



PIEMONTE

THE BEST OF  
MADE IN ITALY



# OIL & GAS and ENERGY MEETINGS SERVICES, SYSTEMS and COMPONENTS from Piemonte – Italy

June 22, 2016

  
CENTRO ESTERO INTERNAZIONALIZZAZIONE  
PIEMONTE. Agency for Investments, Export and Tourism  
Promoted by Regione Piemonte and Chambers of Commerce



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[www.regione.piemonte.it/fsc/internazionalizzazione](http://www.regione.piemonte.it/fsc/internazionalizzazione)



# AGENDA

9:30 - 9:45

*Welcome Openings, Regione Piemonte & Torino Chamber of Commerce*

9:45 - 9:50

*Opening remarks, Mrs. Rosanna Viola, Piemonte Agency*

9:50 - 10:00

*Roots, tradition and current situation of Petroleum Engineering at Politecnico di Torino, Italy, Prof. Francesca Verga, Politecnico di Torino*

10:00 - 11:00

*A direct link to the Oil&Gas industry in the World - Foreign companies' presentations*

Mr. Vinod Areekkattu Manmadhan, **Galfar Engineering and Contracting, OMAN**

Mr. Rajendiran Balaji, **Micronel Global Engineers, INDIA**

Ms. Zuhail Tanyeri, **Renaissance Heavy Industries, TURKEY**

Mr. Ergun Aydin, **Teknopur, TURKEY**

Mr. Altug Bayram, **Promer Consultancy Engineering, TURKEY**

Mr. Ahmed Faissal, **Petroleum Technical Services, EGYPT**

Mr. Yuriy Zapryagalov, **Quarus Group – Lorex Division, RUSSIA**

11:00 - 11:30 *Q&A session & Shake hands*

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# Torino, Piemonte, Italy: tradition, innovation, competitiveness



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**CENTRO ESTERO INTERNAZIONALIZZAZIONE**  
**PIEMONTE** *Agency for Investments, Export and Tourism*

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# Piemonte: facts and figures



- 4.4 mln: **population** in Piemonte (7.3 % of the national total)
- over 2 million people in **Torino** (45% of the national total)

123.0 billion € : **GDP** (7.6% of the national total)

45.8 bln € : **Export** (11.1% of the national total)

442.862: **companies** (7,4% of the national total)

1.8 mln people: **employment** (8% of the national total)

104,100 students enrolled in Piemonte's universities (A.Y. 2013-2014)

R&D: universities, private and public R&D centres, labs, S&T Parks, Innovation Hubs, incubators

10 innovation hubs

1° Italian region for private investment in R&D

3° Italian region for hi-tech patents

- **Main markets:** Western EU, Eastern EU, Africa and Middle East
- **EU population:** over 506.5 mln
- **Eurozone population:** about 338.5 mln



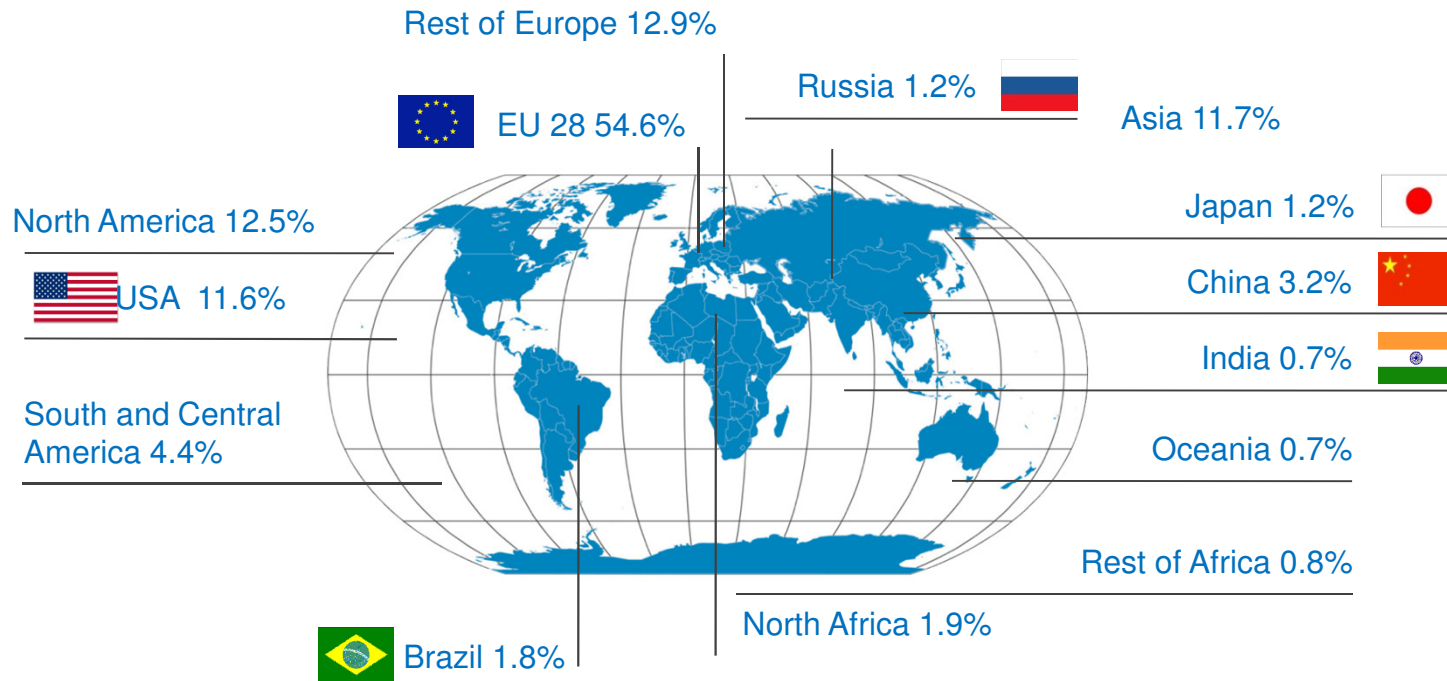
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# Export: destinations



Source: Unioncamere Piemonte on Istat data (2015)



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# Innovation culture

1st Italian region in terms of

✓ private investment in R&D: **20%** of the national total

**50%** of the region's European patents come from automotive companies.

6 out of 10 Italian Hubs with the highest degree of innovation are located in Piemonte:



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# Talent & Education

Main international organisations in Torino



Top level universities

Università di Torino  
Politecnico di Torino  
Università degli Studi del Piemonte Orientale  
Università di Scienze Gastronomiche



Advanced training centres



Collegio Carlo Alberto



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# Piemonte: unique capabilities and manufacturing variety



Piemonte,  
where  
craftsmanship  
means  
**excellence**,  
dreams become  
**research**,  
capabilities spell  
**innovation**

- Aerospace
- Automotive
- Automation and mechatronics
- Agrifood, wines spirits
- Construction, planning, contract
- Energy & environment
- Design & luxury
- Gold & jewellery
- Health, beauty & life sciences
- Information Communication Technology
- Infrastructure & Logistics
- Major appliances
- Nautical industry
- Publishing & graphics
- Railway
- Textile & textile machineries



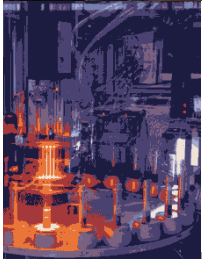
# Among our excellences



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# Piemonte Agency



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# Piemonte Agency: members

## Promoting members

- ✓ **Regione Piemonte (*Piemonte Region*)**
- ✓ **Unioncamere Piemonte (*Union of the Chambers of Commerce of Piemonte*)**
- ✓ **Chambers of Commerce of: Alessandria, Asti, Biella, Cuneo, Novara, Torino, Verbano-Cusio-Ossola, Vercelli**

## Other members

- ✓ Chamber of Commerce of Aosta
- ✓ City of Torino
- ✓ Metropolitan city of Torino
- ✓ Politechnic University of Torino
- ✓ University of Torino
- ✓ University of Alessandria, Novara, Vercelli





# Who we are



**attracting** foreign investment and creating new opportunities of qualified labour



**training** and strengthening the skills of local and foreign companies and institutions in the field of internationalization.



promoting the presence and the competitiveness of **local companies** on international markets



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# Inward Investment

The key reference point  
for foreign enterprises wishing to locate in Piemonte



We can

- ✓ **advise** on every aspect for starting and running a business in Piemonte
- ✓ **support** foreign companies which have already invested in Piemonte
- ✓ **provide** assistance at every stage of the investment project

Our  
services  
are

- ✓ free
- ✓ responsive
- ✓ tailored to your needs
- ✓ totally confidential



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# Business opportunities

Matching foreign companies' needs with the local production offer



We can

- ✓ carry out projects for partners' research
- ✓ provide tailored solutions
- ✓ build a structured framework to fit your needs
- ✓ suggest the best systemic solution
- ✓ provide a "Solution Manager"

Our approach

- ✓ free
- ✓ personalised
- ✓ targeted



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# Sectors and projects

Industrial sectors we mainly deal with

Aerospace			Infrastructure
Agrifood			Jewelry
Automotive			Major Appliances
Construction, Planning, Contract			Naval technologies
Design & Luxury			Mechatronics and Automation
Energy & Environment			Publishing, Graphics, Paper Industry
Health & Wellness Biotechnologies			Railway
Ict			Textile



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## Energy & Environment

- 1,300 companies with 33,000 employees
- 1,100 patents registered
- 4 Innovation hubs: Enermhy, Polibre, Polight, Polo innovazione del Lago Maggiore



# Energy & Environment Companies



asja



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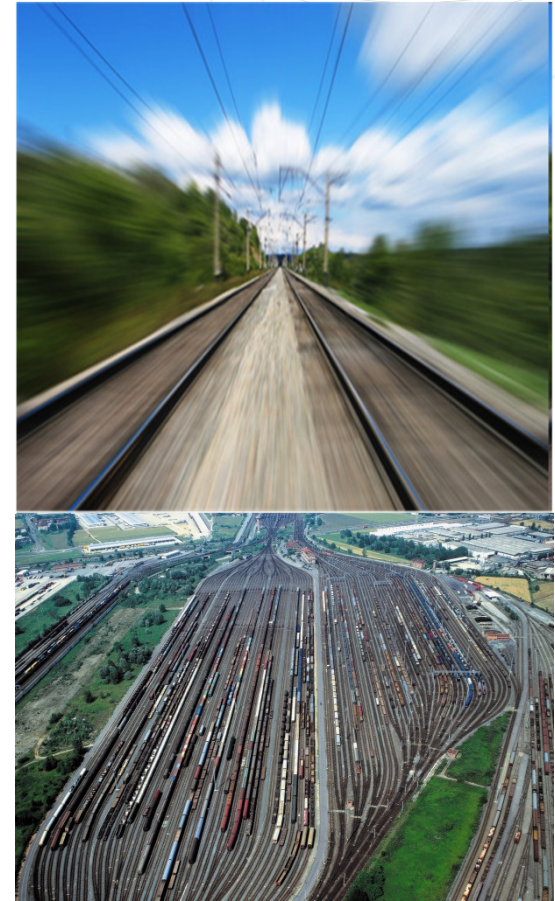


# Energy, Environment & Infrastructures



## Infrastructures

- **52,870** companies with **124,321** employees
- Piemonte's international vocation benefits from the region's favourable geographical position
- First-rate infrastructure network: approximately **900** km of motorways and **2,700** km of road of regional and interregional interest
- **2,000** km of railways and **75** railways stations
- **2** international airports and **3** national airports



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# Infrastructures companies



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# OIL & GAS in Piemonte



- Piemonte Agency has started in **2015** to work on OIL & GAS sector
- More than **80** outstanding companies have been identified in Piemonte!
- **90** B2B meetings have been organized during these 2 days!
- Work in progress....!



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# Piemonte: a successful choice



**Torino - Piemonte**  
**... where to connect to ...**

**Piemonte Agency**

Corso Regio Parco, 27

10152 Torino – Italy

tel. +39 011 6700511 fax +39 011 6965456

info@centroestero.org

**www.centroestero.org**

***... experience us ...***



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**OIL & GAS and ENERGY MEETINGS**  
***SERVICES, SYSTEMS and COMPONENTS from Piemonte - Italy***



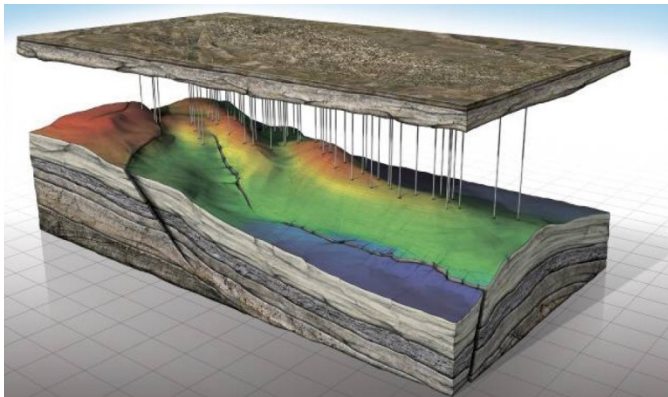
**ROOTS, TRADITION AND CURRENT SITUATION OF  
PETROLEUM ENGINEERING  
AT POLITECNICO DI TORINO, ITALY**

**Torino, 22<sup>nd</sup> June 2016**



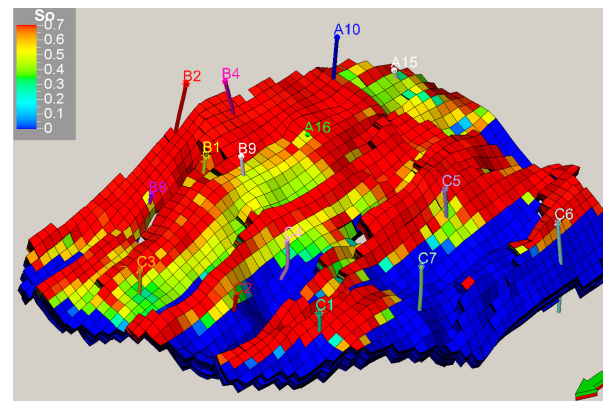
## ROOTS AND TRADITION

For historical reasons Politecnico di Torino has always had a strong mining school. **Petroleum engineering** stemmed from this school back in **1959**.



Initially, the program comprised courses in geology, reservoir engineering, well drilling and completion, production technologies. Shortly afterwards, the course in geophysics was introduced. In time the program has been enriched with fluid mechanics in porous media, geomechanics, HSE, economics & sustainability, soil remediation, and more.

Currently, Politecnico di Torino is the only academic institution in Italy where petroleum engineering exists at educational and research levels.







