



# Bordiga

GRUPPO PER L'ECONOMIA D'IMPRESA

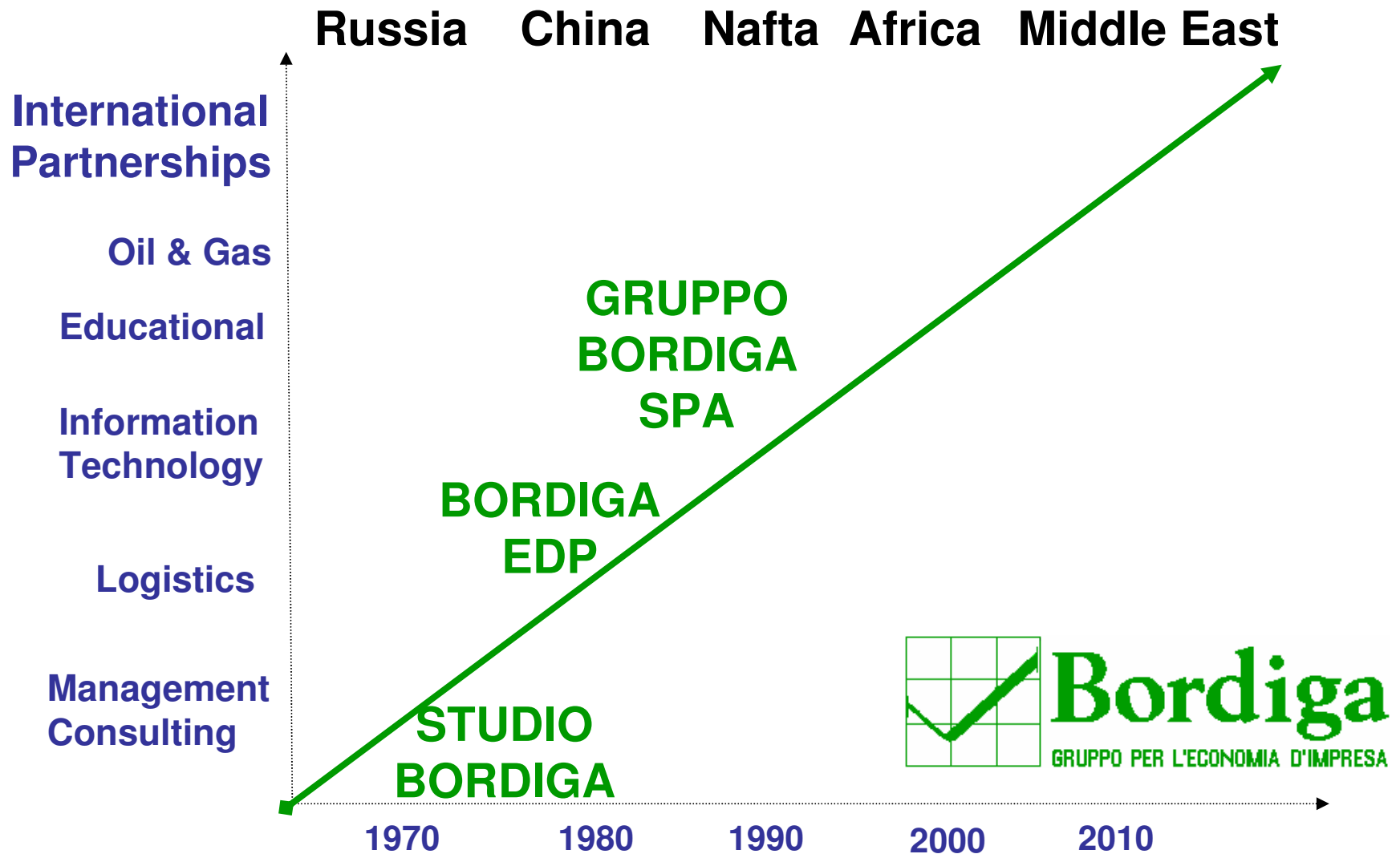
## Global service dedicated to the international market



MEMBER OF  
ASSOLOMBARDA AND CONFINDUSTRIA



# EVOLUTION



# A WINNING STRATEGY

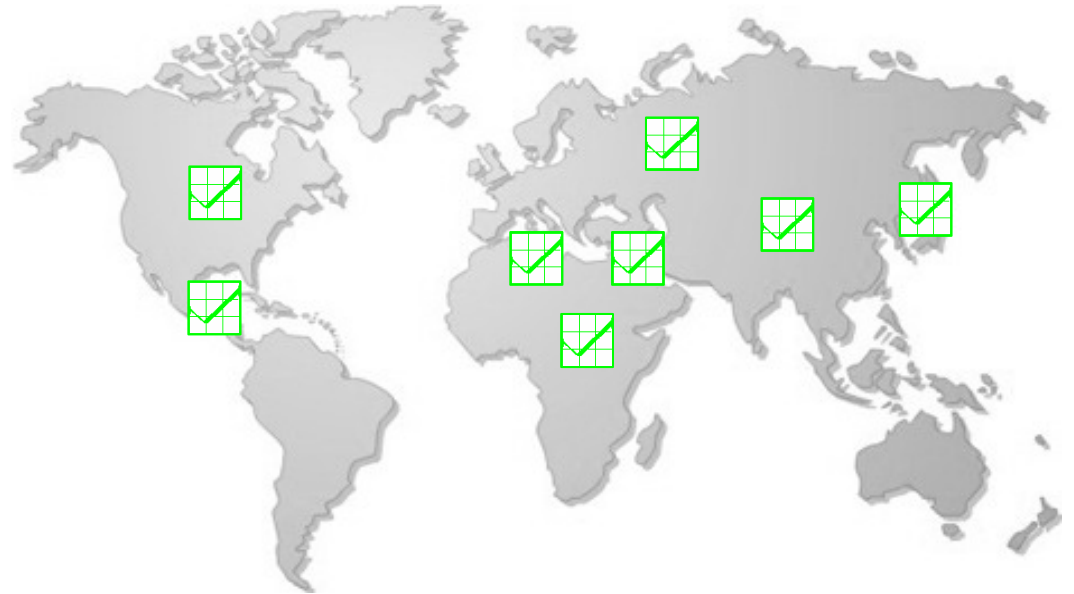
**GRUPPO BORDIGA SPA** acts transparently, not only delivering consulting services but also entering into effective partnership from the beginning until project realization.



**GRUPPO BORDIGA SPA's** success in these 40 years derives from the professionalism and wide open-mind of the founder, Dr. Guido Bordiga.

# A WINNING STRATEGY

**GRUPPO BORDIGA SPA** has more than 100 dedicated professionals all around the world who constantly survey national economies and global market trends and 24 international partnerships.



