

**Economic**  
added responsibility  
value created  
**Transparency**  
Sustainable  
investments  
**Environmental**  
responsibility  
**Renewable**  
energies  
**Strategies**  
for the  
environment  
**Social**  
responsibility  
**Welfare**  
Health and  
Safety  
**Sustainable**  
development  
corporate governance



# SUSTAINABILITY REPORT 2013

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2013 was a significant year for the ERG Group, characterised by positive economic and financial results and the conclusion of important corporate transactions: on the one hand, we finalised our exit from the coastal refining sector and, on the other, we consolidated our position as the largest producer of electricity from wind power in Italy. In the wind energy sector, we first acquired the wind farms that today form part of the ERG Wind portfolio, and subsequently the know-how required to perform management and maintenance activities, through ERG Renew Operations & Maintenance. With these actions, we have completed the process to integrate the various components of the value chain, and we have strengthened our identity and vocation as an industrial operator in the wind energy business.

The increased presence of ERG wind farms in central and southern Italy has extended and modified the profile of stakeholders with which the Group interacts. In keeping with the principles that have always distinguished our business methods, we have embarked on a dialogue with these new players because we know that it is only through constant dialogue, listening, understanding and the implementation of joint projects that we can create value for the company that is sustainable over time. With this in mind, we launched an environmental education project aimed specifically at secondary school students in the municipalities where our wind farms are located.

Our strong strategic positioning in the wind energy sector, coupled with the great

attention we pay to the issue of efficiency in the management of thermal power plants, has allowed the Group to continue to protect the environment and fight climate change. Indeed, we produced almost one million tons of electricity avoiding CO<sub>2</sub> emissions – the equivalent of 150,000 return flights from Rome to New York – combining economic and environmental sustainability as part of our approach.

However, we hope that Europe, which is required to make a decision shortly on the new targets for 2030, will confirm the direction taken with the 20-20-20 package by setting ambitious targets that are clear and binding for all countries in terms of the share of renewable energy as a percentage of the total energy mix. Only in this way will it be possible to continue on the virtuous path taken regarding the reduction of greenhouse gas emissions and the effective fight against climate change, taking full advantage of the consequent technological development required.

The issue of safety has always been at the core of our commitment. ERG's objective is to seek continuous performance improvement in the management of our industrial assets, while paying the utmost care and attention to protecting the people who work at the plants and in the local communities where they are located. In this sense, with regard to our wind energy business, we have hired highly skilled workers and technicians who have allowed us to expand and refine our skills and expertise in terms of the operational management and maintenance of the wind farms, while applying ERG's culture



of prevention. Because we believe that an effective organisation is an essential requirement for competitiveness, in keeping with the evolution of our business model, we considered it necessary to change the organisational structure of the Group. The purpose of this new structure, which came into effect in 2014 and whose development involved all Top management, is to ensure the alignment between ERG's business strategies and the operational and management areas within the company. We believe that the context in which we operate on a daily basis must be the best possible in order to allow people to express themselves to the best of their ability, thus maximizing the value of the company's human capital: none of the Group's results could have been achieved without the full

contribution of our people. For this reason – and even more so in these years of transition and diversification of our business – we have been working on the Group's new strategic identity, which will allow us to maintain the sense of belonging, combining our roots and our values with innovation, dynamism and our new role as an industrial operator in the renewable energy sector.

Once again this year, we want to report on the challenges undertaken and the economic, social and environmental development objectives achieved in order to share our way of "doing business" with all of our stakeholders. These actions will help us to build a future in which it will be possible to combine sustainability, efficiency and quality of life with the responsible use of energy and resources ■



**Edoardo Garrone**  
Chairman



**Luca Bettonte**  
Chief Executive Officer

# HISTORY OF THE GROUP 1938-2013



Edoardo Garrone  
establishes ERG in Genoa

1938

Production begins  
at the San Quirico  
Refinery in Genoa

1947



ERG joins the project  
to develop the ISAB Refinery  
in Priolo.  
Production begins in 1975

1971

1985

Following the  
acquisitions of the  
Chevron and ELF  
networks (1984),  
ERG has a 5% share  
of the retail market



ERG is floated on  
the Italian Stock  
Exchange

1997

2000

ISAB Energy begins  
to produce and  
market electricity



The Edoardo  
Garrone  
Foundation is  
established

2004



ERG publishes its first Sustainability Report in line with GRI application level C. The application level is changed to A in 2008

2007

2006

ERG acquires 51.33% of the share capital of EnerTAD, taking a decisive step forwards to increase and consolidate its position in the renewable energies sector. Installed Capacity is 108 MW

2008

EnerTAD becomes ERG Renew and integrates all of the activities regarding energy production from renewable sources. Installed capacity is 195 MW



ERG signs an agreement with LUKOIL, establishing a partnership in the Coastal Refining business

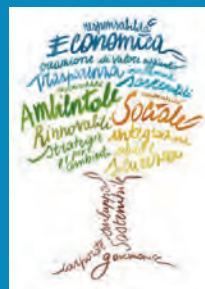


The Consolidated Financial Statements and the Sustainability Report are interactive and published on the corporate website

2010

TotalErg is established, a joint venture with Total involved in the marketing of petroleum products

**TOTALERG**



The tree becomes the ERG Group's symbol of sustainability

2011

ERG Renew is delisted from the Italian Stock Exchange. As a result of acquisitions made in 2010 and 2011 and the construction of new wind farms, installed capacity reaches 552 MW

LUKERG Renew is established, an equal-share joint venture with LUKOIL to develop wind farms in Eastern Europe



The Sustainability Report 2013 have been submitted, for the first time, to the external auditor review in order to ensure the quality of the information reported.

2013

ERG Renew becomes the No. 1 Italian wind farm operator. Installed capacity is 1,340 MW, of which 1,087 MW is in Italy

ERG sold the remaining share of 20% of the ISAB Refinery to LUKOIL exiting the Coastal Refining sector



## ERG: SIMPLY ENERGY

### In 2013, ERG Renew became the leading producer of wind power in Italy

IN 2013,  
THE GROUP  
INVESTED OVER  
1 BILLION  
EUROS IN THE  
RENEWABLE  
ENERGY SECTOR  
IN TERMS OF  
ENTERPRISE  
VALUE

Our Group has always responded to developments in market conditions and the economic environment with **flexibility and an ability to change**. Combined with the analysis of fundamental data, the definition of coherent strategies and the search for tangible opportunities, this attitude has made it possible to achieve continuous and stable growth over time.

In 2006, we embarked on a major journey to diversify our business by moving towards the electricity **market, and particularly wind power generation**.

In the wind energy sector, the Group has embarked on a process of continuous growth with the **construction of new plants and the acquisition of new assets**.

The consolidation of this development strategy has led us to be the leading producer of wind power in Italy in 2013, and one of the top ten in Europe. At the same time, we finalised our exit from the coastal refining sector, while maintaining a presence in the thermoelectric power generation market and a strategic position in the distribution of petroleum products through the joint venture with TotalErg.

#### RENEWABLE ENERGY

Through its subsidiary, ERG Renew, **ERG owns 1,340 MW of installed wind power** (as at 31 December 2013). Of these, 587 MW were already present in the portfolio at the end of 2012, while 636 MW were added during 2013 as a result of

the acquisition of IP Maestrale (now ERG Wind - a transaction already reported in the 2012 Sustainability Report) and 42 MW (ERG's share) through the Joint Venture, LUKERG Renew. In 2013, two wind farms built by ERG became operational: 34 MW at the Palazzo San Gervasio wind farm (PZ) and 41 MW (50% ERG-owned) in Romania through LUKERG Renew. These wind farms will be fully operational in 2014.

At the end of 2013, the geographic distribution of the wind farms was characterised by the presence of **1,087 MW in Italy, 86 MW in Germany, 64 MW in France**, and through LUKERG Renew, **76 MW in Romania** (ERG's share) and **27 MW in Bulgaria** (ERG's share). The transactions concluded in Eastern Europe, together with the acquisition of the portfolio of wind farms in Germany, belonging to ERG Wind, have allowed us to bring the **geographic diversification of installed wind capacity to about 20% of the total mix**.

In view of increasing the vertical integration of its activities, in October 2013 ERG Renew, with the acquisition of ERG Renew Operations & Maintenance (O&M), began to directly perform the management and maintenance activities for about half of its wind farms in Italy, with a view to extending the activity to the entire portfolio in the future.

The Group's strategy aims to accelerate the growth and geographical diversification



**THE GROUP'S STRATEGY IS DESIGNED TO INCREASE ITS PORTFOLIO OF ASSETS FOR THE PRODUCTION OF ELECTRICITY FROM RENEWABLE SOURCES**

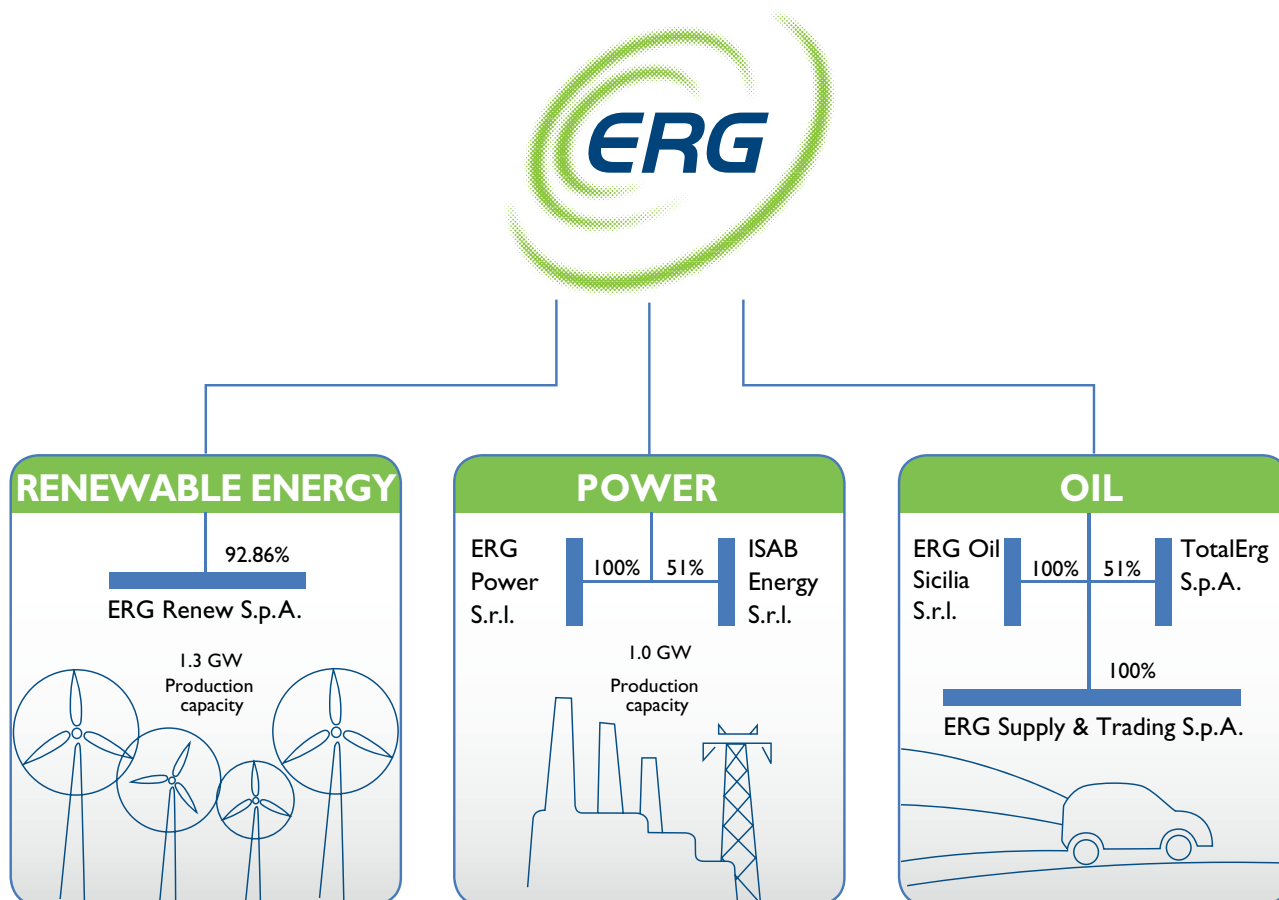
of its portfolio of assets, both through **investment in Eastern Europe** and the search for **new projects in the United States**. Once the required size has been attained, the integration of IP Maestrale into ERG Renew and the insourcing of O&M activities will enable us to achieve significant benefits in the management of our assets, both in terms of cost and of operational performance.

On 16 January 2014, ERG Renew approved a capital increase that would see the UniCredit Group become a shareholder of the company. This transaction reflects the confidence of the major banking institution in the company's development strategy and growth potential.

## POWER

The strategy of **maximising potential** forms the basis for the management of the Group's two thermal power plants: the **ISAB Energy IGCC power plant** (51% ERG-owned), operational since 2000 through the 20-year CIP 6/92 agreement, and the **CCGT plant owned by ERG's subsidiary ERG Power**, fully operational since April 2010. The latter has an installed capacity of approximately 480 MW and supplies steam and electricity to industrial customers of the Priolo Gargallo site, supplying the remainder of the electricity generated to the market.

With a view to enhancing the portfolio, and in line with the exit strategy from the



Data as at January 2014

**THE ERG GROUP  
HAS EXITED  
FROM THE  
COASTAL  
REFINING  
SECTOR,  
CHARACTERISED  
BY VOLATILITY  
AND LOW PROFIT  
MARGINS**

Coastal Refining sector, an agreement was reached in 2014 that will result in the sale of the IGCC plant to ISAB following the early termination of the CIP 6/92 agreements.

With regard to the ERG Power CCGT plant, our management strategy is to **maximise and stabilise cash flows, through:**

- an agreement with IREN for the supply of 2 TWh per year of electricity for six years starting on 1 January 2012;
- long-term contracts to supply utilities to the Priolo Gargallo site;
- participation in the Dispatching Services Market (MSD).

As a result of this management approach, the ERG Power plant maintains **utilisation factors and profitability that are above the national average** for a plant of this kind.

Fossa del Lupo  
wind farm (CZ)



## OIL

2013 marked the Group's exit from the **Coastal Refining sector**: at the end of the year we sold the remaining share (20%) of the ISAB Refinery to LUKOIL, thus exiting from a business sector that has been characterised in recent years by very low profit margins.

Instead, the Group will continue to **buy and sell crude oil and products**, allowing it to avail of the opportunities offered by the market for these **commodities**.

The Group is a leading operator in the **Integrated Downstream** market, through TotalErg (a joint venture with Total), with a network of approximately 3,000 retail outlets, and through ERG Oil Sicilia (EOS), 100% owned by ERG, which operates in the retail market in Sicily.

TotalErg also operates in the logistics sector through Raffineria di Roma, a company 100% owned by ERG and an important logistics hub for the storage and handling of petroleum products in central Italy.

In this business sector, our strategy is to strengthen our competitive position in order to boost profitability and sustainability in the long term.

We are carrying out an intensive programme aimed at the rationalisation and further automation of the fuel network ■



## ERG IN A NUTSHELL - SOME NUMEBERS

**10,368** MLN €  
total consolidated  
adjusted revenues <sup>(1)</sup>

**10,068** MLN €  
economic value  
distributed

**9,208** GWh  
electricity generation

**3.3** MLN  
equivalent households  
supplied

**1,008** MW  
installed capacity of  
thermoelectric power plants

**1,340** MW  
installed capacity  
of wind farms <sup>(2)</sup>

**959** kt  
CO<sub>2</sub> avoided

**150** THOUSAND  
equivalent Rome - New York  
flights

**778**  
employees

**5** DAYS  
training  
per employee

**100**%  
organisations operating in  
industrial sites ISO 14001  
and OHSAS 18001 certified

**1,700**  
safety checks  
in the field

(1) adjusted revenues take into account ERG's share of revenues generated by the joint ventures TotalErg S.p.A., ISAB S.r.l. and LUKERG Renew GmbH

(2) includes 50% of LUKERG Renew for Eastern Europe

## WITH “MISTRAL 2” WE HAVE BECOME THE LEADER IN THE WIND ENERGY SECTOR

We have strengthened our economies of scale through the acquisition of new wind farms

WITH THE ACQUISITION OF THE “IP MAESTRALE” WIND FARMS, ERG RENEW HAS BOOSTED ITS PRESENCE ABROAD

Mistral 2 is the name given to the project to acquire and integrate the assets of IP Maestrale (now Wind ERG) into ERG Renew, which took place in February 2013.

This transaction allowed ERG Renew to **double its installed capacity and expand its presence in Germany**. With this increase in installed capacity, ERG Renew has become the leading Italian operator in the wind energy sector, and one of the largest in Europe (preceded only by **multi-utility companies**).

This increase in size has generated concrete benefits for the ERG Group in terms of **industrial capacity**, which is useful for attracting resources from the market.

Another important advantage is the optimisation of plant management activities. In fact, both the wind farms acquired and most of those previously owned use wind turbines from the same supplier: currently, 75% of the installed capacity in Italy was provided by Vestas.

This characteristic allows us to:

- optimise our asset management activities;
- take advantage of economies of scale due to the critical mass generated by the presence of similar turbines (as regards spare parts and maintenance operations);
- negotiate better terms in supply

contracts.

Together with the industrial **assets**, this acquisition allowed ERG Renew to internalise an organisational structure and a number of specific professional skills related to wind energy, thus **expanding its industrial skills**.

The development of ERG Renew's activities was not limited to this acquisition: in October 2013, ERG Renew Operations & Maintenance was established, the result of the acquisition of the IVPC Group, dedicated to the management of Operations & Maintenance activities in wind farms operated by ERG Wind. 136 people from the IVPC Group joined ERG, most of whom are **highly skilled technicians**.

The nine ERG Renew Operations & Maintenance Operations Centres are located in the vicinity of the wind farms, an ideal position to ensure the timely availability of personnel and equipment required to perform interventions on turbines, electrical substations, cable lines and substations. In addition to a warehouse with spare parts, tools and equipment, each Centre has an administrative office, and three centres have remote control rooms for managing the plant's operations. The first objective of this new reality will be the progressive insourcing of the O&M activities at the plants owned by ERG Renew, which are currently managed by

**DIRECTLY  
MANAGING ITS  
WIND FARMS  
AND ACQUIRING  
THE REQUIRED  
TECHNOLOGICAL  
KNOW-HOW IS  
A STRATEGIC  
OBJECTIVE  
FOR ERG RENEW**

the turbine manufacturers. This means that about another 250 (500 MW) wind turbines will gradually be added to the existing 727 turbines (550 MW) operated by ERG Wind. This process was started in January 2014 and is currently underway.

One of the major improvements introduced in operations management is the **programming of ordinary activities based on wind forecasts** (for more details, see the relevant section on page 46).

It was thus possible to obtain significant performance improvements on the entire plant portfolio: the ERG Renew **assets**

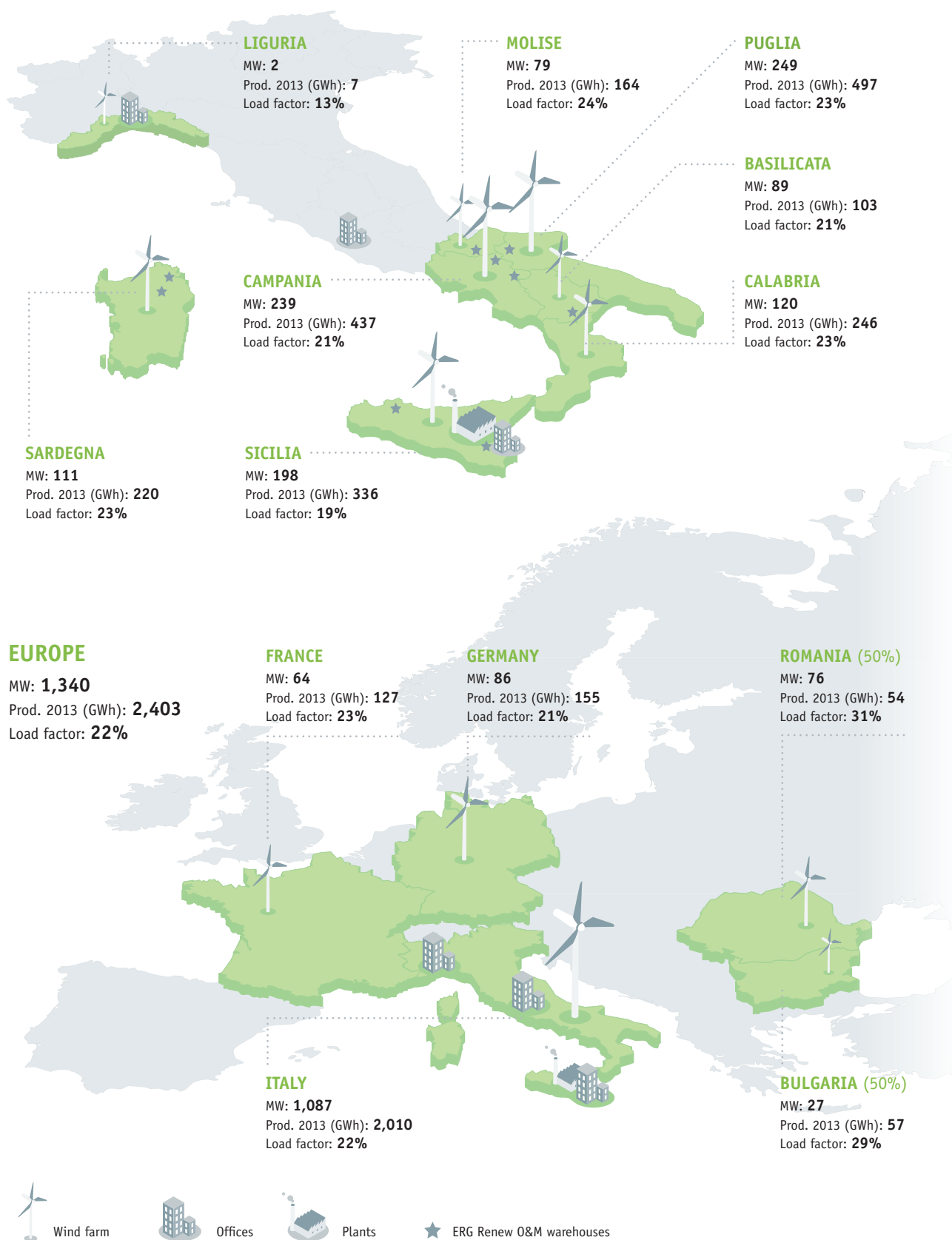
produce 13.5% of total energy compared to 12.7% of installed capacity on the Italian wind energy market.

Today, with nearly 1,000 turbines in operation in Italy (totalling over 1,000 MW of installed capacity) and a growing overseas portfolio, the direct management of the wind farms completes the strategy of progressive integration of post implementation activities into the wind energy business, which has led to the **internalisation of major segments of the value chain**: scouting, design, and wind farm management and maintenance ■



Bisaccia wind farm (AV)

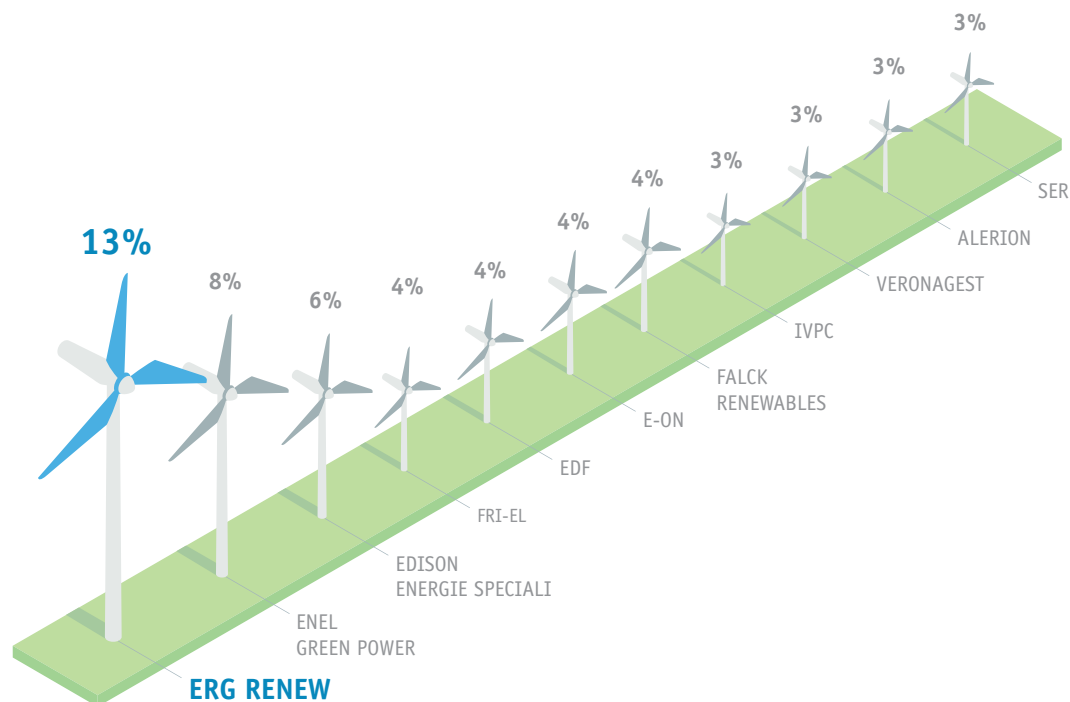
## ERG LOCATIONS



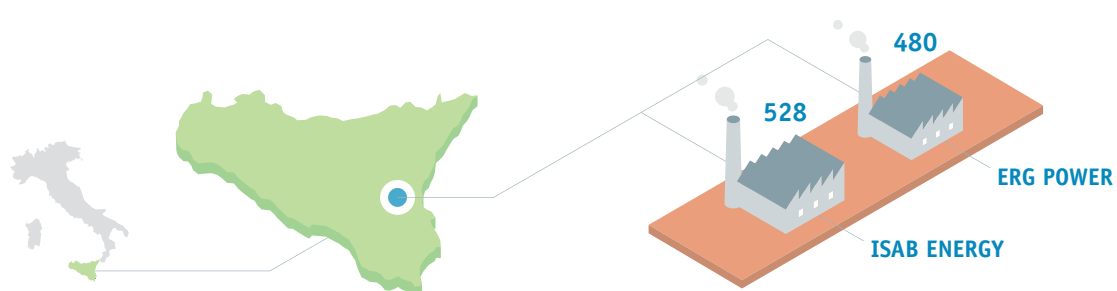
**Load factor:** indicates the % of equivalent hours during which the plant produced the maximum capacity during the period in question (month, year, etc.).

## ERG RENEW MARKET SHARE - ITALY 2013

ERG Renew calculations based on ANEV data



## INSTALLED CAPACITY IN POWER PLANTS (MW)



	INSTALLED CAPACITY IN MW	PRODUCTION IN GWH - 2013	TECHNICAL AVAILABILITY - 2013	SYSTEM	CO <sub>2</sub> ALLOCATON KT/YEAR
ERG POWER	480	2,663	94.9%	-	-
ISAB ENERGY	528	4,142	93.5%	CIP 6	190

## CORPORATE GOVERNANCE, MIRRORING OUR GROUP'S VALUES

A solid structure that bases its activity on the principles of transparency and fairness

THE CORPORATE GOVERNANCE STRUCTURES ARE THE PILLARS ON WHICH THE OPERATIONAL STATEMENT OF THE GROUP'S PRINCIPLES ARE BASED

The values and ethical principles that guide the Group in the fulfilment of its business activities are rooted in a heritage established over time. The key values, which must be reflected in conduct of all those who work in our company, are:

- **moral integrity, personal honesty and fairness in internal and external relationships;**
- **transparency** towards shareholders, stakeholders and the market;
- **respect for employees** and the commitment to enhance their professional skills;
- **social commitment;**
- **the protection of health, safety and the environment.**

On a more general level, the basic principle is concerned with the rejection of any conduct that is not compatible with an organisational and management model characterised by the **absolute respect for the law and the rules of conduct and procedures** that apply within the company. The current corporate governance structure of ERG S.p.A. has been developed over time by gradually introducing into the ERG corporate approach rules of conduct that reflect the most advanced principles of **Corporate Governance**.

Even before the company was listed in October 1997, its key focus was on the proper relationship between management and shareholders and ensuring that business operations are directed towards value creation; its presence on the stock

market clearly underlined the company's tendency to make the **principles of transparency and correctness** a key part of its conduct. **These principles are summarised in the Code of Ethics**, a document that sets out the values to be applied to everyday business operations.

### CORPORATE GOVERNANCE

ERG S.p.A.'s corporate governance system complies with the requirements of the Italian Civil Code and other specific regulations relating to companies – particularly those contained in the Italian Consolidated Finance Act – and is consistent overall with the Italian Corporate Governance Code for Listed Companies, which has been revised and updated over the years. The edition of the Corporate Governance Code to which the Company adheres is publicly available on the website of Borsa Italiana S.p.A. ([www.borsaitaliana.it](http://www.borsaitaliana.it)).

ERG corporate governance comprises the statutory bodies, board committees and documents that regulate their operation.

For further information on the role played by each body, see the "Corporate Governance Report" section on the Group's website [www.erg.it](http://www.erg.it).

#### BOARD OF DIRECTORS

The Board of Directors of ERG S.p.A. is composed of 12 members, including one woman. The average age of members is about 59 years ■



## THE PLAYERS OF THE INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM

### Board of Directors

The Board of Directors plays a role in orienting and assessing the adequacy of the Internal Control and Risk Management System, assigning responsibility to one or more directors for the establishment and maintenance of an effective internal control and risk management system (the Director in charge of the Internal Control and Risk Management System), as well as

the Internal Control and Risk Committee, tasked with supporting, through an appropriate preliminary analysis activity, the assessments and decisions of the Board of Directors pertaining to the internal control and risk management system, as well as those pertaining to the approval of periodic financial reports.

The Board of Directors has assigned the Director in charge of the Internal Control and Risk Management System the power to oversee the Internal Audit, Risk and Compliance Division, with responsibility for supervision, direction and control.

### THE STRUCTURE OF THE BOARD OF DIRECTORS AND THE COMMITTEES AS OF 31 DECEMBER 2013

POSITION	MEMBERS	LIST (M/m) <sup>(1)</sup>	EXECUTIVE/ NON EXECUTIVE	INDEPENDENT PURSUANT TO CODE AND CONSOLIDATED FINANCE ACT (T.U.F.)	% PARTICIPATION <sup>(2)</sup>	NO. OF OTHER POSITIONS <sup>(3)</sup>	DATE OF FIRST APPOINTMENT <sup>(4)</sup>	RISK AND CONTROL COMMITTEE		NOMINATIONS AND REMUNERATION COMMITTEE	
								(5)	(2)	(5)	(2)
Chairman	Edoardo Garrone	M	Executive		100%	2	16/10/1997				
Vice Chairman	Alessandro Garrone	M	Executive		100%	2	16/10/1997				
Vice Chairman	Giovanni Mondini	M	Non executive		100%	1	16/10/1997				
Chief Executive Officer	Luca Bettonte	M	Executive		100%	–	15/12/2009				
Director	Massimo Belcredi	M		Yes	100%	1	29/04/2003	Yes	100%	Yes	100%
Director	Pasquale Cardarelli	M		Yes	88%	–	28/04/2006			Yes	100%
Director	Alessandro Careri	M	Non executive		100%	–	21/06/2011				
Director	Marco Costaguta	M	Non executive		88%	4	20/04/2012				
Director	Antonio Guastoni	M		Yes	100%	4	29/04/2003	Yes	100%		
Director	P. Francesco Lanzoni	M		Yes	100%	–	29/04/2003	Yes	100%	Yes	100%
Director	Graziella Merello	M	Executive		100%	–	23/04/2009				
Director	Umberto Quadrino	M		Yes	88%	2	20/04/2012				

#### Note

- (1) This column indicates M/m according to whether the member was elected from the majority list (M) or the minority list (m).
- (2) This column indicates the percentage attendance by the Directors at the Board of Directors and Committee meetings (no. of times attended/ no. of meetings held during the period in which the member held office).
- (3) This column indicates the number of Director or Auditor positions held by the relative individual in companies other than the ERG Group companies listed on regulated markets – including foreign markets – in financial, banking and insurance companies or those of significant size.
- (4) This column indicates the date of the first appointment of the Directors as of October 16, 1997, the date the company was listed on the stock exchange.
- (5) This column indicates if the Director is a member of the Committee.

# CORPORATE GOVERNANCE



## SHAREHOLDERS' MEETING

Approves the Financial Statements, appoints the Board of Directors, the Board of Statutory Auditors and the Independent Auditors and decides on amendments to the articles of association, including mergers, de-mergers and capital increases



## BOARD OF DIRECTORS

Approves the financial reports, defines the strategic direction, the organisation's guidelines and the corporate governance system, decides on significant transactions and assesses management performance.

Consists of 12 members, of which 5 are independent. In 2013, the Board of Directors held 8 meetings with an average duration of about 2 hours.



**8**  
MEETINGS

**2<sup>h</sup>00'**  
DURATION



## BOARD OF STATUTORY AUDITORS

Monitors compliance with the law, the Articles of Association and the principles of proper administration, monitors the adequacy of the ICRM\* system and the independence of the Auditors.

Consists of a Chairman, 2 regular auditors and 3 substitute auditors. In 2013, the Board of Statutory Auditors held 13 meetings with an average duration of about 3 hours.



**13**  
MEETINGS

**3<sup>h</sup>00'**  
DURATION



## INDEPENDENT AUDITORS

Carry out audits of the financial statements, perform a limited review of the interim financial report and verify the integrity of accounting operations.



## INTERNAL CONTROL AND RISK COMMITTEE

Supports the Board of Directors in decisions relating to the approval of periodic financial reports, the Group's Governance, the ICRM\* System, the obligations pursuant to Italian Legislative Decree 231/01 and administration, reporting and tax requirements.\*\*

Consists of a Chairman and two members chosen from among the independent directors. In 2013, the Internal Control and Risk Committee held 8 meetings with an average duration of about 2 hours and 30 minutes.



**8**  
MEETINGS

**2<sup>h</sup>30'**  
DURATION



## NOMINATIONS AND REMUNERATION COMMITTEE

Formulates proposals for the remuneration of Directors with delegated powers or those which perform specific functions and the definition of remuneration policies and incentive plans for the Group's management.\*\*

Consists of a Chairman and two members chosen from among the independent directors. In 2013, the Nominations and Remuneration Committee held 6 meetings with an average duration of about 1 hour and 30 minutes.



**6**  
MEETINGS

**1<sup>h</sup>30'**  
DURATION



## STRATEGIC COMMITTEE

Supports the CEO and the Board of Directors in the definition of strategic guidelines for the Group's business, portfolio and strategic finance and in decision making related to multi-year strategic plans, the Group's investment budgets and significant investments.

Consists of a Chairman and four members. In 2013, the Strategic Committee held 8 meetings.



**8**  
MEETINGS

\* Internal Control and Risk Management System

\*\* Responsible for issuing opinions with regard to the procedures for transactions with related parties

## Supervisory Body

The ERG Group companies that have adopted the Organisation and Management Model (pursuant to Italian Legislative Decree No. 231/2001) and the Code of Ethics have appointed their own Supervisory Bodies (collegial or monocratic) with responsibility for:

- **monitoring the effectiveness of the Model and compliance with the Code of Ethics;**
- **verifying the adequacy of the Model** to prevent the commission of the crimes specified in Italian Legislative Decree no. 231/01
- **overseeing the** updating of the Model;
- **providing training on the Code of Ethics and 231 issues;**
- **assessing the information** received.

The Supervisory Body systematically receives information flows from all recipients of the Model and the Code of Ethics with respect to **any violations of the principles and rules** contained in these documents. It then assesses the information received with discretion and responsibility, ensuring that the identity of those making the report remains confidential. Communication with the Supervisory Body by its means of a public email address.

The independence of its duties is ensured by the absence of hierarchical constraints (the Body reports to the highest level of management). In the case of a collegiate, independence is also guaranteed by the presence of an external independent member, in the person of the Chairman (the other members are the Chief Audit Risk & Compliance Officer and the Chief Human Capital Officer).

## Internal Audit, Risk & Compliance

The Internal Audit, Risk and Compliance Division performs the role and duties prescribed by the Corporate Governance Code, **verifying the functionality and suitability of the ICRM System** and, in particular, that Management has identified the main risks, that the risks were assessed using consistent procedures and that the mitigating actions have been defined and carried out.

The Division also verifies whether the risks are managed in accordance with the decisions of the Board of Directors, with external rules and with internal Group rules.

The annual work plan, based on a structured process of analysis and prioritisation of the main risks ("Audit Plan") is subject to the approval of the Board of Directors. Moreover, within the scope of the audit plan, the Internal Audit Risk and Compliance Division **verifies the reliability of the IT systems**, including accounting systems.

At least twice a year, the Division prepares a **summary of the main observations that have emerged and the corporate risks to be monitored**, which includes an assessment of the suitability of the ICRM System.

The findings of these reports are presented to the Director in charge of the Internal Control and Risk Management System, the Internal Control and Risk Committee, and the Board of Statutory Auditors.

**THE ICRM SYSTEM CONSISTS OF A SET OF RULES AND STRUCTURES DESIGNED TO ENSURE THE EFFICIENT AND EFFECTIVE MANAGEMENT OF THE COMPANY**

## The Internal Control and Risk Management System

The ERG Group Internal Control and Risk Management System (hereinafter also "ICRM System") complies with the principles set out in the latest edition of the Corporate Governance Code for listed companies, promoted by Borsa Italiana and published in December 2011, and, on a more general level, with domestic and international best practice.

The guidelines for the ICRM system, approved by the Board of Directors, set out the general principles according to which the main Group risks are managed, and the rules of **coordination between the parties involved** to maximise the effectiveness and efficiency of the System.

The ICRM System consists of a set of rules, procedures and organisational structures aimed at proactively contributing to **protecting the ERG Group's assets**, to the **efficient and effective management of the Group** in line with the corporate strategies defined by the Board of Directors, to the **trustworthiness, accuracy and reliability** of financial disclosure and, more in general, to **compliance with current laws and regulations**. As it constitutes an integral part of the enterprise, the System involves and hence is applied to the entire

organisational structure of the ERG Group: the Board of Directors of ERG and those of its subsidiaries, Group Management and all company personnel.

For further information, see the "Governance" section on the Group's website [www.erg.it](http://www.erg.it)

## RISKS AND UNCERTAINTIES

The ERG Group has implemented **an integrated risk management model**, based on a systematic approach to identify the priority risks, to assess their potential negative effects and to identify appropriate mitigating actions to be taken. The model is defined on the basis of **international best practice and principles** and constitutes an integral part of the ICRM system.

