



Comité Régional des Pêches Maritimes
et des Elevages Marins de Bretagne



Between preservation of the environment and socio-economic development of the seaweed producers: an evolving management framework for a dual challenge

Jehane Prudhomme – CRPMEM Bretagne



An important ecosystem to preserve *and...* a dynamic and growing industry



Highly protected habitat

Ecological functions and Ecosystem services



PNMI©, PNMI©, Le télégramme©, D. Léauté©, PNMI©, Doris©

Promote the deployment of a European sector for the valorization of seaweed

Economic sector



Sources: Rapport Valmer (2015) & Life Marha (2021)



Lilles, the 26th october 2023

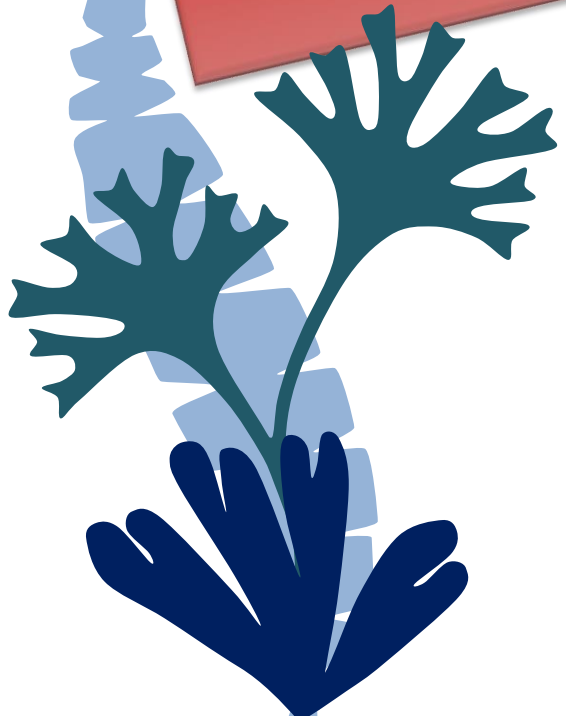


An important ecosystem to preserve *and...* a dynamic and growing industry

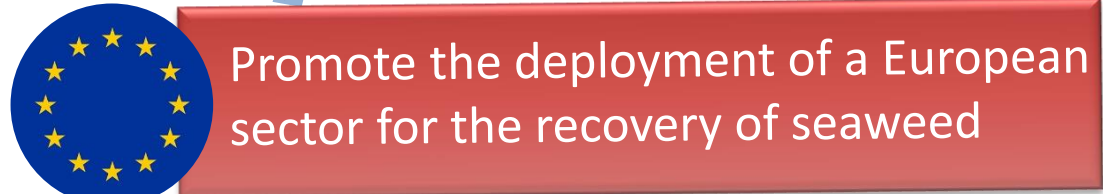


Ecological functions and
Ecosystem services

Economic sector



How can we reconcile these two challenges?





Le CRPMEM Bretagne - *the Comittee for marine fisheries and aquaculture of Brittany*

Professional organization with public service missions defined by the French law

Board of directors elected for 5 years composed of marine fishing and aquaculture companies

