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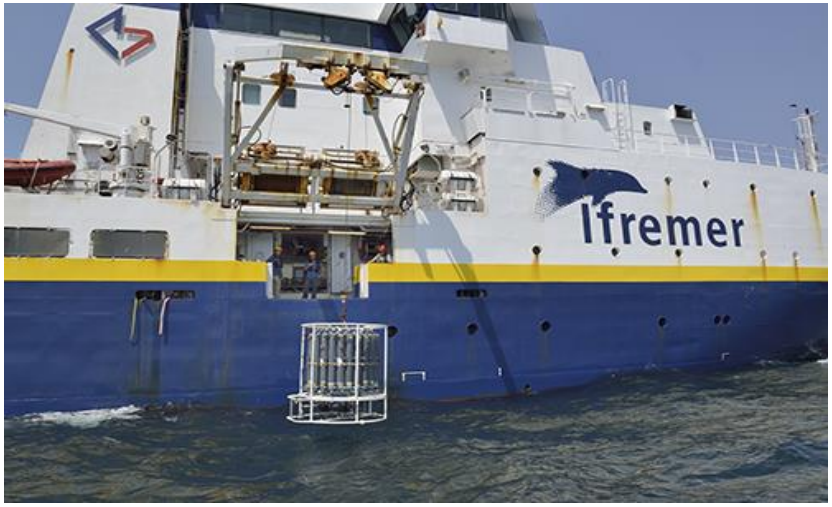
R/V *Thalassa* middle-life refit

R/V *Thalassa* - Current capabilities

* Fishery Stock Assessment
* ROV/AUV deployment
* Physical Oceanography



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R/V *Thalassa* refit objectives

The Ifremer's oceanographic and fisheries Research Vessel, *Thalassa* (74 m length) has been built in 1995 and is now in her mid-life. The purpose of this mid-life refurbishment is to realize her modernization following this objective:

"provide a reliable and efficient multipurpose platform appropriate to the coming 20 years of marine science"

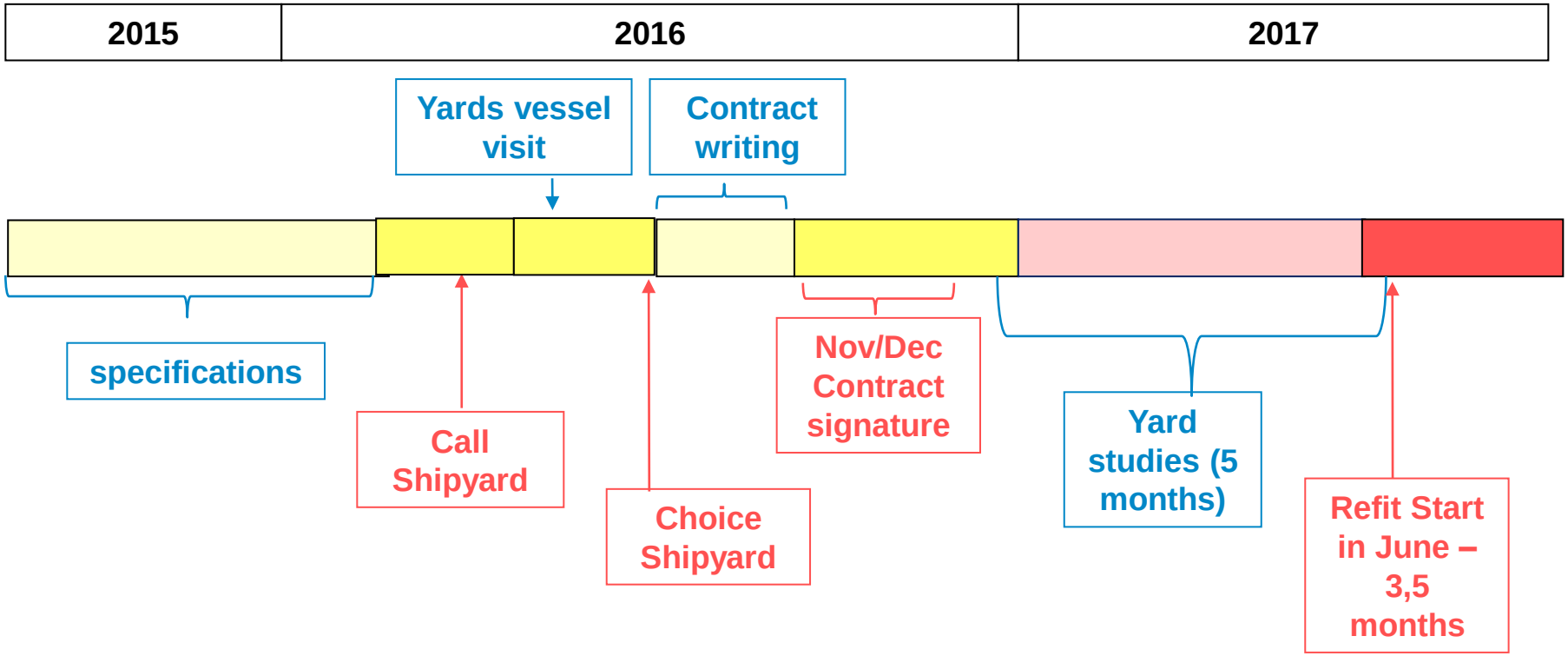
- **replace obsolete scientific equipment by up-to-date scientific equipment,**
- **add a marine geoscience function,**
- **assure the remedial and curative maintenance at mid-life of the vessel.**

