

Nature-inclusive design of offshore infrastructure

Hold (y)our horses !?

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<https://mareco-odnature.naturalsciences.be/>



1

WinMon.BE – The Belgian monitoring program on the environmental impacts of offshore wind farms



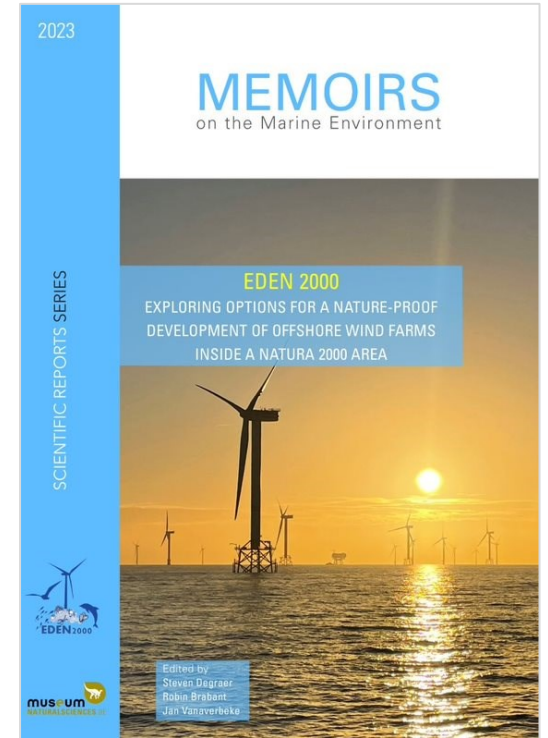
<https://odnature.naturalsciences.be/mumm/en/windfarms/>

2

EDEN2000 – Exploring options for a nature-proof development of offshore wind farms inside a Nature2000 area



<https://www.health.belgium.be/nl/eden2000-studies>



3

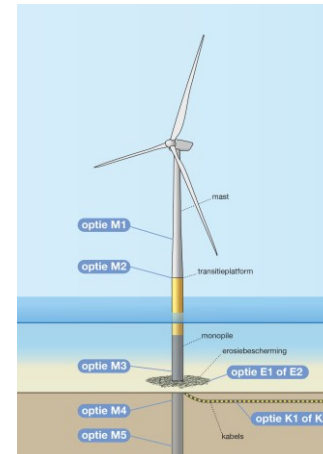


UNITED – Multi-use offshore platforms demonstrators for boosting cost-effective and eco-friendly production in sustainable marine activities

