

# Congo



Energy, Society, Sustainability

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## Enrico Mattei: it's their oil

"It's their oil", said Enrico Mattei in 1957.

Eni's first Chairman is often remembered as "the man of the future" due to his ability to imagine what would come to pass, thus creating a valuable legacy for those who would follow him.

He believed that energy resources belong first and foremost to the oil-producing countries and that the most profitable arrangements would arise out of the shared interests of all the actors involved. Mattei's great success lay in his passion for challenges, his strategic vision, his powers of innovation, respect for others, spirit of cooperation and confidence in new generations.

It was his firm conviction that dialogue and respect for cultures constitute the cornerstones for long-term partnerships and mutual growth. Forty years on, it is possible to see that Mattei's values have endured and his philosophy still forms part of Eni's corporate philosophy. His guiding principles are today captured in the modern concept of sustainable development.



| Enrico Mattei, Eni's Chairman in 1953

## Claudio Descalzi: living in the world

The principles created and established by Enrico Mattei remain part of Eni's genetic code. Of particular significance, reflected in both the company's global strategic thinking and its relationship with the communities in which it operates, is the importance of dialogue.

Such dialogues commence even before the company becomes established in a new territory and through the pursuit of dialogue it is possible to establish the conditions for living together.

For Eni, living in the world means integration and sharing of mutual benefits. It also means the creation of a powerful engine that has made Eni's worldwide development possible.

Sharing has allowed us to grow and to contribute to our host's growth. We see it as imperative to develop relationships with nations, environments, cultures and people with which we interact and in which we live. Eni has, over many years, developed an unparalleled organizational culture, which is designed to build lasting, long-term relationships within the territories in which we operate.



| Claudio Descalzi, Eni's CEO

## Eni in Congo

Eni has been active in Congo since 1968. In 2015, Eni's equity production amounted to 103,000 boe/day (Eni Financial Report 2015). Eni's activities are carried out in the conventional and deep offshore facing Pointe-Noire, and onshore in a developed and undeveloped acreage of 2737 km<sup>2</sup> square kilometers (1354 km<sup>2</sup>, Eni equity).

In 2013, the extension of the Madingo, Marine VI and Marine VII development permits was renegotiated. The new permit extended the exploitation of the field until 2039. Moreover the renegotiated terms also envisage a gradual reduction in Eni's participation and the award of a new high potential extraction zone. The exploration and production activities of Eni in Congo are governed by Production Sharing Agreements.

In the last two years, the important discoveries carried out in the Marine XII have strongly contributed to the development of Eni in the country.

### Production

Production mainly comes from the operated fields of Zatchi (Eni 56%), Loango (Eni 42.5%), Ikalou (Eni 100%), Djambala (Eni 50%), Foukanda and Mwafi (Eni 58%), Kitina (Eni 52%), Awa Paloukou (Eni 90%), Nené and Litchendjili (Eni 65%), MBoundi (Eni 83%), Kouakouala (Eni 75%), Zingali and Loufika (Eni 100%), with an overall output of 75,000 boe/day (Eni equity) in 2015.

The non-operated fields, located in the producing PEX permits, Pointe-Noire Grand Fond and Likouala (Eni 35%), have generated about 28,000 boepd (Eni equity).

Eni made a major discovery, the field of Nené Marine in the Marine XII Block (Eni 65%, operator), which came on stream just 8 months after obtaining the production permit by leveraging





synergies with the front-end loading and the infrastructure of the area's fields.

Full-field development of Nené Marine will take place in several stages and involves the installation of production platforms and the drilling of new wells, with an estimated plateau production of over 120,000 BEP/day.

### Development

The flaring down program of the MBoundi field was completed in 2015; thanks to this, flared gas was reduced by approximately 2.0 million standard cubic meters/day since 2014, thus attaining the goal of zero flaring in the area.

The valorization of the associated gas was achieved through gas injection to optimize hydrocarbon liquid recovery and long-term contracts for the supply of the area's power stations, including the CEC (Centrale Electrique du Congo) (Eni 20%), with an installed capacity of 300 MW.