**Fishing and
Aquaculture
companies**



**Maritime
economic
sector**

**Scientific
organizations**

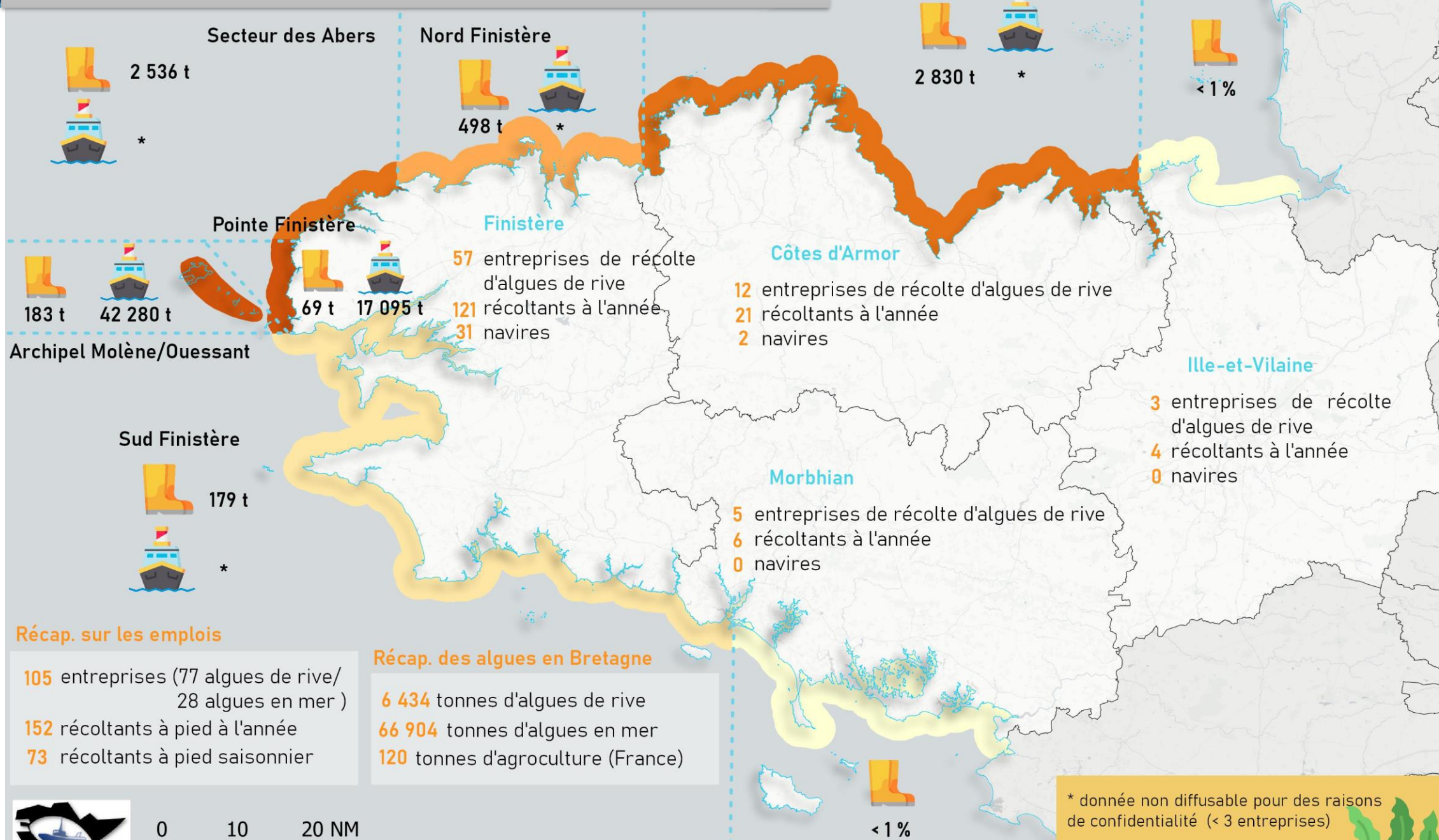
Our missions:

- Represent and promote the interests of the profession
- Manage fishery resources sustainably
- Supervise gear utilisation and cohabitation
- Carry out economic and social initiatives
- Contribute to environmental policies
- Provide scientific and technical support

**All professionals from Brittany -
fishermen and marine aquaculture -
are members of the comittee.**



Seaweed production in Brittany: some figures (2021)

