difficulties caused by the world economic crisis, which also affected our Group, we continued to fund our training courses. Among these, the People Make the Difference project, which was started in 2007 and carried out with the collaboration of highly qualified university faculty members and various educational institutions.

Below we list some of the main objectives that served, and will continue to serve in 2009, as beacons for our decision-making on corporate training. For every objective, the related 2008 projects are briefly described.

\* The figures given below refer to holding company projects. To these must be added the technical training given independently by the various subsidiaries.

## OBJECTIVES

## TRAINING PROJECTS

### UPDATING MANAGEMENT SKILLS

Completion of People Make the Difference, the management training programme started in 2007, with the concluding section on the purposes and methods of measuring corporate performance.

**Participants: 70**  
**Training hours: 360**

### SUPPORTING INTERCOM- PANY IMPROVEMENT INITIATIVES AND PROJECTS

Specific training for the Research & Development team started in 2007 and directed at developing human resources/ financial management capabilities. Goal of the course: gaining interpersonal skills and investment valuation skills

**Participants: 30**  
**Training hours: 720 (3 days)**

Training for quality managers to improve communication and leadership skills, thus developing more incisive project coordination abilities.

**Participants: 12**  
**Training hours: 192 (2 days)**



## OBJECTIVES

### ENSURING CONTINUING PROFESSIONAL/TECHNICAL EDUCATION

## TRAINING PROJECTS

Continuing education in management and control, safety, information systems, quality, economic/legal market structure and foreign languages.

**Participants: 184**  
**Training hours: 2,720**

### DEVELOPING CORPORATE CULTURE

A wide-ranging training project – started in 2007 and continued during 2008 – aimed at middle managers and factory/office workers of Italian companies.

Among the objectives:

- strengthening the awareness of the manager's role and responsibility;
- providing an awareness of interpersonal communication methods and dynamics, especially among colleagues;
- providing an awareness of how a work group functions and the critical aspects to be dealt with.

**Participants: 392**  
**Training hours: 1,568**

Professional education and training activities were planned and managed according to the following steps:

- Needs analysis.
- Planning on the basis of the corporate goals and the specific needs of the companies belonging to the different business areas of the Group.
- Carrying out the training projects.
- Monitoring and evaluating the projects carried out.

# STAKEHOLDER RELATIONS



Creating and sharing values that can generate ideas, projects and strategies. This is the spirit in which the Group engages its corporate stakeholders.



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## EMPLOYEES

RadiciGroup's employees are its first and fundamental corporate stakeholders. They carry out the difficult task of everyday activities. Labour is not a commodity. You cannot apply the same market laws regulating the sale and purchase of goods to labour. These principles, embodied in the Declaration of Philadelphia of 1944, serve as guidelines for the approach adopted by RadiciGroup.

Respect for basic human rights and the prohibition of child labour and illegal hiring and firing practices in all Group companies everywhere in the world are commitments that we take beyond legislative obligations.

In 2008, the challenges, day in and day out, in troubleshooting the problems arising from the economic and financial crisis have somewhat strained the relations between the Group and its employees. Due to the progressive worsening of the economic scenario, which has undeniably crimped our production capacity and the competitiveness of our

industrial structure, the decision was made to use the ordinary and extraordinary unemployment benefit funds provided for by the law in case of layoffs or labour mobility. Other steps were taken on a voluntary basis, for example, some employees were referred to outplacement firms to assist them in landing new jobs. On the one hand, the use of "social shock absorbers" helped in most cases to maintain the employment level, but, on the other, it required hard decisions. In this regard, it was important that all the decisions be made in full agreement with the trade unions concerned. All the above notwithstanding, some social initiatives that had already been planned for the benefit of the employees were carried out.

### **OPEN DAY IN SAN JOSÉ DOS CAMPOS (BRAZIL - FEBRUARY 2008)**

A get together and day of fun for the purpose of strengthening the bonds between RadiciFibras employees, their families and the company. It was also a day to celebrate the cultural and entrepreneurial relationship between Italy and Brazil, of which RadiciFibras is an expression of excellence. Besides the employees and their families, some long-time customers and key suppliers also attended the event, underscoring the fact that the company needs to build a true partnership, the hoped-for end result of the evolution of business relations.