- **Innovative and performing solutions**
  - **Support to local and Italian partners**
  - **Achievement of successful business**

# A WINNING STRATEGY

**GRUPPO BORDIGA's** strategy is based on operative and financial agreements.

Expertise, know-how and reputation lead to extremely concrete projects.

**GRUPPO BORDIGA SPA** guarantees the best providers, the best resources and the best opportunities.



# CORE ACTIVITIES

- **Scouting of business opportunities in emerging and mature markets**
- **Partnership in management and investment**
- **Merger & Acquisition**
- **Fund raising (public/private funds)**
- **Supervision and monitoring of project processing**
- **Integrated solutions**
- **Recruiting and training**



# OPERATING FIELDS

**General Constructions**

**Infrastructures**

**Raw materials**

**City Transport**

**Management  
Consulting**

**Italian Fashion &  
Design**

**Green Energy**

**Worldwide  
project-oriented  
activities**

**High Technology**

**Eco-agriculture**

**Automotive**

**Automation systems and  
components**

**Food & Beverages**

**Oil Industry Maintenance**

**Educational**

**HealthCare**

**Art Exhibitions & Museum  
Management**

# GENERAL CONSTRUCTION & INFRASTRUCTURE

**Residential (towers and villas)**

**Road networks & highways**

**Viaducts, bridges & tunnels**

**Railways, high-speed ways,  
tramways and subway**

**Airports and Hospitals**

**Utilities networks (Gas, Water,  
Oil, etc.)**

**Hotel, Resorts and Leisure  
Centres**

**Directional centres, offices, universities and retail**

**Museums, historical buildings (restoration and maintenance)**

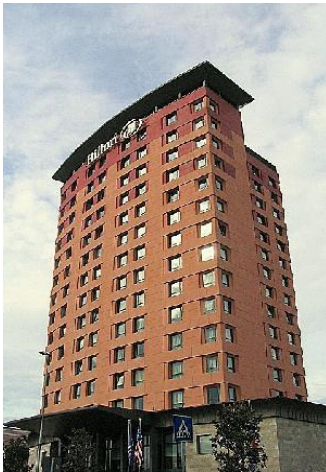
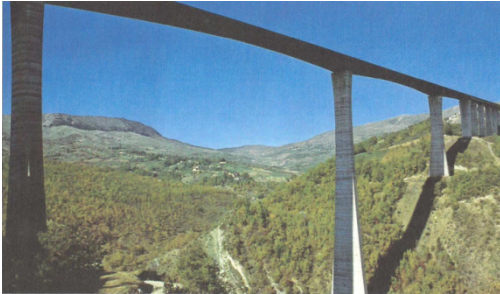


**Bordiga International**





# BORDIGA BTP PROJECTS: BRIEF OVERVIEW



- Highway “Milan – Naples” – viaducts and tunnels
- Highway “Siracusa – Gela” – viaducts (length apx 4.000 m.) and bridges
- “UNA Hotel” in all Italy and “Hilton Hotel” in Florence
- Montichiari Airport (Brescia, Italy)
- Perugia’s Hospital
- Versilia Golf Club (18 holes)



# BORDIGA / PROGETTO CMR ALLIANCE PARTNERSHIP

## Design and Engineering

- Technical and financial feasibility analyses
- Regulatory and zoning law satisfaction
- Land development plans for public and private individuals
- Master plans
- Architectural and engineering designs for complex residential, industrial and commercial buildings
- Civil Engineering
- Building and infrastructure design and inspection
- Electrical, mechanic and special system design and inspection
- Interior design

Project Management  
Sustainability  
Mobility  
Landscape



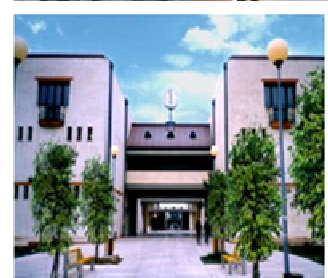
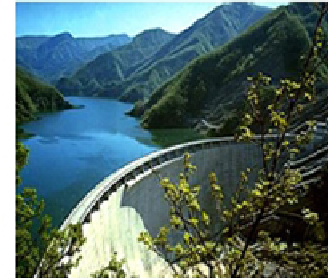
PROGETTO CMR  
ALLIANCE



# BORDIGA / PROGETTO CMR ALLIANCE PARTNERSHIP



PROGETTO CMR  
ALLIANCE

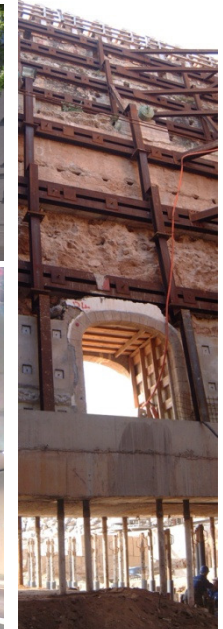
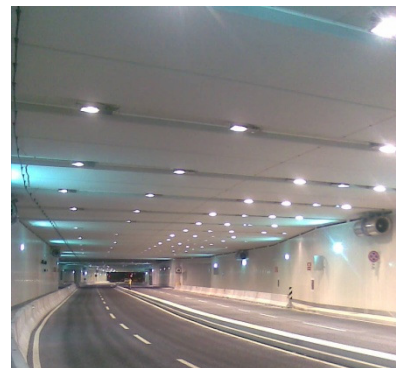


- 01\_ PROGETTO CMR
- 02\_ A G&P
- 03\_ ALPINA
- 04\_ ALPINA
- 05\_ PROGETTO CMR
- 06\_ PROGETTO CMR
- 07\_ ALPINA

# BORDIGA / PROGETTO CMR ALLIANCE PARTNERSHIP

## Alpina

- is active in the engineering and hydro field since 1954
- performs designs for large-scale civil projects
- supplies consulting and supervision of works
- manages the construction of projects, with attention to safety, environment and costs
- specializes in the following three areas:
  - HYDRAULICS**  
(hydroelectric power plants, dams, river and marine structures)
  - TRANSPORTATION**  
(roads, highways, railways and airports)
  - PUBLIC BUILDINGS**  
(hotels, scientific medical research institutes, universities, factories)
- has a yearly turnover of 6,0 million Euro
- holds the Quality Management System Certificate for the Standards UNI EN ISO 9001:2008 issued by Det Norske Veritas
- includes in its organization over 70 employees and consultants



# BORDIGA / PROGETTO CMR ALLIANCE PARTNERSHIP

## Alpina

in the field of hydraulic and hydroelectric plant design:

- holds a leading position for functional, general and construction aspects regarding civil, underground, mechanical and electrical works

- designed the two most important hydrostructures built in Italy: Pont Ventoux (150 MW) and Premadio (75 MW) hydroplants

- designed the last large dam built in Italy: Ridracoli, 100 m high and 400 m long with a reservoir of  $40 \cdot 10^6$  m<sup>3</sup>

- is the designer for the largest private producer of renewable energy in Israel of a new pumping hydroelectric plant (220 MW)