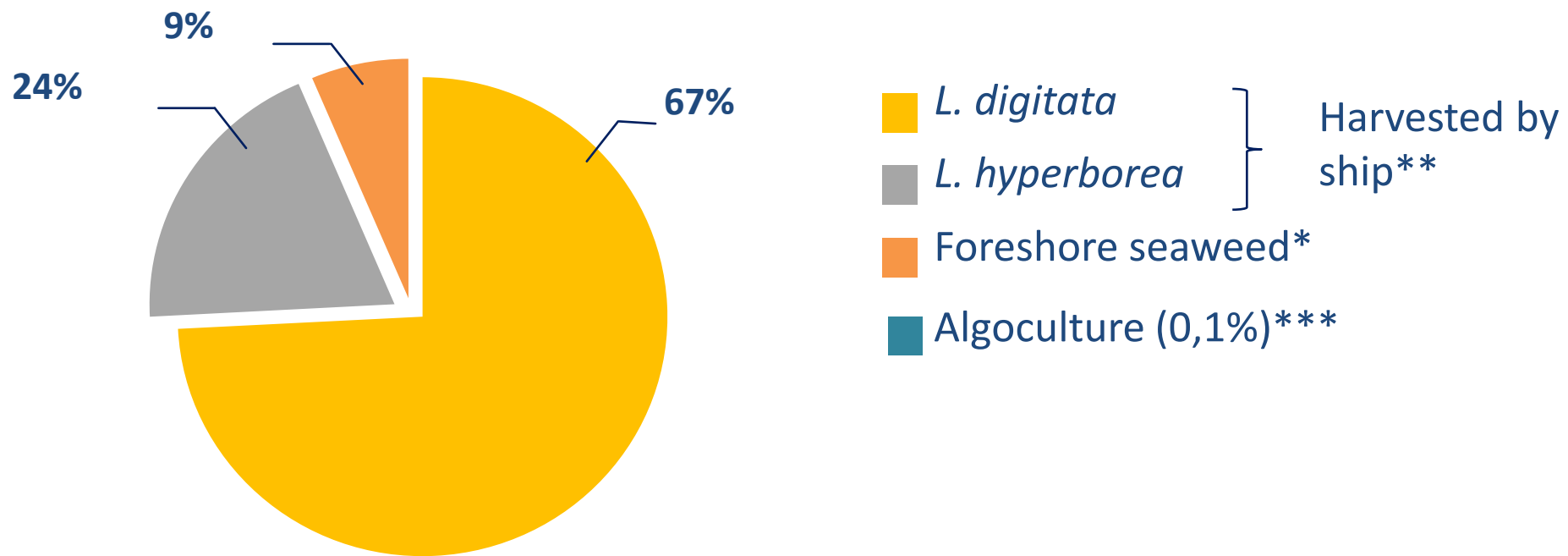


0 10 20 NM

Sources : Ifremer, DDTM Bretagne, IGN, CRPMEM Bretagne, Agrest



Distribution of algae production (2021)



PNMI©



MNHN - S. DERRIEN ©



> 80 % Of foreshore production:
Ascophyllum nodosum and fucus

*Données CRPMEM
 **Données Ifremer
 ***Données agreste.agriculture.gouv.fr



Management tools implemented by the CRPMEM



LICENCES

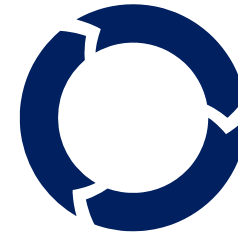


**HARVEST
CALENDAR**



**TECHNICAL
MEASURES**

**HARVEST GEAR REGULATION,
SPACE-TIME MEASUREMENTS,
GEOLOCATION**



ZONING
**FALLOW LAND,
FISHING STRIPS**



**BIOMASS
ASSESSMENT**



**HARVEST
DECLARATION**

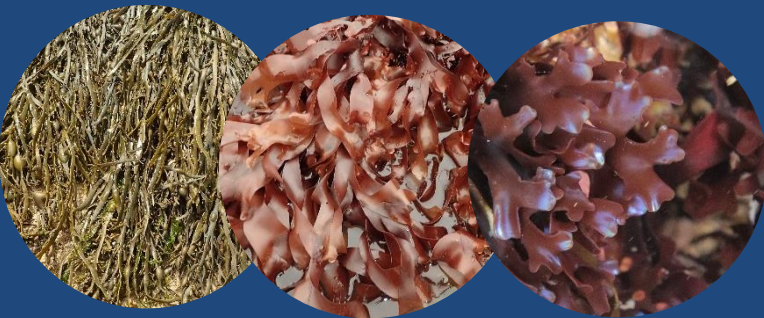
The rules are set by resolutions of the CRPMEM, approved by the regional prefect.