Within this context, the main risks we have identified, monitored and managed are as follows:

- market risk;
- liquidity risk
- risks related to industrial accidents;
- regulatory risk;
- credit risk;
- risk connected with climatic events
- risk associated with medium and long term loan agreements.

For further information, see the "Report on Operations" section on the Group's website [www.erg.it](http://www.erg.it) ■

### SIGNIFICANT INVESTMENTS AS AT 31 DECEMBER 2013

DECLARANT	DIRECT SHAREHOLDER	% SHARE OF ORDINARY CAPITAL	% SHARE OF VOTING CAPITAL
San Quirico S.p.A.	San Quirico S.p.A.	55.942	55.942
San Quirico S.p.A.	Polcevera S.A.	6.905	6.905
ERG S.p.A.	ERG S.p.A.	5.000	5.000
Norges Bank	Norges Bank	2.033	2.033

## THE GOVERNANCE TOOLS

Code of Ethics and the Model 231, the documents that preserve the values and standards on which our business is based

**IN 2013, 20 ORGANISATION AND MANAGEMENT MODELS (MODEL 231) WERE UPDATED TO REFLECT THE NEW CRIMES INTRODUCED BY THE LEGISLATIVE DECREE NO. 231/01**

The Code of Ethics **contains all of the values that guide the ways in which the company operates**, with the aim of aligning the conduct of employees and associates with the standards of transparency and fairness. The third edition of the Code of Ethics, published in 2011, has been adopted by all Group companies by resolution of the respective Boards of Directors.

The Code is an integral part of the Organisation and Management Model pursuant to Legislative Decree No. 231/01 (Model 231).

In 2013, three new **Organisational and Management Models** (Model 231) were adopted by Group companies and **20 existing Models were updated** to include the new crimes of "undue inducement to give or promise benefits," "corruption between private individuals" and "employment of foreign citizens without a valid residence permit," added to Legislative Decree No. 231/01 in 2012, as well as to define the related models of conduct.

All new employees have completed **online courses on the contents of the Model** with a final assessment of the level of learning obtained. In addition, we organised classroom **training sessions** on the contents of the Code of Ethics, the general part of the Model 231, and particular focus was placed on the special part of the Model, especially with regard to environmental crimes and occupational

health and safety, examining some of the most relevant recent judgments.

A total of **225 employees** participated in around **300 hours of training**.

### ERG GROUP PRINCIPLES AND INTERNATIONAL DEVELOPMENT

As a result of the continuous international development of ERG Group, we felt that it was necessary to **simplify the communication of the Groups principles to overseas companies** and their local counterparts: the Code of Ethics was therefore translated into English and French. All of the overseas companies of ERG Group have adopted this document, which was also approved by the joint venture LUKERG Renew in 2013. The Model 231 was translated into English and published on the Group's website [www.erg.it](http://www.erg.it). In 2013, **all overseas companies approved the Anti-Corruption Guidelines issued by ERG**, which follow the principles of conduct in line with those already set out in the Model 231. In particular, the management of ERG business activities must comply with the principles of conduct that apply to:

- the principles set out in the code of ethics;
- separation of duties;
- the allocation of powers;
- transparency and traceability of processes;
- appropriateness of internal rules;
- the training of employees;
- job rotation ■

## INTEGRATED HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT SYSTEMS AND THEIR CERTIFICATIONS

At ERG we have always developed activities at our facilities according to strict criteria, systematically pursuing the certification of integrated management systems in accordance with ISO 14001 (environment) and OHSAS 18001 (health and safety) standards.

In 2006, we set the objective of **obtaining both certifications for all organisations based at the operations sites**: the target was achieved in 2011 and has been confirmed in subsequent years. Even the ISAB refinery, which was sold in recent years, had obtained both certifications.

In addition to maintaining existing certifications, the new objectives for the three-year period 2013-2015 are expected to ***"Extend the ISO 14001 and OHSAS 18001 certifications to the entire ERG Group and integrate the existing certifications in the areas of thermoelectric and renewable power generation."***

In 2013, we achieved some important goals, which will enable us to meet the agreed deadlines:

→ **ERG Power**, which owns the assets of the CCGT plant, obtained **OHSAS 18001** certification and confirmed ISO 14001 certification;

→ **ERG Power** initiated a process that should enable it to achieve **EMAS** registration, for which the first version of the Environmental Statement has been prepared: it is currently assumed that registration will take place in 2014,

thus establishing a ***modus operandi*** that focuses on all environmental aspects as well as the safety element;

→ **ERG** has started its journey towards the goal of **ISO 14001** and **OHSAS 18001** certification. However, the reorganisation of the Group - which occurred in late 2013 - has slowed down the process, which will be resumed in the second half of 2014 when the new organisation is up and running;

→ **ISAB Energy**, operator of the IGCC plant, obtained ISO 14001 certification in 2013;

→ **ISAB Energy Services**, which manages the assets of ISAB Energy and ERG Power, confirmed receipt of ISO 9001, ISO 14001 and OHSAS 18001 certifications;

→ **ERG Renew**, in keeping with the objectives of its Health, Safety and Environment policy, decided to **extend its Integrated Quality, Environment and Safety Management System (QES) to all its subsidiaries** (operators of wind farms or involved in the sale of energy) in accordance with ISO 9001, ISO 14001 and OHSAS 18001 standards (excluding the companies included in the scope of LUKERG Renew and the newly formed ERG Renew Operations & Maintenance).

It was necessary to update the QES Management System, both to complete the acquisition of the assets that today form part of the **ERG Wind** portfolio, and to extend it to all the subsidiaries included in the scope of certification (around 30 subsidiaries). At the same time, the scope of certification was extended to include the production of electricity from renewable

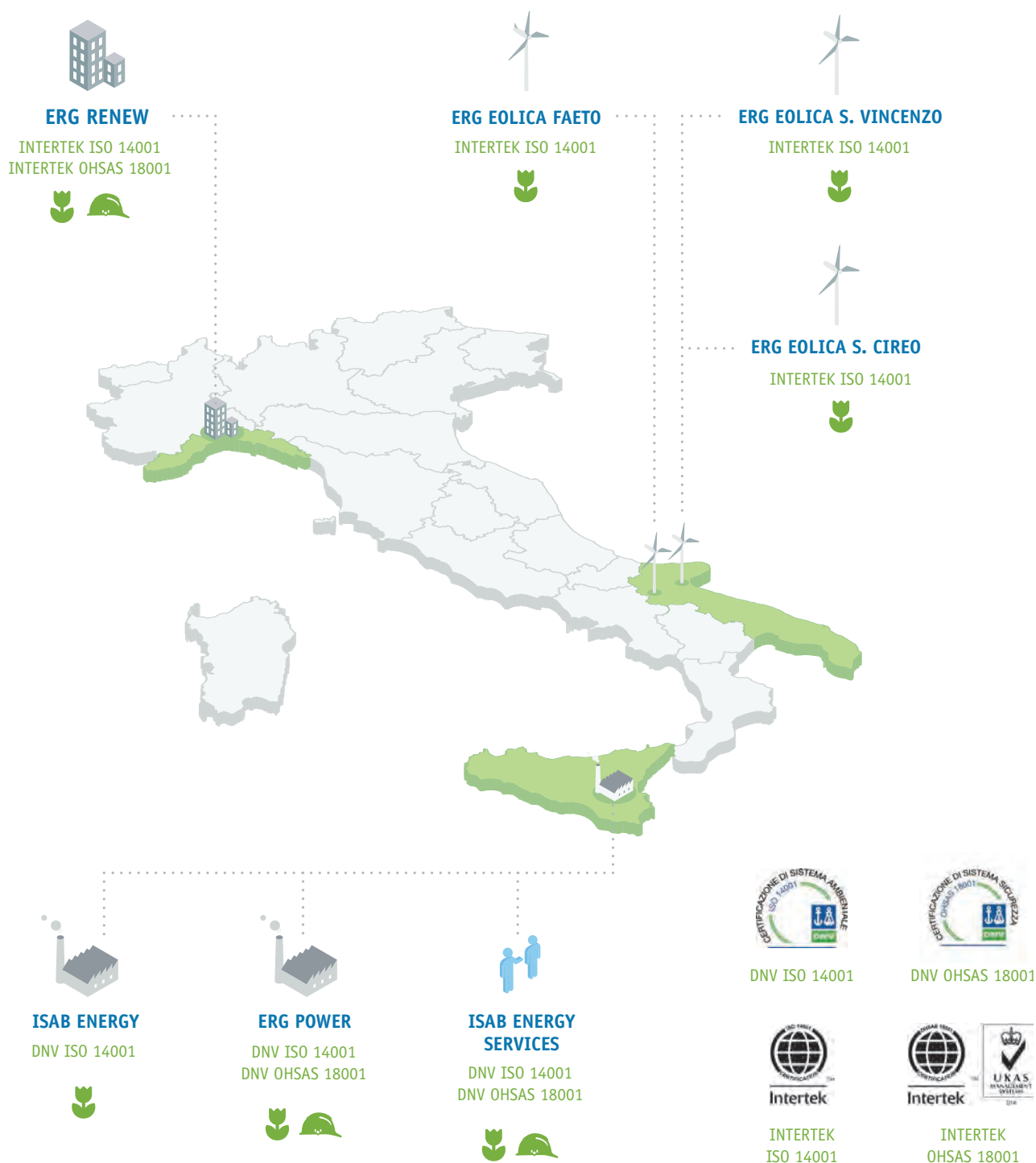
ALL OUR  
PLANTS ARE  
ISO 14001 AND  
OHSAS 18001  
CERTIFIED



sources in addition to the services offered to the project companies. This change of scope will result in a **single “umbrella” certification**, which will explicitly contain

a list of all certified companies. The certification audit took place in December 2013 and the certificate will be issued in 2014 ■

## THE CERTIFICATIONS OF THE ERG GROUP



## DIALOGUE WITH OUR STAKEHOLDERS

### From listening to needs to project implementation

#### IN 2013, WE FOCUSED ON COMMUNICATING OUR STRATEGIES

Transparent, fair and open relationships with our stakeholders have always been central to our way of doing business. These principles are enshrined in the Group's Code of Ethics, in the Organisation and Control Model adopted by the Group companies pursuant to Legislative Decree No. 231/01, and in all of the Group's main procedures.

Over the years we have regularly updated our stakeholder policies in order to **better respond to external demands**.

In 2006, following an initial analysis of the perception that the communities where our plants are located had of ERG, we refocused our response strategy to include social responsibility activities **focused on specific thematic areas**: the protection and safeguarding of health and the environment, and the promotion of culture, knowledge, sport and young people.

Our decision to direct our activities toward these areas has yielded positive results, and the same analysis conducted in again 2009 showed the **appreciation for the activities performed**.

With the completion of the transition in 2013 from a predominantly oil-related business strategy to one focused on power generation and renewable energy sources, many stakeholders expressed a renewed interest in the Group: it was therefore necessary to strengthen our communication activities with our key

interlocutors during this time of evolution and change.

Analysts and investors have expressed the need to better **understand the specifics of our strategy and our business**, as well as the relative economic and financial impacts.

In this regard, we organised special meetings to present ERG's new business plan and the economic rationale behind it.

In late 2013, the business press also participated in our industrial progress during a two-day meeting held in Vienna, at which we presented the Group's new strategy.

Another stakeholder to which the Group has paid particular attention are employees. Communications from Top Management (direct or via the intranet) provided Group personnel with information on the Group's evolution and how this would redesign the structure of the organisation.

In 2013 we wanted to specifically discuss the Group's evolution with **our "historical" partners in Sicily** through a number of ad hoc meetings.

We also decided to **meet the new communities** where our wind farms are located to introduce the company and our guiding principles.

In this regard, we launched a project that took six months from concept to

**WE  
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INFORMATION  
INITIATIVE  
REGARDING  
ENERGY AND  
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FOR THE  
ENVIRONMENT  
IN A NUMBER  
OF SCHOOLS  
LOCATED CLOSE  
TO WIND FARMS**

scope-definition to executive design, which will be implemented starting from March 2014. It is an educational project, sponsored by the Ministry for the Environment, which aims to **explain to 13-year old secondary school children what energy is** (with particular focus on wind energy), **how we can save it**, thus protecting the energy resources and reducing our impact on the Earth system, **and what are the values that characterise ERG in its way**

**of doing business.** The initiative consists of a classroom session, after which the students are taken on a visit to a wind farm "close to home", which is used as an opportunity to explain its technological features.

This is the way in which we relate to our stakeholders, involving them in the evolution, diversification and growth of the ERG Group ■



## STAKEHOLDER: EXPECTATIONS AND COMMUNICATION CHANNELS

STAKEHOLDER	STAKEHOLDER EXPECTATIONS	COMMUNICATION CHANNELS
<b>Institutions</b> European Union, Governments, Ministries, Regulatory bodies, Public Administration, Trade associations.	Collaboration, technical support and information sharing. Participation in the territorial planning of activities. Respect for the current laws in all countries in which the Group operates.	–
<b>Partners</b>	Creation of value. Sharing values in business management and strategy development.	Mini ad hoc relationship-building events.
<b>Shareholders</b>	Creation of value for shareholders. Corporate Governance and Risk Management. Representation of minorities. Transparency and timeliness with regard to business and financial information.	Webcast. Press releases. Roadshow. Events associated with the publication of the business plan.
<b>Financial community</b>	Creation of value for shareholders. Corporate Governance and Risk Management. Representation of minorities. Transparency and timeliness with regard to business and financial information.	Webcast. Press releases. Roadshow. Events associated with the publication of the business plan.
<b>Future generations</b>	Environmental protection and prevention. Corporate strategy aimed at reducing the consumption of natural resources.	Training programs.
<b>Local communities</b> Cultural, religious and research associations, health service, schools and universities, NGOs, Committees of citizens, residents close to production plants.	Listening to their requirements. Contribution to and support for local initiatives and local communities. Access to information. Protection of heritage and the environment. Health and safety.	Relationship-building activities with new local communities in line with new business activities. CSR initiatives in the community with regard to “environment and health”, “promotion of culture”, “young people and sports.” Events with the local press.
<b>People and Trade Unions</b> Employees, contractors, trade unions.	Equal opportunities. Workplace safety. Professional development for all employee categories. Participation in company life and all related initiatives. Work-life balance. Stability.	Internal communication tools and activities Company’s events. Team building.
<b>Suppliers</b>	Compliance with all competition and antitrust laws in the countries in which they operate. Safety of on-site activities.	Internet platform.
<b>Customers</b>	Maximising value for the consumer. Quality and continuity in the supply of electricity and steam (site customers). Product quality (retail customers).	–
<b>Media</b>	Completeness, transparency and timeliness of information.	Business press relationship-building events, press releases to communicate the financial results, the business plan and extraordinary operations.

## ETHICS AND CREDIBILITY: THE BASIS OF INSTITUTIONAL RELATIONS

Dialogue with Institutions and Associations is key to staying informed on the national and international legal framework relating to our business sectors

**WE WORK WITH NATIONAL AND EUROPEAN INSTITUTIONS TO DEVELOP LEGISLATION SPECIFICALLY FOR THE SECTORS IN WHICH WE OPERATE**

The size and specific nature of the industries in which we operate require the constant and careful supervision of the institutional and regulatory framework: it is increasingly important to constantly monitor these areas in order to help us better orient the Group's operational and strategic decisions with regard to our business sectors.

To this end, both traditional and multimedia information channels play an important role, however it is especially important to maintain a **constant dialogue with the Entities and Institutions at various different levels**.

This dialogue is based on transparency of relationships, respect for institutions, active collaboration and sharing our **know-how** and expertise gained in the energy sector.

On this basis, we work with Italian and European institutions to develop the regulatory framework for the sector, providing our input where possible.

The complexity and interdisciplinary nature of these issues mean ERG has a very wide range of stakeholders: **not just public authorities and institutions, but also private trade associations** at local, national and European levels (Confindustria, Assoelettrica, AssoRinnovabili, EWEA,

ANEV, Unione Petrolifera, etc.), as well as the various operators in the business sectors in which the Group operates.

In particular, the ERG Group actively participates in the activity of associations through representation on the statutory bodies, specific committees and technical working groups with a view to **exploring areas of interest**, pooling the experience and know-how gained and its own position in a transparent manner while protecting the Group's interests.

As in other areas, in its relationships with institutional stakeholders ERG uses an **approach based on the core values of transparency, ethics, independence, credibility and compliance** laid down in the Code of Ethics and reflected in our Organizational Model (Legislative Decree No. 231/01). In accordance with these principles and to preserve the Group's independence, ERG's internal policy is **not to make direct or indirect contributions**, in any form, to political parties, movements, committees, political organisations or trade unions, either to their representatives or candidates (with the exception of cases required by specific regulations).

Looking beyond Italy to the European Union, the establishment of a representative office in Brussels has

**THE ASSESSMENT OF REGULATORY SCENARIOS IS ESSENTIAL IN ORDER TO GROW OUR BUSINESS**

provided the Group **with a privileged vantage point from which to follow the legislative changes**, particularly in relation to the European energy market, and thus acquire the most suitable tools to **understand the overall picture** at European and international levels.

At the same time the presence of a permanent representation in the European Union makes Brussels an ideal starting point from which to **define and manage institutional relations with the European countries** in which we have invested or intend to invest in the future ■

## Associations in which ERG has a presence on the governance bodies and/or technical groups

ASSOCIATION	PURPOSE	ERG PARTICIPATION
<b>Confindustria</b>	Together with the local associations, national trade associations, regional Confindustria federations and regional and national trade federations, Confindustria is the main association representing manufacturing and service companies in Italy.	Governance Bodies and Technical Groups.
<b>Confindustria Energia</b>	Federation of associations representing companies that produce and distribute energy (ANEV, ANFIDA, ANIGAS, Assocarboni, Assocostieri, Assogastliquidi, Assomineraria, Assosolare and Unione Petrolifera).	Governance Bodies and Technical Groups.
<b>Assoelettrica</b>	National Association of Electricity companies bringing together around 120 companies operating in the free market that provide about 90% of the electricity generated in Italy.	Governance Bodies and Technical Groups.
<b>Unione Petrolifera</b>	Association of the major oil companies involved in petroleum refining and the distribution of petroleum products in Italy.	Governance Bodies and Technical Groups.
<b>Assonime</b>	Association of Italian Joint Stock Companies that works towards improving industrial, commercial, administrative and tax legislation in Italy.	Governance Bodies.
<b>ANEV</b>	The National Association of Wind Energy that brings together about 70 companies in the wind energy sector and more than 5,000 individuals, including producers and traders of electricity and technology, installers, designers, engineering and environmental offices, electrical traders and developers who operate in compliance with the rules and regulations of the association.	Governance Bodies and Technical Groups.
<b>Asso Rinnovabili</b>	Association representing renewable energy manufacturing and service companies, with over 500 associates. Since 1987 it has represented producers of electricity from renewable sources and providers of professional services, technologies and components in the renewable energy supply chain to protect their rights and promote their interests at national and international levels.	Governance Bodies and Technical Groups.
<b>EWEA</b>	European Wind Energy Association, the body representing the interests of the wind industry in Europe and the European branch of the WWEA, the World Wind Energy Association.	Governance Bodies.
<b>IEFE</b>	The Research Centre at Bocconi University, dedicated to the study of energy economics and policy, also focusing on technology issues.	Technical groups.
<b>Concawe - Europa</b>	Organisation of European oil companies aimed at protecting the environment, health and safety.	Technical groups.
<b>Civita</b>	Organisation established by a group of companies, public research institutions and universities which, with over 180 associates (both public and private organisations and companies), is engaged in the "promotion of culture" through research, conferences, events, publications and projects.	Governance Bodies.
<b>Magna Carta Fondation</b>	Foundation dedicated to scientific research, cultural reflection and the development of proposed reforms on the main themes of political debate.	Governance Bodies.



## THE INTEREST IN NON-FINANCIAL INFORMATION

### Proposal for a Directive of the European Community to standardise the reporting of non-financial information in different countries

**INFORMATION ON THE INTRINSIC VALUES OF COMPANIES IS INCREASINGLY BECOMING AN INTEGRAL PART OF FINANCIAL INFORMATION**

Public focus on sustainability issues is becoming increasingly popular with the consequent increase in the number of organisations that prepare their own Sustainability Report. A number of different factors influence this growth, the main one being the **increased attention of stakeholders, competitors and comparable organisations.**

The recent crisis has also played an important role: the requirement for further information on the intrinsic values of companies has increased the sensitivity of stock market investors and local authorities towards this type of information, which no longer plays an ancillary role to financial data but is increasingly becoming an integral part of reporting activities.

These ever increasing “requests for information” have prompted regulators and legislators **in different countries to issue measures to address the reporting requirements in different ways.**

At a European level, unlike the well-defined rules that have been established for financial reporting in the economic community, a unique and shared methodology has not been developed for the reporting of non-financial information.

For this reason, the European Commission first started discussing sustainability

with its “Green Paper” of 2001, then in 2011 with “A renewed EU strategy for the period 2011-2014 ...” and finally to in 2014 with a proposal for a directive on the **“... disclosure of non-financial information and information on diversity...”**

The proposal seeks to amend the law on accounting in order to increase - for large companies - **the level of transparency with regard to social and environmental issues and the theme of diversity**, as well as to increase the relevance, coherence and comparability of the non-financial information published by strengthening and clarifying existing requirements with the objective of “increasing the company’s accountability and performance, and the efficiency of the Single Market” ■

#### CSR IN THE GROUP ORGANISATION CHART

*“The Chairman of ERG S.p.A is responsible for Institutional and International Relations concerning [...] Corporate Social Responsibility”:* the direct reporting line to the Chairman ensures that CSR principles permeate throughout the Group’s organisation and activities ■

## CSR MANAGEMENT



### BOARD OF DIRECTORS

Defines the Group's principles of conduct summarised in the Code of Ethics and approves the sustainability report.



### SUSTAINABILITY COMMITTEE

Comprises Top management and all Line Managers and CEOs of the operating companies.

**Defines the strategic area of sustainability**, with particular focus on:

- **promoting** policies and guidelines with regard to employment and respect for the environment;
- **stimulating** the definition of improvement objectives;
- **identifying and proposing** sustainability initiatives.



### SUPERVISORY BODY

Responsible for:

- monitoring the effectiveness of the Model and compliance with the Code of Ethics;
- verifying the adequacy of the Model to prevent the commission of crimes referred to in Legislative Decree no. 231/01;
- overseeing the updating of the Model;
- providing training on the Code of Ethics and 231 issues;
- assessing the information received.



### SUSTAINABILITY DEPARTMENT

Responsible for **implementing the guidelines** and periodically **monitoring their performance**.

The cross-functional monitoring activities consist of preparing the annual **Sustainability Report**, which is reviewed by the Sustainability Committee and subsequently **approved by the Board of Directors**.



### CSR INITIATIVE EVALUATION COMMITTEES

Two working groups composed of representatives from the operating companies, the Communications Department and the Sustainability Department.

They analyse all **initiatives from the community** and then select the most deserving, based on the values they express and the positive impact they have on the local area.

## THE SEVENTH EDITION OF THE SUSTAINABILITY REPORT

### New objectives and better assurance

**THE  
SUSTAINABILITY  
REPORT WAS  
SUBMITTED TO  
THE EXTERNAL  
AUDITOR FOR  
THE FIRST TIME,  
EARNING THE  
A+ APPLICATION  
LEVEL**

Since 2007, the ERG Sustainability Report has been published every year with the aim of **informing all of the Group's stakeholders on the progress made towards achieving our goals**, as well as on the activities carried out during the year in three distinct areas: economic, environmental and social.

Our goal has always been to improve the **extent of the information provided**: since 2011 the ERG Sustainability Report has been prepared in accordance with version 3.1 of the GRI Guidelines and this year for the first time, in order to ensure the quality and completeness of the information reported for the benefit of our stakeholders, **we submitted our report to the external auditor for review**. Having obtained the certification, we earned the **A+ application level for completeness of disclosure**.

Each report is a continuation of the previous year: our business is characterised by a medium-term perspective and therefore many activities extend beyond a single year. Our reporting activities follow this industry perspective and ERG reports on all of the results obtained during the year, even if the activities were started in the previous year, allowing us to highlight the steady progress achieved.

Like last year, in this report we have focused on issues that are strictly CSR-related, reporting only on material information relating to the governance of the ERG Group: further details can be found in other official documents published and

available on the Group's website at [www.erg.it](http://www.erg.it) (Consolidated Financial Statements, Corporate Governance Report, etc.).

The gathering of data and information is carried out under the supervision of the Sustainability Committee through the Sustainability Department and **involves all Group companies and departments**. The document is approved by the Board of Directors of ERG.

### METHODOLOGICAL PRINCIPLES

The 2013 version of the Sustainability Report is prepared in accordance with the Sustainability Reporting Guidelines GRI 3.1, including the indicators required by the EUSS (Electric Utilities Sector Supplement), and published in 2011 and 2009 respectively by the GRI.

The **financial data** are taken from the Consolidated Financial Statements, prepared in accordance with IAS/IFRS accounting procedures and subject to audit. The **social and environmental information and data** contained in the document refer to the subsidiaries as at 31 December 2013, unless otherwise indicated in the tables. The joint ventures TotalErg S.p.A. and LUKERG Renew GmbH are excluded.

The **main atmospheric emissions** are calculated through continuous measurements at emission points and, where necessary, by intermittent measurements combined with estimates that take into account both the combustion

**WE ALWAYS  
USE THE SEVEN  
PRINCIPLES OF  
INFORMATION  
QUALITY AS A  
GUIDE WHEN  
DRAFTING THE  
REPORT**

systems and the type of fuels used. CO<sub>2</sub> emissions are certified by an independent third party, as provided for by law.

The **operating parameters of thermal power plants are taken from the plant's management and reporting systems.**

In this report, only one set of data is excluded: that relating to the wind energy companies **operated by LUKERG Renew** (located in Bulgaria and Romania), which ERG does not control.

This exception is due to the importance of such wind farms in the corporate business context: they represent one of the points around which the diversification of regulatory and meteorological risk is centred (economic sustainability), they contribute to reducing emissions (environmental sustainability), and the construction sites represented the commitment to safety by ERG Renew personnel (social sustainability).

In the appendix to this Report, some information and data relating to TotalErg are provided, which, although excluded from the scope of this report, were considered appropriate to be included.

In keeping with previous reports, we have continued to use the **seven principles of information quality** (materiality, comprehensiveness, balance, comparability, accuracy, timeliness and clarity) in order to produce documents that are more accessible for our stakeholders.

## REPORT DISTRIBUTION

We believe that the value of the contents of this Report is essential to help our stakeholders understand how the Group approaches sustainability issues and how

we incorporate them into our everyday activities. For this reason, great importance is attached to the distribution of the document, either via the **intranet for internal stakeholders** or via the company's **website [www.erg.it](http://www.erg.it) for all external stakeholders.**

This year, in order to make sustainability issues more immediate and easier to understand, an animated **infographic will be available on the internet**, which will link our business activities with sustainability KPIs.

We will continue our policy to reduce the number of printed copies made of this Report, remaining close to "zero copies".

## NEW BUSINESS PLAN, NEW OBJECTIVES

In 2006, we defined our Sustainability objectives for the next five years.

In 2011, these objectives were then extended by one year due to the Group's business transformation process, which is still underway.

In December 2012, we presented the new business plan for the period 2013-2015 and in April 2013, the Sustainability Committee approved the new medium-term objectives. These objectives have the same timeframe as the business plan and encompass all of the so-called "triple bottom line" areas (economic sustainability, environmental sustainability and social sustainability).

Over the coming years, we will continue to report annually on the level of achievement of our objectives, adapting and updating them in line with the new challenges for our business and our reference framework ■

## SUSTAINABILITY COMMITMENTS

	AREAS OF COMMITMENT	STATUS AS AT 31/12/2013
HSE POLICY	<ul style="list-style-type: none"> <li>Extend ISO 14001 and OHSAS 18001 certification to the entire ERG Group and integrate existing certifications in the areas of thermoelectric and renewable power generation.</li> </ul>	<ul style="list-style-type: none"> <li>EMAS registration commenced for ERG Power, certification for ERG S.p.A. has been temporarily delayed.</li> </ul>
BUSINESS STRATEGY	<ul style="list-style-type: none"> <li>Consolidate the Group's business leadership in the production of electricity from renewable sources.</li> </ul>	<ul style="list-style-type: none"> <li>Continued increase in wind energy installed capacity (1,340 MW installed of which 1,087 in Italy).</li> </ul>
INNOVATION AND DEVELOPMENT	<ul style="list-style-type: none"> <li>Follow the Group's evolution and transformation, completing research and development activities and identifying and evaluating new business opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>Continued overseas expansion in the renewable energy sector, entry into new markets under assessment.</li> </ul>
ENERGY EFFICIENCY	<ul style="list-style-type: none"> <li>Contribute to improving the energy efficiency of thermoelectric power plants through process innovation interventions.</li> </ul>	<ul style="list-style-type: none"> <li>Continued improvement in the efficiency of thermoelectric power plants (-20% of fuel per MWh produced with regard to the assets before CCGT).</li> </ul>
SUPPLIERS	<ul style="list-style-type: none"> <li>Consolidate the supplier qualification and assessment system based on objective principles and with attention to aspects relating to Health, Safety and the Environment.</li> </ul>	<ul style="list-style-type: none"> <li>Update of the supplier selection process commenced. System of sanctions introduced for non-compliance with health and safety requirements during operations.</li> </ul>
EMISSIONS	<ul style="list-style-type: none"> <li>Avoid 2.5 million tonnes of CO<sub>2</sub> emissions in the period 2013-2015 and a total of approximately 4 million tonnes since ERG's entry into the wind energy market (2006 baseline).</li> </ul>	<ul style="list-style-type: none"> <li>At the end of 2013 about 1 million tonnes of CO<sub>2</sub> emissions were avoided through the production of energy from renewable sources, with a cumulative result (since 2006) of 2.3 million tonnes.</li> </ul>
	<ul style="list-style-type: none"> <li>Consolidate the exclusive use of gaseous fuels and reduce atmospheric emissions (at the SA1Nord power plant operated by ERG Power).</li> </ul>	<ul style="list-style-type: none"> <li>Revamping of the SA1N1 power plant completed, which will come into full operation in 2014.</li> </ul>
EFFLUENTS AND WASTE	<ul style="list-style-type: none"> <li>Complete the optimisation of the management of wastewater deriving from process activities, maximising the reduction of pollutants even before the wastewater is sent to the treatment plant (ISAB Energy).</li> </ul>	<ul style="list-style-type: none"> <li>Technical solution defined for the plant to reduce the levels of COD present in the wastewater sent to the IAS treatment plant.</li> </ul>
	<ul style="list-style-type: none"> <li>Adopt efficient systems and technologies to reduce the volume of waste produced (at the ERG Power SA9 plant and the ISAB Energy plant).</li> </ul>	<ul style="list-style-type: none"> <li>Filter purification of sludge arising from the maintenance of the tanks implemented, obtaining a reduction in weight of about 25%. Recovery of vanadium present in the maintenance sludge.</li> </ul>
SAFETY	<ul style="list-style-type: none"> <li>Consolidate the safety culture, both within the company by pursuing the objective of "zero injuries", and for third party companies through monitoring programmes and audits.</li> </ul>	<ul style="list-style-type: none"> <li>In 2013, zero injuries were recorded for employees in the wind energy sector. Around 1,700 security checks were carried out in the field on the activities of contractors.</li> </ul>
	<ul style="list-style-type: none"> <li>Enhance and develop the know-how of ERG's human capital in line with the company's strategic direction.</li> </ul>	<ul style="list-style-type: none"> <li>Nearly 27 thousand hours of training delivered in 2013, an average of five days' training per person.</li> </ul>
PEOPLE	<ul style="list-style-type: none"> <li>From 2013 onwards, implement tools for monitoring and reporting on the corporate culture in order to strengthen ERG's strategic identity.</li> </ul>	<ul style="list-style-type: none"> <li>Analysis of ERG's corporate identity carried out in 2013.</li> </ul>
	<ul style="list-style-type: none"> <li>Adopt feedback and talent management systems to support the process of change and reorganisation of the Group.</li> </ul>	<ul style="list-style-type: none"> <li>New "People" portal launched to manage the professional development of employees.</li> <li>Management feedback process for employees with significant organisational roles.</li> </ul>
COMMUNICATION	<ul style="list-style-type: none"> <li>Make contact with and inform our stakeholders in an increasingly complete, transparent and timely manner.</li> </ul>	<ul style="list-style-type: none"> <li>The feedback obtained on our website has improved every year. In 2013 we reached 11th place in the Webranking table.</li> </ul>
COMMUNITY	<ul style="list-style-type: none"> <li>Contribute to the development of local communities through social responsibility initiatives at a local level.</li> </ul>	<ul style="list-style-type: none"> <li>"Go with the wind" project launched to provide information on energy and wind power to 13-year old school children.</li> </ul>

# 1

## ECONOMIC RESPONSIBILITY

---

10,068

MILLIONS OF EURO  
OF ECONOMIC VALUE  
DISTRIBUTED

1

MILLIONS OF EURO  
OF COMPENSATION  
FOR THE COMMUNITY

1,340<sub>MW</sub>

OF INSTALLED CAPACITY  
FROM RENEWABLE SOURCES

9,208<sub>GWh</sub>

OF ELECTRICITY  
GENERATED

22%

ITALIAN WIND FARMS  
LOAD FACTOR

## ECONOMIC VALUE GENERATED AND DISTRIBUTED

### ADJUSTED REPLACEMENT COST (millions of Euro)

	2013	2012	2011
<b>Production value</b>	<b>10,385</b>	<b>12,375</b>	<b>11,257</b>
<b>Economic value distributed</b>	<b>(10,068)</b>	<b>(12,132)</b>	<b>(11,095)</b>
Production costs	(9,597)	(11,689)	(10,726)
Compensation of personnel	(154)	(162)	(180)
Compensation of public administration	(136)	(149)	(47)
Compensation of debt capital <sup>(1)</sup>	(113)	(66)	(74)
Compensation of risk capital <sup>(2)</sup>	(68)	(63)	(67)
Compensation of the community	(1)	(3)	(2)
<b>Economic value withheld by Group</b>	<b>317</b>	<b>243</b>	<b>162</b>
Amortisation and depreciation	291	242	247
Compensation of the company	26	1	(85)

(1) Interest paid and other financial expenses for indebtedness.

(2) Overall dividends distributed by the Group.

	2013	2012	2011
<b>Net value added</b>	<b>10,385</b>	<b>12,375</b>	<b>11,257</b>
Production costs	(9,597)	(11,689)	(10,726)
Compensation of personnel	(154)	(162)	(180)
Compensation of public administration	(136)	(149)	(47)
Compensation of debt capital	(113)	(66)	(74)
Compensation for the community	(1)	(3)	(2)
Amortisation and depreciation	(291)	(242)	(247)
<b>Result before third party interests</b>	<b>94</b>	<b>64</b>	<b>(18)</b>
<b>Result of third party shareholders</b>	<b>(56)</b>	<b>(52)</b>	<b>(31)</b>
<b>Net Group result</b>	<b>38</b>	<b>12</b>	<b>(49)</b>

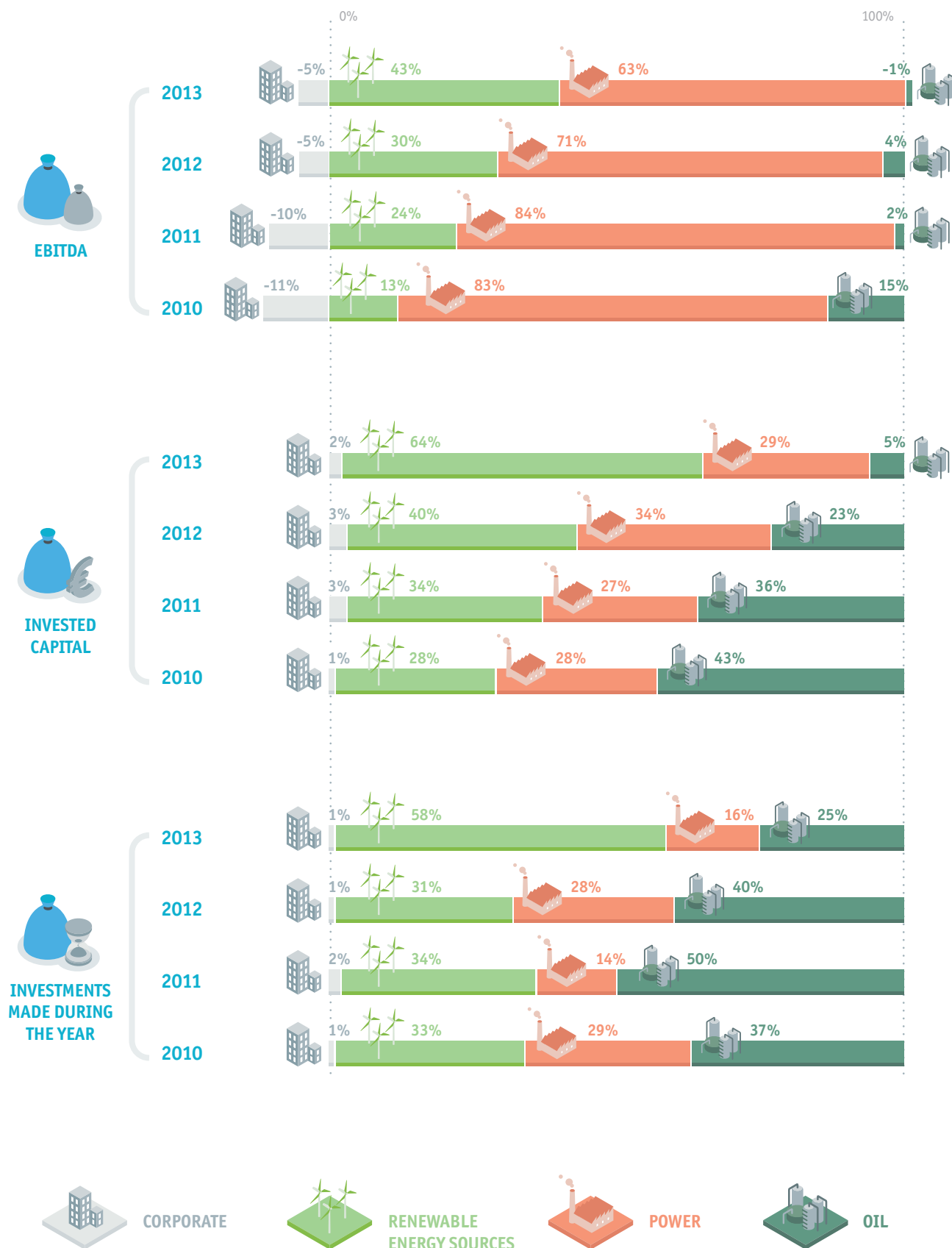
#### ERG AND ECONOMIC RESPONSIBILITY

Our strategy is to create a diversified energy Group, whose main objective is to create lasting, sustainable value by increasing profitability and continuously reducing its dependence on volatile external factors, and through the balanced management of its portfolio.

