



Ecocean NID Solution for OWF



Ecocean?



22 years of
expertise



Ecological engineering for
repopulating aquatic
ecosystem within **artificial**
infrastructure



From scientific research into
operational **solutions**

Ports & Marinas

+85 marinas
& 12 ports

Cities



Offshore Wind & Floating Solar & TSO

Scientifics partners



Institutional partners

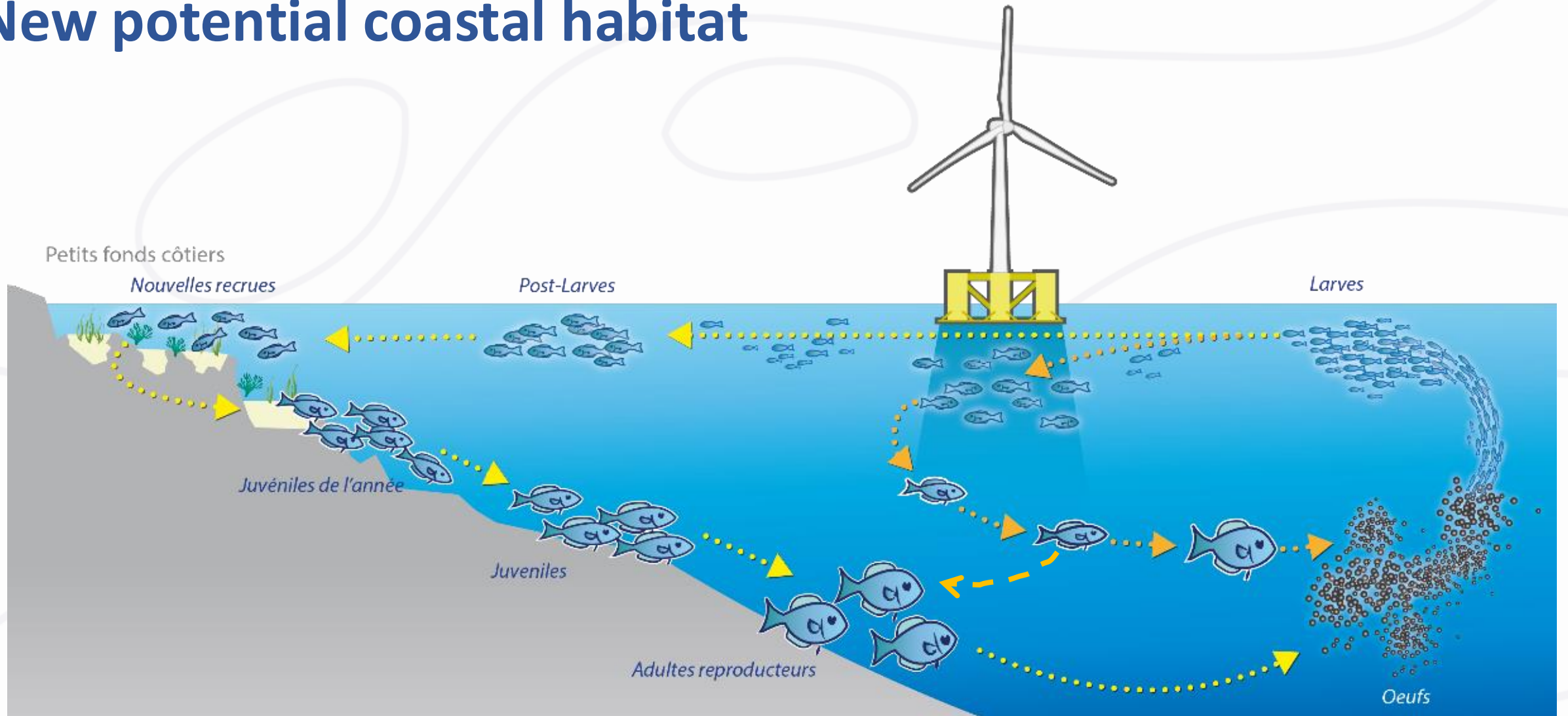


Networks

Early Life History Stage (ELHS) ?

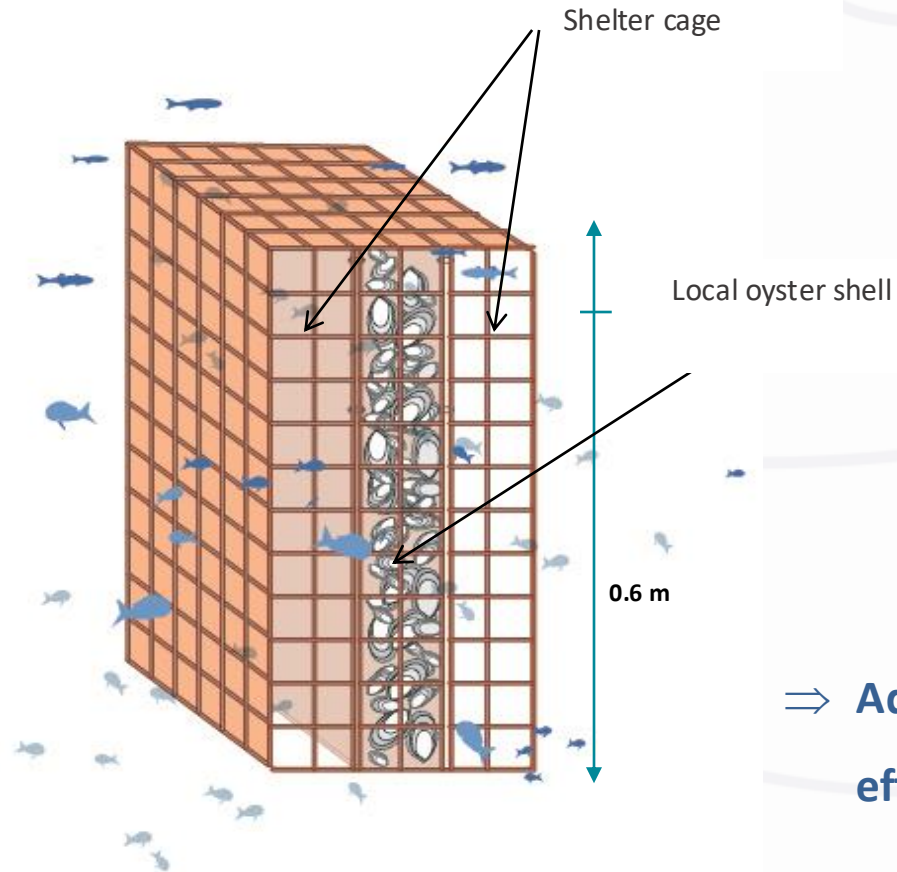


New potential coastal habitat



⇒ ELHS will naturally settle on offshore wind structure, even if but they are not designed for biodiversity

