

ITALIAN **A** ENGINEERING **N** CONSTRUCTION **D**

WITHSTANDING THE ONSLAUGHT
OF EMERGING ECONOMIES

photo credit: NET Engineering International

By Professor Aldo Norsa

This is the fourth Italian special advertising section edited by Aldo Norsa for ENR. The previous three were published in June 12, 1986, June 30, 1988 and November 30, 1989—twenty years ago!

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ITALIAN ENGINEERING AND CONSTRUCTION

SAFEGUARDING VENICE

More than forty years ago, terms and concepts such as safeguarding, tidal defense, improvement and recovery forced an entrance into the Venetian vocabulary, dragged to the center of attention and debate by the devastating waves and dramatic floods of November 4, 1966. Shocked by that event, Venice had no option but to face up to its own vulnerability to the sea and to the suffering of its lagoon. This signaled the start of an important new era in safeguarding by following others over the centuries, which led to construction of the murazzi sea walls and imposing river deviations.

A new initiative was necessary to set in motion experiences, new knowledge and technologies to tackle the problem of protecting a city and its lagoon as a whole.

And this is the task that the Italian government, through the Venice Water Authority and its concessionaire, the Consorzio Venezia Nuova, has been tackling for more than twenty years at sea and in the lagoon basin. The primary objective is to provide protection from high waters.

One effort underway to meet this objective is the construction of MOSE, an innovative system of disappearing mobile barriers designed to stop the tide from entering the three inlets that li

the sea with the lagoon, thus protecting towns and cities by the water from the most extreme events.

Yet MOSE—now 56% complete—is only the latest in a complex plan of safeguarding measures being implemented throughout the whole lagoon system from the sea to the boundary area. These measures include coastal defense, reconstruction, protection and improvement of the morphological structures in the lagoon (salt marshes), recovery of the smaller islands, local protection from flooding and pollution abatement in the industrial area of Porto Marghera.

The work being carried out by the Italian government represents the most impressive sea defense and environmental improvement project currently underway anywhere in the world.



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A workforce of more than 450 FTE and an annual turnover of more than 48 M€. More than 40 years of experience in designing complex infrastructures.

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NET Engineering International S.p.A. | Via Belle Putte, 34 B | 35030 | Padua - Rubano | Italy
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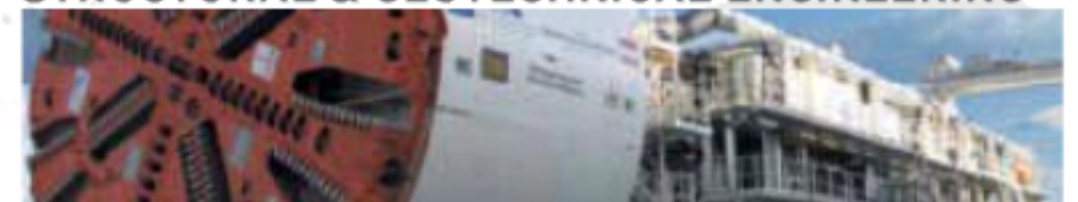
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MARINE, OFFSHORE & ENERGY

Coastal protection, harbor facilities, offshore engineering and installations, offshore decommissioning and dismantling, offshore wind parks and infrastructures for oil & gas operations

NET Engineering International (NET) is the largest independent, private, consulting engineering company in Italy.

For over 40 years, NET has provided engineering, consultancy and project management services for infrastructure, energy and the natural environment in Europe and worldwide. During that time, the NET Engineering Group has achieved an aggregated turnover of over U.S. \$72 million (48-million Euros), and a permanent staff of more than 450 full-time employees in five countries that include Italy, Germany, Bulgaria, Hungary and India.