Programmes to monitor and improve knowledge led by CRPMEM Bretagne

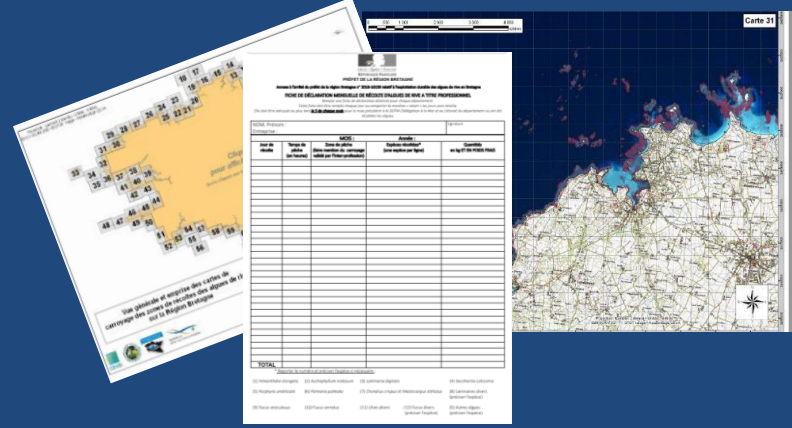


Biomass



biomass assessment and monitoring protocol
Species Biology

Activity



Entering and processing declarative data
Grid of 500m by 500m

Harvesting impact assesment



characterization of practice
assessment and monitoring protocol of
harvest practices

Implementing adaptive resource management with the professionals



The management of *L. hyperborea* in Brittany: *the introduction of technical standards at the request of professionals*

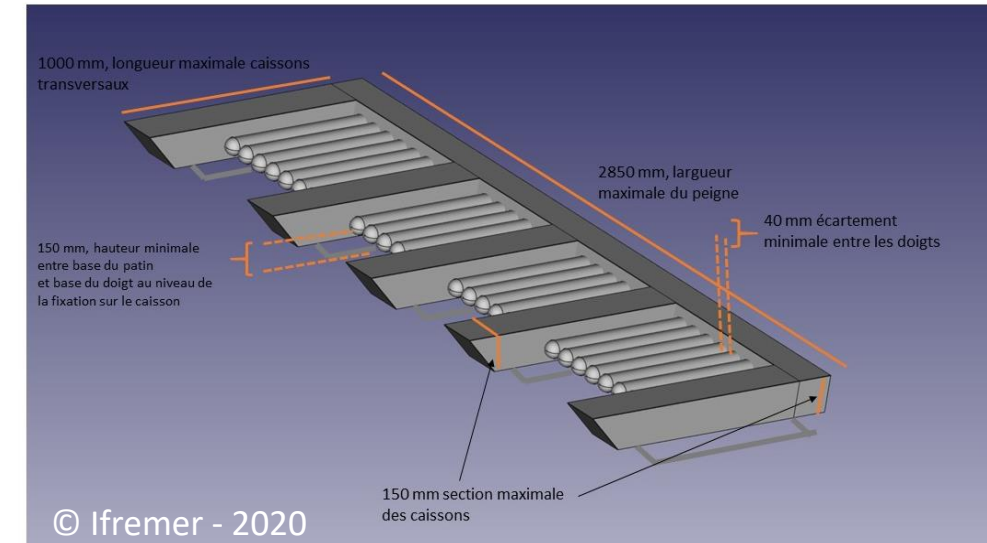
OBJECTIVES

LIMIT IMPACT ON BOULDER FIELDS

IMPROVE SELECTIVITY FOR TARGET SPECIES

LIMIT HARVESTING OF JUVENILES

- Professionals' fear of seeing the development of new gears
- Considering the risk of block overturning and the role of *L. hyperborea* as a founder species
- 2 years of meetings with professionals and Ifremer
- Based on survey of professionals and Ifremer work





Carrying out fishing risk analyse with the French government

- **Natura 2000 sites** are a network of sites created to conserve habitats of European interest (EU law)
- Since 2016, an **analysis of the risks** of undermining habitat conservation objectives must be carried out on all Natura2000 sites for all professional fishing activities.