Complexification with Biohut© = NID



2 patents

100%

recycled & recyclable
steel material

inpi
INSTITUT NATIONAL
DE LA PROPRIÉTÉ
INDUSTRIELLE

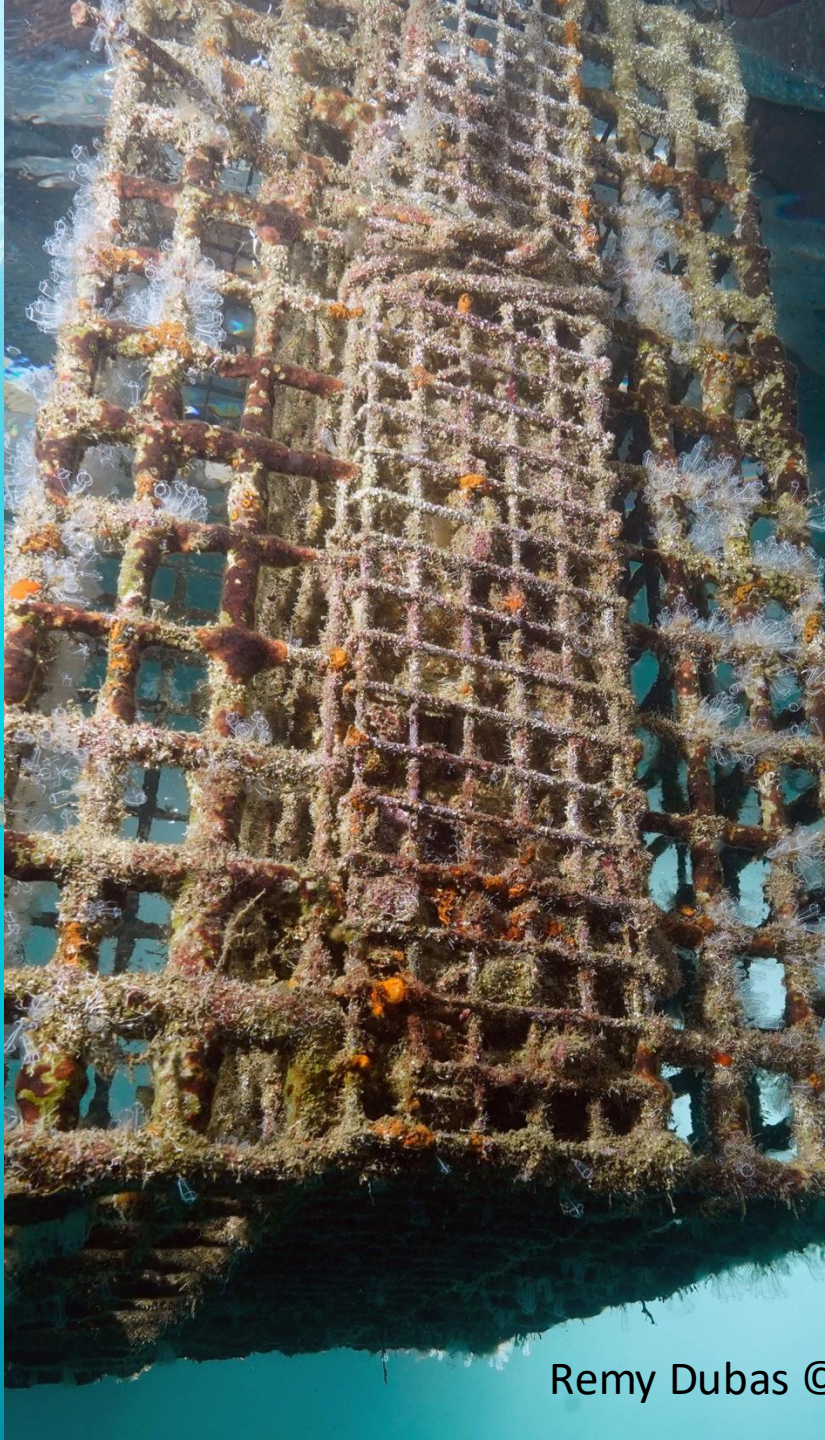


⇒ Adapted and diversified natural food associated with an efficient shelter => essential nursery criteria

