



National French Fleet Evolution

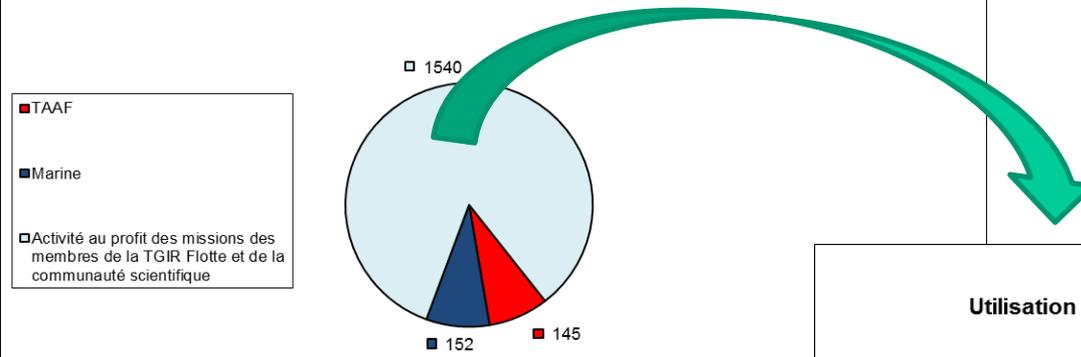
Horizon 2021



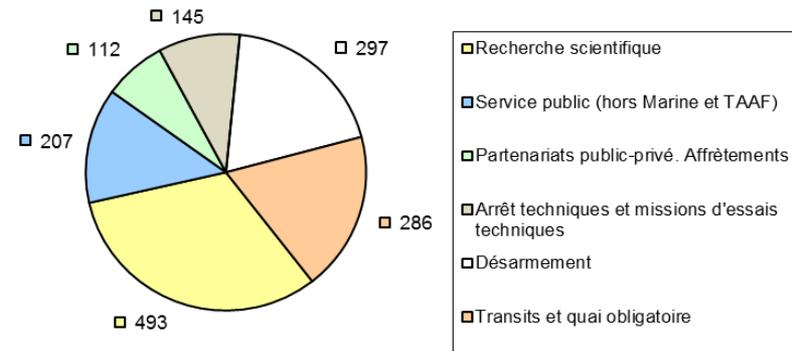
Global and régional vessels – 2012

(Marion Dufresne, Pourquoi pas ?, L'Atalante, Thalassa, Suroit).

Utilisation du potentiel des navires globaux et régionaux de la TGIR flotte en 2012



Utilisation au profit des missions des membres de la TGIR Flotte et de la communauté scientifique en 2012 (1540 jours)



Pressure is important in Atlantic (40% of campaigns), with well distributed request in Indian Ocean, Pacific ocean and Mediterranean sea.

Global and régional vessels

- Projection in 2021 (analyse conducted in march 2013) :
 - Very small inflection of the number of day at sea for research : + 100/+150 days
 - Reduction of public service campaigns of around 50 days

A Global increase of around 100 days (to be compared to 1540 days of activity in 2012)
Geographical repartition should stay the same with a small inflection in Mediterranean sea

- Based on 330 days of activity per vessel and per year the fleet could theoretically be reduced to 4 vessels, and *Le Suroit* could retire. But :
 - There are huge differences of mission profile between Marion Dufresne (long coring), Thalassa (fishery stock assessments), Pourquoi pas ? (deployment of submersibles),...
 - Three vessels are geographically blocked at fixed dates (Marion Dufresne around TAAF, Thalassa in North Atlantic (DCF), Pourquoi pas ? In Atlantic (Navy),
 - We should not have any more flexibility to accommodate charter with short delay.