ERG's growth strategy is strongly focused on renewable energy sources, with particular focus on the wind energy ■



## ERG: KEY ECONOMIC INDICATORS

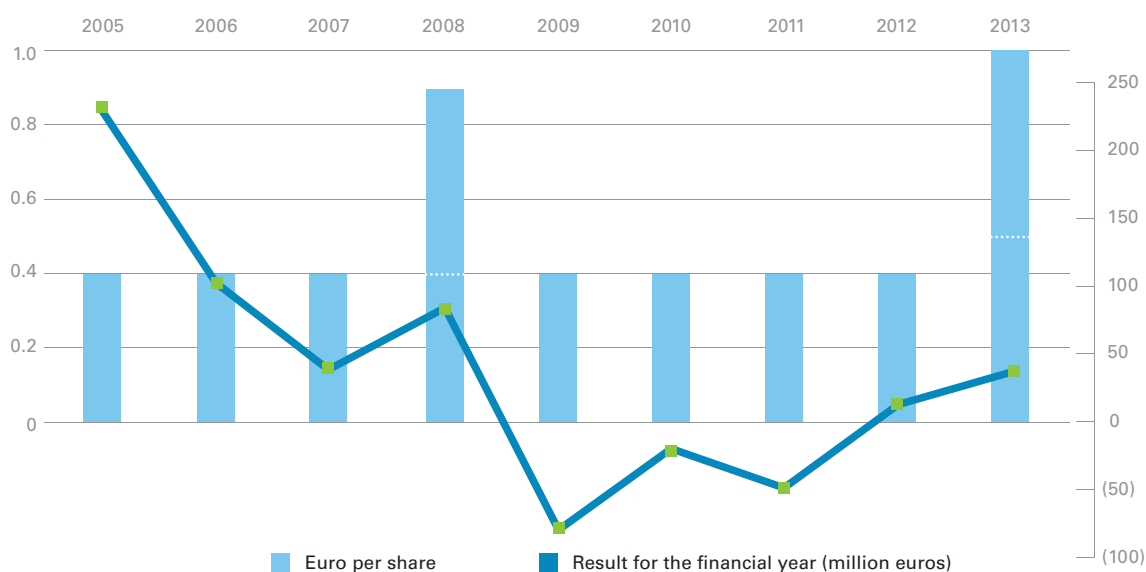


## ERG'S STOCK MARKET PERFORMANCE

ERG VS. STOXX ENERGY INDEX, FTSE ALL SHARE AND FTSE MID CAP - % VARIATION FROM 1/1/2013 TO 10/3/2014



SHAREHOLDER COMPENSATION TRENDS IN COMPARISON WITH ANNUAL FINANCIAL RESULTS



### COMPENSATION OF SHAREHOLDERS

Our Group has always followed a very prudent asset management policy in order to guarantee the long-term continuity of the company. An analysis of the financial results over the years and related distributed dividends provides further evidence of the success of this prudential approach. In the recent years, ERG has been able to satisfactorily compensate the capital invested by its shareholders with an increasing ordinary dividend in 2013 and with an extraordinary dividend of 0.50 Euro per share ■

## DIALOGUE WITH THE FINANCIAL COMMUNITY

### The Investor Relations Department ensures transparent and timely communication with analysts and investors

IT IS IMPORTANT  
TO INFORM THE  
MARKET OF  
OUR BUSINESS  
STRATEGIES TO  
MAINTAIN OUR  
VALUE

Relations with analysts and investors have always been a priority for ERG:

the Investor Relations Department has the objective of ensuring maximum transparency and timeliness in the communication of relevant information on all our business activities to the financial community, in compliance with current regulations, in order to facilitate their assessments and investment choices.

In 2012, the Group presented its strategic plan for the period 2013-2015, which represented an important opportunity to communicate with the Market by providing economic and financial performance data, as well as the Group's strategic guidelines and growth prospects.

To maintain our value, in fact, it is essential to raise awareness among the financial community with regard to our business strategy and be prepared to respond to questions from analysts and investors, especially in situations of excessive stock market fluctuation and the current economic downturn.

#### FINANCIAL COMMUNICATION TOOLS

We organise different types of contact to communicate with investors and financial analysts, including one-to-one relationships and national and international **roadshows**.

Following the presentation of the strategic

plan for the period 2013-2015, we identified an increase in interest for the Group and its activities, thus demonstrating the public appreciation for our strategic direction: the number requests for meetings increased from analysts and investors wishing to receive more information on our equity story.

During 2013, the Investor Relations Department met - in most cases together with Top management - **89 investment companies (of which 63 outside Italy)** by participating in 8 roadshows and conferences organised by brokers in Italy and abroad.

The financial community's focus on our activities and strategies has continued in 2014, further **stimulated by the rapid expansion of the wind energy sector**, the continued **restructuring of our asset portfolio** (with the final exit from the coastal refining sector through the sale of the ISAB Refinery, which took place in late 2013), and the conclusion of agreements for the **sale of the ISAB Energy plant**.

**Conference calls** are also often used as a tool to inform the Market.

They are often requested by individual analysts and investment companies and are very useful for providing clarification on the Group's economics, strategies and activities, however always in compliance

with current regulations on price sensitive data.

The Investor Relations Department is not just available for financial professionals, it also manages the relationship with any private investors – whether real or potential – who are interested in committing a portion of their capital, thus demonstrating their confidence in the company. The contact details of the Investor Relations team are listed in all relevant areas of the website and in press releases, precisely to facilitate communication with all interested parties.

The company website **www.erg.it** also provides complete and up to date information. Structured according to best practice with specific sections dedicated to the Press, Investor Relations and Corporate Governance, all of the company information required to be published by law can be found on the website, as well as all of the necessary documents to provide a comprehensive overview of our company and its activities: press releases, financial statements and reports, corporate company presentations and documents relating to Shareholders' Meetings.

It also allows interested parties to view presentations of the quarterly financial results, conducted via webcast and conference call, and then transcribed in full.

In order to emphasise the transparency of communication, **the webcast is available to the public** and can be followed live on the website ■

#### THE IMPORTANCE OF CSR

The role played by dialogue, led by the Sustainability Department, is central in this context: the department is not just dedicated to financial shareholders, it also engages with assessors, a category of stakeholder that focuses its interest not just on the economic aspects of corporate management but also on the Corporate Social Responsibility (CSR) policies of companies.

In 2010, ERG was included in the "Benchmark" and "Leaders" indices in the new series of FTSE ECPI Italia indices, obtaining a positive assessment that has been confirmed in subsequent years.

ERG also offered support to other ratings companies to improve the understanding of CSR issues: we shared preliminary assessments and provided the necessary support to provide them with further information on various issues ■

**THE INVESTOR  
RELATIONS  
DEPARTMENT  
HAS ALREADY  
MET WITH 24  
INVESTMENT  
COMPANIES  
IN THE FIRST  
THREE MONTHS  
OF 2014**



## OUR COMMITMENT TO CHALLENGE THE ORDINARY

### Mergers & Acquisitions: supporting business development through the management of extraordinary transactions

**WE HAVE  
FINALISED 20  
TRANSACTIONS,  
WHICH HAVE  
ALLOWED US  
TO REDESIGN  
OUR BUSINESS  
MODEL**

“ERG’s strategy aims to continue the path to growth in the segment through the acquisition of assets and the construction of new plants.”

ERG’s Report on Operations explains the ways in which the Group has purchased and sold assets, found partners and, more generally, developed its business activities.

The M&A Department (Mergers & Acquisitions) manages these transactions which, by their very nature, fall outside the scope of the company’s ordinary activities (hence their definition as extraordinary), and through which we aim to **achieve our strategic, business, economic and financial objectives.**

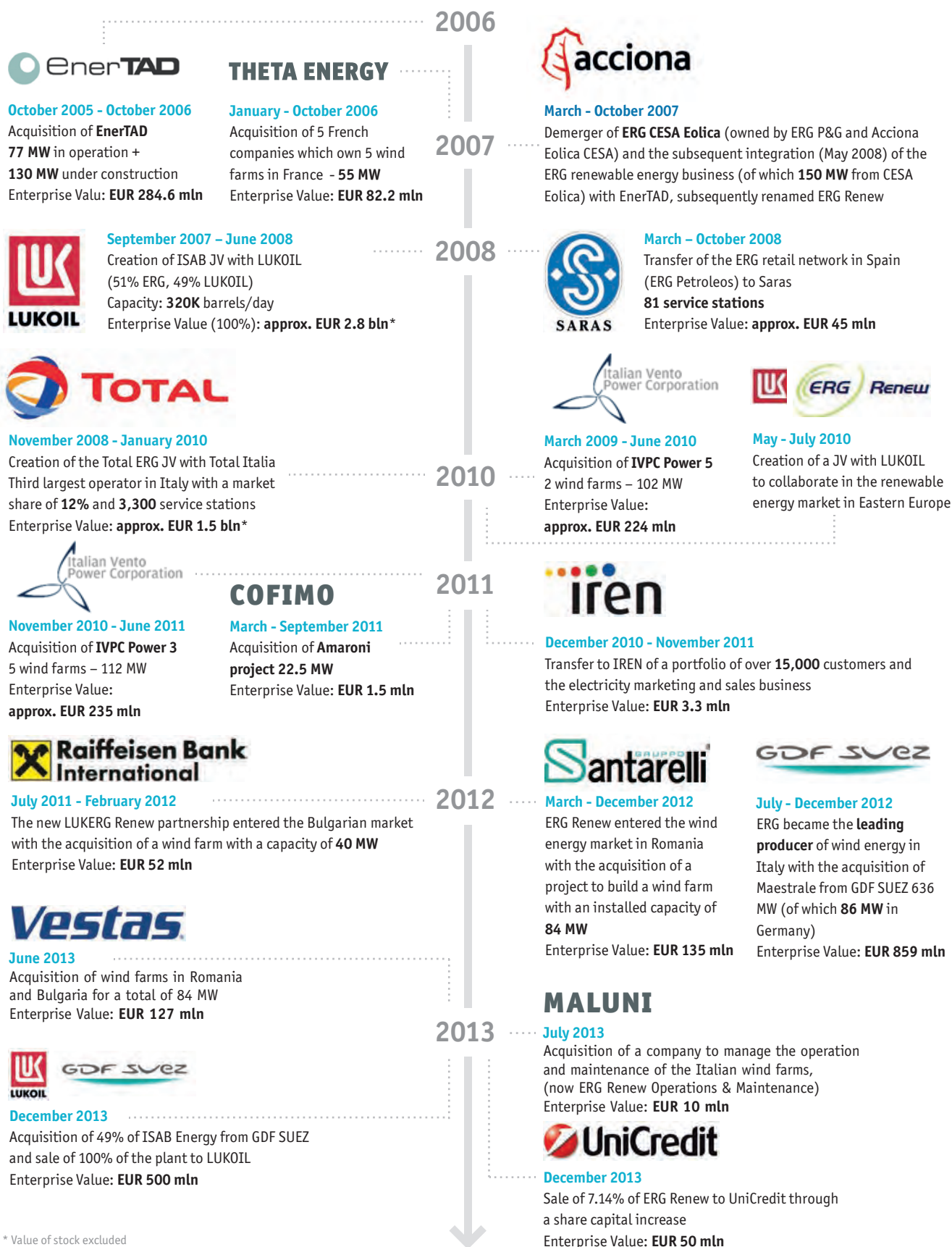
The department combines a mix of technical (hard skills) and human (soft skills) expertise, which have accompanied our company on its path towards growth and diversification. In eight years, the **M&A Department has managed over 20 transactions with a cumulative value of approximately 7 billion euros**, which has allowed us to redesign our business model by moving away from the Oil sector towards the renewable energy market, to involve financial and/or industrial partners in development projects, to achieve synergies and more efficient asset structures, and to enter new markets, thus achieving a **leading position in the Italian and European wind energy market** ■

Amaroni wind farm (CZ)





## MAIN M&A TRANSACTIONS CARRIED OUT BY ERG





## ERG GROUP PLANTS: PRODUCTION AND AVAILABILITY

PLANT	INSTALLED CAPACITY IN MW	PRODUCTION GWh			LOAD FACTOR WIND FARMS <sup>(1)</sup> TECHNICAL AVAILABILITY POWER PLANTS			SYSTEM	CO <sub>2</sub> ALLOCATION kt/year
		2013	2012	2011	2013	2012	2011		
WIND – ITALY									
Campania	239	437	304	99	21%	24%	18%	green certificates	
Calabria	120	246	213	72	23%	24%	15%	green certificates	
Puglia	249	497	369	295	23%	27%	21%	green certificates + CIP 6	
Molise	79	164	103	86	24%	29%	25%	green certificates	
Basilicata	89	103	–	–	21%	–	–	green certificates	
Sicilia	198	336	69	58	19%	21%	18%	green certificates	
Sardegna	111	220	–	–	23%	–	–	green certificates	
Other	2	7	15	16	13%	16%	18%	green certificates	
Total Italy	1,087	2,010	1,073	627	22%	25%	20%		
WIND - OVERSEAS									
Germany	86	155	–	–	21%	–	–	feed-in tariff	
France	64	127	128	113	23%	23%	–	feed-in tariff	
Bulgaria (50%)	27	57	22	–	29%	25%	–	feed-in tariff	
Romania (50%)	76	54	–	–	31%	–	–	green certificates	
Total Wind Overseas	253	393	150	113	22%				
TOTAL RENEWABLE SOURCES	1,340	2,403	1,223	740	–	–	–		
THERMOELECTRIC									
ERG Power	480	2,663	2,920	3,015	94.9%	96.4%	98.2%		
ISAB Energy	528	4,142	4,077	3,655	93.5%	89.9%	84.9%	CIP 6	190
TOTAL THERMOELECTRIC	1,008	6,805	6,997	6,670					
TOTAL ELECTRICITY PRODUCTION		9,208	8,220	7,410					

(1) The total value is calculated as the weighted mean against the installed capacity of the farm.

## ENERGY MANAGEMENT IN THE LIBERALISED ELECTRICITY MARKET

### A Department dedicated to the integrated management of utilities and markets

WE SELL 600 GWH/YEAR OF ELECTRICITY, 2 MILLION TONNES OF STEAM, 3 MILLION M<sup>3</sup> OF DEMINERALISED WATER AND 400 MILLION M<sup>3</sup> OF NATURAL GAS TO 15 INDUSTRIAL CUSTOMERS

In a constantly evolving electricity and gas market, the availability of specialists - recognised experts in the field who are able to predict future trends - is an increasingly important element: this is why ERG decided to establish an Energy Management Department.

The objective of this new department is the commercial management of commodities in the form of electricity, steam and fuel. In particular, it **sells electricity** through spot contracts (immediate delivery) and term contracts (delivery deferred over a period of time), **supplies natural gas, electricity and steam** to customers based at the industrial site in Priolo Gargallo and **procures the energy and fuel needed for production**.

While in the past, any excess energy produced with respect to site consumption was sold to wholesalers as "surplus", today, through the Energy Management Department, ERG is engaged directly as a **primary operator in the liberalised electricity market**. The focus, therefore, is no longer exclusively on customers at the Priolo Gargallo site, but on the entire electricity market and, more generally, on all new related markets.

In this context of change, the Energy Management Department is divided into five different areas:

#### Commercial

The Commercial area manages the **sale of products to end customers**, both in terms of utilities (electricity, steam and demineralised water) and natural gas. The Group has about 15 industrial customers at the Priolo site, which purchase around 600 GWh of electricity, 2 million tonnes of steam, 3 million m<sup>3</sup> of demineralised water and approximately 400 million m<sup>3</sup> of natural gas.

In order to optimise the Group's results, the Energy Management Department has taken responsibility for the sale of all of the electricity produced, including that of ERG Power, ERG Renew and the subsidiaries (note that ISAB Energy sells all of its production directly to the GSE). It also manages the dispatching of electricity produced from the gas-turbine plant at the ISAB refinery, also located at the Priolo Gargallo site.

#### Fuel procurement

The company **purchases approximately 1.1 billion m<sup>3</sup> per year of natural gas** through a number of multi-annual contracts with major energy companies of durations varying from 2 to 10 years. A further 2% is purchased on the spot market: about 70% is destined for use by ERG Power's CCGT plant, with the remainder by the ISAB Energy plant and the adjacent refinery.

In addition to natural gas, this area manages the purchase of asphalt (about

1 million tons per year) from the ISAB Sud refinery, which is used to produce syngas to be used at the ISAB Energy plant.

### Production planning and participation in energy markets

Since electricity is a commodity that cannot be stored, at a system level, production must always equal consumption. Efficient production planning is therefore an essential requirement.

To this end, the Energy Management Department is responsible for the **integrated management of electricity production**, including thermoelectric power (around 7 TWh per year produced by 1,000 MW of installed thermoelectric capacity) and wind power (about 2 TWh per year from wind farms with installed capacity of around 1,000 MW).

The main markets in which we participate are:

- **Day Before Market (MGP)**, managed by the Energy Markets Operator (Gestore dei Mercati Energetici, GME), where most of the purchase and sale transactions of electricity take place on a daily basis;
- **Dispatching Services Market (MSD)**, an instrument through which the company responsible for the

transmission and dispatching of electricity on the high and very high voltage network in Italy procures the resources necessary to manage and control the national electricity system.

### Participation in environmental markets

The Energy Management Department also operates on all the environmental certificates markets, namely:

- **Emissions Trading System**: the European system to manage and contain climate-changing emissions, which handles about 3 million tonnes of CO<sub>2</sub> allowances per year;
- **Green Certificates Market**: this market is necessary to fulfil the legal obligations imposed on thermoelectric power plant operators. Around 300,000 green certificates are traded every year;
- **Energy Efficiency Certificates (TEE)**: also referred to as “white certificates,” which certify the energy savings attained.

### Back office

This area ensures the **proper contract management** of purchase and sale transactions, verifying the metering and pricing data and managing the invoicing procedures ■

ERG Power:  
electrical substation



## SUPPLY & TRADING: NEW OPPORTUNITIES

### A Business Unit to build on our experience in the oil market

THE SUPPLY  
& TRADING  
BUSINESS UNIT  
PROVIDES  
ERG WITH  
OPPORTUNITIES  
FOR GROWTH IN  
A NEW SECTOR

The economic and financial crisis, coupled with the collapse in domestic demand, has exacerbated the impact of **surplus refining capacity in Europe** over the past five years. The outlook remains uncertain, especially for operators whose activities are not integrated with the upstream supply chain, both as regards the orientation of European energy policy and the competitive advantage of the supersites in the Middle East and the Far East and large American refineries.

For this reason, we have taken further steps to diversify our activities with a view to **developing our Supply business by initiating Trading operations in niche markets**.

The focus is mainly on **fuel oil and crude oil in the Mediterranean**, and 2010 and 2011 were the testing ground for us to acquire the necessary knowledge and launch these new operations. The presence of ISAB, albeit through a joint venture, ensured flexibility and provided important support during this initial phase.

In parallel, the internal organisational structure was also modified to reflect the new skills and various objectives.

In 2012, we began the **expansion phase in terms of volumes and suppliers** and the segment began to generate positive results. In 2013, we built on our progress so far, laying the foundations to strengthen the business by ensuring the availability of

storage capacity at the Fiumicino terminal owned by TotalErg, unloading the first 100 kt fuel oil carrier, increasing the volumes and margins and mastering the use of derivative instruments as required by internal policy.

From 2014 onwards, we will see further changes and transformations, such as the **consolidation of fuel oil activities and the start of jet fuel activities**, the identification of new customers and suppliers, and the exploitation of new refineries in the Middle East.

In addition to traders that operate directly on the markets through an extensive network of direct contacts and ad hoc IT tools, the Shipping and Vetting departments provide an essential contribution, taking care of the charter and management of crude oil vessels and products and ensuring compliance with ERG safety policies.

Two further departments have also been in place for a while now: Performance and Control, which is responsible for analysing the overall results and the various deals in great detail, and Business Development, which supports and stimulates business development, facilitating access to new markets.

The establishment of the Supply & Trading Business Unit has allowed ERG to capitalise on its experience in the oil industry by identifying opportunities for growth in a new and challenging sector ■

## GOOD FORECASTING: THE KEY TO GOOD PERFORMANCE

### Scheduling the efficient maintenance of wind farms by juggling the many variables associated with wind

#### WE SCHEDULE THE MAINTENANCE OF OUR WIND PARKS ON DAYS WITH LIGHT WIND CONDITIONS

There are two key factors to obtaining good **performance** from wind farms: ensuring **optimum operation** by means of maintenance activities carried out at suitable times using appropriate methods, and **maximising the energy produced** by increasing plant uptime.

Our objective is to ensure that these two aspects materialise in the majority of cases and to do so, it is necessary to plan production and interventions according to the wind conditions.

The annual maintenance schedule establishes the periods during which these tasks must be performed, identifying the weeks in which it is necessary to complete the scheduled work. Our responsibility is to **identify the days with light wind conditions** and concentrate the interventions in these periods in order to operate the machines at full capacity at times with ideal energy producing conditions.

Moreover, we should not overlook the fact that the impact of turbine maintenance is very different from that of intervention work on a substation: in the first case, only the turbine on which maintenance activities are being performed is taken out of service, while in the second the entire farm ceases activity, which obviously incurs a more significant economic loss.

The scheduling of the down time of the turbines must therefore take into account

not just the weather forecast but also the requirement to interface with the individuals carrying out the activities: for this reason we have **internalised these maintenance activities** which, in addition to acquiring **know-how**, also ensures the flexibility of personnel who, being exclusively dedicated to our turbines, are available in the manner, time and place agreed and are coordinated by a single operations department.

However, the issues don't end there: with regard to the maintenance of the substation, we need to consider the requirements of Terna (the national transmission network operator). Indeed, in order to authorise the activities to be carried out, the operator requires at least a week's notice. Considering that the wind conditions vary from hour to hour and the forecasts we receive are only very reliable for the first three days, this aspect clearly has a significant impact on identifying the best time period during which to schedule maintenance activities.

In this context already so full of variables, legislation is also imposed that requires careful **hourly production forecasting for our plants**, which exposes us to possible penalties if the information we provide is not realistic.

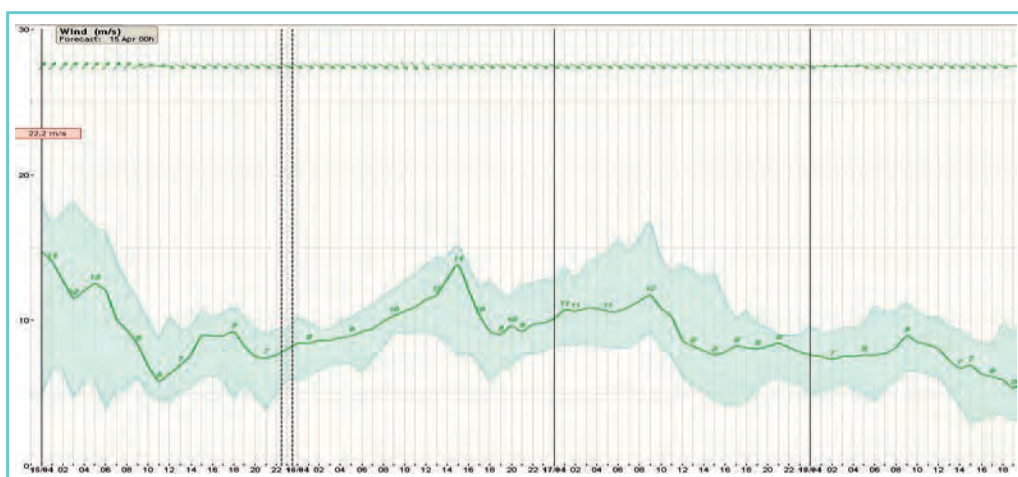
Precisely for this reason, we considered it necessary to introduce an **IT system**



capable of conveying via a single platform all of the information and operating logic needed to help those responsible for managing the maintenance scheduling activities. The system will also facilitate production forecasting for each wind farm: this information is useful for Energy Management in order to participate in the energy markets.

It is therefore clear that the scheduling activity goes through different phases and receives input from several different

sources: **macro planning**, which implements technical guidelines for the maintenance of specific plants, and **daily planning**, which aims to maximise electricity production in accordance with the maintenance schedule. When both of these phases satisfy all relevant requirements, we can say that the performance of our facilities is at a maximum: we have therefore reached the true goal of maintenance planning based on wind forecasts ■



## PERFORMANCE CONTROL

A determining factor in the improvement of wind farm production is the ability to analyse production and performance data and use the relevant information to improve their management.

The SCADA2 project will be the focal point of the improvement process with regard to reporting: KPIs currently extracted from the first level systems and then aggregated to obtain custom results will be directly generated from a centralised system that collects data from all of the Group's wind farms. This comprehensive database will grow even further over time, allowing for a much deeper level of analysis.

The following indicators are currently monitored:

**Load factor** - the % of equivalent hours during which the plant produced at full capacity during a given period (month, year);

**Energy availability** - the % of energy actually produced compared to the potential production for the given period, calculated based on wind levels (final balance);

**Time availability** - the % of total time for the given period in which the facility was available for production ■



## SCADA2, A SYSTEM TO REMOTELY MONITOR AND CONTROL WIND FARMS

Manages the data from all of the plants to determine asset performance

MANAGEMENT  
OF EACH  
TURBINE FROM  
THE HEAD  
OFFICE IN  
GENOA AND  
PERFORMANCE  
CONTROL  
THROUGH THE  
STORAGE OF  
HISTORICAL  
DATA

SCADA2 stands for **Supervision Control And Data Acquisition**, a system designed to manage the data from all of our wind farms in a homogeneous and uniform manner, regardless of the different technologies installed in the field.

The system does not replace the “standard” systems installed by suppliers, rather it complements and enhances their functionality: it is “positioned” at a higher level and adds the functionality of **24/7 Real Time remote control** of the plants and the complete **analysis** of all data recorded in order to quickly and effectively determine **asset performance**.

The project consists of three main areas:

### Connectivity

The system contains all the software and hardware components, telecommunication devices and communication protocols required to transmit the information from the various wind farms to the head office in Genoa in a standardised and homogeneous format.

### Real Time remote control

Allows the 24/7 monitoring of assets from dedicated control rooms. Its main features are to:

→ **capture all the data related to the turbines** (wind speed and direction, position of the nacelle, active and reactive power, RPM of the generator, etc.), machine status (run, ready, stop,

emergency, service, etc.), and events/alarms (error code from the turbine);

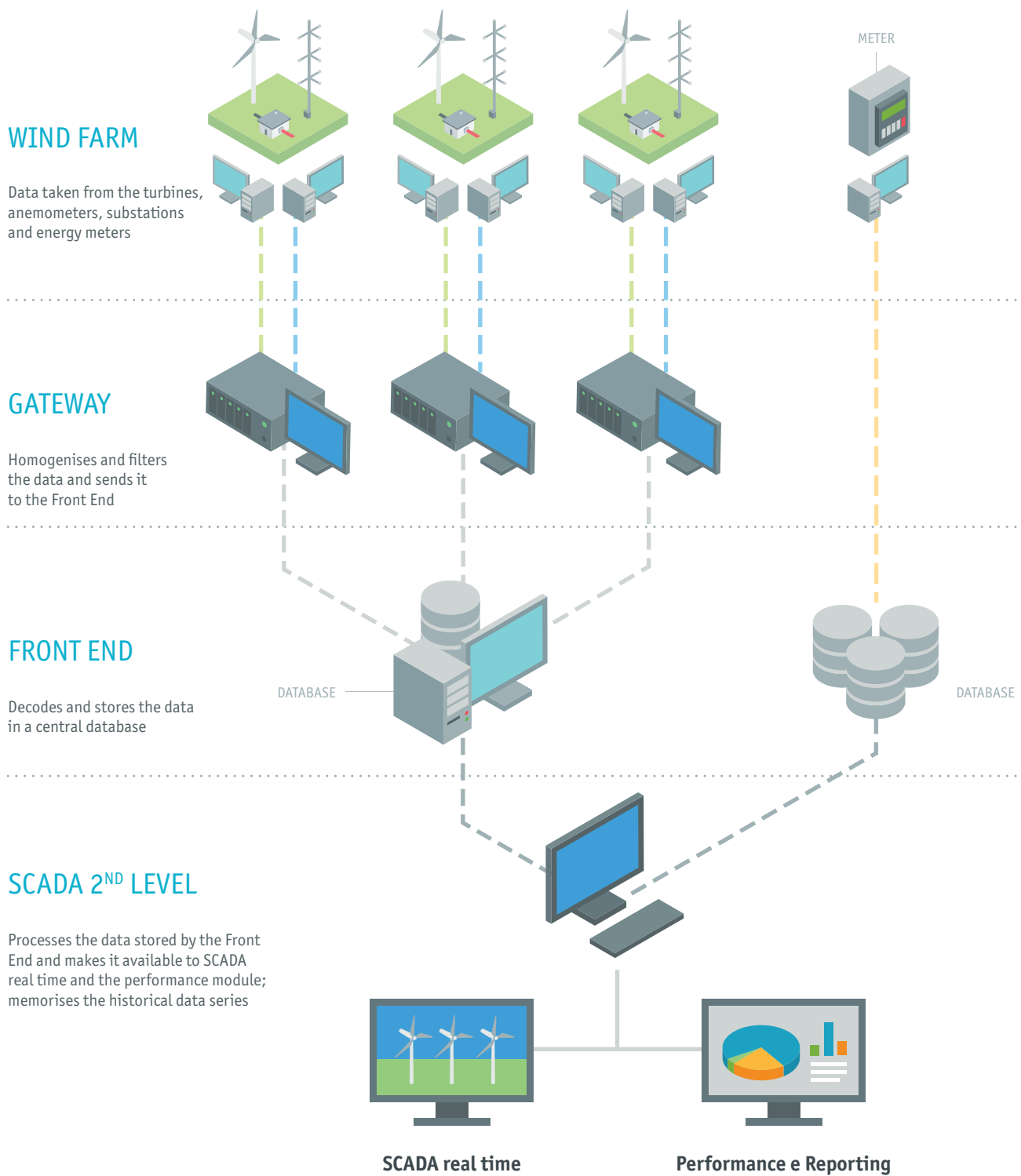
→ **monitor the status of the medium and high voltage switching devices** and the main electrical parameters (active and reactive power, voltage and phase currents, **cosφ**, network frequency, etc.), the exceeding of thresholds and the possible causes of **trips**;

→ **send commands**: stop, reset and start the turbines, open and close the substation switches, apply the active power limitations to meet the constraints imposed by the Network Operator, etc.;

→ **monitor the status of weather stations**, either isolated or connected to the wind farm (towers with different types of sensors installed at different heights: wind speed and direction, atmospheric pressure, temperature, humidity, etc.);

→ **view and manage alarms**, which are also notified to operators in the control room and in the field; these notifications will be sent by the system when, for example, a threshold is exceeded, such as temperature or pressure of a specific component of the turbine, or when an operating mechanism of the electrical substation is opened;

→ **analyse all of the data** for a set period of time, obtaining the trends of the variables, aggregated curves, list of events/alarms that occurred for both the turbines and the electrical substation, etc.



### Data and performance analysis

Includes all of the processing and statistical analysis of the data, the calculation of key performance indicators" (KPIs), building of graphs and comparisons of planned and actual **performance** curves. Thanks to the flexibility of the system, the analyst can generate any kind of reports required. Specifically, the following are the main activities that can be performed:

- **analysis of the power curves of the turbines** to compare the calculated power curves, reference curves and curves guaranteed by the manufacturer;
- **graphs to compare one or more variables**, which allow you to superimpose heterogeneous parameters from different sources (turbines, electrical substations, anemometers, etc.) to assess the efficiency of the machines;
- **display and processing of events/alarms**;
- **calculation** of technical and contractual **availability** (for example, on the basis of time or energy);

- **calculations of the production potential** of individual farms and losses due to faults, power limitations imposed by the Network Operator, efficiency, maintenance, etc.;
- **reporting**, with automatic monthly outputs and ad hoc reports that can be configured by the user.

To minimise the loss of data due to the malfunction of a device or a problem related to the communication lines, **temporary data storage systems** are installed on the central system, at each wind farm, and on the individual machines: SCADA2 is therefore able to retrieve the information from all three systems.

The system access profiles control the information displayed and the ability to give commands according to the roles and responsibilities assigned to the different users; all remote operations and data processing activities are tracked and a record is stored by the system ■

A wind farm substation



## ERG RENEW: PROJECT MANAGEMENT AS AN EFFECTIVE MANAGEMENT PROCESS

The methodology for adopting good practices that result in time, cost, safety and quality improvements

### PLANNING, SCHEDULING AND CONTROL: THREE STEPS TO GOOD PROJECT MANAGEMENT

When implementing projects developed by ERG Renew, the methodology used in each management phase must take into account the various conditions related to the economic and technological development phase, the construction of the plants, and the definition of the layout and detailed engineering.

It is therefore essential to apply Project Management control systems to effectively manage the overall process.

The Project Management (PM) process is grouped into three main phases: **planning, scheduling and control**.

Within each of these phases, it is important to identify the contact people involved in the management of specific areas of the process and to create the project team.

The specific feature that distinguishes the process adopted by ERG Renew from that of other entities is the creation of a “dynamic team” that **focuses the entire business organisation on achieving the ultimate goal**. The process therefore requires an “extended and shared” participation that develops for the entire duration of the project. This allows any specific problems to be analysed immediately, anticipating their impact on different areas of the **Project Control**.

The **Construction Department** of ERG Renew has identified three different levels of application of the PM techniques

for each of the phases described above.

**General Planning** involves various departments (Development, Purchasing, Engineering, environmental quality and safety, legal and finance). This task is performed during the initial phase of the project to **identify the objectives and constraints of the initiative**. The deliverable is the definition of a number of different economic scenarios, created based on the technical analysis of the project. The tools used result in the creation of a **Work Breakdown Structure (WBS) of the main phases, an Activities/Resources matrix, and a technical and economic feasibility study**.

Since the ultimate goal of the General Planning phase is to conduct an **initial feasibility study** to verify the workability and conditions of the project, safety plays a crucial role at this stage. From this point of view, each project has its own specific requirements, which depend largely on the standards adopted by each country with regard to Health & Safety.

**Scheduling** is the phase in which the following elements are implemented:

- task/responsibility matrix;
- network planning;
- Gantt chart;
- analysis of critical paths and potential problems associated with the project;
- analysis of the available resources;
- economic evaluation of the project.

**Control** is the phase in which feedback is received on the results of the analysis and feasibility studies. The first feedback that the **Project Manager** may receive with regard to the proper management of the project is contingent on the reliability of the predictions made in the early stages of the study. This level of reliability is rapidly assessed on the basis of the activities carried out immediately after project start-up by the various members of the working group.

The requirement to combine sound technical and financial project management skills has led ERG Renew to develop a team (currently in progress) with the necessary skills to provide three different levels of control.

The team ensures the direct control of the on-site project through the **Site Manager**, (first-level control) who, in constant coordination with the **Project Manager** (second-level control), establishes the detail of every study performed to date: **time schedule**, application of resource analyses, and application of quality and safety protocols.

The complexity of the projects carried out by ERG Renew has necessitated the creation of a **Cost Controlling Department** (third-level control) – currently being established – to work alongside the **Project and Site Managers**.

To monitor the physical and economic progress of construction activities, the PERT method (Project Evaluation and

Review Technique) was introduced, which assesses the hypothetical progress of the project according to “optimistic, realistic and pessimistic” estimates, defining curves that summarise the project status: the “**theoretical**” curve, the “**actual**” curve and the “**late**” curve.

From the point of view of safety standards, **ERG Renew’s Quality, Environment and Safety Department is involved in the project prior to the planning phase.**

The countries in which the Group operates, albeit inspired by EU directives, often base their practice on national standards that require the involvement of companies specialising in safety and environmental management in the country where the site is located.

For this reason, issues related to safety, quality and environmental management become **an area of study prior to the project**, which triggers the “safety design” phase, followed by the “on-site implementation” and “monitoring of work in progress” phases.

Project Management techniques constitute the most current toolset used to ensure consistency between resource use, achievement of corporate results and the evaluation of the results obtained.

The analysis of the problems and the related solutions that arise during the implementation of a project contribute to consolidating the Company’s experience – expanding the knowledge on which the next projects will be built ■

## Palazzo San Gervasio vs. Topolog - Luminita - Dorobantu - Wind farms

### PALAZZO SAN GERVASIO (POTENZA, ITALY)

Type of turbine:  
**Vestas V100 2 MW**



Rotor diameter: **100 m**

Tower height: **80 m**

Base surface area:  
**10,200 m<sup>2</sup>**

Installed capacity: **34 MW**

No. of turbines: **17**

Medium voltage cable duct:  
**30 km**

Foundation piles:  
**2,368 m**

Concrete: **10,827 m<sup>3</sup>**

Reinforcement rods:  
**1,108,400 kg**

### TOPOLOG - LUMINITA - DOROBANTU (ROMANIA)

Type of turbine:  
**Vestas V90 2 MW**



Rotor diameter: **90 m**

Tower height: **105 m**

Base surface area:  
**25,200 m<sup>2</sup>**

Installed capacity: **82 MW**

No. of turbines: **41**

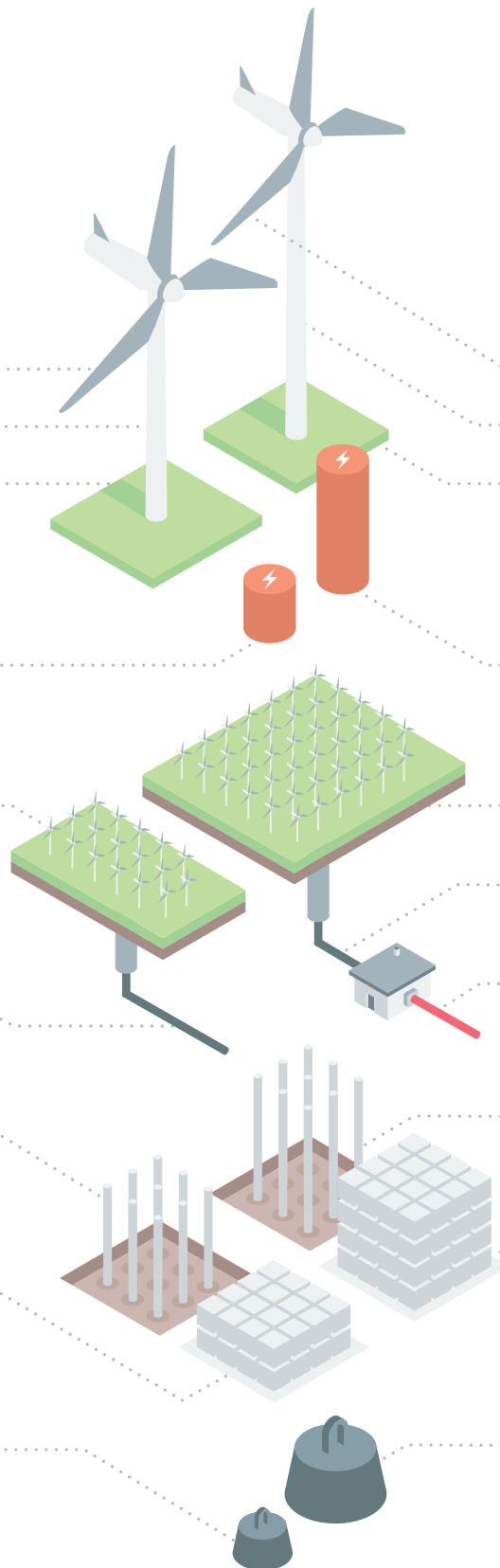
Medium voltage cable duct:  
**36 km**

High voltage cable duct:  
**18 km**

Foundation piles:  
**3,088 m**

Concrete: **20,142 m<sup>3</sup>**

Reinforcement rods:  
**1,876,904 kg**





## FROM THE RAINBOW PROJECT TO CONTINUOUS IMPROVEMENT

Committed to continuing the economic efficiency measures taken by ISAB Energy and transferring them to ERG Power

THE ACTIVITIES UNDERTAKEN WILL PROVIDE APPROXIMATELY 2 MILLION EUROS A YEAR IN SAVINGS AND COST REDUCTION

Following on from the positive results obtained with the Rainbow project, which was launched in 2011 to **improve the economic sustainability of ISAB Energy**, we decided to extend the application of this methodology by engaging in **Continuous Improvement** activities.