Biohut®



Remy Dubas ©

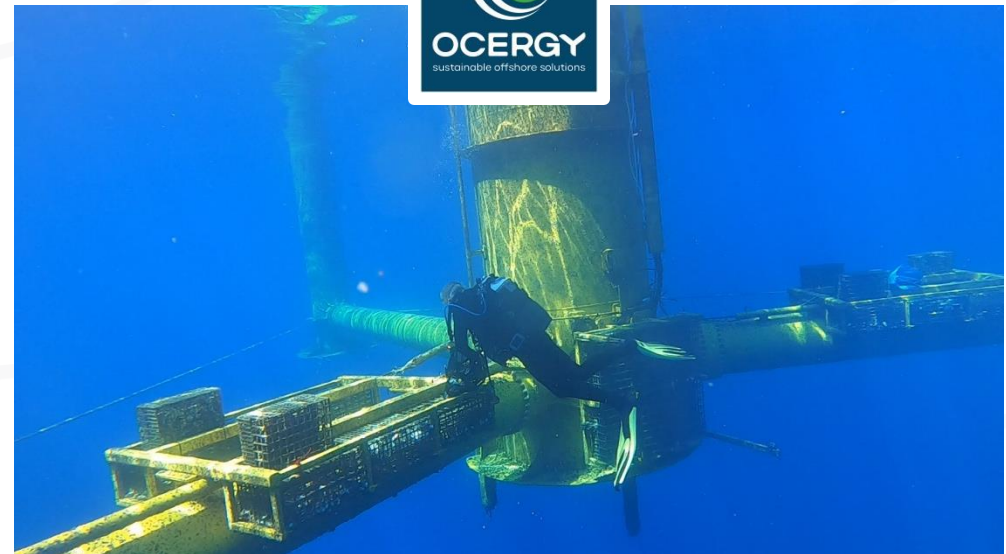
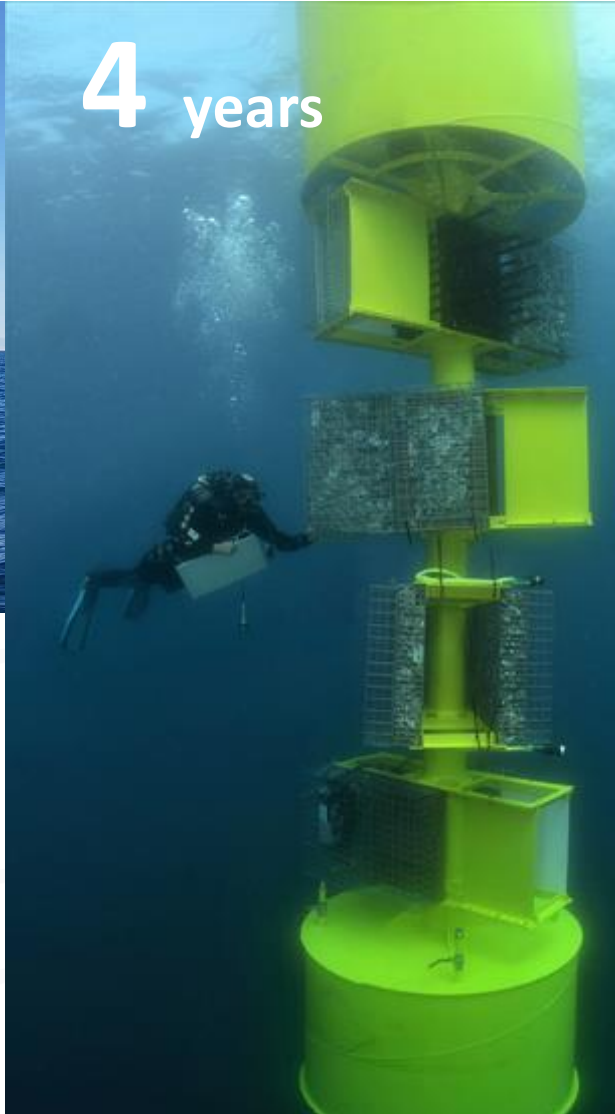


Remy Dubas ©



Remy Dubas ©

6 years of monitoring buoys in Med Sea



“Fish Hotel” = 3 Biohut & 1 saddle

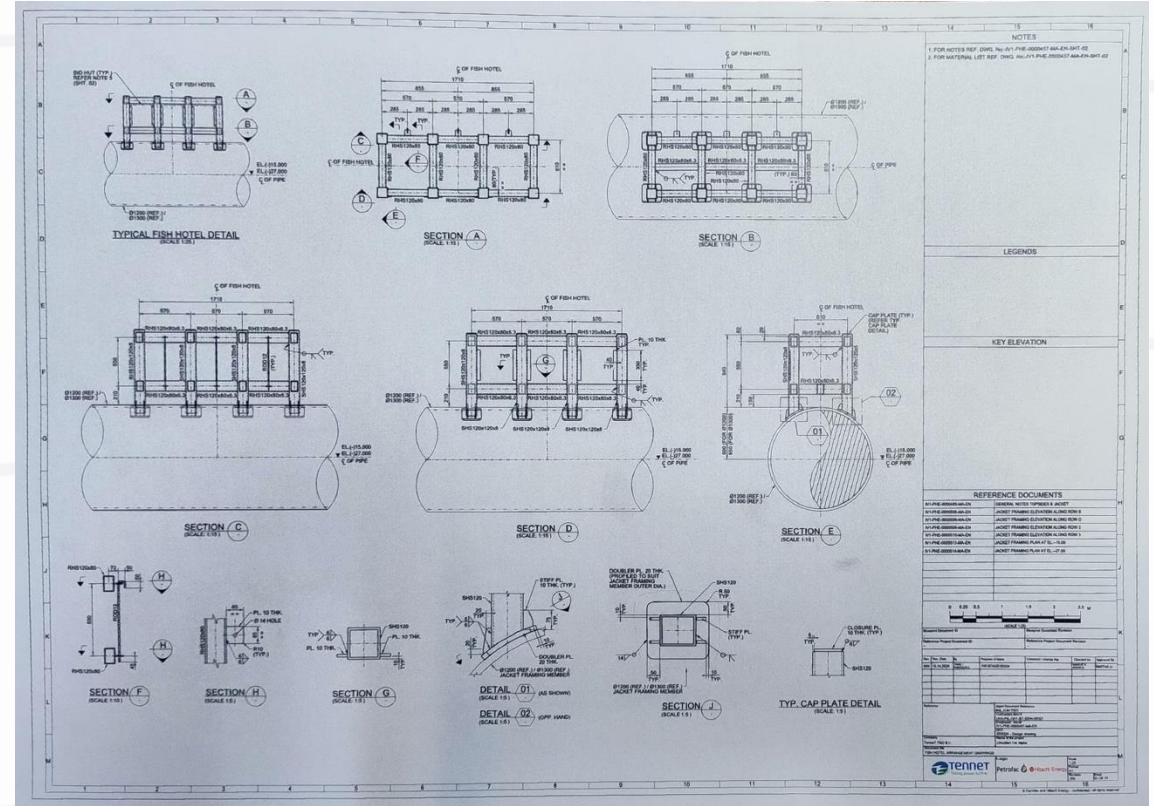
North Sea (2022 & 2023)