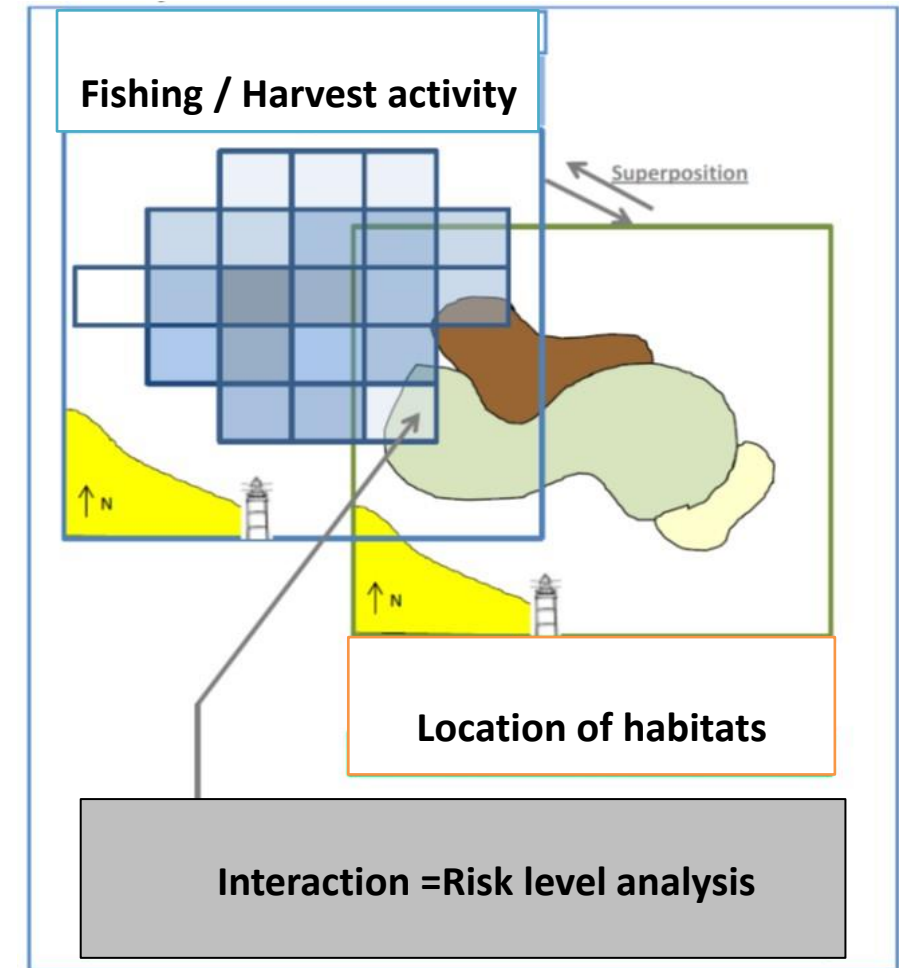
> fishing risk analyse

➤ **METHOD:**

- 1/ **Overlaying the mapping of marine habitats and fishing activities** (professional data/geolocation)
- 2/ **Calculation of the Risk** of Undermining Conservation Objectives for each gear/habitat pair:

Nil / Low / Moderate / High

- 4/ In the event of **moderate or high risk**, measures must be taken to reduce these risks

