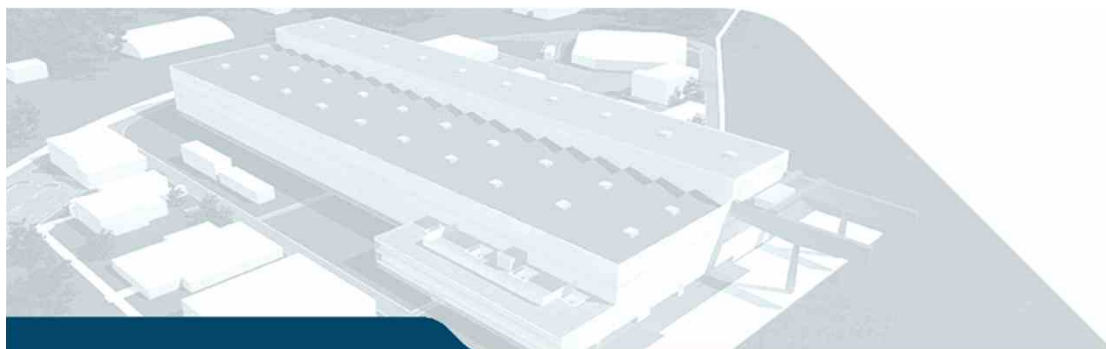




ENSA (Grupo SEPI)