2 x 2 Saddle with 3 Biohuts in Holland Kust substation



North Sea (2025)



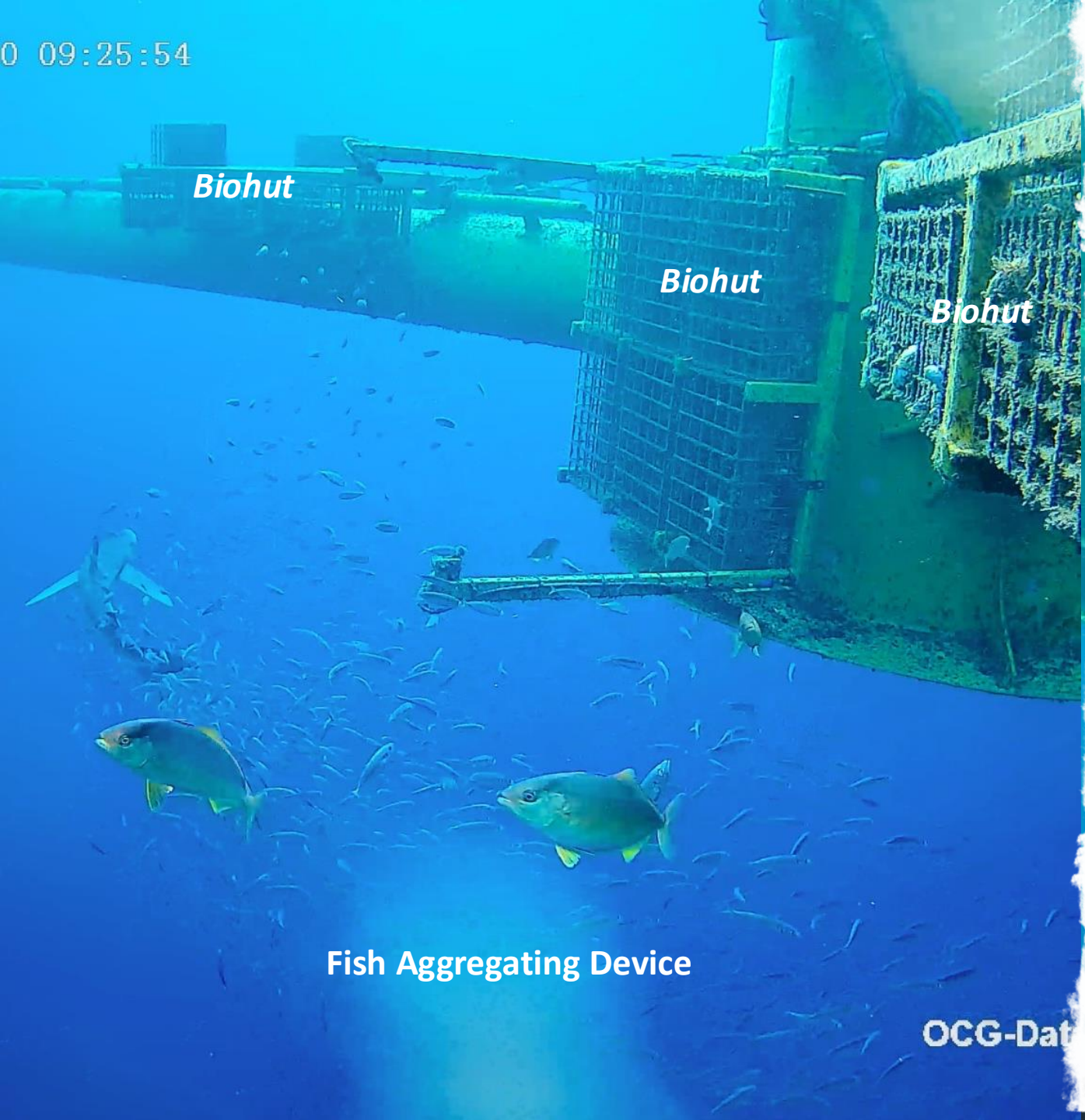
27 Biohuts = 9 « FishHotel » on Ijmuiden substation