## TOYLAND DAY NURSERY

Toyland day nursery in Villa d'Ogna, Bergamo, a collaborative project of Radici Novacips, the municipality of Villa d'Ogna and the local parish, accepts RadiciGroup employees' children between the ages of 3 and 36 months. Two of the most important Group production sites are also located in Villa d'Ogna. Thus the nursery was intended to help mothers by providing them with a modern facility, not far from the companies, allowing them to reconcile their work time and family time. In effect since 2003, the agreement made by the nursery, the municipality and RadiciGroup gives the children of RadiciGroup employees priority in enrolment.

Furthermore, the Group's annual contribution to the nursery helps to keep the monthly fees affordable

## SPECIAL AGREEMENTS WITH SPORT AND CULTURAL FACILITIES

During 2008, RadiciGroup negotiated a number of special agreements, which gave its employees special rates for local sport facilities (gyms and ski slopes) and cultural facilities

(GAMEC - Galleria d'Arte Moderna e Contemporanea - Gallery of Modern and Contemporary Art - in Bergamo). These initiatives were all a great success. Additionally, children aged 6 through 12 of RadiciNovacips employees had the chance to stay at the Cardinal L. Schuster seaside summer camp in Cesenatico, all expenses paid by the company.

## CUSTOMERS

The increasing attention given to this stakeholder group is evidence of how RadiciGroup is moving towards putting customers at the centre of its strategy. An aboveboard and sustainable business relationship is based on transparency in customer relations and the customer's right to be informed, correctly and on a timely basis, of prices, sales conditions, characteristics and hazards related to the products purchased. Equally important is the customer's right to lodge complaints and to receive compensation whenever his complaints are substantiated. For the above reasons, every two years RadiciGroup conducts a customer satisfaction survey of the major customers of each business area. The 2008 survey, which was carried out in part through web questionnaires and in part using more traditional methods, such as phone interviews and mail-in questionnaires, included a number of satisfaction factors already present in the 2006 survey, to which new factors were added.

- *Products supplied* (consistency, broadness of range, RadiciGroup position compared to main competitors).
- *Delivery* (timeliness, in stock products, custom products, packaging, RadiciGroup position compared to main competitors).
- *Sales interface* (technical competence, quality of relationship, capability/decision authority, RadiciGroup position compared to main competitors).
- *Technical staff interface* (quality of relationship, problem resolution, collaboration on product/technological development, RadiciGroup position compared to main competitors)
- *Order management* (order processing, complaint management, RadiciGroup position compared to main competitors).
- *Prices* (payment terms, consistency of pricing policy, RadiciGroup position compared to main competitors).
- *Environmental protection, health and safety* (perceived importance of environmental issues and importance of developing low environmental footprint products).
- *Overall RadiciGroup satisfaction rating.*

For each of the above satisfaction factors customers were ask to rate:

*Their satisfaction with RadiciGroup performance* (on a scale from 1 to 6: 1 being the lowest, and 6, the highest satisfaction rating).

*Their satisfaction with competitors' performance* (on a scale from 1 to 6: 1 being the

lowest, and 6, the highest satisfaction rating).

*The importance attributed to the factor in question* (on a scale from 1 to 6: 1 being the lowest, and 6, the highest importance rating).

The survey, based on 1,220 contacts all over the world and conducted in 8 different languages, showed that the most important factors for our customers were price policy, delivery, and sales and technical staff interface. The environmental protection factor, introduced here for the first time, was rated rather important, but less important than the other factors.

A subsequent SWOT analysis of the survey data helped pinpoint RadiciGroup strengths (delivery timeliness and sales/technical staff interface) and weaknesses (pricing policy—customers asked for more consistency—, complaint management, and quality consistency). A comparison of the 2008 survey results with those of the 2006 survey showed that the last-mentioned factor, quality consistency, had been on the critical list since the prior survey. To redress the situation, new corrective actions have been initiated. Finally, to achieve a more effective implementation of the Quality in Action policy, special measures have been adopted to make our approach to product quality more robust, which are in addition to the new technical solutions introduced to improve product quality.