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engineering  
group**



## **ACTIVITIES**

- EDUCATION**
- RESEARCH**
- SUPPORT TO GOVERNAMENTAL INSTITUTIONS**
- COOPERATION WITH THE INDUSTRY**



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group**



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## **Master program in Petroleum Engineering (Msc)**

- 2-year program, entirely offered in English since 2008-09
- Students enrolled: 40-80 per year (>95% international students from more than 25 different countries)
- Training with software commonly used in the industry
- Contributions from visiting professors and experts from both academia and industry
- Option of internship within the curricular assessment
- Encouragement to develop final project with the industry
- Dedicated website and portal for students

<http://pep.polito.it/>

- Strong connection with the Society of Petroleum Engineers (SPE) and Society of Exploration Geophysicists (SEG)





## First year courses

Period (semester)	Code	Course Title	Credits	Professor
1	02MAZNA	Fluid mechanics in porous media	10	D. Viberti
1	02MAXNA	Petroleum geology	6	S. Lo Russo
1	02MBANA	Reclamation of polluted sites	6	M. Zanetti
1	02MAWNA	Resources and environmental economics	8	G. Blengini
2	01NJNNA	Exploration geophysics	8	L. Socco
2	01NJONA	Petroleum chemistry and technology	6	G. Gozzelino
2	02MAYNA	Risk analysis	8	A. Carpignano
2	01NJPNA	Structural mechanics/ Reservoir geomechanics	12	C. Surace / C. Deangeli



## Second year courses

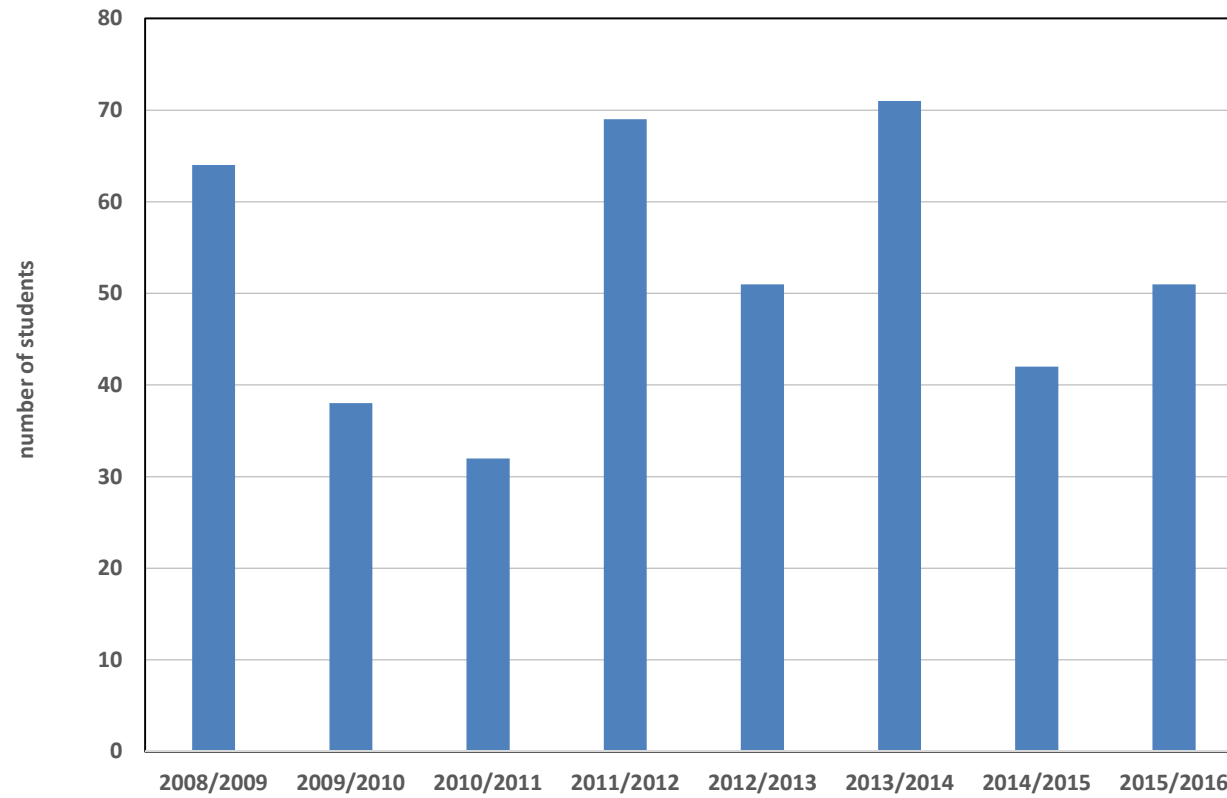
Period (semester)	Code	Course Title	Credits	Professor
1	01OUMNA	Oil and gas production/ Oil and gas Transport	6	B. Ruggeri/ G. Sassi
1	01MBCNA	Reservoir Engineering	12	F. Verga
1	01MBDNA	Well Drilling and Completion	10	R. Romagnoli
2		Professional Training and/or	12	
1-2		Elective Courses		
2		Thesis	16	

### Elective Courses

Code	Course Title	Credits	Professor
01OUQNA	Micro and nanotechnologies applied to environment and energy	8	C. Ricciardi
01OKGNA	Models and scenarios and energy planning	8	L. Savoldi
01MSYNA	Professional training	6-8	
	Oil& gas field development and production	6	G. De Ghetto

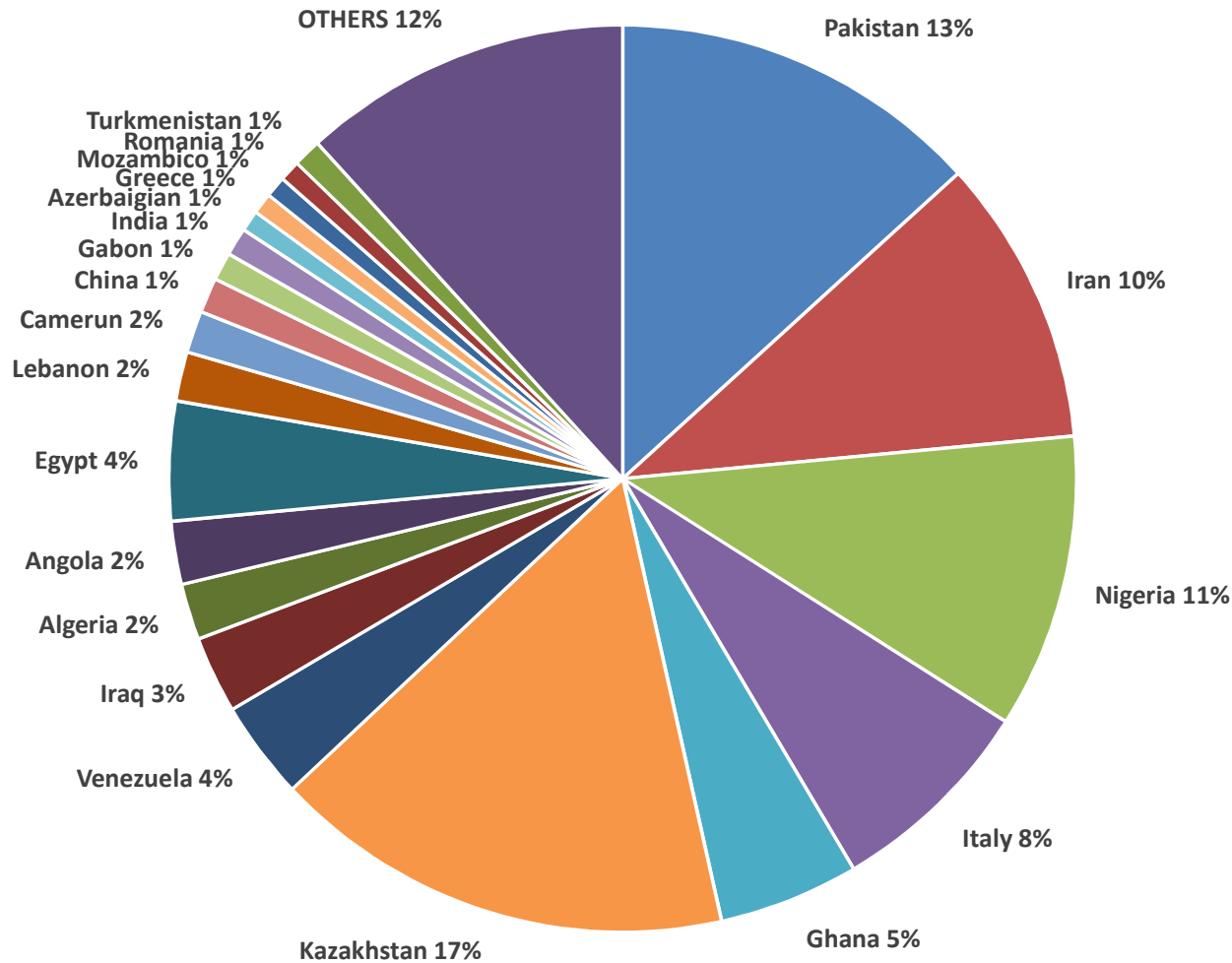


## Number of students





## More than 50 countries represented



### Others 12%

- |                       |             |
|-----------------------|-------------|
| Bangladesh            | Moldavia    |
| Brazil                | Nepal       |
| Côte d'Ivoire         | Russia      |
| Indonesia             | Singapore   |
| Republic of the Congo | Syria       |
| Togo                  | Spain       |
| Saudi Arabia          | Sri Lanka   |
| Argentina             | USA         |
| Ecuador               | Sudan       |
| Etiopia               | South Sudan |
| Germany               | Tanzania    |
| Kenya                 | Palestine   |
| Liberia               | East Timor  |
| Malaysia              | Uzbekistan  |
| Libia                 | Vietnam     |





## Available industrial software

- Petrel (reservoir static modeling), Schlumberger
- Eclipse (reservoir dynamic modeling), Schlumberger
- Reservoir Geomechanics (geomechanical modeling), Schlumberger
- FLAC (geomechanical modeling), Itasca Consulting
- Stars (reservoir dynamic modeling), Computer Modeling Group
- Saphir, Topaze, Rubis (well testing, decline curve analysis, reservoir simulation), Kappa
- Prosper (well inflow performance), Petroleum Experts
- Interpret (well testing), Paradigm
- OpenDetect (seismic interpretation)
- Geoprobe (seismic interpretation & geological modeling), Landmark
- PFC (Particle Flow Code) Itasca Consulting Group



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## **Professionalizing Master in Petroleum Engineering & Operations *in collaboration with ENI***

- II level 1-year program in cooperation with eni
- the master is offered in English and is active since 2003
- Students enrolled: 30-40 per year (25% international students)
- Training with software commonly used in the industry
- Contributions from technical experts from the industry
- 3-month internship in ENI as a curricular requirement
- Graduated students have been hired by ENI

<https://didattica.polito.it/master/petroleum/2016/introduction>



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A graphic element consisting of three horizontal red bars stacked vertically, with a black vertical bar extending downwards from the center of the bottom red bar.

## PhD program

- 3-year program focused on research, mainly in specific areas of reservoir geology and engineering
- Mostly international students
- Cooperation with foreign universities (Delft TU)



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## ACTIVITIES

- EDUCATION
- RESEARCH**
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## DEVELOPED RESEARCH PROJECTS

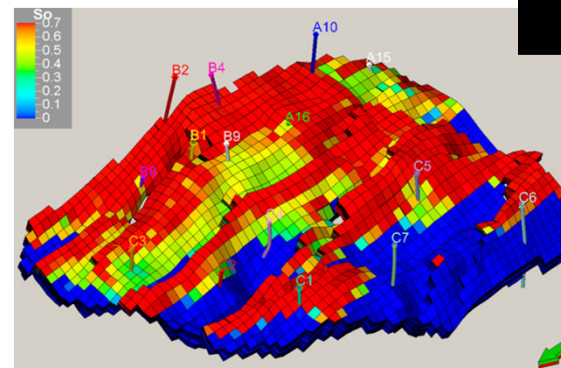
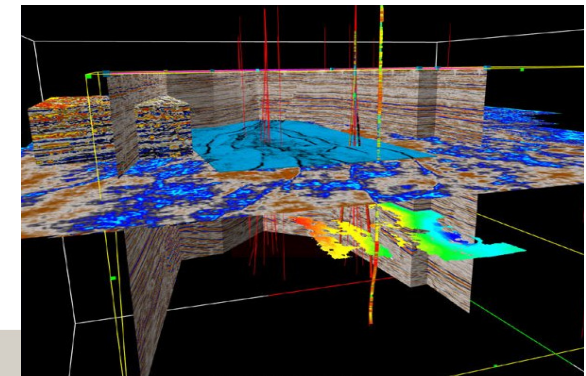
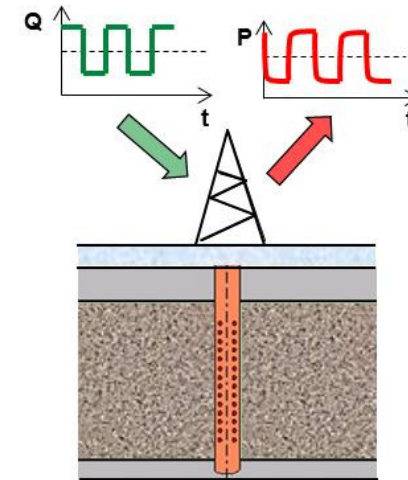
Over the last 17 years the group, closely cooperating with the oil industry, has developed research projects concerning several topics, such as:

- improved water flooding with core-shell technology
- unconventional well testing
- underground gas storage
- reservoir geomechanics
- evaluation of the uncertainties associated to petrophysical properties
- thin-layered reservoirs
- integration between reservoir geology and engineering
- assisted history matching
- fractured and unconventional reservoir characterization and simulation



## CURRENT MAIN RESEARCH AREAS

- ❑ Unconventional well testing
  - Injection testing (zero emissions)
  - Pulse testing
- ❑ Reservoir modeling and simulation
  - Reservoir connectivity
  - Basin & reservoir geology integration
- ❑ Underground Gas Storage
  - Delta-pressuring
  - Reservoir geomechanics
- ❑ Nanotechnologies:
  - Nano-sensors
  - Nano-tracers
  - Lab-on-chip
  - Energy harvesting





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**Politecnico di Torino**  
**SEADOG**

**Safety & Environmental Analysis Division for Oil & Gas**

**SUPPORT TO THE ITALIAN MINISTRY OF ECONOMIC DEVELOPMENT**  
***GENERAL DIRECTORATE for SAFETY***

Study of innovative approaches and definition of guide- lines to guarantee safe production from oil & gas off-shore reservoirs

- Implementation of Directive EU 30/2013 and definition of «Risk Tolerability Criteria»
- Safety and risk analysis procedures for platforms
- Reservoir characterization (risk mitigation)
- Monitoring systems







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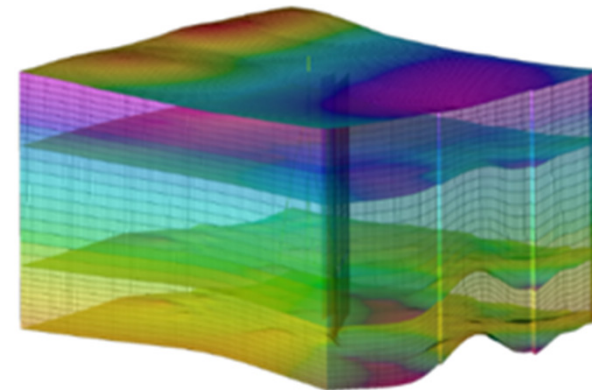
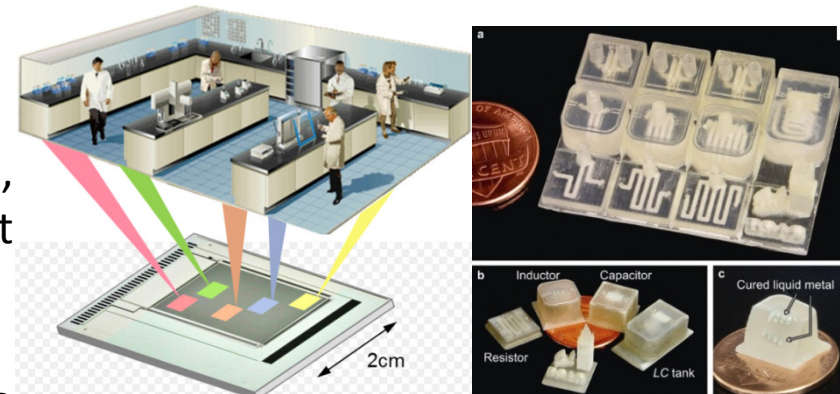


## ***PARTNERSHIP AGREEMENT WITH ENI***

In 2008, the first Partnership Agreement was signed between Eni and Politecnico di Torino and the *OSSERVATORIO TECNOLOGICO* was established to steer and coordinate all research activities. The partnership agreement has been recently renewed to confirm the strategic alliance between the two entities.