EFGL site – 15 km offshore

0 09:25:54



Biohut

Biohut

Biohut

Fish Aggregating Device

OCG-Data



Biohut

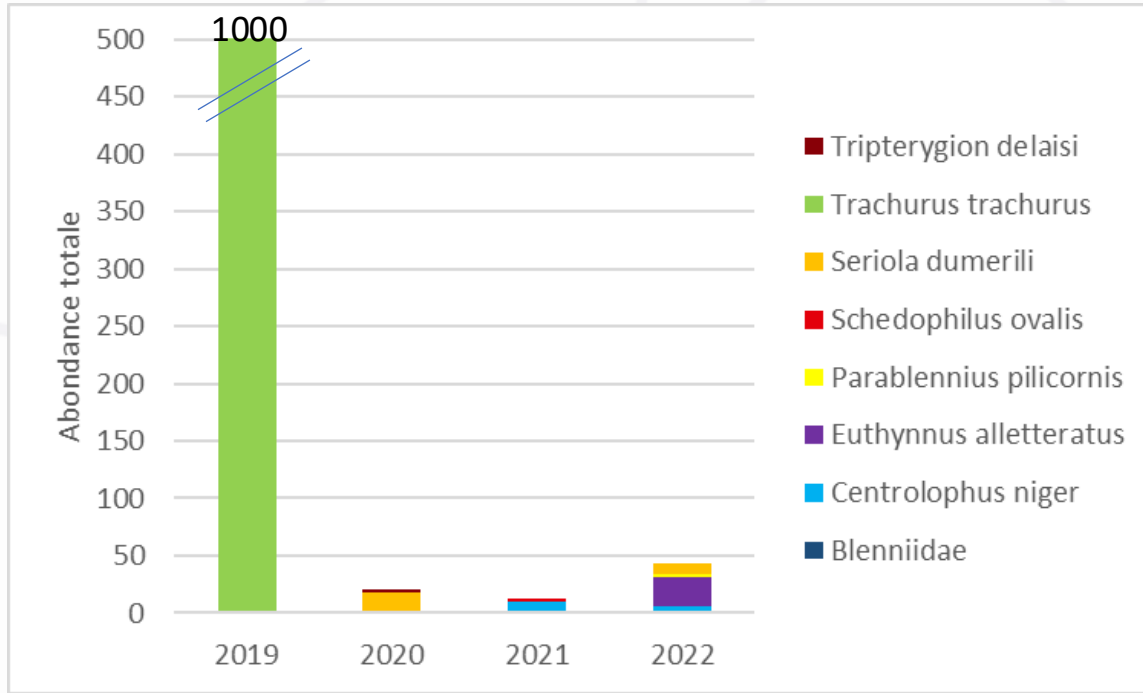
Coastal species

OCG-Data Subsea Cam

1x

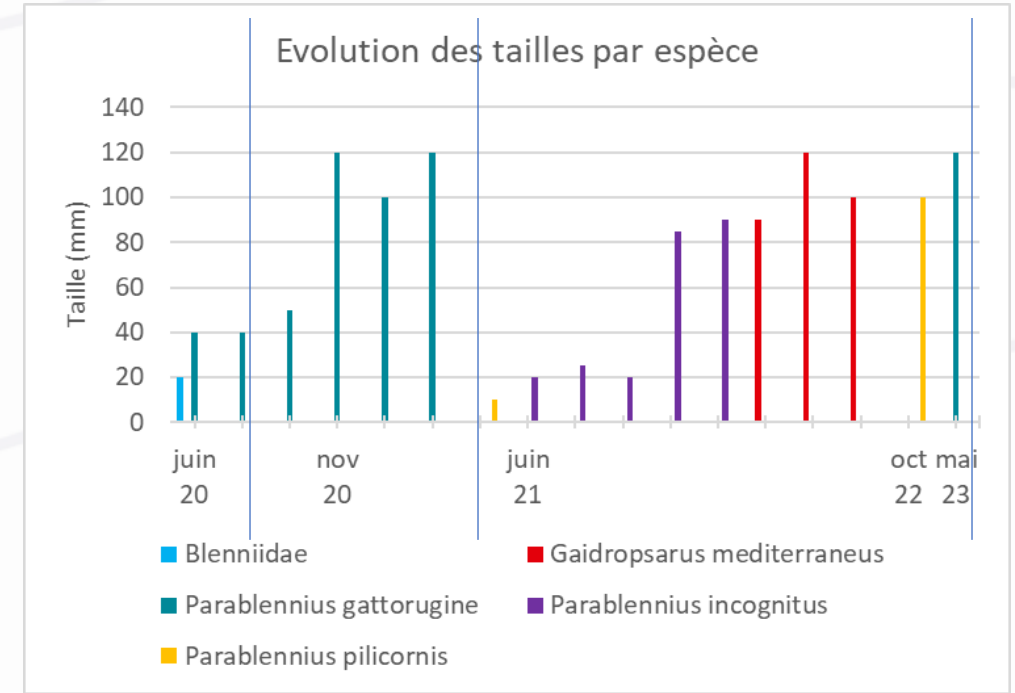


Fish colonization (UVC)



⇒ Colonization occur in 2 stages

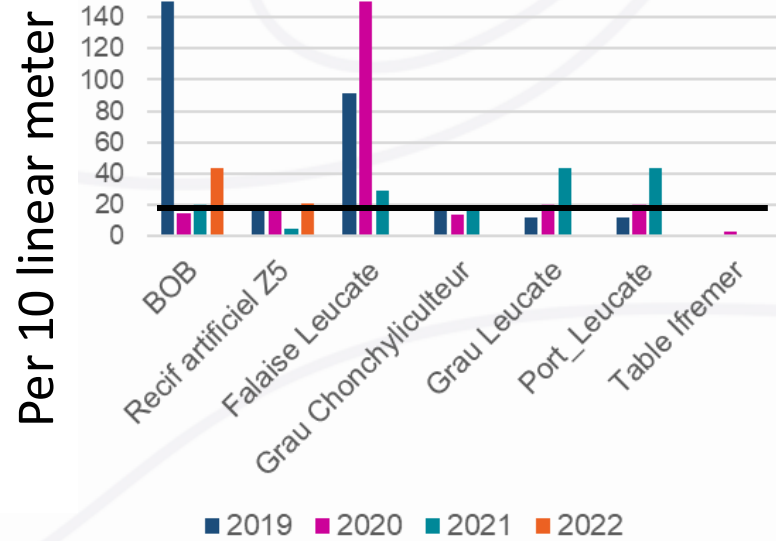
- Fish Aggregating Effect occurs
- Regular natural coastal installation



⇒ ELHS installation validated

Fish colonization (abundance, diversity, richness)

