

# eni in LNG - Mozambique focus

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eni

# worldwide experience

**eni** is involved in several projects throughout the entire LNG value chain, from upstream to regasification, including liquefaction, shipping and marketing.

**eni** can also leverage on its technologies and the capabilities to develop integrated LNG projects.

In 2012 **eni** supplied 5.1 BCM of feed gas to LNG plants, held 10.5 BCM of liquefaction capacity, 21.1 BCM of regasification capacity and sold 14.6 BCM equivalent of LNG.

**eni** intends to grow significantly in the LNG sector, and is well positioned to do so through new developments particularly in Mozambique, Nigeria, Indonesia, Australia and Angola.



exploration > & production	liquefaction	> shipping	> regasificati	on >	market	>
Nigeria Egypt Indonesia Timor Leste - Australia Trinidad & Tobago Angola Mozambique	Nigeria LNG Brass LNG Segas LNG Darwin LNG Qalhat LNG <sup>(1)</sup> Angola LNG Mozambique	LNG Portovenere LNG Lerici LNG Methania LNG Stena Crystal S LNG Golar Maria	Panigaglia Sagunto <sup>(1)</sup> El Ferrol <sup>(1)</sup> Cartagena <sup>(1)</sup> Sines <sup>(2)</sup> Cameron Pascagoula Zeebrugge		Italy Portugal Spain France Belgium UK Greece Japan Korea Argentina	
<sup>(1)</sup> through UFG <sup>(2)</sup> through Galp						

#### eni in LNG

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## strength in Africa

focus on Mozambique

**eni** entered Mozambique in 2006, with the signature of the Exploration and Production Concession Contract (EPCC) for the Area 4 Offshore of the Rovuma Block.

The Mamba complex, discovered in 2011, is the biggest operated discovery in **eni**'s history.

**eni** entered Africa in 1954, when it started activities in Egypt. Since then, Africa has always been a core area for **eni**.

**eni** is, in fact, the leading IOC in Africa, with 931 kboe/d of production in 2012, of which 517 kboe/d of oil and 414 kboe/d of gas.

With 282 mining concessions accounting for more than 196,000 gross sqkm, **eni** is currently present in Algeria, Angola, Congo, Dem. Rep. of Congo, Egypt, Gabon, Ghana, Kenya, Liberia, Libya, Mozambique, Nigeria, Togo, and Tunisia.

Development of the local communities has always been one of **eni**'s primary goals and a key factor in **eni**'s success in Africa. **eni** is involved in a number of projects in the continent targeting social development and energy supplies for the domestic needs. For instance, **eni** was the first IOC to invest in power generation in Africa using associated gas.



Mozambique will play a key role in **eni**'s long-term organic growth as the cornerstone of **eni**'s strategy of continuing expansion in the LNG sector and in the fast-growing Asia Pacific markets.

Focus on Mozambique also means that **eni** recognizes the importance of the discovered resources for the present and future generations of Mozambicans and is already working towards enhancing social and economic development of the local communities.

# area 4 offshore

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The Exploration and Production Concession Contract (EPCC) for the Area 4 offshore of the Rovuma Block is a production sharing contract between the Government of Mozambique (the first party) and the Concessionaire (the second party) including affiliates of: **eni** (the Operator); Empresa Nacional de Hidrocarbonetos (ENH); Korea Gas Corporation (Kogas); Galp Energia (Galp).

The Area 4 block covers an area of 10,207 sqkm. Exploration and appraisal activities in the block are ongoing, also with the utilization of **eni**'s proprietary technologies and techniques respectively for seismic imaging and drilling. Seismic activities include so far 2D seismic for 4,500 sqkm, 3D seismic for 4,400 sqkm.

The first discovery in the Area 4 block was made in October 2011 with Mamba South-1 well. As of March 2013, nine wells have been drilled. The Mamba Complex supergiant gas discovery comprises quality reservoirs of Paleocene to Oligocene in age.

The wells have confirmed the potential of Area 4 at 75 Tcf of gas in place, of which at least 27 Tcf exclusively located in Area 4 and 48 Tcf located in Area 4 but part of common resources straddling in the Area 1 block.

In order to assess such potential, **eni** has performed an extensive appraisal and well test campaign including 6 well tests, before moving back to exploration drilling in the southern sector of Area 4.

In December 2012, **eni** signed an Heads of Agreement (HOA) with Anadarko Petroleum Corporation (APC) foreseeing separate yet coordinated upstream development of the common gas resources in Area 4, operated by **eni**, and Area 1, operated by Anadarko.

This agreement is intended to form the basis on which the first phase of development of the common resources is expected to be carried out while unitization is progressing in parallel.



# LNG plant

Discovered resources in the offshore Area 4 and Area 1 allow for an LNG development of at least 50 MTPA.

**eni** and Anadarko Petroleum Corporation, as operators of Area 4 and Area 1 respectively, aim to jointly plan and construct common onshore LNG liquefaction facilities in the Cabo Delgado Province of Northern Mozambique. The first phase of development is exptected to include 4 LNG liquefaction trains of approximately 5 MTPA each with associated facilities.



rendering of the LNG plant

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# LNG marketing

The huge gas potential and the strategic location lay the foundations for Mozambique to become a top worldwide long-term supplier of clean energy, bringing greater supply diversification to the market.