In 2015, the contracted supply of gas from MBoundi totalled some 3 million standard cubic meters/day (approximately 17,000 kboed, Eni's share). These facilities will also receive the gas from the offshore discoveries in the Marine XII permit.

The development program of the Litchendjili project in Block Marine XII is completed. The installation of a production platform was envisaged in this framework, including the construction of transport facilities and the onshore treatment plant.





With the start-up in June 2015, Eni's equity production is expected to reach a peak of 14,000 boe/day. The field's production will supply the "centrale électrique du Congo" [electrical power plant of Congo] (CEC).

The Nené development is also in progress; the first phase (which started in December 2014) currently produces approximately 7 kboed with 3 wells, while the start-up of the second phase is envisaged to occur at the end of 2016.

### Exploration

Exploration activities yielded positive results in the Marine XII offshore block through the Nené appraisal well, which confirmed the presence of oil and gas resources in the area, and the important light oil discovery of the Minsala Marine well in 2014, which revealed a hydrocarbon accumulation in situ estimated at about 1 billion boe of oil (OOIP) and in 2015, Eni discovered 0.3 million boe (OOIP) through the Nkala wells. In the last three years, through the Marine XII, an accumulation in situ of 5.8 million of boe has been discovered.

Exploration activities were supported by the proprietary seismic imaging e-dva™ technology which allowed the optimal placement of the exploration wells.



## Eni's approach to sustainability

Being sustainable for Eni means conducting our operating activities while creating value for stakeholders and using resources in such a way as to avoid compromising the needs of future generations. We consider sustainability to be a driver in the process of continuous improvement that guarantees results over time, while reinforcing business performance and reputation.

Eni is committed to taking actions aimed at promoting respect for people and their rights, the environment and the broader interests of the communities in which it operates. We conduct our activities by creating relationships that are based on correctness and transparency and continuous dialogue with stakeholders in order to pursue shared objectives for the creation of value and opportunities for sustainable development and being aware that dialogue and shared objectives are the way to create reciprocal value.

### Sustainable value creation

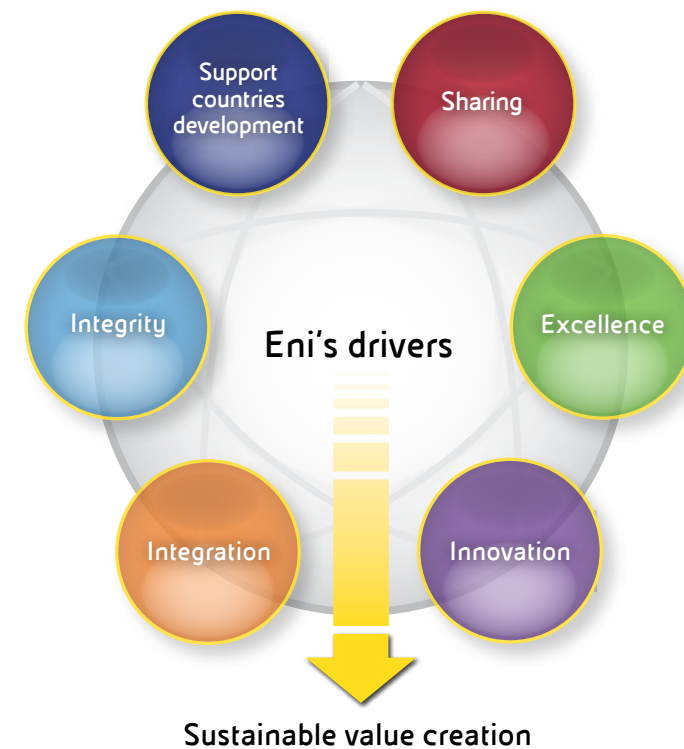
Eni's excellent strategic positioning and competitive advantages leverage on an integrated business model for the creation of sustainable value founded on a wealth of distinctive assets, strategic guidelines and sustainable drivers deriving from crucial management choices consistent with the long-term nature of the business.