## OUR COMMUNITIES: ENVIRONMENT AND CULTURE

Any organization pursuing a sustainable project must make a commitment to foster the development of the community where it operates, not only to improve its economic conditions, but also to enhance its social and cultural fabric. Culture is the necessary precondition for any economic growth. The interdependence of economic-social development and culture is built into the sustainability concept itself. RadiciGroup supports numerous institutions and associations, by contributing to the wealth and productivity of the communities where its various companies operate. During 2008, the Group, on many occasions, organized or gave its support to social and humanitarian initiatives.

### NIGHT AT THE MUSEUMS (Gandino - May 2008)

A long-standing debate concerns the public role of private companies as art supporters and the responsibility of entrepreneurs to act as patrons of the arts. Art in the workplace is a long-held tradition at RadiciGroup, which considers culture part of its own DNA. The Art-Industry project, spearheaded by Fausto Radici, still continues today thanks to the targeted promotion of the collections at numerous corporate sites. Through art, RadiciGroup wants to document its cultural path, running parallel to its entrepreneurial one, and share it with its stakeholders.

Art may also trigger some sort of "virtuous circle". By purchasing works of art and making them accessible to the public, RadiciGroup, which normally deals business-to-business, increases its visibility and can display its trademark in some rather out-of-the-ordinary places. In this regard, during the event "Fai il Pieno di Cultura [Immerse Yourself in Culture] - Meetings and Shows in Some Extraordinary Places" sponsored by the Region of Lombardy, RadiciGroup opened part of its contemporary art collection to the public on the same evening that the Gandino Basilica Museum and the Leffe Textile Museum opened their doors. The RadiciGroup collection is normally not accessible to the general public, since it is housed inside one of the Radici Partecipazioni SpA headquarters.

### **WHITE-BLUE NIGHT** (Leffe - July 2008)

Healthy sportsmanship and violence-free rooting for the local football team are positive factors that promote social cohesion and serve as motivation for fun social gatherings. RadiciGroup participated in the White-Blue Night, organized by the Municipality of Leffe to celebrate the success of the local football team Albino-Leffe [white and blue are the colours of the team's jersey], by putting on a street theatre performance. Sharing its pas-

sion for sports with local folk is one of the ways RadiciGroup demonstrates its closeness to the community.

## CONCERT IN MEMORY OF GIANNI RADICI (CASNIGO - OCTOBER 2008)

The third annual concert organized in memory of RadiciGroup's founder, Gianni Radici, was yet another high quality cultural event sponsored by the Group for the benefit of the community of Val Gandino, where the memory of Mr. Radici is still very vivid. The concert was held at the Santuario della SS Trinità [Sanctuary of the Holy Trinity] in Casnigo. This little known architectural jewel was chosen as the site in order to promote the heritage of the local area.

## OUR COMMUNITIES – HEALTH AND HUMANITARIAN ORGANIZATIONS

RadiciGroup has been active in the fight against a number of serious diseases. Year after year, RadiciGroup provides financial support to research institutions for the development

## STAKEHOLDER RELATIONS

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of short-term emergency programmes, as well as medium-term initiatives designed to promote healthier lifestyles. RadiciGroup's global reach also means that its humanitarian activities are not restricted to Italy.

RadiciSpandex Corp. contributes to the American Cancer Society in the fight against cancer and American paediatric associations. Furthermore, in 2008 the Gianni and Luciana Radici Foundation, which operates in Romania, invested in health services for Yarnea employees and their families. The foundation's support made it possible for about thirty seriously ill patients to get specialized medical treatment.

Besides local initiatives, in 2008 the Group collaborated with the Bergamo Diocesan Missionary Centre in a human promotion and professional training project in the south of the world, aimed at raising awareness of the theme of life as an opportunity for every human being to progress.