Additional targets:

- Suggest and/or acknowledge research topics, ideas and technological solutions of interest to Eni
- Select and monitor innovative ideas all the way through conception, project definition, implementation and even technology deployment
- Aggregate high-level skills within Politecnico di Torino to develop advanced/breakthrough research





## **COOPERATION WITH THE INDUSTRY**

- ❑ EDISON
  - Joint hydrocarbon laboratory for rock and fluid-rock interaction characterization (facilities are located nearby Torino)
  
- ❑ ENI
  - Research activities on innovative topics about the oil & gas industry and energy
  - Training of junior personnel and continuing education programs
  
- ❑ SNAM - STOGIT
  - Research activities on underground storage of natural gas
  - Training of junior personnel and continuing education programs

**GALFAR**

**ENGINEERING & CONTRACTING SAOG**

**CONSTRUCTION GIANT  
IN MIDDLE EAST**



# Galfar Group

## Subsidiary Companies

1. **GALFAR Engineering & Contracting India Pvt. Ltd**
2. **GALFAR Wasen Contracting Company, Libya**
3. **GALFAR Engineering & Contracting WLL, Kuwait**
4. **GALFAR Engineering & Contracting , Saudi Arabia (Branch )**
5. **Aspire Projects & Services LLC**
6. **Galfar Aspire Readymix LLC**
7. **Galfar Training Institute LLC**
8. **Al Khalij Heavy Equipment & Engineering LLC**
9. **International Water Treatment LLC (IWT)**
10. **Galfar Mott MacDonald LLC**

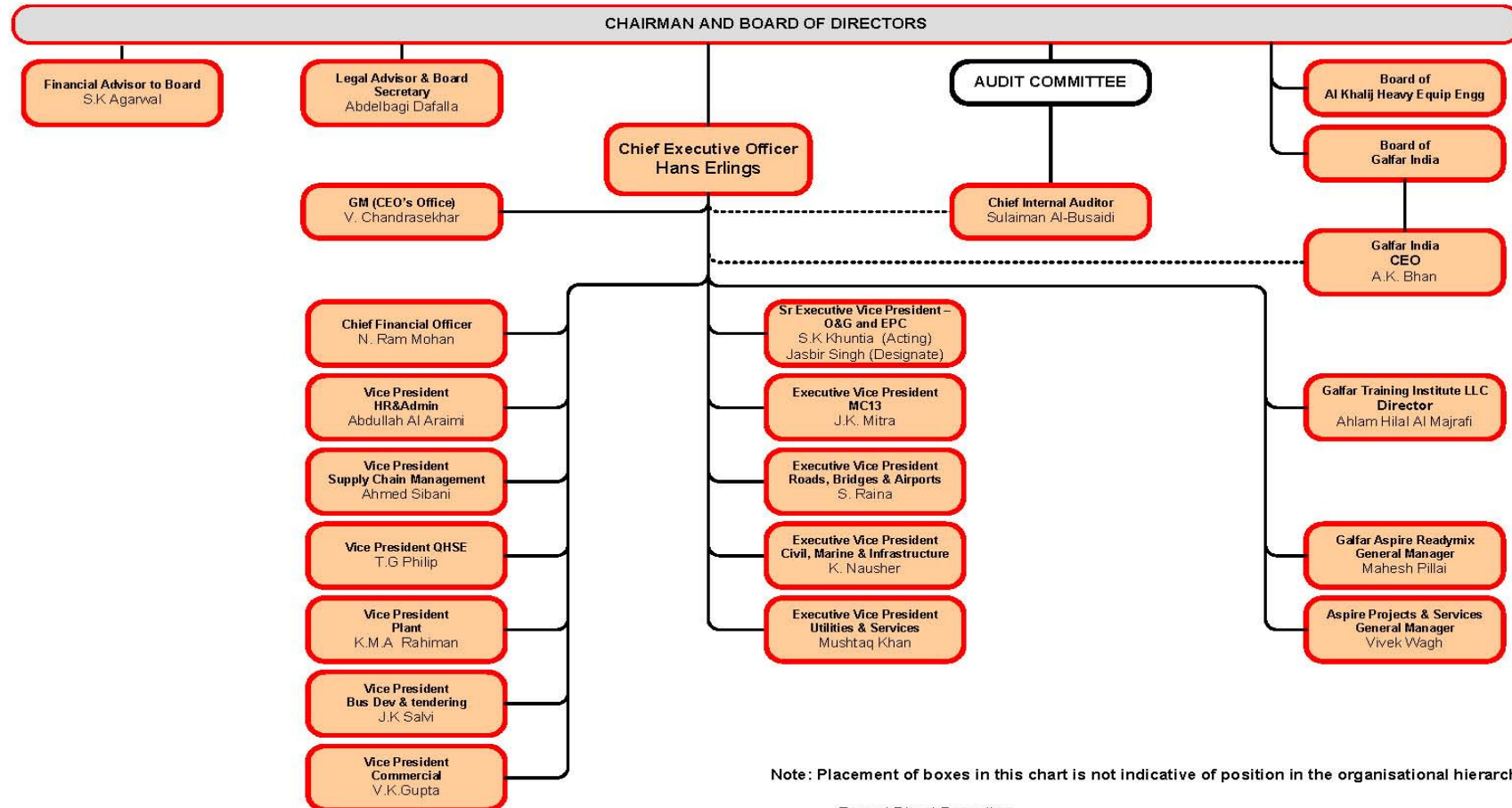
# Galfar Oman – at a Glance

- **Oman's Largest** Engineering, Procurement & Construction Contractor
- **Major Sectors** of Operation and Largest Contract Value ongoing Projects:-
  - ❖ **Oil & Gas** – Off Plot Delivery service (**USD 1,700+ M**)
  - ❖ **Roads and Bridges** - Batinah Expressway (**USD 452 M**)
    - ❖ Salalah International Airport (**USD 265 M**)
  - ❖ **Civil , Utilities & Services** – Royal Oman Police Hospital (**USD 556 M**)
- Turnover – Y2015:- **USD 848 Million**
- Manpower Strength :- **22,000 (Staff + Workmen)**
- Equipment – **8137 Nos**

# Corporate Organisation

Wednesday, July 01, 2015

Rev 01/2015



Note: Placement of boxes in this chart is not indicative of position in the organisational hierarchy

—— Formal Direct Reporting  
 - - - - Working relationship but not directly reporting

# Galfar Workload Position

**Galfar's current workload is around USD 2 Billion**

## **Major Projects Awarded in 2015 & 2016**

- **Yibal Khuff On-plot Construction (CPF)- USD 299 Million**
- **Royal Oman Police Hospital – USD 556 Million**
- **Offplot Delivery Contract – USD 312 Million**
- **BP Khazzan Gas Gathering Project – USD 110 Million**
- **Duqm Refinery Site Preparation Work – USD 85 Million**

# Key Leaders



**Chairman**

**Sheikh Dr. Salim Bin Said Al  
Fannah Al Araimi**



**Chief Executive Officer**

**Dr. Hans Erlings**

# Galfar – Verticals

## Oil & Gas

All Oil & Gas related works .  
Service and maintenance Contracts  
Up stream and down stream EPC Projects  
Downstream facilities turnarounds and maintenance contracts

## Roads and Bridges

Highways  
Expressways  
Bridges and Interchanges. Dams  
Hydraulic Structures  
Airport EPC Contracts  
Tunnels,  
Causeways  
Tech-span Bridges

## Civil & Marine Infrastructure

Commercial and Residential Bldgs, Hospitals  
Heavy civil for industrial structures  
Ports and harbors  
Water supply ,Sewage schemes  
Water treatment plants

## Utility & Services

MEP & HVAC, Power Transmission,  
Grid Stations and Distribution networks  
O & M Contracts for WTP, STPs,  
Water & Electric Distribution Networks



# Galfar – Subsidiaries

## Aspire Projects & Services LLC

Facility Management,  
HVAC Solution,  
Lighting Solution,  
BMS Implementation & Maintenance

## Galfar Aspire Ready mix LLC

Ready mix Concrete Supply,  
Precast Concrete Products Supply

## Al Khalij Heavy Equipments LLC

Heavy Equipment Leasing and Hiring

## Galfar Training Institute

Value added Training in skills like  
Project Management  
HSE  
Carpentry  
Mechanical  
Heavy Equipment Operation & Driving  
Many other Skilled Training

# GalFar – Facilities

## Steel Fabrication Facility

Manufacturing MSV Skids  
Pipe Rack, Platforms ,  
Crossovers ,Pipe supports  
and Sheds,  
ASME 'U' & 'R' Certification

## Carpentry & Joinery Facility

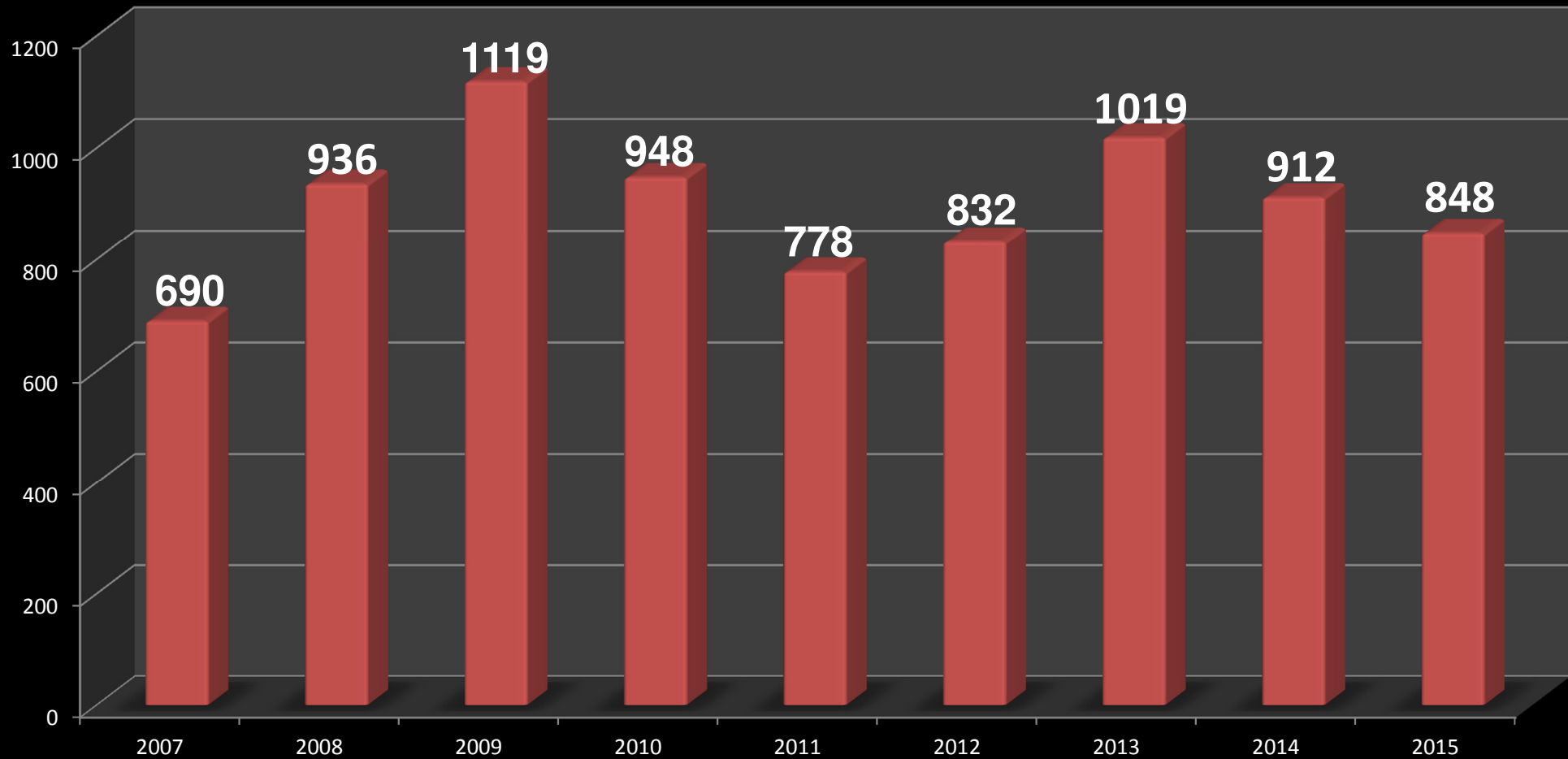
Porta Cabins,  
Interior Works,  
Furnitures and other Allied  
works for our Building  
Projects