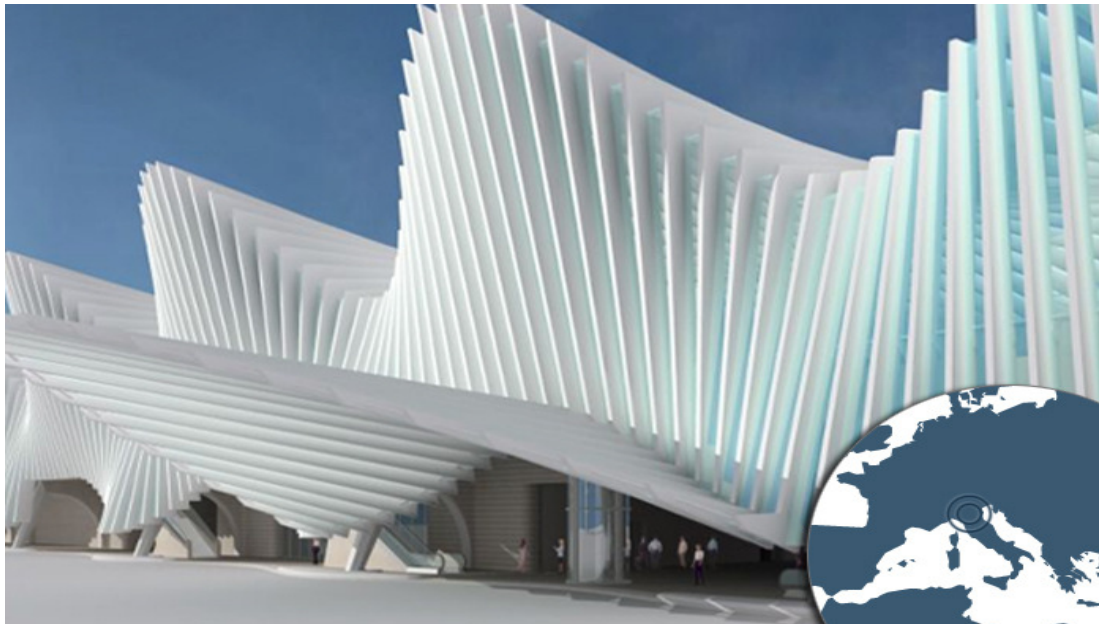
- is linked to the design and supervision of works of many big hydro projects developed in Italy since 1954.



# BORDIGA – CIMOLAI PARTNERSHIP

**Cimolai is a major steel manufacturer in Italy and abroad highly specialized in manufacturing:**

- bridges
- viaducts
- industrial and civil buildings
- military infrastructures
- normal and special plate girders for the off-shores and ship building industries



- stainless steel bulkheads for chemical tankers
- polygonal and cylindrical poles for telecommunication and power lines
- pipes of great diameter and wall thickness and shin



# BORDIGA – CIMOLAI PARTNERSHIP



***Structure: New sports hall - roof structures involving primary & secondary trusses from hot rolled sections.***



***NEREO ROCCO STADIUM - TRIESTE (ITALY)***

# BORDIGA – CIMOLAI PARTNERSHIP

Recently, CIMOLAI, has been building many stadiums and structures for sport centers in general all over the world.



***Soccer City Stadium – Johannesburg (South Africa)***



***Sport City – Tor Vergata – Rome***



## SPORT FACILITIES



***LANSDOWNE ROAD STADIUM – DUBLIN***



***SPEED SKATING ICE ARENA – WINTER GAMES TURIN 2006 (ITALY)***

# BORDIGA – BONATTI PIPELINE TECHNOLOGY

## PIPELINE TECHNOLOGY FOR OIL AND GAS



### ***NEL PIPELINE PROJECT***

**Bonatti is a leading Contractor with over 60 years of experience in the Oil and Gas and Power Industry.**

# BORDIGA – BONATTI PIPELINE TECHNOLOGY

**Bonatti** challenges projects under the most critical environmental and logistical conditions in remote locations, **combining innovation and advanced technologies.**



***OPAL PIPELINE PROJECT***

# BORDIGA – BONATTI PIPELINE TECHNOLOGY

Since many years Bonatti is involved in Italy in the construction of the national pipeline system

Pipelines  
& Multiutility Networks



**Bonatti** has strengthened its **presence on the international markets** too, realizing relevant projects in different countries, such as: **Austria, Germany, Spain, France, Turkey, Oman, Libya , Algeria, Saudi Arabia, Kazakhstan, Ecuador, Chile and Argentina.**

# BORDIGA SOLAR ENERGY - CSP

**GRUPPO BORDIGA**, can provide a new solar energy system using **Concentrated Solar Power (CSP)**.

This system can create very high temperatures (up to 550° C) by using mirrors or lenses and molten salt. This fluid is then used to produce steam that drives a turbine which in turn produces electricity. This system can be used for industries and villages.

**The advantages compared to traditional plants are:**

- pay-back within 10 years (the other systems: 14Y)
- 24h energy production
- reduction of the land used
- use of salt liquid instead of oil
- low maintenance
- easy to install
- easy to increase the plant



# BORDIGA SOLAR ENERGY - CSP

**The advantage** of concentrating solar thermal power lies in the costs.

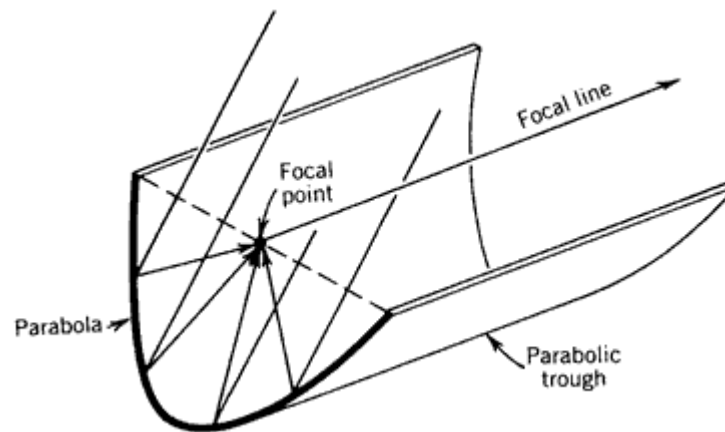
If we relate the cost of an equivalent photovoltaic system - in terms of surface exposure - on land, we realize that the mirrors built on a structure such as honeycomb, with the necessary structural reinforcements would cost about **5%** of a corresponding surface of silicon. The device orientation represents about **15%** of the cost of silicon panels.



**That means a solar thermal collector should cost at most about 50% of a system of photovoltaic panels of equivalent size.**

# BORDIGA SOLAR ENERGY - CSP

The **CSP** systems have yet another special feature: they can operate at night. The heated fluid can be stored and used to produce electric energy by turbines during the whole 24 hours.