## OUR COMMUNITIES – SPORT

### RADICI GROUP SKI CLUB

The RadiciGroup Ski Club has a thirty-year history of national and international success. Its mission is sport as a way of life involving fun, commitment, abiding by the rules, and respect for teammates and adversaries alike. On the basis of these tenets, RadiciGroup supports the Ski Club's activities. In 2008, it contributed to the Club's project to produce and promote a motivational cartoon for children aged 5 to 8. Made by Civicamente, a team of education professionals, the cartoon illustrated the distinctive values of the Ski Club, tackling along the way important themes, such as environmental protection and healthful eating for sport practitioners. The cartoon was shown to children and families during a special evening event and served as starting point for the educational path the youngsters would pursue in future years.

### OTHER SPORT ASSOCIATIONS

The Group also backs numerous other amateur and semi-professional sport associations. Its goal is to support the practice of sport at all levels because of its importance for the physical and psychological well-being of everybody.

## INSTITUTIONS

Institutions are other important corporate stakeholders. Besides the usual formal relationships dictated by the law, RadiciGroup has fostered a true spirit of collaboration with



key institutions, especially in the fields of education and culture. This exchange of experience and knowledge resulted in RadiciGroup's participation in a number of 2008 initiatives.

### **CAREER DAY AT THE UNIVERSITY OF BERGAMO** (DALMINE - MARCH 2008)

In March 2008, the Università degli Studi di Bergamo, in collaboration with the Bergamo chapter of Confindustria [Organization representing Italian manufacturing, construction, energy, transportation, ITC, tourism and services industries] organized a Career Day for Engineers. It was a meeting place to give graduating students and recent graduates a firsthand chance to get better acquainted with the companies in the area. RadiciGroup took part in the daylong event with its own stand. Career Day served as an important point of contact and helpful orientation tool for students. For young people about to enter the job market, information is the first step towards career development.

### **LECTURE AT THE BERGAMO CONFINDUSTRIA COMMUNICATION CLUB** (BERGAMO - APRIL 2008)

For some years RadiciGroup has enhanced its traditional means of communication with



corporate communication by producing films that blend company philosophy with creativity. This is a choice motivated by the Group's awareness that images offer unparalleled immediateness and freedom of expression. And so, starting from simple industrial films, a new language evolved and new themes came into play: the people who make the difference, team play that makes a winning company, the corporate organism whose overall well-being is influenced by the well-being of each individual part. "Ein Industrie Organismus", a film shot at RadiciChimica Deutschland, illustrates the concept of Organism-Company through highly evocative images. The film, which was presented as part of a lecture at the Bergamo Confindustria Communication Club, was an opportunity to meet the members and numerous communication experts.

## **STRETCH TO THE FUTURE EVENT (NEW YORK - MAY 2008)**

Stretch to the Future is a student fashion design competition, an educational endeavour organized by RadiciSpandex in close cooperation with several American fashion schools, including the Fashion School of Kent State University, which was selected for the 2008 event. Students participating in the competition were asked to design and construct apparel using spandex fabrics. The 2008 scholarship awards ceremony involved the continued collaboration of RadiciSpandex, and thus RadiciGroup, and the Italian Trade Commission, which hosted the event at its prestigious headquarters in Manhattan.

## ODYSSEUS PROJECT – Navigating through ideas (BERGAMO – OCTOBER 2008)

"To face the challenges of the future, we need to push for change, even in the way we work, and make precise choices in everything related to running a business." With these words, the president of Italian Industrial Association Bergamo, Alberto Barcella, opened the awards ceremony for Odysseus 2008: Navigating through Ideas. At the event, Italian Industrial Association gave awards to small and mid sized businesses that stood out for their dynamism, as well as the originality and innovativeness of their products and services, and thus managed to stay competitive in domestic and international markets. "Navigating through ideas, always in search of higher reaching goals, crossing the sea of knowledge, knowing how to seize the opportunities and avoid the perils: these are the continual challenges that entrepreneurs face every day." This was Italian Industrial Association' affirmation at the launch of Odysseus: Navigating through Ideas. Radici Partecipazioni was called on to take on the role of "godmother" to the companies participating in the image communications sector, in recognition of the Group's voluntary commitment to produce sustainability reports and its achievements in communication in general.



# THE MACROECONOMIC CONTEXT AND RADICIGROUP'S RESPONSE



In 2008 the world economic growth rate slowed compared to the prior four years. The cause of this decline was twofold: on the one hand, the onset of a recession that affected almost all the major advanced economies and, on the other, the modest growth of the economies of emerging countries, in particular those in the Asian area.