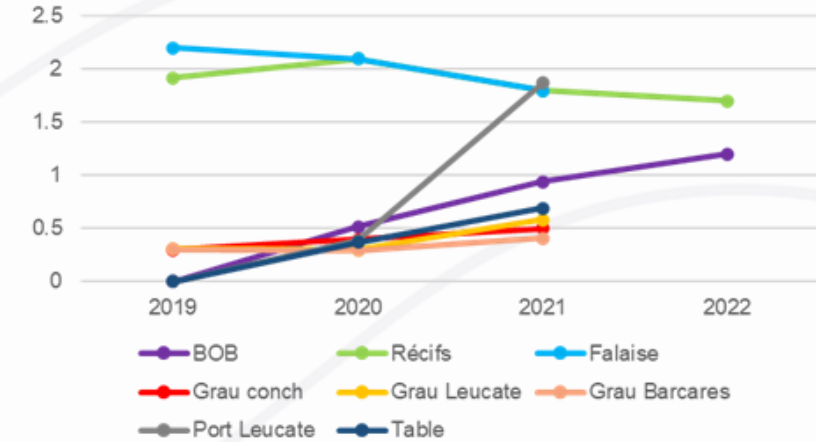
Fish abundance /site



Fish richness /site



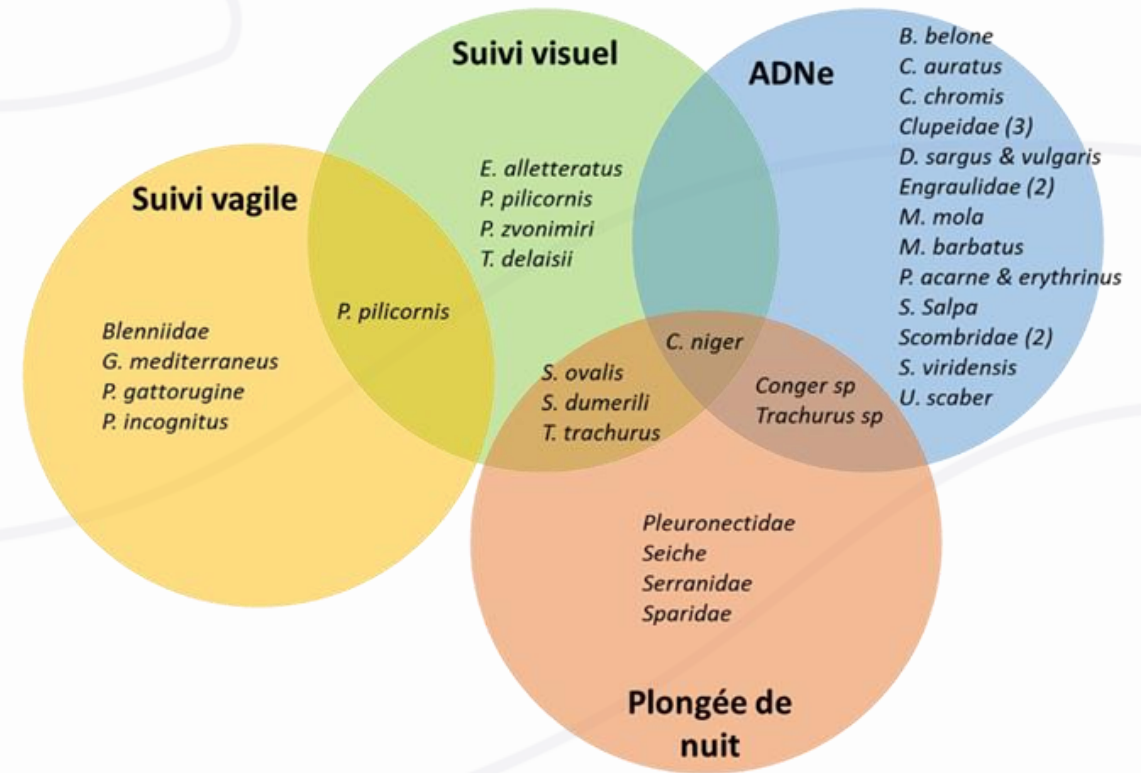
Shannon index



⇒ Same order of magnitude

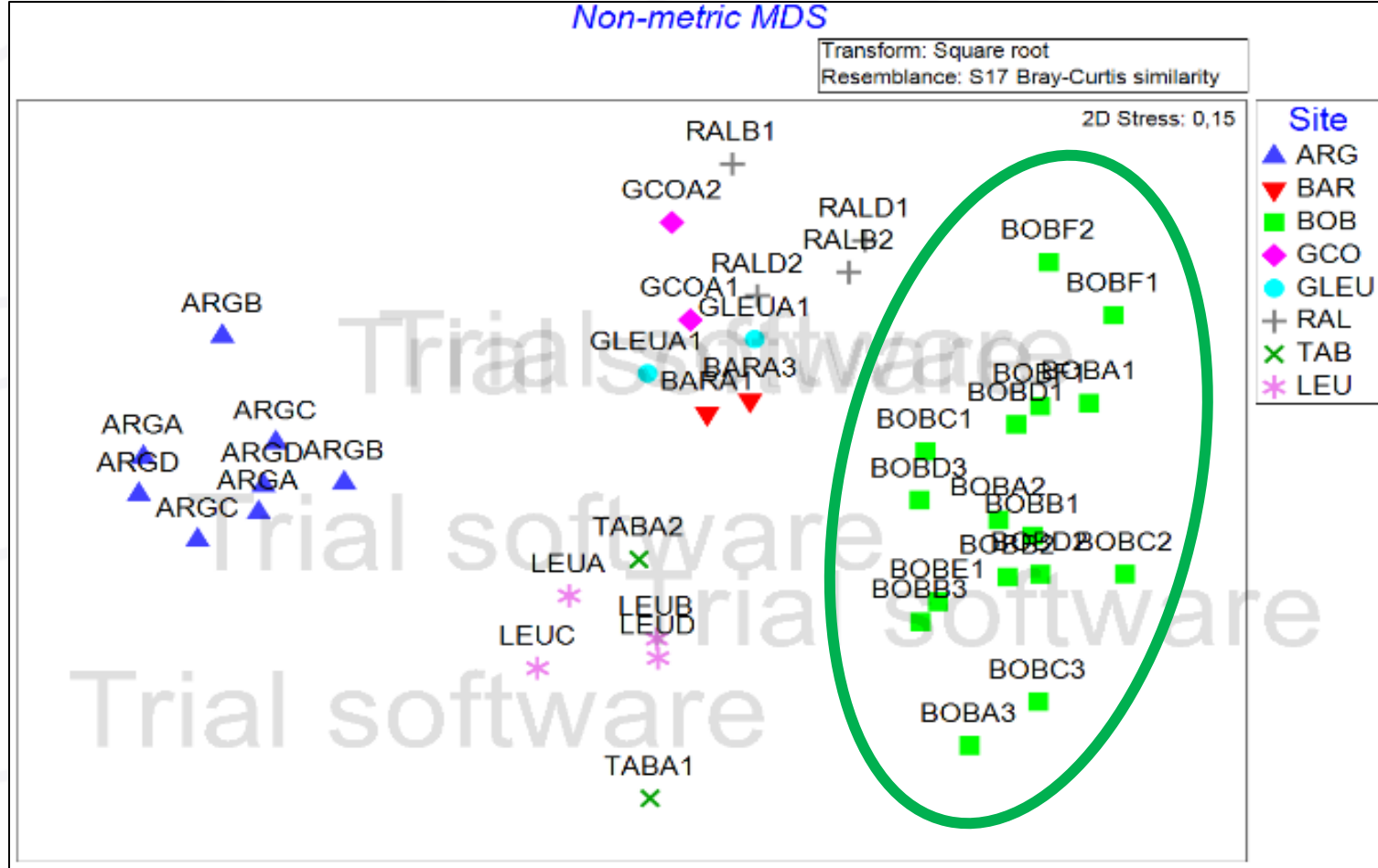
Fish colonization (which monitoring methods?)