**eni** as Operator of Area 4 intends to leverage upon its experience, expertise, reliability and relationships built over years in the LNG industry throughout the world in order to contribute to the enhancement of the key project strengths.

Mozambique's geographic location is ideal to fuel the world's energy needs

**eni** has a long-term consolidated experience in LNG marketing that dates back to the 70s and, thanks to the recent intensification of trading and spot to medium-term sales, has become a global international player with strong commercial relationships worldwide.

All these features qualify LNG from Mozambique Area 4 as an outstanding opportunity for long-term sustainable and secure supplies paving the way for long-standing partnerships between Mozambique and LNG-importing countries.



## eni & sustainability

To be sustainable means creating value for stakeholders and using resources in such a way as to avoid compromising the needs of future generations, respecting the individual, the environment and society as a whole.

When implementing its strategy and running its day-to-day operations, **eni**'s efforts are inspired by the key drivers of cooperation, integration, innovation, excellence, inclusion, responsibility. In cooperation with the local communities, **eni** is committed to provide a concrete response to the needs of the Countries where it operates, in synergy with the development strategies of these Countries and with reference to the development goals set by the United Nations. Through its activities, **eni** contributes to the sustainable development of the Countries in which it operates, creating opportunities for people and local businesses.

#### sustainability in Mozambique - main activity sectors

Access to energy: promoting access to energy for low-income households, contributing to the eradication of poverty and local development using an energy mix of renewables and efficient technologies (including fossil-fuel technologies). **Health**: supporting MISAU (Ministry of Health) at Provincial and District level to strengthen the Primary Health Care delivery system by investing in i) human resources capacity building, ii) infrastructure improvement and commodity management, iii) expansion of the health service network focusing on the most vulnerable groups and remote communities.

**Economic development**: supporting the Government's objective to reduce poverty also by increasing local food availability and contributing to the promotion of employment in the energy sector, as a way to foster development of new and existing micro, small and medium-sized enterprises.

**Education**: giving access to schooling and offering supplementary tutoring/training/coaching activities to develop practical and life-enriching, life skills, in primary, secondary, technical and higher education, including Master Medea and Master HSE&Q at **eni corporate university** aimed at building technical know-how for the oil & gas industry.

#### a joint effort towards a sustainable growth and development



eni is a major integrated energy company, committed to growth in the activities of finding, producing, transporting, transforming and marketing oil and gas. The company has global operations in 90 countries and employs about 78 thousand people.

eni's strong presence in the gas market and in the liquefaction of natural gas, consolidated skills in the power generation and refinery activities, strengthened by world class skills in engineering and project management, allow the company to catch opportunities in the market and to realize integrated projects.

eni's business model for the creation of sustainable value is founded on a consolidated operating model in a framework of clear rules of governance using the highest ethical standards and rigorous enterprise risk management.

When implementing its strategy and running its day-to-day operations, **eni**'s efforts are inspired by these key drivers: cooperation, integration, innovation, excellence, inclusion, responsibility.

In 2012 eni confirmed its presence in the Dow Jones Sustainability Indices and in the FTSE4Good index. Furthermore, eni joined also the Carbon Performance Leadership Index in 2012 as the only company from the energy sector.



Since 2010 eni has been communicating with young talents from all over the world in various disciplines. The cover art for this brochure

was created by Riccardo Guasco, a young Italian illustrator, cartoonist and painter.

# eni's activities

#### exploration & production

**eni** explores, develops and produces oil and natural gas mainly in Italy, Norway, North and West Africa, the North Sea, the United States, Latin America, Australia and in high potential areas such as Mozambique, the Caspian Sea, the Middle and Far East, Kenya, Liberia, Vietnam, Cyprus, and Russia. In 2012 hydrocarbon production averaged the level of 1.701 million boe/day. Net proved reserves at December 2012 amounted to 7.17 billion boe.

#### gas & power

**eni** operates in natural gas supply, regasification, transport, trading and marketing, power generation and electricity sales. In 2012 overall sales amounted to 95.32 billion cubic meters of natural gas and 42.58 terawatthours of electricity.

#### refining & marketing

**eni** operates in oil product refining and marketing mainly in Italy and Europe. With the **eni/agip** brand, it is the Italian market leader in the distribution sector. In 2012 retail sales in Europe of refined products totalled 10.87 million tonnes. In the same period, refining throughputs were 30.01 million tons.

#### engineering & construction

saipem (42.9% owned by eni) is a leader in the provision of engineering, procurement, project management and construction services for the oil & gas industry, with unique capabilities in designing and executing large scale offshore and onshore projects. saipem has extensive expertise in operating in conventional and deep offshore as well as in remote areas. Order backlog was €19,739 million at December 31, 2012.

#### chemicals

versalis (eni 100%) operates in the production and sale of a wide portfolio of chemical products and holds a significant market share in Europe where it has state-of-the-art plants all equipped with innovative technology. It also boasts an efficient distribution network worldwide. In 2012 production amounted to 6,090 ktonnes.

#### trading & shipping

eni operates in integrated commodity risk management, supply, shipping and asset backed trading activities. Through the optimization & trading business unit and its wholly-owned subsidiary eni trading & shipping (ets) spa, eni is fully targeting the entire spectrum of energy commodities, such as crudes, refined products, natural gas, power and environmental products. In 2012 ets traded more than 600 Mboe of crude and products and more than 100 BCM of gas.



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