## Aluminum Works Facility

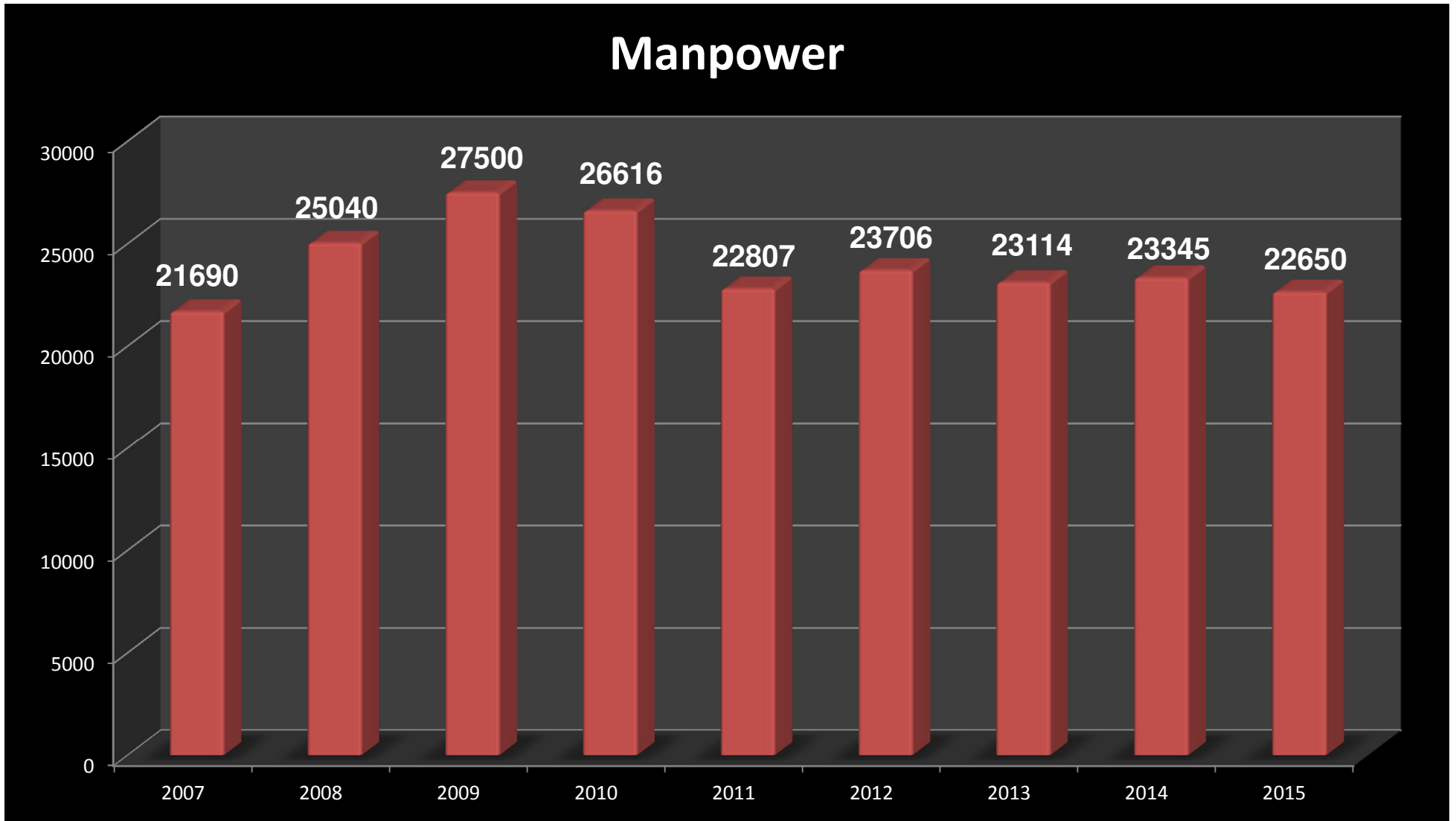
Doors & Windows,  
Partitions, False Ceiling and  
other allied works for our  
Building projects

# Financial Turnover

Turnover (in Million USD)



# Resources: Manpower



# Resources: Plant & Equipment





# Quality & HSE in Galfar is managed through a certified system compliant with ISO & OHSAS

DNV-GL

## MANAGEMENT SYSTEM CERTIFICATE

Certificate No: 117629-2012-AQ-ARE-RUA Initial certification date: 21, June, 2013 Valid: 21, June, 2013 - 21, June, 2018

This is to certify that the management system of

**GALFAR ENGINEERING & CONTRACTING SAOG**  
P.O. Box: 533, Postal code 100, Ghala Industrial Area, Muscat, Sultanate of Oman

has been found to conform to the Quality Management System standard:  
**ISO 9001:2008**

This certificate is valid for the following scope:  
**Project Management (EPC), Design & Detailed Engineering, Procurement, Fabrication, Construction, Installation, Modification & Maintenance Services for Flow lines (Gas / Oil / Water), Station Modification Works, Well Head Location Civil Works, Well Head Hook-Ups & Associated Piping, Electrical (HV / LV), Instrumentation (Control & Automation), Polyethylene Lining, Coating and Painting Works, Civil Engineering Facilities including Buildings & Structures, Glass Reinforced Epoxy (GRE) Works, Road Works, Process Plants, Cross Country Pipelines, Power Transmission & Distribution Systems (HV & LV), Process Control & HVAC Systems and Electro-Mechanical Services in the Petroleum, Petrochemical and Natural Gas Sectors.**

**Project Management, Procurement, Construction, Installation, Modification, Operation & Maintenance, Rehabilitation & Commissioning of Commercial, Public Utility, Industrial, Marine & Civil Engineering Facilities, Roads, Highways & Earthworks, Airports, Process Plants, Cross Country Pipelines, Power Transmission & Distribution Systems, Instrumentation, Process Control & HVAC Systems and Electro-Mechanical Services in the Infrastructure Development & Maintenance Sectors.**

Place and date:  
Dubai, 20, June 2013

For the issuing office:  
DNV GL - Business Assurance  
Floor 14th, Burjuman Tower,  
P.O. Box 11539, Dubai,  
United Arab Emirates  
+971 4 3026300

The IAF is a signatory to the IAF MLA

Abeer Ramin Hajj  
Management Representative

Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.  
ACQUISITION UNIT - DNV GL Business Assurance S.A., 2800 DRONINGEN, THE NETHERLANDS. TEL: +31(0)202922899. www.dnvgl.com

DNV-GL

## MANAGEMENT SYSTEM CERTIFICATE

Certificate No: 117629-2012-AE-ARE-RUA Initial certification date: 11, January, 2007 Valid: 11, June, 2013 - 21, June, 2018

This is to certify that the management system of

**GALFAR ENGINEERING & CONTRACTING SAOG**  
P.O. Box: 533, Postal code 100, Ghala Industrial Area, Muscat, Sultanate of Oman

has been found to conform to the Environmental Management System standard:  
**ISO 14001:2004**

This certificate is valid for the following scope:  
**Project Management (EPC), Design & Detailed Engineering, Procurement, Fabrication, Construction, Installation, Modification & Maintenance Services for Flow lines (Gas / Oil / Water), Station Modification Works, Well Head Location Civil Works, Well Head Hook-Ups & Associated Piping, Electrical (HV / LV), Instrumentation (Control & Automation), Polyethylene Lining, Coating and Painting Works, Civil Engineering Facilities including Buildings & Structures, Glass Reinforced Epoxy (GRE) Works, Road Works, Process Plants, Cross Country Pipelines, Power Transmission & Distribution Systems (HV & LV), Process Control & HVAC Systems and Electro-Mechanical Services in the Petroleum, Petrochemical and Natural Gas Sectors.**

**Project Management, Procurement, Construction, Installation, Modification, Operation & Maintenance, Rehabilitation & Commissioning of Commercial, Public Utility, Industrial, Marine & Civil Engineering Facilities, Roads, Highways & Earthworks, Airports, Process Plants, Cross Country Pipelines, Power Transmission & Distribution Systems, Instrumentation, Process Control & HVAC Systems and Electro-Mechanical Services in the Infrastructure Development & Maintenance Sectors.**

Place and date:  
Dubai, 20, June 2013

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DNV-GL

## MANAGEMENT SYSTEM CERTIFICATE

Certificate No: 117624-2012-APRO-ARE-RUA Initial certification date: 11, January, 2007 Valid: 21, June, 2013 - 21, June, 2018

This is to certify that the management system of

**GALFAR ENGINEERING & CONTRACTING SAOG**  
P.O. Box: 533, Postal code 100, Ghala Industrial Area, Muscat, Sultanate of Oman

has been found to conform to the Occupational Health and Safety Management System standard:  
**OHSAS 18001:2007**

This certificate is valid for the following scope:  
**Project Management (EPC), Design & Detailed Engineering, Procurement, Fabrication, Construction, Installation, Modification & Maintenance Services for Flow lines (Gas / Oil / Water), Station Modification Works, Well Head Location Civil Works, Well Head Hook-Ups & Associated Piping, Electrical (HV / LV), Instrumentation (Control & Automation), Polyethylene Lining, Coating and Painting Works, Civil Engineering Facilities including Buildings & Structures, Glass Reinforced Epoxy (GRE) Works, Road Works, Process Plants, Cross Country Pipelines, Power Transmission & Distribution Systems (HV & LV), Process Control & HVAC Systems and Electro-Mechanical Services in the Petroleum, Petrochemical and Natural Gas Sectors.**

**Project Management, Procurement, Construction, Installation, Modification, Operation & Maintenance, Rehabilitation & Commissioning of Commercial, Public Utility, Industrial, Marine & Civil Engineering Facilities, Roads, Highways & Earthworks, Airports, Process Plants, Cross Country Pipelines, Power Transmission & Distribution Systems, Instrumentation, Process Control & HVAC Systems and Electro-Mechanical Services in the Infrastructure Development & Maintenance Sectors.**

Place and date:  
Dubai, 20, June 2013

For the issuing office:  
DNV GL - Business Assurance  
Floor 14th, Burjuman Tower,  
P.O. Box 11539, Dubai,  
United Arab Emirates  
+971 4 3026300

The IAF is a signatory to the IAF MLA

Abeer Ramin Hajj  
Management Representative

Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.  
ACQUISITION UNIT - DNV GL Business Assurance S.A., 2800 DRONINGEN, THE NETHERLANDS. TEL: +31(0)202922899. www.dnvgl.com

## DNV BUSINESS ASSURANCE MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 148631-2014-Q-ARE-DNV

This is to certify that

**Galfar Engineering & Contracting SAOG**

P.O. BOX:533, Muscat, Postal Code 100, Sultanate of Oman

has been found to conform to the Management System Standard:

**ISO/TS 29001:2010**

This certificate is valid concerning all activities related to:

Project Management (EPC), Design & Detailed Engineering, Procurement, Fabrication, Construction, Installation, Modification & Maintenance Services for Flow lines (Gas / Oil / Water), Station Modification Works, Well Head Location Civil Works, Well Head Hook-Ups & Associated Piping, Electrical (HV / LV), Instrumentation (Control & Automation), Polyethylene Lining, Coating and Painting Works, Civil Engineering Facilities including Buildings & Structures, Glass Reinforced Epoxy (GRE) Works, Road Works, Process Plants, Cross Country Pipelines, Power Transmission & Distribution Systems (HV & LV), Process Control & HVAC Systems and Electro-Mechanical Services in the Petroleum, Petrochemical and Natural Gas Sectors.

Initial Certification date:  
01 March 2011

This Certificate is valid until:  
01 March 2017

The audit has been performed under the supervision of:

Mansour Mohd Al Qasab  
Lead Auditor

Place and date:  
Dubai, 02 February 2014

For the Unit:  
DNV BUSINESS ASSURANCE  
BUSINESS ASSURANCE EAST

Abeer Ramin Hajj  
Management Representative

Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.



# Our Occupational Health & Safety Policies

## سياسة الصحة والسلامة والبيئة HEALTH, SAFETY AND ENVIRONMENT POLICY

Galfar Engineering & Contracting SAOG is committed to protect its employees and other stakeholders (e.g. Customers, Subcontractors, Suppliers and the Public) from injuries & ill health, prevent damages to assets and minimize impact on the environment in the course of its business.

Effective implementation, regular review and continual improvement of HSE Management System are the means to achieve this commitment.

Galfar shall:

- Require its managers to demonstrate commitment to Health, Safety and Environment protection and to implement program(s) to develop & sustain a generative culture in which HSE is embedded in all the decisions & actions.
- Identify & manage the hazards involved in its activities & services proactively.
- Comply with the applicable legal & other requirements of the country in which it operates and contract requirements of its customers to whom the Company provides its services.
- Establish improvement objectives, targets / limits at appropriate levels & frequencies and monitor performance on a regular basis.
- Ensure availability of adequate resources to achieve its HSE objectives.
- Provide all employees with necessary information, training and supervision to ensure that the applicable requirements are complied with, and hold them accountable for compliance with applicable HSE requirements.
- Encourage effective communication & consultation between management, employees & other stakeholders to promote safe behavior and to continually improve HSE awareness and compliance.
- Provide & maintain a safe & healthy work environment, safe vehicles, tools, equipment, machinery & other resources and systems & standards of work.
- Implement measures to protect employees from occupational health hazards and to promote their physical, mental & social wellbeing.
- Provide all employees with appropriate Personal Protective Equipment (PPE) and ensure they wear it.
- Prevent environment pollution, optimize consumption of fuel, electricity, water & other natural resources, reduce generation of wastes and ensure their disposal in a responsible manner.
- Report & investigate incidents, including near misses & non-conformances and initiate actions to prevent recurrence.
- Empower all employees to work only when it is safe.

This policy will be communicated to all employees of the Company & others working on its behalf and made accessible to all interested parties & to the public.

  
Hans Erlings  
Chief Executive Officer  
01 January 2015  
An ISO 9001, 29001, OHSAS 18001 and ISO 14001 Certified Company

حلفار للهندسة والمقاولات ش.م.ج. ع ملتزمة بحماية موظفيها وكافة أصحاب المصلحة (على سبيل المثال العملاء المقاولون من الناظرين والموردين والمجهرين) من الإصابات والأمراض المهنية. بجانب حماية الأصول من الضرر وتقليل الأثر على البيئة في مجرى أعمال الشركة.

التطبيق الفعال والمراجعة المنتظمة والتحسين المستمر لنظام إدارة الصحة والسلامة والبيئة وتغيير وسائل تحقيق هذا الإلتزام.