During the first half year, price increases in crude oil, agricultural raw materials (mostly due to increasing demand in developing countries) and other commodities caused a rise in general inflation, which was progressively absorbed during the second half by a drastic drop in the same prices due to the worsening of the macroeconomic situation. The turmoil in the financial markets, set off by the subprime mortgage crisis, had a swift and grave impact on the economic growth outlook.

The financial crisis, which originated in the US, spread rapidly throughout the world, and negatively affected many financial institutions. To counteract the growing fear that the financial systems would not hold up, governments and monetary authorities adopted wide-ranging and substantial countermeasures to support both the financial markets and the real economy.



In this unfavourable economic climate, RadiciGroup studied and took steps to set out a course of action for reorganizing Group production sites and further improving the efficiency of its industrial processes and production cycles. This was undertaken to better adapt to new market demands and deal with the difficult situation, while maintaining the margins of each single business unit.

Generally speaking, in 2008 RadiciGroup continued its strategy of focusing on its core businesses that were considered strategic and synergistic over the medium term, such as chemicals for nylon production, engineering plastics and synthetic fibres. The goal of the Group's strategy was to improve its competitive position and achieve an overall balance among the geographical markets where it operated with a twofold objective: to reduce dependency on the performance of single markets and boost cash flow in order to reduce debt and finance new initiatives in its strategic businesses.

The general restructuring plan for all of RadiciGroup aimed to adapt the structure of each company to best meet the needs of its respective business sector.

In accordance with this plan, the Group worked out a response to the crisis consisting of the following objectives:

1. Forming joint ventures or alliances with other operators to achieve further optimization and economies of scale;
2. Auditing of industrial processes to increase the internal efficiency of each individual subsidiary and the efficiency of production cycles involving more than one Group company;
3. Sale of real property not strictly necessary for the production of goods or services.

VALUE ADDED -----

# VALUE ADDED



Value added is the difference between the value of the goods and services produced by the company and the value of goods and services purchased from outside the company.

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As always, two different schedules are presented to show the calculation and distribution of value added and the impact of the most important financial indicators on the main stakeholders.

## CALCULATION OF VALUE ADDED

ITEMS	EURO	
	31/12/2007	31/12/2008
<b>A) PRODUCTION VALUE</b>	<b>1,089,260,009</b>	<b>957,628,728</b>
1. Sales and service revenue		
2. Change in work in progress, semi-finished goods and finished goods inventories	1,086,278,737	959,932,416
	2,555,006	(2,935,374)
3. Change in contract work in progress	(44,741)	(17,775)
4. Increase in internally-generated non-current assets	471,007	649,461
5. Other revenue and income	-	-
<b>B) INTERMEDIATE PRODUCTION COSTS</b>	<b>859,588,618</b>	<b>812,312,256</b>
6. Raw materials, supplies, consumables and goods for resale	656,369,864	597,292,603
7. Services	202,575,172	207,289,007
8. Leases and rentals	3,844,728	3,891,610
9. Change in raw materials, supplies and goods for resale inventories	(4,153,654)	1,882,032
10. Provisions for liabilities and charges	590,030	938,620
11. Other provisions	-	-
12. Miscellaneous operating costs	362,479	1,018,383
<b>GROSS VALUE ADDED FROM OPERATIONS (A-B)</b>	<b>229,671,391</b>	<b>145,316,472</b>
+/- Additional and extraordinary items	3,292,722	13,691,231
<b>GROSS TOTAL VALUE ADDED</b>	<b>232,964,113</b>	<b>159,007,703</b>
Depreciation and amortization	57,064,999	54,160,108
<b>NET TOTAL VALUE ADDED</b>	<b>175,899,115</b>	<b>104,847,595</b>

