

1993

ENERGY FOR FUTURE

————— 30 years of OMC —————

2023



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OMC challenges

For 30 years, OMC has been the home of energy, hosted in a city that loves energy and recognizes not only its necessity - vital for every citizen - but also its centrality to the growth and the development of all of society. And the city is a veritable *agora*, a vibrant place where all the energy leaders come together periodically to discuss industry perspectives and prospects, consistently looking to the future.

The 30th anniversary of OMC is not just a celebration, but is above all an opportunity to photograph the road traveled thus far and propose new and ambitious goals. The stories of the partners and protagonists of OMC that we tell here seek to strengthen and renew a pact that accompanied us from birth and today we need more than ever because we are always dealing with fascinating and new challenges and opportunities.

As early as the foundation of OMC in 1993, we knew we were in a time of transition and we thought we were on the eve of even more important transformations, of which energy was supposed to be both witness and protagonist. After all, “energy” is synonymous with change; its history anticipates, marks and accompanies every great evolution of humanity. But nobody could have imagined the dimensions of the change over the successive thirty years. No one could have predicted the scale of the wave of new globalization, characterized by the digital revolution. Nor the intensity of the population and economic growth that would double energy consumption by 2040, especially in the global South, with the consequent increase in climate-changing emissions. Hence the pressing need for the energy industry to tackle global imbalances with courage and an innovative spirit, to safeguard a future of development and prosperity for all, while ensuring the environmental and social sustainability of economic activities.

But what are the concrete challenges we face? To give just a few examples: the necessary decarbonization of the hard-to-abate sectors - to limit their emissions by means of CO₂ storage -; the development of renewables such as solar, wind and wave power; the implementation of low-carbon energy carriers such as hydrogen and methanol. We are tackling all these challenges with determination, in the firm belief that it is essential to combine traditional energies with renewables and new energies, in a holistic approach that includes the circular economy, bioproducts and any solution that supports decarbonization.



Pursuit of this process requires the implementation of best practices: we need to develop the know-how of the entire sector, putting people at the center, with their expertise and histories. The energy transition can only begin with people, with the direct and indirect workers in the energy sector, with communities and consumers. Because it is certain that our commitment is to reduce emissions, but this is achieved by intelligently managing the social impact that transformations have on society as a whole. To this end, in a nut shell, the transition has to deal with a kind of “trilemma” consisting of **competitiveness** and innovation, energy **availability**, which is necessary for growth, and environmental and social **sustainability**. These three challenges have to come together and be integrated into an increasingly resilient and shared energy system.

The natural place for this challenge is the Mediterranean. It is in the *mare nostrum* basin that we must build a laboratory of concrete solutions and create new business models to ensure future and sustainable growth and development. To achieve this great goal, OMC changed its name in 2021 to OMC Med Energy with the idea of making the Mediterranean a great bridge between the North and South of the world. The region is an essential area for any energy strategy. Establishing mutual cooperation between countries in the north and south of the Mediterranean can help to achieve a transition that leaves no one behind. The countries overlooking the Mediterranean have common needs and they can share and together build a flexible and solid network in a permanent exchange of experience and expertise.

OMC aims to be and become all of this. In 30 years, this major event has increasingly engaged institutions, industry players and associations, always stimulating new reflections on energy, never stopping to contemplate the state of the art but rather trying to anticipate the stages of a constantly evolving journey. At COP27, it even made its debut in the Mediterranean Pavilion. Thus, over the years, it has built a very solid energy network, becoming, edition after edition, an essential reference point for hundreds of exhibitors from 25 nations and over 22,000 participants, to the point that it is now a permanent conference working nonstop throughout the year in Ravenna, a city that could be described as the energy capital of the entire Mediterranean.



Monica Spada

Chair OMC Med Energy 2023





Comune
di **Ravenna**

Ravenna at the heart of energy transformation in the Euro-Mediterranean area

Energy is inextricably linked to the quest for freedom and democracy
in Europe and in all the countries bordering the Mediterranean

This year we celebrate a great milestone: OMC 30th anniversary. The 16th edition of OMC Med Energy Conference & Exhibition is inextricably linked to the identity of Ravenna and its leading role in Europe and the world in the field of energy.

In the midst of the energy crisis that has hit Europe and Italy in particular, it is in Ravenna where the proposal regarding four strategic actions for a new national energy plan was made.

The plan *4 Times 'Yes' to Energy, Economy and Environment* includes four actions; relaunching national gas production in the Adriatic; installing an offshore FSRU off the coast of Ravenna; building a 600 MW offshore wind farm with an attached 100 MW floating photovoltaic plant and green hydrogen production; and building a CCUS system.

These four actions are mutually supportive, their aim is to safeguard the economy and security without retreating from the issues of ecological transition, but rather offering solutions consistent with the technological neutrality required by the new green deal.

There is much more.

Energy is inextricably linked with the quest for freedom and democracy in Europe and in all the countries bordering the Mediterranean.

The energy crisis showed us how the cost of energy, the freedom to choose the source and origin of supply, and the fight against climate change are the basis for the growth and development of freedom and democracy in all nations.

High energy costs lead to economic crises, poverty and deindustrialisation. Exclusive relationships with one supplier or buyer, as well as the use of a single technology to produce energy, make countries dependent and subordinate. Disasters generated by climate change disrupt territories, generate fear and place entire economic sectors in difficulty. All these aspects make countries weak and enslaved to someone or something else, and do not allow them to fully exercise their freedom.

We must be aware that there is no growth of human rights, freedom or democracy without economic development. The two must flourish hand in hand.

It is an illusion to think of promoting economic growth without taking care of people's freedom, or of pursuing democratic values without worrying about improving the material quality of people's lives.

This is the challenge we want to and must take on for the future of our Euro-Mediterranean area.



Michele de Pascale

Mayor of Ravenna



Changing scenario

the transformative power of a vision

Ravenna: an ancient world in the future

History changes its form but loves repeating itself, thus revealing the permanent nature of people's vocation. This vocation to become builders, to build bridges, waterways and railroads, floating works, to sail fleets loaded with grains and hydrocarbons across the oceans, reaches right up to the present day, in the age of energy transition. Setting the tone for the 30th anniversary of OMC, openness to other worlds, the sense of traveling in space and time

Transits and landings, trade and military routes, link between East and West, route between North and South, treasure chest of Byzantine art. Ravenna, yesterday and today, is a hotbed of experience and vision. Everything in the city of mosaics is reminiscent of the fascinating web of time, a place both physical and imaginary, many centuries before the caveat of Dante (who wrote *Paradise* in the city and died an exile here in 1321) to “follow virtue and knowledge.”

Goods and poets

When Ravenna became the capital of the Western Roman Empire, it was one of the main ports on the Mare Nostrum. Goods arrived from all over the Mediterranean in clay amphorae of varied shapes, each a hallmark of the different areas of origin. Origin and landing, early containers and silos, trade routes. History changes its form, but it loves to repeat itself, revealing the permanent nature of the vocation of peoples.

An interweaving of cultures that made Ravenna a natural meeting place and inspiration for intellectuals and poets. George Byron lived in Ravenna from 1819 to 1821; Oscar Wilde discovered it during his horseback riding trip to Italy in 1877; Thomas S. Eliot set his novel *The Honeymoon* there. “Ravenna, glauca notte rutilante d'oro, / sepolcro di violenti custodito / da terribili sguardi, / cupa carena grave d'un incarco / imperiale,



ferrea, costrutta / di quel ferro onde il Fato / è invincibile, spinta dal naufragio / ai confini del mondo / sopra la riva estrema!” [Ravenna, glaucous night glittering with gold, / sepulcher of the violent guarded / by terrible gazes, / grim iron hull of an imperial / charge, constructed / with that iron where Fate / is invincible, driven by shipwreck / to the ends of the world / over the extreme shore!], wrote Gabriele D’Annunzio in the *Cities of Silence*, outlining a grandiose past, prelude to future glories.

The ancient ties with the Mediterranean

Over the centuries, Ravenna has successfully cherished history and reinvented experience, strengthening its ties with the Mediterranean that continues to whisper like the waves in the shell of ideas and projects. Ravenna is land and sea, plowed field, sowing, boating and fishing, reclamation, drilling and oil, gas and pipeline, sun and wind, platform and exploration; it is a connection point of a network, a plot where Machiavellian Fortune (where for the author of *The Prince* one must “weave its warps but [can]not break it”) is that of *Homo Faber* who constructs fact and fate, work and destiny.

Ravenna cultivates the grace of art, the point of the chisel and the engineering of exploration, geological research and the pleasure of building, each layer is a discovery, because there is a culture that is nurtured by intelligence, investment, trust... and tradition, because nothing happens by chance.

Vocation to build

Ravenna baptized dynasties that have written the history of Italian industry. The link between land and sea is the common thread of Serafino Ferruzzi’s extraordinary adventure, of his formidable flair for business, of his international vision of trade, of imagining a complete cycle of production and supply of goods linked to agriculture and its ramifications, all the way to chemistry, the insights of which are now being rediscovered, which were also shared by Raul Gardini who took the helm of the company. Ferruzzi was an anticipator of



globalization, he traveled and dared, he was a transformer, and of course he was among the promoters of the construction of the new port of Ravenna.

Breaking new ground: the 30th anniversary of OMC

This vocation to become builders, to build bridges, waterways and railroads, floating works, to sail fleets loaded with grains and hydrocarbons across the oceans, reaches the present day, in the age of energy transition that is in progress and must find its time and pace, without tears, without prejudices and leaps forward; is an experience that is part of the ability of Italian companies to adapt to the new scenario, to ride the wave when the sea is stormy. And get to port. With these premises and promises (fulfilled), Ravenna has created another story within the story, a tale that speaks many languages.

Thirty years ago, the first Offshore Mediterranean Conference (now OMC Med Energy Conference), a forum for discussion and dialog on energy, was established. Once again, it is the openness to other worlds and the sense of travel in space and time that set the tone for this event. It is always the idea of opening a new waterway that is the point of contact between East and West. It will be discussed in the best possible place: Ravenna, capital of the empire yesterday, global energy factory today. An ancient world that has always been in the future.

Rita Lofano

Editor in Chief at AGI





The evolving energy markets

Energy security made a comeback as a top political priority after recent years' prioritization of climate policies. The war has triggered a profound reconfiguration of global energy flows with the surge of US energy exports to Europe and the redirection of Russia's energy volumes towards Asian markets in the attempt to keep collecting vital revenues. The Mediterranean area is emblematic in the shifting energy world

The world's energy systems have been undergoing massive transformations over the recent years. Multiple crises (related to health, economic, climate and energy) have induced governments to recalibrate their priorities and preferences about the three main aspects of energy policy (security of supply, price competitiveness and environmental sustainability) - the so-called 'energy trilemma'. Periodically, governments have focused mainly on one aspect of the trilemma.

Energy crisis in historical perspective

In the 1970s, the primary concern was energy security whereas the 1980s and 1990s were characterized by liberalization and market rules that ensure price competitiveness and several benefits for consumers. Over the past two decades, the energy system has been increasingly shaped by climate policies aimed at averting climate change and its negative effects. Particularly since 2015, governments have enhanced their climate ambitions tightening targets to reduce CO2 emissions and increasing clean energy sources in order to reach carbon neutrality by and around mid-century. Growing climate policies, abundant energy supply and technological developments entailed profound implication for global energy markets, especially for oil and gas markets. In short, concerns regarding energy security and price competitiveness had drastically reduced, also given the energy abundance of the past decades, until the beginning of the first global energy crisis in 2021.



A paradigm shift

Indeed, the energy crisis has started already in 2021 due to supply-demand imbalances caused by the rebound of energy demand and slower supply adjustments, but Russia's war in Ukraine has undeniably exacerbated structural weaknesses and challenges causing further price volatility and energy insecurity. The war represents also a paradigm shift in the energy system yielding massive and important consequences from the political and energy perspectives. The war has ignited the energy (and political) decoupling between Russia and Europe after more than five decades of energy relations. Throughout the decades, European countries and Russia have built a profound energy interdependence despite several political tensions both during the Cold War and after mid-2000s. In 2021, Russia accounted for about 30% of the EU's total oil imports and 40% of its total gas imports (corresponding to a total of 155 billion cubic metres, bcm) in 2021. Thus, energy is closely tied into the ongoing battle. The European Commission has released its REPowerEU Plan to wean itself off Russian energy imports well before 2030 through a combination of diversification of supplies, ramp up of clean energy sources (renewables, hydrogen and biomethane) and higher energy efficiency. On the other hand, in 2022 Russia decided to cut its energy exports to European buyers shutting down 3 of the 5 pipelines, causing a reduction of 80% over the course of the year. The weaponization of energy in Europe represents a watershed for the global energy system given the pivotal role of Russia in the world.