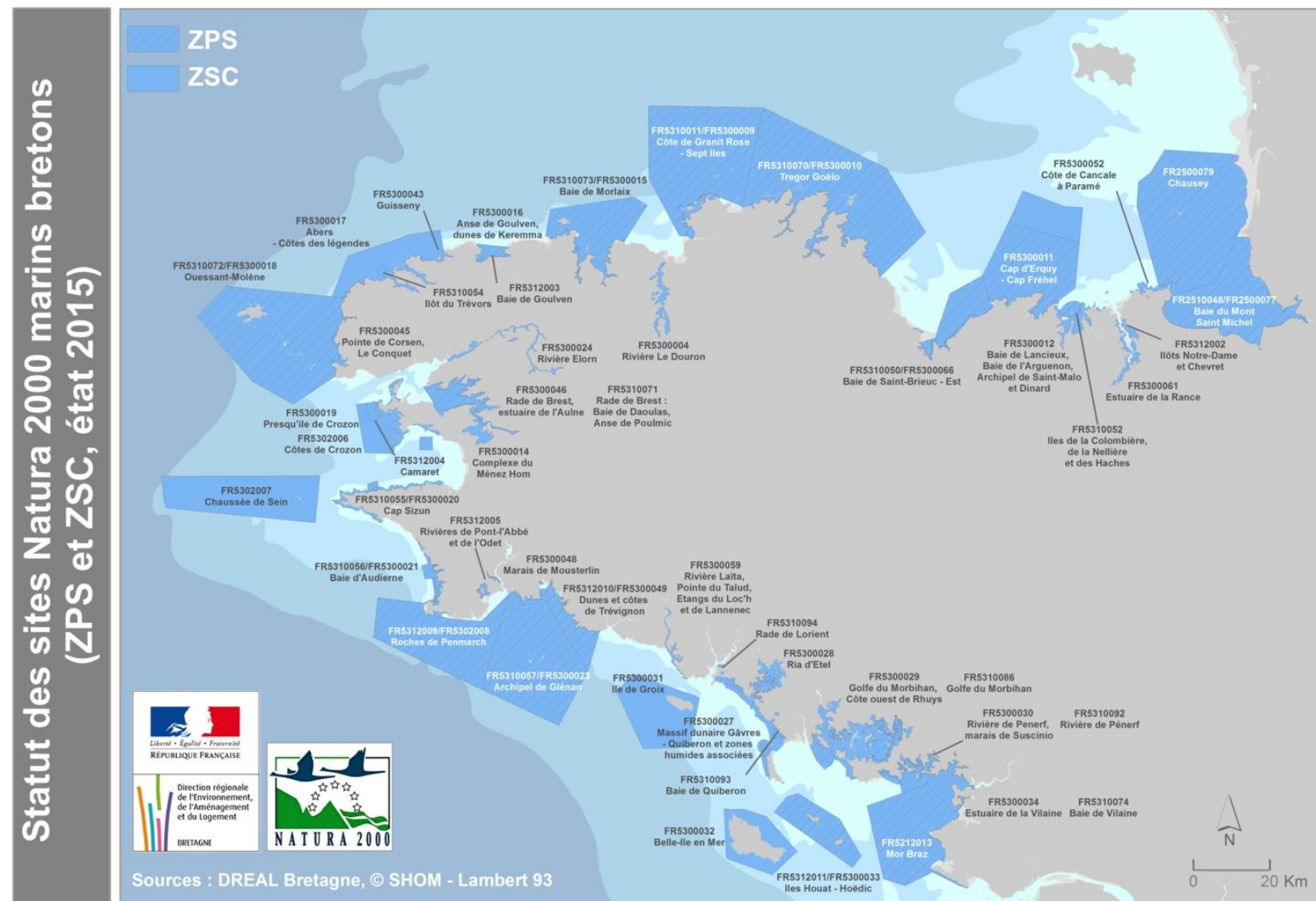




Carrying out fishing risk analyses with the French government

➤ RESULT

- On all habitats with seaweed, the level of risk is **high**
- We are currently working on technical measures with the producers to reduce the level



The management tools set up by the CRPMEM: *Establishing solid, job-creating businesses in our region*

- **Technical measures**

- Quota & vessel size limited to 12 meters
- Prioritization criteria for new shipowners / Entrants
- Involvement of professionals in our working group

- **Socio-economic actions**

- « Défi Algues Bio »



- Law to create a status of professional foreshore seaweed harvesters

- **Ensuring business resilience to climate hazards and environmental disturbances: flexibility and diversification of activities**

- seaweed / scallop seasonality
- Diversification into other production methods (seaweed farming, etc.)

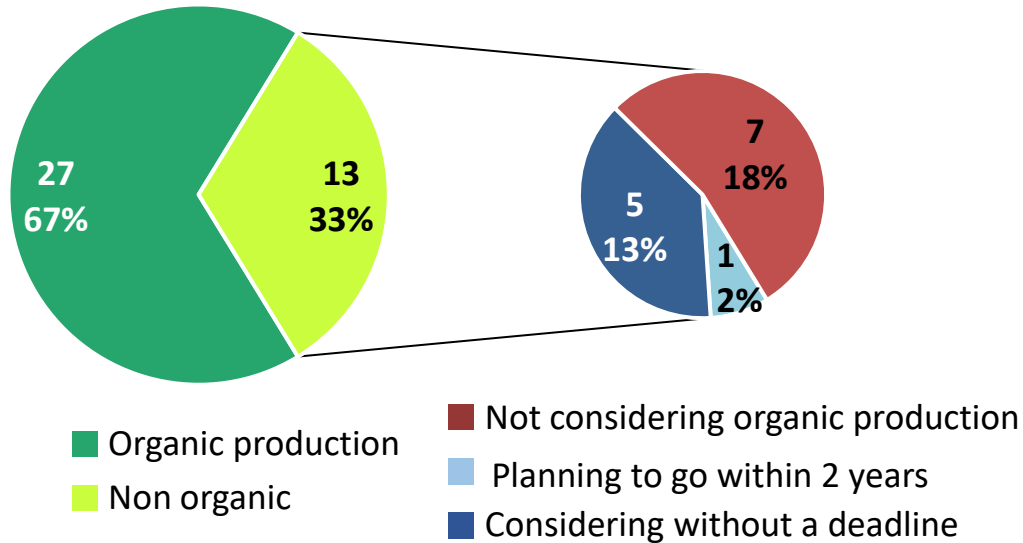
- **Presence of representatives of buyers & scientists at our working group**