- **This modernization shall not modify the current capabilities of the vessel (especially fisheries research capabilities).**

- **Expected scope of supply by the shipyard:**
  integrate acoustic equipment, in a gondola which will be designed and built for fitting:
  - **new equipment (multi beam fishery echo sounder , sub bottom profiler, ultra short base line, acoustic Doppler current profiler)**
  - **existing equipment's (single and multi beam echo sounders (EM 302 and 2040), fishery echo sounders (# frequencies)).**
- **sea chests,**
- **fit a new deck knuckle crane,**
- **fit a new specific cranes for coring system,**
- **fit a new propulsion electrical motor drive,**
- **refit some specific rooms (labs, cafeteria, scientific rooms…),**
- **replace the four diesel generators by new ones,**
- **refit the power management system, the alarm and monitoring system, the fire station,**
- **replace regulated current units,**
- **several mechanical, piping, metal sheet, electrical, air conditioning, painting works,**
- **drydock of the vessel.**

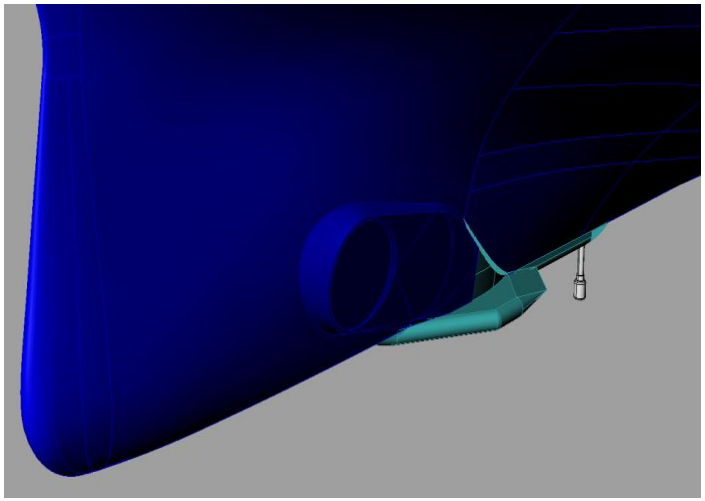
- **These works should be realized during summer 2017, between begging of June to mid September**