**Gruppo Bordiga** can provide a highly efficient storage system, which over a 24 hour day dissipates only 1% of the accumulated heat. Thanks to the high temperatures reached by the molten salts (up to 550° C), it is estimated that only 5 cubic meters of molten salts are needed to accumulate a sufficient amount of heat to generate 1 MWh of electricity.

# BORDIGA SOLAR ENERGY - CSP

The system has a return of about 14%. The return of a photovoltaic system is about 8%, with losses of around 25% being converted in terms of alternating electric current.

**This means that the total efficiency of the thermodynamic solar system is potentially about twice the solar photovoltaic**



**The concentrated solar power technology** is useful both for producing hydrogen as well as for air conditioning and desalination of sea water that could cleanly and efficiently resolve the serious crisis of drinking water shortages that plague many parts of our planet.

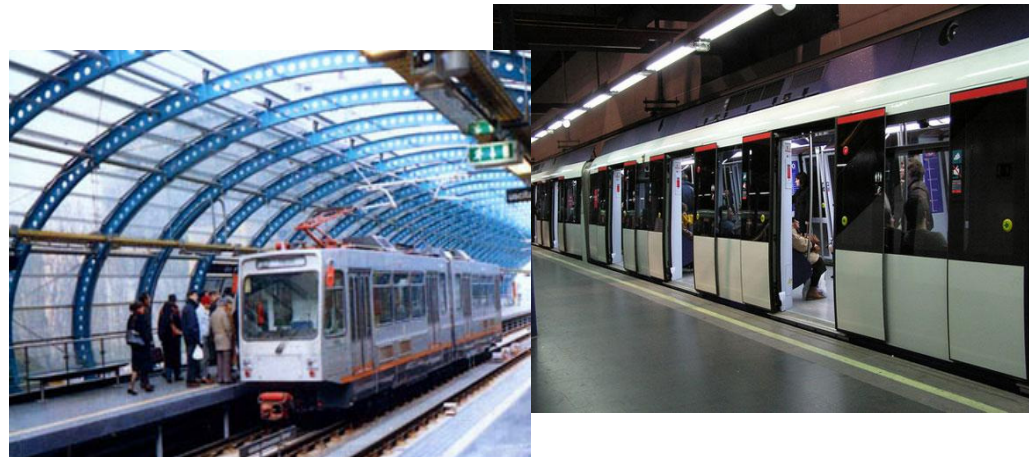


# CITY TRANSPORT

**GRUPPO BORDIGA SPA** with its partner is involved in all the line of city transport solution, also with the role of main contractor and technological systems integrator with turnkey solution.

**Relevant activities are:**

- **Planning**
- **Building**
- **Managing**



**An important area is concerning the realization of subways:**

- **Metro**
- **Automatic Driverless Metro**



**GRUPPO BORDIGA SPA** has been working for over 30 years in this sector.

Defining the priorities of the extraction/trading/distribution of all oil products, Gruppo Bordiga can operate in the design and construction of new plants as well as in the maintenance and revamping of existing plants.

## Oil & Gas

Diesel D2

JP54

Mazut

Natural Gas

LNG

Crude Oil



# BORDIGA/TREVI PARTNERSHIP



***An innovative way to drill....  
faster & safer***



# BORDIGA/TREVI PARTNERSHIP

➔ Strongly roots....  
to be a big group



# HH Series Rigs Fleet



## RIG FLEET

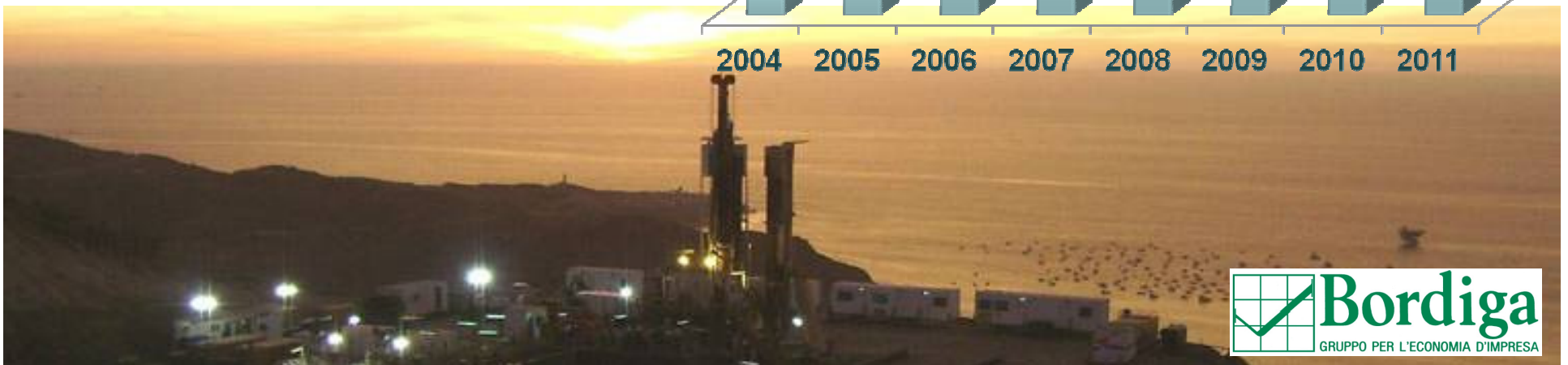
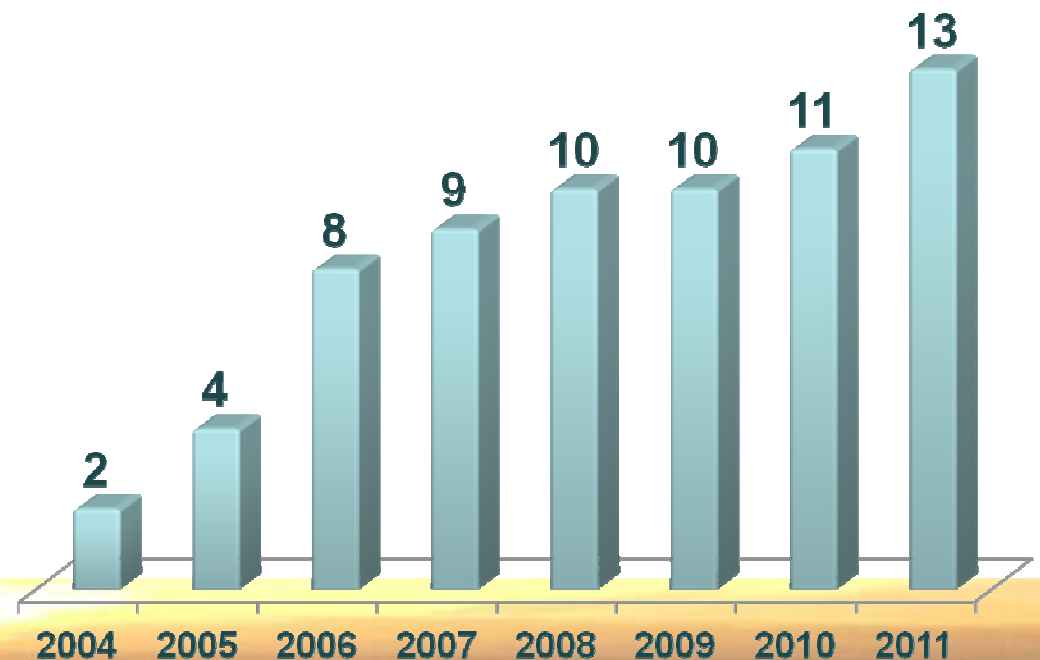
	HH102	HH220	HH300	HH600
➤ Load capacity	220,000 lb	440,000 lb	600,000 lb	1200,000 lb
➤ Max drilling capacity	5500 ft	12000 ft	17000 ft	23000 ft
➤ Mud pumps	2x1000 HP	3x1000 HP	2x1600 HP	3x1600 HP
➤ Max top drive torque	26000 lb.ft	26000 lb.ft	32000 lb.ft	50000 lb.ft
➤ Clearance	17.06 ft	17.70 ft	22.00 ft	30 ft