The challenge of energy security

Against this backdrop, energy security made a comeback as a top political priority after recent years' prioritization of climate policies. Governments have reconsidered the importance of diversification of energy supplies and routes working tirelessly to sign new energy supplies and deals and adjust and adapt energy infrastructure in order to prevent supply disruptions. Yet, the challenge is quite impressive given the tightness of energy markets and the under-investments in oil and gas production capacity during previous years. Despite these circumstances, the war has triggered a profound reconfiguration of global energy flows with the surge of US energy exports to Europe and the redirection of Russia's energy volumes towards Asian markets in the attempt to keep collecting vital revenues. Although the EU



has managed to cope quite well the first winter with substantially lower Russian energy imports, energy (in)security will remain a crucial goal for governments. Limited additional capacity and potential higher competition between LNG importing countries call for caution. Furthermore, energy security concerns are not only related to fossil fuels but also to critical raw materials which are unreplaceable elements for clean energy technologies and are more heavily concentrated than fossil fuels. The geographical concentration of CRMs is something that goes beyond the upstream sector but also to the processing and refining sectors, where China has managed to hold a substantial share thanks to its industrial policies.

The shadow of the state

Another major development caused by the latest crises is the return of the State in the economy after 40 years of liberalization and market-based rules. Governments have issued numerous policies and measures (e.g., massive relief packages and nationalizations of companies) in order to tackle energy security, price volatility as well as prevent social instability and bankruptcies. Furthermore, Western governments have set massive sanctions on multiple sectors of the Russian economy. Particularly, the EU embargoed Russian seaborne crude oil and refined petroleum products to curb Moscow's revenues, along with setting a price cap for with the G7 countries and Australia. Governments are expanding their role in the economy and energy markets with the surge of industrial policy plans also in the attempt to accelerate decarbonization and increase industrial and technological resilience in key sectors. Industrial policy, through subsidies, has returned to the fore with the examples of the US Inflation Reduction Act and the EU Net Zero Industry Act. In short, governments are shifting their preferences towards economic and strategic resilience rather than economic efficiency and interconnectivity.

Regionalization of energy relations

Nonetheless, such changes and growing market interventions, coupled with increasing geopolitical competition, may result in a higher fragmentation and regionalization of energy relations. Furthermore, the Russian war against Ukraine



and growing US-China geopolitical rivalry are affecting and shaping alliances and strategic relations in the energy relations. Countries may be tempted to expand energy relations with like-minded countries forming climate clubs and encouraging production of both fossil fuels and clean energy in friendly partners.

This framework illustrates the complexity of current and future energy system. Firstly, geopolitics will remain a key factor in defining future trajectories. Additionally, energy geopolitics will regard not only natural resources but also industrial and technological aspects. Secondly, the 'traditional' and 'new' energy systems are evolving and influencing each other. The war has heightened the relevance of energy security also for the energy transition.

Big potential of Med area

In such complex coexistence, governments need to reconcile energy security with their climate targets and find a new equilibrium in the energy trilemma. This will define national energy and economic strategies, global energy flows as well as global affairs and economies. For these reasons, the Mediterranean area is emblematic, as it holds massive (yet largely untapped) potential to contribute to future energy security and decarbonization. This area embodies the challenges to find a balance between energy security and decarbonization as its energy demand is expected to grow underpinned by demographic growth and its exposure to climate change negative effects. Furthermore, the Med region represents a key area where the EU could pursue strategic and positive partnerships in line with its climate ambitions and promoting its climate diplomacy given the long economic and political relations with regional countries as well as geographical proximity. To build this new partnership, the EU needs to include the perspectives and needs of Mediterranean and African countries.



Pier Paolo Raimondi

Researcher of the “Energy, Climate and Resources” Programme at the Istituto Affari Internazionali and PhD Candidate at the Catholic University, Milan



Make the way for innovation

The Innovation Room's proposals can become concrete solutions to address the challenges of the energy sector, by working closely with start-ups and industry. It is time to collect new ideas in order to lay the foundations for the future of the energy industry, together

“Just as energy is the basis of life itself, and ideas the source of innovation, so is innovation the vital spark of all human change, improvement and progress”. The quote from the German economist Theodore Levitt recalls some of the key concepts of technological, social progress, whatever kind of advancement humans have sought - and still seek - to achieve. No goal in the history of mankind would have been achieved without initiative, willingness to innovate and improve. It is precisely this desire to be an active part of change for a more sustainable future that, especially in recent years, is one of the main points of the OMC Med Energy Conference's mission. Levitt talks about energy, “the basis of life” and also, obviously, the main theme of OMC.

Towards a carbon-free future

And how can we improve and learn if not by listening to those who deal with the challenges of transition every day? In technical sessions throughout the three-day OMC, Italian and foreign companies from across the energy supply chain will bring examples, case studies and concrete projects. Technical sessions get into the thick of things of the work of researchers and practitioners working in the field who will give their testimony. Professors, engineers and technicians will offer an overview of key industry trends, from renewables, obviously part of the dialogue, to Carbon Capture and Storage, hydrogen and robotics.

Consistent with the renewed spirit of OMC, in the last edition some significant changes have also been made within the Scientific Committee, in addition to the Innovation Room. The Scientific Committee, the beating heart of the Conference, has been expanded by welcoming experts in renewables, circular economy, innovation and digitalization. In line with the renewed spirit of OMC, the Committee now combines traditional issues with those of transition, by pursuing long-term sustainability. Renewables and circular economy are central to achieving a carbon-free future, which needs both innovation and sustainability. By integrating the digitalization,



we made space also for the digital transition, the other guideline for our country along with the energy transition. We have enlarged our event scope, opening its traditional boundaries to all forms of energy, because we are strongly convinced that interdependence and partnerships combined with dialogue and exchange of perspectives are the recipe for a concrete energy future.

Embracing the energy paradigm at 360 degrees in a long-term sustainable development perspective is the only way that can quickly lead us towards the goals of the 2030 Agenda solving the energy trilemma: clean, affordable and secure energy, leaving no one behind. This is how OMC Med Energy Conference really gets to the center of the current debate in Italy and the world.

The Innovation Room

Taking up Levitt's quote, ideas, innovation and desire to improve are the principles of the Innovation Room. Inaugurated for the first time in the last OMC edition in 2021, it fits the spirit of renewal, continuous thinking and looking to the future that characterizes the Organisation. The project aims to help make young people the real protagonists not only of OMC, by making discussion and dialogue its strong point, but also of the energy transition. Young students, researchers and professionals are the protagonists of the future, and it is to them that the Innovation Room is fully dedicated.

In the last edition, the Innovation Room was successful. A dozen startups, tens of students worked in the Innovation Room. Working in teams, side by side with experts, they gave their input on energy and sustainability. Beside innovation and improvement, collaboration and creativity need to be added among the key concepts of the Innovation Room. By working closely with startups and industry, the Innovation Room's projects and proposals can become concrete solutions to the challenges of the energy sector.

The common goal in OMC is to discuss the future of the energy industry. Every part of the the whole event - the companies showcase, technical sessions, Innovation Room, Institutional Panel and so on - will contribute to it. Now it is time to collect new ideas in order to lay the foundations for the future of the energy industry, together.



Edoardo Dellarole

Chair Programme Committee
OMC Med Energy 2023





The Founders

the transformative power of history

Camera di Commercio
Ferrara e Ravenna



The role of Chambers of Commerce in the energy transition

Carbon neutrality by 2050 is a goal to which European countries have committed together; the Chambers of Commerce can play a key role in helping to achieve it by pivotal sustainability projects and businesses

The climate crisis, advances in technology and the surge of energy prices in Europe, aggravated by the Russian invasion of Ukraine, have accelerated the development of renewable sources. The first study on the sector promoted and undertaken by Symbola Foundation and Unioncamere reveals that last year global investments in renewables reached a record USD 495 billion and predictions for the next five years foresee the installation of the same amount of renewable power as over the last two decades. Europe has also picked up pace.

Europe first

In 2022, we reached a record new photovoltaic capacity of 41.4 GW, an increase of 47% compared to the record for 2021. Italy is recovering from the stagnation of recent years with 2.5 GW in photovoltaics and 21,378 companies operating in the field of renewable energy, but it will have to speed up if it wants to meet the targets of RePowerEu: according to recent estimates by Elettricità Futura, we need 85 Gigawatts of new renewable capacity, to be divided essentially between wind power and solar power, between now and 2030. This path is consistent with the objective of carbon neutrality by 2050, which is not only a national target, but a collective challenge to which European countries have committed together.

Promoting companies

The Chambers of Commerce can play a fundamental role in this challenge by supporting pivotal sustainability projects and by supporting businesses, in particular small and medium-sized enterprises, on the path of the now unavoidable energy transition. In

particular, Ravenna and Ferrara share nationally important chemical and energy industrial hubs, which is the subject of an ongoing project to develop decarbonization activities to capture more than a million tons of CO2 per year, making a decisive contribution to maintaining industrial competitiveness with a view to the energy transition. The first offshore wind farm, a floating photovoltaic system and a regasification plant will be installed off the coast of Ravenna, following a virtuous path that qualifies us as the Italian region of energy transition, exploiting natural and clean resources and the vast expertise of local companies operating in this sector. This is a natural point of arrival for a territory that over the years has established itself as the energy capital of an entire geographical area. This has been possible in part thanks to the role and the commitment of the Chamber of Commerce that, since the foundation of OMC and as a privileged observer of local and international economic dynamics, has successfully and with great foresight identified new drivers of development increasingly focused on sustainability and the introduction of innovative models of energy production and consumption.



Giorgio Guberti

President of the Chamber of Commerce
Ferrara and Ravenna



Mediterranean Sea at the heart of the energy transition

OMC Med Energy stems from the vision of its founders
and represents a significantly different approach,
integrating renewable energy sources with natural gas,
the circular economy and CCUS

The 16th OMC Med Energy & Exhibition edition holds a special meaning for ROCA as well as for many operators in the energy sector. This year is going to be the 30th year of activity of the event as well as ROCA's 30th anniversary. It will also be the first edition in which Franco Nanni, one of the founding fathers of ROCA, will not be present.

A truly meaningful year

The topic chosen for the 2023 edition describes at best the whole professional and cultural heritage Franco Nanni has worked on in the past years: *Reshaping the Energy Industry: Action for Transition*. Franco Nanni, ROCA and OMC managed to seize the need for an energy development made of various productive sources. The aim has always been to advocate for an energy mix in order to achieve sustainability as well as a stable energy supply. Thirty years ago, the Chamber of Commerce, ROCA and Assomineraria, now Assorisorse, founded the Offshore Mediterranean Conference (OMC). It was 1993 when Agip, now Eni, enabled Ravenna to become the hub for national gas production. The “vision” of the founders of OMC has gained a further validation in the name change into OMC Med Energy which represents a significantly different approach towards the energy transition characterized by an integration of renewable energy sources with natural gas, the circular economy and Carbon Capture, Utilisation and Storage (CCUS).

Ravenna, energy capital

The Mediterranean Sea is at the heart of the transition as it takes up about 3% of the total water surface but it involves 25% of international trade affairs and therefore, we have a duty to support the development of various countries facing this Sea while also preserving the entire environment. The 70 years of experience in the offshore industry allow us today to be able to benefit

from a truly unique know-how that we can leverage for a new energy strategy which includes various sources. This is also why Ravenna is known as the “Capital of Energy”. Since a few months, our energy district has been presented with a new range of opportunities.

Aside from the availability to increase the national gas production, we will have in Ravenna one of the two Rigasification Units planned by the Italian Government which will be located at 8,5km off the coast. The plan to compensate for the reduction of 25 million cubic metres of gas imported from Russia includes the storage of 5-7 billion cubic metres of methane in the depleted fields located off the coast of Ravenna.

Surely, we do not neglect renewable energy sources and, as a matter of facts, the Agnes Project for wind and solar energy is undergoing the needed process to install 65 wind turbines off the coast of Ravenna and further South. We are also working on the project for Carbon Capture Storage and Usage as presented during an event promoted by OMC Med Energy. This project involves some of the most energy-intensive companies located in the districts of Ravenna and Ferrara and it involves Eni and Snam as technical authorities.