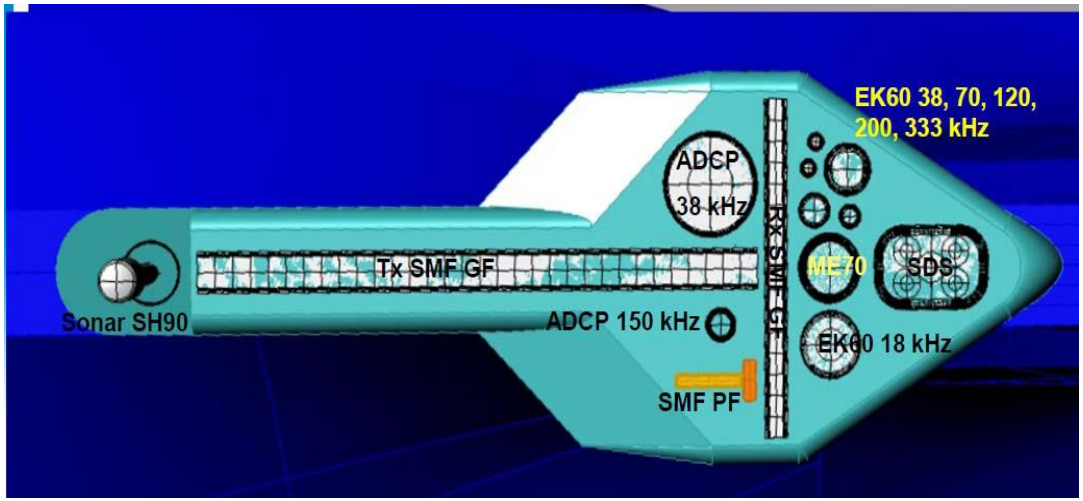
Project schedule



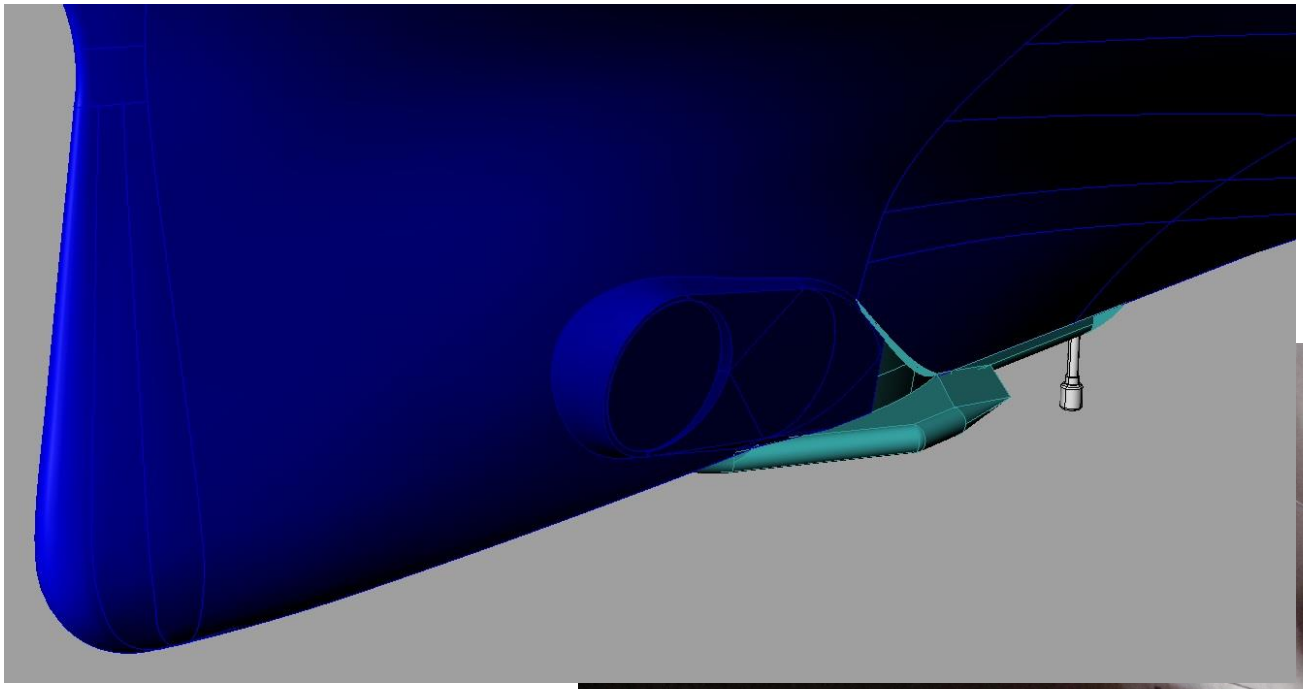
New Gondola

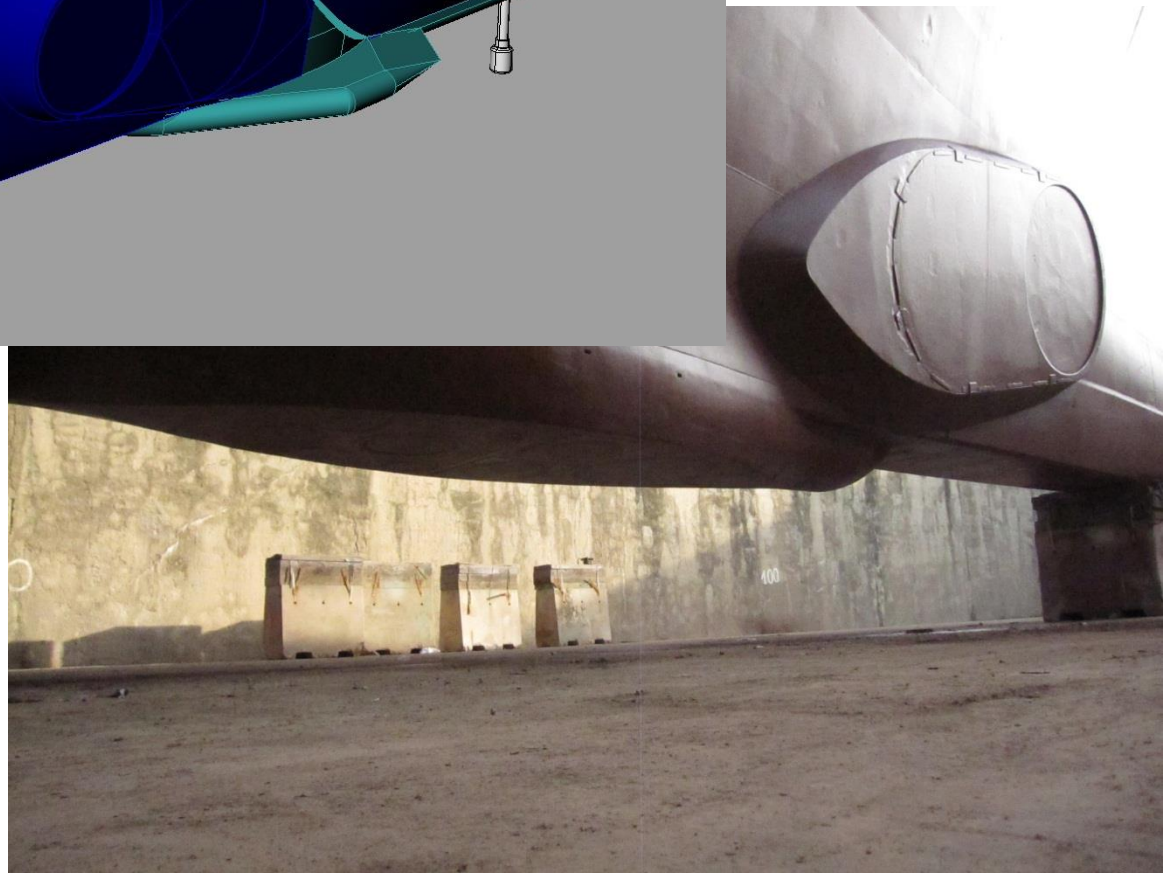
Integrate acoustic equipment which will be designed and built for fitting:
* new equipment's bought and supplied by Ifremer (multi beam fishery echo sounder, sub bottom profiler, ultra short base line, acoustic Doppler current profilers
* existing equipment's (single and multi beam echo sounders (EM 302 and 2040), fishery echo sounders (# frequencies) which will be supplied by Ifremer