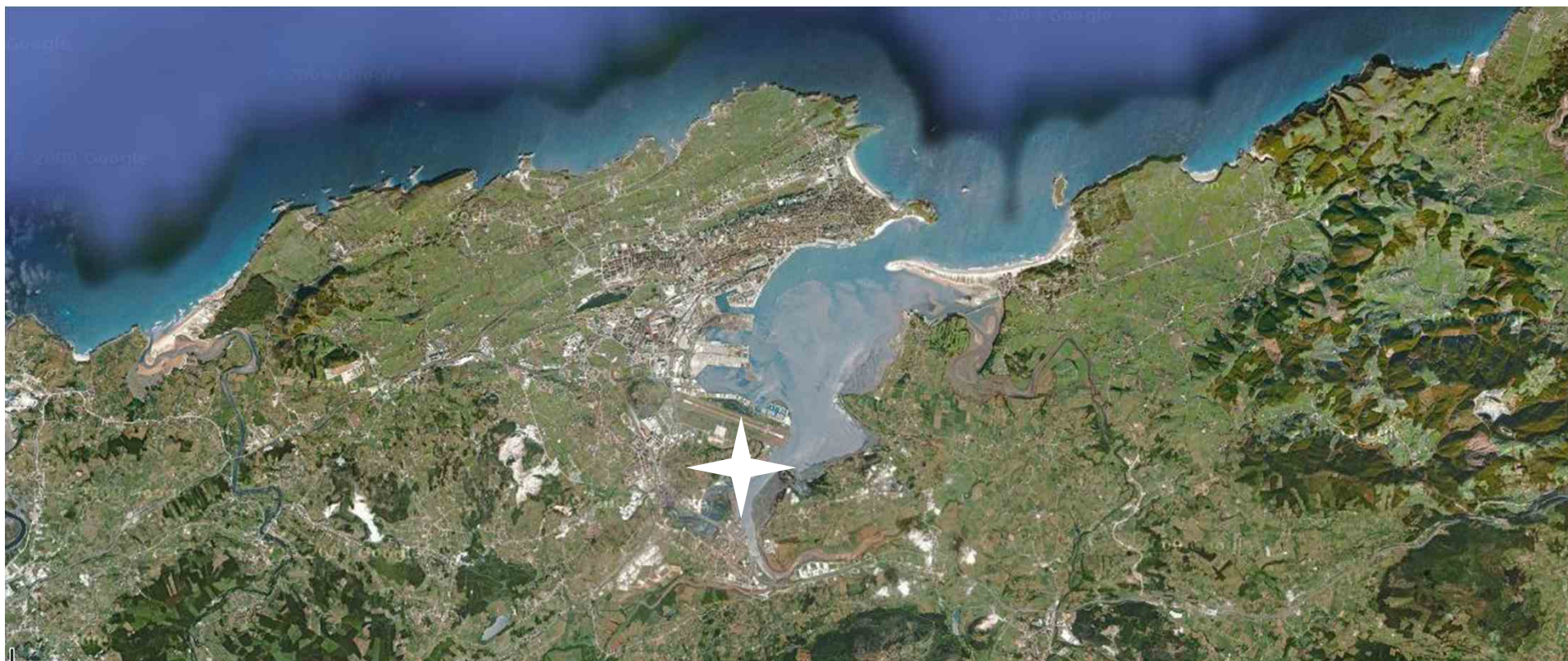
# General Presentation

## February 2016





# Cantabria, Spain





# Our Facility





# Company



- Since 1973, supplying services and equipment to the nuclear market
- 100% owned by Sociedad Estatal de Participaciones Industriales (SEPI)
- Facility in Maliaño (Cantabria) on the North coast of Spain
- Subsidiary Companies:
  - 83% Enwesa (services)
  - 30% WTS (engineering)
- Labour Force: 480 + 250/350

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# Mission and Vision



## Mission:

1. Customers' satisfaction
  - Operational excellence
  - Best practices
2. Meeting of our share holder expectations
  - Self financing
3. Personnel development
  - Training and education of our young employees

- Vision: To be a multisystem supplier, flexible and global



# Products & Services

- Engineering - Products Design - Manufacturing
- Advanced Technology Centre
- Services at Plants - Fuel Management
- Decommissioning and Dismantling





# Manufacturing





# Main Products

- Steam Generators
- Reactors (Vessels, Heads, Internals and Supports)
- Pressurizers
- Main Cooling Piping
  
- Spent Fuel Casks \*
- Fuel Racks \*
  
- Fuel Nozzles
- Heat Exchangers
- Special Tooling



# Advanced Technology Centre

- Group technology leader of R+D activities
- Internal and external services
- R+D Management System as per UNE 166002

Laboratories



Welding



Robotics



Defectology

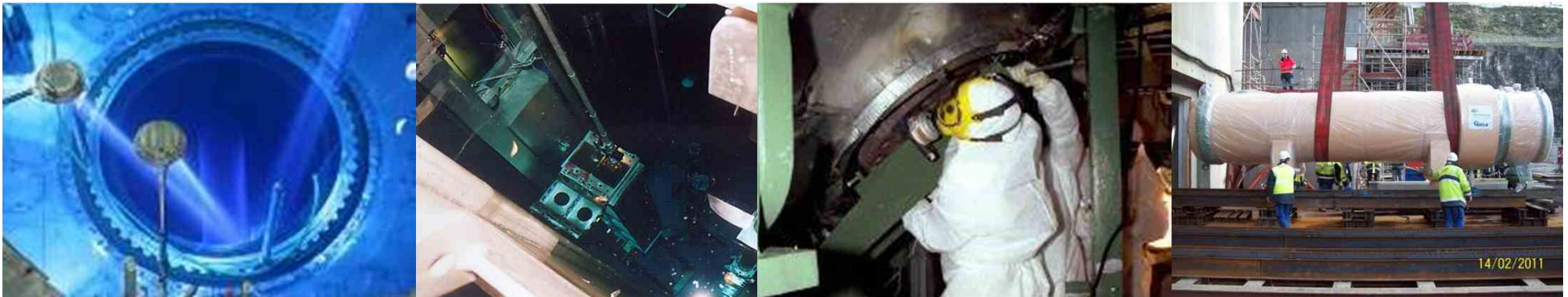


- Continuous optimization and innovation of processes
  - R+D Projects
  - Welding and robotic techniques development
- Validation and qualification of processes and materials
  - Calibrations
  - Accredited Laboratories ENAC s/ISO/IEC 17025:2005



## Services at NPP's

- Reactors opening/closing and internals removal
- Components handling and replacement
- Inspection, cleaning and repair
- Special tooling
- On site machining and welding
- Health physics
- Electropolishing



# Fuel Management

- Reactor outages
- Fuel handling, inspection and repair
- Spent fuel casks loading and handling at NPP's
- Re-Rackings





