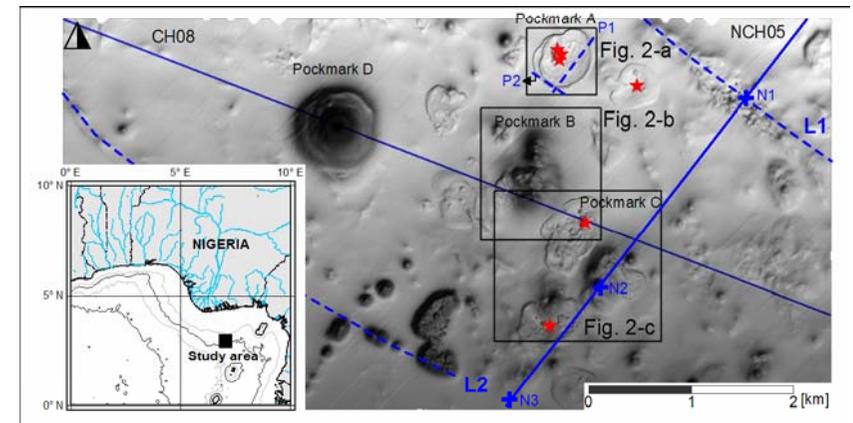




Deployment of MEBO from Pourquoi pas? R/V

Sea trials in octobre 2011, cruise Guineco-MEBO novembre 2011



➤ Different aspects :

- Feasibility conducted in 2008
- On-board installation, oct 2011
- Harbour and sea trials, oct 2011
- Cruise GUINECO-MEBO, nov 2011



Ifremer

Mebo system



➤ Vehicle

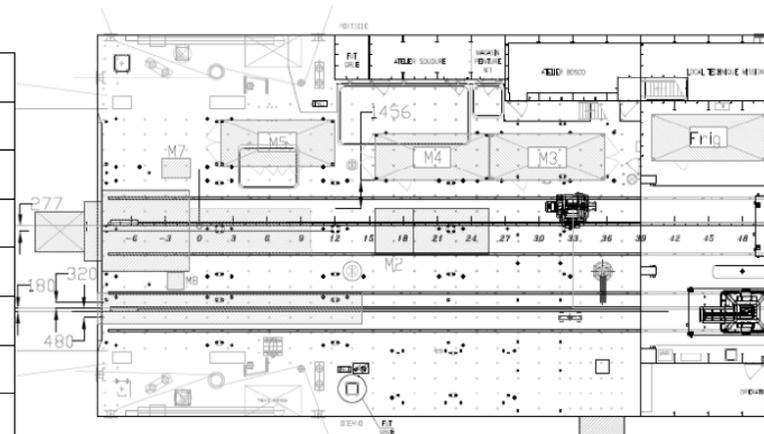
- Dim : 2,3 * 2,6 * 6.6m
- Weight in air : 10t
- Weight in water : 7,5t
- Depth : 2000 m

➤ Winch : 20' – 29t

➤ LARS

➤ Containers : 6 * 20'

MEBO	Containers
M1	1X20' SPECIAL MEBO
M2	1X20' SPECIAL WINCH
M3	1X20' OFFSHORE CONTROL
M4	1X20' WORK SHOP
M5	1X20' DRILL TOOL
M6	1X20' TRANSPORT LARS
M7	1X20' LARS HPU





Deployment

In 2007, studies confirms that the A-Frame is able to deploy MEBO and support maximum load of :

- 18 T - static when unroot the MEBO,
- 15 T - on line when vehicle in water + dynamic loads