New gondola





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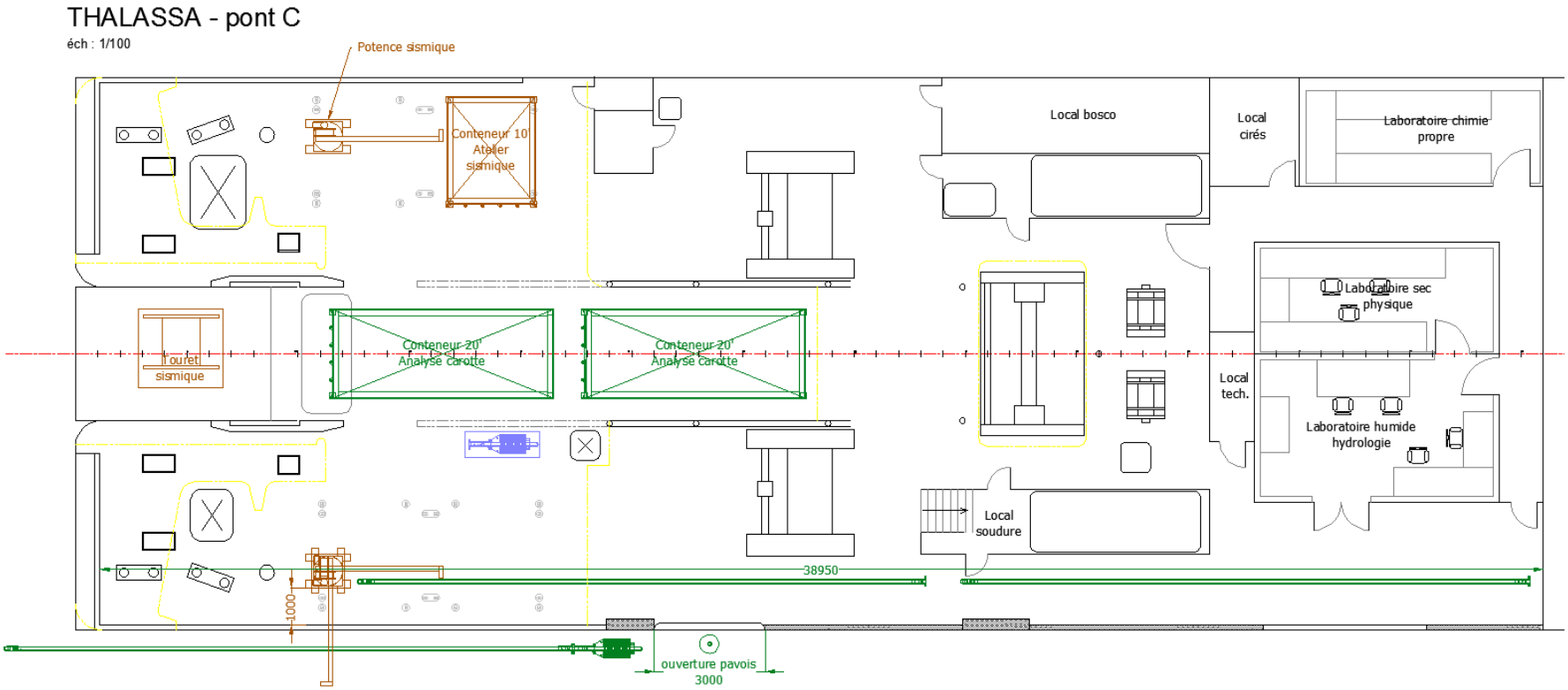
New deck knuckle crane