	Richness	Nb unik species
Visual census day	8	3
Visual census night	10	6
vagile	5	4
PAM	1	1
eDNA	22	18
Camera trap	6	1
Camera baited	1	0
TAM	1	1



⇒ Needs of complementary methods

Mobile invertebrate colonization – similarities?



Sea
urchins



clams



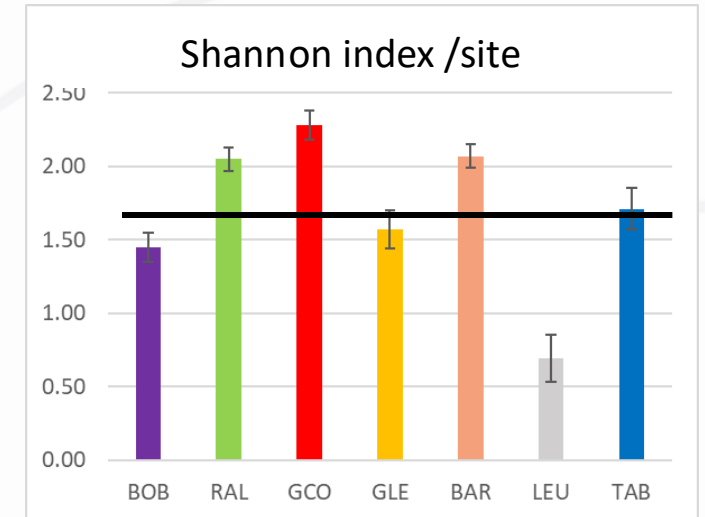
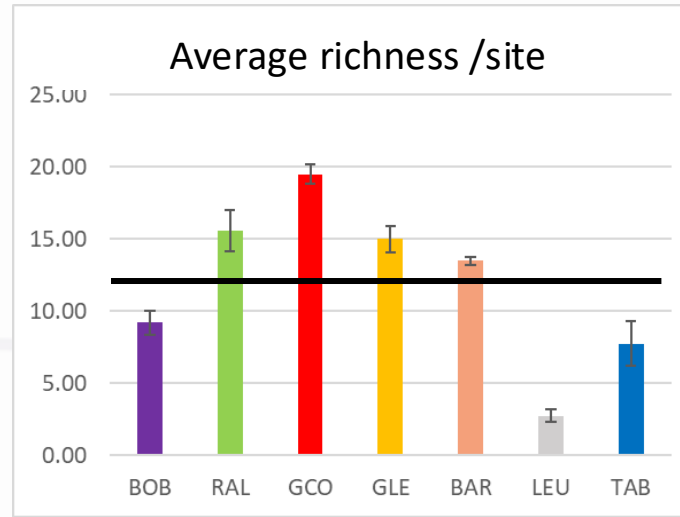
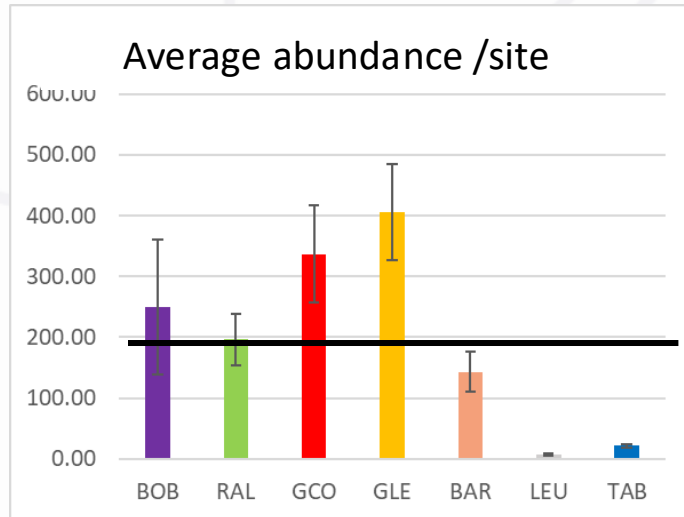
scalops

