

# Collateral Gain or Damage?

A 2<sup>nd</sup> chance for offshore infrastructure to protect and enhance the ecosystem

Preserving the by-product or not ?

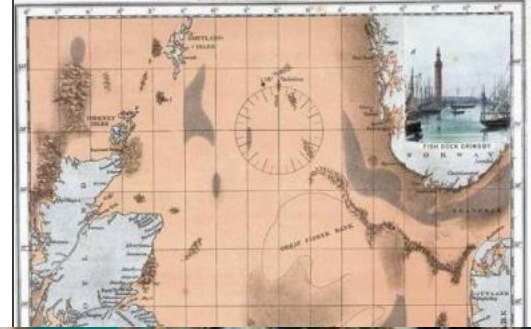
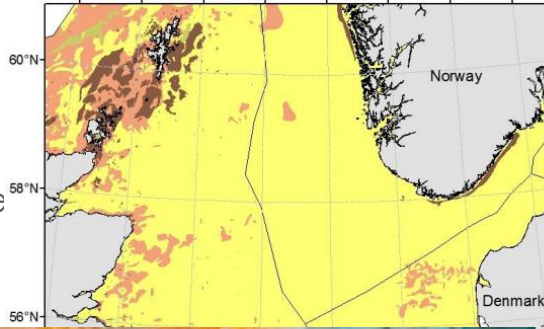
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ebn

Energising the transition

# North Sea Ecosystem

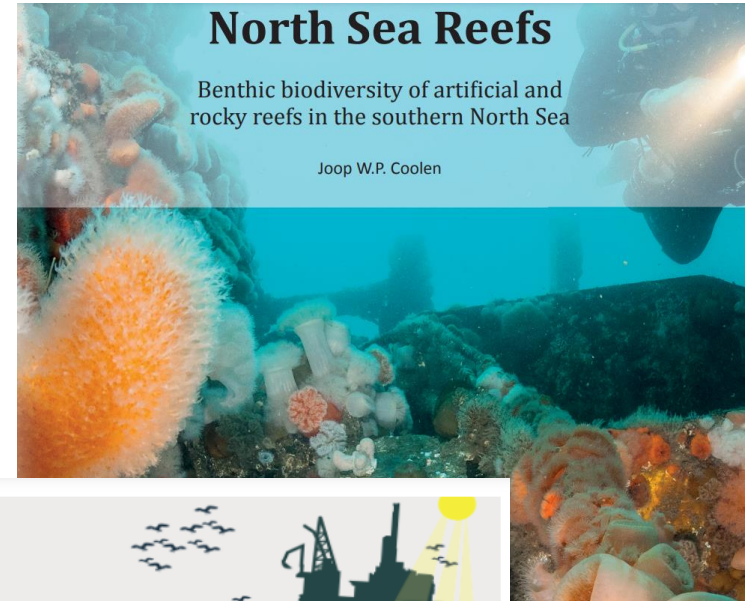
- ❑ Until early 20th century covered with oyster beds (1/3 of Dutch NS), boulders & kelp forests
- ❑ Nowadays primarily sandy floors resulting in low biodiversity
- ❑ With few exceptions of hard substrate
  - ❑ wrecks
  - ❑ manmade offshore structures



# Results of (academic) research

- ❑ Existing platforms are surrounded by a small relatively rich & diverse ecosystem
  - ❑ Effect of hard versus soft substrate
- ❑ Overall positive picture but there are remaining concerns
  - ❑ E.g. invasive species
- ❑ Support for at least one re-use pilot

& many many really amazing beautiful pictures



**LINSI**  
iving north sea initiative



# Legislation requires removal in North Sea

## *but not in the USA*



- ❑ Mijnbouwwet
- ❑ OSPAR Decision 98/3 on the Disposal of Disused Offshore Installations
  - ❑ Few exceptions possible like for large concrete structures
- ❑ US Rigs to Reef Program



### Did you know?

As of December 2021, 573 platforms previously installed on the U.S. Outer Continental Shelf have been reefed in the Gulf of Mexico.

A typical eight-leg structure provides a home for 12,000 to 14,000 fish, according to a study by the Coastal Marine Institute.

A typical four-leg structure provides two to three acres of habitat for hundreds of marine species.



# Some perceptions preventing re-use



- ❑ Reusing existing infrastructure e.g. a rigs to reef program equates to dumping garbage.
- ❑ The ecosystem around an oil and gas platform is neglectable small and therefore has no value.
- ❑ Operators save significant decommissioning costs.
- ❑ Nobody wants to be the owner with liabilities for decommissioned offshore structures in the North Sea
- ❑ Re-using existing infrastructure is controversial compared to the 'nature-inclusive building' concept.

# Collateral Gain or Damage?



- ❑ The local ecosystem around existing platforms in Dutch waters is effectively treated as **Collateral Damage**
  - ❑ Tolerated to a certain extent during the production phase
  - ❑ Eliminated as soon as possible thereafter
  
- ❑ Local ecosystems elsewhere (e.g. USA) may qualify as **Collateral Gain**
  - ❑ Converting the by-product into the main product
  
- ❑ In light of recent knowhow current practices/ rules should be rethought
  - ❑ *Determining a structure's potential as an artificial reef should be an integral part of the decommissioning and removal process*

# Droombeeld



een echt onderdeel wordt van onze Noordzeenatuur. Als de gebieden met harde structuren op een slimme manier met elkaar verbonden worden, kunnen dieren weer rustig migreren naar andere delen van de Noordzee. Ook toekomstige generaties (wrak)duikers en vissers kunnen dan genieten en profiteren van een gezonde en productieve Noordzee. Ook slim ontworpen structuren in bijvoorbeeld windenergieparken of (afgezonken) platforms kunnen bijdragen aan de ontwikkeling van een gezonde, rijke voortuin waar Nederland trots op kan zijn. Een Noordzee die ook robuust genoeg is om de gevolgen van klimaatveranderingen te kunnen opvangen en genoeg veerkracht heeft om de impact die ons veelvuldig gebruik van de Noordzee met zich meebrengt, te verwerken.

Tinka Murk (Hoogleraar mariene dierecologie)

Bron :

Stichting Duik de Noordzee Schoon

In de diepte - Hoogtepunten uit 14 duikexpedities in de Noordzee  
2016