Coring function studies

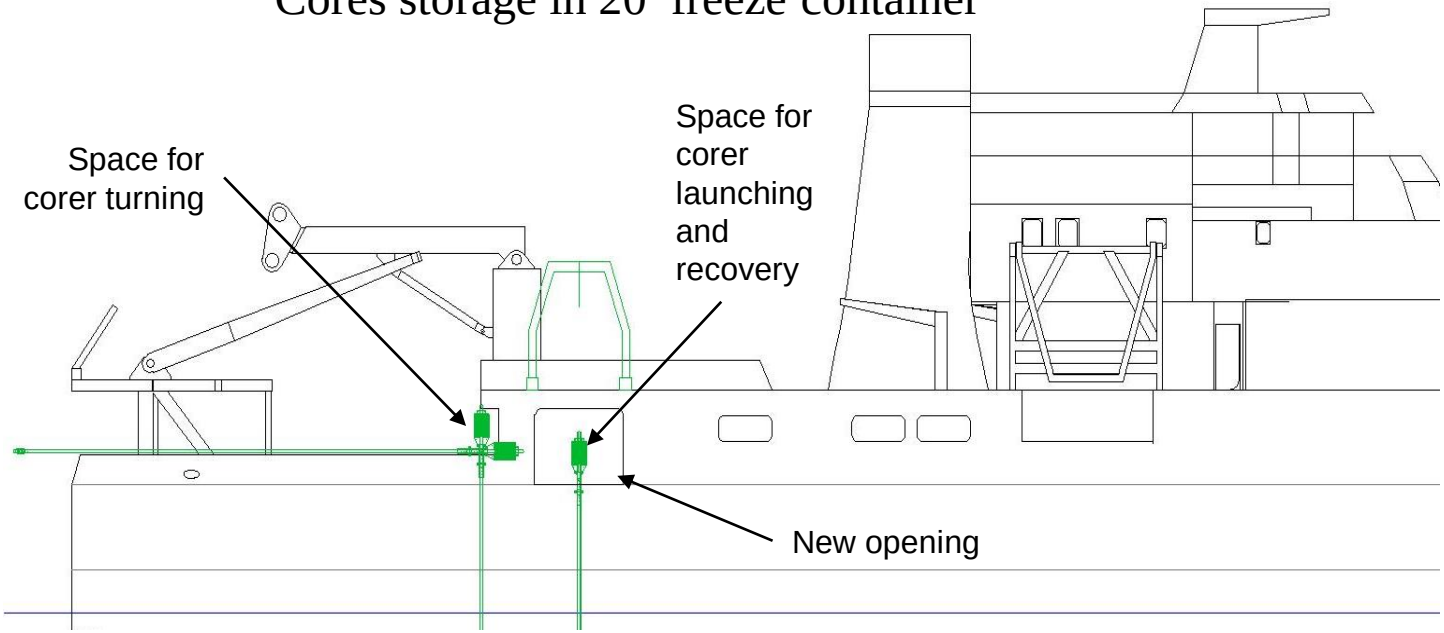
Pont C



Coring function studies

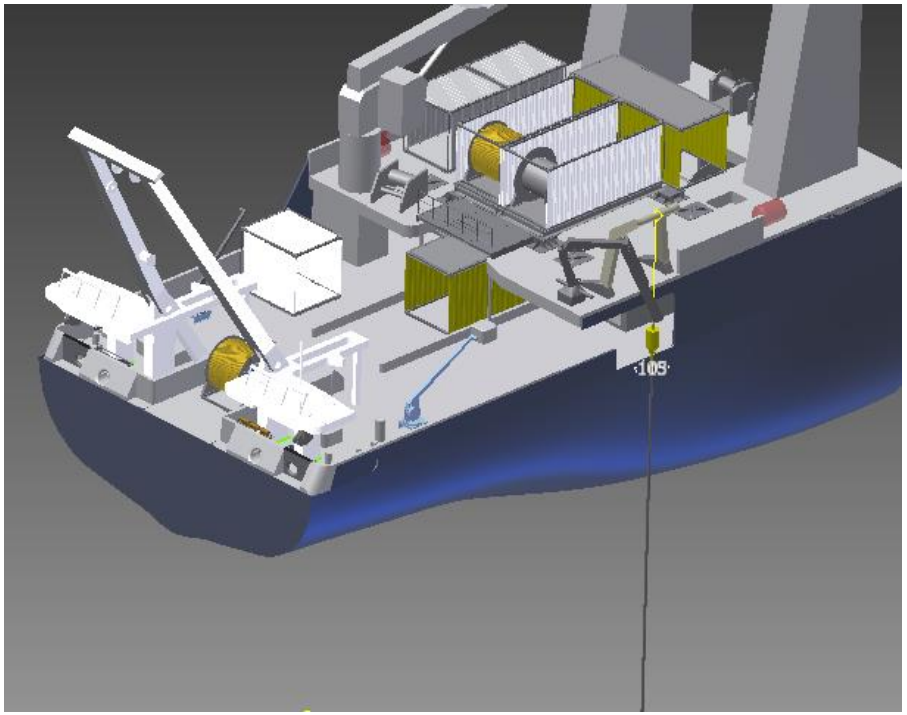
- **Pont D** : crane and/or A-frame for coring,