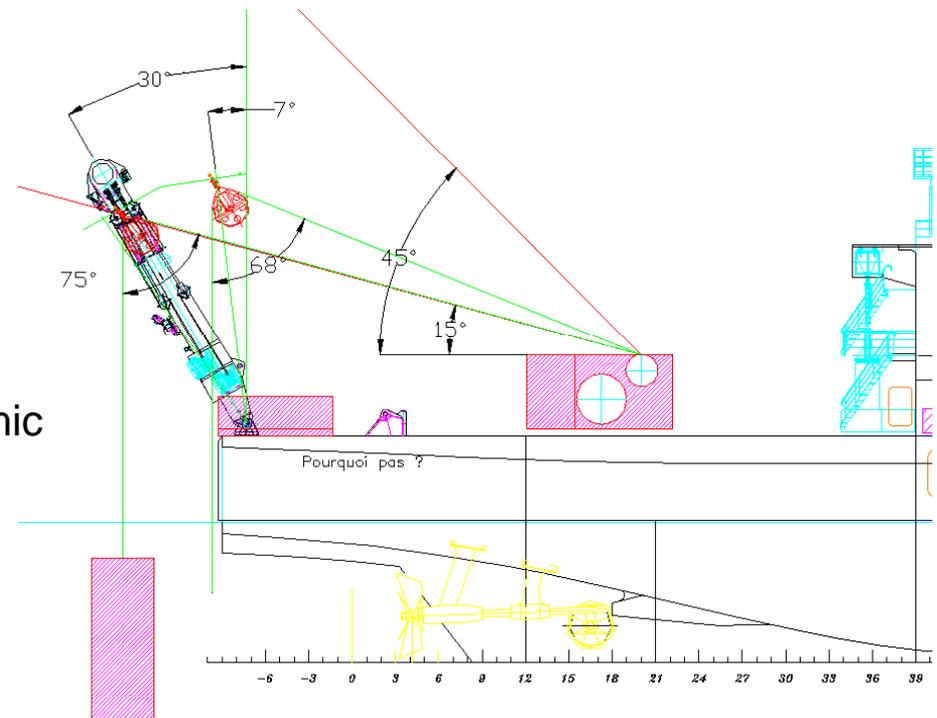
➤ **In air :**

- Mébo weight in air : 10t
- Deep sea pulley : 1t
- On line : 11t + dynamic load

➤ **In water :**

- Mébo + cable : 14t
- Pulley : 1t
- On line : 15t + dynamic

A frame not fully out-boarded when MEBO is in operation



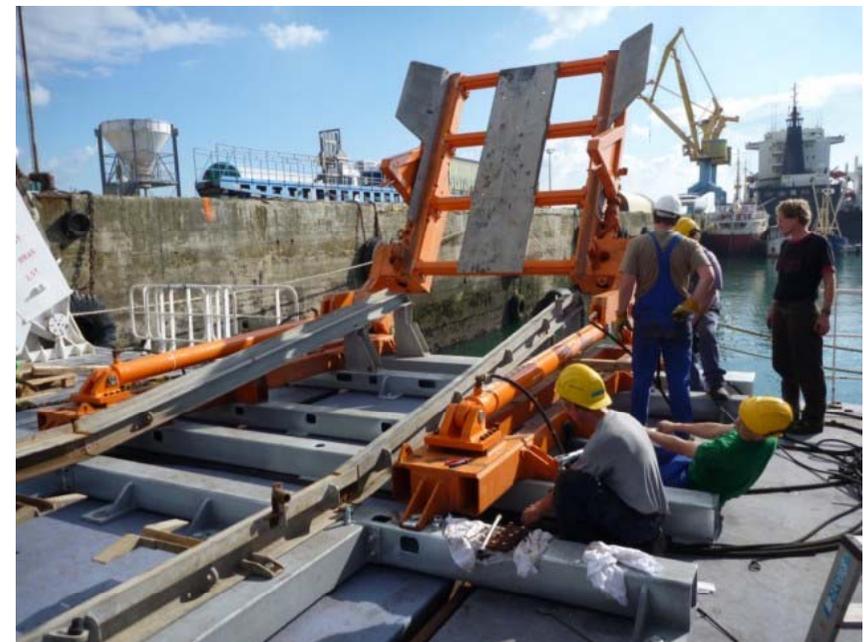
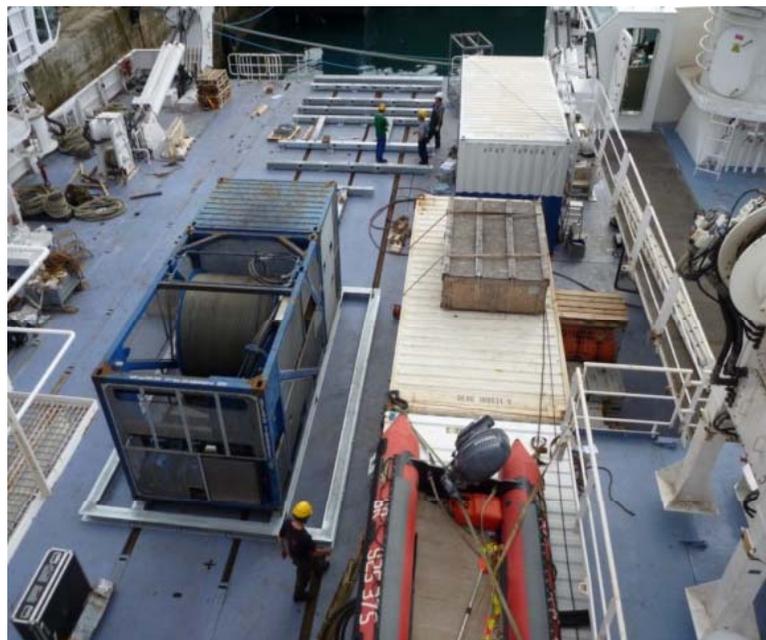