# HH Series Rigs Fleet

➤ PETREVEN achieved successful results in the Latin America, in term of drilling performance and safety standards, working for Major oil company.

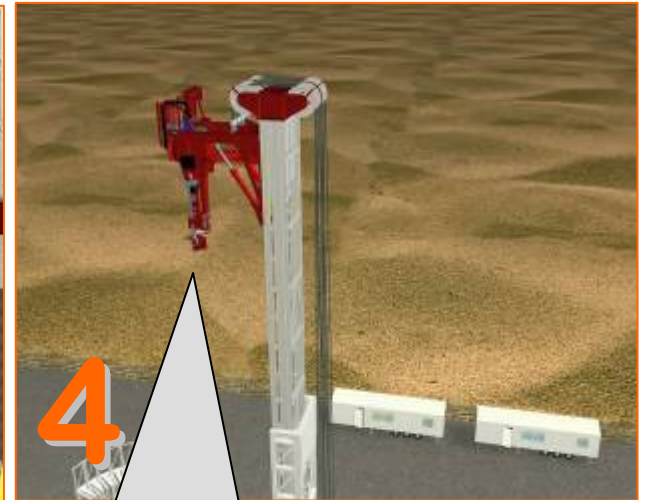
➤ These results have allowed the constant increase of our rig fleet and the awarding of new important contracts



# Technology Overview

Drill pipe handling system

BOP Handling system



Power tong

Integrated top drive

# Technology Overview



1. Containers positioned on base, around the pipe handler.

2. Stabilizes and starts lifting the containers with hydraulic cylinders.

3. Complete lifting and vertical stabilizers and retracting semitrailer section.

4. Displays the top section for containment of the pipe couples.



# OIL INDUSTRY MAINTENANCE

**BORDIGA INTERNATIONAL** provides specific interventions and solutions regarding internal treatment of storage tanks in the petroleum industry.

**Relevant activities are:**

- **Maintaining or improving the safety management system**
- **Maintaining or increasing the efficiency and versatility of the system**
- **Negotiating or holding down insurance costs**



# OIL INDUSTRY MAINTENANCE

**BORDIGA INTERNATIONAL** provides a drastic reduction of costs and cleaning time in an ecologic way.

**Possible interventions are:**

- **Internal maintenance of storage tanks without replacing the plates**
- **Solutions for the inside of tanks, in order to increase their storage capacity (increasing the number and type of stackable products)**
- **Fireproofing solutions**
- **Heat and cold thermal insulation**
- **Scaffolding**
- **Restoration of degraded concrete**
- **Anti-noise and anti-vibration solutions**
- **Anti-acid solutions, even at a high exercise temperature**
- **Feasibility study of solutions to various problems**



# ENGINEERING & AUTOMATION

**BORDIGA ENGINEERING**, in partnership with primary engineering companies, can offer turn-key solutions in the automation needs of the following sectors:

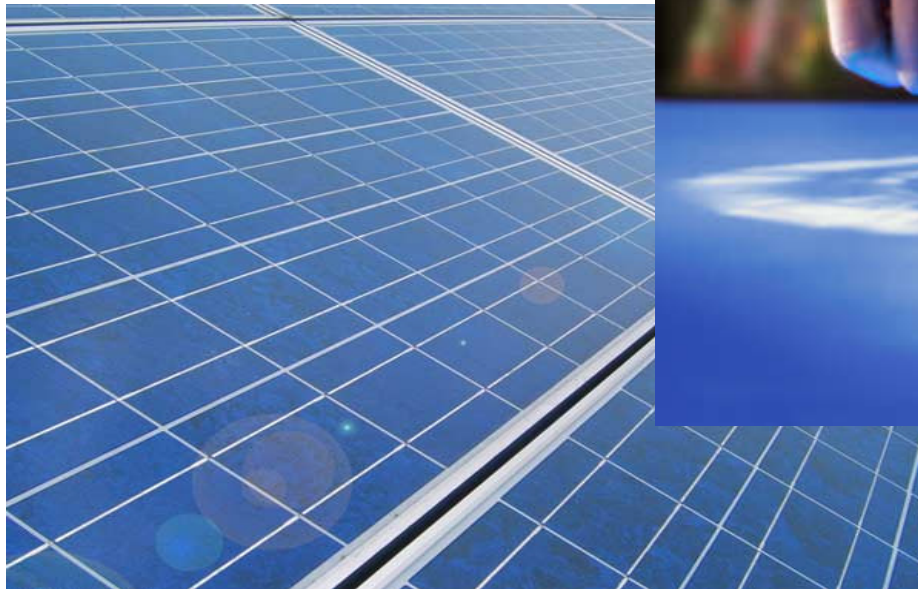
- **Industry**
- **Energy**
- **Building**
- **Traffic**



# HIGH TECHNOLOGY

**GRUPPO BORDIGA SPA** can operate in every area of high technology, from HW to SW, up to the most advanced automatic systems and photovoltaic systems.

Furthermore, Gruppo Bordiga, can make the purchase and distribution of helicopters possible.



