



System engineering and design





### **Aqua Engineering is specialised in:**

- Structural and mechanical design
  - Marine and naval engineering
    - Marine operations
    - Process systems design
  - Technical consultancy services





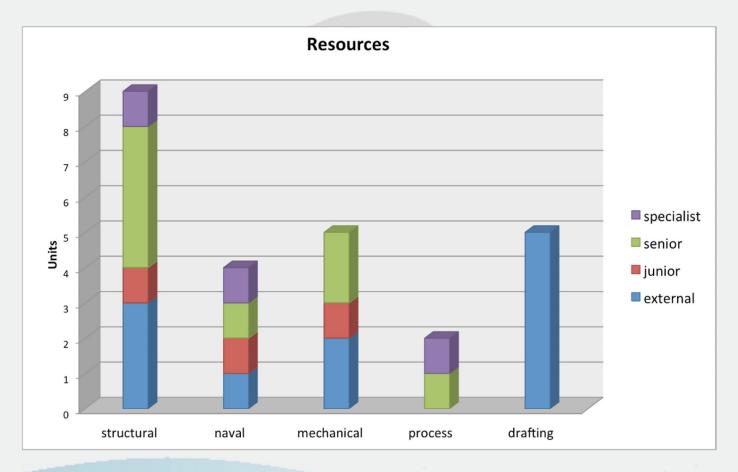


- Company founded in 2005 on the basis of other activities/structures in place since beginning of '80 in Oil&Gas and Offshore Industries
- Based on people with long experience in structural and naval engineering, hydrodynamic computations and marine operations
- Personnel graduated in mechanical, naval, structural and process engineering, draughts men and data processing technicians
- Applied working contract: Contratto collettivo studi professionali
- Company registration: Camera Commercio Venezia società di ingegneria – servizi di ingegneria integrata





#### **Resources and manhours**

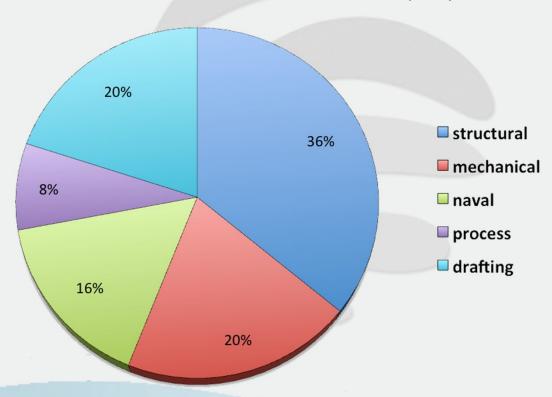






#### **Manhours**

#### Total available manhours 40000 per year







#### **MAIN CUSTOMERS**



### Tecnomare





carbon





























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#### In force contracts

**SAIPEM:** convention 5000018089, dated 04.09.2012

Design and project management services on naval and marine offshore engineering

convention 5000018488 dated 16.11.2012

Special fluidodynamic and structural analyses

Tecnomare: Open contract 3043/13/MAV dated 9.08.2013 -

Naval engineering services

Open contract 3054/13/MAV dated 1.10.2013 -

Structural engineering services





### **Partnership**

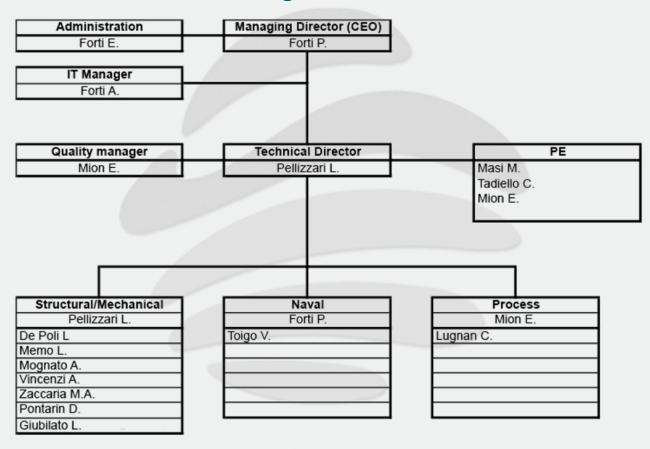
Member of Polo Offshore (Fincantieri group) & FFSHORE







#### **Organization**







### **Quality system**

#### The Company is certified ISO 9001 by DNV.







## Information Technology Technical software - structural

Femap/nastran: multipurpose structural modeller and solver: structural modelling,

linear and not linear structural analyses

GT Strudl: multipurpose structural solver: structural analyses and

code checks; foundation analyses; environmental loads computation on lattice structures (Morison equation)

Sesam (Genie basic package): multipurpose structural solver: structural analyses
 and code checks; foundation and fatigue analyses;
 environmental loads computation on lattice structures

Ansys: FEM modeller and structural analyses

• Sant'Ambrogio: design and code checks of pressure vessels and flanges





## Information Technology Technical software - hydrodynamic

Orcaflex: hydrodynamic analyses of floating bodies (single or in a

multibody arrangement) combined with mooring and risers lines, in frequency and time domain. Pipeline

static and dynamic analyses

MOSES (basic package):

hydrostatic analyses (floatation, stability,

ballasting, jacket upending, frequency domain

analyses) - basic package

Gt-Strudl –Selos: upending and launch analyses

Wamit: linear analyses of fixed/floating massive structure, with

diffraction algorithm (lease)

AQWA: hydrodynamic analyses of fixed and floating bodies (lease)





# **Information Technology Technical software - drafting**

Autocad LT 2D general drawings

Solid Edge
 3D and 2D drawings of structures and piping

Creo Parametric (ex Pro-E)
 3D drawings of structures and mechanical

components

Inventor (by partners)
 3D and 2D drawings

Think 3D (by partners)
 3D and 2D drawings

Tekla (by partners)
 3D modelling of structures and piping





# Information Technology Technical software – other tools (knowledge)

Company People and consultants are familiar with the following software packages:

Adina not linear structural analyses

Patran pre-post processing for Finite Element analyses

Mentat/MARC linear and not linear structural analyses

• Strauss linear structural analyses

Sacs structural analyses

Pipephase Process analyses

Caesar II piping stress analysis

Caepipe piping stress analysis

• Flexcomp: hydrodynamic analyses of floating bodies and flexible

elements