في سبيل الإلتزام بذلك تقوم شركة حلفار بما يلي:-

- تطلب الشركة من مديريها إظهار التزامهم بحماية الصحة والسلامة والبيئة وتطبيق البرنامج / البرامج خلق والحفاظ ثقافة تدرج فيها مسائل الصحة والسلامة والبيئة في كافة القرارات والإجراءات.
- تحديد وإدارة المخاطر التي تنطوي عليها أنشطة وخدمات الشركة بشكل استباقي.
- الالتزام بالمتطلبات القانونية للعمليات بها والأخرى للدولة التي تعمل بها الشركة ومتطلبات عقود العملاء الذين تقوم بخدمتهم.
- خلق تحسينات على الأهداف / المرامي / الحدود بمسويات ومزار مناسبة، ومراقبة الأداء على أساس منتظم
- ضمان توفر الموارد الكافية لتحقيق أهدافها المتعلقة بالصحة والسلامة والبيئة
- توفير كافة المعلومات اللازمة للموظفين والتدريب والإشراف والإمتياز الإلتزام بالمتطلبات المعمول بها وتحميلهم مسؤولية الإلتزام بالمتطلبات الصحة والسلامة والبيئة المعمول بها.
- تشجيع التواصل الفعال والتشاور بين الإدارة والموظفين وأصحاب المصلحة الآخرين للترويج لسلوك الآمن والتحسين المستمر للوعي بمسائل الصحة والسلامة والبيئة والإلتزام.
- توفير والحفاظ على بيئة العمل الآمنة والصحية للمركبات الآمنة. الأدوات المعدات. الأجهزة والموارد والنظم الأخرى ومعايير العمل.
- تطبيق الإجراءات لقياس الموظفين من المخاطر الصحية المهنية والترويج لنصحة البدنية والعقلية والاجتماعية لهم.
- توفير أدوات الحماية الشخصية لكافة الموظفين وضمان استخدامهاهم لها
- منع التلوث البيئي، ترشيد إستهلاك الوقود، المياه والموارد الطبيعية الأخرى، وتقليل الخلفات وضمان التخلص منها بطريقة مسؤولة.
- التشجيع على التبليغ والتحقيق في الحوادث بما في ذلك الحوادث التي لم يالكاد نفايتها والشرح في إجراءات منع تكرارها.
- تمكين كافة الموظفين من العمل في بيئة آمنة.

سوف يتم تعريف كافة موظفي الشركة والآخرين الذين يعملون نيابة عن الشركة وكافة الأطراف الثالثة والمجهرين بهذه السياسة.

  
Hans Erlings  
Chief Executive Officer  
01 January 2015  
An ISO 9001, 29001, OHSAS 18001 and ISO 14001 Certified Company

## سياسة السلامة على الطريق ROAD SAFETY POLICY

Galfar Engineering & Contracting SAOG recognizes the impact of Road Traffic Accidents in its business, the community & country in which it operates and is committed to reduce such impact through deliberate efforts.

To abide by the above and achieve continual improvement in Road Safety performance, Galfar will:

- Comply with the applicable legal & other requirements of the country in which it operates and contract requirements of its customers to whom the Company provides its services.
- Deploy vehicle / equipment that are suitable to the requirement and after confirming its safe working condition.
- Adhere to the maintenance standards stipulated by the vehicle / equipment manufacturers.
- Provide drivers / operators & others with necessary information / training to ensure safe performance and hold them accountable for compliance with applicable requirements.
- Emphasize behaviour, attitude & culture of drivers / operators, passengers and other road users as factors that can influence Road Safety.
- Provide In-Vehicle Monitoring System (IVMS) in its operational vehicles considering the risk involved, as a tool to analyze and implement actions to promote safe driving behavior.
- Conform to the applicable requirements on load safety and restraining.
- Liaise with the authorities concerned on issues related to road, environment and improving Road Safety performance as & when required.
- Focus continuously on optimizing kilometers driven, thus minimizing the road exposure.
- Plan & schedule realistic driving hours to follow-up & complete journeys safely.
- Initiate actions against non-compliant situations.

  
Hans Erlings  
Chief Executive Officer  
01 January 2015  
An ISO 9001, 29001, OHSAS 18001 and ISO 14001 Certified Company

تفر شركة حلفار للهندسة والمقاولات ش.م.ج.ع باثر الحوادث الزورية على أعمالها والمجتمع والدولة التي تقوم فيها بأعمال. كما أن الشركة ملتزمة بتخفيف هذا الأثر من خلال جهود حثيئة في هذا الجانب .

وللإلتزام بما ذكر أعلاه، وتحقيق التحسين المستمر في أداء السلامة على الطريق، سوف تقوم حلفار بالآتي:-

- الإلتزام بالقوانين المعمول بها والمتطلبات الأخرى للدولة التي تقوم الشركة فيها بأعمال بجانب متطلبات عقود العملاء الذين تقدم لهم الشركة خدماتها.
- توزيع ونشر المركبات / المعدات التي تناسب ما هو مطلوب ويعد التأكيد من طرف العمل الآمنة لتلك المركبات / المعدات.
- التفكير في الصيانة التي تنص عليها الجهات المختصة للمركبات / المعدات.
- توفير المعلومات / التدريب الضروري للسائقين / مشغلي المعدات لضمان الآداء الآمن وتحصيلهم مسؤولية الإلتزام بالمتطلبات المعمول بها.
- التركيز على السلوك ومواقف وثقافة السائقين / مشغلي المعدات، الركاب ومستخدمي الطريق الآخرين كعوامل يمكن أن تؤثر على السلامة على الطريق.
- توفير نظام الرقابة الداخلي للمركبات في مركبات الشركة على ضوء المخاطر المرتبطة. كأداة لتحليل وتطبيق الإجراءات للترويج لسلوك القيادة الآمنة.
- الإلتزام بالمتطلبات المعمول بها في سلامة الحمولة وحودها.
- التواصل مع السلطات المختصة في مسائل السلامة على الطريق، والبيئة وتحسين أداء السلامة على الطريق، متى ما كان مطلوباً.
- التركيز باستمرار على ترشيد الكيلومترات المسافة بركبات الشركة، وبالتالي تقليل القيادة على الطريق.
- التخطيط والجدولة الفعلية لساعات المسافة لتلبية وإكمال الرحلة بطريقة آمنة.
- وضع إجراءات حال حالات عدم الإلتزام.

## سياسة المشروبات الكحولية، الخدراوات والتدخين ALCOHOL, DRUGS AND SMOKING POLICY

Galfar Engineering & Contracting SAOG desires:

- Our employees to be energetic, healthy and fit for work and
- Our worksites and offices safe, healthy and pollution free.

Alcohol, drugs and smoking are medically proven to be injurious to health. Usage of alcohol and drugs reduce employees' ability to carryout their duties in a responsible, safe and efficient manner. Drugs, in this context exclude those prescribed by a medical doctor.


The Company prohibits the use of drugs and alcohol by other employees whilst on duty including abuse of other chemical substances contrary to its intended purposes. Employees under the influence of alcohol and drugs are not allowed to enter worksites or offices or discharge duties on behalf of the company. Illegal possession and / or sale of alcohol, drugs and narcotics in places of work or accommodation will be dealt with as per the provisions of law.

Smoking is not allowed in any of our worksites, offices and living accommodations, apart from designated areas earmarked for the same. Smoking in company owned vehicles and equipment is strictly prohibited.

To assist our employees we will conduct awareness campaigns that explain the debilitating effects of alcohol, tobacco and drugs use on the mind and body. Employees with an alcohol or drugs problem will be offered professional help and counseling to wean them away from their addiction. Alcohol & drug addiction shall also be a part of our medical fitness protocols.

Company authorizes surprise checks in its worksites, offices, accommodations and other facilities to verify conformance to this policy.

Disciplinary action will be taken against violators of this policy. Driving company vehicles under the influence of drugs or alcohol will lead to immediate dismissal.

  
Hans Erlings  
Chief Executive Officer  
01 January 2015  
An ISO 9001, 29001, OHSAS 18001 and ISO 14001 Certified Company

- ترغب حلفار للهندسة والمقاولات ش.م.ج.ع في:-
- أن يتمتع العاملون بالشركة بأخماس. الصحة واللائمة للعمل.
- أن تكون مواقع الشركة ومكانها آمنة. صحية وعالية من التلوث

لقد ثبت طبيياً بأن المشروبات الكحولية والخدراوات والتدخين لها أضرار صحية. كما أن تعاطي المشروبات الكحولية والخدراوات يقلل من قدرة الموظف على القيام بواجباتهم بطريقة مستنولة. آمنة وفعالة. يستثنى من المواد الخدرة تلك التي يوصى بها من قبل الطبيب.

خطر الشركة على موظفيها إستخدام الخدراوات والمشروبات الكحولية أثناء أداء واجباتهم بما في ذلك سوء إستخدام المواد الكيميائية الأخرى بخلاف الغرض المحد لها. الموظفون الذين يتكونون تحت تأثير الكحول والخدراوات لا يسمح لهم بدخول مواقع العمل أو مكاتب الشركة أو القيام بواجباتهم نيابة عن الشركة الحياة غير القانونية و / أو بيع المشروبات الكحولية الخدراوات والمؤثرات العقلية الأخرى في أماكن العمل أو السكن سوف يتم التعامل معها بموجب أحكام القانون.

لا يسمح بالتدخين في أي من مواقع العمل أو المكاتب أو السكن للشركة. باستثناء في الأماكن المخصصة لذلك. كما يمنع منعاً باتاً التدخين في مركبات الشركة والياتها.

ولمساعدة موظفيها. نقوم بتنظيم حملات توعية توضح الأثار الضارة للمشروبات الكحولية. وإستخدام التبغ والخدراوات على العقل والجسم. الموظفون الذين يعانون من مشكلات تتعلق بتعاطي المشروبات الكحولية أو الخدراوات سوف توفر لهم مساعدة وإستشارة مهنية لمساعدتهم في التخلص من مشكلة الإدمان. الإدمان على المشروبات الكحولية والخدراوات يجب أن يكون جزء من إجراءاتنا الطبية لتحديد اللائمة للعمل.

كما تصرح الشركة القيام بتفتيش مفاجئ في مواقع العمل المكاتب والمساكن والمرافق الأخرى للتأكد من الإلتزام بهذه السياسة.

سوف يتم إتخاذ الإجراء التأديبي ضد المخالفين لهذه السياسة. قيادة مركبات الشركة تحت تأثير الخدراوات أو المشروبات الكحولية سوف يؤدي إلى الفصل عن الخدمة بالشركة.

# Our Projects

# Oil & Gas

# Harweel Cluster Phase 2

EPC Contractor: Petrofac, Sharjah, Sub Contractor : Galfar

EPC for Utilities : Galfar

USD 303 Million



## Harweel Cluster Phase 2

**Date of Commencement:** December 2005  
**Date of Completion:** June 2011  
**Date of Production:** April 2012

## Scope of Civil Works

1. Structural Steel Work	-	8,153 Ton
2. Excavation	-	81,809 m3
3. Earth Filling	-	54,794 m3
4. Cable Trench	-	85.0 km
5. GRE Flow line trench etc.	-	76,500 m
6. P . C . C.	-	3,686 m3
7. R . C . C.	-	20,870 m3
8. Concrete Paving	-	9,015 m2
9. Fencing	-	22,737 m
10. Graded Road	-	20.6 km
11. EPC of R.C.C. Building ( 5 nos.)	-	3,350 m2
12. Steel Shelters/ sun shades	-	99 nos.



# Off-Plot Delivery Contract

Client: PDO

USD 1700 Million

Scope of Works



## Off Plot Delivery Contract

Date of Commencement: May 2005

Date of Completion : Mar 2018

Design, Procurement, Construction & Testing and pre-commissioning of

- ✓ Flow Lines,
- ✓ Pipelines,
- ✓ Well Hook-up,
- ✓ Overhead Electrical Line to Wells,
- ✓ Construction rig pad locations
- ✓ Associated Civil/Electrical / Instrumentation Installation

in North Oman Fields:

1. Yibal,
2. Qarn Alam
3. Lekhwair
4. Fahud

# Off-Plot Delivery Contract

Client: PDO

USD 1700 Million

Noteworthy Achievements: From 2005 - 2012



## Off Plot Delivery Contract

Date of Commencement: May 2005

Date of Completion : Mar 2018

### Locations Handed over

- ✓ Oil Locations - 1066 nos
- ✓ Gas Locations – 172 nos

### Rig Flowlines & Integrity

- ✓ Oil Flowline Hook-up - 903 Nos
- ✓ Water Injection Flowlines – 197 Nos
- ✓ Integrity Flowlines Replacement – 617 Nos
- ✓ Integrity Hook-up Replacement – 303 Nos
- ✓ 10.3 Mil. Inch Dia. (5000 KM FL) Total welded during Contract Period

### Gas Wells Flow Line & Hook Up

- ✓ Wells Commissioned – 159 Nos
- ✓ DSS Line Welded - 182 Kms



# Yibal Khuff On-plot Works

Client: PDO

USD 299 Million



Scope of Works

Construction of new Central Processing Facility in Yibal khuff area which includes Civil, Mechanical, Electrical & Instrumentation works.

## Yibal Khuff Onplot Project

Date of Commencement: Mar 2016

Date of Completion: Jun 2020

# Gas Gathering Project at Khazaan

**Client: BP**

**USD 110 Million**

**Scope of Works**



## Khazaan Gas Gathering Project

**Date of Commencement: Apr 2015**

**Date of Exp. Completion: Jun 2018**

**The Scope of Work included:**

Construction, pre-commissioning and supporting commissioning of:

- i) Main Headers (16" to 24" Duplex);**
- ii) Sub Headers (12" to 16" Duplex)**
- ii) Flow Lines (6" and 8" - Duplex);**
- iv) Above ground Manifolds/Midline Connections;**
- v) Tie-ins to Well Pad facilities (56 off);**
- vi) Tie-ins to CPF including temporary pigging station;**
- vii) Associated Fiber Optic Cable (FOC) system and instrumentation;**
- viii) Installation of 3.3kV Electrical power cable;**
- ix) Installation of temporary and permanent Cathodic Protection Systems.**

**Total 35 Lines which includes Main headers, Sub Header & Flow lines**

**Main Headers (16" to 24") - 100 KM**

**Sub Headers (10" to 12") - 110 KM**

**Flow Lines (6" and 8")- 30KM**

**Well Hook Ups - 56 Nos**

**FOC Installation - 451KM**

**Cathodic Protection of All Pipelines**

# Roads & Bridges

# Muscat Expressway Project

USD 340 Million

Scope of Works



## Muscat Expressway Project

Date of Commencement: September 2005

Date of Completion: September 2010

The Expressway consists of:

- ✓ **6 Lanes of 54 Km Expressway**
- ✓ **13 Interchanges**
- ✓ **6 Flyovers**
- ✓ **4 Underpasses**
- ✓ **133 Box Culverts**
- ✓ **7 Tech Spans**
- ✓ **11 Roundabouts**
- ✓ **176,812 Sqm of MSE Wall**



# Muscat Expressway Project



**Flyovers  
- 6 nos**



**Interchanges—  
13 nos**



# Bousher – Amerat Road Project

USD 65 Million



## Bousher – Amerat Road

Date of Commencement: July 2008

Date of Completion: June 2011

## Scope of Works

- ✓ **14 Km dual Carriageway**
- ✓ **2 Concrete Bridges**
- ✓ **Slope Protection**
- ✓ **Cross Drainage**
- ✓ **Guard Rails & Safety Barriers**
- ✓ **Guniting Works**



# Hasik Shuwamiya Road Project

USD 288 Million

## Scope of Works



### Hasik Shuwamiya Road Project

Date of Commencement: October 2007  
Date of Completion: May 2014

#### General Scope:

The original scope of the project is to construct about **93kms of asphalt road** between Hasik and Ash-Shuwaymiyah in North Eastern region of the Governorate of Dhofar.