# Spent Fuel Casks

- Experience since 1985 (multiple technologies and proprietary designs)
  - Continuous learning from design to operation
  - 196 supplied components (41 own designed components)
- Integral Service:
  - Design and Licensing, Manufacturing and Tests, Auxiliary Equipment and Operation at NPPs
- Proprietary designs:
  - Ensa Dual Purpose Cask (ENSA-DPT)
  - Hitachi - Ensa Dual Purpose cask (HI-EN69)
  - Ensa Universal Cask (ENUN 52B)
  - Ensa Universal Cask (ENUN 32P)
  - Ensa Universal Cask (ENUN B)

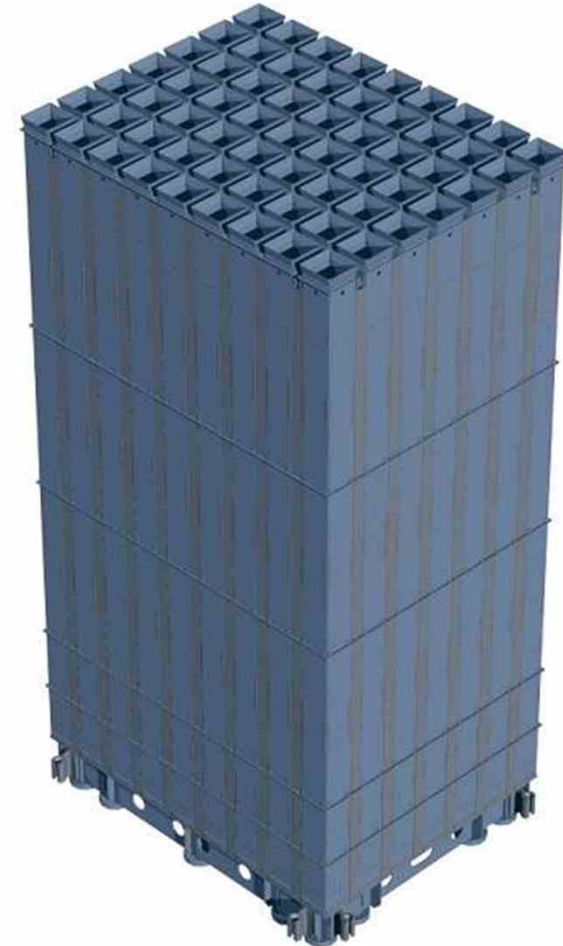


# Fuel Racks

- Experience from 1986
  - 37.397 cells
  - 29 spent fuel pools (19 re-rackings)
  - 22 NPPs (14 re-rackings)



- Integral service:
  - Design, licensing and manufacturing
  - Installation in pools and fuel handling
  - ALARA: operations without divers
- Multiple technologies, ad hoc designs



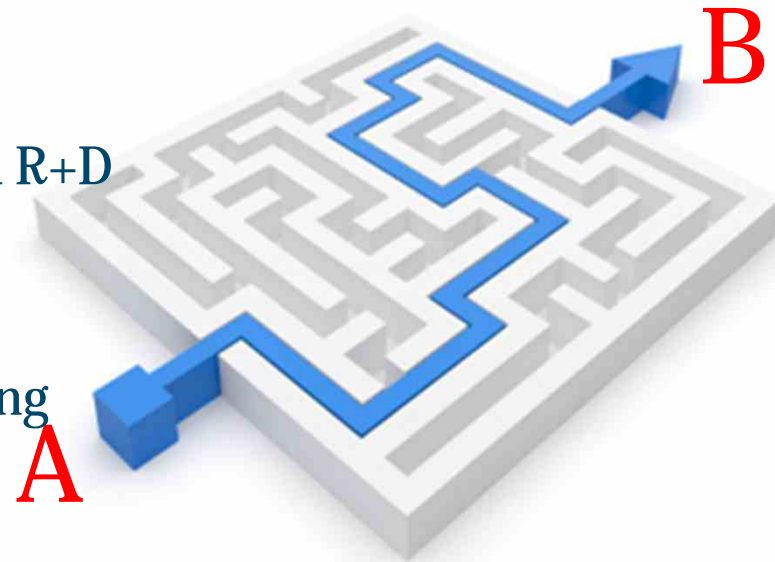
# QA System

- Full compliance with:
  - ASME Code Section III-NCA y WA
  - US Federal Regulation 10 CFR 50 Appendix B
  - US Federal Regulation 10 CFR 21
  - ISO 9001:2008 Quality Management System
  - ISO 14001:2004 Environmental Management System
  - RCC-M A5200