Just like 30 years ago, Ravenna is ready to provide the Country with a safe, reliable and sustainable energy production.



Renzo Righini
President of ROCA



Empowering the next generation Energy&Resources supply chain

The long history of the OMC is intertwined with that of Assomineraria, now Assorisorse. They tell the evolution and change of energy from one decade to the next. Today energy transition holds the key to the future

Energy is made up of people and passion, handed down from generation to generation. The city of Ravenna, symbol of the energy “dream” and revolution since the 1950s, is a landmark in this journey towards the future. First with the pioneers of exploration, production - and use - of natural gas resources from offshore deposits, up to the current scenario that sees the city as the protagonist of the most innovative realities linked to the transition towards the net zero emission economy. Efficiency, safety, environment and innovation have always been the guiding values of both OMC and Assorisorse, which have made the Mediterranean their hub for international activity, with attention to both interdependence and regional energy strategies.

Net zero targets

Over the years, Ravenna has been the scene of constant attention from Italian industry to the coexistence of the enhancement of natural resources and the peculiarities of a specific territory, respecting all its social, environmental and economic characteristics. The search for integration of local areas is also the basis of another key theme for Assorisorse; the Internationalization of Italian business companies based on capacity building, i.e. making local skills, governance and entrepreneurship grow.

Today, territory and sustainable development meet in the strategies that companies in the Assorisorse supply chain implement for Carbon neutrality, in all its most advanced and transversal forms; from the integration of renewables to CCUS (Carbon capture, utilisation and storage) for the support of hard-to-abate industrial sectors, to the circular



Courtesy of Rosetti Marino

economy for waste-to-energy, the new role of “zero km” natural gas, to the zeroing of methane emissions, the production of hydrogen and biofuels, to Critical Raw Materials (CRMs), which are essential for the energy transition.

Eyes firmly on the future

The spotlight is on the younger generations, guardians of our future, who with talent and innovation are enhancing our digital present, developing start-ups and populating our companies with skills in AI and new materials. With these objectives, the Assorisorse supply chain continues to grow, incorporating a network of cutting-edge skills and putting into practice the same stubborn foresight that our top management - and in particular Messrs. Guglielmo Moscato and Gianfranco Magnani - showed thirty years ago in founding OMC.



Luigi Ciarrocchi

President of ASSORISORSE

30 years of OMC



The Core

old partners walking towards a sustainable transition



Eni's Garibaldi C offshore platform

Making sustainable energy for all

Eni is committed to accelerating a just energy transition, with the aim of giving people a sustainable life model, through completely decarbonized products and services by 2050.

Proprietary and breakthrough technologies will be the strategic drivers of the decarbonisation path, addressing the complexity of the challenges posed by the energy transition

“Wit is seeing possibilities where other people can't find them”. This phrase summarizes the idea of Enrico Mattei, the man who founded Eni and gave it its imprinting of research for innovation and continuous improvement. Still today these values define who we are: Eni is an integrated energy company, with more than 30.000 employees in 62 countries.

Eni has been operating in Ravenna since 1952, the year of the first gas discovery. Thanks to the exploratory successes on land and at sea, unique skills in the sector grew over the years: Ravenna also became an open-air laboratory, to test new technologies or start projects never experienced before in Italy. Eni's presence at the OMC is historic: the event was born

in 1993 thanks to the Chamber of Commerce of Ravenna, and with the support of AGIP (later Eni). Today Eni works to enable and accelerate a just energy transition making energy available for everyone all over the world.

Eni's decarbonization strategy

To do so, we focus on our distinctive skills and on the synergy between all the available technologies. Our aim is to give to millions of people the concrete possibility of adopting a sustainable life model, through completely decarbonized products and services by 2050, in line with the “Net Zero” goal of the Paris agreement. To define its concrete decarbonization strategy, the company leverages a network of alliances and stakeholders, and a technological leadership built in years of research. Eni's strategy tackles the challenge of climate change by using complementary solutions, diversified approaches, seizing more opportunities and reducing risks. Our signature fast time-to-market enables us to work on distant objectives while facing present-day challenges like security of supply and market shifts.

Technological innovation

Innovation is the toolbox with which we address the complexity of the challenges posed by the energy transition. We aim to producing concrete benefits for people thanks to new proprietary and breakthrough technologies developed in our research and development ecosystem. Technological innovation is achieved through the synergy between in-house



research, advanced engineering skills, expertise and digital tools using our big data and the great computing power of Eni's supercomputers.

In order to achieve environmental sustainability, energy security and affordability, we focus on geographical and technological diversification of energy sources. To do so we will continue to develop new gas resources, diversify geographical presence, leverage our high-performing exploration and fast-track development approach, and reduce emissions. Eni continues to meet the emissions reduction challenge in its own operations towards the goal of net-zero upstream operations by 2030.



A laboratory at Eni's refinery



Farmers planting and harvesting castor beans in Congo

From CCUS to agri-feedstock

At Eni, we are committed to a sustainable future and are constantly innovating to achieve our goals. One of our key focuses is Carbon Capture, Utilization and Storage (CCUS), a critical technology that can help reduce CO₂ emissions from hard-to-abate industrial processes. We are investing in CCUS and are ready to launch several projects, starting from the Ravenna CCUS Hub, a pioneering project for Italy and the whole Mediterranean area.

We are also exploring the potential of agri-feedstocks and biofuels, which can significantly contribute to reduce carbon emissions from transportation. We are developing sustainable biofuels from a number of sources including agri-feedstock, used cooking oil, algae and woody biomass. The agri-feedstock that we use for biorefining leverage crops that do not compete with food production and can grow on marginal or degraded lands. The resulting biofuels, through Enilive, identity of Eni Sustainable Mobility, will make the heavy transportation - trucks, ships and airplanes - more sustainable, and they are

already available to our clients for everyday moving.

Our idea of mobility

Another example of our commitment to making everyday life more sustainable is Plenitude, Eni's company that combines the production of renewable energy, the electric mobility network and the retail power business with the objective to provide energy with Zero net emissions and solutions to optimize energy consumption to companies and private consumers alike.

Entrepreneurs first

Joule, Eni's school of entrepreneurship, is another way in which we are investing for our tomorrow. We believe that innovation and entrepreneurship are critical to achieving a sustainable future. Joule is our way of supporting those young entrepreneurs and startups that are developing projects focused on new energies, decarbonization and circular economy. We provide training, networks of mentors and peers, and an ecosystem to help entrepreneurs turn their ideas into reality.

Focus on recycling and remediation

Versalis, our chemical company, is also contributing to sustainability through its technologies for plastics recycling. Versalis has developed innovative processes to recycle plastics to reduce waste and create new materials, through mechanical recycling and the development of projects like Hoop[®], a process of chemical recycling that enables to reuse plastics

indefinitely, without losing in quality and characteristics of the materials.

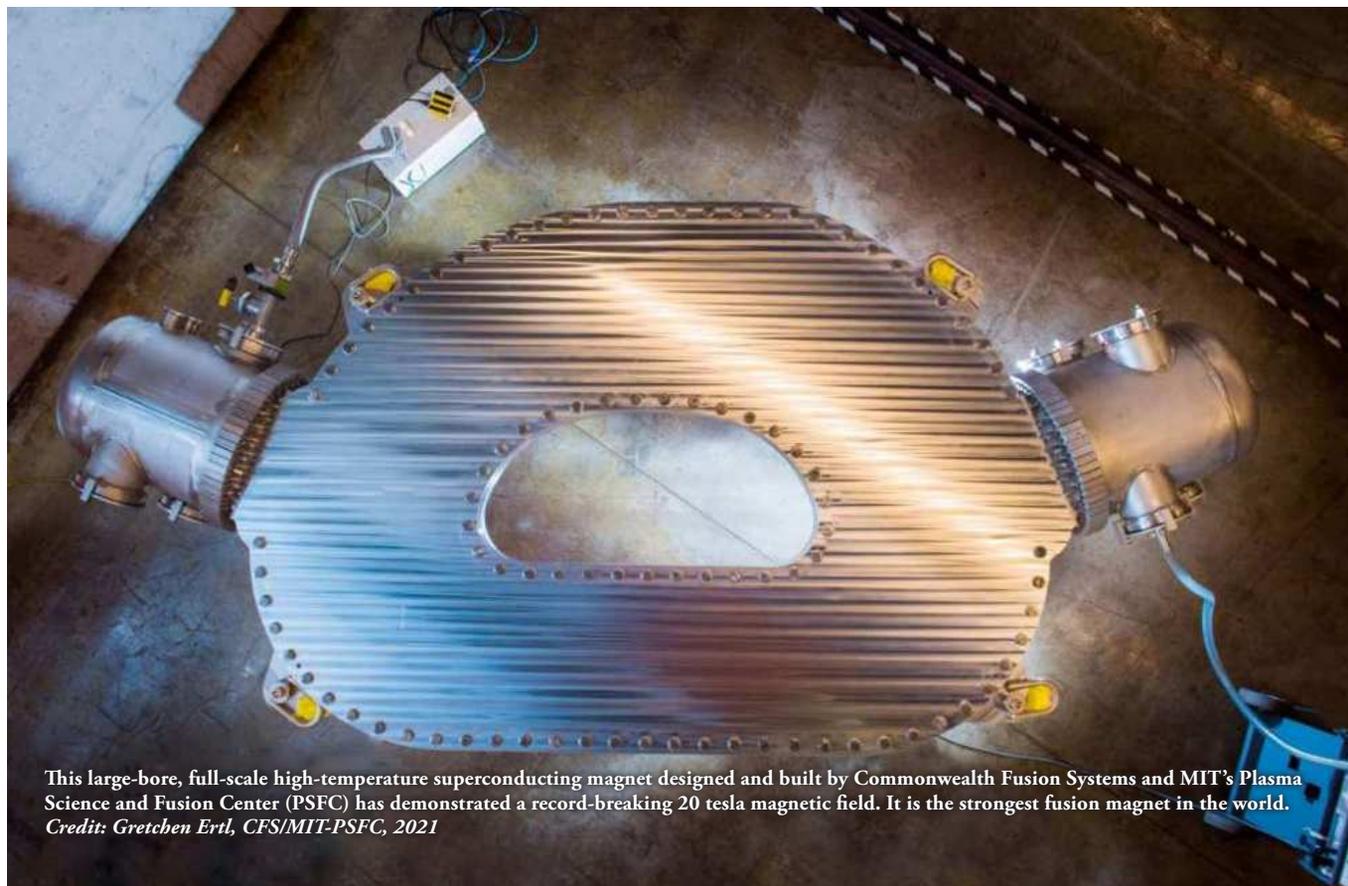
Within the circular economy model, Eni Rewind focuses on sustainable remediation of polluted grounds. We are committed to cleaning up contaminated sites and restoring them to their natural state: our technology for sustainable remediation allows us to clean up polluted areas while minimizing environmental impact.

The energy of tomorrow imitates the stars

Finally, our Magnetic Confinement Fusion project is an ambitious initiative to develop a new, virtually

inexhaustible energy source: with the use of Tokamak reactors, fusion energy has the potential to revolutionize the energy industry by providing limitless supply of clean energy, imitating the processes that take place inside the stars safely on planet Earth. We are working with international partners to develop this breakthrough technology and are committed to making fusion energy a reality.

At Eni, we believe that by investing in new technologies and initiatives we can achieve a more sustainable future: discover more about our vision and projects visiting our stand at OMC, or our website eni.com.



This large-bore, full-scale high-temperature superconducting magnet designed and built by Commonwealth Fusion Systems and MIT's Plasma Science and Fusion Center (PSFC) has demonstrated a record-breaking 20 tesla magnetic field. It is the strongest fusion magnet in the world.
Credit: Gretchen Ertl, CFS/MIT-PSFC, 2021



Saipem 7000 on Hywind project

Engineering for a sustainable future

Undertaking extraordinary challenges through innovation has always been the essence of Saipem's long history, as a leading Italian global company active in engineering services for the energy industry, supporting clients to accelerate the transition of the global industry towards a more sustainable, low carbon future

Over more than 65 years, the Company has become one of the world leaders in E&C offshore and on-shore and a major player in offshore drilling, and in the development of major infrastructural projects, working side by side with clients on projects in almost every corner of the world.