Data refer to the consolidated financial statements of Radici Partecipazioni SpA

## DISTRIBUTION OF VALUE ADDED

EURO

ITEMS	31/12/2007	31/12/2008
<b>A) PERSONNEL COMPENSATION</b>	<b>133,389,993</b>	<b>127,745,773</b>
Contract workers	9,161,347	6,850,720
Employees	124,228,646	120,895,053
a) Direct compensation	98,837,667	95,989,264
b) Indirect compensation	25,390,979	24,905,789
<b>B) GOVERNMENT TAXATION</b>	<b>10,118,147</b>	<b>734,650</b>
Direct taxes	6,962,636	-1,696,496
Indirect taxes	3,507,945	2,955,049
- Revenue grants	352,434	523,903
<b>C) COST OF DEBT CAPITAL</b>	<b>30,472,733</b>	<b>29,365,547</b>
Short-term loan interest	30,472,733	29,365,547
Long-term loan interest	-	-
<b>D) COST OF EQUITY CAPITAL</b>	<b>-</b>	<b>-</b>
Dividends (net income distributed to shareholders)	-	-
<b>E) RETAINED VALUE ADDED</b>	<b>1,380,036</b>	<b>-52,998,375</b>
+/- Change in reserves	1,380,036	-52,998,375
<b>F) CHARITABLE CONTRIBUTIONS</b>	<b>538,205</b>	<b>-</b>
<b>NET TOTAL VALUE ADDED</b>	<b>175,899,115</b>	<b>104,847,595</b>



## BREAKDOWN OF CHARITABLE CONTRIBUTIONS

	2008
COMMUNITY AND CULTURE	166,100
SPORT	221,600
HEALTH AND HUMANITARIAN	96,500
TOT	484,200

As already explained in the section on stakeholder relations (to which the reader is referred), the chief beneficiaries of RadiciGroup charitable contributions were community and culture, health and humanitarian, and sport.

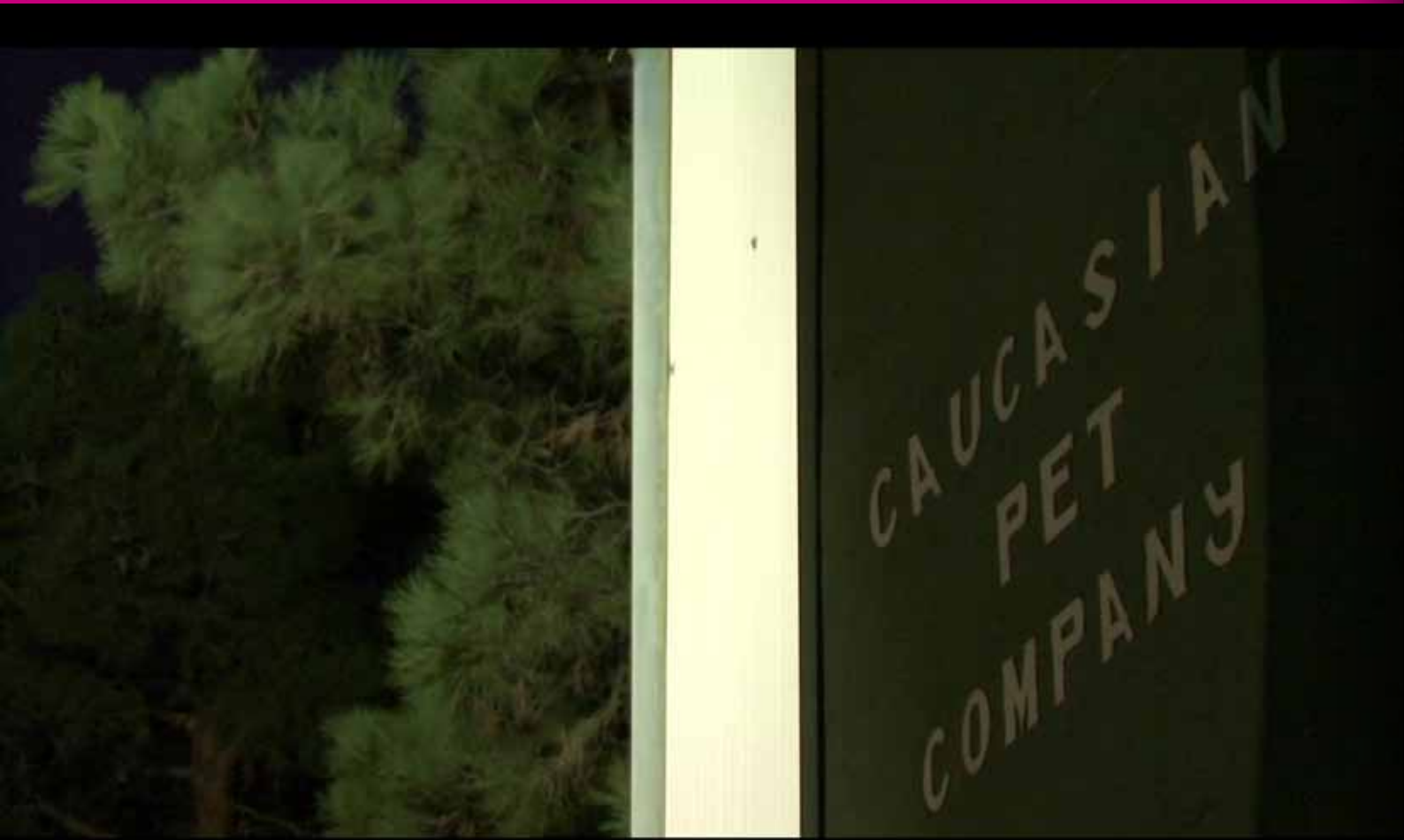
Despite the decrease in total contributions related to the current economic situation, the Group maintained its commitment to its corporate stakeholders in these areas, especially with regard to sport and health.