# HIGH TECHNOLOGY

**GRUPPO BORDIGA SPA** has a relevant partnership with the most important Italian shipbuilding companies.

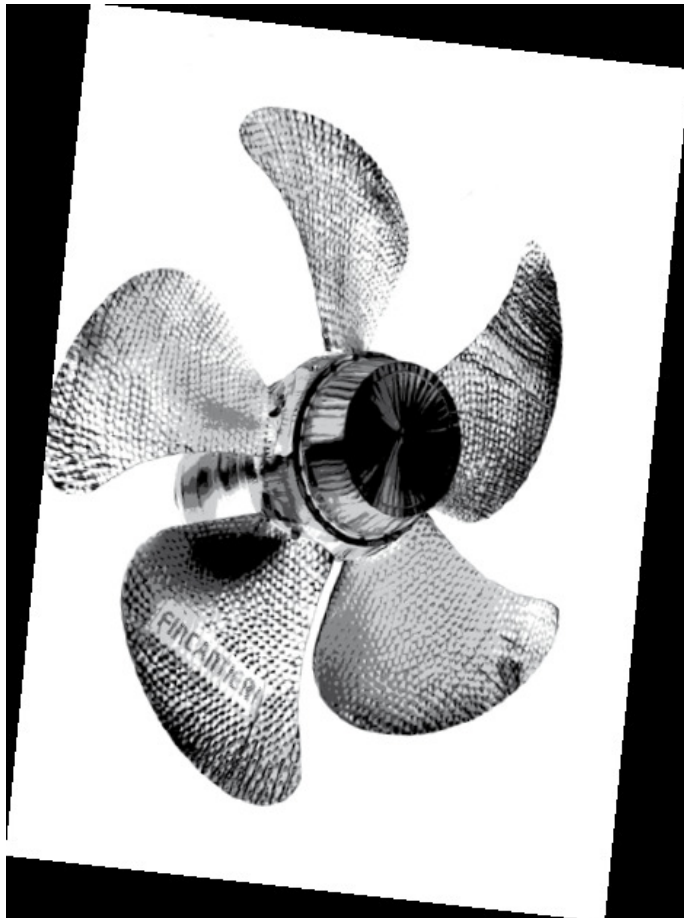
Our partners are leader in the design and construction of merchant and naval vessels.

Moreover, it is the reference builder in the naval field providing a wide range of ship types including surface vessels (frigates, corvettes, patrol vessels etc.) and submarines.



# BORDIGA/FINCANTIERI PARTNERSHIP

**Fincantieri**, heir to the great tradition of Italian shipbuilding, is today one of the largest groups in the world in the **design and construction of merchant and naval vessels**.



**A forward thinking system.....**

The **company's core business** is the construction of complex ships with high technological content such as cruise ships and large ferries.

# BORDIGA/FINCANTIERI PARTNERSHIP

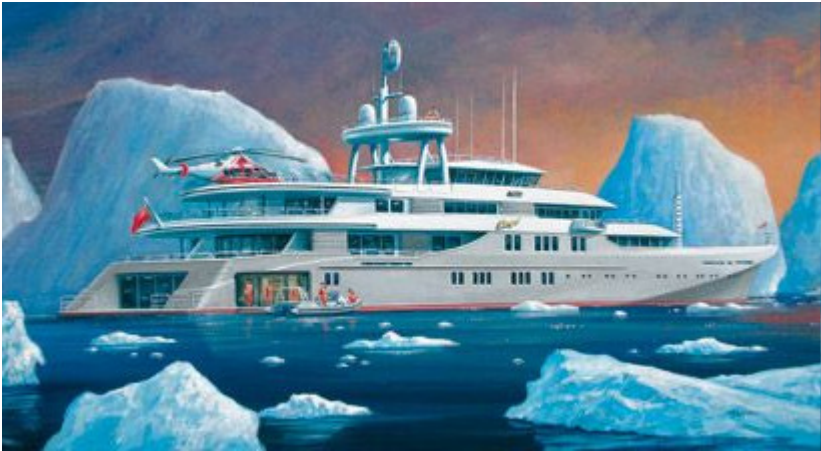
In the field of **ship repairs and conversions**, especially for passenger ships and offshore vessels, **Fincantieri** provides services worldwide and **organises interventions** to be carried out at its own facilities or at third party facilities with the aim of reducing the amount of time the ship is out of service and in accordance with customer requirements.



It develops and builds **naval systems** (stabilisers, solutions and components for propulsion and power generation etc.), **industrial turbines**, as well as **diesel engines**, for both marine and industrial application through its subsidiary Isotta Fraschini Motori.



# BORDIGA/FINCANTIERI PARTNERSHIP



**The company also draws on its expertise to create complex, high value designs for the luxury niche market of mega yachts of over 70 metres.**

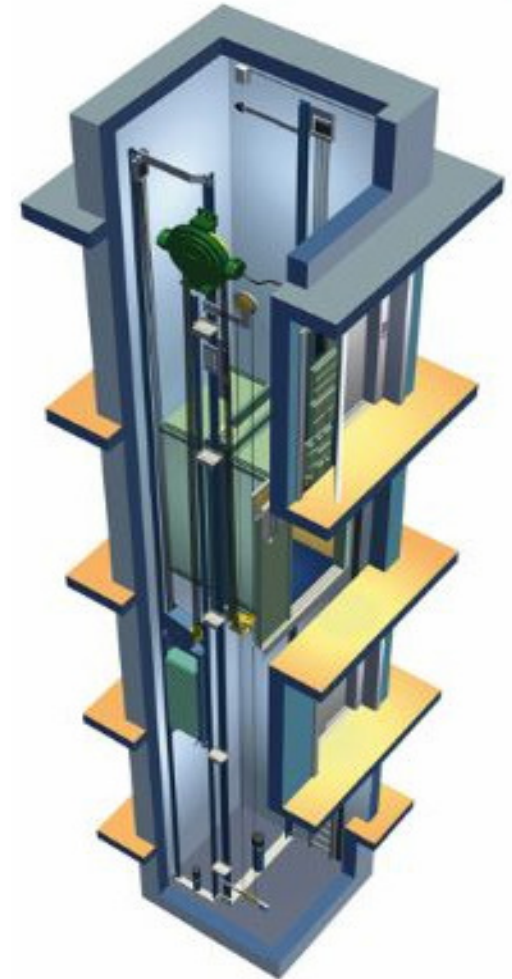




# BORDIGA/KONE MARKETING PARTNERSHIP

**KONE** is one of the first largest **worldwide companies** in:

- design
- manufacture and maintenance of elevators, escalators and moving walkways:
  - innovative
  - environmentally friendly
  - reliable and safe
- services for automatic doors and for buildings.



# BORDIGA/KONE MARKETING PARTNERSHIP



**Bordiga** is in a marketing partnership with **KONE** in the whole world and can distribute together its products, its services and its maintenance.

All the activities are carried out by **Bordiga Group** together with **KONE's** local company from the beginning.



# BORDIGA/KONE MARKETING PARTNERSHIP

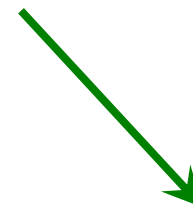
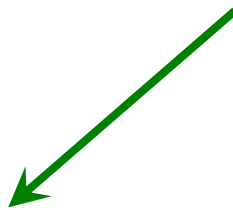
**Bordiga Group**



**MAIN CONTRACTOR**



**KONE's responsibilities:**



**Planning and realization of the new plants**

**Reconstruction of the old plants**

**Maintenance and all that concerns spare parts**

**GRUPPO BORDIGA SPA** has a relevant partnership with several of the **most important hospitals** in Italy.

**Gruppo Bordiga Spa**, in partnership with Italian hospitals, promotes projects for the construction, management and maintenance of hospitals.