To achieve this objective, we established a new working group formed exclusively of internal personnel, whose aim is to rely on its own resources to identify useful, innovative solutions to improve business and operational results.

The fundamental objectives of **Continuous Improvement** are to:

- manage the development of initiatives identified within ISAB Energy;
- apply the methodologies adopted to the management of ERG Power plants.

In ERG Power, the initiative was accompanied by a specific internal communication plan to ensure the **involvement of everyone** in the design of an appropriate working methodology. Initial activities in the field included information gathering by means of interviews with personnel and suggestions received via email and through "ideas boxes".

These initial activities produced **86 suggestions for improvement**, which were then given a priority level using a

matrix taking into account their **feasibility** and **economic impact** on fixed and variable costs and revenues. Of these, 52 projects were rated as significantly attractive and 32 were selected for immediate implementation.

Each project was assigned an **owner** who, duly supported by a working group made up of internal technicians, then supervised the development and implementation of the project.

The activities implemented in ERG Power during 2013 have already produced results, contributing to savings of around 3.5 million euros. Further projects will be implemented and others will be identified in the three-year period 2014-2016: the average impact is estimated at around 2 million euros per year in increased efficiency and cost reduction ■

### CONTINUOUS IMPROVEMENT RESULTS IN ISAB ENERGY

The project, which was launched in 2011, has produced better than expected results: total savings for 2013 amounted to 17.2 million euros, with cumulative savings of around 30 million euros for the three year period 2011-2013 compared to initial estimates of around 17 million euros ■

## RISK DIVERSIFICATION

### One of the Group's points of economic sustainability

TO MITIGATE THE METEOROLOGICAL AND REGULATORY RISKS OF WIND ENERGY, OUR WIND FARMS ARE LOCATED IN DIFFERENT COUNTRIES

In over 70 years of activity, one of ERG's cornerstones of economic sustainability has always been risk diversification: stable and mature businesses have always operated alongside other more profitable businesses, combining to create an **optimum mix which sustains the Group**, even in periods of difficulty.

Today, a significant part of our business is in wind energy, a sector characterised by two types of risk: **meteorological risk** (i.e. the variability of wind conditions in areas where the wind farms are located) and regulatory risk (i.e. changes to the regulatory framework).

To manage these risks, we are **diversifying our activities from a geographical perspective** by installing wind farms in Italy, France and Germany, and also in Romania and Bulgaria through LUKERG Renew.

The table below summarises the incentive schemes available in the countries where the Group operates outside Italy ■

#### INCENTIVE SCHEME FOR THE WIND ENERGY SECTOR

Bulgaria	<i>Feed in Tariff</i>
France	<i>Feed in Tariff + Call for Tenders</i>
Germany	<i>Feed in Premium + Direct Marketing</i>
Romania	<i>Green certificates</i>

## OUR HIGH EFFICIENCY COGENERATION PLANT IN PRIOLO

### The ERG Power plant is an example of how we apply the principles of efficiency to our business activities

The Group's Combined Cycle Gas Turbine (CCGT) plant in Priolo, which has been in operation since 2010, is a prime example of the principles of **efficiency, accountability and sustainability**, which we apply to the management of all of our assets.

In fact, the Group's specific aim was to achieve an electricity and process steam production unit that makes **maximum use of the primary energy source** (natural

gas) in order to reduce the complex's fuel consumption and emissions levels.

One of the main objectives was to **reuse any available heat flow in the system** which, although not the most suitable to produce electricity, could be used to produce steam which could then be used by the surrounding industrial area or to heat the water supplied to the boilers.

This kind of approach clearly required more investment, greater plant complexity

**THE SYSTEM  
ENSURES AN  
OVERALL  
THERMODYNAMIC  
EFFICIENCY THAT  
IS WELL ABOVE  
AVERAGE**

and longer implementation timelines, however our experience since the plant has been operation has confirmed that it was a far-sighted choice.

To use a technical term, the ERG Power CCGT plant is used under the “**High Efficiency Cogeneration**” regime (CAR). In short, the system provides an overall thermodynamic yield that is well above average.

For the same amount of electricity and steam produced, the plant **consumes much less fuel** than traditional units, and has a flexibility of use (understood as the possibility to quickly adapt production needs to the withdrawal requirements of the electricity network and the industrial site) that is unknown to standard power plants.

It is no coincidence, therefore, that the CCGT plant was the first large-scale plant in Italy to be awarded the status of CAR by the Energy Services Operator (GSE – Gestore dei Servizi Energetici), issued following a detailed inspection by the Ministry of Economic Development and the GSE.

For a period of ten years, this qualification **provides Energy Efficiency Certificates** (known as TEE) that can be traded on the appropriate free market or withdrawn by the GSE at an advantageous price: in essence, they are a source of significant, stable revenue (in fact, they are protected from any uncertainty due to market fluctuations), which contribute to making the large initial investment more sustainable ■

**OUR PLANT MANAGEMENT SYSTEMS PRESENTED IN TEXAS**

The control and automation instruments used at the new ERG Power plant have been adapted to the highest technological standards, making our plants reference points for the electricity market, with record levels of reliability, plant availability and accuracy. For this reason, we were invited to share our experiences at the Foxboro & Triconex Global Client Conference in Texas, where we explained the significant shift in our approach from “mass” production to “flexible” production.

This is a major change that requires our plants to be ready and reliable when needed, meaning that the entire organisation must be able to respond very quickly to changes in production management, as needed.

We also presented the studies undertaken to improve the technological architecture of the plants, their implementation, and the benefits provided by the use of specific applications.

We used the international conference as a platform to present the skills, dedication, expertise and energy of a “large Group” to engineers and managers from all over the world ■

## FAST STEERING: CREATING VALUE THROUGH ORGANISATION

### A new organisational model to support the Group's strategic prospects

**BUSINESS SUSTAINABILITY IS SUPPORTED BY AN ORGANISATION THAT IS CONSISTENT WITH THE GROUP'S STRATEGIC NEEDS**

"Organisational leverage can (and should) be a fundamental element of corporate competitiveness and should therefore be managed with a sustainable approach that is consistent with the Group's objectives." This is the observation that gave rise to the **corporate and organisational restructuring of the ERG Group**, which was initiated in early 2013 with the involvement of all top management.

The main driving force was the need for absolute **consistency between the development of the Group's business portfolio and its organisational model**. Indeed, the Group has undergone a radical business transformation that has taken it in a very short time from a leader in the Italian refining sector to an industrial group focused on the wind energy sector.

Once the critical elements of the individual "pure" models had been identified (represented by the Industrial Group and the Holding Company), the project focused on the development of an alternative, innovative solution to optimise and respond effectively to the Group's specific needs and strategic prospects. The organisational model that was identified – known as **Fast Steering** – **allows diversified businesses to coexist**, providing strong directionality in terms of the Group's Governance together with the high focus and autonomy of the individual business units.

The objective of this new organisational structure, which came into effect on 1 January 2014, is to ensure that the Group's business strategy is aligned with its operational model, seeking to create the optimum environment where ERG personnel are able to share their wealth of ideas and expertise. Business sustainability is therefore supported by the development of organisational and human capital that is consistent with the Group's business strategy.

This objective is achieved through the interaction of three high-level roles, each characterised by specific and consistent objectives, activities and resources:

- the **parent company ERG S.p.A.**, which provides strategic direction, management control and oversight of the human, financial and relational capital as essential assets for growth. It will have a very lean structure that is completely focused on the processes of strategic importance;
- the **business units**, i.e. companies focused on their specific business areas with the appropriate structures to ensure their operational efficiency, boost growth and provide a timely response to market volatility. The business units will become drivers of administrative streamlining and cost reduction operations;
- **ERG Services S.p.A.**, a company appointed to achieve operational

excellence in the provision of support services to all Group companies (“shared services”). This company has paved the way for many synergies and opportunities in terms of specialisation, excellence and the development of human capital.

With **Fast Steering**, the organisation has become one of the Group’s intangible

assets, which expresses its value in the quality of its processes, the development opportunities it provides for its people and the sustainability of returns for all stakeholders.

The organisation has thus become a lever for the creation of new roles and new processes, shifting the organisational paradigm **from cost reduction to value creation** ■

## SUPPLIERS: ASSESSMENT AND MONITORING

Focus on issues of integrity and safety to minimise risk and encourage responsible behaviour

IN ADDITION TO A TECHNICAL OPINION ON SUPPLIERS, EACH MONTH THE VENDOR RATING REFLECTS THEIR SAFETY PERFORMANCE ON ERG SITES

The processes of selecting and monitoring suppliers – engaged for the construction and maintenance of plants and the provision of goods and services – are becoming increasingly important and are continuously adapted to changes to the business and the latest regulatory developments with a view to ensuring compliance with the Group’s values.

In 2013, we **streamlined our Vendor List** based on product categories of interest, and we **revised the qualification procedure**, firstly by simplifying the questionnaire to be filled out via the online portal, and then by adding specific questions to assess the legal, economic, financial, technical and organisational expertise and reliability of the applicant company.

In addition to accepting our Code of Ethics and Model 231, and the regular updating of documentation attesting to their compliance with social security and pension contributions, we wanted

to obtain “further information on the integrity” of our suppliers: in addition to regularly checking suppliers against international **black lists**, we ask them for documentation that attests to their presence in the **white lists** held by the Italian prefectures (i.e. lists of suppliers and operators that not subject to mafia infiltration attempts).

Even the **health and safety** elements of the questionnaire have been updated (mandatory compilation for all those who carry out work at the sites), enhancing and simplifying the process for companies that hold environmental certificates, permits and awards issued by international organisations: the assessment of the latter aspects have significant weight for inclusion in the **Vendor List** and also determine the amount of time a supplier spends on the list.

With regard to **subcontractors**, we issued a guide that sets out the conditions under which this type of collaboration can exist,

and introduced documentary checks in line with those provided in the standard qualification process.

The **Vendor Management** Portal has been linked to the company's IT system, SAP, providing all users – and especially contract managers – with visibility of the approval status of the supplier to prevent the issuing of orders to parties who have not successfully completed the process or have shown significant weaknesses in terms of “in the field” management. This procedure is integrated with the **supplier assessment process**, which is carried out periodically after orders have been fulfilled. In addition to a technical judgment (quality, reliability, punctuality, etc..), from this year forward, the **Vendor Rating** will also reflect, on a monthly basis, the **safety performance** at the various sites.

All ERG Group companies perform audits, carry out **inspection & expediting** visits and conduct periodic checks of documents in order to ascertain the risk of **failure to meet the qualification requirements**: should this occur, corrective action is taken by the supplier (which is supervised through frequent monitoring), without excluding the possibility of suspension

or removal from the Vendor List, resulting in the immediate termination of the existing contract. This regular monitoring, combined with the system of penalties provided for in the contract, minimises the risk and also raises supplier awareness of compliance with the rules and encourages them to invest more resources and effort into the new culture of safety and appropriate behaviour.

An objective that we have set for the coming year is to introduce the verification of **new specific sustainability requirements** to the company assessment process, such as respect for human rights, equal treatment, the prohibition of discrimination and forced labour and the possession of SA8000 certification.

To date, the profound sensitivity of our Group with regard to issues of safety and respect for the law has prompted many suppliers to improve their **performance** accordingly. We are confident that, in the future, with the integration and assessment of these new parameters, we will impart the need to pay attention to sustainability issues to all our stakeholders, making our enthusiasm for sustainability issues infectious ■

#### MARITIME TRANSPORT: SAFER THANKS TO THE VETTING DEPARTMENT

The Vetting Department operates on behalf of the ERG Group and TotalErg. Its actions are focused on vetting and screening processes. Vetting focuses on the safety of the ships used to transport goods, making sure that they meet the quality standards required by Group policy. In 2013, 365 inspections were carried out, approximately 13% more than in 2012. Screening, on the other hand consists of a series of preventive checks performed on ships (i.e. suitability to perform a specific activity) proposed by different traders to transport petroleum products or for related operations. In 2013, 721 checks were performed and about 14% of the vessels proposed were not accepted ■



# 2

## ENVIRONMENTAL RESPONSIBILITY

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959<sup>kt</sup>

OF CO<sub>2</sub> AVOIDED THROUGH  
RENEWABLE ENERGIES

95.1%

WATER RETURNED  
TO THE NATURAL CYCLE

0.09<sup>t/GWheq</sup>

THERMOELECTRIC POWER  
PLANT SO<sub>2</sub> INDEX

0.205<sup>toe/MWheq</sup>

EFFICIENCY OF THERMOELECTRIC  
POWER PLANTS

-40%

OF FUEL PER MWheq  
PRODUCED BY THE CCGT  
COMPARED TO PREVIOUS PLANTS

## THE FIGHT AGAINST CLIMATE CHANGE AT THE CORE OF OUR SUSTAINABILITY COMMITMENTS

### We continue our Climate Strategy in anticipation of new 2030 European guidelines

The fight against climate change is one of our main priorities and corporate responsibilities.

Moreover, the operations performed at our thermal power plants produce greenhouse gas emissions, mainly composed of carbon dioxide. To reduce and offset greenhouse gas emissions and meet EU sustainability targets, a number of years ago we implemented a long-term strategy based on four lines of action:

- development of **renewable energy sources**: today we are the leading player in wind energy in Italy;
- promotion of **energy efficiency**;
- use of best available techniques to achieve a **continuous reduction in emissions**;
- use of low carbon fuels (natural gas) to reduce air pollution.

In Italy, the current energy policy guidelines are defined by the "20-20-20 Climate and Energy Package" which is part of the European strategy, *Europe 20-20-20*.

Three macro objectives are established at EU level:

- reduce greenhouse gas emissions by 20% with respect to 1990 levels;
- increase the share of renewable energy produced to 20% of final consumption;
- reduce consumption by 20% by increasing energy efficiency.

In January 2014, the European Commission presented its "2030 framework for climate and energy policies". This new framework continues the direction taken with the 20-20-20 package and positions itself as an intermediate step to achieving the long term objectives laid down in the Roadmap 2050.

Of the environmental objectives laid down in the 2020 package, the 2030 framework has kept the reduction of greenhouse gas emissions (increased to 40% with respect to 1990 levels) and the percentage share of renewable energy in the energy mix (increased to 27% of gross final consumption at EU level), giving Member States the flexibility to transform their energy system in a manner best suited to their preferences and national circumstances.

The 2030 policy adopted by the EU will have a considerable impact on the investment policies of energy operators, which is why the major companies in the sector have emphasised the need to set out new guidelines as soon as possible in order to establish a definitive regulatory framework within which to define their technological and industrial strategies.

Regarding the choices related to the objectives and the tools to be adopted to implement the 2030 framework, the energy business community is essentially

THE 2030  
OBJECTIVES  
DECIDED  
BY EUROPE  
WILL HAVE A  
SIGNIFICANT  
IMPACT ON THE  
INVESTMENT  
POLICIES  
OF ENERGY  
OPERATORS

divided into two “factions”: supporters of a single target approach, which favours the use of a single tool – the ETS (Emission Trading System, currently in place) – to reduce CO<sub>2</sub> emissions, and supporters of a multi target approach, in line with the 20-20-20 policy.

### THE EU ETS MECHANISM

ERG constantly monitors regulations on CO<sub>2</sub> emissions at a national and international level to ensure that our power generation facilities meet the most stringent requirements with regard to air pollution.

As part of the European regulatory framework, the EU’s main tool used in the fight against climate change is the Emissions Trading System (ETS). It is a cap-and-trade mechanism of greenhouse gas emissions allowances that provides for the allocation of a defined quantity of emissions allowances (EUA, European Union Allowances) to operators in the participating sectors, which can be traded.

At the end of each year, participants are required to deliver allowances equal to their actual emissions. In the case of emissions that are above the free allocation, the operator will incur a cost to obtain additional emissions allowances on the market. Conversely if an operator has lower emissions, it derives a financial benefit by being able to sell any unused allowances on the market.

The total number of emissions allowances allocated (cap) follows a downward trend that is expected to help the European Union achieve its goal of reducing carbon dioxide emissions by 20% with respect to 1990 levels by 2020.

In this so-called third phase of the ETS, which began in January 2013, allowances are no longer included in the National Allocation Plans and the thermoelectric sector is subject to full auctioning. In addition, the use of certificates resulting from the flexible mechanisms of the Kyoto Protocol, the CDM (Clean Development Mechanism) and JI (Joint Implementation), is now tied to a number of conditions and limitations laid down by European law.

Meanwhile, the global economic crisis and the resulting decline in industrial production in Europe have made it much easier to achieve the 2020 emissions objective. This has resulted in a significant oversupply of EUA certificates, which has characterised the market in recent years. In fact, while supply was calculated and established based on 1990s emissions levels (years of strong growth), demand responded to market logic and therefore fell sharply as a result of the crisis.

The consequence of this imbalance between supply and demand has been the substantial decline in the prices of emissions allowances with the consequent weakening of the ability of the system to promote investments in more efficient technologies with lower emissions.

A solution to this inefficiency has already been approved by the European Parliament and consists of decreasing the supply available on the market, thereby supporting the price and focusing the attention on innovative technologies. This backloading mechanism will postpone the auctioning of 900 million tonnes of

emissions allowances from 2014-2015 to 2019-2020.

mechanism to ensure greater flexibility in the event of demand shocks.

However, in the event that the 2030 European policy includes a marked increase in CO<sub>2</sub> reduction targets (30-40%), a structural reform of the EU ETS should be considered. The hypothetical scenarios in this case could be:

- the permanent withdrawal of a certain number of emissions allowances in the third phase;
- the revision of the ETS cap linear reduction factor;
- the introduction of the **discretionary market management** mechanism (currently the most accepted hypothesis): this is a price-based

## THE CENTRALITY OF RENEWABLE ENERGY SOURCES

Key issues in the fight against greenhouse gas emissions are the use of “cleaner” fuels and the search for increased energy efficiency. For this reason, renewable energy production has grown considerably in recent years, both in Europe and in Italy, where Renewable Energy Sources accounted for 33% in 2013, compared to the gross domestic consumption of electricity.

As explained in earlier sections, the ERG group meets this requirement through its subsidiary ERG Renew, the Italian leader

### THE NEW EUROPEAN POLICY AND THE POSITION OF THE ERG GROUP

The European Commission published its **“2030 framework for climate and energy policies”** which contains the details of the general proposal for climate and energy policies up to 2030. The framework is not a proposal for a Directive, nor does it impose constraints on Member States. Rather, it is a **general policy document** which aims to guide discussions on climate policy.

More specifically, the proposal for the Board is to initiate a discussion on:

1. the new **EU target of 27% with regard to the market share of renewable energy** as a percentage of gross energy consumption by 2030. This target is only binding at EU level and not for the individual Member States;
2. **Mandatory reduction of greenhouse gas emissions by 40%** with respect to 1990 levels.

In response to the Commission’s document and to raise awareness among the Member States, the European and national institutions and the CEOs of major companies involved in the development of renewable energy (representing 91 European companies, including ours) held a press conference in Brussels. On this occasion, the group argued for the need to set more ambitious objectives and mandatory national targets set at least 30% of renewable energy sources, as well as a clear, secure and transparent legislative framework to encourage European industry to invest in renewable energy, an industry that requires long-term investment ■

## RENEWABLE ENERGY SOURCES ARE THE ANSWER TO REDUCING EMISSIONS

in the wind energy sector and one of the top ten European players with 1,340 MW of installed capacity.

To achieve the emissions reduction targets, our focus is on increasing our wind energy capacity and investment in the thermoelectric sector, which has resulted in the replacement of the old power generation plants with new and more efficient systems. The mix of interventions has made it possible to increase the production of carbon-free electricity and reduce the emissions levels of our thermoelectric power generation activity. Our strategic position and industrial development are therefore in line with EU objectives and are capable of combining economic and environmental sustainability.

## THE ITALIAN CARBON FUND

The Italian Carbon Fund is a fund promoted by the Ministry of the Environment in collaboration with the World Bank. Since 2008, it has financed projects aimed at reducing emissions through sustainable technologies in developing countries, obtaining Certificates of Emission Reductions (CERs) in return, which can be used within the ETS. Italian private and public sector companies participate in the fund, and ERG has a significant presence among the private sector participants. Besides the variable results obtained for emissions allowances with respect to the European market, this participation highlights the attention the ERG Group pays to environmental issues at a national and international level ■

### ERG AND ENVIRONMENTAL PERFORMANCE

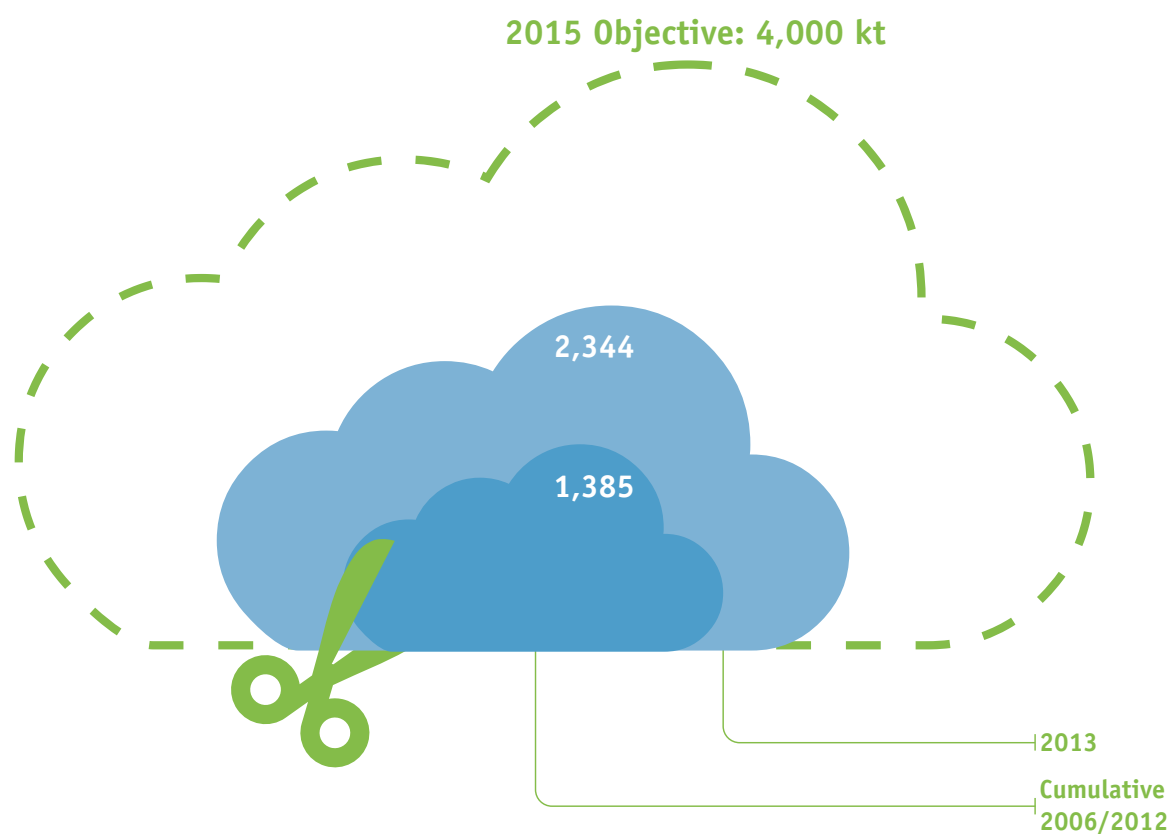
Environmental protection, pursued through an improvement in the environmental efficiency of processes and adequate pollution prevention, is interpreted and developed within our Group in a consistent, systemic manner with respect to the safe performance of our operations. The management of water resources focuses on the minimisation of withdrawals and the reuse of process water. Under given conditions, even the water recovered from safety and decontamination activities are reused within the production sites.

Atmospheric emissions are primarily minimised by increasing the use of low-carbon and low-sulphur fuels and carrying out specific activities aimed at lowering and controlling emissions. Investments in the thermoelectric sector have also enabled old generation plants to be replaced with new, more efficient facilities from a technological and environmental perspective. Prevention and protection operations on the topsoil and subsoil are performed on the basis of plans focusing on: analysis and assessment of new projects, restoration operations and environmental characterisation and safety activities ■

## CALCULATION OF THE CO<sub>2</sub> AVOIDED: 2013

	INSTALLED CAPACITY (MW)	PRODUCTION (GWh)	CO <sub>2</sub> AVOIDED (kt)
Domestic wind power	1,087	2,010	818
Wind Power - France	64	127	8
Wind Power - Germany	86	155	81
Wind Power - Romania (50%)	76	54	23
Wind Power - Bulgaria (50%)	27	57	29
<b>TOTAL</b>	<b>1,340</b>	<b>2,403</b>	<b>959</b>

## CO<sub>2</sub> AVOIDED: TREND 2006-2013



For the calculation of CO<sub>2</sub> avoided, the conversion factor gCO<sub>2</sub>/kWh is used, published by Terna in its annual reports and referring to the electricity output of the Italian system. Figures in thousands of tonnes.



## SUSTAINABILITY FROM CONSTRUCTION TO OPERATION

We have completed the project to improve the environmental impact of the ERG Power SA1N/1 power plant

### EXCELLENT HSE PERFORMANCE RECORDED DURING THE WORKSITE PHASE

In September 2013, using “Best Available Techniques” (BAT), we completed upgrading works of the thermoelectric plant SA1N/1 operated by ERG Power. In the new structure, the plant will be dedicated exclusively to **steam production** and will **ensure very low emissions**, in line with the provisions issued by the EU for new installations in the thermoelectric sector.

These upgrading works will ensure the environmental sustainability of the steam production required for the needs of the entire site, using only natural gas, which will result in a significant reduction of emissions.

The HSE performance (i.e. environmental and safety) recorded during the worksite phase was excellent, both from an environmental point of view and in relation to health and safety: the construction activities were completed, achieving the objective of “**zero injuries**.”

The absence of sensitive receptors in the vicinity of the plant and of the potential impact on vegetation, flora, fauna and biodiversity were established before the worksite phase began through the **Environmental Impact Study**, which was validated by the Entities during the presentation of the project.

Moreover, the work carried out during the worksite phase did not result in the demolition of buildings, the movement of

earth, the emission of pollutants into the atmosphere, the discharge of liquid effluent to the ground and/or surface water, nor did they generate significant noise levels: we can therefore say that it was in all respects **a worksite with minimal impact**.

With regard to the operational phase, the only environmental compartment that may be affected by the regular operation of the system is air. Macro-pollutant emissions will be **continuously monitored** with the installation of a dedicated Emissions Monitoring System (EMS).

In addition, we have agreed a **monitoring plan** with the local Environmental Protection Agency, ARPA (*Agenzia per la Protezione dell'Ambiente*), for periods of normal operation with the aim of investigating the key air quality parameters. These controls will be carried out periodically and will be conducted in the presence of the Control Authority.

Finally, we will implement a plan to monitor the level of micro-pollutants (especially PM10) emitted by the plant on atmospheric particulate matter in “ambient air” and at the point of maximum fallout. This check will be performed by monitoring stations located in the vicinity of the plant and managed by the Industrial Consortium for Environmental Protection, CIPA (*Consorzio Industriale per la Protezione dell'Ambiente*) ■

## WE USE GAS RECOVERY TO REDUCE EMISSIONS

### New efficiency measures at the ISAB Energy plant

**WE TOOK THE OPPORTUNITY TO RECOVER OFF GAS AND REDUCE EMISSIONS EVEN FURTHER**

Minimising waste water and atmospheric emissions: since 2012 we have completed a number of actions to improve the environmental performance of the ISAB Energy plant in order to achieve this key objective.

In particular, in previous Sustainability Reports we described (among others) measures aimed at improving the efficiency of the flare system by improving the quality of gas and reducing the gas stream to the Blow Down system (flare).

In 2013, we initiated a further step to improve the overall system with the aim of removing the gas stream from the waste sent to the flare and returning it to the production cycle.

Having carried out treatment measures to improve the quality of the gas, we then took the opportunity to add an additional recovery phase with regard to this stream, considering its considerable calorific value: the off gas is recovered, conveyed

through an appropriate conduit and used as fuel in the plant's Hot Oil furnace.

This type of efficiency was made possible due to the fact that the composition of the gas recovered is similar to that of the synthesis gas already used to fuel the furnace.

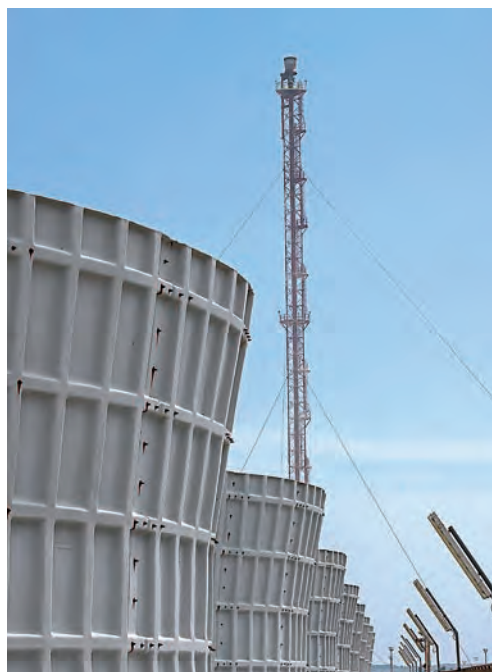
This planned action has a twofold positive effect on the environment:

- in terms of stack emissions to the atmosphere from the Hot Oil flue, as this additional gas stream will partially replace the low-sulphur fuel oil (BTZ) already used in the furnace, thereby increasing the use of less polluting gaseous fuel;
- through the rationalisation and reduction of the tail gas sent to the Blow Down system and then to the flare, limiting episodes of over-flaring.

The proposed modification of the plant configuration, analysed and designed by ISAB Energy engineers, was submitted for consideration by the competent Authorities and their assessments were positive given the beneficial impact on the environment.

The ISAB Energy Plant is therefore another example of an environmentally sustainable industrial process, where the analysis and recovery of process gas are used to reduce emissions or to improve their quality ■

ISAB Energy's flare system



## REDUCTION OF DUST: OBJECTIVE ACHIEVED

We achieved another major environmental improvement at the ISAB Energy plant

### HIGHER PERFORMANCE BURNERS AND USE OF GASEOUS FUELS TO REDUCE DUST EMISSIONS

Dust emissions are another important issue that was addressed by the ISAB Energy plant in 2013.

As set out in the Integrated Environmental Authorisation, we presented a study to the relevant Entities on the reduction of dust emissions from the chimney of the **Hot Oil** furnace, the only point at the facility from where particulate matter may originate, as the other systems use only gaseous fuels that do not produce dust.

This study presented an opportunity to analyse the main plant characteristics and the combustion performance of the **Hot Oil** furnace in order to assess the possibility of implementing further improvement measures to minimise emissions.

Having also consulted with engineering companies specialising in the field, we were able to identify as one of the “best available techniques,” the **replacement of the burner heads** used for the combustion of low-sulphur fuel oil with other higher-performing heads, as well as the use of an appropriate **mix of gaseous fuels recovered from other units** (such as natural gas and other fuels).

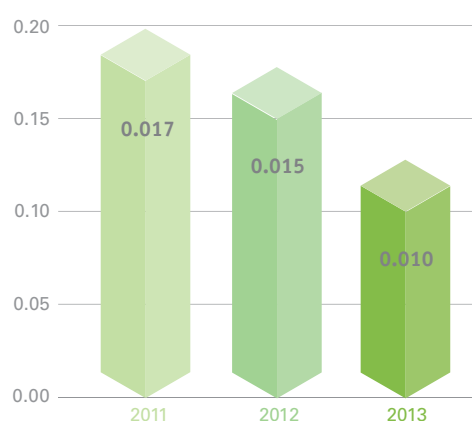
Our objective was to ensure that particulate emissions do not exceed 30

mg/Nm<sup>3</sup>, in line with the best performance of the sector, defined at EU level.

The project, presented in accordance with the “guidelines” issued by the Ministry for Environment, was positively assessed by the competent Authorities, which requested that the proposals be implemented by September 2013 in order to update the authorisation and accordingly implement the new, more stringent emissions limit for particulate matter.

The project was completed on schedule and, as a result of analysis and assessment techniques, the objective of further **improving the environmental impact of ISAB Energy** can now be considered fully achieved ■

ISAB ENERGY PARTICULATE INDEX (t/GWheq)



EMISSION POINT PARAMETER	EMISSIONS THRESHOLD BEFORE INTERVENTION (mg/Nm <sup>3</sup> )	EMISSIONS THRESHOLD AFTER INTERVENTION (mg/Nm <sup>3</sup> )	% EMISSIONS REDUCTION
Hot oil furnace chimney Particulate matter	50	30	-40%

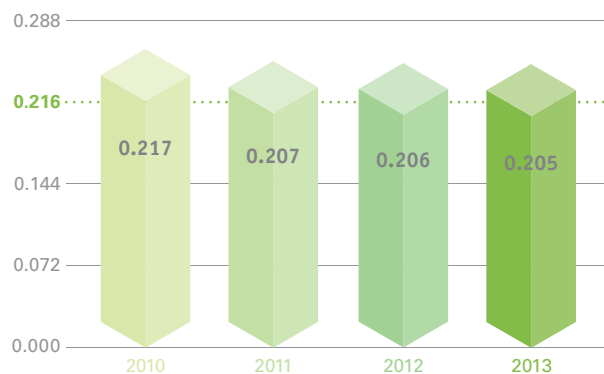
### HOW THE NEW TECHNOLOGY WORKS

The technique implemented reduces the viscosity of the liquid fuel (fuel oil) used to feed and heat the furnace, thus favouring the evaporation of small drops of oil and controlling the oxidation temperature. This system **reduces steam consumption by about 25%** compared with the technology used in conventional burners by producing a much finer spray (the drops are on average about half the size of those obtained with conventional atomisation procedures): this allows the combustion of fuel oil in a manner similar to that of gas, minimising the formation of particulate matter.

The furnace's burners, upgraded with latest generation heads, use nozzles based on a principle of oil atomisation in two successive stages: in a first chamber, oil and steam are combined to create a premixed emulsion. This emulsion is then introduced into a second chamber, where the steam's remaining energy efficiently atomises the liquid fuel, transforming it into a mist of fine particles. This action allows us to **reduce pollutant emissions from combustion** and therefore also the operating costs, improving the control of the combustion process ■

## THERMAL POWER PLANT INDICATORS

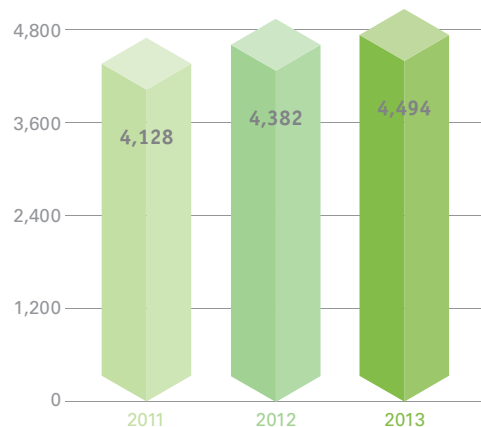
EFFICIENCY OF THE THERMAL POWER PLANTS (toe/MWheq)



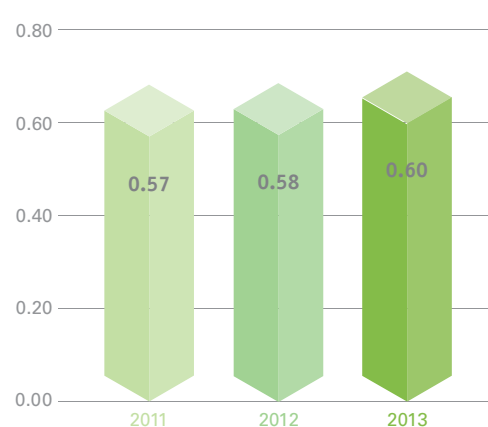
The sustainability objective established for the end of 2011 provided for an improvement in the energy efficiency of thermal power plants by 20% compared to 2006 levels, reaching a share of 0.216: the final result was 22%.