UNITED

<https://www.h2020united.eu/>

4



Aqua/Decom - Stakeholder consultation on preferred decommissioning scenarios



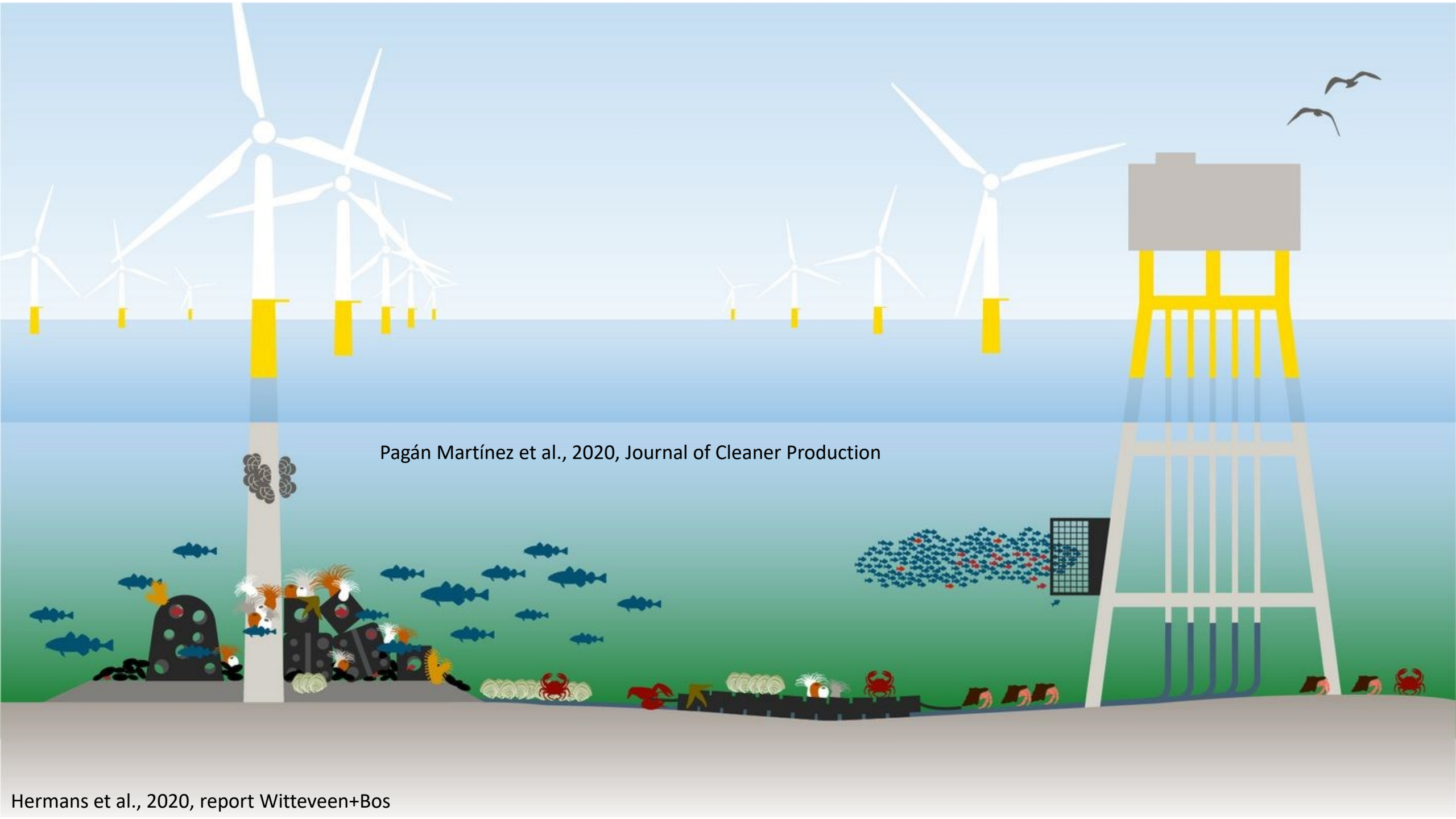
Nature-inclusive design (sometimes referred to as biodiversity-inclusive design)

- entails “...options that can be integrated in or added to the design of ... infrastructure (Figure 1.1) to create suitable habitat for native species (or communities) whose natural habitat ... has been degraded or reduced.”
(Hermans et al., 2020, W+B report)
- have “...the objectives of the plan or project include nature protection measures.”
- “...implies that social, economic and nature conservation objectives are integrated in one project.”
(Law Insider dictionary)
- is “...an approach to design that seeks to foster functional ecological systems, enable species’ persistence within the built environment and (re) connect people with nature.”
(Hernandez-Santin et al., 2022, Urban Sci.)
- “is necessary ... for architects: considering nature, a living entity, as a non-negligible element in conception is, now, necessary.”
(Carriere, publication date unknown, report)
- ...