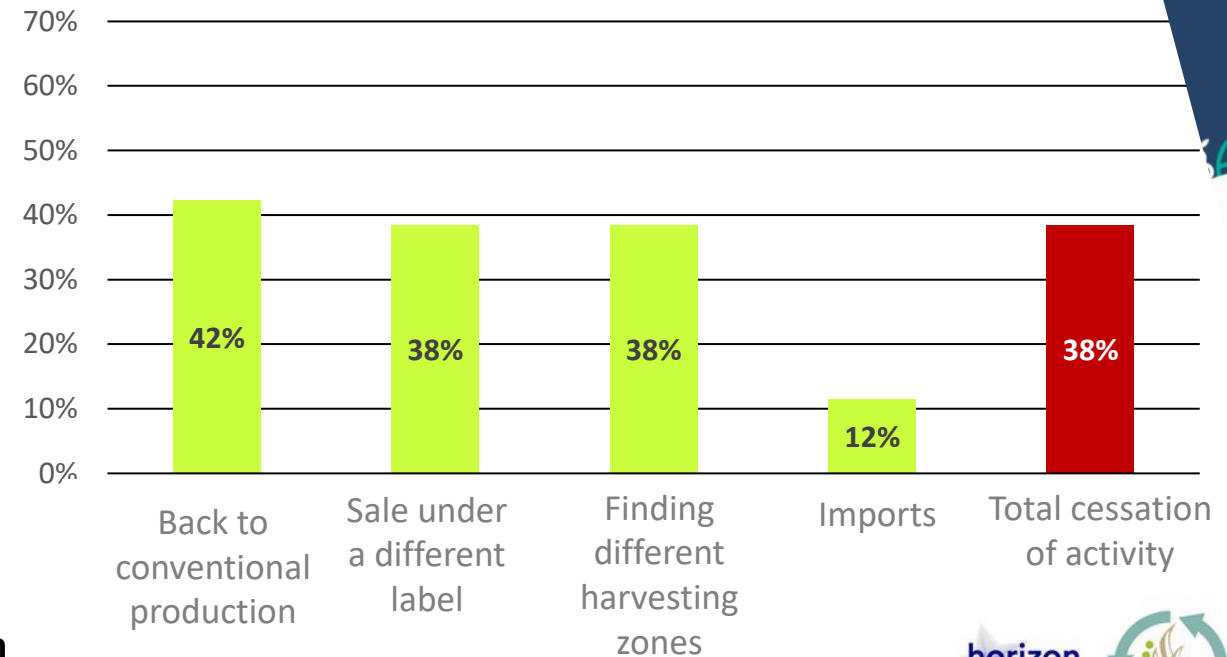


The management tools set up by the CRPMEM: *Improving the quality and value of raw materials*

- A socio-economic study demonstrating the importance of the organic label for producers