Adaptation frames

Need 2 adaptation frames :

➤ For winch

- ✓ To support winch weight on deck
- ✓ To support static and dynamic load from winch on deck



➤ For LARS

- ✓ To install LARS on board with its rails



Several connexions

Power connexion with board :

- 2 connections 380V, 150 A, 3 phases
- 2 connections 380V, 63A, single phase
- 1 connection 380V, 63A, 1CEE
- 1 connection 380V, 250A, 3 phases

Networking connexion :

- Integrated navigation
- Ultra Short Base Line data to acoustic positioning MEBO





Handling procedure

➤ Launching procedure

- LARS used to drive MEBO from horizontal to vertical position
- When A frame slightly out-boarded, deep sea cable handles MEBO, disengages it from LARS
- A frame is still slightly over-boarded and cable is paid out – floats are fitted





Harbour trials

➤ **Harbour trial**

After 5 days of installation, an Harbour Trial was efficient

- tests of connection and power alimentation
- trial of outreach



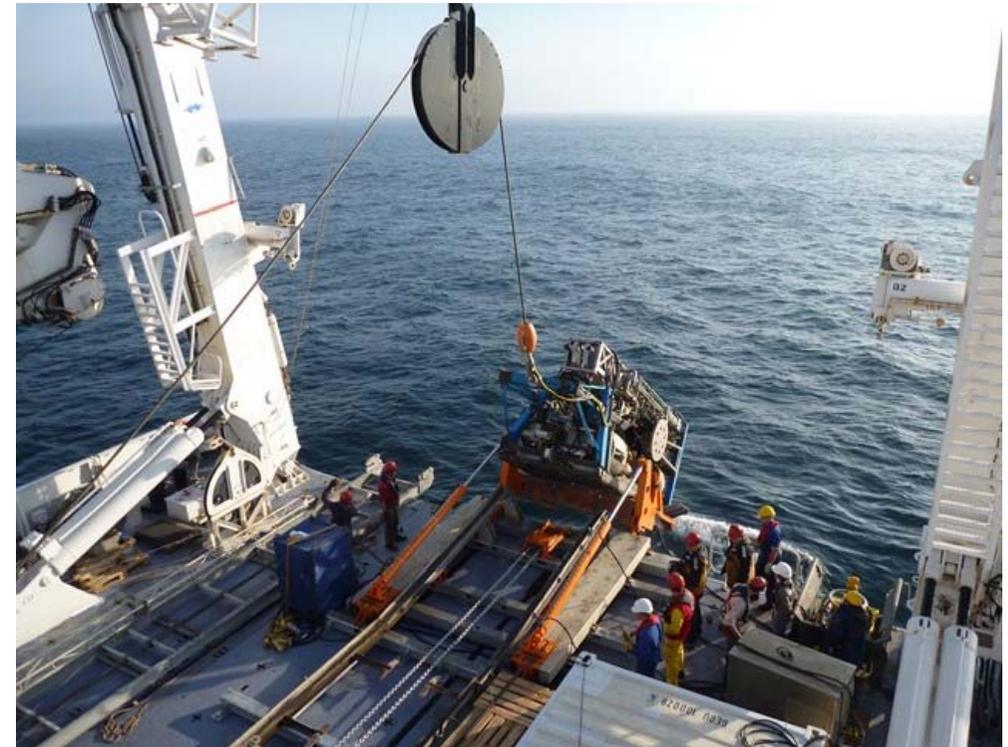


Sea trials

➤ Sea trials

After Harbour test, sea trial was done at 70 m depth.

Objective : crew need to practise MEBO handling and recovery with the use of floats on cable.





Thank you for your attention