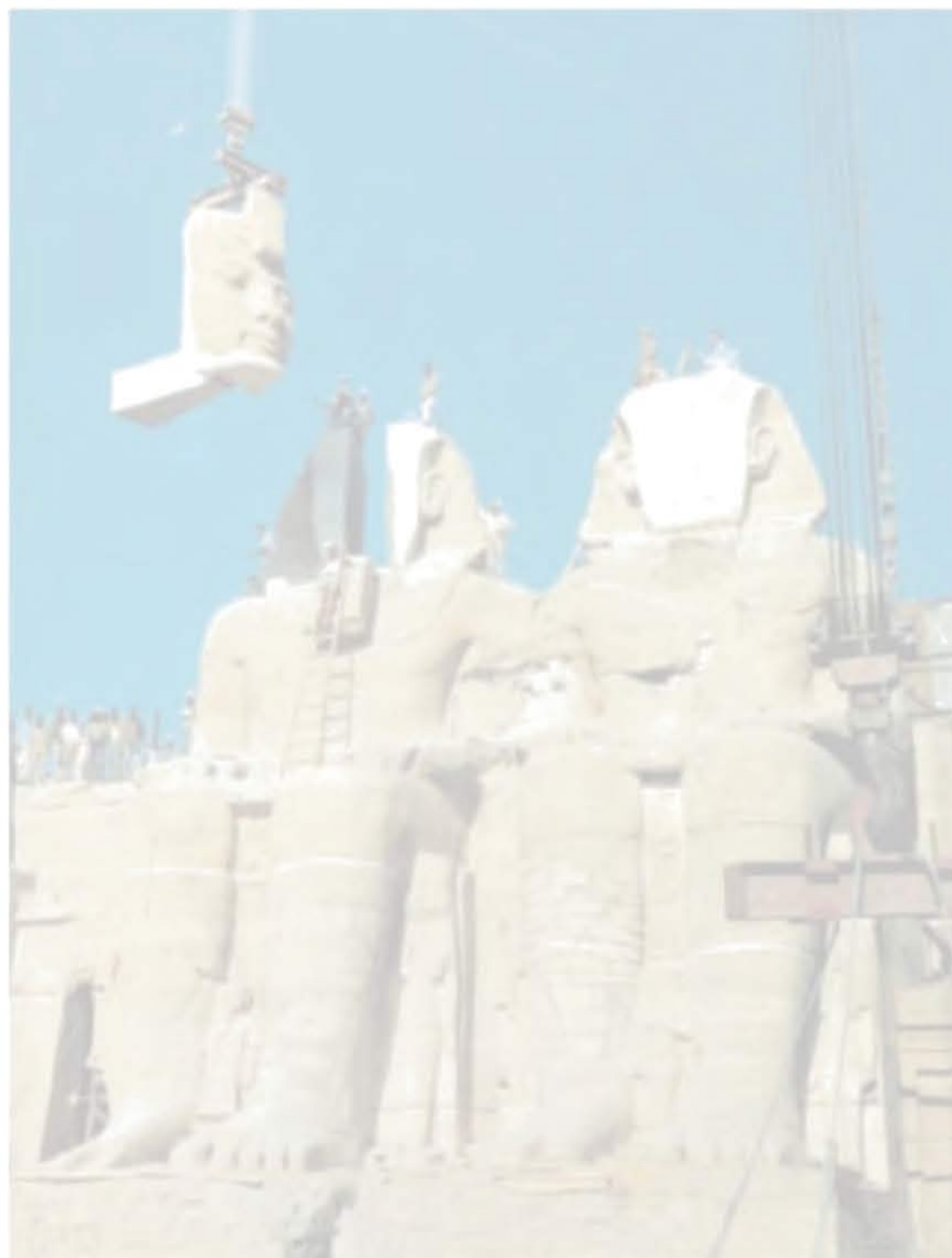
The integration of competence and long standing experience are key to the successful performance of the most complex projects. NET Engineering supports its customers with the strength and resources of an international company and with the dedicated support of its distributed presence that is close to all project locations.

BUILT ON TRADITION

With over 100 years of history and tradition, the Impregilo Group has marked the growth and development of many countries worldwide since the start of the 20th century. Signature projects on its books include the construction of the bridge over the Messina Straits in Italy, the expansion of the Panama Canal and the tunnel and water intake under Lake Mead in Las Vegas.

Its over 15,000 highly skilled employees and extraordinary technical know-how have helped construct major infrastructure projects such as dams, hydroelectric plants, motorways, railway lines, metropolitan rail systems, underground works, bridges in the concessions sector, as well as in the plant design and environmental services sector. As a leading general contractor in Italy and around the world, the company has a presence in more than 28 countries worldwide.

During its history, Impregilo has also profited from and, anticipated the development of, markets using its technical and managerial skills, thus growing from an executor of works to a supplier of integrated solutions through complex project



financing operations. The company is a global player in concessions, especially for motorway networks.

In diversifying its business sectors, the Impregilo Group continues to enjoy success in the field of plant design and environmental services through its subsidiaries Fisia Italmobiliari and Fisia Babcock Environment. These companies operate in the desalination sector, the cleaning of industrial plant emissions and the creation of energy from burning of urban solid waste.

The Impregilo Group, listed on the Italian stock exchange, ended 2008 with revenues of about U.S. \$4.4 billion (2.9-billion Euros) and a total order book worth U.S. \$24.5 billion (16.3-billion Euros), 54% of which is for overseas projects. Impregilo is the first Italian company, and among the few companies

on the European market, to have a triple certification system that includes: certification of quality management systems ISO 9001:2000, certification of safety management systems OHSAS 18001:1999 and certification of the environmental management system ISO 14001:2004.