#### Major Items of Work:

<b>Bituminous Courses</b>	: 61,891 Cum
<b>Roadway Excavation to Embankment</b>	: 5,315,550 Cum
<b>Roadway Excavation to Waste</b>	: 7,519,300 Cum
<b>Structural Excavation</b>	: 368,322 Cum
<b>GSB &amp; ABC</b>	: 242,750 Cum
<b>Concrete for Bridges/Culverts/Berm</b>	: 130,320 Cum
<b>Concrete for R.C.C Retaining Wall</b>	: 36,420 Cum
<b>Reinforced Earth Wall - Alternate to RW</b>	: 26,295 Sqm
<b>HYSD Reinforcement</b>	: 10,967 MT
<b>Loose Riprap</b>	: 16,895 Cum
<b>Mortared Riprap</b>	: 78,430 Cum
<b>Guard Rail (Steel Safety Barriers)</b>	: 17,519 LM
<b>Concrete Safety Barriers</b>	: 29,065 LM

# Buildings & Marine Infrastructure

# Royal Oman Police Hospital

USD 556 Million



## ROP Hospital Project

Date of Commencement: May 2015

Date of Completion: May 2018

## Scope of Works

- ✓ Construction and commissioning of a main hospital building and associated ancillary buildings along with all relevant external works. The hospital will accommodate 458 beds and approximately 172,785m<sup>2</sup> of program space with three levels of basements. External works and landscape cover 425,805 m<sup>2</sup>. 1. Hospital: 3 Basements + 6 Storey (Offices & Staff Support facilities)
- ✓ Gross Area :
- ✓ Below Grade: 95,390 sqm
- ✓ Above Grade: 77,395 sqm
- ✓ Forensic Department Building-1770 sqm

# Ship Repair Yard & Duqm Drydock Project

Construction Project(Galfar-Daewoo Consortium)

USD 179 Million

Scope of Works



## Duqm Drydock Project

Date of Commencement: April 2008

Date of Completion: June 2011

- ✓ **Ground Investigation & Civil Infrastructure**
- ✓ **Two (2) Dry Docks (410m x 95m x 14.2m ) & ( 410m x80m x 14.2m), Quays, Seawalls, crane foundations, Cofferdam, road & other pavements, drainage system & other subsidiary facilities**
- ✓ **Buildings**
- ✓ **54 – Buildings - Main gate, Main Office, Production office, Restaurants, Worker’s site office, Dormitory(14 Nos), Guest room, training center, Sports center, Workshops, Plant shops, Substations. Total Built-up area of all buildings = 97,986 sqm**
- ✓ **All Electromechanical Works**



# Central Prison – Sumail

## Civil, MEP, HVAC and Security Systems

USD 136 Million



### Central Prison - Sumail

Date of Commencement: December 2005

Date of Completion: March 2010

## Scope of Works

Central Prison, Sumail project comprises of civil, mechanical, electrical, HVAC, Road work and state-of-the-art sophisticated security systems.

It consists of three security zones:

1. Accommodations and other affiliated buildings are in low security area.
2. Common facilities like Central administration, Medical facility are in next level of security area.
3. Male Prison, Female prison, Juvenile prison and VIP Prison are in the high security area.

It also consists of an STP, Chiller Yard and Standby Generator Building.

It is designed for 3,000 inmates with a future capacity of 4,200 inmates.

- Total Built-up area is 103,000 sqm
- Total Concrete quantity: 85,000 cum
- Total Earthwork: 268,000 cum

# Hallaniyat Island Harbour Project

USD 101 Million



## Hallaniyat Harbour Project

Date of Commencement: September 2010  
Date of Completion : April 2015

## Scope of Works

Mooring facilities include,

- ✓ Core-Loc-Armoured Rock Core Break Water s (700m & 100m), Precast Block work Quay Walls (470m) ,average weight of block 45-50 Tonnes
- ✓ -2m<sup>3</sup> Corelocs 14000 Nos,-3m<sup>3</sup> Corelocs 5000 Nos,
- Wharves / working berths
- ✓ -Floating Steel Pontoon with gangway 2 Nos
- ✓ -Coastal Ferry Terminal,-A Ramp for Landing Craft,-
- Revetment bund with reclamation and ancillary works



# Industrial Structures

# Oman Industrial Complex (Pelletizing Plant & Distribution)

USD 48 Million



## Scope of Works

### General Scope:

Scope of work includes Civil works for dry grinding / palletizing plant areas & Utilities for the implementation of the Oman Industrial complex at the port of Sohar

### Deliverables:

<b>Piling</b>	<b>: 76,959 m</b>
Earthwork	: 153,331 Cum
<b>Rebar</b>	<b>: 8391 MT</b>
Shuttering	: 108,293 Sqm
<b>Concrete</b>	<b>: 52,200 Cum</b>
Metal Work	: 232 MT
Bituminous Coating	: 33,526 Sqm
Sheet Piling	: 332 M
Post Tensioning work	: 61 T
Deck Sheet	: 181 Sqm
132 KVA Cable Laying	: 5000M

## Oman Industrial Complex Project

Date of Commencement: December 2008

Date of Completion: November 2010

# Sohar Fertilizer Project

Civil for Plant, EPC of Plant Buildings and Construction of Non Plant Buildings

USD 40 Million



## Sohar Fertilizer Project

Date of Commencement: February 2006

Date of Completion: February 2007

## Scope of Works

This project involves construction of civil and EPC of Plant building work including HVAC for Bulk Urea Storage and Handling Shed for Mitsubishi Heavy industries and Construction of Non Plant Buildings for Sohar Urea Industries Company.

Supply and Construction / Installation of Civil & Associated works for Fertilizer Project.

- |     |                                   |                            |
|-----|-----------------------------------|----------------------------|
| 1.  | Soil Improvement                  | 220,000 m3,                |
| 2.  | <b>Piling</b>                     | <b>2655 nos / 29000 Im</b> |
| 3.  | Earthwork                         | 574,000 m3,                |
| 4.  | GSB / ABC                         | 38,000 m3,                 |
| 5.  | PCC / RCC                         | 73,500 m3                  |
| 6.  | Rebar                             | 5630 tons                  |
| 7.  | Asphalt                           | 4080 m3                    |
| 8.  | Embedded Steels                   | 250 tons                   |
| 9.  | Elevators                         | 2 nos (1.4x0.85x37 Im)     |
| 10. | HVAC System for Storage Building, |                            |
| 11. | Protective Coating/Tiling         | 179,000 m2                 |
| 12. | Gravel Paving                     | 6700 m3                    |

# Water & Sewage

# Expansion of Water Reservoirs & Transmission Facilities for Barka Desalination Plant

USD 85 Million



## Water Reservoir Project

Date of Commencement: August 2008

Date of Completion: September 2010

## Scope of Works

- Construction of 1 number 130,000 cu.m storage capacity ground level reservoir
- Construction of 1 number 230,000 cu.m storage capacity ground level reservoir
- Construction of Pile foundation, including site investigations, Associated pipe work , associated expansion of existing infrastructure facilities
- Construction of 2 nos. operator's accommodation
- Electromechanical works
- Instrumentation and Control works
- **The largest Ground Water Reservoir in Oman**



# A'Seeb Coastal Strip Vacuum Sewer Networks & Ancillary Works Contract 3

**USD 223 Million**

## Scope of Works



**Detailed Design, Procurement, Construction, Erection, Testing & Commissioning of a complete Vacuum & Gravity Sewerage Network.**

Installation of HDPE Rising

Mains/Discharge Gravity Sewers : 36,389 m

**Detailed Design & Construction of the Vacuum Station Building & Ancillaries : 11 Nos.**

Installation of Manholes  
(HDPE Vacuum Chambers) : 4,206 Nos.

Installation of House Connection  
Chambers : 13,067 Nos.

**Installation of HDPE Vacuum  
Sewers : 206 KM**

**Installation of Rider Sewers : 238 KM**

Installation of Dry Connections : 7,052 Nos

## A'Seeb Coastal Strip Vacuum

**Date of Commencement: Feb 2008**

**Date of Expected Completion: Mar 2017**

# Opportunities

- **Collaboration with potential EPC companies ( Power Sector, Oil & Gas, Solar, IWP, Small & Medium power plant projects)**
- **Specialized Subcontractors (Eg. Design & Build of Thermal Storage Tank )**
- **Specialized suppliers**
- **Investment Opportunities (Infrastructure Development, Medical city, Duqm Township Development)**

# Our Strengths

- **4 decades of trusted relationship with Oil Companies and Ministries in Oman.**
- **Proven competence in Design, Procurement, Construction, Commissioning and operations of infrastructure projects in Oil fields, harbors, hospitals, airports, etc.**
- **Well Qualified, Experienced and Professional Team**
- **Diverse Capabilities in Project Execution**
- **Consistent track record of project delivery.**
- **Strong Financial base.**
- **Proven Supply-Chain capacity within and out of Oman.**
- **One of the Largest Employers of Omani Nationals.**

**We will appreciate your queries  
(if any)?**

# THANK YOU

Contact us at:

Corporate Head Office:

**GalFar Engineering & Contracting SAOG**

P.O. Box No 533, PC-100,  
Muscat, Sultanate of OMAN

[www.galfar.com](http://www.galfar.com)





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# COMPANY PROFILE



## History

Micronel Global Engineers, a part of a group founded by Sikka family in 1986, emerged as a private limited company in 2011.

Micronel was founded to nurture engineering talent, skills & innovation for executing complex and challenging systems using scientific knowledge and domain expertise.

We have extensive experience in Indian Industries and working with overseas companies for Indian Projects.

**MICRONEL**  
GLOBAL ENGINEERS



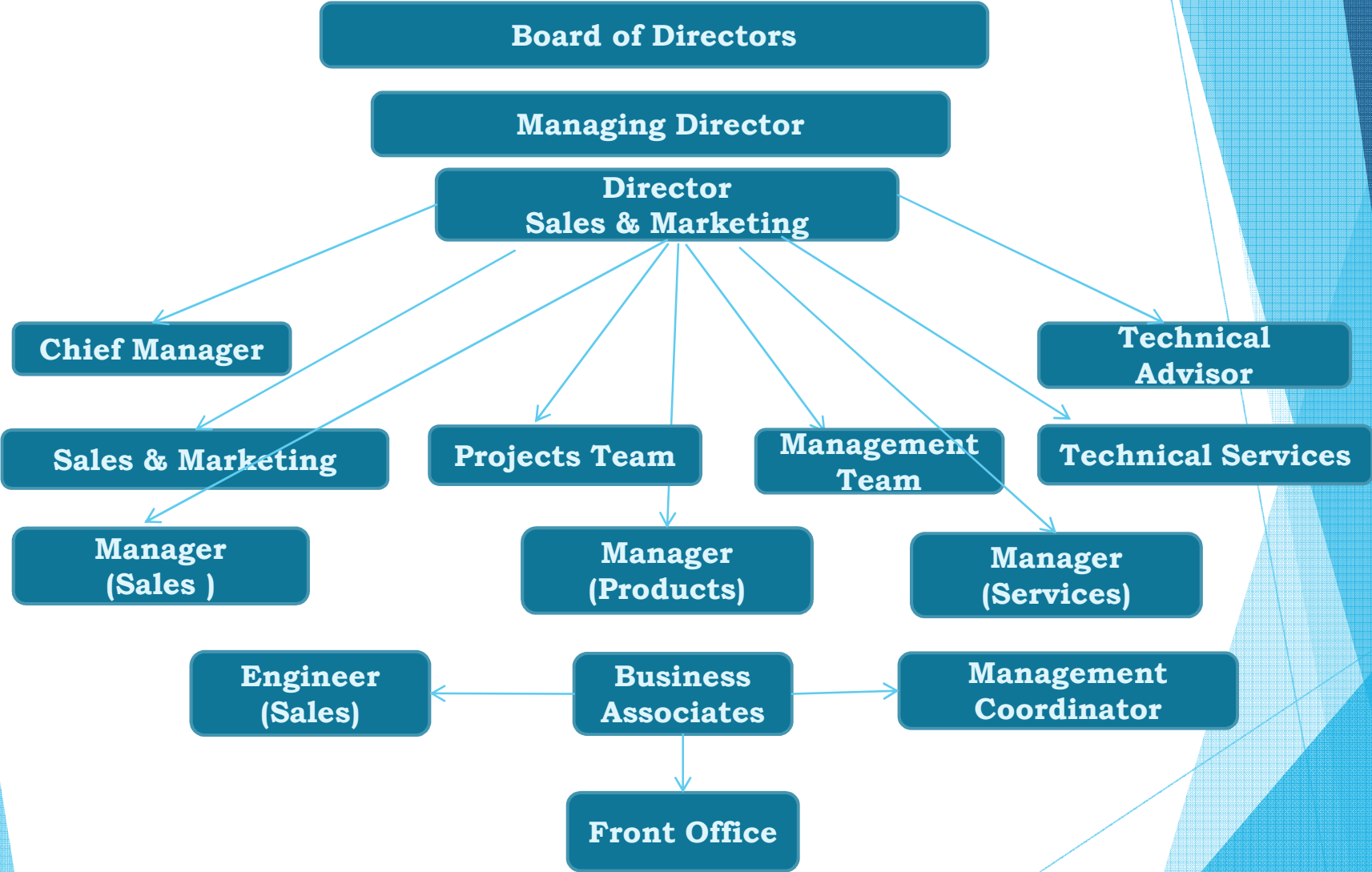
## Vision

The framework for our Roadmap:

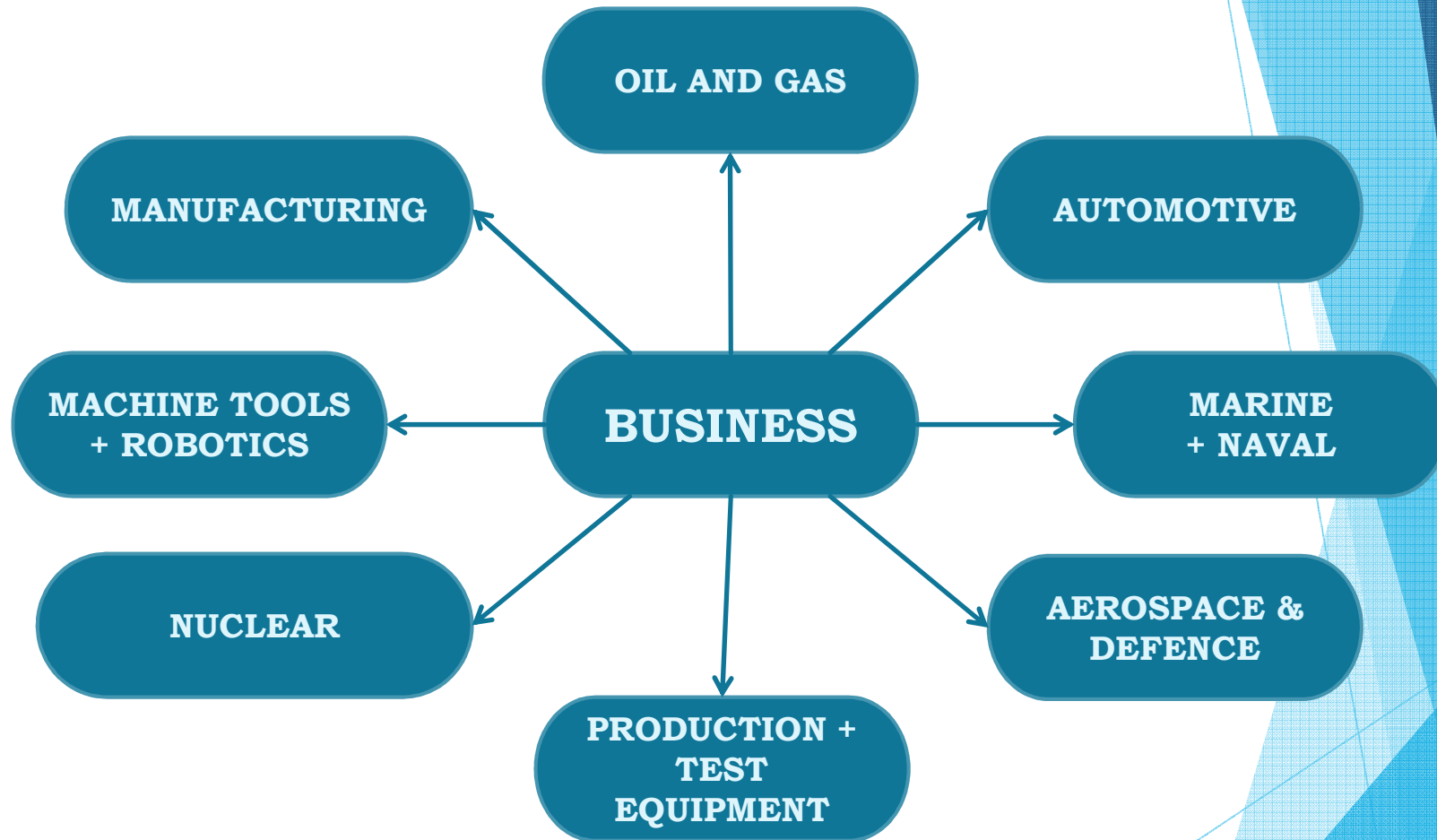
- To provide business value to Indian industry by understanding their critical technology requirements and matching them to global providers.
- To develop worldwide business partnerships and increase their footprint in the Indian marketplace.
- To constantly refresh portfolio of customers and technology partners to remain at the cutting edge of global technology.



# Organization Chart



# Our Business Domain



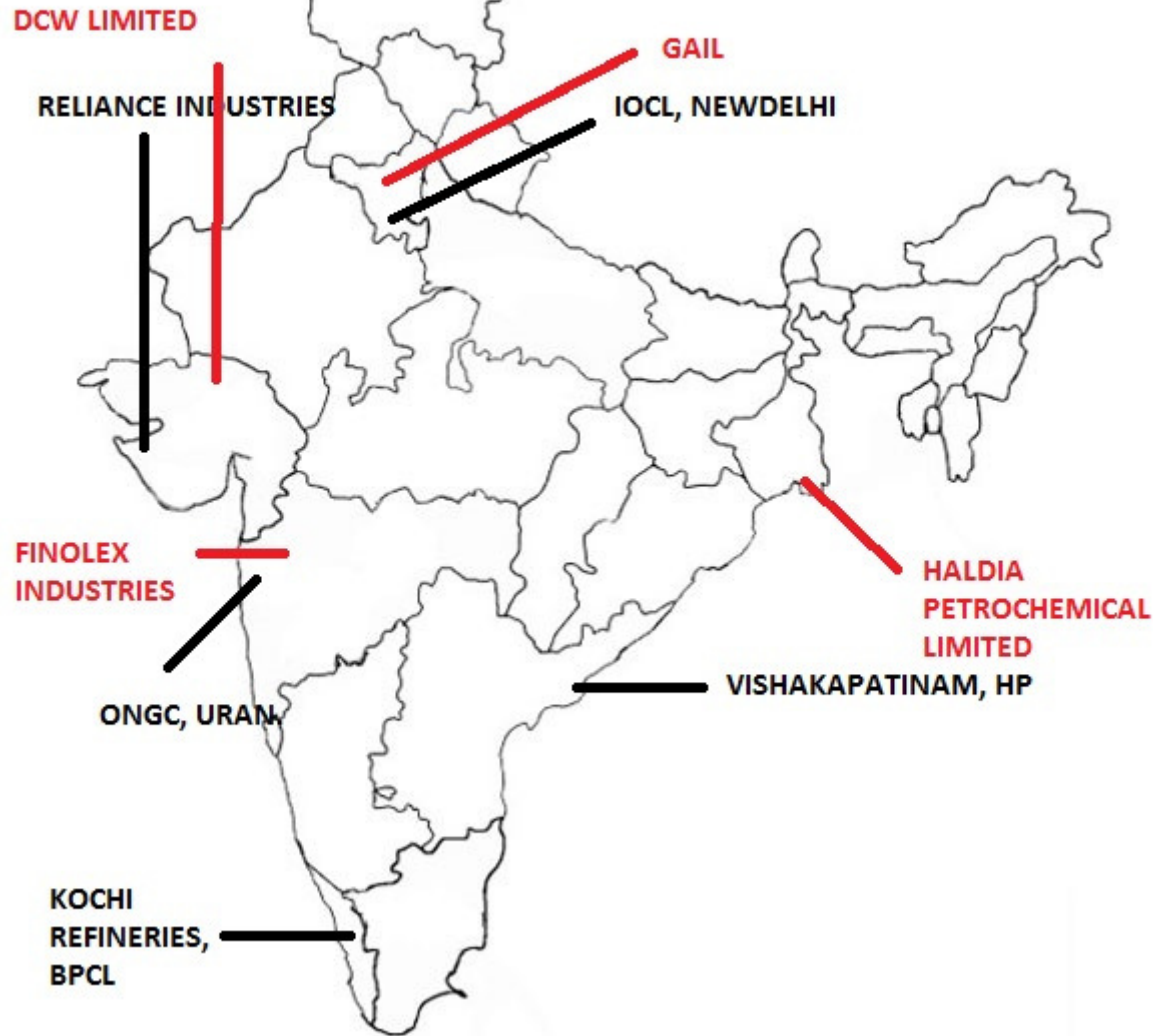




## Our Approach

- Through consulting and Advisory Services for adapting Overseas Products and Technologies to local applications.
- Outsourcing and setting up Joint Ventures
- Installation, Commissioning and Life Cycle support of systems for key customers all over India
- Global Bidding for Indian Projects together with International Associates on regular basis
- Distribution of Imported Equipment, Materials, Components and Spares

# India Political Maps



# INTRODUCTION OF OIL & GAS INDUSTRY

- ▶ Oil and gas are amongst the most important resources that we have.
- ▶ The Indian oil and gas sector is of strategic importance and plays a predominantly pivotal role in influencing decisions in all other spheres of the economy.
- ▶ India was the fourth-largest energy consumer in the world with oil and gas accounting for 37 percent of its total energy consumption
- ▶ A recent report points out that the Indian oil and gas industry is anticipated to be worth US\$ 139.8 billion by 2017.



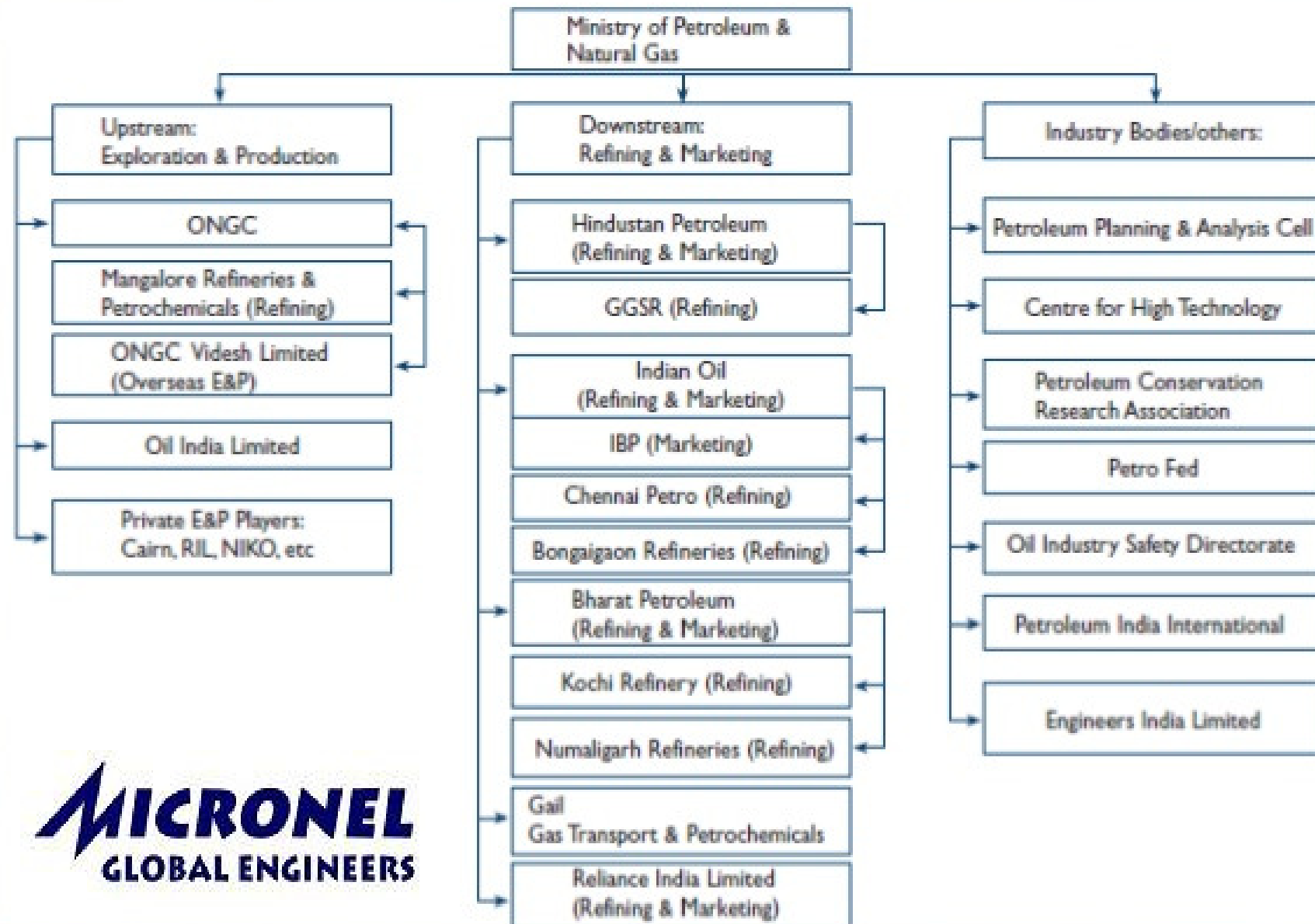
# COMMERCIALS ASPECTS OF OIL AND GAS INDUSTRY

Oil and Gas sector is divided into 3 parts

1. Upstream (exploration, development and production of crude oil or natural gas)
2. Midstream
3. Downstream (oil tankers, refiners, retailers and consumers) Includes operations that processes and stores, markets and transports crude oil, natural gas liquids like ethane, butane and propane

Midstream operations are usually included in the downstream category.

# COMPANIES IN OIL AND GAS INDUSTRY





# OIL AND GAS COMPANIES IN INDIA

- ONGC
- Oil India Limited
- Bharat petroleum
- Hindustan Oil Exploration Company
- GAIL
- Indraprasatha Gas limited
- ESSAR
- Indian Oil

# OIL AND GAS COMPANIES IN INDIA

- Gujarat Gas limited
- Petronet LNG Ltd
- Mangalore Refinery and Petrochemicals
- GE Oil & Gas
- Cairn India
- HP
- Reliance Industries Limited

# OVERVIEW OF OIL & GAS INDUSTRY

- ▶ **OIL AND NATURAL GAS CORPORATION:** ONGC Limited, a leading oil and gas company founded in the year 1956 and accounts for the major share of oil and gas production in India. ONGC Limited is primarily engaged in exploration *and* production of oil and gas and presently operates in more than 15 countries across the world.
- ▶ **RELIANCE INDUSTRIES LIMITED:** RIL is a swiftly growing company. It has many manufacturing facilities in India and out of which Jamnagar Refinery stands on the top in the list of the largest oil refineries in the world. Reliance Industries Limited operates in various sectors out of which, Refining forms its major part.

# OVERVIEW OF OIL & GAS INDUSTRY

- ▶ **INDIAN OIL CORPORATION LIMITED:** IOCL is ranked 3rd in the list of Top 10 Oil and Gas Companies in India on the basis of market capitalization. IOCL presently stands among the largest enterprises in the country. IOCL operates 10 Oil Refineries in the country.
- ▶ **BHARAT PETROLEUM CORPORATION LIMITED:**BPCL is next on this list, which is a leading oil and gas company in India and a Fortune 500 Company. Winner of Leading Oil and Gas Corporate of the Year, BPCL operates refineries in Bina, Kochi, Mumbai and Numaligarh. Apart from India, BPCL has operations in South America, Africa and Australia.



# OVERVIEW OF OIL & GAS INDUSTRY

- ▶ **GAIL (INDIA) LIMITED:** GAIL is engaged in the production and transmission of Natural Gas, LPG, Petrochemicals and Liquid Hydrocarbons. Winner of Best Performing Company, GAIL (India) Limited has a wide network of Natural Gas Pipelines of more than 10,000 km in India. Apart from India, GAIL (India) Limited has its operations in USA, Singapore, Egypt, China and Myanmar.
- ▶ **OIL INDIA LIMITED:** OIL is next on this list, which is a leading company of this sector and is involved in the exploration and production of oil and gas. Winner of Multiple Awards, OIL has a presence in Russia, USA, Venezuela, Nigeria, Yemen, Myanmar and many other countries. OIL also performs Corporate Social Responsibility by contributing in sectors like Health, Education and Infrastructure.