# An International Company

- Strategy based on:
  - Technology, continuous innovation and R+D
  - Safety Culture and HuP
  - Flexibility (multisystem supplier)
  - International technological benchmarking



## Best practices:

- Continuous Improvement – Best Practices - Coaching
- Operational Excellence:
  - Quality at first time
  - Reliable deliveries
  - Competitiveness

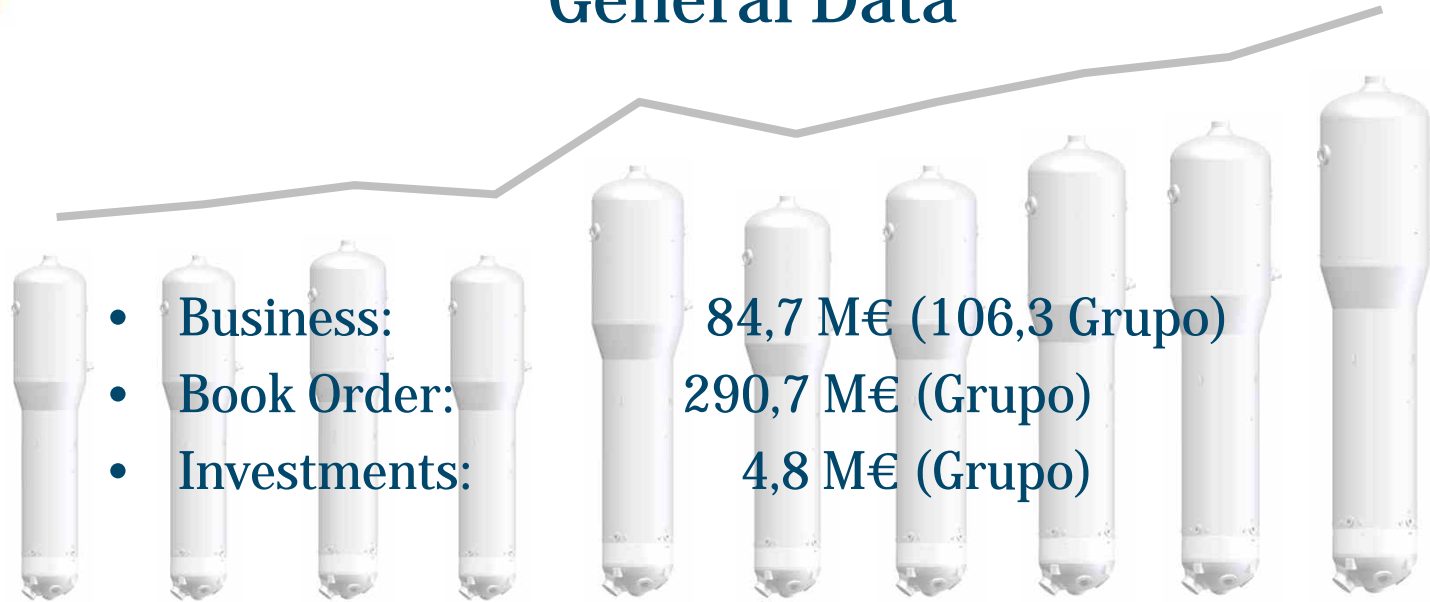
# Internationalization

1973-85	1986	1987-2003	2004-09	2010-13	2014-18
Learning, quality & on time deliveries			Multisystem Supplier	Continuous Upgrading	Globalization
First Exports			Internationalization	New Markets	

- Quality, technology, ontime deliveries and flexibility
- Until 1986: <10% (3/37)
- 1988 - 1995: 26 exported equipment
- 1996 - 1997: domestic market peak (replacements)
- 1997 - 2012: 96% (85/88)
- 2014: 100% large equipment for international market



## General Data



- Business: 84,7 M€ (106,3 Grupo)
- Book Order: 290,7 M€ (Grupo)
- Investments: 4,8 M€ (Grupo)



- Average Staff: 455 (Ensa), 851 (Group)
- Average Age: 43 years
- 50% qualified operator and 45% engineers and technicians



# Global Supplier



## ENSA (Grupo SEPI)

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