Concerning the latter, a larger contribution was made in 2008 than in 2007.



# CORPORATE COMMUNICATION

"CAUCASIAN PET COMPANY. ECONOMY AT WAR".



Our Group has long used corporate films and videos to communicate its philosophy, its corporate image, and its values.

Our Group has long used corporate films and videos to communicate its philosophy, its corporate image, and its values. At first, we used these technologies to make industrial films showing our plant, machinery and processes. From 2005 to the present, we have started make videos and films, in which the main characters are people, different cultures, the environment and the communities where our Group operates.

Our 2008 film was "Caucasian PET Company: Economy at War", a communication project, with the goal of showing one of the many facets of our multinational group. We wanted to show a cross-section of the daily life in one of our small companies, Caucasian PET Company, a Georgian firm that found itself facing a war along with the global economic crisis. It was an extremely difficult situation, a crisis, to which that company responded strongly. The 41 employees at Caucasian PET Company never gave up. They continued doing their jobs, non-stop and under all conditions, even during the heavy military conflicts that devastated their country. Conduct that demonstrates tenacity and determination. Action that speaks of hope.

With this documentary film we intended to present a model of excellence. Caucasian PET Company is located in Georgia, a country with an economic and cultural structure

quite different from ours. What we set out to do was to show an example of courage, the determination not to surrender, even in the direst situations. We think that this country has a lot to teach us.

The company's productivity and profits did not vary much during the year of war. In 2007 the number of employees was 37; in 2008 it rose to 41. According to plan, 12 additional workers are due to be hired in 2009 in connection with a new recycling business, a first in Georgia. 2008 sales revenue stayed around EUR 4.5 million, the same as in 2007. The company invested heavily in innovation, also with an eye on autonomous energy production to provide an independent energy source.

In terms of figures, Caucasian PET Company is a small enterprise, and, in some respects, far from our core business. It is, however, a dynamic and strong willed company. These are the characteristics the documentary film illustrates very effectively.

It takes courage to look for alternative solutions. It is part of not giving up...

## THE PROJECT

"Caucasian Pet Company: Economy at War" was produced by RadiciGroup in collaboration with MultiMedia, a communication agency, and directed by Luca Santiago Mora.

## THE COMPANY

Caucasian PET Company is a RadiciGroup company founded in 1996 in Rustavi, Georgia. It is engaged in the manufacture of PET preforms for the plastic bottling industry.

It supplies the main mineral water and soft drink bottling companies in Georgia and neighbouring countries, Armenia and Azerbaijan, in particular. 2008 company sales revenue was EUR 4,477,580 with net income of EUR 388,159.



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