In 2012 and 2013, we improved our performance even further by adding two percentage points to the previous result ■

CO<sub>2</sub> EMISSIONS OF THERMOELECTRIC POWER PLANTS (kt)

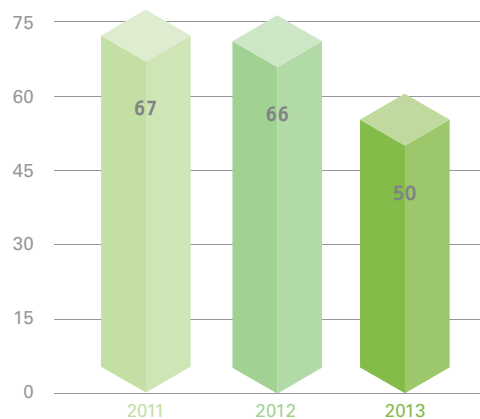


CO<sub>2</sub> INDEX OF THERMOELECTRIC POWER PLANTS (kt/GWheq)

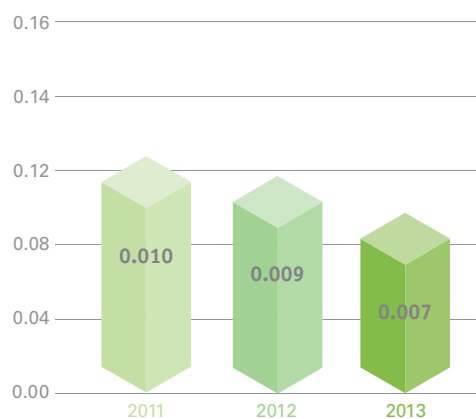


## THERMAL POWER PLANT INDICATORS

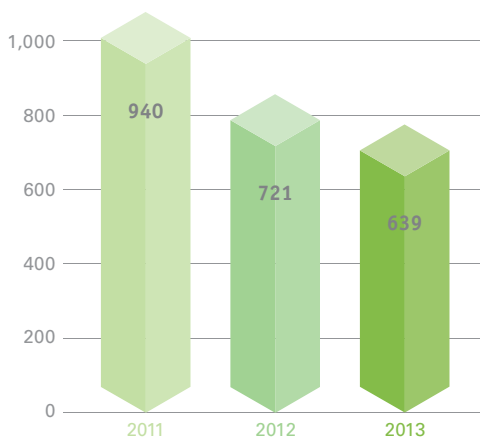
PARTICULATE EMISSIONS OF THERMOELECTRIC POWER PLANTS (t)



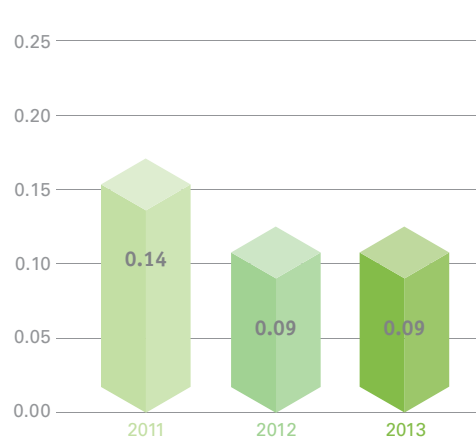
PARTICULATE INDEX OF THERMOELECTRIC POWER PLANTS (t/GWheq)



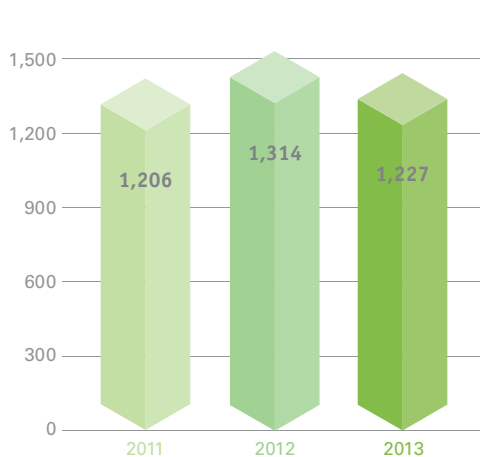
SO<sub>2</sub> EMISSIONS OF THERMOELECTRIC POWER PLANTS (t)



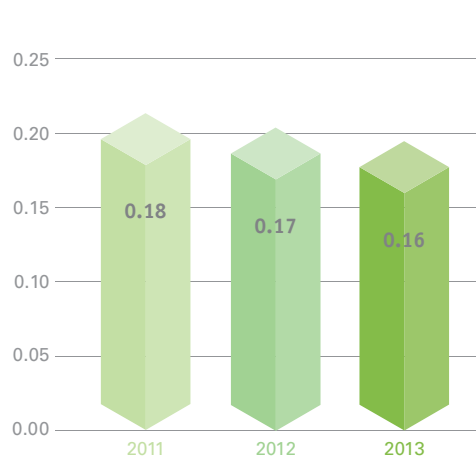
SO<sub>2</sub> INDEX OF THERMOELECTRIC POWER PLANTS (t/GWheq)



NO<sub>x</sub> EMISSIONS OF THERMOELECTRIC POWER PLANTS (t)



NO<sub>x</sub> INDEX OF THERMOELECTRIC POWER PLANTS (t/GWheq)



The atmospheric emissions of NO<sub>x</sub> and SO<sub>2</sub> at the thermal power plants are consistent with the annual data reported to the E-PRTR. Only fully operational plants are considered, therefore the SA1N/1 group was not included in the report as it was in a transitional start-up phase in 2013 as the result of its adaptation according to Best Available Techniques.



## ISAB ENERGY, THE BENEFITS OF AMMONIA RECOVERY

### Reduced costs and lower environmental impact due to a 50% reduction in the amount of ammonia solution purchased

With a view to ensuring continuous improvement and the constant commitment to reducing the environmental impact of our facilities, in 2013 we developed a project (which was completed in July) to recover ammonia from the ISAB Energy plant for subsequent reuse in the catalytic reduction system, thus avoiding having to purchase liquid ammonia to “clean” the emissions produced.

If we consider that the catalytic reaction that occurs in the selective catalytic reduction system (SCR), required to reduce the amount of nitrogen oxide ( $\text{NO}_x$ ) in the atmospheric emissions from the gasifier and the plant, **needs about 300-400 l/h of ammonia hydrate** for

each of the two modules, the value of this project becomes clear.

The ammonia is recovered from the clarified water that is intended for the purification system, which is removed by steam in another unit of the plant.

The improvements brought about by this project have reduced the requirement to purchase ammonia solution by at least 50% with the consequent **decrease in the consumption and transit of tankers** required to supply of liquid ammonia, resulting in the removal of the risks associated with the transport of dangerous goods according to ADR technical standards, as well as the risks related to the unloading of tankers ■

Piping system  
at ISAB Energy





## EVEN THE NOISE IS UNDER CONTROL

### Positive results of acoustic monitoring carried out along the perimeter of the ISAB Energy plant

THE VALUES MEASURED DURING THE DAY AND AT NIGHT ARE COMPATIBLE WITH THE SURROUNDING ENVIRONMENT

Noise emissions are a factor which, in recent years, has become increasingly important, due to increased focus by stakeholders on this area. For this reason, in 2013 we carried out a **campaign** at the ISAB Energy plant to monitor the noise levels produced at the perimeter of the site, both during the day and at night.

The measuring points located along the boundary of the plant were identified taking into account the location of the most significant sound sources in order to obtain the **best possible representation of the impact of the noise**.

The duration of the measurement for both the daytime and night time reference periods was chosen according to the characteristics of the sources of noise analysed, which produce a constant and cyclical noise.

The monitoring was scheduled to take place during a period of normal plant

operation, with over 80% power capacity.

Three elements ensured the quality of the measurements taken:

- the tasks were carried out by **competent technicians** with authorisation to do so;
- the **validity of the instrumentation** had previously been verified and certified by means of the appropriate calibrations and verification certificates (the margin for error was therefore very small);
- **benchmarks and good practice standards** were adopted, which were shared with the Control Authority.

To obtain suitable measurements that were not disturbed by weather conditions, we took samples at times without rainfall or fog and with wind speeds less than 5 m/s, although the microphone was equipped with a windscreen.

Once the field work was complete, we **compared the values measured** at the perimeter of the plant **with the emissions limits established by law**, and in particular with the provisions of the “acoustic zoning” plan prepared by the Municipality of Priolo Gargallo.

At all of the points measured, the noise levels recorded both during the day and at night were **below the specified thresholds**, confirming the compliance of the ISAB Energy production cycles with this environmental aspect ■

#### NOISE INDICATORS

The measurements show that the noise generated by the ISAB Energy plant comply with the limits of the law as they are below threshold of 65 dBA in the perimeter areas bordering on other plants with continuous cycles. Measurements carried out away from other plants during the day returned results of just over 50 dBA ■

## LESS WATER WITHDRAWAL, GREATER SUSTAINABILITY

ERG Power is planning a system to recover water from aquifers, thus reducing the need for water withdrawals

WE AIM TO SAVE  
NATURAL WATER  
RESOURCES BY  
RECOVERING  
WATER FROM  
AQUIFERS AFTER  
TREATMENT

In 2013, ERG Power completed the **revamping** the SA9 plant, increasing the sustainability of the production of demineralised water used to produce steam, which is then used as a utility for the industrial cycles.

As reported in 2013, we had already significantly reduced the environmental impact of the SA9 plant by installing a new reverse osmosis and ultrafiltration unit, which allowed us to significantly reduce the amount of waste produced.

As a result, the ERG Power engineers identified an opportunity to improve the environmental **performance** even further by introducing a new source of supply to the production cycle: the **water from the Groundwater Treatment Plant** (also known as TAF – *Trattamento Acque di Falda*) owned Syndial a company located at the same site (a plant that purifies the water from aquifers pumped during the “securing” and remediation of the areas of the multi-company site, in accordance with plant capacity and in compliance with the remediation project approved by the Entities).

The objective is therefore to use the osmotic water produced by the TAF to feed the SA9 plant, thus removing part of its water withdrawal requirement.

**Significant plant modifications and structural changes** are not necessary to

implement these changes, thanks in part to the renovations already carried out at the SA9 plant, only a few interconnections between the two systems need to be installed.

This project was positively assessed for the purposes of the Integrated Environmental Authorisation and will provide environmental benefits due to the reduction of water withdrawals from the wells and the reservoirs at Ogliastro, Cava Mulini and San Cusmano.

Natural water resources can be saved by returning them to the production cycle instead of discharging them into the sea after treatment.

Furthermore, due to the quality of the osmotic water, it is also possible to **reduce the amount of additives required to treat the water** fed to the SA9 plant, thus maximising the environmental sustainability of the plant's operations ■

### OPTIMISING THE MANAGEMENT OF WASTEWATER IN ISAB ENERGY

The project involves reducing the levels of COD present in the wastewater sent to the IAS treatment plant. In late 2013, a technical study was presented to the Ministry of the Environment, which approved the technical proposal authorising the start of construction activities ■

## THE PROTECTION OF GROUNDWATER

### ISAB Energy: constantly focused on reducing water withdrawals and encouraging remediation

THE WATER  
PUMPED FROM  
UNDERGROUND  
IS CONSTANTLY  
MONITORED  
AND IS  
REUSED IN THE  
INDUSTRIAL  
PROCESSES AT  
THE PLANT

The ISAB Energy CCGT plant is located within the Site of National Interest of Priolo Gargallo and is characterised by a network to monitor the quality of groundwater, consisting of around 40 wells spread over the entire site.

As part of this network, in recent years ISAB Energy has developed and enhanced a “hydraulic barrier” consisting of wells located close to the perimeter on the costal side of the plant (at a lower altitude) equipped with **pumps to drain groundwater**.

The system has been designed together with the competent Authorities according to good techniques, with the objective of **encouraging the remediation of water**. The water pumped from underground is constantly monitored to ensure its quality, and is reused in the industrial processes of the plant.

The construction, upgrading and optimisation of a containment system of this kind provide an ideal technical and environmental combination: it allows us to **optimise water consumption by reducing withdrawals from other sources**.

To ensure the highest level of effectiveness and efficient operation of the system, the ISAB Energy engineers performed an accurate calibration of the system by carrying out a number of tests

on site, adapted the pumping flow rates and developed a detailed programme to manage the ordinary and extraordinary maintenance of the system.

Specifically, the commissioning of the system required the development of a number of activities, including **definition of the optimal operating capacity**, the subsequent monitoring of the general operation of the system and the assessment of the system when fully operational by measuring specific parameters.

Water from aquifers is pumped from each of the wells on a continuous basis by an **automated system**, which allows operations personnel to directly verify the running conditions of the system as a whole and of each well via the monitors in the control room, as happens for process plants.

The operation of the system can also be modulated while ensuring the effectiveness of the barrier: the Environmental Management System (ISO 14001) contains procedures and specific techniques which can be applied in case of accidents or malfunctions.

Periodic monitoring campaigns are carried out to continuously monitor the quality of the water from aquifers and the balance of the underground water related to the operation of the hydraulic barrier ■

## SANTA PANAGIA BAY: WATER MONITORING

### Ongoing monitoring of the status of the bodies of water at the industrial site

THE RESULTS OF THE ANALYSIS OF THE WATER CONFIRM THE GOOD RESULTS OBTAINED IN PREVIOUS YEARS

The environmental sustainability conditions of the industrial activities performed at the ISAB Energy plant and the surrounding marine environment have been confirmed.

There is continued focus on monitoring the surface waters in the industrial area surrounding the Bay of Santa Panagia, located between Syracuse and the Municipality of Priolo.

The objective is to **continuously assess the water quality** in relation to set objectives and in compliance with the relevant regulations. The information on the status of the water bodies can then be used to **classify them** and **plan their recovery**, as necessary.

In this context, every year ISAB Energy monitors the marine area in the Bay into which the drain known as the "Canale Alpina" flows, which contains the water

coming from the cooling systems of two plants.

As in previous years, the activities included the sampling and analysis of:

- sea water;
- wastewater from the "Canale Alpina";
- mussels, previously placed in the watershed;
- marine sediments, situated at various points along the marine area.

The results of laboratory tests, which are shared with the competent Authorities, clearly show that the **measured values are consistent with the provisions of the applicable regulations** and standards (Consolidated Environmental Act - TUA). The toxicological tests performed on the various matrices did not reveal the presence of any toxic effect and the study of biotic communities showed a **fair amount of fish and plant species** ■

Santa Panagia Bay



## LESS WASTE, MORE RECOVERY

### The recovery of vanadium from the sludge produced by maintenance activities at the ISAB Energy plant

**240 TONNES  
OF VANADIUM  
WERE  
EXTRACTED FROM  
1,000 TONNES  
OF SLUDGE**

The fuel used by the ISAB Energy plant is syngas, which is obtained from the gasification of 140 tonnes/hour of asphalt from the ISAB Sud refinery

This process also creates other by-products, which are valued and sold on the market: vanadium concentrate, sulphur and liquid hydrogen.

The metals contained in the gasified asphalt are found in **Vanadium concentrate**. Present in commercially significant quantities (approximately 30%), vanadium and nickel are extracted and used in the steel industry.

**Liquid sulphur** comes from the process to purify the synthesis gas and, once solidified, it is used in the fertilizer industry.

**Hydrogen**, is produced by "filtering" the synthesis gas, which is sent to the ISAB refinery to be used in the desulphurisation of fuel oils.

Unlike the by-products resulting from normal operations, and therefore continuously generated, maintenance activities generate waste, which should be managed and disposed of according to applicable regulations.

One of the objectives of the ISAB Energy plant has always been to minimise the amount of waste sent for disposal, **instead maximising its recovery**. All electrical and electronic equipment that are no longer in use, used oil and waste metal (such as scrap metal, aluminium and copper) are

always sent for recycling, thus avoiding the use of landfills.

By studying the production process and the planned maintenance activities, we sought new ways to minimise the amount of waste sent for disposal and one of the opportunities that emerged was related to the amount of vanadium concentrate present in the waste. In fact, the plant contains a number of storage tanks and containers, which are periodically maintained and cleaned to remove the sludge that cumulates inside over the years.

As this sludge has characteristics similar to those of vanadium concentrate, we studied the possibility of **enhancing it to prevent its disposal**, preferring to send it to plants that can recover the metals it contains.

In 2011, after a thorough technical and regulatory verification and having identified the sites interested in receiving this waste with high concentrations of vanadium, we

#### WASTE REDUCTION TECHNOLOGIES

Thanks to the filter purification of the sludge produced by maintenance activities, it is possible to separate the aqueous matrices and only send for recovery and/or disposal sludge that has been thoroughly dehydrated.

These operations reduce the weight of the waste produced by about 25% ■



launched this new waste management process. The first opportunity came during the general shutdown scheduled for October: during the scheduled cleaning of the storage tank, we removed the sludge that was later sent to the companies that could use it.

These maintenance activities produced **over 460 tonnes of sludge containing a concentration of approximately 27%**

**of vanadium equal.** From 2011 to 2013, approximately 1,000 tonnes of waste were sent for recovery, allowing the extraction of approximately 240 tonnes of vanadium.

This action serves a dual purpose: reduced waste disposal and the recovery of an important resource that would otherwise have to be mined, creating a further environmental impact ■

## PALAZZO SAN GERVASIO WIND FARM, A LOW ENVIRONMENTAL IMPACT CONSTRUCTION

The Reuse Plan has enabled us to recover 90% of land from excavations

Whilst creating the ERG Renew wind farm at Palazzo San Gervasio, we closely followed principles of good technical standards and existing legislation with the primary aim of generating the least environmental impact.

Thanks to our commitment, **excavation material** (in other words, soil, subsoil and the presence of any refill deriving from the creation of a work) was not treated as waste (and therefore to be disposed of at a landfill) but **was used as part of construction activities**, in line with a Use Plan decided upon with the competent Authorities.

The aim of the operation was to continue with our commitment to **spread environmental awareness** and ensure that the work we carried out had **the least environmental impact possible**. We therefore worked alongside and supported the contractor, commissioning a specialist

third party with the task of checking and monitoring the project and construction site activities, and also with the quality control of transported products.

The benefits of this approach are clear: **not occupying landfill sites** with material that can be re-used, **cutting down on the amount of waste produced** and, finally, **preserving the biodiversity** of the local region by using land taken from surrounding areas.

WE ARE  
COMMITTED  
TO CUTTING  
DOWN WASTE  
PRODUCE AND TO  
PRESERVING THE  
BIODIVERSITY OF  
THE AREA





In the creation of the wind farm, the Use Plan involved reusing around 90% of land from excavation (equal to around 70,000 m<sup>3</sup>) in suitably planned renaturalization and soil bioengineering work.

Together with the Municipal Government, a part of the topsoil from our construction site was used to fill in natural orographic

dips and depressions, which were put to agricultural use. Another part of the land, meanwhile, was used to trim the slopes that line the roads of the park. A smaller portion of material (with a high mechanical quality) was reused to create road foundations and in water process management works within the park road network ■

## A WIND FARM OF ARCHAEOLOGICAL INTEREST

### Necropolis and Sabellian settlement unearthed in construction of Palazzo San Gervasio plant

WE CREATED  
A WIND FARM  
AND GAVE  
BACK A PIECE  
OF ANCIENT  
HISTORY  
AT THE  
SAME TIME

A part of the site where the Palazzo San Gervasio wind farm was built lies within a large area that the Office of Archaeological Heritage of the Province of Potenza indicates as having a high possibility of archaeological finds.

In the past, some major finds were discovered here which indicated the presence of **settlements dating back to the 5<sup>th</sup> century BC** between the villages of Venosa and Palazzo San Gervasio. These were of great interest to archaeologists who, in recent years, have focused their studies on this area.

Systematic investigations of the area concerned have confirmed the presence of superficial archaeological deposits that have been linked to a production settlement and a Sabellian necropolis from the 4th century BC.

For this reason, **permission to build the wind farm included specific**

**archaeological instructions** protecting the site. Before building work started, we asked if excavation studies could be conducted in line with specific archaeological research methodologies.

A specialist company **monitored initial excavation activities** and checked that archaeological regulations were complied with.

A large amount of archaeological finds were revealed during the building of the





Archaeological finds  
unearthed during the digs

foundations for two wind turbines. The construction of the plants was therefore brought to a halt so that archaeological digs could be completed and a close collaboration was begun with the Archaeological Heritage Office, which brought excellent **results in terms of the archaeological protection of the site**.

The creation of the wind farm meant that a piece of this region's ancient history could be returned to the local community.

The archaeological digs were extended to the surrounding areas and made it possible to unearth a portion of a Sabellian settlement and the remains of a necropolis where a number of warriors had been buried with their weapons. The material found was catalogued and

restored and will soon be on display as part of a number of exhibitions, as well as being the subject of a publication ■





## THE IMPORTANCE OF MONITORING BIRDLIFE

### Continuing with the analysis to monitor and protect birds in the wind farm areas

**MONITORING WAS CARRIED OUT IN LINE WITH CRITERIA SET OUT IN THE GUIDELINES OF THE ITALIAN WWF**

In a bid to respect and protect environment and natural resources, ERG Renew focuses a great deal of attention on **safeguarding wildlife and the environment**, especially birdlife in the regions where we have our parks.

In previous Sustainability Reports we have already been able to describe how it is standard practice for us to assess the impact of construction on birdlife before we create a wind farm.

This is an ongoing activity that is performed in order to **assess the possible direct and indirect effects of plants on migratory and non-migratory birds**.

Environmental monitoring is conducted according to criteria set out in the guidelines drawn up by the Italian WWF ("Guidelines for the creation of industrial wind farms in Italy", 2007), on the basis of which operational protocol was created for the collection of data, and detection sheets were prepared for sightings.

The analysis carried out showed that wind blades caused **minimal** Interference on bird routes. Details for each area are given below.

#### VICARI WIND FARM (PALERMO)

The analyses began in 2009 and so are now in their fifth year. They constitute an important data basis for understanding

the habits of migratory and non-migratory birds in the area.

Over the years, we have been able to see how the wind farm and local birdlife have lived **peacefully together**. The majority of birds fly over or under the area where the blades are.

#### AMARONI WIND FARM (CATANZARO)

When conducting analysis in this park, we looked at direct impact, in other words possible collisions between birds (non-migratory birds, birds of prey and soaring birds) that can be found in the area of the wind park and the wind turbines.

The plant began to operate in January 2013 and as part of the study the area of woodland where the wind farm is situated was monitored during the nesting period. Nesting birds were detected and we were able to check the reproductive success of species of particular Interest such as arboreal predators.

Birds on the edges of the area of the plant are part of a population that is typical to woodland and is made up of extremely common and widespread species.

Over recent years, the community of birds detected through monitoring **has remained rather similar** and no changes have been recorded in composition. Analysis of sightings, which has been

suitably schematized, shows that there has been an increase in how frequently migratory species fly over the highest blade point.

Other birds, having spotted the moving blades, change their route and then resume the thermal currents and **pass over the wind turbines**.

These results confirm the ability of these animals to identify the presence of towers and then alter their flight in order to get past these, **recognising the wind blades as part of their path**.

### TOPOLOG WIND FARM (ROMANIA)

The wind farm was built in 2013 by LUKERG Renew in the province of Dobrogea (near the Black Sea). In line also with local regulations, we conducted in-depth analysis into the impact of the project on birdlife, comparing this with data we started to collect in 2006, first in line with national reference principles and then, from 2012 onwards, in line with international ones. The analysis will

continue for the first three years that the farm operates.

As usual, the analysis focused on the population of non-migratory, migratory and predatory birds in the area, and we assessed the impact on their habitat whilst the wind farm was being built and when it is operational.

During the construction stage necessary measures were adopted to:

- **prevent dust and noise** generated by construction work;
- **reduce environmental pollution** that stems from the presence of chemical substances on the construction site;
- **limit local traffic**.

In a number of areas near nesting sites, work was suspended between March and August so as not to disturb the birds' reproduction process. Once work was completed, we also took **soil that had been removed during building and reused it on site**, with the aim of further reducing the environmental impact and protecting the local eco system ■

A goshawk photographed in the area of the Amaroni wind farm (CZ)



# 3 SOCIAL RESPONSIBILITY

---

100%

ORGANISATIONS OPERATING IN  
ISO 14001 AND OHSAS 18001  
CERTIFIED INDUSTRIAL SITES

0

ACCIDENTS  
ON WIND FARM

97.3%

PERMANENT  
EMPLOYEES

19%

WOMEN  
IN EMPLOYMENT

5

TRAINING DAYS  
PER EMPLOYEE

## SAFETY

## SAFETY AT THE CORE

Just like with the thermoelectric sector, with wind farms our approach to work is based entirely on safety

The Safety Project, which was launched in 2009, achieved its first goal at the end of 2011 when it adopted new operational procedures which became an integral part of daily activities. The project has reached all its objectives in terms of both the wind and the thermoelectric businesses, and has had a very positive outcome.

## SAFETY IN WIND ENERGY

Over the year, ERG Renew has followed the creation of two wind farms: one in Palazzo San Gervasio in Basilicata and the other in Topolog in Romania. Staff were employed on the construction sites throughout the year and, as a result of ERG's huge commitment to safety related issues, **no accidents were reported**.

In October 2013, the ERG Renew Operations & Maintenance company was established. Dedicated to the maintenance of our wind farms, its work is essentially operational in nature, but throughout 2013 **no accidents were reported**.

## SAFETY

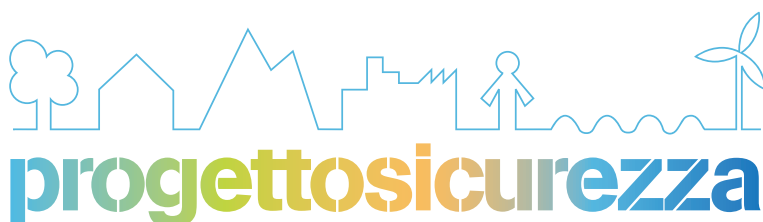
## IN THE THERMOELECTRIC SECTOR

In 2012, In accordance with the Plan-do-check-act framework, a **process assessment and reanalysis plan** was launched to examine the work done and to define follow-up points in order to further consolidate the Safety System for the personnel of ISAB Energy Services, which manages operations at the ISAB Energy and ERG Power sites.

The results of the analysis were reassuring and showed that **the level of awareness has grown** significantly. The culture of safety has become a very definite part of our way of operating and business is conducted on the basis of specific procedures, according to rules set by the Company and Management commitment. With increasing personnel autonomy, further improvement steps may facilitate even more effective implementation and even more virtuous behaviours.

The areas in which improvement was most evident (comparing data from 2012 and 2009) were those concerning **definition and achievement of aims, integrated organisation and motivation of personnel**. This is the result of the full implementation of integrated certification ISO14001 and OHSAS 18001 of the Management

**NO ACCIDENTS  
REPORTED  
AT THE NEW  
COMPANY  
DEDICATED TO  
"OPERATIONAL"  
MAINTENANCE  
ACTIVITIES  
IN THE WIND  
SECTOR**





**THE LEVEL OF  
AWARENESS  
HAS GROWN  
AND VIRTUOUS  
BEHAVIOURS  
WERE REPORTED**

Systems, the accurate definition of different objectives for each corporate level (the achievement of which is monitored monthly) and the increasingly widespread use of tools for detecting and analysing “on-site issues”, such as safety dialogues, safety meetings, and Champions’ meetings (details are available in the 2012 Sustainability Report).

Finally, the introduction of the **sanction system** for third party companies and employees (in effect since the end of 2012) has certainly helped draw more attention to specific issues and behaviours.

A final area in which a great improvement has been seen is that of **analysis of accidents and near misses**: we reviewed the procedure and combined cause analysis with the involvement of the various company departments concerned with the event, so that problems detected can be solved faster.

In this way, in a year in which the indicator was unfortunately no longer 0 on 31 December (as it had been over the last three years) and a total of 4 accidents was calculated, it can be seen that none of these occurred due to a lack of safety in our plants, but purely due to **distractions in everyday behaviour**, and they caused limited damage to those involved ■

#### ERG AND SAFETY

ERG believes that the full compatibility of its activities with the health and safety of workers represents a primary consideration in managing its plants and activities. ERG therefore constantly undertakes to ensure that all the companies in the group operate in full respect of the health and safety of both internal and third-party employees, and the environment understood in its broadest sense, considering these factors carefully, as early as during the development of the annual and long-term operation and investment budgets, and encouraging the adoption of health and safety-oriented technologies.

All personnel, third parties and visitors to our plants are trained and informed with regard to the correct behaviour to assume in emergency situations. Visitors to industrial sites are shown a video that summarises the Emergency Plan and the appropriate behaviour to adopt. Emergency management simulations and evacuation drills are carried out periodically.

The Group maintains active collaboration with the workers’ safety representatives and constantly involves them in these activities; with them we organise systematic meetings in order to discuss and evaluate any improvements that could be made ■

## SAFETY

## WIND FARMS: MAINTENANCE AND SAFETY

## A major commitment to guarantee safety

In many aspects the maintenance of wind farms seems no more complicated than any other industrial maintenance activity. It does however have two important features:

- the type of **regional distribution** of the wind farms;
- the place of **work in confined spaces or at altitude**.

Turbines are spread out diffusively across the region, often in places that are hard to reach. The plants are not fenced off but are on roads that the general public can access. the place of work is the “nacelle” of the turbine, which is situated over 80 metres in height and has rather small spaces, even though it requires the use of large machinery.

These factors make the job of guaranteeing worker safety a rather onerous and particular one. The use of standard individual protection equipment is often accompanied by the use of other specific and technologically significant apparatus (harnesses, anti-shock ropes, anti-slip sliders, emergency descenders etc).

Faced with this situation, we cannot just restrict ourselves to the fact that all Departments are directly committed to raising awareness of HSE issues and the fact that we organise **specific and ongoing staff training** with help from the very best training bodies and the authorities involved. We therefore decided to run **ongoing**

checks on the active safety of our industrial work sites. We monitor, at different stages, all measures that, in accordance with existing regulations, need to be assessed in line with specific requirements.

To better define the area of the commitment, we need only think that temporary and mobile work sites that have an impact on the wind farm are opened in just a few hours, in remote areas of the region and even in difficult conditions, and they have a lifespan that varies from a few hours to a couple of days (rarely more than a week).

In these conditions, and in compliance with existing legislation, the **ongoing monitoring of work site activities** has led to the appointment of a Works Manager and a Safety Coordinator during the Execution stage, who is present at the start of all activity and not only checks that safety documentation corresponds to the work being carried out, but also (with the help of his experience and expertise) helps each time to minimise foreseen and unforeseen risks by actively coordinating all jobs ■

**PERSONNEL  
TRAINING AND  
THE ONGOING  
MONITORING  
OF WORK SITE  
ACTIVITIES  
ARE THE  
BASIS OF OUR  
COMMITMENT**



## SAFETY

## EMERGENCY SAFETY MANAGEMENT

## ERG Renew has played an active part in a course on wind farm emergency management

Since autumn 2012, ERG Renew has played an active part in “GDL Sicurezza”, the work group coordinated by ANEV (National Association of Wind Energy) that aims to define and promote guidelines for the “Management of Wind Farm Emergencies”.

A variety of bodies may be involved in the management of any emergency and these may have very specific and different needs. It is therefore useful to be directed by a leader with ANEV’s level of experience.

Specific requirements are determined by:

- The orographic features of the farm;
- The type of turbines installed;
- The specific procedures applied by the local fire brigade’s SAF division (which covers caves, alps, and rivers).

Nacelle descent simulation



“GDL Sicurezza” has therefore set itself the ambitious goal of working together to propose a univocal intervention procedure to the Emergency Services ■

## WIND TURBINE EVACUATION DRILL

On 12 June 2013 an emergency evacuation drill was conducted at the turbine at Monacilioni (Campobasso), in collaboration with the wind farm maintenance company and the fire brigade of the province of Campobasso, also including the Termoli plant.

There are three work stages:

1. **Initial training:** initial training was conducted by the fire brigade in the wind farm warehouse, and concerned the management of risks during the activity;
2. **Main training:** procedures for going up a trestle turbine were explained using a sliding life line device on a “Slider” cable;
3. **Simulation of the descent** of the injured party with help from a fire brigade worker.

The drill was performed correctly. No problems were highlighted and fire brigade personnel saw it as interesting and successful ■

## WIND ENERGY AND SAFETY

Wind energy is a relatively recent business and consequently all aspects related to an awareness and culture of safety have not yet been developed to the same level amongst all market operators. Following our Group's approach to safety, which has been spread through the Safety Project over the past few years, ERG Renew has always placed these issues at the centre of its management methods, **pursuing the maximum level of safety** both on the construction site, during management, and in the course of maintenance activities.

As a result of the **efficiency and effectiveness of its management system**, ERG Renew was invited by General Electric to a seminar in Rome in September 2013 called "Workplace safety on the wind farm". The seminar went over all the stages of the Safety Project, which resulted in ERG Renew creating a new Quality, Safety and Environment integrated management system and gaining integrated certification in accordance with ISO 9001, ISO 14001 and OHSAS 18001 standards ■



Nacelle maintenance

## SAFETY

### FIRE PREVENTION CERTIFICATE: A 13-YEAR COMMITMENT

ISAB Energy is the first "sizable risk" plant in Sicily to have obtained this important certificate

ISAB Energy is the first plant to be subject to Major Risk Accident legislation (RIR) in the Syracuse industrial zone and one of a few in Italy to obtain the Fire Safety Certificate. This document, which

was issued in 2013 by the Syracuse Provincial Fire Brigade Authority, certifies that the **plant complies with the requirements provided for by fire prevention legislation**, as well as the

**GAINING  
THE FIRE  
PREVENTION  
CERTIFICATE  
STRENGTHENS  
CERTIFICATES  
COMPLYING  
WITH EUROPEAN  
LEGISLATION  
AND BEST  
PRACTICES**

presence of fire safety requirements. This is therefore an important result that recognises the ongoing commitment of adopting management systems based on procedures that comply with the strictest methodologies.

Achievement of the Fire Safety Certificate summarises and reinforces the certificates of compliance with European regulations and with the **best practices** that the plant has already obtained in the field of safety, and represents the natural and well-deserved culmination of the efforts of our company and of ISAB Energy Services for the **continual improvement of safety standards** in the management of operating assets.

The procedure involved in issuing the certificate was in no way straight-forward. Operational and holding departments were both involved, following the entire inspection procedure of both hardware (the correct functioning of fire safety systems inside the plant) and software (compliance with the Safety Management System, verification of HSE Policy, of all Procedures, of Emergency Plans and of all managerial tools that guarantee the maintenance of safety standards).

On 3 and 4 July 2013 the final inspection was held, which culminated in a simulated emergency drill that all personnel took part in, as well as fire fighters from the ISAB South plant and personnel from contractors in the plant.

The drill involved simulation of a butane **Jet Fire** that set off a “blue alarm”, with the consequent complete evacuation of all personnel within the site that were not

involved in emergency management.

The inspection checked how **prompt operations were**, whether the various departments and intervention teams were **coordinated correctly**, and whether **all fire safety equipment** involved in the emergency was **perfectly efficient** (active and passive protection measures, to be specific) and **complied** with the requirements set out by the main legislation and best practices in the sector.

In September the certificate was issued: a recognition of the commitment that our Group has shown to the issues of Health, Safety and the Environment, and confirmation of the fact that we are a “socially responsible” company that has developed an **integrated model of sustainable development able to pay attention to the needs of its stakeholders** ■

*Ministero dell'Interno - V. Feltrino*  
DIPARTIMENTO DEI VIGILI DEL FUOCO, DEL SOCCORSO PUBBLICO E DELLA DIFESA CIVILE  
COMANDO PROVINCIALE VIGILI DEL FUOCO SRA/CUSA  
Ufficio Prevenzione Incendi  
Via A. Vico Piana 35, Telefono 0931 401900, Fax 0931 681111,  
e-mail: comando.stampa@vigilfuoco.it - e-mail: vigilfuoco.comando@vigilfuoco.it

**Attestazione di rispetto delle prescrizioni previste dalla normativa di prevenzione incendi e di sussistenza dei requisiti di sicurezza antincendio**  
**Certificato di prevenzione incendi**

Dipartimento dei Vigili del Fuoco del Soccorso Pubblico e della Difesa Civile  
COM-BSR  
REGISTRO UFFICIALE USCITA  
Prot. n. 0006839 del 04/09/2013  
UPT 02. PREVENZIONE

Spett.le Gestore  
Isab Energy Services S.r.l.  
S.P. ex S.S. 114 km. 144  
Priolo Gargallo

Pratica n. *47407*

Allegati: 1 – Descrizione del complesso;  
2 – Elenco serbatoi e recipienti contenenti sostanze pericolose;  
3 – Presidi e dispositivi antincendio;  
A – Attività di cui al DPR 151/2011 e DM 7/8/2012

Oggetto: Gestore Isab Energy Services S.r.l. – Complesso ISAB/CUSA – Stabilimento solo nel comune di Priolo Gargallo, S.P. ex S.S. 114 km. 144, soggetto agli obblighi di cui all'art. 4 del DM 18/3/2001.  
Certificato di prevenzione incendi.

Con riferimento all'oggetto,  
visti gli esiti dell'istruttoria di cui alla delibera del Comitato tecnico regionale n. 161 del 21/12/2011;  
visto l'esito del verbale dei sopralluoghi effettuati nei giorni 3 e 4 Luglio 2013 dalla Commissione incaricata di effettuare gli accertamenti sopralluogo presso lo Stabilimento sinistralmente descritto negli Allegati 1, 2, 3 e A;  
esaminata la documentazione e le certificazioni prodotte nel corso degli accertamenti;  
si attesta il rispetto delle prescrizioni previste dalla normativa di prevenzione incendi e la sussistenza dei requisiti di sicurezza antincendio e si rilascia il Certificato di prevenzione incendi, ai sensi dell'art. 4 comma 5 del DM 18/3/2001, alle seguenti condizioni:  
1. sono rispettati gli adempimenti di cui agli artt. 7 e 9 del D. Lgs. 334/99 e s.m.i., nonché quelli previsti dal DM 16/2/1998 e dal DM 9/8/2000;  
2. sono effettuati i controlli periodici e le manutenzioni previsti dagli standard aziendali, dalle norme tecniche prese a riferimento e dalle norme vigenti, su impianti e attrezzature finalizzate alla sicurezza.

Il responsabile della istruttoria tecnica  
Ing. Roberto Di Stefano

Il Comandante Provinciale  
Ing. Augusto...



## SAFETY

## ON SITE... SAFELY

We regularly conduct on-site analysis to monitor safety and raise awareness of this among contractors that operate on our sites

45% OF COMPANIES RECORDED AN EXCELLENT PERFORMANCE, AND 39% A GOOD PERFORMANCE

Guaranteeing a managerial approach to workplace safety management, particularly on-site activities, is a necessary condition to translate into tangible results what is required by existing legislation, by certification regulations adopted and, more generally speaking, by internal procedure and improvement targets. This is why it is crucial to regularly and continuously verify results obtained in relation to set targets and to measure the **performance** and quality of tools used, evaluating any need there may be for corrective action.

The approach that the company adopts towards on-site safety activities aims to create a process of **cultural and behavioural change**, involving and motivating people when it comes to workplace health and safety matters, so that the application of standards and requirements is not seen as an imposition and is not reduced to the simple implementation of existing legislation.

In particular, **every month we monitor** the HSE **performance** (Health, Safety and the Environment) of contractors that operate on sites managed by ISAB Energy Services, and this is based on a global index that takes into consideration the number of on-site checks, the frequency and gravity index of accidents

that occur, the HSE attention index and the indicator of other complaints received (e.g. violation of the Highway Code).

Monitoring activity involves on-site surveys that are performed on the basis of a check list including general guidelines (company, plant, details of work permit etc.), 38 specific items, and **specific comments on scaffolding**, which aim to verify and ascertain compliance with rules for safe use.

Site checks are accompanied by **third party personnel involvement**, who are made aware of the dangers associated with the activities being carried out and the need to adapt to Work Permit requirements following risk analysis performed before the activity. During this stage, any safety suggestions proposed by third party company personnel are also heard.