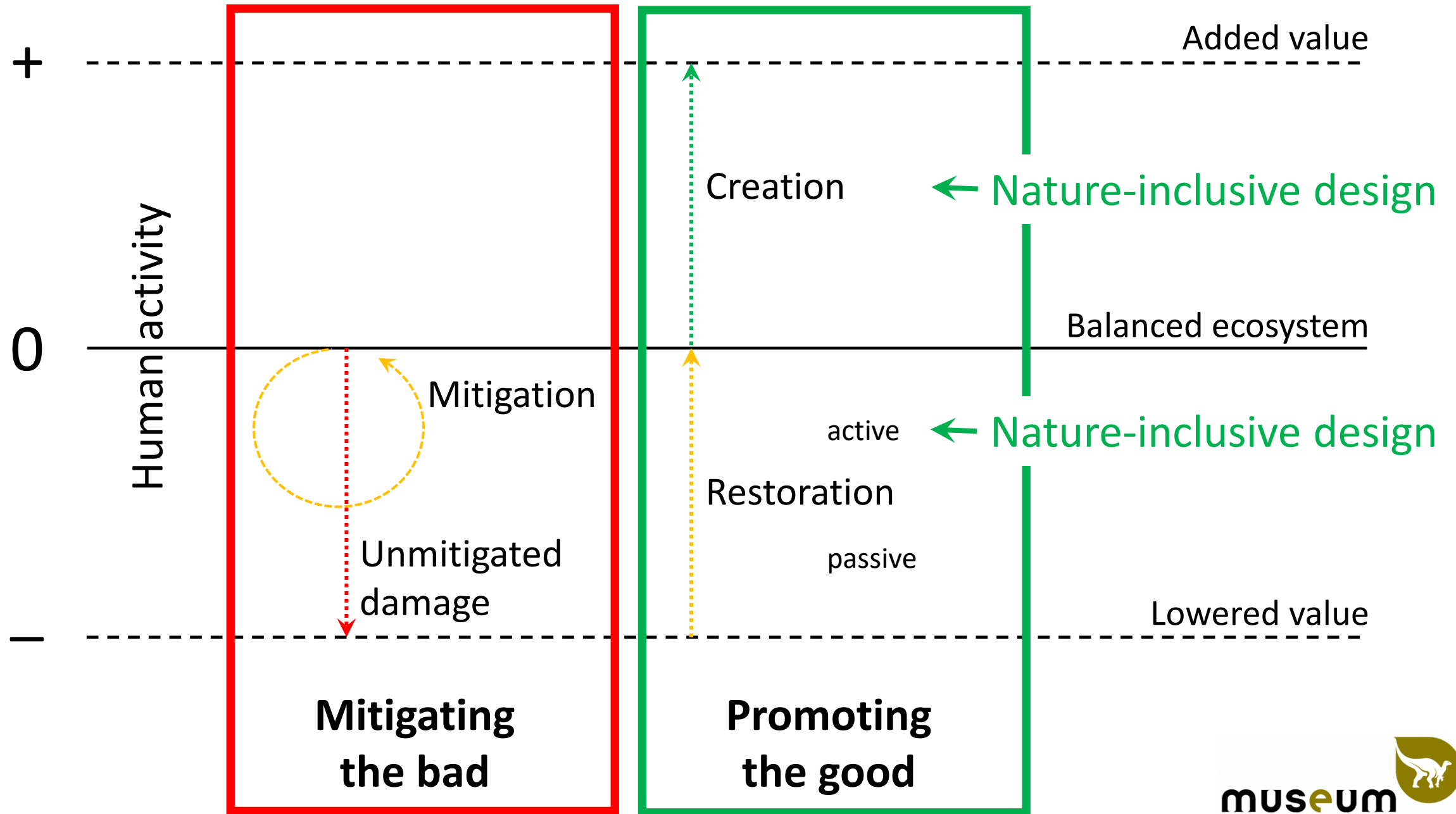
NID creates optimized artificial habitat to locally boost biodiversity

- “creates” – something unnatural is being constructed
- “optimized” – not a goal by itself
- “artificial” – habitat provision
- “locally” – restricted in space (not always 😊)
- “biodiversity” – all life forms and functions