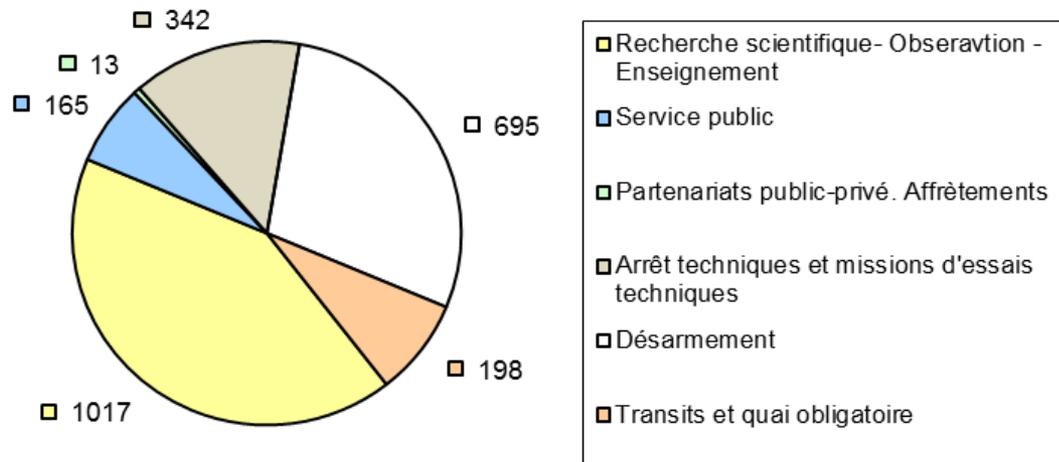
- When considering the daily cost of Le Suroit compare to Thalassa there is no real economy when transferring Le Suroit activity on Thalassa.

- **Suppression of the existing old 5^{ème} ocean vessel has no interest economically or operationally, at the actual level of activity.**

Coastal vessels – 2012

(Thalia, Gwen-Drez, Côtes de la Manche, Thetys, L'Europe, Alis Antea)

Utilisation du potentiel total des côtiers en 2012 (2430 jours)



Coastal vessels

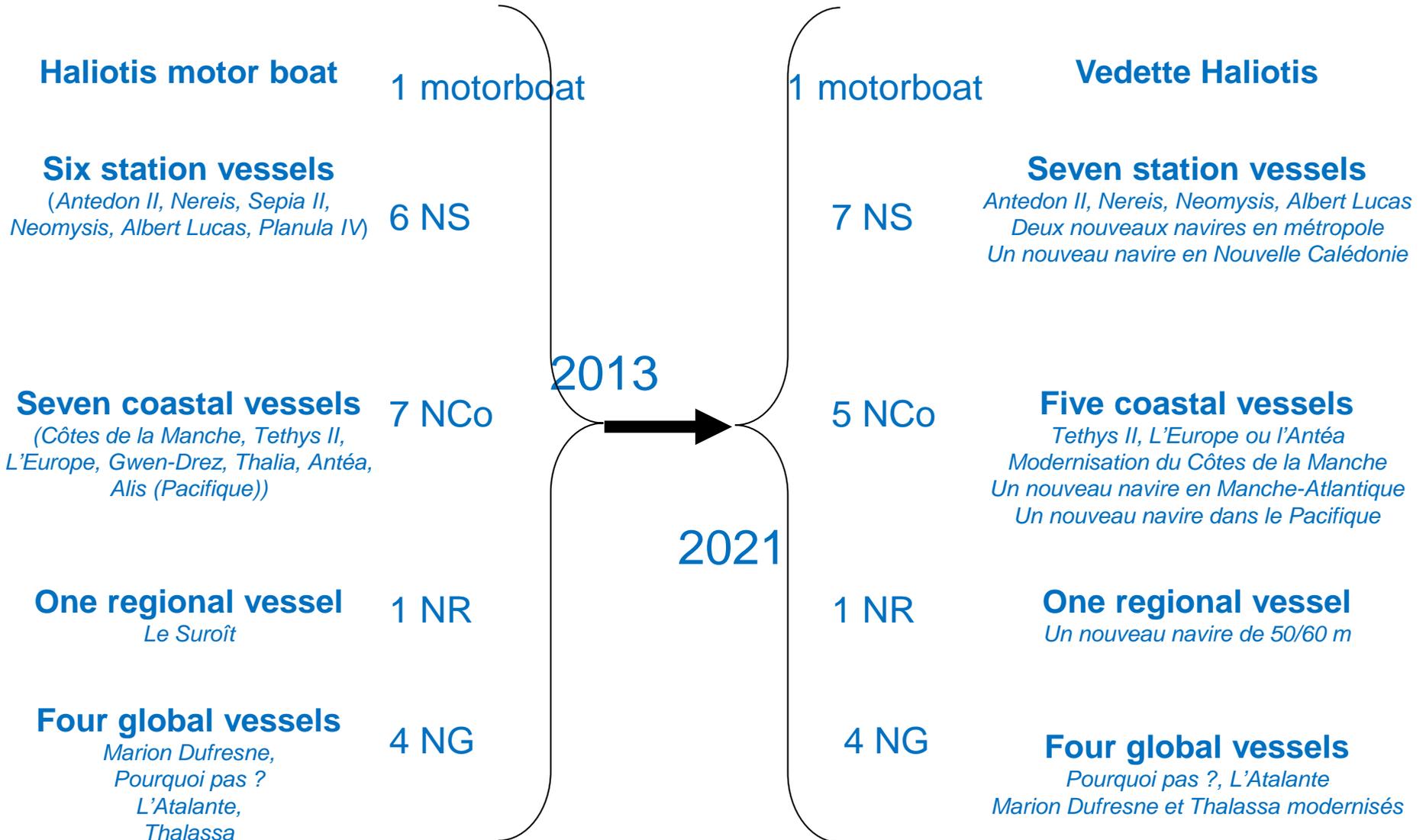
- Projection in 2021 :
 - Request from MFSD, maritime protected areas should increase. But there is no evidence of more budget to realize those new campaigns and activities.
 - Due to the new station vessels (less than 15 m) that should enter in service in the gulf of Bisquay, the number of day at sea should be reduced of 100/150 days of resarch for the coastal vessels.