Eni's business model is supported by a framework of clear and straightforward rules of corporate governance and respectful of the highest ethical standards and rigorous risk management.

The six drivers that guide Eni in delivering sustainable value are:

- integrity in business management

- support countries development
- excellence in conducting operations
- innovation in developing competitive solutions to face complexity
- know how and skills sharing and equal opportunities for all Eni's people
- integration of financial and non financial issues in the company plans and processes.



## Sustainability in Congo

### Community development: Hinda Integrated Project (PIH)

The Hinda Integrated Project, the result of a Memorandum of Understanding signed on August 31, 2011 with the Congolese Government, aims to contribute to the improvement of the living conditions and the sustainable development of the local communities located in the MBoundi, Kouakouala, Zingali and Loufika onshore area (Hinda District), where Eni Congo operates.

The project is an effort to build cooperation and partnerships with national and local authorities, the population and local and international NGOs. The project, which is scheduled to last 4 years,

involves 22 villages and over 25,000 beneficiaries altogether. To achieve its goal, the PIH operates in several integrated sectors through interventions focused on health, agriculture, access to water, education, along with training, capacity building and social animation activities. Providing access to energy is a key requirement for the effectiveness of operations in the PIH project. As a result, electrification works across all sectors have been included in order to improve the efficacy and usability of the project results. Interventions are planned and monitored through a governance



system that sets up coordination committees involving ministries and reference governmental technical units (technical committees). The governance system is formalized by an agreement entered into by Eni Congo and the central Government and overseen by a Comité de suivi (Steering Committee). Throughout the entire duration of the activities, continuous consultations are held with priority stakeholders, including local and national authorities, NGOs and associations and the communities involved.

In order to achieve an integrated system of monitoring and evaluation of the project's effectiveness, the strategic partnership with Columbia University's Earth Institute was established in 2014. Field surveys were carried out to collect data for a Baseline, which serves as a reference performance framework. In 2015, the Project recorded significant results.

In the field of primary education, the construction or restoration of schools for some 2,500 pupils from the villages concerned is in progress. In addition, the schools with the highest number of students will be equipped with a canteen.

Some of the results obtained since the inception of the project are highlighted below:

- restoration of 9 schools, of which 4 were completed in 2014, along with educational activities involving 10 schools; participation in competencies-building activities intended for local teachers;
- continuation of the sensitisation activities on school canteen management in 5 schools; food supply to canteens (2100 meals/day delivered in 5 canteens);
- revitalization and training of parents-teachers committees;

- raising awareness of hygiene issues among pupils and teachers;
- supply of teaching material.

In addition, social awareness activities arising from special agreements related to the renewal of extraction permits for various oilfields, activities to promote national culture have been initiated, particularly in the areas of Pointe-Noire, Makoua in the north of the country and the capital Brazzaville. To facilitate long-term access to water, 22 potable water wells were drilled by 31 December 2015, of which 10 were completed in 2014, along with the relevant energy supply systems installed. These community water wells reduce the heavy chore of women and children who covered long distances daily to collect water. Moreover, the increasing availability and integrity of drinking water drastically reduces gastro-intestinal diseases,

thereby helping lower the general mortality rate especially among infants. Analyses to test the quality of the water supplied by the wells drilled under the project are carried out regularly, and awareness campaigns and training activities on the management of water sources have been carried out through the local NGO (Médecins d'Afrique).

In the health sector, 11 health facilities including 5 Integrated Health Centers (Centres de Santé Intégré) and 6 Health Posts (Postes de Santé) have been restored. Joint management committees were also created.

These 11 health facilities (formations sanitaires - FoSa) were equipped with a photovoltaic system and a biomedical waste management system. In 2014, 17,871 people, of which 4,275 pregnant women and



13,596 children aged 0 - 11 months (area of interest Hinda and neighboring districts), were vaccinated. Rising awareness about the fight against HIV/AIDS and other preventable diseases through adequate information and campaigns to protect maternal health made it possible to reach 148,688 people in 2014.