At the forefront

With over 70 countries served with innovative solutions, Saipem has been constantly dedicated to research, develop and implement solutions that have been at the forefront of the evolution of the energy industry over the years. It is no surprise therefore that today Saipem defines its purpose as “Engineer-

ing for a Sustainable Future”. As energy infrastructures have become one of the most important drivers of sustainable development, and the world faces unprecedented and demanding challenges, Saipem is supporting Clients to accelerate the transition of the global industry towards a more sustainable, low carbon energy future, being actively engaged in improving the environmental footprint of traditional activities and investing in renewables and new low carbon solutions.

From gas to renewable energy sources

In this evolutionary journey for a new and more sustainable energy mix, natural gas can be considered today as the key vector for the transition. Saipem is strongly positioned along the entire gas value chain, especially in the LNG sector, where the company is focusing its efforts on different product lines such as LNG production & gasification and floating LNG liquefaction and regasification to be a partner of choice for clients working on a low-carbon energy future.

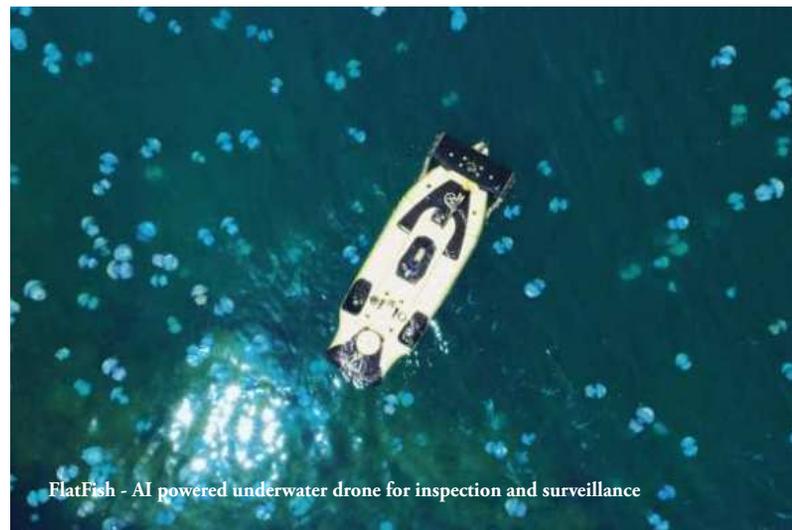
Besides its focus on the gas sector, however, Saipem is proactively exploring the market of renewable energy sources. The key pillar of the company’s value proposition for the energy transition is the offshore wind market, where Saipem has already reached important milestones, starting from its involvement in the Hywind Scotland project as far back as 2016.

The offshore wind market

The Saipem 7000 is a behemoth in the offshore in-



dustry and, today, is a perfect symbol of the energy transition process. At nearly 198 metres long and with a lifting capacity of 14,000 metric tonnes, it is one of the largest and most capable crane vessels in the world. Originally built to reduce construction times and costs for major oil and gas companies, today it also offers its services for successful projects in the renewables sector, such as offshore wind. Saipem is actively engaged in numerous projects in the offshore wind market around the world. Among the various projects, in 2022 the company successfully completed the fabrication of 32 jackets for the Formosa 2 offshore wind farm in Taiwan, and the



FlatFish - AI powered underwater drone for inspection and surveillance



transport and installation of the electrical substation for the offshore wind farm in Saint-Brieuc, Brittany (France). Additionally, Saipem accomplished the installation and ballast of the Gravity-Based Structures foundations (GBS) for the Fécamp offshore wind farm in Normandy, France, in consortium with Bouygues Travaux Publics and Boskalis (BSB). And in 2023, with the Saipem 7000, the company finalised the installation of the offshore foundations for the wind turbines of the Seagreen development, that once completed will be the largest wind farm offshore Scotland, as well as successfully concluding the first installation campaign for the Dogger Bank project - the world's largest offshore wind farm, that will be capable of powering 6 million British homes.

Technological innovation

Saipem is also continuously working to develop cutting-edge technologies for the renewables sector. HexaFloat™ is a prime example: a floating pendulum concept that allows the installation of floating wind turbines in marine areas with strong winds but

too deep for traditional fixed foundations. Moreover, Saipem in collaboration with Equinor has developed the Star 1, another floater design concept, as well as a floating solar panel technological solution for near coastal applications, designed for easy fabrication, transportation, installation, and operation in rough weather conditions and very windy areas.

A multifaceted journey to decarbonization

In addition to investing in renewable energy sources, Saipem is committed to supporting energy transition and decarbonization beyond the traditional oil and gas segments. In line with this effort, the company has added carbon capture in its product portfolio, with the introduction of Bluenzyme 200, a proprietary enzyme-based carbon capture solution ideal for small and mid-sized emitters. Furthermore, the company will invest in innovative technologies for chemical plastic recycling and design modular plants for PET to serve utilities and waste management companies. Moreover, Saipem will focus on green hydrogen and its derivatives, such as green ammonia and green methanol. Finally, the company's combined solution integrating the EPC phase with maintenance and repair using resident drones developed by its Robotics unit will enable cost-efficient decarbonization for all subsea developments. In the sustainable infrastructure segment, Saipem is also engaged in high-speed railway development, for a more sustainable mobility.

As it becomes a partner supporting clients in reaching their decarbonization objectives, Saipem has also

set its own journey for its operations. In its Sustainability Plan, Saipem has set challenging objectives, including reaching Net Zero in 2050 for Scope 1, 2 and 3 emissions, while achieving carbon neutrality of Scope 2 emissions by 2025 and reducing Scope 1 and 2 emissions by 50% by 2035.

Investing in partnerships

An example of Saipem's commitment to support in reducing the environmental footprint of the traditional offshore activities, is the recent agreement signed with Eni for the use of biofuels in Saipem's drilling and construction vessels. This will allow Saipem to significantly reduce net carbon emissions by around 550,000 Tonnes of CO₂eq per year,

equal to 60% of its total annual Scope 1 emissions, thus achieving a new milestone in its commitment to reducing the carbon footprint across offshore operations, while supporting clients in implementing more sustainable projects.

Moving to a new energy paradigm is a complex, ongoing transformation. It's not something that can be done by simply turning off a switch. It's a work in progress. It's an unprecedented trajectory through many phases of a long and multifaceted journey. Most of all, it cannot be done by one Company alone, and this is why Saipem invests in partnerships and collaborations with companies, institutions, research centres and young talents. We all need to write a collective, new, energy story.



Castorone - pipelaying operations on Alen Project, Equatorial Guinea



Offshore structure (jacket) built by Rosetti Marino in the 60s

Taking steps towards Net Zero

Founded in 1925 in Ravenna, Rosetti Marino is the Parent Company of an Italian Group of Companies, providing EPC Projects and integrated services to several industrial sectors including Oil & Gas, Renewables, Carbon Neutrality, Petrochemical & Power Generation. Its roots stretch back to almost a century of industrial success, but its leaves reach out towards the Energy of the Future

When, in 1960, the drilling platform Scarabeo stood off the coast of Ravenna, drilling for the first time in the Adriatic Sea and the “Ravenna Mare 3” well proved to be productive, Rosetti Marino was a mechanical constructor performing metal work and producing small cisterns in a workshop and in a small yard in the Port of Ravenna. Today, Roset-

ti Marino is an EPC(I) (Engineering, Procurement and Construction, Installation) Contractor active in the Energy transition and delivering projects for Renewables, Carbon Neutrality and the Circular Economy, as well as upholding its traditional and highly reputable presence in the Oil & Gas industry.

Diversification of activities

After almost a century of industrial success, Rosetti Marino is advancing towards the Energy of the Future. Rosetti Marino evolved from being a mechanical workshop to a shipbuilder, from the construction of heavy steel structures to an international EPCI contractor, from the design and construction of Offshore Wind Substations to Hydrogen Plants. The diversification of its activities has always been a persistent goal, focused on successfully solving problems for customers. Since its founding, Rosetti Marino has been involved in the development of Ravenna's territory. In the '50s the company made its first transformation, venturing into new activities such as designing and fabricating self-propelled vessels, building tanks and structures for the newly formed chemical and petrochemical industries situated in the Port. Its design skills allowed it to carry out works which were very different from each other, satisfying very diverse customers. Another important change occurred with the branching out into the Offshore Natural Gas field.

The dawn of the Oil & Gas industry in Ravenna

The accomplishment of the aforementioned drilling platform Scarabeo can be considered the milestone marking the beginning of the Oil & Gas industry in Ravenna. At that time, Ravenna's offshore sector of Agip, now Eni, held the primacy of offshore production on a European level. With the onset of natural gas extractions in the waters in front of Ravenna executed by Agip, Rosetti Marino decided to enter



a new business with a new customer, supported by its own construction yard in Ravenna's harbour area. This is how and when Rosetti Marino started to build offshore platforms.

New business models

In the '70s the request from customers to contractors was based on a simple business model since there were no contractors capable of delivering offshore multidisciplinary plants. This encouraged Rosetti Marino to perform an additional internal transformation in order to provide a multidisciplinary product to customers through the introduction of a Technical



Jacket and Topsides installation, North Sea



Living Quarter sail away from Ravenna, destination North Sea

Department and a Procurement Department. At the end of the '80s, Rosetti Marino realized that, as part of the company's growth, it was necessary to have its own engineering skills and control and automation capabilities. Hence, in the early '90s, Eni and other energy companies such as Elf (now TotalEnergies) began asking contractors to deliver turnkey offshore plants. Rosetti Marino's first step as an actual EPC

Contractor was with the delivery of Daria B, the first offshore platform in the Adriatic Sea awarded as a full EPC by Eni in 1993. This is considered to be the first EPC project entirely made in Italy for the offshore industry.

Internationalization and diversification

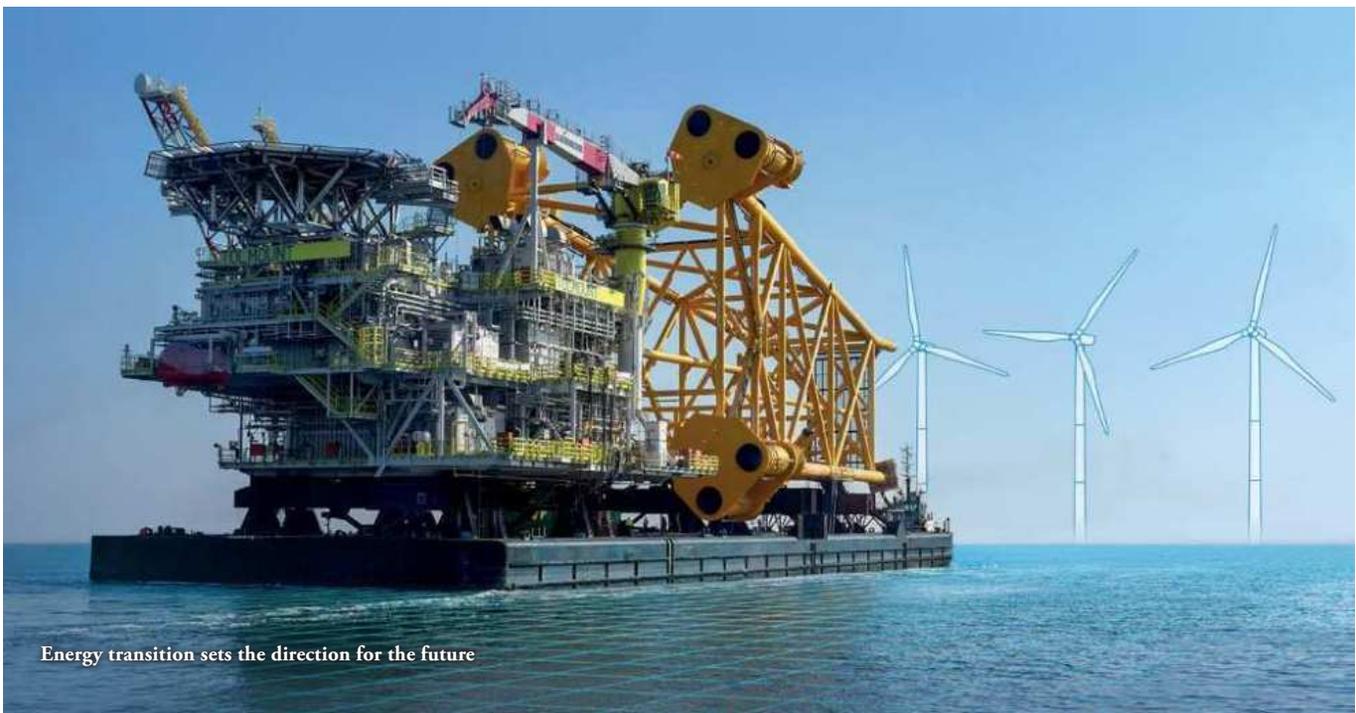
At the end of the '90s, Rosetti Marino established its Business Development Department, intensifying the research of new geographical areas and new products and services, once again pursuing its customers' requests. In fact, in 1997, Rosetti Marino delivered the first platform ever to be destined for Croatia in accordance with the local content requirements: the Topside had been built in Ravenna, but the Jacket of Ivana A was the first offshore structure built by Rosetti Marino in a yard in Rijeka. In 2002, a similar construction was delivered to a yard in Baku (Azerbaijan) and in 2005 the construction of Rosetti Marino projects commenced in Astrakhan (the Russian Federation) and Kuryk (Kazakhstan) destined for the Caspian Sea. This is how Rosetti Marino started to go international, but over the same years the company was also awarded its first EPCI contracts, demonstrating once again its capabilities by providing offshore Installation as an additional service to customers. In addition, during this period, Rosetti Marino also entered the market of process packages, mainly intended for onshore application.