The **Health, Safety and Environment Specifications**, attached to tender contracts and complete with sanctions plan, is a tool we use (in addition to the checks) that "sets the rules of the game" and establishes (through a specific case study and a number of examples) the "level" of the sanctions that will be applied if non-compliance with safety is detected in contractors.

Even at the contract stage, therefore,



we ask companies to respect a series of rules that ensure high standards of health and safety and we share the levels of sanctions to be applied if these rules are not complied with.

On the basis of the applicable individual collective sector contracts, contractors who do not comply with the specifications must pay sanctions appropriate to the various types of violation. Generally, **we try to encourage training that will help restore the safety situation rather than apply penalties** that do not lead to any improvements in the working method.

With on-site non-compliance, however, the personnel performing the audit requests that the situation is immediately resolved and that minimum safety conditions are restored, involving company departments (Maintenance, Operations etc.) and suspending work if necessary and in the event of serious or imminent danger.

The personnel in charge of carrying out checks notifies the head of the prevention and protection service of ISAB Energy

Services of examples of non-compliance and they, in turn, begin the management procedure of notifying the Contract Manager, the personnel concerned with the work performed, and the client company employer: the Manager then proceeds with the notification and asks the contractor for detailed analysis of the causes.

The company must then respond and provide documentation that shows what corrective action they have taken or intend to take. This will be analysed by the Manager, who will assess its coherence in relation to what is indicated in the Sanctions Plan, also considering analysis of same Company recurrence.

Over all, the **monitoring of site activities on the Priolo sites had a positive outcome**. 45% of companies recorded an excellent performance, whilst 38% recorded a good performance.

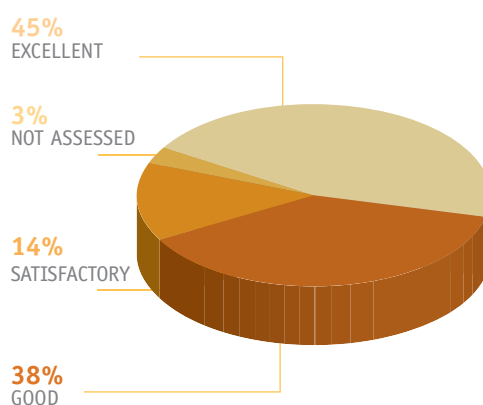
These important results stem from a careful selection of suppliers even at the qualification stage, followed by extensive on-site monitoring, starting with a daily survey of open Work Permits ■

#### 1,500 SAFETY REVIEWS

In 2013 site departments performed around 1,500 reviews to analyse the on-site behaviour of contractors, both at the ISAB Energy facilities and at ERG Power.

The reviews focused on around 24 thousand checks in the areas of Health, Safety and the Environment, and only 0.91% cases of non-compliance were recorded ■

#### SUPPLIER ASSESSMENT



## SAFETY

## ERG POWER, HIGH TECHNOLOGY REVAMPING

## A major project. A powerhouse of technology and safety that is unique in Europe

In the multi-company site in Priolo we launched a highly technological initiative, modifying the technical infrastructures of one of the three ERG Power high tension electricity substations with the aim of bringing equipment up to date with the most modern technical standards.

The aim of this **revamping** operation was to increase the safety of plants by installing modern equipment with cutting-edge management solutions and controls so they could be operated remotely.

During work, substation transformers were also changed and old ones (which contained dielectric oil) were replaced with new, dry-type ones.

This resulted in a major improvement in safety for maintenance work employees due to the fact that the stations and control panels were kept separate and individual sections of plant could be operated on without voltage.

Thanks to the new check and protection system, the following operations can be carried out completely independently and safely:

- user device load transfer from a system without voltage dips;
- automatic switching between control panel inputs;
- full protection of individual input and/or output transformer housing unit;

- impossibility of performing unsafe operations;
- full local and remote control of all alarm, measurement and protection functions of the panel;
- bus bar differential protection in case of breakdown of any panel system.

The project was difficult to carry out as it was impossible to interrupt substation operations. The components were therefore replaced “half at a time” to guarantee a power supply for the user devices connected through the redundant connections provided.

The **revamping** operation of the ERG Power control panel is a highly technology and safety-focused project and truly one of its kind in Europe ■



## PEOPLE

## GREATER WELLBEING FOR PLANT EMPLOYEES

We have redeveloped a building near the CCGT plant to provide technicians with the services and facilities they need

NEW PLUMBING AND ELECTRIC SYSTEMS HAVE BEEN INSTALLED, AS WELL AS BATHROOMS AND AIR-CONDITIONING SYSTEMS. THE BUILDING ALSO HAS DISABLED ACCESS

Next to the ERG Power CCGT plant there is a building that was constructed in the mid-1970s and was designed to be used as a control centre for the old thermoelectric plant at the North site.

The commissioning of the new combined cycle (more modern and efficient and built a few hundred metres from the old plant) broke the “umbilical cord” that connected the building to the plant it was physically linked with. This made it possible to carry out redevelopment work which aimed to provide personnel with a functional space, with systems and services that comply with workplace hygiene legislation and meet the highest standards.

Between the middle of 2012 and the start of 2013, we therefore began work on the building with the aim of improving

the **welfare** of employees who work on a daily basis at the plant. The first step involved **redesigning the electrical systems**, and we then moved onto the plumbing systems and bathrooms.

A new changing room was built complete with showers for all employees who work on a daily basis in the technical departments, meaning they didn’t have to go to a building that was at a distance from their offices. After this, the existing air conditioning system was removed and **summer and winter systems** were fitted so that users are guaranteed maximum flexibility.

All work, particularly when it came to the systems, was designed to minimise the presence of elements that could somehow pollute the **cleanliness of lines** and the **linearity of perspectives**.

Finally, special attention was paid to disabled **access** and the building was designed so it could be fitted out with an outdoor lift, ensuring access to all three floors of the building.

As part of the plans to redevelop the site offices, the next step is to redevelop the former SA2 building, the office building that was connected to the control room for the plant’s entire electrical distribution. The style and approach applied will be the same as for this work ■

The services building after redevelopment work



## PEOPLE

## INDUSTRIAL RELATIONS AS RELATIONAL CAPITAL

Communication with workers' representatives based on transparency and collaboration is key for making change an opportunity for growth

QUALITY  
INDUSTRIAL  
RELATIONS  
HELP TO CREATE  
VALUE IN A  
COMPANY

Investing in human capital, in its development and training, is an element of primary importance. We are convinced and well aware that human resources must be considered to be an **essential component of a company's organisation**, like an asset that actively contributes to the creation of value, sharing the same interests and goals.

Following our exit from the coastal refining sector, we noticed a great need to extensively redevelop the skills of our workforce, resulting in professional mobility and changes in positions and responsibilities.

The concentration of operations in special purpose companies has led to the **creation of new organisational structures** and the creation of **more professional opportunities**.

The establishment of a new service

company, that cuts across the Group and has the key mission of combining efficiency and quality, has resulted in **major changes in internal processes** and in established *modus operandi*:

- 17% of organisational positions have been newly established;
- 15% of the pre-existing ones have adopted new content;
- Organisational levels have been reduced on average to 3-4;
- 40% of the organisational teams has altered its composition.

This massive change has called into question the system of industrial relations, and stimulated a **constructive dialogue between company and workers' representatives** that seeks to find shared and participatory solutions. A process of ongoing and constructive dialogue with trade unions has made it possible to **combine organisational**

## ERG AND THE UNIVERSAL DECLARATION OF HUMAN RIGHTS

The recognition of Human Rights is considered by the Group to be one of the fundamental bases for conducting business to the point that reference is made to the principles of the 1948 Universal Human Rights Declaration in the Preface of the new edition of the Code of Ethics approved in November 2011.

The company has also analysed the problem in its operational and economic setting. We believe that the recognition of Human Rights is not a concern for us at the present time ■

**AS A RESULT  
OF THE  
ACQUISITIONS  
OF 2013, 178  
PEOPLE HAVE  
BEEN ADDED TO  
THE GROUP'S  
ORGANISATIONAL  
PROCESSES**

**transformation with respect for workers' professionalism.**

This consequently makes it possible on one hand to contain social impact and on the other to establish professional requalification processes shared by individuals.

The trade union agreements signed in the summer of 2013, which accompanied the establishment of the **Fast Steering** model, are a concrete example of how organisational and employment issues may find new, different solutions, and an example of how quality industrial relations help create value in a company.

The companies acquired during 2013 brought 177 employees to the Group's organisational processes, **guaranteeing continuous employment for all**

**personnel.** Our personnel **relocation policy** significantly helped those employees who were asked to be transferred, in line with the new organisational role.

In 2013 our company and workers' representatives also communicated on issues of Health and Safety in the workplace, focusing on **dialogue, transparency** and constructive **collaboration**.

Continuous dialogue on these issues significantly helps achieve high levels of safety, quality and environmental protection.

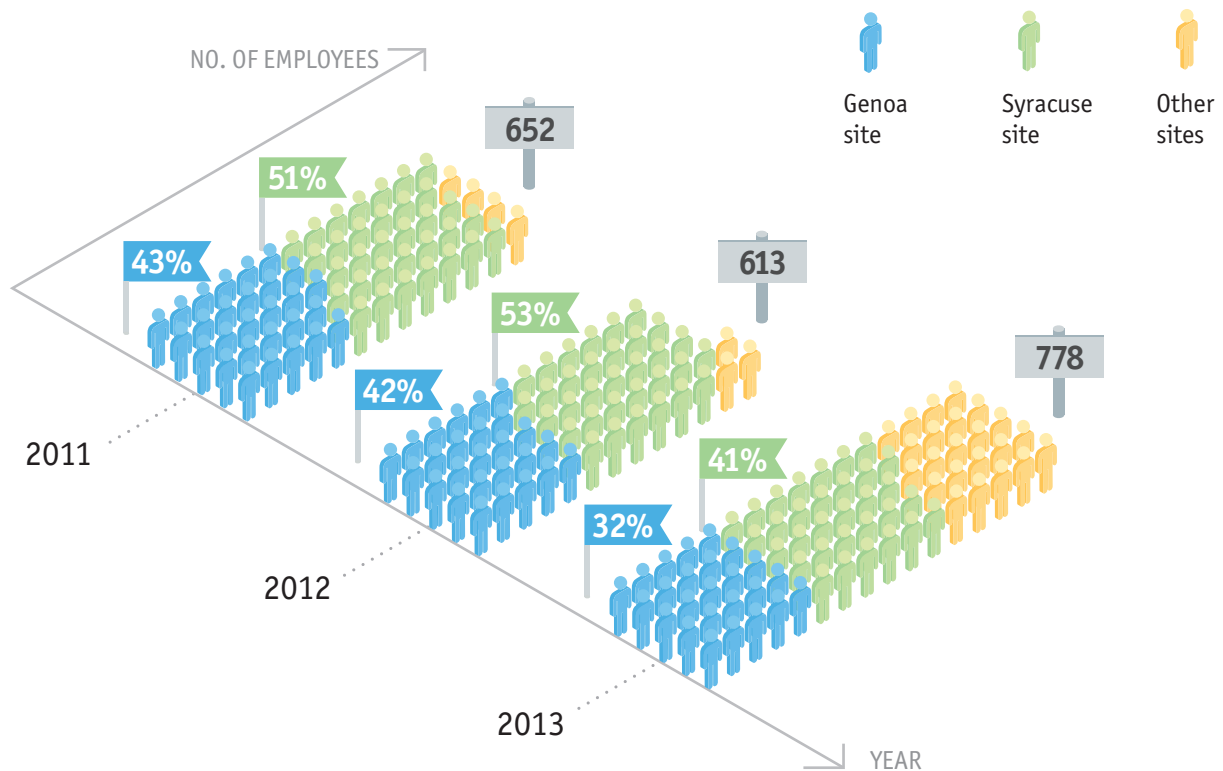
Finally, both social partners continued in their commitment to get behind and further develop flexible support tools for reconciling professional goals and social life ■

**ERG AND PEOPLE**

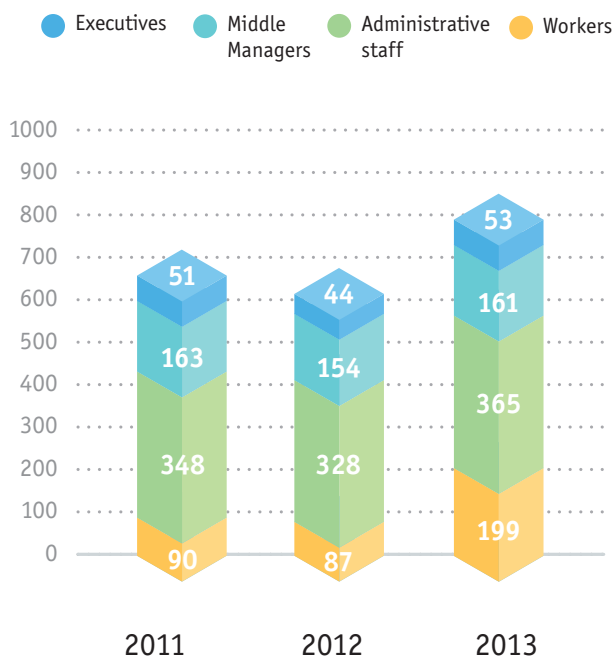
*"People are the indispensable factor for the existence, development and success of any business; ERG therefore pays particular attention to valuing, protecting and developing the abilities and skills of all its employees so that they can realise their full potential and professionalism and, as a result, contribute to reaching the Group's objectives with regard to compliance with its social and environmental responsibility commitments defined by management.*

*ERG offers to all persons equal employment opportunities, according to their professional features and performance capabilities, without any discrimination, condemning every criminal act against the individual and committing to adopt the most appropriate supervisory measures to this end". (ERG Group Code of Ethics) ■*

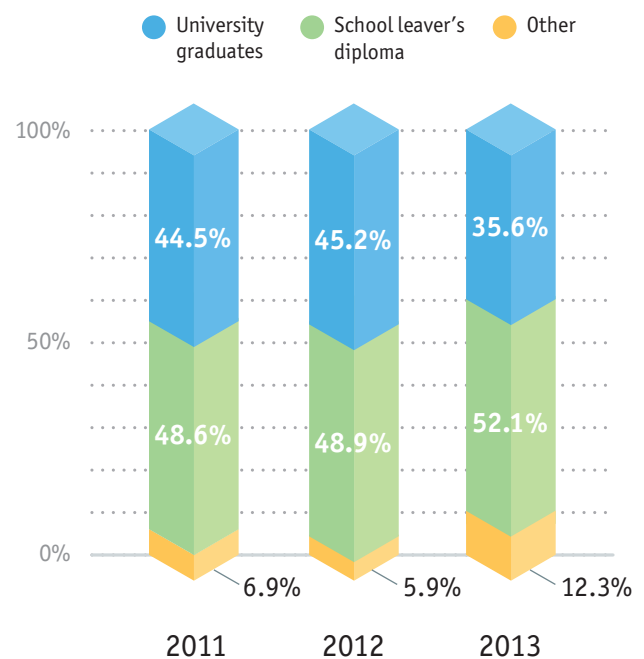
## ERG GROUP: PERSONNEL AND ORGANISATION OF WORK



### CHANGES IN POSITION

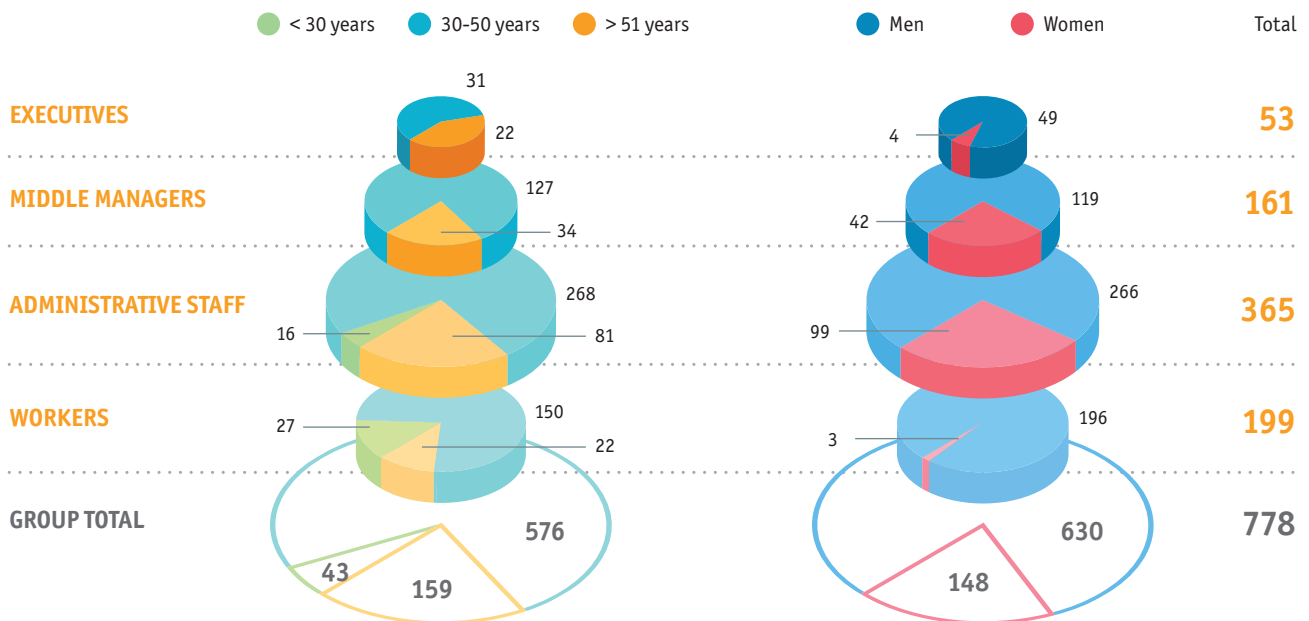


### EDUCATION

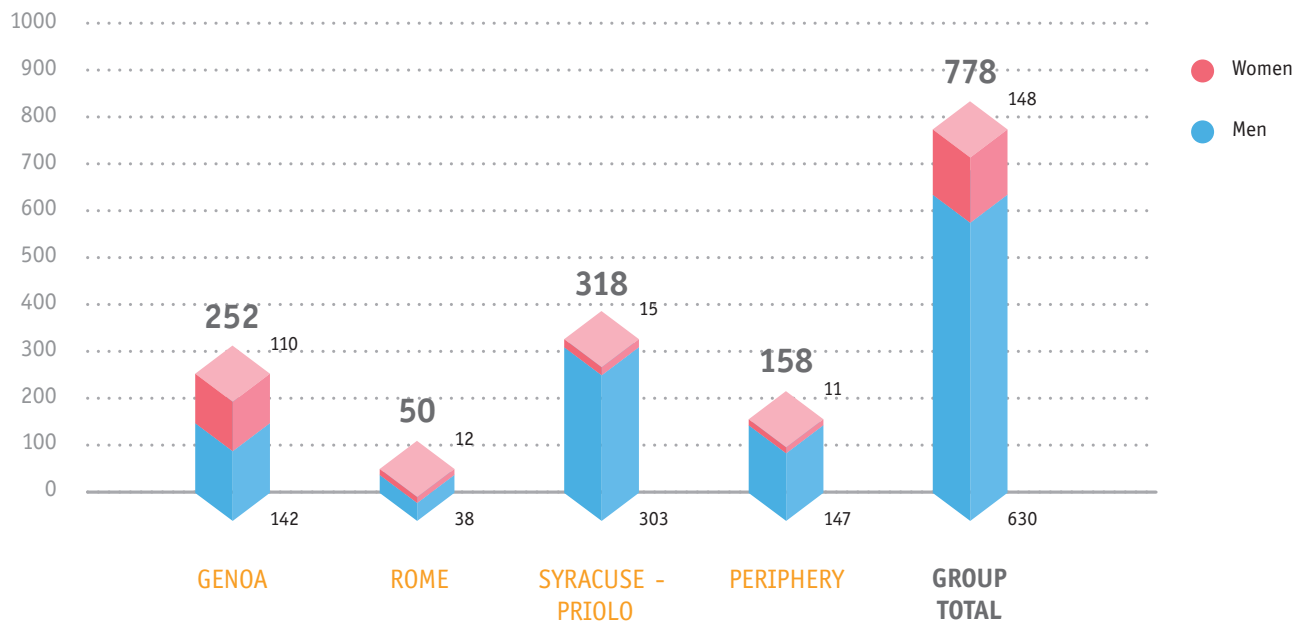




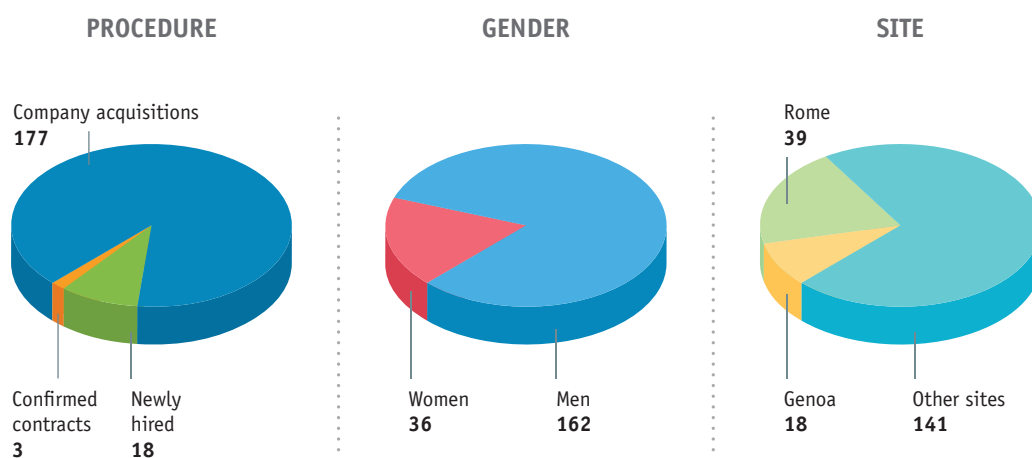
## ROLES BY AGE AND GENDER



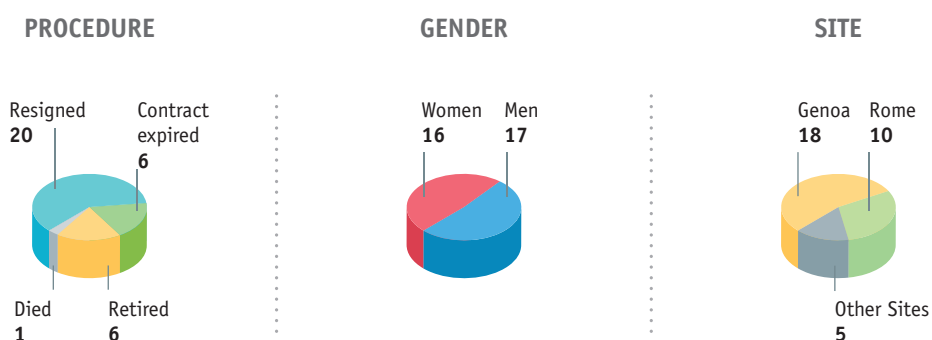
## GENDER BY SITE



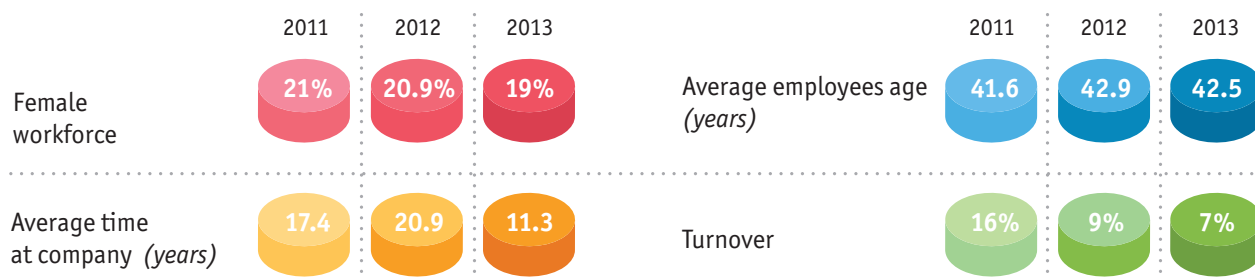
## STAFF TURNOVER: 198 PEOPLE JOINED THE COMPANY



## STAFF TURNOVER: 33 PEOPLE LEFT THE COMPANY



## OTHER INDICATORS



Data relating to 2013 turnover does not take into account employees that joined the Group following company acquisitions. This is in order to present the actual change in the workforce that took place during the year.

## PEOPLE

## HUMAN RESOURCES AND REMUNERATION

We ensure a compensation structure that complies with regulations and is always up to date with contractual requirements

PROTECTION  
OF GENDER  
EQUALITY IS  
ONE OF OUR  
PRIORITIES

All our employees are employed under national labour agreements for the category (Energy and Oil, Tertiary commerce distribution and services, Private Metalworking and Mechanical Engineering, Executives of companies producing goods and services), which ensure contractual and pay-related standards that are in line with national and international labour regulations.

Workers who are employed temporarily on supply contracts are also guaranteed the same economic treatment provided for by contracts applied to employees on permanent contracts, which also includes a productivity bonus.

We always monitor the compensation structure we guarantee our employees to make sure it is in line with contractual requirements. In the year 2013 the minimum wages paid were on average **4% higher than those of the National Collective Labour agreement**; for executives however the minimum salary was **11% higher** than contractual requirements.

The average salary for our Group's executives was in line with the average for market executive salaries, as reported in the Hay Compensation Report - Total Cash Italia 2013.

When determining our compensation policies, our priority is the **protection of**

## COMPARISON IN MINIMUM SALARY (€)

	Minimum NCLA salary	Minimum company salary	Average company salary
Middle managers	40,135	41,552	54,992
Administrative staff	23,013	23,590	39,242
Workers	23,013	27,972	34,843

Data refers to those employed under NCLA Energy and Oil contracts

## AVERAGE MONTHLY SALARY BY GENDER (€)

	MEN	WOMEN	DIFFERENCE %
Executives	7,830	7,729	-1.3%
Middle managers	3,975	3,792	-4.6%
Administrative staff	2,871	2,624	-8.6%
Workers	2,489	n.a.	n.a.

Average gross salary net of productivity bonus

Data refers to those employed under NCLA Energy and Oil contracts

## GROSS BONUS PER CAPITA - AVERAGE FOR 3-YEAR PERIOD 2011-2013 (€)

	2013	2012	2011
Middle managers	5,355	5,355	5,019
Administrative staff	4,262	4,262	3,993
Workers	2,711	2,711	2,501
Average considered	4,109	4,109	3,838

Data refers to those employed under NCLA Energy and Oil contracts

**THE EMPLOYEE  
PRODUCTIVITY  
BONUS IS  
ON AVERAGE  
12% OF THE  
CONTRACTUAL  
COMPENSATION**

**gender equality.** Analysis conducted over the year has shown differences in the average pay scales between men and women; 1.3% for executives; 4.6% for middle managers and 8.6% for administrative staff.

The main reason for these differences lies in the proportion of men to women in each category.

75% of middle managers are men, whilst women (25%) in the same category are in professional roles.

The difference between male administrative staff and female administrative staff meanwhile is caused by the fact that 80% of managerial admin staff are men.

In line with what is outlined in the National Collective Labour Agreement recognised by the supplementary agreements in the Group's companies, the **employee productivity bonus** (for managers,

administrative staff and workers) is based on indicators of profitability, productivity and absenteeism and is on average **12% of the annual contractual salary**.

Profitability indicators are represented by the Group's Ebitda and by that of its member companies, whilst productivity indicators are connected to specific indicators for each business managed by each company.

### PENSION FUNDS

Around 85% of all employees had a pension fund in December 2013. The main funds for employees of our Group are Fondenergia for people employed on Energy and Oil contracts and Previndai for executives.

These two cover around 96% of all employees with a pension fund ■

### ERG AND PEOPLE

The ERG Group has always paid attention to the health of its employees and in 2013 it offered workers three healthcare protection programmes.

For many years employees have been able to receive free flu vaccinations. In 2012 and in 2013 a secondary tumour prevention programme was launched and all women over the age of 40 and all men over the age of 50 were given the chance to have ultra-sound scans which aimed to identify the most frequent forms of cancer, i.e. breast cancer and prostate cancer.

In addition to the healthcare protection programme, the Priolo site also offered the URO programme, which employees can sign up to voluntarily and which aims to monitor urinary tract diseases over a two-year period ■

## PEOPLE

## MANAGEMENT, A MOTIVATIONAL COMPENSATION SYSTEM

The remuneration of senior management positions is defined on the basis of strategic targets and risk management policy

### A TWO-PART BONUS DESIGNED TO MOTIVATE THOSE WITH STRATEGIC RESPONSIBILITIES

Pursuant to the Corporate Governance Code, in 2011 ERG established its management remuneration policy, applicable to members of the Board of Directors of ERG S.p.A. and executives with strategic responsibilities. The policy is applicable for the three-year period 2012-2014, consistent with the term of the Board of Directors.

The remuneration system chosen by ERG S.p.A. aims to **attract, retain and motivate highly qualified executives** with strategic responsibilities and is designed to promote maximum alignment in terms of objectives between management and shareholders. Compensation is divided into two components, one fixed and one variable. These are determined through benchmarking with other listed companies operating on the Italian market.

The two components are properly **balanced according to the strategic objectives and risk management policy**:

→ the fixed part is sufficient to compensate the manager with strategic responsibilities for his/her performance in the event that the variable part is not paid for failure to achieve the

performance objectives;

→ the variable part is linked to the achievement of specific performance objectives in the short and mid to long term.

For the CEO, the variable part determined by the creation of value in the mid-long term (LTI) is linked to the achievement of specific objectives to create value (EVA) over a three-year period.

For managers with strategic responsibilities, meanwhile, the variable part is divided into mid to long-term incentives (LTI), which adhere to the process described above, and short-term incentives (MBO) which are described in the next section ■

#### WHAT IS EVA?

EVA is the “residual” monetary value after all the production factors have been paid, including the cost of capital invested.

It expresses, therefore, an income net of the cost of capital. EVA considers the asset and financial components alongside the income ■

## PEOPLE

## PUTTING FOCUS ON COMPANY PRIORITIES: THE MANAGEMENT BY OBJECTIVES PROCESS CONTINUES

### Identifying targets and evaluating performance based on results achieved

As in 2012, in 2013 ERG also applied its **Management By Objectives** (MBO) at the very highest levels of the organisation: a useful system to place increasing focus on the business priorities defined at the time the annual budget is developed.

The process involved all executives and 36 middle managers with significant organisational roles (around 26%).

ERG's MBO requires the formalisation of:

- **4 objectives** (one corporate and 3 individual);
- **indicators** to measure actual achievement;
- **targets**, which can be numerical and should allow the achieved result to be identified, taking advantage of its nuances (80%, 100%, 120%).

Each objective is linked to a percentage of the individual's variable remuneration:

- 30% for shared corporate objectives;
- 70% for the three individual objectives.

The high level of attention that ERG pays constantly to the safety of employees can also be seen here. The bonus referring to the corporate objective **will not be given in the event that an accident results in a permanent level of invalidity above or equal to 46%**.

From a process perspective, by **cascading** top-down objectives including all levels of the organisation, **in 2013 284 objectives were assigned**: Human Resources and Management Control have certified the consistency of the system and the level of the challenge given.

In February 2013, the process allowed all participants to know about their objectives, including **targets** and indicators.

Meanwhile, ERG evaluated the objectives set in 2012: **74% of participants achieved a better result than anticipated**, establishing an achievement average of 102% ■

#### EMPLOYEE OBJECTIVES

In 2012, the process of assessing performance by assigning individual objectives that are directly related to the Group objectives was also extended to Category 2 employees: to date over 231 people are involved in the performance management process, amounting to approximately 30% of the workforce ■



## PEOPLE

## THE NEW ERA OF TALENT MANAGEMENT

We focus on the central role of the person  
by promoting each individual's talent

**"PEOPLE":  
THE SPECIALLY  
DESIGNED  
PORTAL THAT  
ALLOWS EACH  
INDIVIDUAL TO  
GIVE VALUE TO  
THEIR SKILLS  
AND TO BUILD  
NEW ONES FOR  
THE FUTURE**

The promotion of human capital is a strategic priority for our Group and in 2013 we made an important move forward in this direction.

After having established the main development processes (**performance management, leadership development, succession plan**) we worked on IT management, developing the first integrated portal dedicated to people.

Far more than a technological solution, **"People"** is an entry point for every ERG employee and manager to the most important of the company's intangible **assets**: its human capital.

The approach adopted is an innovative one in that it starts from the individual. People is designed to stimulate people not only in terms of valuing their previous professional experience and skills, but also in terms of imagining and building their future ones.

ESS logic (**Employee Self Service**) goes so far as to give each individual the opportunity to define their own professional **background** and their own aspirations and offer them up also to colleagues.

In the Web 2.0 era the individual is no longer a collection of information, but actively interacts with **People Managers**

and development specialists, in order to give true meaning to the **central role of the person in the company**.

Through the evolved integration of these processes, we have learnt to look effectively at the many aspects of human capital. We then used this as a basis upon which to establish a development model centred round the **concept of "talent"**.

ERG does not see Talent Management as the representation of different development processes, but as a philosophy that aims to discover and **give value not so much to talented people as to people's talent**.

The **leit motif** "don't look for people with talent, look for the talent within each person" is a Copernican revolution in the traditional management of human resources. We move from focusing on the qualities of a small group of people to a need to discover the true resources in each individual, so that these can be used as effectively as possible as part of corporate programmes.

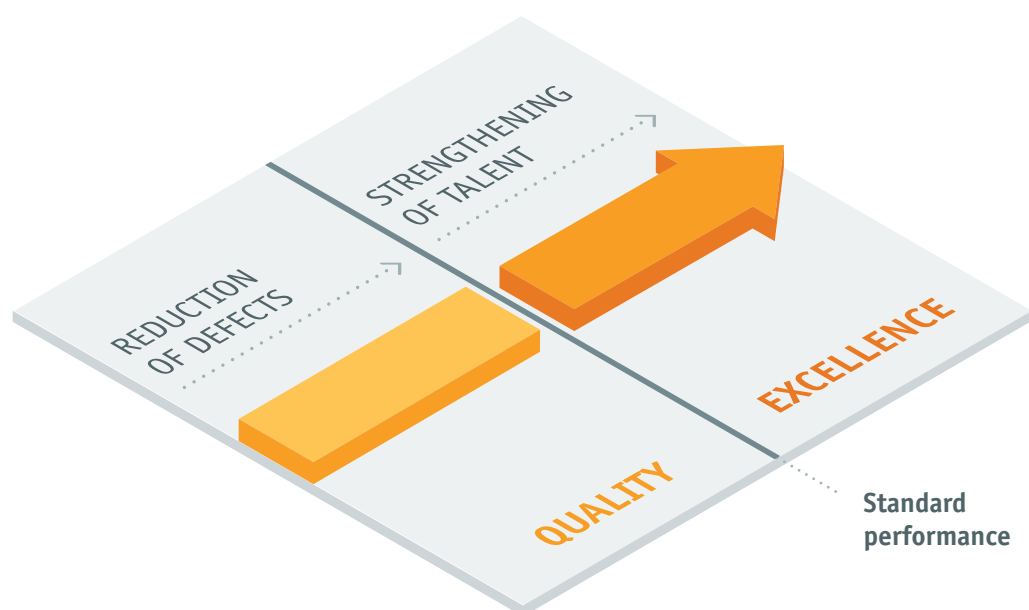
The aim is to go beyond the concept of "human resources" and to **raise intangible elements of business competition, such as knowledge, skills and motivation, to assets that can be measured and developed and that become an integral part of the**

**company's financial statements**, with the same dignity that is awarded the brand today or the commercial start-up. If knowledge and skills are therefore the frontier of the new way of creating value through people, their construction is the concrete dimension of our commitment towards people.

Analysis of the results of **leadership development** processes has enabled ERG to identify the needs expressed (as well as those not formally expressed) by ERG personnel. The Group therefore created a **new training catalogue** that was able to respond to learning desires and needs through new seminars, pathways, didactic procedures and processes. ERG offers a "training **boutique**", where courses are specifically designed to suit the needs of the people and **each course is tailor-made** in terms of content and how it is carried out.

The seminars respond to the needs of self-efficacy, **leadership**, innovation and **team work**. They involve classroom sessions, exercises, lectures and in-depth study as well as **tutorship**. Above all else, they are **chosen directly by those involved**.

The process involves each person being asked to embark on a training path that, by the end of the year, will lead them to develop new skills and/or to significantly consolidate the ones they already possess, thereby fine-tuning their talent. For ERG, training is effective when it leads to changes in the way people think and above all in the way they act, enabling the individual to add new behaviour sets to their collection. In short, knowledge turns into skills and consequently into action. ERG is offering all its employees new energy and new power: this is the new age of **Talent Management** ■



## INTERNAL COMMUNICATION

## PEOPLE AT THE CORE

## Events, initiatives and new communication tools to promote dialogue and information sharing

Internal Communication's commitment to getting people increasingly involved, by reintroducing certain events, and adopting new tools and methodologies aimed at listening, in order to ensure **greater sharing of information and the Group's strategic objectives**. The promotion of company values and culture also considered throughout 2013.

## PROJECTS

EMPLOYEES  
FEEL A  
STRONG SENSE  
OF GROUP  
BELONGING

## ERG strategic identity

In big companies, as in people's lives, change leads to the search for a new identity. This is why, at the end of 2012, Top Management and the Human Resources Department felt that it was time to start a process to **focus on ERG's strategic identity**, understood as being everything that makes the company recognisable in a full and distinctive way in the eyes of our employees, and differentiating it from the ERG of the past and also other similar companies or competitors.

The project concluded in June 2013 and used scientific procedures to identify the Group's identity in the near future, in line with its strategies.

A rigorous process was created consisting of various stages:

→ **analysis of all material** from recent

years relating to the company, its history, its values, its internal climate, its symbols, surveys into external perception and all other available surveys;

→ **11 in-depth interviews** aimed at top management and management and 1 in-depth qualitative survey carried out as a result of 10 focus groups representing all families and companies, making a total of 120 participants;

→ **1 quantitative** survey involving all employees, to recap the previous stages;

→ **strategic identity proposal**, and identification of a combination of internal communication activities in line with this in-progress identity.

Some general points on the results:

→ **8 people out of 10 are happy or very happy** working in ERG. There is a prevailing sense of Group belonging;

→ **convergence on certain key aspects** of the two main sites of the Group – Priolo and Genoa – despite having different identities: the shared company memory, the Garrone family as a unifying reference and symbol, a greater sense of Group belonging, remaining an "industry" and the important role in strategic sectors;

→ **2 critical aspects in the current ERG identity: pointless complications** (bureaucracy vs simplicity) and **the**

**need to be recognised and listened to** (anonymity vs meritocracy);

- the **expectations about the future strategic identity** of our company focus on forward-looking keywords: the history of the Group, Garrone, management, industrial vocation, green, innovation, dynamism, technology, cohesion, flexibility and diversification, a simplified and less bureaucratic company, attention to individual excellence, and listening.