The electrification of health centers allows vaccines and medicines to be stored in refrigerators, surgery activity to be carried out, and minor surgery instruments to be sterilized, treatments and childbirth to be performed especially at night. Electricity is essential also for the training of medical staff and health workers.

Restoration and restructuring of health centers makes it possible to provide medical care to over 25,000 people in the area. The project also provides support to the creation of national health programs.

In 2014, thanks to the construction of infrastructure in the areas of primary intervention (schools, health centers/posts, water wells), an increase in access to health services, vaccination coverage for children and prenatal care, universal primary education and available potable water was recorded.

In the agricultural sector, the PIH constructed:

- a Centre d'Appui Technique et de Ressources Professionnelles - CAPREP [Technical Support and Professional Resources Center], to strengthen/develop the technical and professional expertise supporting and promoting agricultural activities and local centers of the agricultural extension in the area covered by the project
- a warehouse (Magasin d'Approvisionnement en Intrants et de Commercialisation des Produits Agricoles - MAICOPA) for the storage and marketing of agricultural inputs and products the storage and marketing of agricultural inputs and products.

The project also set up community awareness and training sessions in the area covered by the project, the extension of agricultural techniques (Champs Ecole Paysans - CEP) through demonstration of techniques in the 22 villages involved, including the management committee project support in CEP's activities.

## Sustainable development in Congo: access to energy

Access to modern forms of sustainable energy is a prerequisite for the development of all areas.

Eni is aware of the responsibilities and opportunities associated with its role as an international energy company active in over 80 countries worldwide. Contributing to the growth of local energy systems is an integral part of its development cooperation strategy and constitutes an essential element of the company's work and business model. This model allows the beneficiaries to seize new opportunities, thus laying the basis for the country's sustainable development.

Eni supports the Governments of the producer countries to identify and plan effective and efficient solutions for the development of local energy systems. In addition to the special attention the company



pays to the peculiarities of the territories in which it operates, these solutions derive from an approach based on the culture of operational excellence.

This makes Eni a partner of the countries engaged in the fight against energy poverty, especially in Sub-Saharan Africa.

Eni was the first international energy company to invest in Africa in the production of electricity through the exploitation of associated gas which was previously flared entirely. This offered the communities an opportunity for development, thereby reducing the negative effects on the environment.

Eni promotes an investment program for local development in Congo, aimed at facilitating access to energy for local communities. The intervention strategy is based on the identification and development of solutions suited to local needs, in particular: Development of solutions for the supply of power from the on-grid

system, which includes the construction of infrastructure for the production and distribution of electricity, by concurrently optimizing the extraction and recovery of hydrocarbons through the reduction of flaring.

## Power plants and projects for access to energy

The acquisition of the MBoundi onshore field in 2007 in Congo allowed Eni to develop a large-scale energy access model. Due to an agreement with the Republic of Congo, a project for the production and distribution of electric energy has been launched called "Projet intégré" (Integrated Project), which includes :

- 1) Djéno Power Station (CED)
- 2) Congo Power Station (CEC)
- 3) Rehabilitation of the transport and electricity infrastructure (RIT);
- 4) Extension of the electric distribution network of the city of Pointe-Noire (DEPN).

In addition to the Djéno Power Station (CED) whose installed power was doubled in 2009 from 25 to 50 MW, in 2010 Eni built the Congo Power Station (CEC) with a current installed capacity of 300 MW. Both Congolese plants are powered by the gas from the MBoundi and Marine XII field and have been included in a program that envisages also the revamping and reconstruction of the national high-voltage network between Brazzaville and Pointe-Noire (510 km) and the development of the network of the power distribution in Pointe-Noire.

The CEC and CED station currently supplies energy to the entire city, with surplus energy being sent to Brazzaville via a revamped high voltage network.