  winch in a 20’ container

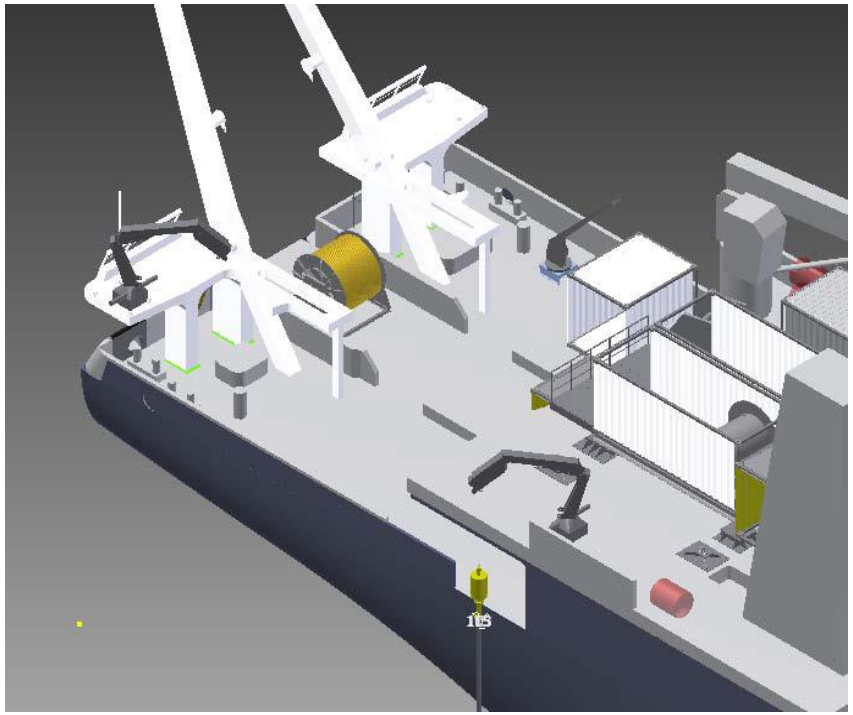
- **Pont C** : space for prepare and cut the core,
  Space for core inspection
  Cores storage in 20’ freeze container