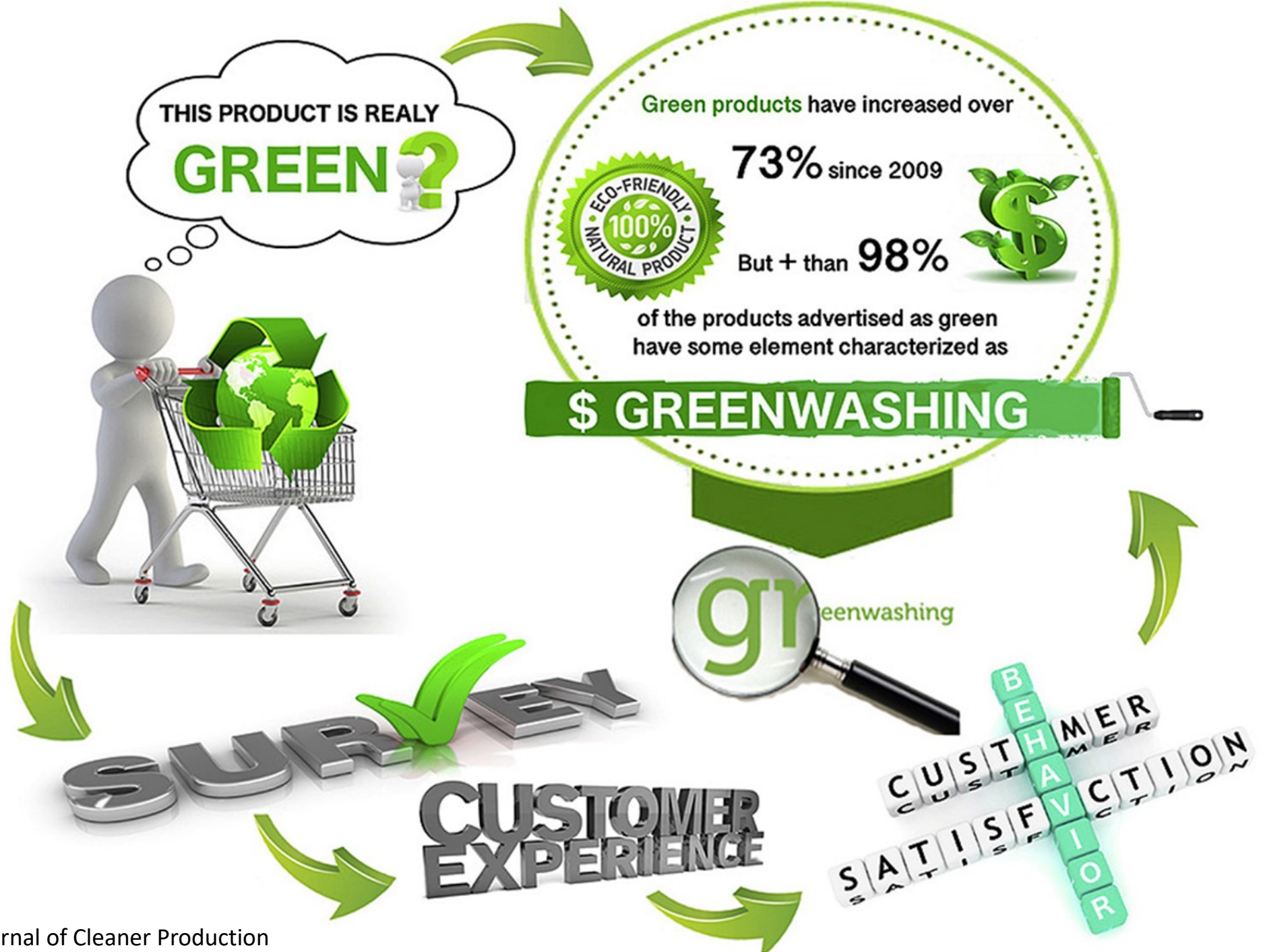
Pagán Martínez et al., 2020, Journal of Cleaner Production



HOLD YOUR HORSES
SLOW DOWN AND THINK



About **green washing**
and green consumerism...



Nature-inclusive design trichotomy

Restorative NID

Measures to facilitate and speed-up nature restoration

Focus on naturally occurring ecosystem assets

“Eternal” effect envisaged

Gain of naturally occurring ecosystem assets

Creative NID

Optimizing infrastructure

Measures to boost biodiversity “beyond nature”

Focus on artificially created ecosystem assets

Temporary engagement

No gain nor loss of naturally occurring ecosystem assets*

Add-on structures

Measures to boost biodiversity “beyond nature”

Focus on artificially created ecosystem assets

Temporary engagement

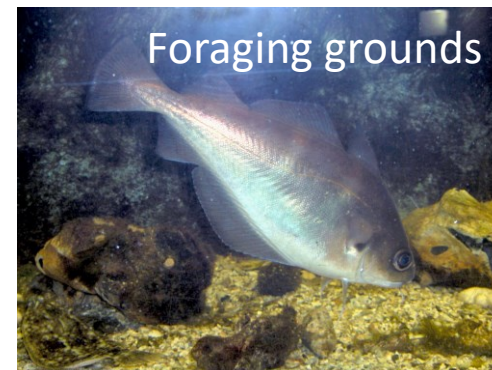
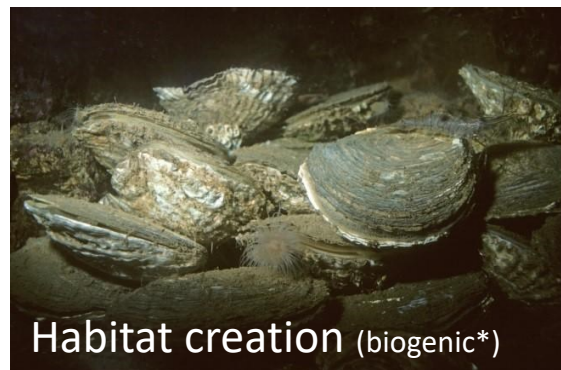
Loss of naturally occurring ecosystem assets

Nature-inclusive design focus

Structural ecosystem assets (= focus on species)



Functional ecosystem assets (= focus on ecosystem functions)



* species introductions may be advised

My view on nature-inclusive design

- Primary goal should be to enhance nature restoration
- Primary focus should be on functional ecosystem assets

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