The project has also allowed a widespread distribution of electricity as well as the installation of street lighting in Pointe-Noire (DEPN). Over the past three years, the demand for electric power in the country has increased from 80 to 170 MW.

The project has allowed supply to be extended to cover the needs of the whole city, more than 350,000 people, and has enabled the installation of more than 6,500 street lamps, thus considerably improving urban security.

In addition, in 2013 a new project for the development of the gas from the Kouakouala field on-shore field next to MBoundi was finalized thanks to a system of gas-powered portable generators installed in a nearby village (Mboubissi) next to the field. The project supplies power to potable water well pumps, a health center and public lighting. More generally, the CEC and CED power stations now provide about 60% of the domestic electricity production; at present, the potential of the CEC only would be able to meet the country's daily average electricity consumption.

The entire Integrated Project was completed and officially handed over to the Republic of Congo in 2015.

Added to this is the more wide-ranging PIH, under which Eni has provided access to electricity to 33 community facilities (11 health centers and 22 potable water wells), powered by solar panels.

## Reduction of atmospheric emissions

Eni Congo has always been known for its strong commitment to the optimal use of resources to reduce, the amount of associated gas flared. The zero gas-flaring program, completed in 2015, reduced by approximately 1.8 million standard cubic meters/day ( $\text{Sm}^3/\text{d}$ ) gas flared in the area since 2013, thus achieving the goal set.

The commitment to reducing emissions into the atmosphere is achieved through:

- rational operation of producing wells
- re-injection of gas into the reservoir to concurrently enhance oil recovery (Kitina and MBoundi)
- the use of gas for the production of electrical energy for its facilities
- supply of gas to onshore industrial installations for the generation of electric power.

On November 26, 2013, the installation of gas compressor 360-3 marked the beginning of the re-injection of gas into the MBoundi field. This increased following the start-up of compressor 365-1 on 03/03/2014 and compressor 360-1 on 05/03/2014.

Since August 2014, the Oil Center MBoundi has re-injected approximately 1 million  $\text{Sm}^3/\text{day}$  of gas. Through the gas-fired power station projects (CEC and CED), MBoundi has flared almost no gas since 2014, thus contributing significantly and positively to the reduction of Eni Congo's gas flaring.







The health centre of M'Boukou is one of 11 health facilities in the Hinda Integrated Project. Following rehabilitation of the centre, the support includes ongoing training of staff and provision of medical equipment.



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## Eni at a glance

Eni is an integrated energy company employing more than 34.000 people in 69 countries in the world. Eni engages in oil and natural gas exploration, field development and production, as well as in the supply, trading and shipping of natural gas, LNG, electricity and fuels.

Through refineries and chemical plants, Eni processes crude oil and other oil-based feedstock to produce fuels, lubricants and chemical products that are supplied to wholesalers or through retail networks or distributors.

Eni's strategies, resource allocation processes and conduct of day-to-day operations underpin the delivery of sustainable value to all of our stakeholders, respecting the countries where the company operates and the people who work for and with Eni.

Integrity in business management, support the countries development, operational excellence in conducting operations, innovation in developing competitive solutions and renewable energy sources, inclusiveness of Eni's people and development of know-how and skills, integration of financial and non-financial issues in the company's plans and processes drive Eni in creating sustainable value. These elements lead to wise investment choices, prevention of risks and the achievement of strategic objectives in the short, medium and long term.

In 2015 Eni confirmed its presence in the Dow Jones Sustainability indices and in the FTSE4Good index.

### Main figures for 2015

- Adjusted operating profit: € 4.1 bln
- Cash flow from operations: € 12.2 bln
- Dividends paid per share: € 0.8
- Leverage: 0.22
- Estimated net proved hydrocarbon reserves: 6.89 bln boe
- Hydrocarbon production: 1,760 kboe/d
- Worldwide gas sales: 90.88 bcm
- Retail oil products sales in Europe: 8.89 mtonnes
- Electricity sales: 34.88 TWh
- Service stations in Europe: 5,846



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