Coring and seismic configuration

new specific cranes coring system

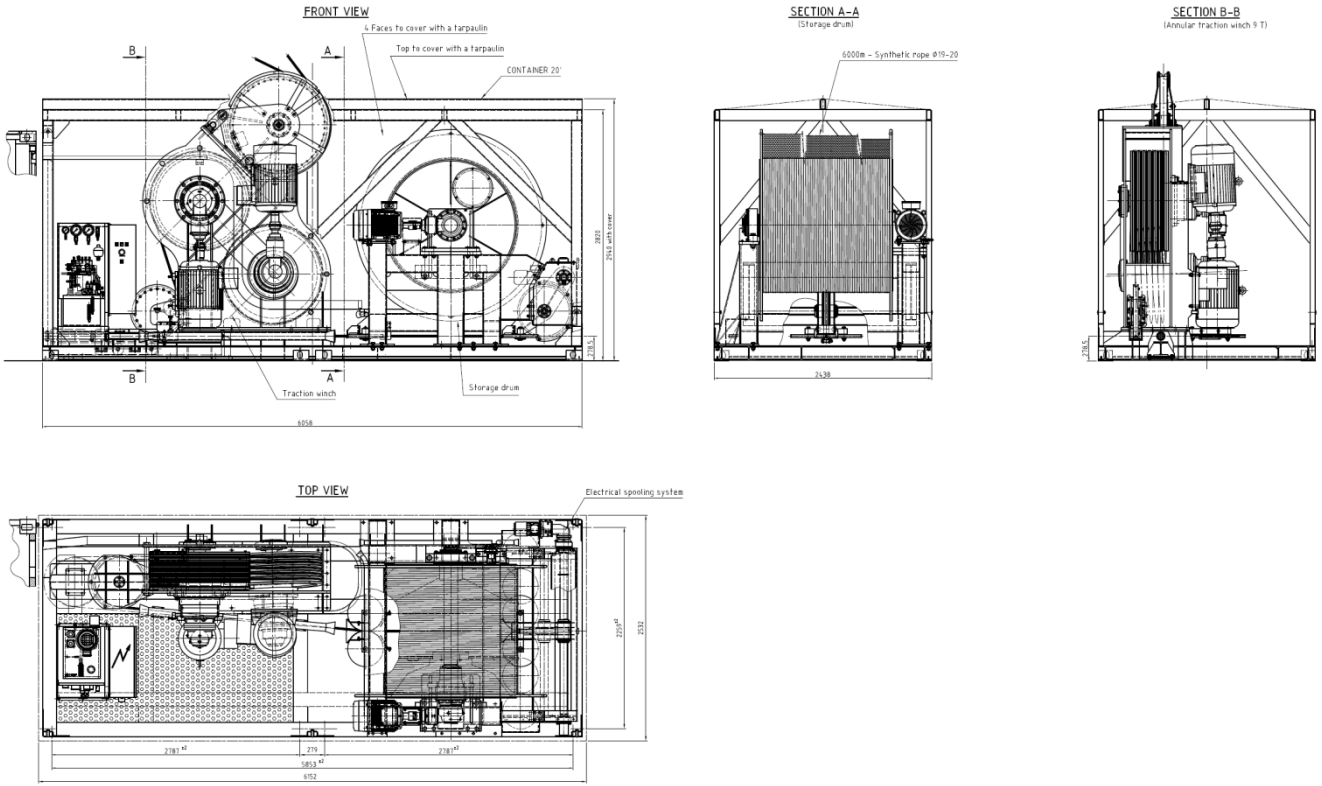




Coring function studies

Example of winch into 20'container

- 20' container 20' (winch + capstan) + 10' container (power + control)
- 6000 m of synthetic cable (diam 19 mm, MBL 25 T) with 80 kN @45m/min or 35 kN@100m/min



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Thank you