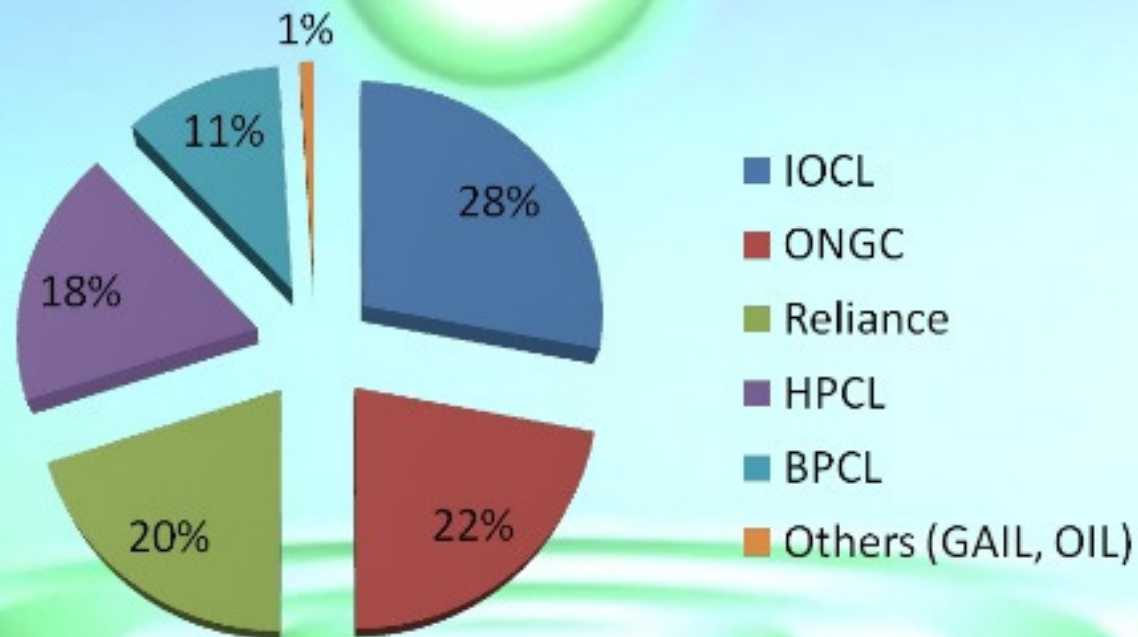
# Current Projects in Oil and Gas industry

- ▶ ONGC, IOCL, GAIL

Maintenance, Repair, Overhaul, Life extension,  
Capacity Upgradation for Turbines and Generators.

# Market Share of Oil and Gas Companies

Market Share of Oil and Gas Companies



## Major investments and developments in the oil and gas sector

- ▶ According to data released by the Department of Industrial Policy and Promotion (DIPP), the petroleum and natural gas sector attracted FDI worth US\$ 6.64 billion
- ▶ State-run Indian Oil Corporation Ltd (IOCL) plans to invest Rs 34,000 crore (US\$ 5 billion) on a petrochemical complex at Paradeep in the state of Odisha, which is expected to be commissioned by 2021.
- ▶ Petrogas Pvt Ltd, a joint venture of Isomeric Holdings bhd of Malaysia and LEPL Venture Pvt Ltd of India, will collaborate with Krishnapatnam Port Co Ltd and the Government of Andhra Pradesh, to set up a liquefied natural gas (LNG) regasification and floating storage terminal at Krishnapatnam Port in Nellore district with an investment of around Rs 3,000 crore (US\$ 440.2 million).

## Major investments and developments in the oil and gas sector

- ▶ CDP Bharat Forge GmbH acquired 100 per cent equity shares of Mécanique Générale Langroise (MGL) for € 11.8 million (US\$ 12.91 million) to consolidate Bharat Forge's position in the oil and gas sector by enhancing service offerings and geographical reach.
- ▶ Technip won a € 100 million (US\$ 109.37 million) contract from ONGC to build an onshore oil and gas terminal in Andhra Pradesh.
- ▶ RIL and Mexican state-owned company Petroleos Mexicanos (Pemex) entered into a memorandum of understanding (MoU) for cooperation in the oil and gas sector.
- ▶ IOCL targets to increase the capacity of its Panipat refinery by 34 per cent, to 20.2 million tonnes by 2020 through an investment of US\$ 2.38 billion. IOC also plans to increase capacity of Koyali and Mathura refineries.



# Some Of Our Customers





# Conclusion

- ▶ We are thankful for your presence and are confident that we can work together on a long term basis as trusted Business Partners.
- ▶ Business in India is not easy but together we can win the confidence and trust of existing and new customers for our projects, products and services on a long term basis.



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## **Bangalore**

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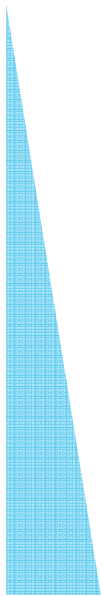
## **Mumbai**

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THANK YOU



**16 June 2016**

# **CAE SERVICES FOR OIL AND GAS INDUSTRY**

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[www.nfotecindia.com](http://www.nfotecindia.com), [www.nfotecglobal.com](http://www.nfotecglobal.com)

## 1. PROFILE

- Bangalore based Company, led by Sanjeev Sikka and with experienced Core Team



Sanjeev Sikka  
Managing Director



Venugopal  
Technical Advisor



Gaurva Sikka  
Director

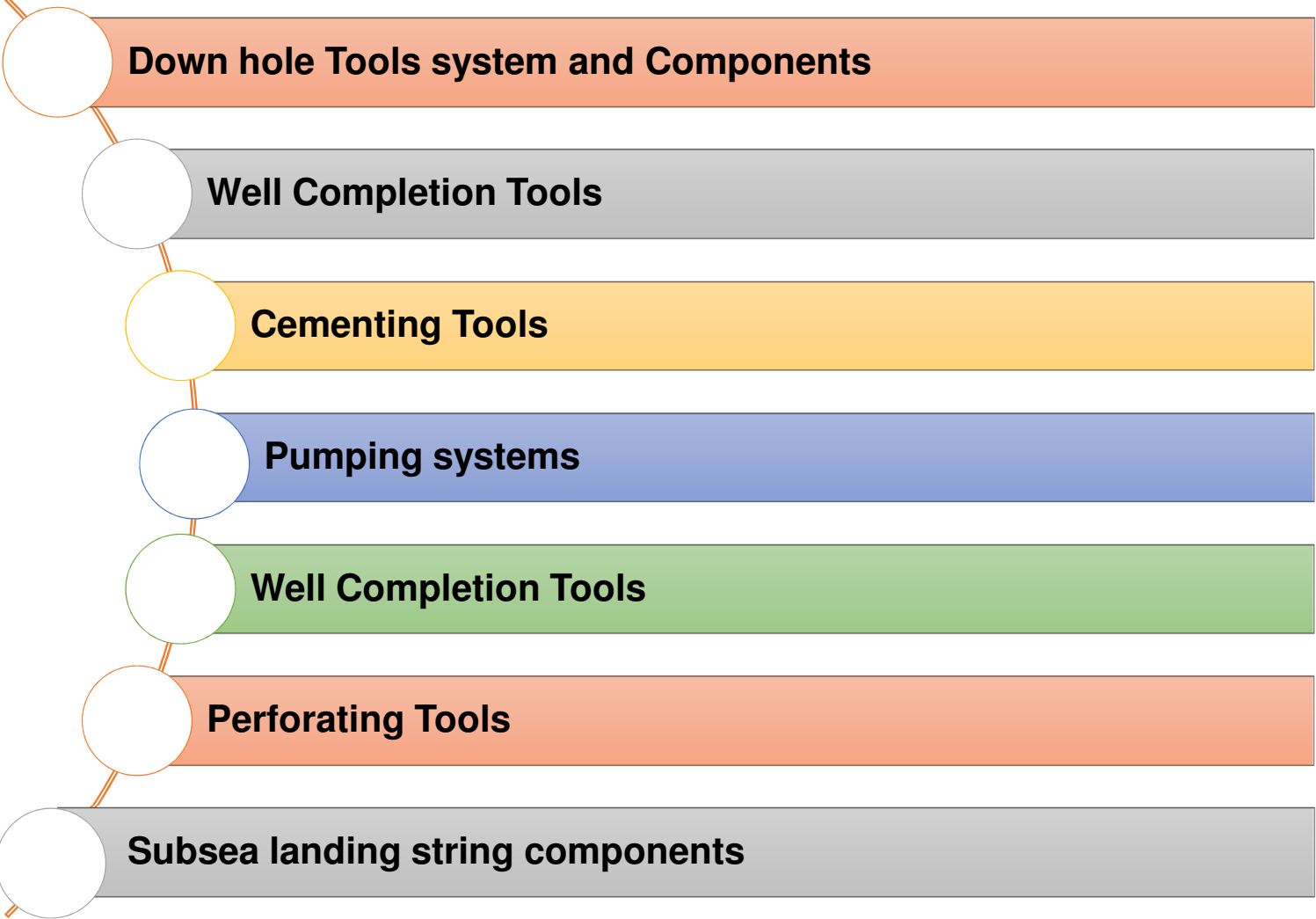


Guled F D  
Chief Manager

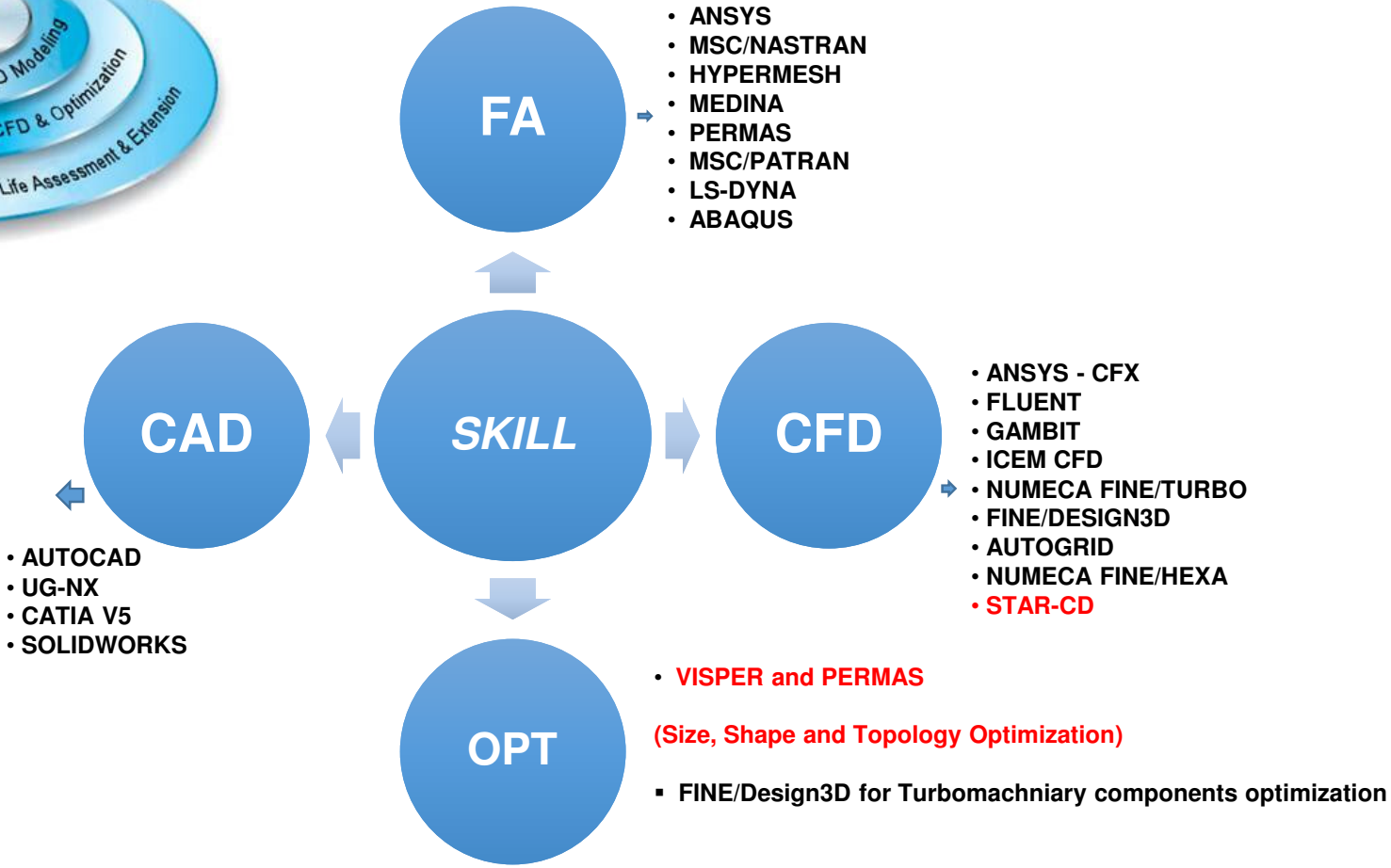
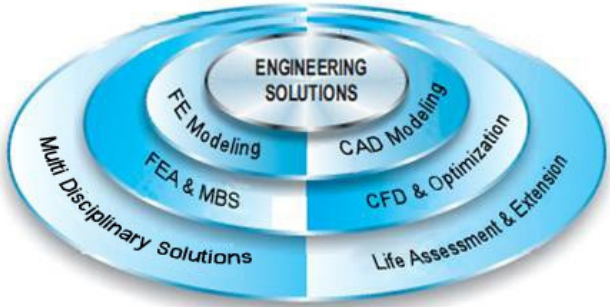
- Comprehensive engineering Software Capability
- Expertise in Engineering Services
  - CAD Modeling
  - Finite Element Analysis
  - Computational Fluid Dynamics
  - Fatigue Analysis
  - Fracture Mechanics
- Participated in DRDO and HAL Projects
- ISO Certified



## 2. OIL AND GAS VERTICALS



# 3. SKILL SET



## 4. ACTIVITIES

### COMPUTER AIDED DESIGN (CAD)

- 3D surface and solid modeling
- Parametric, sub assemblies and assemblies
- Detailing and Drafting in International drafting Standards
- Concept designing of fixtures
- Documentation of Tooling & Fixtures

### COMPUTATIONAL FLUID DYNAMICS (CFD)

- Grid Generation
- Fluid flow and Heat transfer simulation of complex internal, Turbomachinery flows
- Steady state and unsteady simulations
- Conjugate Heat Transfer Analysis
- Fluid Structure Interaction
- External Aerodynamics

### STRUCTURAL ANALYSIS (FEA)

- FE Modeling of components/sub assemblies/assemblies
- Static Analysis
- Dynamic Analysis
- Vibration Analysis
- Composite Analysis
- Buckling Analysis
- Non Linear Analysis
- Thermal Analysis
- Multi-Body Simulation
- Topology Optimization