A Global decrease of around 250 days (to be compared to 2430 days of activity in 2012) is expected.

- On metropolitan coasts, the needs should be covered by 4 vessels and Haliotis oceanographic motorboat.
 - Two vessels in gulf of Bisquay and channel : a new 35 m vessel and *Côtes de la Manche* (jumboisation of 5 m)
 - Two vessels in Mediterranean sea : *Thetys* and *L'Europe*

- In West Pacific and French Polynésia : *Alis* or its successor

Scénario for the French oceanographic fleet in 2021



R/V Marion Dufresne refit (2015)

Objective: 2030



Three steps

➤ **1 - Scientific argumentation(2014)**

- One group of scientists ran a study for forward planning of scientific needs (austral ocean, paleo-climatology, education, interdisciplinarity)
- On sub-group dedicated to paleo-climatology / paleo-oceanography (coring capacities)

➤ **2 – scientific modernization : 15 M€ (2015)**

- A- Scientific instrumentation, including multibeam echosounder
- B- Deck equipment: coring winch and hydrology winch, A frames
- C- Scientific labs and rooms
- D- IT modernization

➤ **3 – Vessel modernization: 10 M€**

- The vessel is fit for use until 2030 if she goes through refit
- Change from FO to DO
- 25 Items audited



R/V Thalassa modernisation (2015-2016)

Projection :

- Decrease of Fishery stock assessment activity : the activity is reduced to 6 to 7 months a year
- The vessel is well equipped for Physical oceanography, fishery stock assessment.
- It is able to deploy Victor 6000 ROV (see 2012 campaigns)
- There is no capacity for geosciences

The project

- To install a shallow water multibeam (EM 302 or equivalent), gravimeter,...
- A Medium depth winch (4500 m) to be installed for coring, dredging and deployments,
- Technical modifications to accommodate heavy Seismic,
- Adaptations for the deployment of the new HROV



National heavy mobile equipment

- Replacement of seismic (2014 to 2017)
- Development of a 6000 m depth AUV (stop of one of the two 3000 m AUV, and integration of imagery function operated previously by SAR (Stopped in 2013))
- Concerning Nautilie submersible.
 - To operate the submersible until 2030 there is a need to replace floating foam (2 M€) and develop a new face (cameras, electric arm) (2 M€)
 - Under discussion. Probably Prime minister level of decision...



From *Le Suroit* to a new regional vessel (2021)

Le Suroit :

- An old but well equipped and cheap vessel
- It should be maintained up to 2021 (46 years old) !

Questions opened related to its replacement (42 M€)

- No budget from the ministry of research before 2017
- Probably no way to be financed by the ministry of Research alone :
- Enlargement of the existing national cooperation with the navy ?
- A regional approach with countries involved in research of survey in the Channel, Bisquay Gulf and North Atlantic.