Energy transition sets new direction

The Rosetti Marino Group was able to compensate

for its limited size thanks to its ability to cooperate with other companies, covering specific geographical areas, satisfying Local Content requirements and providing a broader range of services. This allowed it to carry out projects in Croatia, Libya, Algeria, Tunisia and Egypt, the United Kingdom, Norway and Denmark, Poland, Azerbaijan, Russia and Kazakhstan, South Korea, Indonesia and Sultanate of Brunei, Qatar and the United Arab Emirates, the Ivory Coast, Nigeria and Congo. This extensive local presence allowed Rosetti Marino to successfully expand its range of activities also to brownfield and related global service projects worldwide, mainly dedicated to Oil & Gas. However, in the last 10 years, the Group has decided to focus on the development of the Offshore Renewable Energy and Carbon Neutrality sectors, entering the EPC market of Offshore

Wind (Substations) and De-Flaring as well as Biofuels (mainly Biomethane), Carbon Capture Utilization and Storage and Hydrogen generation. The constant pursuit of innovation has allowed Rosetti Marino to adapt to changes in the market and customer needs and the diversification of products and services has been a major factor in the development and growth of the company. Today, the Energy Transition and the increased sensitivity towards Climate Change are setting the direction for the future. In this regard, Rosetti Marino is a key player in the Renewable and the Carbon Neutrality sectors, albeit continuing its long-standing presence in the Oil & Gas Offshore Plants, well aware that Gas in particular will still be a fundamental element in the coming years to satiate the world's energy shortage.



Energy transition sets the direction for the future



Placing SLB logging truck on barge in order to log and perforate offshore, 1959

The Journey in Italy continues

SLB is proud of its history in Italy, from the first log in 1937 through to today's commitment in forging the road ahead in the energy transition. Such promise goes beyond its direct emissions and tightly aligns it with customers to drive decarbonization across the industry. The company needs to build on this history to create a future that is resilient, sustainable, and globally competitive

Today SLB is a global technology company, driving energy innovation for a balanced planet. Our vision is to define and drive high performance in a sustainable way. Partnerships, collaboration and innovation will be key to enabling this performance vision and we are keen to form close connections in Italy and build on the legacy we have been part of.

How it all started

We are committed to building on our existing footprint and for SLB in Italy it began on January 4, 1937 when the company at the time, 'Société de Prospection Electrique Schlumberger' recorded his first electrical log in the Salsomaggiore oil field. By 1948, SLB had our first permanent base in Par-

ma providing well-logging services, leading to a regional affiliate, the Società di Prospezione Elettrica Italiana (SPEI) being established on February 9, 1951 in Parma.

SPEI conducted the survey not only for the discovery of light oil “Supercortemaggiore” but also for the detection of shallow gas in the Po valley where the logging bill was paid in Sangiovese and Lambrusco wine, eels from Comacchio and “culatello ham” from Busseto.

We started operating on Sicily in 1952 and two years later a new base in Catania was opened.

This was followed by another base in Pescara in 1956.

The first discovery

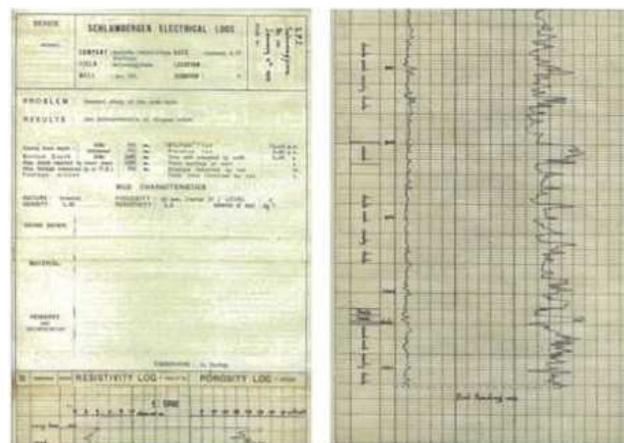
The discovery of the first offshore field in 1959 was an historic moment. Offshore skids had not yet been invented so SLB brought a truck on the barge to log and perforate the well Gela Mere 21.

In the 1960’s, we expanded our operations by establishing a research and development center in Milan and after the discovery of several more important gas reservoirs, offshore Adriatic, in 1968 the Ravenna base was opened. In the following decades our presence in Italy continued to grow through acquisitions and partnerships and today SLB is still servicing Italy from Ravenna for some of the range of services provided to the energy sector. It was also here in 1981 that a world first of horizontal logging was accomplished.



“Recruit where we work”

As our operations have grown, continued investment in talent has been key. Always committed to the ‘recruit where we work’ motto, still valid today,



First SLB log in Salsomaggiore oil field, Italy, 1937



Drill Bits manufactured in our SLB Tech Center in Tuscany



HSE for Youth Internet Security Event at San Donato Office, 2023

the Latin Training Center (LTC) of Parma was inaugurated in November 1983 and this center has trained a multitude of engineers over the years.

In SLB, training doesn't just happen across the entire career of the employees, through the years, their families have also been invited into training on safety topics, such as road and internet safety, as part of the HSE for Youth program, facilitated by specifically trained employees.

Today, on the 30th anniversary of OMC, SLB's presence in Italy pans across as many as 11 sites, from traditional operating bases (Ravenna, Pescara) to manufacturing facilities of a wide range of products, from drill bits to valve actuators.

Committed to Net Zero

In 2021 we became the first company in the energy services industry to commit to Net Zero by 2050, including scope 3 emissions. This commitment goes beyond our direct emissions and tightly aligns us with our customers to drive decarbonization across the industry.

In October 2022 we rebranded to align our company identity with our commitment to forging the road ahead for the energy transition. Our logo itself, depicts our commitment and vision for a decarbonized energy future and our focus on driving energy innovation through technology for a balanced planet. The curve represents the required emissions reduction and is a symbol of where we are at today and where we are heading. Being central to the logo it is a great reminder to all our employees of how important we view this in everything we do.

This important commitment relates very much with actions taken on the ground in Italy, where the transition to 100% green electricity for every site in Italy was completed in May 2022.

The SBPU Tech Center in Saline, Tuscany, a center for innovation, is where our engineering team is not only developing a new drill bit for geothermal applications but has also reduced its own carbon footprint by producing its electric energy via solar panels, alongside other energy reduction projects related to the manufacturing process itself. Every SLB manufacturing site has its own roadmap towards a balanced future, and all initiatives are clearly aligned to the overall company goal.

SLB is proud to have been part of Italy's Oil and Gas (O&G) journey working with innovative people, creating amazing technologies to unlock energy for the benefit of all. As we look to the future we need to build on this history to create a future that is resilient, sustainable, and globally competitive, creating jobs, generating prosperity and of course delivering the energy we will continue to need in our day to day lives.

From CCUS to Hydrogen

In that regard we are focusing on accelerating the expansion of GeoThermal and Carbon Capture and Storage (CCUS) projects in Italy and across the region. By leveraging our core O&G domain expertise and subsurface workflows and technologies we are unlocking access to these energies in the short term.

We are already working very closely with several local partners in deploying new digital capabilities to help both our existing O&G customers as well as customers across the entire energy landscape to help accelerate their digital transformation. By deploying digital at scale we are able to deliver more efficient and sustainable operations not just in O&G but across the energy sector. Our DELFI solution enables such innovation by providing an open platform for start-ups, technology developers and energy companies to come together, collaborate and develop solutions to resolve the challenges posed by the energy transition.

And last but not the least, aligned with our vision

and strategy, SLB has put in place a robust strategic plan in other key areas such as Hydrogen, Battery storage and Lithium extraction. We are keen to develop and deploy these technologies in Italy by forming new local partnerships and improving access to sustainable low Carbon energy for Italy and across the region. We have successfully demonstrated how by working together we can achieve success through our 85+-year legacy in Italy, and we remain committed to replicating the same success as we embark on this new journey together.



SBPU Tech Center, Saline, Tuscany



View of the Sapiir and TCR Terminals with the different storage areas (from left to right: Fertilizer, inert, warehouse for coils, tank farms and clay area)

Gateway to the Mediterranean

The SAPIR Group is the largest business organization at the port of Ravenna, specializing in the loading, unloading and handling of all sorts of materials. A team of over 200 talented and dedicated men and women contributes day by day to the global success of the port of Ravenna

The SAPIR Group is the largest business operating at the Italian port of Ravenna. It specializes in the loading, unloading and handling of inert materials used in ceramics, fertilizers, ferrous materials, special parts and system components, liquids, motor vehicles and trailers on ro-ro ships, and goods in dry-cargo containers and reefers. A diversification of the products handled and flexibility of the service offered which, since 1957, has the aim of the

Group. The mother company SAPIR, manages the terminal at the San Vitale dock, at the port of Ravenna, and is one of the largest terminal operators in Italy. It controls Terminal Nord SpA on the left bank of the canal, which specializes in inert materials. It also owns 70% of the shares in TCR, the container terminal at the port of Ravenna, which is a strategic gateway for the exchange with the eastern Mediterranean of goods transiting inside containers.

The Group's companies also include Under Water Anchors, which uses innovative technologies to consolidate the wharves and make them suitable for a further lowering of the seabed.

In the heart of the Mediterranean

The port of Ravenna is the only commercial port in Emilia-Romagna and one of the main Adriatic ports for freight traffic. Also thanks to its strategic position, it is the leader in Italy for trade with the markets of the East, the Mediterranean countries and the Far East. The connection with the road and railway network makes the port of Ravenna easily reachable from the main Italian and European markets.

The Group's terminals, can manage large quantities of a great variety of goods. This is partly thanks to recent investments in the purchase of new and modern cranes, and also to the preparation of new service areas and warehouses, and to the ongoing digitization of all the logistic processes.

An international partner

The Sapir terminals represent, today, one of the largest port areas in Italy.

- 2,700 meters of quays (depths down to -11.50 meters which will be deepened to -12.50 in the first phase of the "Ravenna Port Hub" Project and to -14.50 in the second phase);
- 76,000 square meters of warehouses;
- 53,000 square meters of covered areas (continuously expanding to provide ever better services to customers);



- 418,000 square meters of goods storage yards (the large spaces allow customers to carry out ship-building and assembly activities on site);
- 85 hectares of new areas for future logistic development connected directly to both the extra-urban road arteries and the railway.

Sapir started new projects. Two companies have recently been established: A.S.I.A. with the leading European automotive logistics group ARS Altmann and CILIR with the shipowner group Sider Navi Srl. The end of the first is the development of automotive logistics, a new traffic for the port of Ravenna while the second intends to offer new types of services in the bulk sector.





Tank farm and railway link that connect directly our quays to warehouse and tanks (see the typical orange train of clay)

The services offered by the Group

Sapir is the top terminal on the Adriatic Sea for handling of exceptionally large or heavy items.

- Ferrous: more than 20,000 m² of dedicated areas under cover exclusively for ferrous materials.
- Bulk goods: Sapir is specialized in the unloading, loading, storage and dispatch of bulk goods as well as packaged products, and especially the materials destined for the ceramics industry and fertilizers.
- Railway link: SAPIR Group manages the transfer of goods by rail on behalf of its customers, using its own 14 km of railway line serving the terminals. All the wharves are connected to the railway branch lines, and the terminals deal with all the procedures involved in loading and unloading the goods, completing the necessary documents, and booking trucks on freight trains.
- Tank Farm: The tank farm has an overall storage capacity of 84,000 m³. It is complete with berthing areas equipped for unloading food-grade fluids, liquids used in agriculture, vegetable oils, liquid chemicals like caustic soda and phosphoric

acid, directly into the tanks. There are also specific pipelines for unloading such liquids directly into tanker trucks.