## THE EVENTS

### Group Meeting

Changes were made to six-monthly meetings between top management and management concerning:

- **involvement methods:** the invitation to each meeting was accompanied by a teaser video to help build up interest and create expectations;
- **content preparation:** each meeting was given a theme, which became a reference for preparing content for individual reports;
- **layout of meeting rooms:** the classic theatre layout was replaced with a round table set up, to strengthen the social aspect of the meeting and encourage communication between participants.

As always, the speakers at each Group Meeting were recorded and posted on the portal, along with the reports, so that this information could be shared with all employees and keep them up to date with the development of individual areas of business and company targets.

### Family Day

Designed to promote greater integration between the family and the workplace, the second ERG Family Day **was organised on all three of the Group's sites** (Genoa, Rome and Syracuse) and involved a total of **120 children** between the ages of 3 and 12.

During the event the children were involved in recreational and educational activities on the subject of different energy sources, and were able to visit the offices and plants where their parents work.



### Christmas Events

In addition to the traditional Christmas events at the Genoa and Syracuse sites, this year **three events** were organised to celebrate the holiday in the Operating Centres of ERG Operations & Maintenance, with a view to getting new colleagues immediately involved in our festive celebrations.

## Focus

The 2013 schedule of Focus meetings continued to give visibility to “who does what” in the company, promoting discussion among participants in an open and informal environment. Each meeting was organised via videoconference with the office in Rome and replicated at the Priolo site.

## THE INFORMATION TOOLS

### Intranet portal

Following new reorganisation, it was necessary to launch a **project to develop certain sections of the intranet portal**, as a result of which new tools will be introduced and content will be updated. Users are expected to have access in the second half of 2014.

### TeamERG e Megawatt

The internal publications remain a valuable tool for **information sharing** within the group. In 2014, TeamERG is due to undergo restyling for a third time, in a bid to make it a benchmark for people and a vehicle for company communication aims.

Both publications are available to all Group employees on the intranet.



## OTHER INITIATIVES

### London Ultra Marathon and Half Marathon

After New York and Amsterdam, 21 runners from Team ERG successfully took part in the London Ultra and Half Marathons, continuing to show their passion for this sport and the importance of spending time together away from the workplace too.

### National Oil championship

ERG took entered 15 of its athletes in the 2013 edition of the National Oil Championship in Abruzzo ■

The start of the London Marathon





## COMMUNITY

## "DIALOGUE IN THE DARK" IS NOW A PERMANENT EXHIBITION

### ERG continues to support a project of great social and cultural value

"A REAL  
EDUCATIONAL  
EXPERIENCE  
THAT CAN  
HELP CREATE A  
COMMUNICATION  
TOOL FOR  
DIVERSITY"

After the temporary exhibition in Piazza Caricamento, "Dialogue in the Dark" has now gone permanent and Genoa is one of 21 cities around the world that host the event.

Since 16 May 2013 the exhibition has been on a barge (the former Urban Lab) which is moored in front of the Galata Museum of the Sea and was donated by Fincantieri to the David Chiossone Institute.

As with the previous edition, which was held from October 2011 to November 2012 and was visited by over 22,000 people, visitors in small groups are taken by **blind guides** on a 45-minute **journey into total darkness**, experiencing a new way of seeing reality and relying on senses other than sight.

Compared with the previous edition, the surface was extended and a number of areas were altered in line with the new exhibition's maritime themes.

ERG got behind the project from the very beginning and has **continued to support the event and to partner** a project of great social and cultural value, which is

able to add value to and develop resources in the community.

During the inauguration ceremony, our Chairman, Edoardo Garrone, said of the event, *"As part of our Corporate Social Responsibility initiatives and with an eye to the careful selection of projects that are most able to add value to and develop community resources, ERG decided to renew its support for "Dialogue in the Dark" and to continue to partner a project that is of great social and cultural value. From the very beginning we got behind what we see as a real educational experience, able to create a diversity communication tool, to reveal "other" ways of seeing things and to open our minds whilst our eyes are shut. We are pleased to be able to get behind "Dialogue in the Dark" once again and in addition to spreading a culture of integration, promoting the active role of the blind in society, raising public awareness of the issues of disability and educating young people, this project is an excellent example of how a group of people, each with their own specific skills, can work well together to achieve a common project that benefits the city and its citizens"* ■



## THE MAIN COMMUNITY INITIATIVES

### ENVIRONMENT, HEALTH, COMMUNITY WORK



#### San Giovanni Project

The project is the result of a three-year agreement, starting in January 2012, between ERG and Consolidas, a consortium of social cooperatives that is part of the network of social enterprises CGM Welfare Italy. The agreement provides support for the work of the

“Green Service” cooperative, formed by disabled people and people receiving treatment at the psychiatric services of the Provincial Health Authority of Syracuse, who are engaged in gardening activities in Piazza San Giovanni in Syracuse.

#### Survivors Project

The Survivors Project is the continuation of a collaboration between the Provincial Health Authority of Syracuse, ISAB and ERG Group and Project RAO (Ambulatory Oncology Network), established in 2007. The initiative involves opening and managing a clinic for cancer sufferers with a survival prognosis of more than three years.

#### “Al Fresco Creations”

The aim of the initiative is to couple people’s skills with their return to society, taking an object that is no longer usable and giving it new life. Female inmates at the Genoa Pontedecimo prison create canvas bags using discarded umbrellas and ERG has bought 500 of them



#### Supporting the work of Emergency and Libera Terra for Christmas

For Christmas ERG decided to allocate gift money to activities with social aims. One portion was allocated to support Emergency’s project to develop the “Umberto I” migrant reception facility in Syracuse, while the remainder was allocated to Associazione Libera Terra (Free Earth Association), which proposes a virtuous economic system in critical areas and seeks to fight organised crime.



#### CEIS Solidarity Centre

In 2013 ERG donated around 11 hectares of land to CEIS Centro Solidarietà di Genova (the Genoa Solidarity Centre established in Genoa in 1973), so that a drug rehab centre could be built. In over thirty years of history, CEIS has gained extensive experience providing prevention, treatment and rehab services to people with drug addictions and other related problems.

## CULTURE AND KNOWLEDGE

### Dialogue in the Dark



ERG is a partner in “Dialogue in the Dark,” a multi-sensorial experience that involves sight-impaired guides leading visitors in complete darkness through a number of spaces from everyday life: spaces that, when experienced without visual stimuli, reveal new perspectives and all the potential of our “other” senses. In 2013 it became a permanent exhibition in the area of the Old Harbour in Genoa.

### Science Festival



Festival della Scienza

ERG supported the “Capitani Coraggiosi” (Courageous Captains) conference cycle, dedicated to founders of enterprises who support Italian development, thus becoming a concrete example of Italian know-how.

### Boot Camp



In 2013 the Young Entrepreneurs Group of Confindustria Genoa, with the educational coordination and planning of Confindustria’s Alta Scuola, offered its members the opportunity to take part in the second edition of Boot Camp: two days of unique training where theory and practice merge together to create useful skills for tackling the difficult scenario that Italian companies are currently operating in.

### Syracuse Almanac



Since 2008, ERG and ISAB have promoted the publication of a collection of all news items related to the province of Syracuse as a useful tool to help students, researchers and journalists to understand the local environment.

The Almanac is produced in association with Assostampa.

### The Magna Carta Foundation

ERG supports the Magna Carta Foundation, which, since 2004, has promoted scientific research, cultural reflection and the development of proposed reforms on the main themes of political debate.

### The Civita Foundation

ERG supports Civita, an association that promotes and manages Italy’s cultural heritage and which protects, promotes and uses its artistic assets through shows, cinema and European projects.

### INDA Foundation



ERG supports the National Institute of Ancient Drama (INDA), which has organised and staged classical works at the Teatro Greco in Syracuse since 1914 and promotes classical culture both in Italy and throughout the world.



## YOUNG PEOPLE AND SPORT

### ERG Ravano trophy

After being an institutional partner of U.C. Sampdoria for a long time, ERG focused its attention and support on youth projects, confirming its role as naming sponsor for the "Torneo Ravano ERG" tournament, the spirit of which is fully consistent with the appreciation and promotion of youth sports.

The 2013 edition focused on football, rugby, volleyball and basketball. The largest schools tournament in Europe scored yet another record in terms of participation, with 493 teams, 197 schools from Liguria and Piedmont and over 5,000 children getting involved.

The joy and involvement of participants in team sports is the spirit of the tournament and these same values have been continuously expressed for the last 29 years.

The most important prizes are not those awarded to the winning teams of each discipline, but the very special awards. These include the "Fair Play Cup" (awarded to the team judged to be the most sporting), a prize for the best supporter, a prize for the youngest participant, and a prize for the best referee.

### ERG sports centre

In 2013 ERG promoted development of the Sports Centre, dedicated to the Chairman Riccardo Garrone, by creating a new 7-a-side Astroturf football pitch, plus support and reception services for sports centre activities and a play park. Through an agreement with the ERG Amateur Sports Association, we encouraged the sports centre to be used by local citizens and local schools, smaller sports clubs and not-for-profit organisations.



### School Project

ERG manages and promotes a range of activities dedicated to the world of schools, designed to provide sports opportunities (the Archimedes and Electra Trophy) and training opportunities (A Helmet is Worth a Life, Enterprise in Action, Volalibro) for young people from primary school up until the last year of secondary school. The activities are carried out in partnership with ISAB.



## Electricity Day

On 16 November 2013, ISAB Energy hosted Electricity Day, during which over 200 students from the fifth year of technical institutions in the province of Syracuse learned about electricity production. The youngsters were able to find out interesting information about production technologies, plant operations, and the ERG Group's great attention to environmental issues and workplace safety.



## Stelle nello sport (Sporting Stars)

The initiative involves all sports federations and sports clubs in the Liguria area plus fans and supporters, who come together to have fun and also raise the profile of the sporting scene in Liguria. The key aim behind the initiative is to raise funds for the Gigi Ghirotti Association in Genoa, which offers free healthcare at home or in the hospice for terminally ill patients.



## Drivemotion

This is the seventh year running that ERG has supported the "Safe Driving for Young People" project, created by the Drivemotion Centre and aimed at secondary school students in Genoa who have just passed their test, with the participation of the European Parliament, the Genoa province, the Traffic Police, the Italian Red Cross and the provincial and regional school offices of the Ministry of Public Education.

The course aims to improve the skills of young drivers and train them to be more mature and more responsible on the roads. Most importantly, it aims to make them more aware of their limits when it comes to controlling the car in difficult situations, and focuses particularly on the dangers of driving when under the influence of drink or drugs.

## COMMUNITY

## SYRACUSE: INITIATIVES FOR HEALTH AND YOUNG PEOPLE

### SURVIVORS PROJECT: assistance for cancer survivors

Thanks to early diagnosis and scientific advances, the life expectancy of cancer patients is rapidly increasing, which means dedicated assistance and support is required for families who are caring for their loved ones. This will involve a considerable effort from public and private entities, including the education and training of professional oncologists, to **ensure the wellbeing of all patients** and their families, paying attention to the needs of different people of different ages. Based on a three-year agreement, the Survivors Project fits into this context and is created in collaboration with Provincial Health Authority of Syracuse.

Specifically, the initiative involves opening and managing an ambulatory clinic for cancer sufferers with a survival prognosis of more than three years. Patients receive support for all aspects of their general physical, psychological and social health based on existing experience, international literature on the subject, and the needs expressed during doctor-patient visits.

The Survivors Project, supported by ERG and ISAB, is the continuation of the RAO Project (Ambulatory Oncology Network) established in 2007, which enabled the start-up and management of the service across three hospital areas in the province of Syracuse.

### SCHOOL PROJECT: making learning fun

This initiative is now in its third edition and is a range of educational activities designed for children from primary school age through to the final year of secondary school.

In particular:

- **the Archimedes and Electra Trophy**, now in its 22nd edition, involved primary and secondary school pupils;
- **a Helmet is Worth a Life**, in collaboration with the provincial command of the Carabinieri of Syracuse, saw ERG and ISAB staff collaborate with officers and non-commissioned officers of the Carabinieri to provide training on the issues of road safety and workplace safety;
- **the ICARO Project** is a road safety project developed by the provincial command of the Syracuse traffic police and sponsored by ERG and ISAB;
- **enterprise in Action** involves upper secondary school pupils and encourages them to develop business projects. In addition to the Sicilian regional phase, held in Syracuse, ERG also supported the national one in Palermo;
- **the Volalibro** children's book festival is new for 2013 and to mark the occasion our staff held special lessons for middle school and secondary school pupils on energy related issues and plant safety ■

## COMMUNITY

## THE EDOARDO GARRONE FOUNDATION: NEW PROJECTS, THE SAME VALUES AS EVER

The Foundation continues to promote and value the community's social and cultural resources

Creating initiatives that can generate innovation and create sustainable value over time, promoting high quality projects that aim mainly to involve and train young generations and develop the social and cultural resources of communities: these are what the Edoardo Garrone Foundation committed to in 2013.

Project Appennino® were aimed at getting young people involved and raising their awareness:

→ **Appennino Summer Camp**: created in partnership with Associazione Festival della Scienza (the Science Festival Association) and in association with the Liguria and Piedmont Regional Schools Board, the Appennino Summer Camp was based on an innovative format that was able to combine lessons with real on-site didactic experiences, offering 35 pupils from secondary schools in Liguria and Piedmont the chance to learn all about the culture, nature, and economy of the mountain communities of the Apennines (Capanne di Marcarolo, AL – 8,12 July 2013). The course combined theoretical learning, practical experiments and critical dialogue with experts, scientists, professionals and local historians. This enabled pupils to rebuild a direct link with the past, the community and its inhabitants, and acquire the tools needed to redevelop this and direct it into the future.

→ the **Exhibit "Appennino: un luogo per il futuro"** ("Apennines: a place for the future") was held in Genoa from 23 October to 3 November 2013 as part of the eleventh edition of the Science Festival and was created with part of the audio and video material gathered together during the Appennino

WITH PROJECT  
APPENNINO®  
WE WANT TO  
REDEVELOP  
THE ECONOMIC,  
SOCIAL,  
ENVIRONMENTAL  
AND CULTURAL  
HERITAGE  
OF THE  
MOUNTAIN  
AREA

Going back to its original mission, over the course of the year the Foundation began to **develop new projects** that were entirely designed from within the Foundation and were inspired by the values that have always guided its activities and aims.

In line with these new strategic directions, in spring the Foundation decided to create **Project Appennino®**, which for a long time was managed and developed by Riccardo Garrone with the aim of **fully redeveloping the important cultural, environmental, social and economic heritage** of a mountain area that covers 31.2% of Italy, but now numbers only 18% of the national population.

The first important steps in the creation of





**TUTORS,  
EXPERTS AND  
PROFESSIONALS  
GIVE  
PARTICIPANTS  
THE  
OPPORTUNITY  
TO CONCRETELY  
DEVELOP THEIR  
BUSINESS IDEAS**

Summer Camp. The exhibit aimed to spread knowledge of the experience that the Foundation had offered young people on the Apennine mountains and to share the important positive values of sustainable development, future opportunity, and environmental protection linked to Project Appennino®.

→ **the Debate “Appennino: un luogo per il futuro”** (“Apennines: a place for the future”), held on 31 October 2013, involved those who had taken part in the Appennino Summer Camp and 70 students from all over Italy. Its aim was to spread the potential of Project Appennino® and it was created in association with the Science Festival as part of the “Futuro Prossimo” (“Near Future”) project. During the event, the complete version of the documentary “Appennino: un luogo per il futuro” (“Apennines: a place for the future”) was shown, which was made for the Appennino Summer Camp.

The main initiative of Project Appennino® is **ReStartApp®**, a free residential programme seeking to push through and develop business ideas that aim to regenerate and re-launch Italian Apennine areas. This year the initiative is in the planning stage and is expected to be fully completed in 2014.

### **RESTARTAPP®, A NEW BUSINESS DEVELOPMENT INITIATIVE**

The main aim of the Project Appennino® core initiative is to guide young people (who see the Apennines as a potential resource worth investing in for the future) as they **create business ideas and launch new production** activities. The Edoardo



## **Fondazione Edoardo Garrone**

Garrone Foundation is a huge believer in the fact that the future of Italy has to move down these roads; in other words through comprehensive and structured redevelopment of areas that have been left abandoned for a long time, areas which are actually full of unexpressed potential, both on an economic and social level. Today more than ever, the Apennines is a strategic area and its re-launch must occur in a conscious way, involving the energies of young people to encourage innovative models of integrated development, but also **preserving and promoting tradition, local characteristics and “Made in Italy” production**, using modern tools to give value to the biodiversity that has always provided these mountain areas with such a wealth of beautiful heritage.

It has a considerably rich and innovative format which involves didactic moments, workshops on creating and developing a business, internships, plus examples of success stories, trips to production sites and places in the Apennines that



**THREE FREE  
POST-GRADUATE  
COURSES  
OFFERING  
YOUNG PEOPLE  
A REAL  
OPPORTUNITY  
TO FACILITATE  
THEIR  
INTEGRATION  
INTO THE  
LABOUR  
MARKET**

have experimented with and developed virtuous re-launch models. A team of highly qualified teachers, experts and professionals will give participants the chance to concretely develop their business ideas.

The interdisciplinary nature of the didactic plan will be further enriched with the option of residential accommodation, which will enable participants to enjoy a social experience and get close up with the area and the local community, where

everyone has the chance to really gain something and learn from each other. With this in mind, the campus is a clear example of how action can **regenerate the area**.

ReStartApp® will be fully completed in 2014, and in this year a call for ideas will be launched in order to choose the 15 participants who will attend the three-month residential campus programme starting in June.

**WHY WAS PROJECT APPENNINO® CREATED?**

In the difficult current circumstances, this project can offer real opportunities for new ways to establish and create business. Its two ambitious objectives are to **repopulate the mountains and reintroduce the mountains to the markets**.

Development of Project Appennino® involves a series of coherent, synergic initiatives that have been carefully designed and assessed as a whole and in all their aspects. These help to create (around a strategic theme) a network of private, public and institutional partners and to encourage communication and dialogue with the companies that have already been involved in and applied redevelopment models for local community resources. This all helps generate action, so that a virtuous circle is created between interests, development capabilities and activities, and therefore, a long-neglected dimension once again becomes a source of opportunities for young generations and a source of economic development for the country's industry as a whole.

Key to all this is the creation of a network of service and production businesses, especially in sectors such as forest and undergrowth cultivation, breeding and supply chain activities that stem from this, deer hunting and fishing, agricultural tourism, and rural tourism. All this with a strong focus on sustainability and responsible intervention ■



## EXCELLENCE IN TRAINING

Since 2006, through its **post-graduate training**, the Edoardo Garrone Foundation has been committed to offering young people outstanding training linked to the **creation, development and management of tourist areas and the cultural product**.

In 2013 three free post-graduate courses were offered, which provide real opportunities for young people and facilitate their integration into the labour market.

The **School of Postgraduate Studies in the Economics of Cultural Tourism – Edoardo Garrone Chair** is now in its eighth edition and was held in Syracuse from 14 October to 23 November. This year's edition was given a new dimension as the course was held in the stunning new building of the Plemmirio Consortium, situated within the Castello Maniace area on the furthest point of the island of Ortigia, and involved renewed collaboration with local institutions and authorities, thereby broadening and further enriching the training programme. The Edoardo Garrone Chair has proved to be a successful didactic format that ensures complete training in just a few weeks, combining lectures, workshops, field work and guest speakers of high cultural and international importance.

In the first few months of 2013 the **Post Graduate Specialisation Course “Cultural Tourism for the Development of Local Communities”** came to an end in Santa Margherita, a course promoted by the Edoardo Garrone Foundation in collaboration with the University of Genoa

and the Municipal Authority of Santa Margherita Ligure. Resulting from the experience acquired by and the success of the Edoardo Garrone Chair, the course consists of a didactic programme and also a business creation workshop that gives participants the chance to learn about and put into practice actions and activities that are useful in the creation, development, and long-term sustainability of a business or association in the field of culture and tourism. At the end of the course, the Edoardo Garrone Award was given to the best project.

In March, the second edition of the **Master in Political Economy** came to an end, promoted by the Edoardo Garrone Foundation in collaboration with the Department of Political Science of the University of Genoa. This year, two new courses in English were added, and one course on the introduction of quantitative methods.

Completing its offering in the field of higher education, since 2009 the Edoardo Garrone Foundation has promoted the **Scuola di Alta Formazione al Management** in Turin in collaboration with the Giovanni Agnelli Foundation and the Pirelli Foundation and together with the Association du Collège des Ingenieurs in Paris.

## TEACHING PROGRAMMES FOR YOUNG CHILDREN

The Foundation offers and promotes a comprehensive, cross-cutting teaching programme. In addition to post-graduate specialisation courses for young people who have just finished university, the

Foundation has also organised **training programmes aimed especially at pupils** from primary and secondary schools.

**Discover Genoa (*Genova Scoprendo*)**, now in its fourth edition, is an original didactic programme designed for around 300 school pupils from Genoa and the Genoa Province. It encourages youngsters to learn about Genoa's amazing history, art, culture and production, and strives to arouse their interest and generate further learning in addition to what pupils study in class. A peer education model was applied to the first part of the programme, with students from the Ligurian Academy of Fine Arts guiding pupils in their studies. The second part, with a technological and industrial focus, provided pupils with the chance to actually visit some of Genoa's most important companies and see production in progress. The project ended with the **photography competition "Uno sguardo su Genova" ("A look at Genoa")**, where pupils were asked

to portray how they personally see the city's monuments, streets, buildings and factories.

**Reading at School (*Scuola Leggendo*)** is now in its eighth edition and is dedicated to around 2,500 primary school pupils in Genoa, Savona, Imperia, La Spezia, Cuneo, Monza, and Syracuse. This is an innovative, fun and educational format that aims to help develop the reading skills and concentration of primary school children.

### THE IMPORTANCE OF CULTURE

The Edoardo Garrone Foundation has also promoted **high quality cultural events intended for the general public**. These include literary events, history and philosophy lectures with distinguished scholars, conferences and talks on current issues, contemporary art exhibitions and events and social initiatives aimed at a vast cross-section of the public ■

Discover Genoa  
(*Genova Scoprendo*):  
view from the cloister of  
Santa Maria di Castello



## COMMUNICATION

## ERG AND DIGITAL COMMUNICATION

## A constantly evolving site

In December 2013 Corriere Economia published the results of the twelfth edition of KWD Webranking Italy, which each year gives an overview of listed companies' financial and institutional online communication.

In this edition, our corporate website scored **59.7 points** (out of 100), and was ranked 11th position in Italy. We have therefore moved up six positions (and 1.6 points) compared with the previous year and we are one of the few companies that managed to improve compared with 2012. Our performance is above the Italian average, which has an average score of 42.2 points, down 2.1 compared with last year.

For the first time this year, companies were excluded that had scored less than 25 points in previous editions and that had not shown signs of improvement over the years. **The number of sites analysed therefore went from 100 to 62.** The assessment protocol for the 2013 edition is increasingly more rigorous and challenging, and features 102 criteria defined on the basis of a survey completed by digital communication specialists and organised into 10 sections. The overall score is 100 points.

This year the **energy sector** once again **proved to be the most attentive to financial and institutional**

**communication** at both national and European level.

The 12 Italian companies in the Energy sector, with an average score of 53.1 points, have surpassed their European competitors (with an average score of 46.6 points). If we consider the Energy macro sector, which includes utilities and Oil & Gas companies, we rank 5th in Italy. Our corporate site gained **top points** for its **Homepage and interactive functions** section (73%), **Company information** section (69%) and **Corporate Governance** section (68%).

The analysis shows that, in general, corporate sites of Italian companies are strongest in those areas dedicated to company presentation, financial results, and governance. The weakest areas, meanwhile, are areas dedicated to sustainability and employer branding and social network presence.

## ERG POSITIONING

Over the last four years, ERG has constantly improved its web ranking, illustrating its enormous ongoing commitment to improving communication with its stakeholders.

2010	20 <sup>th</sup>	2012	17 <sup>th</sup>
2011	17 <sup>th</sup>	2013	11 <sup>th</sup>

IN THE ENERGY  
SECTOR WE  
RANK 5<sup>TH</sup> IN  
THE ITALIAN  
WEBRANKING



**THE MOST  
IMPORTANT  
PARTS OF THE  
NEW SITE  
ARE: VISUAL  
COMMUNICATION,  
THE CENTRAL  
ROLE OF PEOPLE  
AND CORPORATE  
STORYTELLING**

## THE FUTURE OF ONLINE COMMUNICATION

**Storytelling, integration with social networks and dialogue with stakeholders** are still the core of digital communication, and using **responsive design** to focus on technology is now essential.

Over recent years, mobile devices have become more and more common and this has contributed to a varied use of the internet (and also corporate sites), via both smartphones and tablets.

Websites must therefore be designed to adapt dynamically and “intelligently” to the dimensions and to the position of the screen, helping to facilitate navigation.

In addition to allowing regular content sharing between users, social networks are becoming increasingly important as a source of information for analysts, investors and journalists.

## A NEW CORPORATE SITE THAT RESPONDS TO THE NEEDS OF THE NEW DIGITAL ERA

In light of the huge “digital” changes that have taken place in recent years, we are working on our new corporate site, which is due to go live in summer 2014.

We aim to:

- **transmit our mission** and our **strategic positioning** via the digital channels;
- **achieve the communication aims** of departments that communicate with stakeholders (Press Office, IR, Corporate Governance etc.);

→ **describe in an engaging way** different stories relating to our businesses;

→ **reach out to a new, wider audience** (in addition to “traditional” institutional stakeholders) made up of sector opinion leaders who are interested in taking a more in-depth look at energy-related issues.

Starting with a simplification of the current digital ecosystem (made up of the ERG corporate site, the ERG Renew site, the Power & Gas Division site, the Interactive profile, the Interactive report and the Interactive sustainability report) we want to focus on certain “strategic pillars”:

→ **visual communication**, through the use of animated or interactive images and infographics, which promote understanding of corporate and industrial processes through a combination of words, numbers and images that are accessible by both experts and non-experts;

→ **placing ERG people at the centre**, to create distinguishing content and images and to highlight the stories and experiences of the people that work for the company and are the foundations of its success;

→ **corporate storytelling**, to describe ERG, its evolution and its businesses through stories that add meaning to the numbers and that get the user involved emotionally. We want to describe the facts that are able to illustrate both the business and the way in which we work, and stop speaking of the company in an outmoded way using just words and tables ■



## CUSTOMERS

## ERG OIL SICILIA: WORKERS AT THE FOREFRONT IN BID TO WIDEN THE MARKET

### Excellent results achieved from collaborations signed with major commercial partners

ERG Oil Sicilia (EOS) was established in April 2010 from the Sicilian network **spin-off after a joint venture** between ERG and Total. Its business merges with the fuel distribution network (in addition to the extra network and to the **supply** activities, which it left in 2012).

In ERG Oil Sicilia all employees (regardless of their role) have dedicated themselves to creating and sharing new ideas, which can be used to **develop and broaden clientele** outside the network of EOS retail outlets.

The aim is therefore to identify **strong commercial partners in the community** that can provide the company with the opportunity to quickly access a large customer base. Considering ERG Oil Sicilia's market share, at least a good 70% is made up of new customers.

Partners are presented with the strength of the ERG brand and its widespread presence across the community and an **exchange of synergies** is offered: access to their customer base in exchange for access to the EOS distribution network.

Plant publicity is then offered, plus exclusive discounts for holders of partners' cards and, in turn, partners offer access to their customer database and add the EOS logo to all forms of

advertising (catalogues, printed paper, billboards, website, mailing list, text messages, etc.).

This proves to be a winning solution for both and as a result it is possible to exploit new development solutions on the market, widen the **customer base** and promote the brand whilst keeping costs down.

An example of this collaboration can be seen in the agreement signed with two major shopping centres: the "Città dei Templi" in Agrigento and the "Poseidon" in Carini, in the province of Palermo. This partnership enabled ERG to communicate with over 500,000 new customers, by using customer advantage cards, which are offered for free, to give discounts on EOS fuel.

With the results achieved so far, it is estimated that this operation will see the first year of business close with an increase of **approximately 900 m<sup>3</sup>**, corresponding to **12% more** than partner expectations.

This is an excellent result in the current economic recession, in which families are inevitably cutting back on spending (the fuel network has lost volumes of 4.7%, official data provided by **Industry 2013**) ■

# 4

## DATA AND INDICATORS

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## ERG GROUP PERFORMANCE DATA AND INDICATORS

### GROUP ECONOMIC AND FINANCIAL RESULTS

		2013	2012	2011
Total revenues <sup>(1)</sup>	millions of Euro	7,076	8,288	6,798
EBITDA	millions of Euro	380	332	192
EBITDA at replacement cost <sup>(2)</sup>	millions of Euro	493	346	156
EBITDA at adjusted replacement cost <sup>(3)</sup>	millions of Euro	569	458	284
EBIT at replacement cost <sup>(2)</sup>	millions of Euro	283	197	12
EBIT at adjusted replacement cost <sup>(2)</sup>	millions of Euro	278	216	37
Net income	millions of Euro	85	200	96
of which Group net profit	millions of Euro	28	151	65
Group net profit at adjusted replacement cost <sup>(4)</sup>	millions of Euro	38	12	(49)
Cash flows from operations	millions of Euro	251.8	163.6	(76.5)
Adjusted net financial indebtedness	millions of Euro	1,015	722	1,179
Net invested capital	millions of Euro	2,821	2,484	2,842
Capital expenditures <sup>(5)</sup>	millions of Euro	74	77	82
Financial leverage		29%	21%	34%

For the definition and reconciliation of results at adjusted replacement cost, please refer to the section "Alternative performance indicators" of the 2013 financial statements.

(1) Net of excise taxes.

(2) Not including inventory gains (losses) and non-recurring items.

(3) Adjusted values also include the contribution, attributable to ERG, of the results of TotalErg S.p.A. (joint venture with TOTAL), of LUKOIL Renew GmbH (joint venture with the LUKOIL Group) and of ISAB S.r.l.

(4) Does not include inventory gains (losses), non-recurring items and related applicable theoretical taxes. The values also match the adjusted values.

(5) Investments in tangible and intangible fixed assets.

Net invested capital in 2013 includes EUR 2.8 million from grants provided by Public Administration to ERG Renew for plants.

Total revenues in 2013 include EUR 51 thousand in grants from Public Administration or the European Community for employee training activities.

The activities of the ERG Group do not include loans to political parties.

### ERG SHARES

		2013	2012	2011
Year-end reference price	Euro	9.75	7.63	8.78
Highest price 27/12/2013	Euro	9.86	8.95	10.74
Lowest price 24/6/2013	Euro	6.51	4.28	7.60
Average price	Euro	7.78	6.20	9.29
Average volume	No.	229,315	360,453	211,888

### OPERATING DATA AND INDICATORS

		2013	2012	2011
Total electricity production	GWh	9,208	8,219	7,410
of which from renewable energy sources	GWh	2,403	1,223	740
Market share of domestic power generation		3.3%	2.9%	2.6%
Sales of electricity	GWh	10,631	9,074	8,084
Market share of electricity sales		3.4%	2.7%	2.4%

## PERSONNEL, ORGANISATION OF WORK AND INDUSTRIAL RELATIONS

		2013	2012	2011
Employees at 31/12	no.	778	613	652
Executives	no.	53	44	51
of which at the Genoa site		62%	73%	73%
Middle Managers	no.	161	154	163
Administrative staff	no.	365	328	348
Workers	no.	199	87	90
Other external collaborators	no.	26	36	49
Absenteeism <sup>(1)</sup>		2.8%	2.6%	2.1%
Part time employees <sup>(1)</sup>		4.0%	4.1%	2.8%
Percentage of overtime <sup>(1)</sup>		8.0%	8.5%	10.5%
Unionisation rate		26.3%	33.9%	32.7%
Ongoing labour disputes	no.	2	9	7
Strikes <sup>(1)</sup>	hours	82	99	142

(1) Data do not include figures related to companies purchased during 2013.

## TRAINING

		2013	2012	2011
Total training	hours	26,917	30,717	24,197
Average training per employee	days/emp.	5.0	6.2	4.4
Personnel trained	no.	559	572	439

	MEN HOUR/EMPLOYEE	WOMEN HOUR/EMPLOYEE	MEN HOURS	WOMEN HOURS	TOTAL 2013
Executives	22.5	26.0	1,101	104	1,205
Middle Managers	33.3	26.4	3,965	1,107	5,072
Administrative staff	39.5	24.4	10,515	2,411	12,926
Workers	38.8	–	7,714	–	7,714
<b>Total</b>			<b>23,295</b>	<b>3,622</b>	<b>26,917</b>

## DETAILED ANALYSIS OF PERSONNEL - 2013

NATIONAL LABOR CONTRACT APPLIED	2013	2012	2011
Oil & Energy	562	569	601
Engineering	139	–	–
Tertiary	24	–	–
Industrial manager	49	44	51
Tertiary manager	4	–	–
<b>Total</b>	<b>778</b>	<b>613</b>	<b>652</b>

	MEN	WOMEN	TOTAL
Fixed-term contract - Full time	16	5	21
Permanent contract - Full time	614	143	757
of which with temporary part time contract	–	30	30
<b>Group Total</b>	<b>630</b>	<b>148</b>	<b>778</b>

	EMPLOYEE	PROTECTED CATEGORY	TOTAL
Executives	53	–	53
Middle Managers	156	5	161
Administrative staff	332	33	365
Workers	194	5	199
<b>Group Total</b>	<b>735</b>	<b>43</b>	<b>778</b>

	MEN	WOMEN	TOTAL
Employees that availed of parental leave	3	33	36
Persons returning from parental leave	3	26	29
Personnel still at work after 12 months	3	32	35
Personnel resigning due to maternity	–	–	–

			EMPLOYEE	% ON TOTAL EMPLOYEE
Employees that will retire within 5 years <sup>(1)</sup>			46	6%
Employees that will retire within 10 years <sup>(2)</sup>			53	7%

(1) More than 35 year of contribution as at 31/12/2013.

(2) More than 30 year of contribution and less than 35 as at 31/12/2013.

## SAFETY

	MEN	WOMEN	TOTAL 2013	TOTAL 2012	TOTAL 2011
<b>Workplace accidents</b>					
Genoa	–	1	1	1	1
Rome	–	–	–	–	–
Syracuse (offices)	–	–	–	–	–
Syracuse (plants)	4	–	4	–	–
Periphery	–	–	–	–	–
<b>Total</b>			<b>5</b>	<b>1</b>	<b>1</b>

			2013	2012	2011
Frequency index <i>no. of accidents per million hours worked</i>			4.72	1.02	0.9
Severity index <i>total no. of days lost per thousand hours worked</i>			0.06	0.04	0.01
Days of work lost		no.	68	43	12
Work-related deaths		no.	–	–	–
Third-party company injuries <sup>(1)</sup>		no.	3	–	1
Frequency index – third-party companies <sup>(1)</sup>			1.74	–	0.77
Severity index – third party companies <sup>(1)</sup>			0.01	–	0.03
Man days worked by third-party companies <sup>(1)</sup>		no.	215,810	132,406	162,672

(1) 2011 and 2012 figure refer to Priolo site, 2013 figure does not include ERG Oil Sicilia

## WIND – ENVIRONMENT AND COMMUNITY

		2013	2012	2011
Energy production	GWh	2,403	1,223	740
Indirect energy consumption <sup>(1)</sup>	GWh	8.3	0.38	n.d.
Avoided CO <sub>2</sub>	kt	959	492	307
Indirect CO <sub>2</sub> emissions <sup>(1)</sup>	kt	3.4	n.d.	n.d.
SF <sub>6</sub> contained into switchboards	kg	893	n.d.	n.d.
Waste produced	t	–	n.d.	n.d.
of which hazardous waste	t	–	n.d.	n.d.
of which non-hazardous	t	–	n.d.	n.d.
of which sent for recycling	t	–	n.d.	n.d.

(1) The figure does not include the consumption of French and Romanian wind farms.



## WIND - HSE ECONOMIC AND ADMINISTRATIVE RESOURCES

		2013	2012	2011
Total HSE expenses	thousands of Euro	575	n.d.	n.d.
Level of ISO 14001 and OHSAS 18001 certification		100%	100%	100%
Safety checks and HSE audits in the field	no.	187	n.d.	n.d.

## POWER - ENVIRONMENT AND COMMUNITY

		2013	2012	2011
Energy consumption (primary sources)	TJ	63,263	64,713	62,532
of which feedstock	TJ	38,705	37,345	33,944
of which Natural Gas	TJ	21,983	22,641	22,948
of which other primary sources	TJ	2,575	4,728	5,641
Indirect energy consumption	TJ	801	791	710
of which electricity	TJ	785	782	690
Efficiency of thermoelectric power plants	toe in/MWheq	0.205	0.206	0.207
Direct CO <sub>2</sub> emissions	kt	4,494	4,382	4,128
Indirect CO <sub>2</sub> emissions (imported energy)	kt	96.6	94.3	87.1
NO <sub>x</sub> emissions	t	<sup>(2)</sup> 1,227	1,314	1,206
SO <sub>2</sub> emissions	t	<sup>(2)</sup> 639	<sup>(1)</sup> 721	940
Particulate emissions	t	50	66	67
SF <sub>6</sub> contained into switchboards	t	20.7	12.1	n.d.
SO <sub>2</sub> avoided through removal of sulphur from charge	kt	92	77	79
Thermoelectric CO <sub>2</sub> Index	kt/GWheq	0.60	0.58	0.57
Thermoelectric NO <sub>x</sub> Index	t/GWheq	0.16	0.17	0.18
Thermoelectric SO <sub>2</sub> Index	t/GWheq	0.09	0.09	0.14
Thermoelectric Particulate Index	t/GWheq	0.007	0.009	0.010
Seawater withdrawals for plant cooling systems	millions of m <sup>3</sup>	299	299	284
Ground-water withdrawals from wells	millions of m <sup>3</sup>	9	9	7
Water returned to the natural cycle	% of withdrawals	95.1	93.7	89.2
Waste produced	kt	10.3	12.7	12.3
of which hazardous waste	kt	1.4	2.2	3.1
of which non-hazardous	kt	8.9	10.5	9.2
of which sent for recycling		23%	44%	25%
Petroleum product losses	no. of events	–	–	–
Petroleum product losses	m <sup>3</sup>	–	–	–

(1) Correction of erroneous data from the 2012 Sustainability Report.