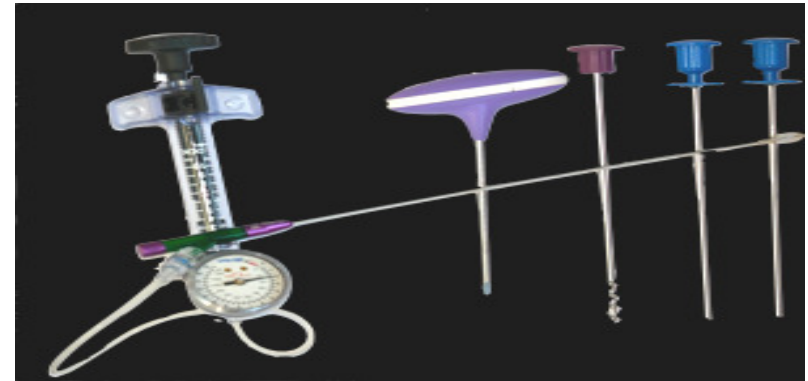


**Gruppo Bordiga's** mandate is to carry out health-related initiatives in the world.



# BORDIGA MEDICAL DEVICES

**Gruppo Bordiga SPA** has chosen the most important European companies of excellence on the market that produce disposable medical devices, CE-certified.



**Gruppo Bordiga SPA** has selected the best products to be distributed under its own brand in the following areas :



- ❑ SPINE SYSTEMS FOR VERTEBROPLASTY AND KIPHOPLASTY
- ❑ SPINE SYSTEMS CEMENTS
- ❑ HAND & FOOT IMPLANTS
- ❑ BYOPSEE NEEDLES

# ITALIAN FASHION & DESIGN



Planning, organizing and managing of stores in partnership with the most important Italian chains.

All that is design and furniture – from sofas and beds, to the living room and the kitchen, provided by **BORDIGA ITALIAN DESIGN.**



High quality products at really competitive prices.

# ITALIAN FASHION & DESIGN

**GRUPPO BORDIGA SPA** has a relevant partnership with **GRUPPO DISANO ILLUMINAZIONE**.

**Gruppo Disano** produces lighting fixtures with a refined design, in collaboration with designers of international fame, well-suited to being installed both outdoor and indoor, in buildings of great architectural prestige, but also to enhance stores and sales areas.

**Gruppo Bordiga Spa** can provide every country with all kind of lighting products, including a very broad selection of lighting fixtures, able to meet all outdoor and indoor lighting requirements. In particular:

- **Urban and street lighting**
- **Lighting for industrial areas and offices**
- **Lighting designed for stores and sales areas**
- **Lighting designed for sports facilities**
- **Lighting fixtures for residential, hospital applications and for emergency use.**



# ITALIAN FASHION & DESIGN

Thanks to the knowledge of several technologies, **GRUPPO BORDIGA – CRESPI** can offer a wide range of products that are in line with the most demanding market and application, such as:

- Footwear, handbag, small leather goods
- Upholstery
- Automotive products
- Bookbinding
- Labels
- Medical sanitary products
- PVC PU items for industrial applications
- Table Cloth





# FOOD & BEVERAGE

**GRUPPO BORDIGA SPA** has a privileged and exclusive relation with **CONAD ITALIA**, which represents the most important Italian distribution chain.

Today, Gruppo Bordiga Spa is ready to achieve both 80 super stores for the distribution of Italian typical products and for the creation of a restaurant area in order to taste typical Italian food (from every kind of pasta to pizza).



For the automated management of the entire store, Gruppo Bordiga Spa relies on **APISoftware** that provides the most innovative system of for the stores.



# FOOD & BEVERAGE

**CONAD** is a widespread market-leader network.

3.000 member entrepreneurs and 32.000 employees with a direct and daily relationship with millions of clients.

A great organization at the core of the market and of society.



The label of products is the main tool for growth, for customer loyalty and for innovation.

Quality, good value and innovation are the main factors of a success that is confirmed by consumers and by the market.

**GRUPPO BORDIGA SPA** has a privileged and exclusive relation with **ARS FOOD SRL**, which represents the leading manufacturer of private-label ORGANIC YOGURT for the main chains of large retailers.

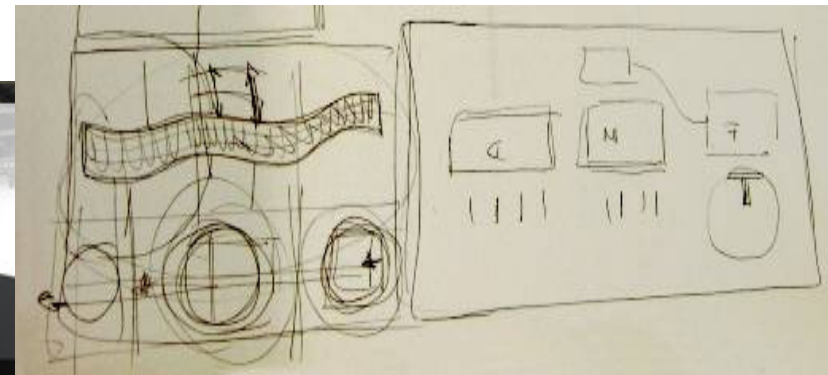
Good earth, clean air, pure water, fresh Italian milk, fruits, cane sugar, high quality of raw materials from organic farming, with the most respect for nature are the main ingredients of the yoghurt “Le Bio Bontà di Varese Ligure”.

It is produced in a protected, controlled and certified area, without any genetically modified organisms, artificial colourings, flavourings or thickeners, to be always faithful to ourselves and to you. All products of the “Le Bio Bontà” brand are certified and therefore gluten free.



**BORDIGA-BOCCONI** has a privileged and exclusive relation with **ASK (Art, Science and Knowledge)**, a Centre Economics and Management for Arts and Culture.

**ASK** has been founded in 2004 at Bocconi University with the aim of carrying out both theoretical and empirical researches and promoting cultural planning and cultural institutions management activities. The Research Centre is focused on activities and sectors significantly characterized by the relationship between arts and economics.



# EDUCATIONAL

**ASK** works with professors and researchers of Bocconi University and it is a reference for students of the degree courses CLEACC (Economics for Arts, Culture and Communication - undergraduate, in Italian) and ACME (Economics and Management in Arts, Culture, Media and Entertainment - graduate, in English).