The culture of continuous improvement

Sapir is made up of a team of over 200 men and women, capable professionals who, day after day, contribute to the international success of the port of Ravenna with talent and dedication. Sapir firmly believes that a company that wants to produce value cannot ignore what most of all gives value to the company itself: the people who work there.

The Group places environmental protection as a primary prerequisite in the choices of technologies, programs and company strategies, also aimed at preventing pollution in all its forms and assessing the environmental impacts of each new process or service offered.

Environmental sustainability is a primary objective for the Group, and is pursued in synergy with social and economic sustainability, aware of the positive impact that “healthy” growth has on the area where the company operates.

Healthy growth

From environmental perspective, for example, since 2010 it has replaced the asbestos cement roofs with photovoltaic panels and today it has a renewable electricity production of 1.5 MW with which it powers part of its business; moreover, since 2018 Sapir has developed a project for the relamping of street lighting and warehouses, to be carried out in

three phases by 2023, replacing all the now obsolete and very energy-intensive projectors with modern smart low-consumption systems that can be remotely controlled using software and dedicated app. Between 2018 and 2020, it installed a water-clay separation plant in order to recover the inert materials dissolved in the waste water and therefore to be able to discharge the white water falling within the legal classification, into the Candiano canal. Furthermore, the creation of a short supply chain with the industrial sector very close the port of Ravenna is underway and the consequent acceleration of the ecological transition started in recent years by

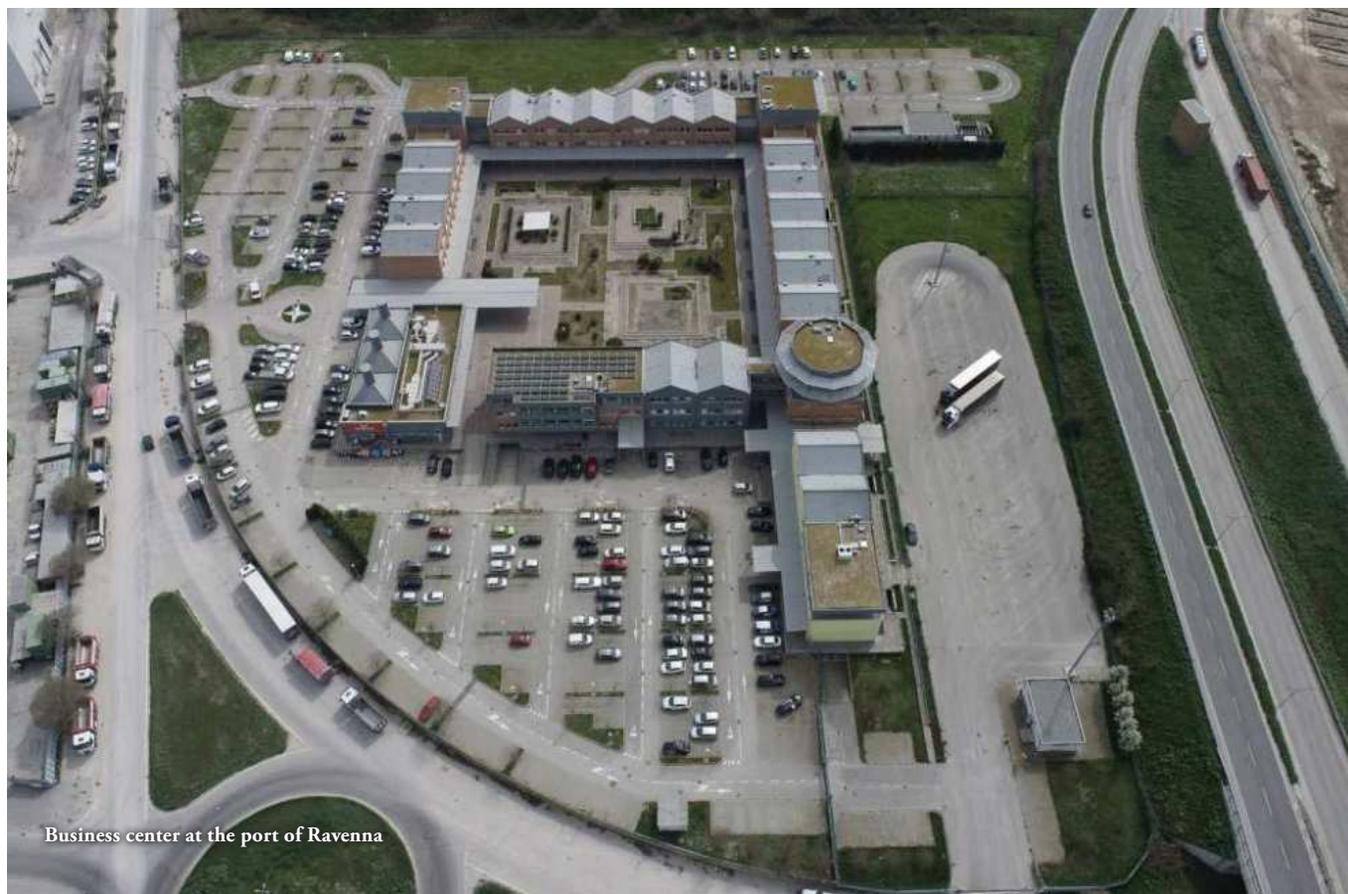
local players, with positive effects for the entire port system, the municipal and regional economy.

Sapir next

Sapir has undertaken a continuous process of internal digital transformation, which passes from a radical computerization of the Group's structures in order to bring greater innovation to processes and services, to improve the efficiency and quality of the offer, protection of goods and safety.

Sapir opens up to the future, explores it and becomes an integral part of it.

It's Sapir Next.



Business center at the port of Ravenna

30 years of OMC



Alliances

a platform for dialogue inspired by the Mediterranean sea



Union for the Mediterranean
Union pour la Méditerranée
الاتحاد من أجل المتوسط

Wind of change

The construction of a large wind farm in the Tafilah Governorate, in Jordan, paved the way to much needed evolutions for the Mediterranean, a region bound to face heavy climate change impacts and in need of energy sovereignty

One of a kind and the first of its kind. When it started, in 2013, it was a daring idea, nobody had tried that in the region; skip one phase of energy development and aim directly at the renewable power of wind in Jordan; bet on it heavily, despite the difficulties ranging from investors possible skepticism to all the adaptations that the Jordanian grid would have to accommodate.

The Tafilah wind farm

And the bet was won, the construction of a large wind farm in the Tafilah Governorate - in Jordan - started with 38 turbines with a total capacity of 117 MW, installation of an internal collection system connecting the turbines to the transformer substation and to the high voltage transmission network, now powering 83.000 homes. Also a daring investment. The Tafilah wind farm was developed by Jordan Wind Project Company, a co-development partnership between InfraMed (50%), Masdar (31%) and EP Global Energy (19%), and The project was 100% funded through private investment and loans provided by a consortium of International Financial Institutions led by the European Investment Bank.

It was a private endeavor, but one that could pave the way to much needed evolutions for a region - the Mediterranean - bound to face heavy climate change impacts and in need of energy sovereignty; if it worked, this was wind of change. Private, privately financed, but still essential for the common and public future of us all. That is how the Union for the Mediterranean - known as UfM, a public inter-governmental organization - evaluated that private efforts should be backed, openly and visibly, if they represented a promise for all. In 2014, the new in-

vestment was endorsed and “labelled” by the UfM. Labelled?

“We the nations of the Mediterranean”

It means that all the Member States of the Organization agreed that this project was beneficial for our region wide interests and well being and certified this conclusions through a “label” that gave it public and political significance, that said “we the nations of the Mediterranean” ask you all to cooperate in making this bet a success: it is a private bet, but if private initiative and capital take the risk we must all be behind.

A region wide model

And the bet was won also in this second dimension; Tafilah Wind Farm proved it can be done, it generates income and services and explored all the needed technical, financial, administrative, and legal requirements. It is now a region wide model, while similar investments are mushrooming, also capitalizing on the solutions proven by this first experiment. We are still here, the 43 member States of the Union for the Mediterranean, to back your dreams, telling us of game changing projects; talking about that new economy that distributes health, justice, nature protection while it generates sound income, and we will be there to back the wind of change.



Grammenos Mastrojeni

Senior Deputy Secretary General,
Union for the Mediterranean



OME is now OMEC. Expanding our vision

OME (Observatoire Méditerranéen de l'Énergie) has recently evolved into OMEC (Organisation Méditerranéenne de l'Énergie et du Climat) to better reflect the climate dimension and its interlinkages with energy, providing insights on Mediterranean dynamics

Established in 1988 and incorporated in 1991, OME is the Voice of the energy industry gathering leading energy companies in the Mediterranean area; a platform for energy dialogue, cooperation and best practices exchanges and a Think Tank of reference in the Euro-Mediterranean Region. OME's forward looking and cutting-edge research, brings a comprehensive outlook on the energy landscape in the Mediterranean region, bridging together all fuels and technologies. OME is the promoter of the first renewable projects in the region, the first Clean Development Mechanism project and an early promoter of the role of gas in the energy transition. OME has recently evolved into OMEC to better reflect the climate dimension and its interlinkages with energy, to offer a comprehensive understanding of the Mediterranean dynamics that will shape the future of the region.

Voice of the energy industry

Since its inception, OME has become a nodal point of a network of both public and private stakeholders committed to improve the energy dialogue within the Mediterranean. The structured and consolidated cooperation with several institutions such as the World Energy Council, the European Commission, the Union for the Mediterranean - for which OME serves as the secretariat of the UfM Gas Platform and stakeholder of the three energy Platforms - and IRENA further strengthen OME's action and effectiveness. OME has actively contributed to the Barcelona process since its onset, highlighting the role played by energy in guaranteeing social, economic and industrial development in the Mediterranean, as outlined in

the June 1995 declaration by the energy companies' CEOs of the OME network. OME actively participates to COPs since many years, bringing the Mediterranean perspective and showcasing the engagement of its members in accelerating a just energy transition in the region.

A platform for energy dialogue

OME has been playing an increasingly pivotal role in fostering dialogue and exchanges across the Mediterranean and beyond. In this light, OME - now OMEC - is expanding both its network across the Mediterranean and the focus of its research towards new aspects of the energy transition, such as new energy solutions, and technological innovations to improve a sustainable security of supply. Concurrently, OMEC is considering possible effects on climate and the environment, without neglecting the specific socio-economic framework of each country. The Organization is also broadening its focus to circular economy, while further strengthening ties with the academia, Think Tanks, regional and international organizations. In this perspective, the role of OMEC, has grown to be even more crucial than it was at the time of its establishment.



Houda Ben Jannet Allal

General Director
Organisation Méditerranéenne
de l'Énergie et du Climat



Exploring the Future of Energy

Fondazione Eni Enrico Mattei (FEEM) is committed to addressing the challenges of the energy transition, the most important enabling factor towards decarbonisation and the goal of zero emissions by 2050

Fondazione Eni Enrico Mattei (FEEM) is a fully independent non-profit institution, recognised by the President of the Italian Republic in 1989. Over the decades, it was able to gain a reputation in the international scientific community and among decision-makers for its extreme scientific rigour and complete independence of thought aimed at its statutory objective, which is to carry out scientific research in the field of sustainable development considered in its three dimensions (economic, social and environmental) with a particular focus on economic and environmental studies.

Spreading knowledge

FEEM started its long and articulated journey by contributing to a number of milestones in the expansion of knowledge on environmental sustainability issues in a systemic vision from the very first years of activity. As early as 1990, one year after its foundation, it contributed to the establishment of the European Association of Environmental and Resource Economists (EAERE). In 1992 it was in Rio de Janeiro, at the first world conference of heads of state on the environment. In 1994 FEEM researchers were appointed as lead authors by the Intergovernmental Panel on Climate Change (IPCC), which later earned formal recognition by the IPCC of the Foundation's contribution to the 2007 Nobel Peace Prize.

Nowadays, a significant part of Fondazione Eni Enrico Mattei activity is committed to the challenges posed by the energy transition, not only because energy is in our DNA, but also because the transition of energy systems is the most important enabling

factor towards decarbonisation and the goal of zero emissions by 2050. In this context, research must join forces with the key concept of alliance, since a solid response to the challenges posed by the energy transition can only be holistic and requires the commitment of all players in this complicated and challenging process.