crustaceans

⇒ **Significant different assemblage**

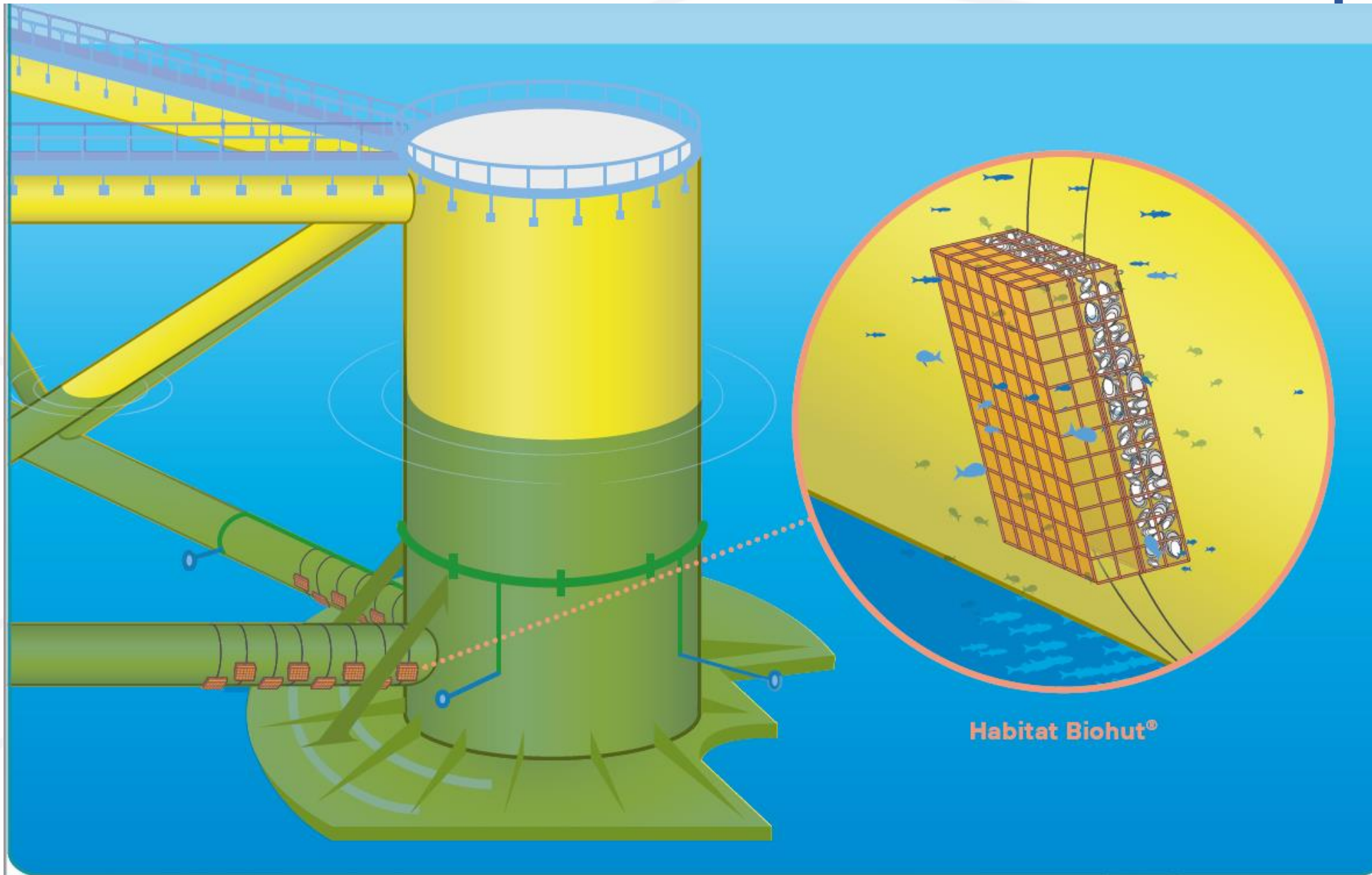
BoB fauna

Invertebrate colonization (abundance, diversity, richness)



⇒ Same order of magnitude

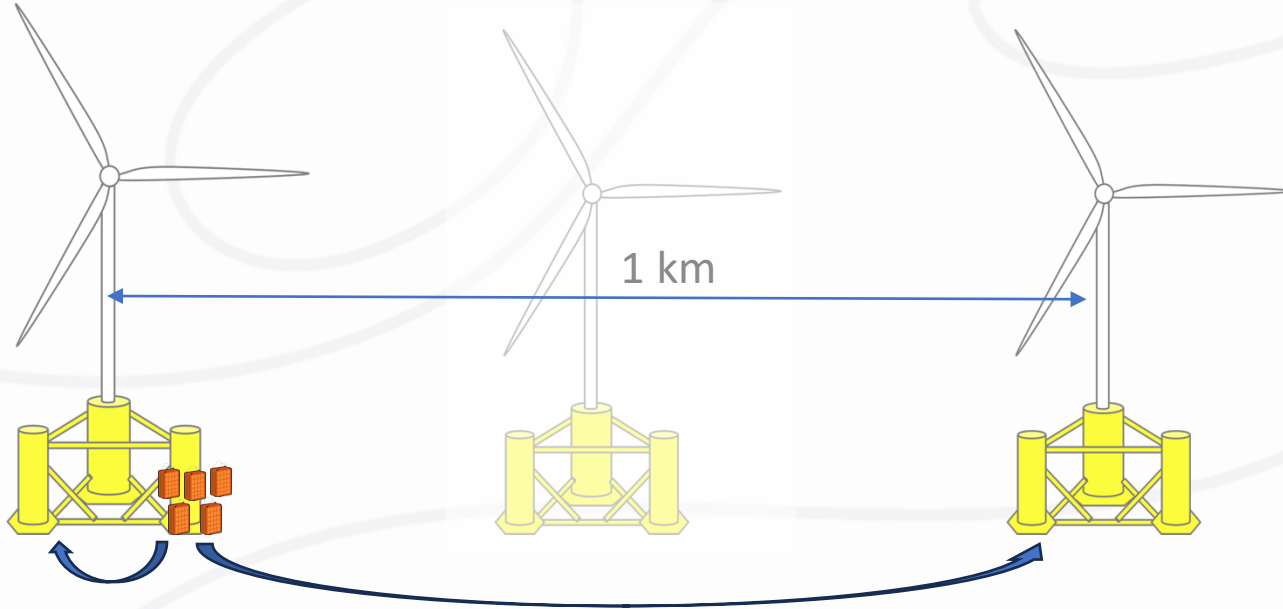
Initial plan (2017)



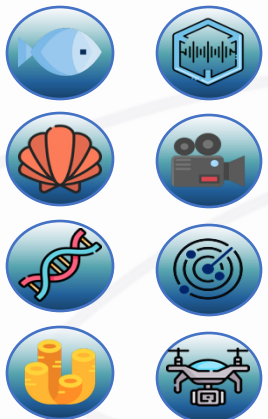
Today (2025)



Next stage (2025-2028)



Ecoconception d'un parc éolien flottant
en faveur de la biodiversité



3 years of **various** monitoring protocols



Scale 1 comparison





Come & visit us at the French Pavillion stand C2-A50

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