(2) The atmospheric emissions of NO<sub>x</sub> and SO<sub>2</sub> at the thermal power plants are consistent with the annual data reported to the E-PRTR. Only fully operational plants are considered, therefore the SA1N/1 group was not included in the report as it was in a transitional start-up phase in 2013 as the result of its adaptation according to Best Available Techniques.

## POWER - HSE ECONOMIC AND ADMINISTRATIVE RESOURCES

		2013	2012	2011
Total HSE expenses	millions of Euro	29	44	37
of which investments	millions of Euro	8	19	11
of which current expenses	millions of Euro	21	25	26
Level of ISO 14001 and OHSAS 18001 certification of organisations operating in industrial sites	%	100	100	80
Safety checks and HSE audits in the field	no.	1,484	1,201	1,262
Safety walks	no.	26	75	78

## CUSTOMERS

		2013	2012	2011
ERG Oil Sicilia outlets	no.	201	306	306
ERG Power - Number of industrial site customers	no.	15	11	11

## SUPPLIERS

		2013	2012	2011
Active suppliers (at least one order)	no.	1,569	1,432	1,638
with registered offices or a billing address in Italy		92%	92%	91%
with registered offices or a billing address in Italian region where are located our wind farms		29%	22%	24%
Qualified suppliers	no.	1,458	1,650	1,674
Average qualification time	days	87	130	149
% of tenders (of total value of purchases)		65%	53%	61%
% of tenders (of total number of purchases)		29%	26%	24%
Ships rejected by screening process		14%	13%	19%



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## REVIEW REPORT ON THE SUSTAINABILITY REPORT OF ERG GROUP AS OF 31<sup>ST</sup> DECEMBER 2013

To the Board of Directors of  
ERG S.p.A.

1. We have reviewed the Sustainability Report of ERG Group (the "Group") as of 31<sup>st</sup> December 2013. The Directors of ERG S.p.A. are responsible for the preparation of the Sustainability Report in accordance with the "Sustainability Reporting Guidelines" (version G3.1), issued in 2011, and the "Sustainability Reporting Guidelines & Electric Utilities Sector Supplement (EUSS)" issued in 2009 by GRI – Global Reporting Initiative, as stated in the paragraph "The seventh edition of the Sustainability Report". The Directors are also responsible for the definition of ERG Group objectives regarding the sustainability performance and the reporting of the achieved results. The Directors of ERG S.p.A. are also responsible for the identification of stakeholders and of significant aspects to report, as well as for the implementation and maintenance of appropriate management and internal control processes with reference to data and information presented in the Sustainability Report. Our responsibility is to issue this report based on our review.
2. We conducted our work in accordance with the criteria for review engagements established by the "International Standard on Assurance Engagements 3000 – Assurance Engagement other than Audits or Reviews of Historical Financial Information" ("ISAE 3000"), issued by the International Auditing and Assurance Standards Board. That standard requires the compliance with ethical principles ("Code of Ethics for Professional Accountants" issued by the International Federation of Accountants, "IFAC"), including independence requirements, and that we plan and perform the engagement to obtain limited assurance about whether the report is free from material misstatement. A limited assurance engagement on the Sustainability Report consists of making inquiries, primarily with company personnel responsible for the preparation of the information included in the Sustainability Report, analysing the Sustainability Report and applying other evidence gathering procedures, as appropriate. The performed procedures are summarized as follows:
  - comparing the economic and financial information and data included in the paragraph "Economic responsibility" of the Sustainability Report with those included in the Group Consolidated Financial Statements as of 31<sup>st</sup> December 2013, on which Deloitte & Touche S.p.A. issued the auditor's report dated 21<sup>st</sup> March 2014 pursuant to articles 14 and 16 of Legislative Decree no. 39 of January 27<sup>th</sup>, 2010);
  - analysing how the processes underlying the generation, recording and management of quantitative data included in the Sustainability Report operate. In particular, we have performed the following procedures:

– interviews and discussions with delegates of ERG S.p.A., to gather information on the

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information, accounting and reporting systems used in preparing the Sustainability Report, as well as on the internal control procedures supporting the gathering, aggregation, processing and transmittal of data and information to the department responsible for the preparation of the Sustainability Report;

- analysis, on a sample basis, of the documentation supporting the preparation of the Sustainability Report, in order to gather the evidence of processes in place, their adequacy, and that the internal control system correctly manages data and information in connection with the objectives described in the Sustainability Report;
- analysing the compliance of the qualitative information included in the Sustainability Report and its overall consistency in relation to the guidelines referred to in paragraph 1 of this review report, in particular with reference to the sustainability strategy and policies and the determination of significant aspects for each stakeholder category;
- analysing the stakeholder involvement process, in terms of methods used and completeness of personnel involved, through analysis of the minutes of the meetings or any other available information about the significant features identified in the stakeholder involvement process;
- obtaining the representation letter signed by the Chief Executive Officer of ERG S.p.A. on the compliance of the Sustainability Report with the guidelines referred to in paragraph 1 and on the reliability and completeness of the information and data contained therein.

A review is less in scope than an audit carried out in accordance with ISAE 3000, and, therefore, does not enable us to obtain assurance that we would become aware of all significant matters and events that might be identified in an audit.

We have reviewed data and information relating to previous years, presented for comparative purposes, only to the extent necessary to reach our conclusions on the Sustainability Report as of 31<sup>st</sup> December 2013.

3. Based on the procedures performed, nothing has come to our attention that causes us to believe that the Sustainability Report of ERG Group as of 31<sup>st</sup> December 2013 is not prepared, in all material respects, in accordance with the “*Sustainability Reporting Guidelines*” (version G3.1), issued in 2011, and the “*Sustainability Reporting Guidelines & Electric Utilities Sector Supplement (EUSS)*” issued in 2009 by GRI – *Global Reporting Initiative*, as stated in the paragraph “The seventh edition of the Sustainability Report”.

Milan, June 5<sup>th</sup>, 2014

DELOITTE ERS – ENTERPRISE RISK SERVICES S.r.l.

**Franco Amelio**

Socio

*This report has been translated into the English language solely for the convenience of international readers.*



## Statement GRI Application Level Check

GRI hereby states that **ERG spa** has presented its report "Sustainability report 2013" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see [www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf](http://www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf)

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 7 May 2014

A handwritten signature in black ink, appearing to read "Ásthildur Hjaltadóttir".

Ásthildur Hjaltadóttir  
Director Services  
Global Reporting Initiative




The "+" has been added to this Application Level because ERG spa has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

*The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. [www.globalreporting.org](http://www.globalreporting.org)*

**Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 30 April 2014. GRI explicitly excludes the statement being applied to any later changes to such material.

## GRI APPLICATION LEVEL \*

		IN ACCORDANCE WITH GRI G3.1 GUIDELINES - 2011 + EUSS	C	C+	B	B+	A	A+
MANDATORY	Company self-declaration			REPORT VERIFIED		REPORT VERIFIED	✓	
OPTIONAL	Checked by third parties							
	Checked by GRI							

### GRI/G3.1 INDICATORS

■ Total

▢ Partial

□ Not covered

n/a: not applicable

\* The joint ventures TotalErg S.p.A. and LUKERG Renew GmbH are excluded from scope from an accounting perspective

	COVERAGE	REFERENCES	COMMENTS	REFERENCES ISO 26000
<b>PROFILE</b>				
<b>1 STRATEGY AND ANALYSIS</b>				
1.1	<span style="color: red;">■</span>	4-5		6.2
1.2	<span style="color: red;">■</span>	4-5; 8-10; 18-19; 33; 55; 62-64		6.2
<b>2 ORGANISATION PROFILE</b>				
2.1	<span style="color: red;">■</span>	Cover		
2.2	<span style="color: red;">■</span>	8-10		
2.3	<span style="color: red;">■</span>	8-10		6.2
2.4	<span style="color: red;">■</span>	Inside back cover	The list of ERG sites is available in the "Contacts" section of the corporate website <a href="http://www.erg.it">www.erg.it</a>	
2.5	<span style="color: red;">■</span>	8-10; 14-15; 42		
2.6	<span style="color: red;">■</span>	16-17; 20	See also the "Shareholders" section on the corporate website <a href="http://www.erg.it">www.erg.it</a>	
2.7	<span style="color: red;">■</span>	8-10; 14-15; 42; 127		
2.8	<span style="color: red;">■</span>	8-11; 20; 42; 122-123		
2.9	<span style="color: red;">■</span>	8-10; 20; 30		
2.10	<span style="color: red;">■</span>	118		
EU1	<span style="color: red;">■</span>	8-15; 42		
EU2	<span style="color: red;">■</span>	11; 42; 122		
EU3	<span style="color: red;">■</span>	8-10; 122; 127		
EU4	<span style="color: red;">■</span>		ERG does not manage electricity transmission and distribution activities.	
EU5	<span style="color: red;">■</span>	42; 63-64		



	COVERAGE	REFERENCES	COMMENTS	REFERENCES ISO 26000
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### 3 REPORT PARAMETERS

#### Report profile

3.1	■	31	Since 2007, the ERG Sustainability Report has been published in June every year.	
3.2	■	31	Since 2007, the ERG Sustainability Report has been published in June every year.	
3.3	■	31	Since 2007, the ERG Sustainability Report has been published in June every year.	
3.4	■	Cover	See the "Contacts" section of corporate website <a href="http://www.erg.it">www.erg.it</a>	
3.5	■	24-26; 31-32		
3.6	■	31-32		
3.7	■	31-32; 123; 125; 127		
3.8	■	8-11		
3.9	■	11; 31-32; 42; 98; 122-124		
3.10	■	31-32		
3.11	■	31-32; 125		

#### GRI content index

3.12	■	131-139		
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#### Assurance

3.13	■	31; 129-130		7.5.3
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### 4 GOVERNANCE, COMMITMENTS, ENGAGEMENT OF STAKEHOLDERS

#### Governance

4.1	■	16-20; 29-30		6.2
4.2	■	20		6.2
4.3	■	16; 20	See the "Governance" section of the corporate website <a href="http://www.erg.it">www.erg.it</a>	6.2
4.4	■	16-20; 104-106	See also "Shareholders' Meeting Regulations" section of the corporate website <a href="http://www.erg.it">www.erg.it</a>	6.2
4.5	■	16; 100		6.2
4.6	■	15-19; 21		6.2
4.7	■	16-17; 20	See the "Corporate Governance" section of the corporate website <a href="http://www.erg.it">www.erg.it</a>	6.2
4.8	■	4-5; 21-22; 24-25; 29-30	See the Code of Ethics available on corporate website <a href="http://www.erg.it">www.erg.it</a>	6.2
4.9	■	16-17; 29-32		6.2
4.10	■	16-17; 29-30; 100-101		6.2

	COVERAGE	REFERENCES	COMMENTS	REFERENCES ISO 26000
<b>Commitment to external initiatives</b>				
4.11	■	18-19		6.2
4.12	■		ERG does not adhere to codes of conduct, principles and charters developed by external bodies/associations.	6.2
4.13	■	27-28		6.2
<b>Stakeholder engagement</b>				
4.14	■	24-26		6.2
4.15	■	24-26		6.2
4.16	■	24-28; 38-39; 104-106; 108-111		6.2
4.17	■	24-26; 104-106		6.2
<b>ECONOMIC PERFORMANCE INDICATORS</b>				
DMA	■	8-10; 18-19; 29-30; 33; 35; 40-44; 46-47; 54-55; 61-62; 122		6.2, 6.8
EU6	■	8-10; 33; 40; 42-44; 46-47		
EU7	■		The retail business unit was sold in January 2012. The remaining industrial customers use the electricity and the steam produced for their production cycles.	
EU8	■	8-10; 33; 40; 42-44; 46-47		
EU9	■		ERG does not possess – either directly or through shareholdings – shares in companies that manage nuclear power plants.	
<b>Economic performance</b>				
EC1	■	35		6.8, 6.8.3, 6.8.7, 6.8.9
EC2	■	18-19; 29-30; 54-55; 61-62		6.5.5
EC3	■		ERG does not manage any independent company pension plan.	
EC4	■	122		
<b>Market presence</b>				
EC5	■	98		6.3.7, 6.4.4, 6.8
EC6	■	58-59; 127		6.6.6, 6.8, 6.8.5, 6.8.7
EC7	■	123	The ERG Group guarantees equal opportunities as part of its hiring procedures.	6.8, 6.8.5, 6.8.7

	COVERAGE	REFERENCES	COMMENTS	REFERENCES ISO 26000
<b>Indirect economic impact</b>				
EC8	■	37; 107-117		6.3.9, 6.8, 6.8.3, 6.8.4, 6.8.5, 6.8.6, 6.8.7, 6.8.9
EC9	■	37; 107-117		6.3.9, 6.6.6, 6.6.7, 6.7.8, 6.8, 6.8.5, 6.8.6, 6.8.7, 6.8.9
EU10	□		The information required refers to the corporate strategy available on the company website <a href="http://www.erg.it">www.erg.it</a>	
EU11	■	42; 69-70; 126		
EU12	■		ERG does not manage electricity transmission and distribution activities.	
<b>ENVIRONMENTAL PERFORMANCE INDICATORS</b>				
DMA	■	8-10; 33; 35; 40; 55-56; 61-64; 67-70; 73-75; 78-83; 125-127		6.2, 6.5
<b>Raw Materials</b>				
EN1	■	125-126		6.5, 6.5.4
EN2	■		Our activities do not involve the use of recycled materials.	6.5, 6.5.4
<b>Power generation</b>				
EN3	■	126		6.5, 6.5.4
EN4	■	126-127	Indirect energy consumption is covered by purchases from the national grid. Refer to the most recent calculations by GSE-Terna.	6.5, 6.5.4
EN5	■	8-10; 55-56; 61-64; 69-70		6.5, 6.5.4
EN6	■	8-10; 33; 35; 40; 61-64; 77		6.5, 6.5.4
EN7	■		The plants produce the energy they need for their own production processes. The energy purchased on the market is only used for temporary requirements.	6.5, 6.5.4
<b>Water</b>				
EN8	■	73-74; 126		6.5, 6.5.4
EN9	■	73-74; 126		6.5, 6.5.4
EN10	■	126	Water withdrawals mainly relate to sea water used to cool the plants and apparatus. Once the drawdown cycle is terminated, the water is returned to the water source after its quality has been suitably monitored.	6.5, 6.5.4

	COVERAGE	REFERENCES	COMMENTS	REFERENCES ISO 26000
<b>Biodiversity</b>				
EN11	■		ERG does not possess or manage lands in natural areas with high levels of biodiversity.	6.5, 6.5.6
EN12	■	66; 77; 80-81		6.5, 6.5.6
EU13	■	66; 77; 80-81		
EN13	■	66; 77; 80-81		6.5, 6.5.6
EN14	■	66; 77; 80-81		6.5, 6.5.6, 6.8.3
EN15	n/a		ERG does not possess or manage lands in natural areas with high levels of biodiversity.	6.5, 6.5.6
<b>Emissions, effluents and waste</b>				
EN16	■	69; 125-126		6.5, 6.5.5
EN17	■		There are no other indirect emissions of significant weight that stem from the company's operations.	6.5, 6.5.5
EN18	■	33; 61-64; 67-70		6.5, 6.5.5
EN19	■		ERG does not emit substances that are harmful to the ozone layer as part of its industrial activities.	6.5, 6.5.3
EN20	■	69-70; 126		6.5, 6.5.3
EN21	■	64; 73-74; 126		6.5, 6.5.3
EN22	■	125-126		6.5, 6.5.3
EN23	■	126		6.5, 6.5.3
EN24	■	125-126		6.5, 6.5.3
EN25	■	73-75		6.5, 6.5.3, 6.5.4, 6.5.6
<b>Products and services</b>				
EN26	■	61-65; 67-68; 71-78; 80-81		6.5, 6.5.4, 6.6.6, 6.7.5
EN27	■		Fuels are marketed via the ERG Oil Sicilia network and sold as "loose" products.	6.5, 6.5.3, 6.5.4, 6.7.5
<b>Compliance</b>				
EN28	■		There were no fines or non-monetary sanctions for failure to comply with environmental regulations and laws.	6.5
<b>Transport</b>				
EN29	□		This indicator is not regarded as significant for the activities carried out by the Group.	6.5, 6.5.4, 6.6.6
<b>General</b>				
EN30	□	61-64; 83-84; 126-127	The HSE expenses breakdown is presently not available.	6.5

	COVERAGE	REFERENCES	COMMENTS	REFERENCES ISO 26000
<b>PERFORMANCE INDICATORS ON SUITABLE WORKING PRACTICES AND CONDITIONS</b>				
DMA	■	21-22; 33; 66; 85-86; 89-90; 93-97; 101-103; 123-125		6.2, 6.4, 6.3.10
<b>Employment</b>				
EU14	■	21; 33; 85; 93; 102-103; 123		
EU15	■	124		
EU16	■	22; 66; 85-86; 89-90; 94		
LA1	■	123-124		6.4, 6.4.3
LA2	■	97		6.4, 6.4.3
LA3	■		All employees enjoy the same benefits in relation to their professional position.	6.4, 6.4.3, 6.4.4
LA15	■	124		6.4, 6.4.4
EU17	■	125		
EU18	■	84; 89-90		
<b>Industrial relations</b>				
LA4	■	124		6.4, 6.4.3, 6.4.4, 6.4.5, 6.3.10
LA5	■		Regulatory and compensation-related aspects refer to the National Collective Labour Agreement.	6.4, 6.4.3, 6.4.4, 6.4.5
<b>Health and safety in the workplace</b>				
LA6	■	93-94		6.4, 6.4.6
LA7	■	83-84; 125		6.4, 6.4.6
LA8	■	83-87; 89-90; 93-94		6.4, 6.4.6, 6.8, 6.8.3, 6.8.4, 6.8.8
LA9	■	93-94	With respect for the provisions of the Italian Energy and Oil Collective Labour Agreement.	6.4, 6.4.6
<b>Training and education</b>				
LA10	■	21; 123		6.4, 6.4.7
LA11	■	21; 85; 93-94; 102-103		6.4, 6.4.7, 6.8.5
LA12	■	101		6.4, 6.4.7
<b>Diversity and equal opportunities</b>				
LA13	■	20; 96; 124		6.3.7, 6.3.10, 6.4, 6.4.3
LA14	■	98		6.3.7, 6.3.10, 6.4, 6.4.3, 6.4.4

	COVERAGE	REFERENCES	COMMENTS	REFERENCES ISO 26000
<b>HUMAN RIGHTS PERFORMANCE INDICATORS</b>				
DMA	■	21; 30; 58-59; 93		6.2, 6.3, 6.3.3, 6.3.4, 6.3.6, 6.6.6
<b>Investment and procurement practices</b>				
HR1	■	21; 30; 58-59; 93	ERG carries out its activities at national/European level where such aspects are protected by the law.	6.3, 6.3.3, 6.3.5, 6.6.6
HR2	■	21; 30; 58-59; 93	ERG carries out its activities at national/European level where such aspects are protected by the law.	6.3, 6.3.3, 6.3.5, 6.4.3, 6.6.6
HR3	■	21-22; 93	ERG carries out its activities at national/European level where such aspects are protected by the law.	6.3, 6.3.5
<b>Non-discrimination</b>				
HR4	■		No incidents were recorded in 2013.	6.3, 6.3.6, 6.3.7, 6.3.10, 6.4.3
<b>Freedom of association and collective bargaining</b>				
HR5	■	21; 30; 58-59; 93	ERG carries out its activities at national/European level where such aspects are protected by the law.	6.3, 6.3.3, 6.3.4, 6.3.5, 6.3.8, 6.3.10, 6.4.3, 6.4.5
<b>Child labour</b>				
HR6	■	21; 30; 58-59; 93	ERG carries out its activities at national/European level where such aspects are protected by the law.	6.3, 6.3.3, 6.3.4, 6.3.5, 6.3.7, 6.3.10, 6.6.6
<b>Forced labour</b>				
HR7	■	21; 30; 58-59; 93	ERG carries out its activities at national/European level where such aspects are protected by the law.	6.3, 6.3.3, 6.3.4, 6.3.5, 6.3.7, 6.3.10, 6.6.6
<b>Security practices</b>				
HR8	■	21; 30; 58-59; 93	ERG carries out its activities at national/European level where such aspects are protected by the law.	6.3, 6.3.5, 6.4.3, 6.6.6
<b>Indigenous rights</b>				
HR9	■		No violations were recorded in 2013.	6.3, 6.3.6, 6.3.7, 6.3.8, 6.6.7
<b>Assessments</b>				
HR10	■	21; 30; 58-59; 93	ERG carries out its activities at national/European level where such aspects are protected by the law.	6.3, 6.3.3, 6.3.4, 6.3.5
<b>Corrective action</b>				
HR11	■		No violations were identified in 2013.	6.3, 6.3.6
<b>SOCIETY PERFORMANCE INDICATORS</b>				
DMA	■	18-19; 21-22; 27-28; 66-68; 71-77; 83-84; 86-88; 112-116; 122		6.2, 6.6, 6.8
EU19	n/a		Company activities do not involve infrastructure development energy planning.	



	COVERAGE	REFERENCES	COMMENTS	REFERENCES ISO 26000
EU20	■		There was no outplacement of personnel in 2013.	
EU21	■	83-84; 86-88		
<b>Community</b>				
S01	■		Any new constructions and substantial changes to plants are subject to environmental impact assessment (EIA) procedures which provide for the involvement of interested parties (local communities) to analyse the associated environmental, landscape and territorial issues.	6.3.9, 6.8, 6.8.3, 6.8.9
EU22	■		There was no outplacement of personnel in 2013.	
S09	■		Any new constructions and substantial changes to plants are subject to environmental impact assessment (EIA) procedures which provide for the involvement of interested parties (local communities) to analyse the associated environmental, landscape and territorial issues.	6.3.9, 6.5.3, 6.5.6, 6.8
S010	■	66-68; 71-77; 112-116		6.3.9, 6.5.3, 6.5.6, 6.8
<b>Corruption</b>				
S02	■	18-19; 21-22		6.6, 6.6.3
S03	■	21		6.6, 6.6.3
S04	■	18-19; 21-22	No cases were recorded in 2013.	6.6, 6.6.3
<b>Political Contributions (approach to politics/institutions)</b>				
S05	■	21-22; 27-28		6.6, 6.6.4, 6.8.3
S06	■	21-22; 27-28; 122	The activities of the ERG Group do not include loans to political parties.	6.6, 6.6.4, 6.8.3
<b>Anti-collusion measures</b>				
S07	■		No cases were recorded in 2013.	6.6, 6.6.5, 6.6.7
<b>Compliance</b>				
S08	■		No cases were recorded in 2013.	6.6, 6.6.3, 6.6.7, 6.8.7
<b>PERFORMANCE INDICATORS ON PRODUCT RESPONSIBILITY</b>				
DMA	■	66; 85; 87-90		6.2, 6.6, 6.7
EU23	n.a.		ERG does not manage electricity distribution activities.	
EU24	n.a.		ERG customers are mainly business customers.	
<b>Health and safety of consumers</b>				
PR1	■	66; 85; 87-90	The products sold are not subject to life cycles.	6.3.9, 6.6.6, 6.7, 6.7.4, 6.7.5
PR2	■		No cases of non-compliance were recorded in 2013.	6.3.9, 6.6.6, 6.7, 6.7.4, 6.7.5
EU25	■	125		

	COVERAGE	REFERENCES	COMMENTS	REFERENCES ISO 26000
<b>Labelling of products and services</b>				
PR3	■		ERG mainly markets 'loose' products in compliance with the laws in force through the retail outlets of the ERG Oil Sicilia network.	6.7, 6.7.3, 6.7.4, 6.7.5, 6.7.6, 6.7.9
PR4	■		No cases of non-compliance were recorded in 2013.	6.7, 6.7.3, 6.7.4, 6.7.5, 6.7.6, 6.7.9
PR5	■		No specific customer satisfaction analyses were carried out during the year. Only the opinions of users at renovated motorway service areas were requested.	6.7, 6.7.3, 6.7.4, 6.7.5, 6.7.6, 6.7.9
<b>Marketing communication</b>				
PR6	■		The company does not adhere to voluntary codes with regard to marketing activities.	6.7, 6.7.3, 6.7.6, 6.7.9
PR7	■		No cases of non-compliance were recorded in 2013.	6.7, 6.7.3, 6.7.6, 6.7.9
<b>Respect for privacy</b>				
PR8	■		No complains were made in 2013.	6.7, 6.7.7
<b>Compliance</b>				
PR9	■		No complaints were made in 2013.	6.7, 6.7.6
EU26	■		ERG does not manage electricity distribution activities.	
EU27	■		ERG does not serve residential customers.	
EU28	■		ERG does not manage electricity distribution activities.	
EU29	■		ERG does not manage electricity distribution activities.	
EU30	■	42		

5

TOTALERG

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## HEALTH, SAFETY, ENVIRONMENT AND QUALITY: THE THEMES OF OUR COMMITMENT

There are many TotalErg initiatives aimed at achieving the best performance with regard to HSE

When the company was established, TotalErg defined its **ethical principles** and **rules of conduct** and incorporated them into its **Code of Conduct**, a tool to ensure reliability and to protect the assets and reputation of the company. The Code of Conduct is applicable to corporate bodies, employees at all levels, and third parties involved for any reason (affiliates, agents, attorneys, brokers, consultants, dealers and suppliers). Health, Safety, Environment and Quality (the fundamental bases that express TotalErg's approach to these issues) are an integral part of the Code, demonstrating the high level of commitment in this area.

### HEALTH AND SAFETY Safety performance and consequent actions

Compared with performance in 2012, in 2013 the TotalErg Group recorded a significant reduction in both the number and severity of employee accidents in the workplace. This reduction was both absolute (number of events) and relative (number of events compared with the hours worked).

The accidents occurred during ordinary operations and the causes of these were identified and corrective and preventive action was implemented. Throughout the year, TotalErg also strengthened its system for reporting and assessing dangerous conditions and near misses,

# TOTALERG

which occur during its activities and those of its subsidiaries. TotalErg believes that analysis and systematic treatment of hazardous conditions and near misses, equal to injuries and accidents, makes it possible to prevent further problems occurring.

### Education, information and awareness

In 2013 ERG completed its staff training programme in accordance with the requirements of the State-Regions agreement of December 2011 regarding Health and Safety. This programme was accompanied by safe driving training for mobile workers and regular refresher courses regarding particular tasks and specific risks.

In addition to providing information on, and raising awareness of, HSE issues through its regular internal communication channels (intranet, Safety Point, TotalErg News), at the end of 2012 TotalErg also launched a specific safety campaign called "Safety is no laughing matter" ("*La sicurezza non è uno scherzo*"), which was aimed at all workers and provided information about the main risks that personnel are exposed to during their work. The campaign continued throughout 2013.

### SAFETY IS NO LAUGHING MATTER

During 2013 the campaign dealt with the following issues:

1. safe driving;
2. safety in the office;
3. working in confined spaces.

The pictures used in the campaign showed deliberately over-the-top caricatures of **potentially risky situations with the aim of attracting attention and making personnel more aware of the need to adopt** safe behaviour and to report hazardous situations so that these can be corrected in good time. It was decided that the situations would be set on TotalErg sites so that everybody involved could relate them to their own everyday working environment ■



### SAFE DRIVING TRAINING SESSIONS

**“Safe” driving** also involves training and practice. With this in mind, in 2013 TotalErg once again organised Safe Driving sessions at the Misano Adriatico and Vallelunga racetracks, involving a good number of **drivers of company cars**.

The training programme was based around the slogan *“A driver’s ability is shown not so much in how he solves tricky situations, as in how he prevents them occurring!”* ■

## Installations

With regard to its wholly-owned facilities, TotalErg completed a **risk assessment for all service stations supplying LPG fuel**. This enabled them to identify and carry out most of the technological improvements that were required.

TotalErg launched a study with a leading electricity distribution company to equip a number of service stations with **charging**

**columns for electric cars** and will be carrying out pilot tests on two service stations from the start of 2014.

Activities continued within Group subsidiaries to **reduce the level of environmental and safety risks**, through installation of new tools for controlling the levels of storage tanks and high and low level alarms, the internal covering of underground tanks and the emptying and recovery of tanks that are not being used.

## ENVIRONMENT

### Environmental Risk Assessment

In 2013 TotalErg continued to map the environmental risks of its service stations. This work is scheduled to be completed by 2014 and such a methodology allows sites with a greater risk profile to be identified in order to plan suitable mitigating actions on individual service stations. In 2013 a study was conducted on the hydrogeological vulnerability of wholly-owned service stations by collecting information relating to events caused by soil instability or by hydrogeological events. Following targeted technical investigations, the necessary preventive actions were identified.

### Waste

In 2013 TotalErg carried out checks on its supply chain waste to see that this complied with legislation and with its own standards. These also included checks on waste destination sites.

On 1 October 2013 the computerised waste tracking system (SISTRI) became operational for hazardous waste handlers

such as transporters, consignees, dealers. Producers of hazardous waste will have to use the computer system from March 2014. In relation to the production of hazardous waste, TotalErg and its subsidiaries have begun the alignment process with the new SISTRI system and will be finalising adoption of this in March 2014.

## MANAGEMENT SYSTEMS AND CERTIFICATIONS

Throughout 2013, TotalErg's Health, Safety and Environment Management Model (MoSSA), created in accordance with the provisions of Italian Legislative Decree 231/01 and Italian Legislative Decree 81/08 (art. 30), continued to be implemented at its business lines, its Operational Units, its sites and its subsidiaries.

As at 31 December 2013 the key plants of the TotalErg circuit, the Rome refinery, the annexed shared deposit (De.Co.), and the deposits in Trecate and Savona, were certified according to international management standards ISO 14001

### WASTE DESTINATION PLANT CHECKS

In 2013 ERG launched its **Inspection Plan** for sites that receive waste from the TotalErg Network. This covers around 20 waste disposal plants, where documentation checks are performed as well as on-site inspections. To carry out this activity, TotalErg involved two companies that specialise in waste auditing, and for some inspections these were accompanied by the competent TotalErg personnel.

These investigations take on particular importance as it is the responsibility of the client to implement the necessary control actions in the event of non-compliance by the service provider, safeguarding the company as much as possible, including with regard to responsibility in the event of illegal conduct "imported" by third parties ■



(environmental management system) and OHSAS 18001 (workplace health and safety management systems). Almost all of the activities and operating sites in TotalErg's scope also benefit from ISO 9001 certified Quality Management Systems.

## SERVICE AND PRODUCT QUALITY

TotalErg continued to sell biofuels from its Savona deposit. In order to carry out this activity, it developed a specific system for managing biofuel sustainability and traceability criteria, in accordance with legislation and coherent with the ISCC International Sustainability & Carbon Certification, one of the internationally recognised certifications. Any example of non-compliance was identified during the

recertification visit carried out in 2013 by Bureau Veritas.

With a focus on prevention, TotalErg continued its programme of quality controls on the products it sells with the aim of minimising any cases of non-compliance.

At the end of 2013 around 600 samples were taken, both at Network outlets and on a procurement basis. Special attention was paid to compliance with housekeeping procedures, which are fundamental for the correct handling of products and their integrity.

The issue of losses and, in particular, the minimisation of product downturn was at the centre of many initiatives created as part of a specific cross-functional technical work group ■

## THE SUSTAINABILITY OF TOTALERG BITUMENS

### Innovation, efficiency, safety and environmental protection

TotalErg's focus on Sustainability is fully applied to the production and marketing of bitumen and special binders, with special attention paid to innovation, in terms of efficiency and safety as well as environmental protection.

Bitumens such as Styrelf® and Emulsis® are, in different ways, two excellent solutions.

The first is the most commonly used modified bitumen in Europe, used mainly in the motorway sector to make self-draining asphalt. Studies in this area have shown that **surfacing with modified**

**bitumen lasts around 20 years** compared with traditional bitumen which lasts 8.

When comparing similar asphalts, Styrelf® provides a road covering that is longer lasting (it will start to deteriorate later), safer (it is more water resistant), more environmentally efficient (during its life span, less use will be made of resources such as bitumen, gravel, sand, fuels for handling such materials) and more economically efficient given that less intervention is required and there is therefore less of a direct and indirect

economic impact (e.g. traffic involved in producing and laying material).

The second product is actually a range of modern bituminous emulsions whose best feature is their reduced environmental impact. First of all, the emulsions are used at lower temperatures and therefore they are less risky to work with than a traditional product.

In particular, however, Emulsis® emulsions (CL60 and CLM60) are designed for **cold recovery applications**, in other words using various types of recycled waste (from construction, roads, industry) to make road foundations.

It should also be highlighted that for a number of years now production has been carried out using **vegetal fluxes**, which further reduce environmental impact.

With a focus on prevention and efficiency, the synthetic binder Kromatis® makes it possible to create **different coloured roads** which are clearer and have easier

to see lanes and are still high performing in terms of mechanical resistance. With this product it is possible to make low environmental impact surfacing that is also **compatible with the surrounding architectural setting**. Their use is particularly important in tunnels, as **energy consumption is reduced for lighting**, and on public roads that require special light to make them safer and more practical.

The range is completed with the anti-rutting bitumen Ornital®, which has been specially designed to withstand viscose deformations in asphalt caused by heavy traffic, “channelled” traffic or high temperatures. It is particularly suitable in the case of shrinkage cracks caused by strong thermal ranges.

All products, just like all TotalErg production sites, comply with European legislation concerning the quality controls required for CE marking of materials ■

Application of the new  
Kromatis asphalt



## TOTALERG GROUP DATA AND INDICATORS

### ECONOMIC RESULTS

		2013	2012	2011
Total revenues	millions of Euro	10,399	11,973	12,186
EBITDA	millions of Euro	66	90	223
EBIT	millions of Euro	(26)	(1)	134

### PROCESSING

		2013	2012	2011
Refinery processing	kt	1,385	3,854	5,179
Refinery processing	thousands of barrels/day	28	77	104

### OUTLETS

		2013	2012	2011
Retail outlets	no.	3,017	3,248	3,383
Market share (gasoline + diesel)		11.3%	11.2%	11.8%
Average retail throughput	mc/p.v. a fine periodo	1,054	1,023	1,148
Wholly-owned outlets	no.	1,746	1,940	2,036
Outlets offering LPG and/or methane*	no.	52	40	33
Car wash facilities*	no.	98	89	77
of which equipped with water recycling systems	no.	39	39	45

\* Figure refers to wholly-owned, directly managed plants only.

### PERSONNEL AS 31/12/2013

	MEN	WOMEN	TOTAL
Executives	61	2	63
Middle Managers	207	43	250
Administrative staff	457	339	796
Workers	170	–	170
<b>Group Total</b>	<b>895</b>	<b>384</b>	<b>1,279</b>

	TOTAL
Fixed-term contract - Full time	1,119
Permanent contract - Full time	25
Tempo indeterminato - Part time	90
Permanent contract - Part time	45
<b>Group Total</b>	<b>1,279</b>

## PHOTOVOLTAIC ENERGY

		2013	2012	2011
Outlets with photovoltaic installations	no.	4	4	4
Installed power	MWp	0.031	0.031	0.031
Electricity produced	MWh	36	37	37
Other photovoltaic installations	no.	5	5	1
Installed power	MWp	0.450	0.450	0.127
Electricity produced	MWh	503	353	37

## ENVIRONMENT AND COMMUNITY\*

		2013	2012	2011
Waste produced	kt	16.3	11.2	12.3
from site reclamation and new constructions		88%	92%	88%
sent for recycling		91%	96%	89%
non-hazardous		97%	68%	83%
Petroleum product losses	no. of events	1	2	3
Petroleum product losses	m <sup>3</sup>	0.02	0.04	2.7

\* Data refers to wholly-owned, directly managed plants only, excluding the Rome refinery.

## SAFETY\*

		2013	2012	2011
Employee accidents	no.	3	7	2
Frequency index <i>no. of accidents per million hours worked</i>		1.28	3.36	0.910
Severity index <i>total no. of days lost per thousand hours worked</i>		0.031	0.034	0.005
HSE training	hours	11,614	6,981	5,714

\* Data refers to wholly-owned, directly managed plants only, excluding the Rome refinery.

## TOTALERG GROUP DATA AND INDICATORS

### ECONOMIC RESULTS\*

		2013	2012	2011
Total revenues	millions of Euro	10,065	11,609	11,898
EBITDA	millions of Euro	30	49	176
EBIT	millions of Euro	(44)	(20)	110

\* Values calculated according to Italian accounting principles.

### SALES

		2013	2012	2011
Total sales	kt	7,005	8,131	9,926
of which domestic retail market	kt	2,534	2,645	3,084

### PERSONNEL

	2013	2012	2011
Employees at 31/12	644	662	703

### DETAILED ANALYSIS OF PERSONNEL - 2013

	MEN	WOMEN	TOTAL
Executives	54	2	56
Middle Managers	154	39	193
Administrative staff	228	146	374
Workers	21	–	21
<b>Total</b>	<b>457</b>	<b>187</b>	<b>644</b>

	TOTAL
Permanent contract - Full time	620
Fixed-term contract - Full time	5
Permanent contract - Part time	19
<b>Total</b>	<b>644</b>

## RAFFINERIA DI ROMA S.P.A. PERFORMANCE DATA AND INDICATORS

### ENVIRONMENT AND COMMUNITY

		2013	2012	2011
Energy consumption (primary sources)	ktoe	7	119	166
of which Natural Gas	ktoe	7	109	139
CO <sub>2</sub> direct emissions	kt	10	276	407
NO <sub>x</sub> emissions	t	12	315	342
SO <sub>2</sub> emissions	t	–	788	1,525
Particulate emissions	t	–	3	2
Water withdrawals	thousands of m <sup>3</sup>	693	1,368	1,514
Water reused in production processes		–	15%	15%
Waste produced	kt	2,089	4,213	13,897
from site reclamation and new constructions		–	–	73%
sent for recycling		20%	19%	81%
non-hazardous		25%	54%	90%
Petroleum product losses	no. of events	–	7	6
Petroleum product losses	m <sup>3</sup>	–	14	*135
Level of ISO 14001 and OHSAS 18001 certification		100%	100%	100%

\* Entirely recovered.



## SAFETY

		2013	2012	2011
Employee accidents	no.	–	2	1
Frequency index <i>no. of accidents per million hours worked</i>		–	4.68	2.19
Severity index <i>total no. of days lost per thousand hours worked</i>		–	0.46	0.12
HSE training	hours	1,600	1,432	2,700

## PERSONNEL

	2013	2012	2011
Employees at 31/12	130	235	263

## DETAILED ANALYSIS OF PERSONNEL - 2013

	MEN	WOMEN	TOTAL
Executives	1	–	1
Middle Managers	18	1	19
Administrative staff	61	4	65
Workers	45	–	45
<b>Total</b>	<b>125</b>	<b>5</b>	<b>130</b>

	TOTAL
Permanent contract - Full time	130
Fixed-term contract - Full time	–
Permanent contract - Part time	–
<b>Total</b>	<b>130</b>

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Manager Network Italia – a round table covering  
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