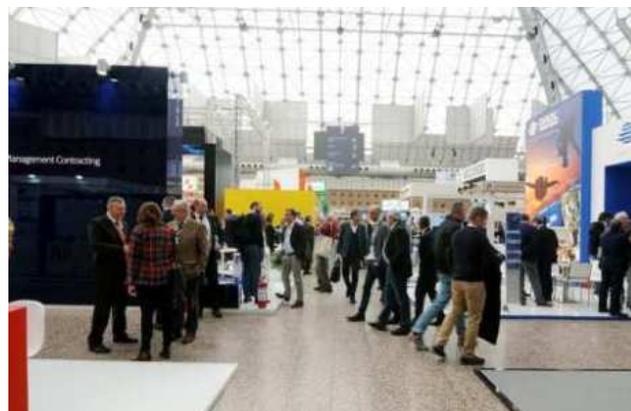
A laboratory of ideas on future world

From its earliest beginnings, the Foundation - taking advantage of its unique status as a bridge between public institutions, Academia and the private sector - has been able to boost decision-making processes and disseminate knowledge. The opportunity for our institution and its researchers to engage in immediate dialogue with the real world, dialoguing with policymakers and institutions, makes FEEM a laboratory of ideas whose voice contributes to identifying viable solutions for the sustainability of our Planet, in its different latitudes and longitudes. This openness to the world, the need to understand and analyse it in all its complexity, and the creation of systemic relations with other realities, both public and private, represent the fundamental traits of our institution, and will certainly remain elements characterising our next thirty years.



Alessandro Lanza

Executive Director of FEEM



Newcomers

new partners meeting the challenges of the future



From bold plans to pragmatic actions

The emergence of new industry challenges such as supply chain disruptions, inflation and threats to global energy security have caused companies to reconsider the areas of focus, aggressiveness and speed. How oil and gas companies are meeting the challenges of the energy transition and advancing their reinvention strategies

The world in which oil and gas companies operate is fundamentally changing. Changes in energy demand, competition from new energy sources, environmental accountability, talent scarcity and investor apathy have accelerated the energy transition in recent years. More recently, the pandemic-driven supply/demand imbalance, the war in Ukraine, per-

sistent supply chain issues and growing inflationary pressures are squeezing the industry even more.

The story of reinvention in oil and gas

In this volatile environment, most oil and gas companies have realized they need to reinvent themselves to achieve profitability and maintain their relevance.

In 2021, Accenture launched its first edition of the Oil and Gas Reinvention Index research to understand the actions that were distinguishing energy transition leaders in 2021. This year, we once again looked at how oil and gas companies were meeting the challenges of the energy transition and advancing their reinvention strategies.

The findings from this year's research were surprising. Last year, 21% of companies in our survey were pursuing "radical," enterprise-wide reinvention.

This year, only half that number (11%) were as committed to drastic change. Many more are now settling on "significant" changes (38% of companies in 2022 vs. 25% in 2021) to weather the energy transition. The uncertainty and volatility of energy prices, coupled with a post-invasion focus on energy security, are likely causes of the industry's tempered ambitions.

The five Cs

Enterprise-wide reinvention involves rethinking the strategies, technologies and operating models in five areas: Competitiveness, Carbon, Connectivity, Customers and Culture (the 5Cs). Our research identified 21 companies as reinvention leaders who are pursuing a more holistic 5C change than the 49 laggards we identified. Yet, both groups still prioritize Competitiveness and Carbon. We believe this may hamper reinvention. Each of the 5Cs is a critical component of reinvention and should be prioritized equally with a distinct set of actions.

There are encouraging signs that leaders (and lag-



gards, to a lesser extent) are recognizing that success amid long-term market disruptions will depend on a holistic and realistic approach to portfolio allocations, growth, digital innovation, organizational change and environmental, social and governance (ESG) performance. They are adopting a more balanced approach to transformation, even if that balance is not yet reflected in their reinvention priorities.

Leaders vs. Laggards

While leaders and laggards are both prioritizing Competitiveness and Carbon, there were notable





differences in the actions and expectations of the two groups in this year's Reinvention Index. Leaders are pursuing reinvention with a unique and balanced focus on both energy security and energy sustainability. They are pivoting their attention and investment (and asset production) to a balanced portfolio that not only prioritizes carbon reduction, but also addresses the near-term energy security issue with hydrocarbons. Laggards are also looking at diversifying their portfolios. But they are more inclined to shift their asset mix toward non-hydrocarbon fuels and solutions. Decarbonization opportunities, biofuels and renewables hold particular appeal for them. They also have remarkably different expectations of the financial benefits their actions across the 5C areas will yield. For both groups, bold aspirations have given way to pragmatic actions and more attainable goals.

The next steps towards reinvention

It is clear from our analysis of the 2022 Oil and Gas Reinvention Index responses that reinvention is still

a top priority for energy companies - leaders and laggards alike. Yet circumstances over the past year and the emergence of new industry challenges such as supply chain disruptions, inflation and threats to global energy security have caused companies to reconsider the areas of focus, aggressiveness and speed with which they are pursuing reinvention.

Our research found both groups were placing distinct bets aimed at diversifying and balancing their portfolios. The balance that is taking place in portfolio management - and in the Competitiveness arena, more generally - must now be expanded and built on. This call for balance underpins this year's recommendations for energy companies looking to reinvent.

- Be radical (but also holistic). Radical reinventions are bold. They are dynamic. And they lay the groundwork for exceptional potential returns within a defined area of transformation. Holistic reinventions, however, move the organization in lockstep to a resilient, agile, innovative and profitable future. A reinvention plan that is as broad as it is ambitious will set the next generation of industry leaders apart.
- Balance the reinvention priorities. Energy companies are still prioritizing Competitiveness and Carbon. We continue to believe that the most successful reinvention programs will balance their attention and investments across the 5Cs. The sooner that balance is achieved, the sooner energy

companies will reap the benefits of total enterprise reinvention.

- Practically allocate investments - and day-to-day attention. In addition to balancing the 5C imperatives, energy companies could balance their actions and investments within each area. This year's leaders exhibited that sort of evenhanded approach in developing their low-carbon business assets, their efforts to manage emissions, their adoption of digital technologies and even their customer interactions. A practical and measured approach to reinvention is becoming more visible in the day-to-day initiatives aimed at boosting performance

in any (and all) of the 5C areas. Other companies should consider following their lead.

At the end of the day, there are multiple paths to transformation. But our research strongly suggests that the best way forward involves a balanced approach, coupled with achievable expectations.

Let Accenture guide you to reinvention

We help the oil and gas industry navigate the energy transition to build a safe, profitable and sustainable future. Learn more:

<https://www.accenture.com/us-en/industries/energy-index>





One of the two floating regasification units that will contribute to Italy's energy security and diversification

A transitioning roadmap

The high level of uncertainty as well as the need to diversify from Russian supplies has made the European energy system the “new centre of gravity” with a shift towards the South Mediterranean area. Snam’s strategy aims at supporting the pathway towards carbon neutrality while securing the energy supply

The global energy system reached a turning point in 2022. Several factors such as a structural under investment in the industry, the bounce back in the energy demand coupled with the fallout from the war in Ukraine, reshaped priorities, particularly in Europe where an increased focus moved towards the

security of the supply. Against this backdrop, Snam has been able to cope with the emergency by providing a decisive short-term response to the crisis while managing its strategic assets with a long-term view, thereby further consolidating its leadership in the industry.

A new centre of gravity

Snam is the most integrated gas transport operator in Europe and the largest with its 38,000 km of pipelines. Alongside with transport, Snam has a footprint in the storage and LNG segments while having assets located along the key gas and hydrogen corridors; North, West and more recently South.

Snam's strategy is based on two cornerstones. First to build a more resilient energy system, second to support the pathway towards carbon neutrality while remaining, at the same time, a reliable and sustainable partner for all stakeholders. The high level of volatility and uncertainty as well as the need to diversify from Russian supplies has made of the European energy system the “new centre of gravity” with a shift towards the South Mediterranean area. It is therefore of paramount importance to strengthen the South to North transport capacity which will be beneficial to both Italy and Europe.

Storage is the key

Storage is particularly critical in the current market context because it is used to meet winter peak demand and it plays as a buffer to manage swings in the gas flows. At Snam we are working to grow this asset flexibility by increasing pressure and expanding field capacity. Moreover, since the beginning of the crisis, Snam could count on its experience in building and managing large energy infrastructures to deliver, in the shortest possible timeframe, two new floating regasification units with 5 billion cubic metres of capacity each. After going through a



speed authorization process, the floating vessel in Piombino will start its commercial operations in mid-May whereas the one in Ravenna will be up and running in the second half of 2024. These two facilities when onstream alongside the capacity from the OLT floating terminal already operational, will provide large flexibility to Italy increasing the LNG potential demand to 40% from current 20% thus providing the necessary resilience in terms of flexibility and security of the supply.

The ship “BW Singapore”

When it comes to Snam's projects and presence in



Snam dispatching center, a strategic infrastructure to manage gas flows on the domestic transmission network



Emilia Romagna, the Ravenna's area, which has always been a strategic energy district for Italy at the forefront of the oil & gas sector, is an ideal location hosting the FSRU "BW Singapore" off its coast, enjoying the best conditions for the commissioning of a floating regasification terminal. Among others, the location, the availability of transport capacity on the national gas grid, the proximity to the country's main consumption areas and offshore anchoring infrastructure. The ship has a maximum storage capacity of about 170,000 cubic metres of liquefied natural gas (LNG) and a continuous regasification capacity of about 5 billion cubic metres per year, equivalent to around one sixth the amount of natural gas Italy currently imports from Russia.

Work for the new regasification unit will begin in spring 2023 and the facility will be located in the northern Adriatic Sea, approximately 8.5 km off the coast of Punta Marina, at the site of the existing Petra offshore platform, which was built in the late 1980s to receive oil tankers and will be suitably adapted and modernised. The FSRU will be refu-

elled by LNG carriers regularly every 5/7 days. The vessel will be able to receive the liquefied natural gas, regasify it and transfer it through a dedicated pipeline to an interconnection point with the national gas pipeline network, located northwest of the city, approximately 42 km from the mooring point. For this purpose, a connection will be built consisting of an approximately 8.5 km section of offshore pipeline (sealine) and an approximately 34 km section of onshore entirely underground pipeline. The land pipeline will be designed by giving priority to non-man-made areas, respecting protected areas and minimising land use, depending on the geological, geomorphological, hydrogeological and seismic characteristics of the area, as well as on the available planning instruments. The ship "BW Singapore" also belongs to the latest generation of FSRUs available on the market and uses the so-called "open cycle", which means seawater as a heat source for the regasification process.

The first CCS project

Alongside a regasification vessel, Ravenna is also hosting the first CCS (Carbon Capture and Storage) project in Italy where Snam is teaming up with Eni. The agreement was announced in December 2022, and it includes a Phase 1 whereby 25,000 tons of CO₂ emitted from Eni's natural gas treatment plant in Casalborgorsetti will be captured and piped to the Porto Corsini Mare Ovest platform and injected into the homonymous depleted gas field in Ravenna's offshore.

As Stefano Venier, Snam CEO said: “It is a fact that CCS technologies have consolidated their role at a global level as a tool available to achieve decarbonisation goals, and for this reason they are gaining more and more attention from governments, investors and industry players. CCS projects are being developed globally and are already at an advanced stage both in Europe - especially in the UK, the Netherlands and the Nordic countries - and in the US. This joint venture sets the first initiative in Italy with the ambition to offer a solution to the entire hard-to-abate production cluster in the Po Valley, and potentially also to other Italian regions as well as other countries bordering the Mediterranean basin. Snam will contribute to the project with its

know-how and distinctive skills in the transport and management of molecules, in this case CO₂.”

The project represents a fundamental step to respond to the decarbonisation needs of steel mills, cement plants, ceramics and chemical industries and more generally of the “hard-to-abate” industry through an immediately available, highly efficient and effective technological process, which makes it possible to exploit the infrastructures and skills already present in the area. The planned activities will create new job opportunities, with an overall estimate of over 500 new jobs during Phase 1 of the project.