# ASK'S PROJECTS IN CULTURAL HERITAGE - BRIEF

- **Museum of the Roman Ships** - Feasibility study for a museum after the retrieval of 20 Roman ships nearby Piazza dei Miracoli, Pisa.
- **“Museo Italia”** - Feasibility study for a "depot museum" in a disused thermoelectric power station.
- **Royal Palace, Turin** - Pre-feasibility study for the valorisation and exploitation of the complex.
- **The Contemporary Art Museum of Milan** - Managerial model and economic and financial feasibility study.
- **The Royal Villa of Monza** - Feasibility study for the renovation and enhancement of the building.
- **Hangar Bicocca, Milan** - Concept and feasibility study for a contemporary art museum.



# ART EXHIBITION AND MUSEUM MANAGEMENT

**GRUPPO BORDIGA SPA** can set up a link with the Italian Ministry of Culture, in order to achieve permits for the temporary export of Italian masterpieces.

**GRUPPO BORDIGA SPA** carries out projects of the construction, maintenance and management of museums. Furthermore, Gruppo Bordiga promotes exchange program where the Italian Government can lend, for a certain number of years, Italian masterpieces.



**GRUPPO BORDIGA SPA** promotes the realization of Universities close to the museums in order to help the comprehension of Art History: from ancient art to contemporary art. All of this is done to represent the relationships between the two countries.



# ART EXHIBITION AND MUSEUM MANAGEMENT

**GRUPPO BORDIGA SPA** is a promoter of Art of Islamic Civilization Exposition in Milan. The goal is to offer the audience the opportunity to discover this ancient civilization, so little known in the West, but that has deeply marked with its influences our culture.

The exhibition will be located at the Royal Palace in Milan.



Art and culture have always accompanied the business activity of Gruppo Bordiga, helping to feed the spirit of innovation and creativity that makes us unique in the daily discovery of new markets and new businesses.



# ART EXHIBITION AND MUSEUM MANAGEMENT

**GRUPPO BORDIGA SPA** has been a promoter of **Zhang Huan's Art** Exhibition in Milan. The first European retrospective of Zhang Huan, one of the most renowned artists in contemporary art of China.



From the right: d.ssa Luisa Bordiga, dr. Guido Bordiga



Opening of the exhibition in Milan.



Opening of the exhibition in Milan.

# ART EXHIBITION AND MUSEUM MANAGEMENT

The exhibition was located at PAC (Contemporary Art Pavilion) in Milan, between 7th of July and 12th of September 2010.



From the right: d.ssa Silvia Tagliaferri (marketing head of Cathay Pacific), dr. Guido Bordiga, dr. Letizia Moratti (Mayor of Milan), dr. Massimiliano Finazzer Flory (Councillor of Culture)

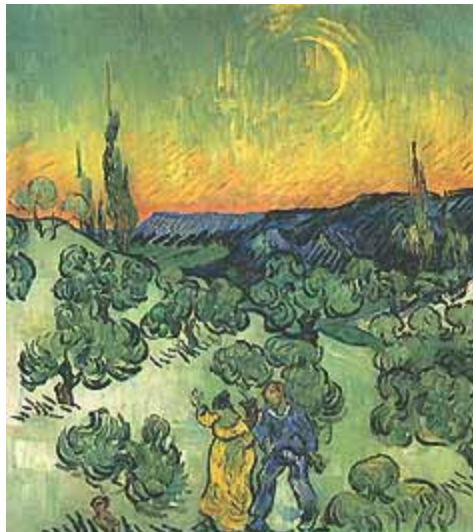


Zhang Huan in Milan.

The exhibition was a great success and demonstrated once again Gruppo Bordiga's ability to promote and carry out exhibitions of high cultural value.

# ART EXHIBITION AND MUSEUM MANAGEMENT

**GRUPPO BORDIGA SPA** has been a promoter of the exposition of San Paolo of Brazil Museum's paintings in Milan. It was the first Italian exhibition of 50 paintings by **Raffaello**, **Goya**, **Van Gogh** and **Picasso**, that usually are at San Paolo's Museum.



The exposition was located at the Royal Palace in Milan.

A successful work for a company of value.



# ART EXHIBITION AND MUSEUM MANAGEMENT

**GRUPPO BORDIGA SPA** has been a promoter of the exposition of Hayez's paintings at the Royal Palace in Milan.

Hayez was an Italian painter. The greatest exponent of historical romance.

Gruppo Bordiga promotes culture

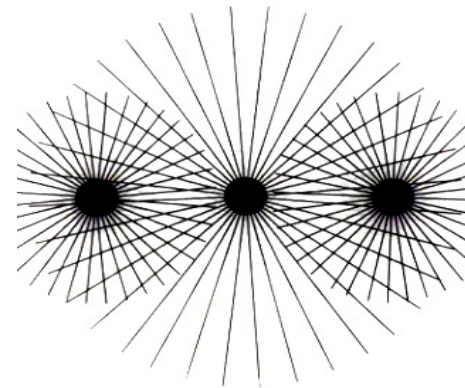
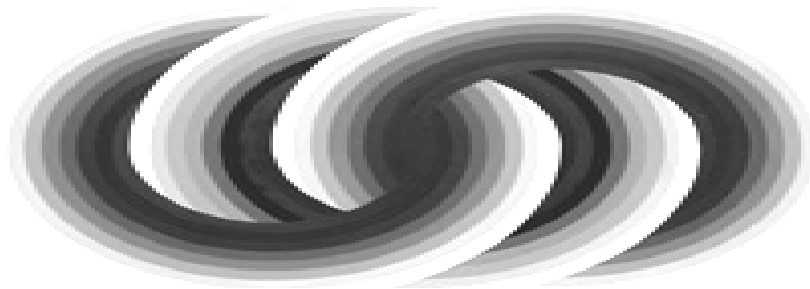
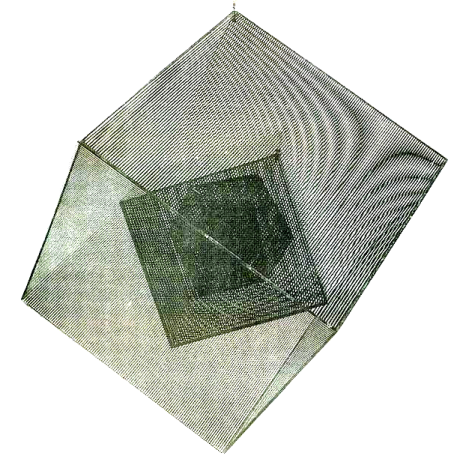


# ART EXHIBITION AND MUSEUM MANAGEMENT

**GRUPPO BORDIGA SPA** has been a promoter of the exposition of **Programmed and Kinetic Art** held at the Royal Palace, where object (artwork) and subject (viewer) are part of a common vision of the world and things.

Gruppo Bordiga promotes culture of any era:

- from archaeological finds in Egypt to Medieval art in Italy
- from Programmed and Kinetic Italian Art ('60) to Art Science Creativity in Photography
- from Islamic Art to contemporary Chinese Art



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