Strategy in the event of loss of the label



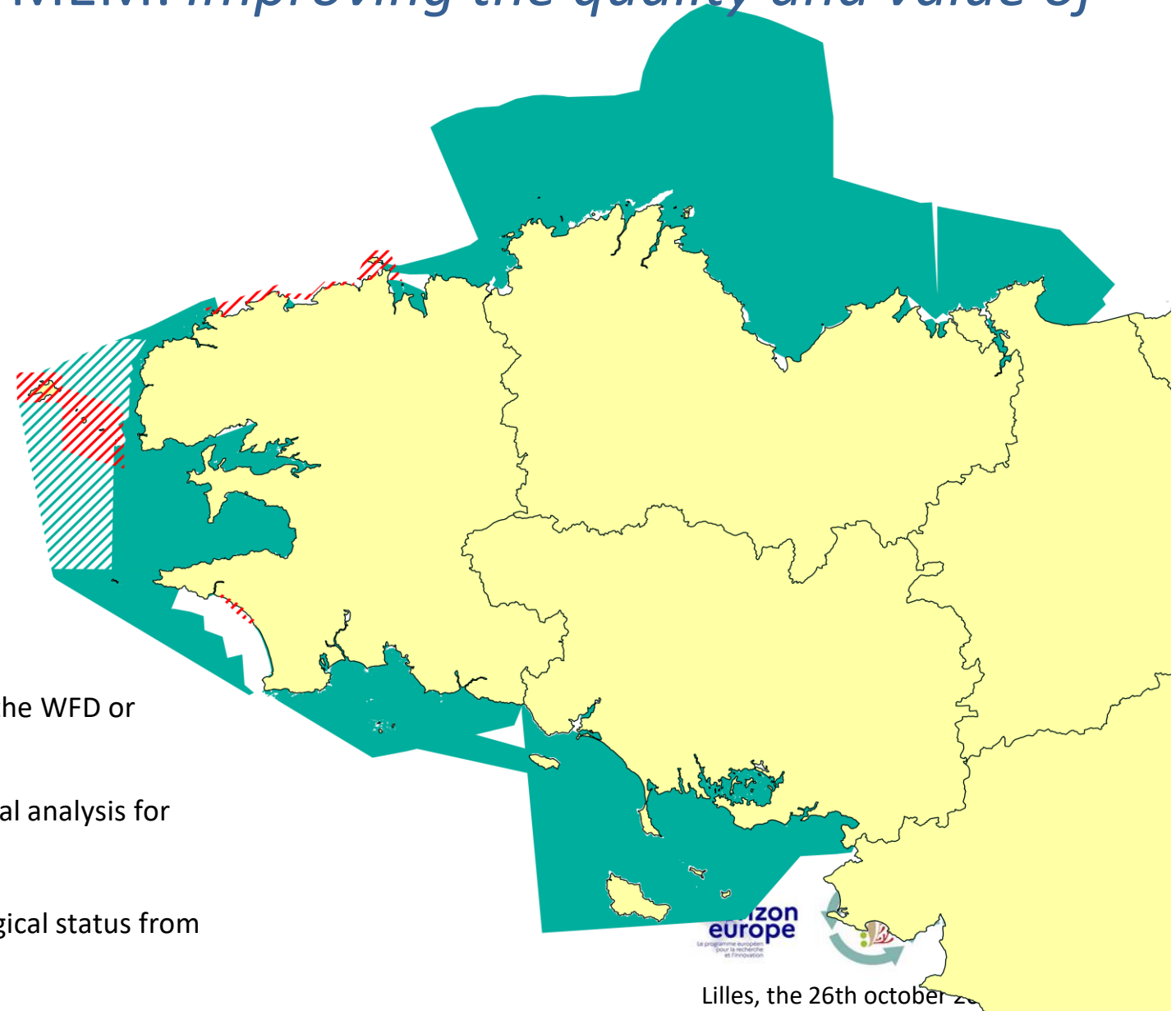
Proportion of companies holding a foreshore algae harvesting license in 2022 that responded to the survey; following type of production








The management tools set up by the CRPMEM: *Improving the quality and value of raw materials*

- Since 2023: Harvesting companies are responsible for water quality testing, through coordination led by the CRPMEM
- Regulatory watch and lobbying



-  Very good ecological status according to the WFD or shellfish sanitary classification A or B
-  Areas subject to voluntary microbiological analysis for equivalent sanitary classification A or B
-  Area considered to have very good ecological status from January 1, 2023



Conclusion

- CRPMEM implements adaptive resource management which is a balance between environmental aspect and socio-economic development
- Quantities harvested in Brittany will not be able to increase sufficiently to meet market demand
- We therefore need to find new sources of production, such as seaweed farming or stranded seaweeds,





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Thank you for your attention



CIRCALGAE
Food • Feed • Cosmetic

***Jehane Prudhomme,**
Chargé de mission au CRPMEM de Bretagne.
Bretagne-peches.org*

Lilles, the 26th october 2023