One of the nine Snam storage sites that operate in synergy with the transport and regasification infrastructures of the Company to ensure energy security



TetraSpar© floating structure prototype in operation at the Metcentre test site 10 kilometres off Karmøy, Norway with a water depth of 200m

Our Energy for a Sustainable Life

RWE has reliably supplied people and companies with electricity for 125 years night and day.

Many of us take electricity for granted, it comes out of our sockets at any time.

At RWE we make sure that it does and at the same time we are leading the way to a green energy world

The main challenge of our era is increasing electricity demand while protecting our climate. This requires a global energy transition that opts for renewable power, with wind and sun as key sources. At RWE, we are convinced that renewable energy, storage technologies and hydrogen are the future. Today, RWE is one

of the world's leading companies in renewables. With an extensive investment and growth strategy, we will expand our powerful, green generation capacity to 50 gigawatts internationally by 2030. RWE is investing more than €50 billion gross for this purpose in this decade. The portfolio is based on offshore and on-

shore wind, solar, hydrogen, batteries, biomass and gas. RWE has locations in the attractive markets of Europe, North America, and the Asia-Pacific region. The company is responsibly phasing out coal. Government-mandated phaseout roadmaps have been defined for this energy source. RWE employs around 19,000 people worldwide and has a clear target: to get to net zero by 2040.

Our emission reduction targets

On its way there, the company has set itself ambitious targets for all activities that cause greenhouse gas emissions. The Science Based Targets initiative has confirmed that these emission reduction targets are in line with the Paris Agreement. Its natural gas

RWE

power stations will provide a reliable and climate-neutral power supply from 2040 on at the latest, using “green” gas and CO2 sinks. We are committed to reducing greenhouse gas emissions arising from Scopes 1 (direct) and 2 (indirect, owned) by 50% by 2030, compared to 2019, and we also aim to reduce Scope 3 emissions (indirect, not owned) by 30% by 2030. To achieve the objectives related to Scope 3 emissions, we will increasingly con-



Wind Turbine Installation during construction of the Kaskasi offshore wind farm located 35 km off the coast of Heligoland (North Sea). The project comprises 38 turbines of 9 MW each for a total capacity of 342 MW



Entrance building of the Magnum 3-CCUs natural gas power plant located at Eemshaven in the province of Groningen, ready for future hydrogen use

sider sustainability standards in our procurement process and consistently keep to our schedule to reduce our emissions, while expanding our renewables portfolio and driving our activities in the field of green hydrogen.

Leveraging hydrogen

RWE also aims to play a leading role in the future hydrogen market as a partner for the industry, by exploiting our expertise along the entire value chain: we can supply green electricity to generate green hydrogen and even generate hydrogen ourselves. Thanks to our gas storage facilities for interim storage, our energy trading company can provide industrial customers with hydrogen as needed and, in terms of perspective, our own gas turbine power stations are potential purchasers of green hydrogen. RWE is involved in more than 30 hydrogen projects in Germany, the Netherlands and UK such as GET H2, a joint initiative of more than 40 partners, aiming to establish a nation-wide hydrogen infrastructure, with a key role in the first sub-project by building a 100-megawatt

electrolysis plant at the RWE Lingen power station aiming to expand the electrolyser capacity to 2 GW by 2028. We are also developing the Eemshydrogen project plant in the Netherlands, with an initial expected output of 50 MW connected directly to RWE's Westereems onshore wind farm. We are also providing our expertise to NortH2, a 1-GW green hydrogen programme from offshore wind power in the north of the Netherlands along with Aquaventus, which pursues the same approach and aims to run offshore industrial-scale electrolysers off the coast of Heligoland by using electricity generated from offshore wind power plants.

An experienced offshore pioneer goes floating

As decarbonization and sustainability are key components of our corporate strategy, offshore wind is one of our core technologies. With 19 offshore wind farms in operation, RWE is the second player worldwide for offshore wind, covering the entire value chain from project conception and development to construction, as well as operation and maintenance. We plan to increase our offshore capacity from the current 3 GW to 8 GW by 2030 (RWE's share). In addition to its offshore wind activities based on bottom-fixed foundations, RWE is well on the way to becoming a market leader in floating wind to unlock offshore regions with high water depths, where conventional fixed-bottom designs are not technically or economically feasible. To build up experience in advance, RWE is participating in various floating demonstration projects. The TetraSpar© Demon-

strator is a tubular steel structure with a suspended keel that was developed in partnership with Stiesdal Offshore Technologies, Shell and TEPCO. The platform was assembled in Denmark and towed, with its turbine duly installed, to the Metcentre test site in Norway, where it was safely installed 10 kilometers offshore in a water depth of 200 meters in 2021 and it is currently operating. With its 3.6 MW wind turbine generator, it is the world's first full-scale demonstration of an industrialized offshore foundation, providing invaluable information to the progress of floating offshore wind era. RWE has also been collaborating with Saitec since 2022 in the deployment activities of the DemoSATH concrete twin-hull barge structure at the BiMEP test site in Spain, 2 miles offshore in a water depth of 85 meters. In addition to winning a ten-

der for a 1.6 GW floating wind project in California, RWE has been selected as qualified bidder for commercial floating projects off the French coast. Now, together with its Norwegian partners, we are preparing for the participation in the Utsira Nord floating wind tender in Norway, we are looking to take part in the Celtic Sea auction in the UK, and we are exploring floating wind in other European markets and the APAC region.

To be a trusted partner is a core element of all our activities. When it comes to development work an open communication is key to realise the project hand in hand with all stakeholders like the communities and local economy. We pay particular attention to the environmental integration of all our projects. This is the spirit of RWE: Our Energy for a Sustainable Life.



Maintenance activities in Italian onshore operating wind farms



Ravenna Mayor launching the ORa! project

ORa! - Outpost Ravenna for Energy Transition

The initiative, promoted by Joule together with the Municipality of Ravenna and Mind the Bridge, aims to support a selected group of companies by establishing an innovation platform with a strong international focus on technologies related to the blue and green economy. ORa! has successfully brought together young graduates, startups and established companies to work collaboratively

The project ORa! - Outpost Ravenna for Energy Transition - aims to establish an innovation platform with a strong international focus on technologies related to the blue and green economy, with the goal of supporting a selected group of companies

to innovate openly, through partnerships and industrial collaborations with international start-ups and scale-ups. The initiative has been promoted by Joule, Eni school of entrepreneurship, together with the Municipality of Ravenna and Mind the Bridge.

Three macro-activities

The ORa! project is based on three complementary macro-activities:

- **Open Innovation Academy for recent graduates:**

a selected group of recent graduates of the University of Bologna has had the opportunity to attend an intensive course on open innovation and innovation management applied to the blue and green economy. The course has been delivered online and in-person, at the Eni Joule spaces at the Gazometro Ostiense in Rome. The training program covered the ins and outs of open innovation, from corporate innovation to current models of open innovation, from venture capital to business modeling for startups. In addition to this, the recent graduates have been able to work alongside Mind the Bridge's Innovation Advisors in the technology scouting process launched for the companies participating in the project.

- **Engagement activities for companies and mid-caps:**

a series of networking events have been organized for companies and midcaps operating within the Ravenna ecosystem. The aim of these engagement activities is to facilitate the exchange of innovative ideas, methodologies, and best practices, as well as to provide guidance on the main models and tools available to support innovation. These activities have also helped to identify the specific innovation needs of companies, including chemicals, waste management, carbon capture and storage, energy efficiency, and security, as well as renewable energy.



- **Corporate-startup matchmaking (Venture Client Lab):**

once identified, the innovation needs of the companies have been matched with innovative solutions provided by international startups identified through technology scouting (Venture Client model).

The culminating event of the ORa! project occurred at OMC - Med Energy Conference & Exhibition in Ravenna, where the Innovation Room hosted matchmaking meetings between the companies the selected start-ups.

The companies involved

The companies participating in the project are Baker Hughes, Techfem S.p.A, DG Impianti (Italfiuid group), Bonatti SpA, Myrechemical/Nexchem, Rina Consulting, Snam, Fores Engineering, Frigomeccanica Group, Rosetti Marino SpA, LAND Italia srl, SICIM, Minerali Industriali.

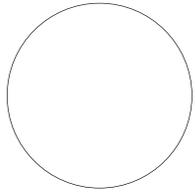
The ORa! project has successfully brought together young graduates, startups, and established companies to work collaboratively, resulting in innovative partnerships that will drive the growth of the ecosystem and contribute to reaching advancements in the energy transition.



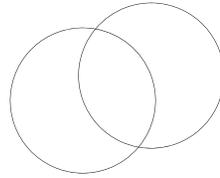
OMC Med Energy rebrands: a new logo

through the eyes of younger generations

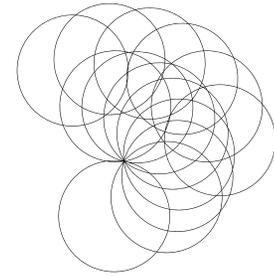
CREATIVE PROCESS



Circle as a starting element



It is intersected by second circle, which passes through the center of the first circle



Then, using the upper intersection point as a fixed reference, the chain of circles is continued

In the center of the circle

The new OMC Med Energy Conference & Exhibition logo is inspired by Humanism.

It speaks to the world of energy and looks to the past to build a sustainable future.

The idea of circularity alludes both to the nautilus - living fossil - and its shape, and to the synergy and dialogue that enable the conference, understood as an amplifier of ideas

An interplay of concentric circles, spirals and white spaces. A pictogram that captures the essence of the transformation in the path to energy transition, enhances the role of the event and projects it with authority and dynamism towards future editions. In the year of its 30th anniversary, and in conjunc-

tion with the edition that more than any other has put the new generations at the center of the debate, OMC Med Energy Conference & Exhibition has created a striking new logo with a very strong energy identity. It was created by some very young designers from the Rimini Academy of Fine Arts (LABA).

LABA put forward eight creative teams, each consisting of four to five students. The work roadmap included several meetings, held via video call, attended by the president of OMC Med Energy Monica Spada, the chair of the OMC Med Energy Scientific Committee Edoardo Dellarole, OMC staff, Laura Antonelli, Silvia Montanari, Silvia Scuterini, the students from LABA and Professor Andrea Cavallotti, leader of the project. The meetings included, in order: sharing of the brief, presentation of concepts, illustration of the graphic designs, refinements, and, to assess the effectiveness and applicability of the different logo designs, their application on various communication-promotional media.

A vision of centrality

The concept underlying the selected design is related to Humanism, “a historical period characterized by great energetic vitality in spreading the new culture,”

the artists said. The designers captured this suggestion, reworked it and extended it to create the common thread of the new logo. Individuals are the protagonists and creators of their own fate; they make themselves the rule and measure of all things. Just as in the past individuals created techniques and inventions to achieve beauty and perfection, in the same way, in our contemporary times, people treasure the existing and combine it with research, innovation, and collaborations to devise new technologies that can achieve the goals of sustainability. With this vision, the young designers focus on the individual who is aware of their past and the new needs of the planet; for them, “the OMC of the present looks to

CREATIVE PROCESS



From the previously constructed sequence, we create this highlighted pattern



The pattern is repeated by rotating the starting element in a circular manner

the past to build a new future.” This is not a utopian world, because every single action in the present already propels us into the future; the new identifying mark of OMC involves expansion, evolution, and perfect functionality of the energy system. This concept is combined with the vocation of the event: cooperating to welcome, amplify and propagate new ideas. Today, OMC has gained a leading role in the Mediterranean landscape, bringing an event in which the energy debate is at the forefront; an inclusive space that welcomes design excellence and revolutionary ideas, a place of doing in which innovation and new partnerships are fostered.

Expanding energy

For the LABA team, the circle is the perfect reference to Humanism, whose perfect emblem is Leonardo da Vinci's Vitruvian Man. The goal of this logo is to unite Humanism with the idea of Propagation. What they have in common is the spiral element and the construction through the use of modules. Thus, starting from the intersection and reiteration of the perfect shape of the circle, extrapolating the result and repositioning them again following the idea of circularity, it alludes both to the nautilus - living fossil - and its shape, and to the synergy and dialogue that enable the conference, understood as an amplifier of ideas. Dynamism, movement, common direction and synergy to signify the simultaneity and complementarity of the various solutions. The pictogram evokes in an ideal manner technological and naturalistic references, and in its form without closures communicates



OMC
MED ENERGY
1993-2023

openness to dialog and meeting. The white space left in the middle alludes to the concept of expansion from a central point, which can be OMC or energy understood in the holistic sense.

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Ravenna, Italy



OMC
MED ENERGY
30th Anniversary

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