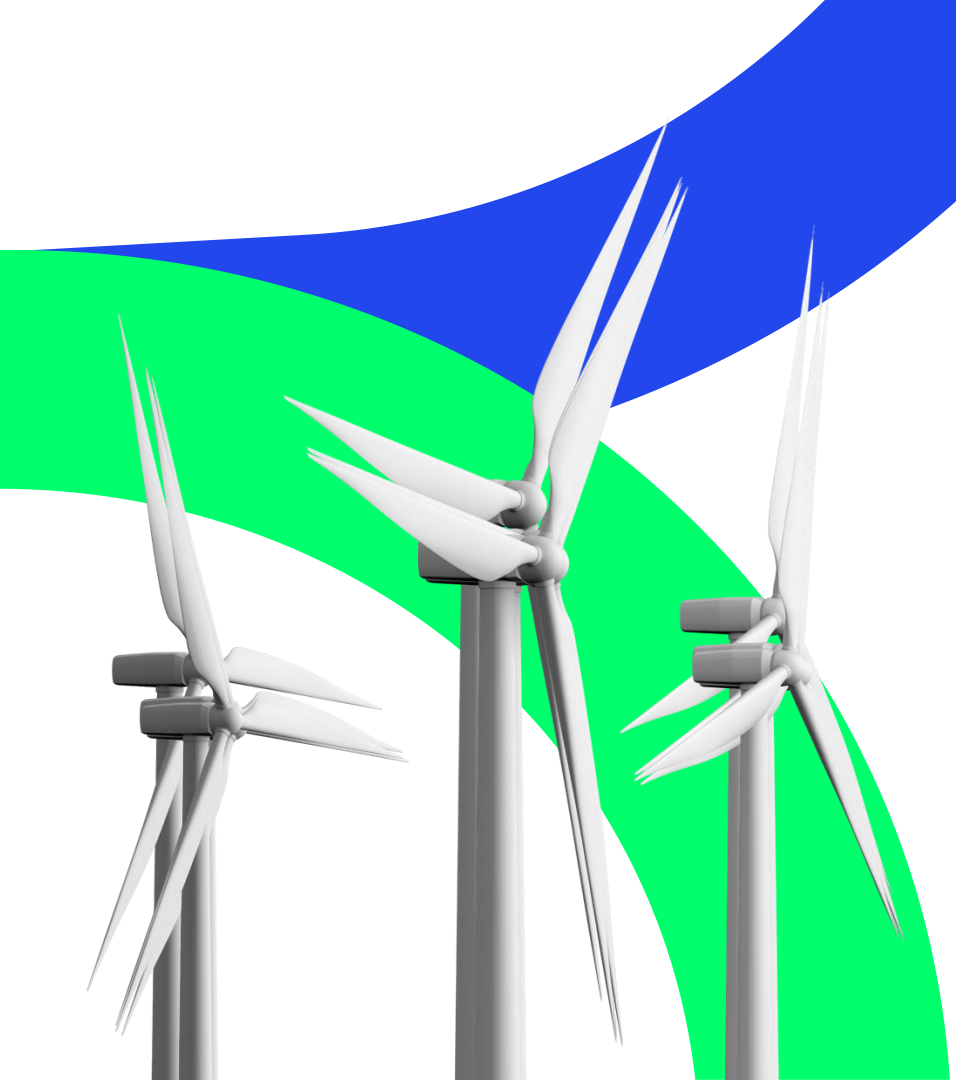

Strategic environmental compensation – European lessons

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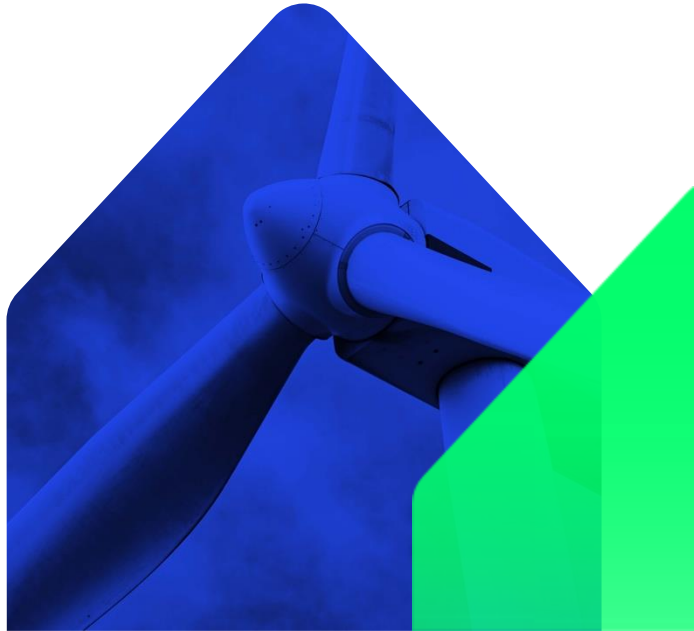
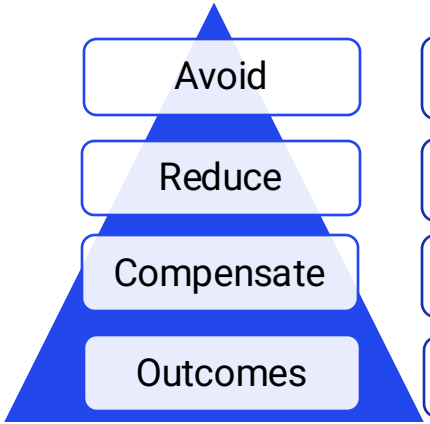


Mitigation hierarchy for offshore wind

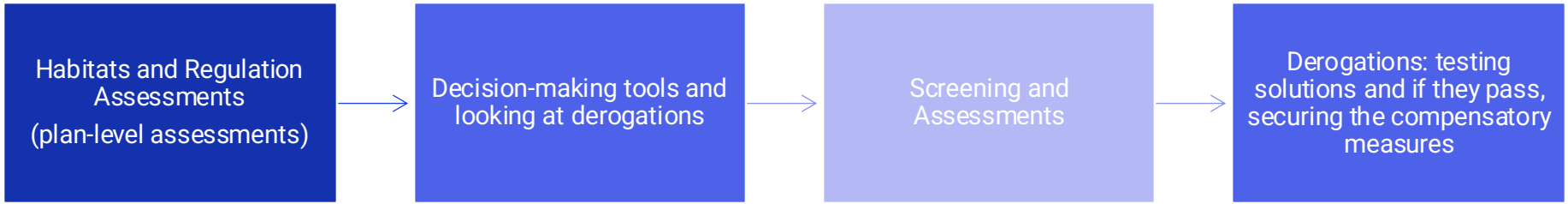
- The mitigation hierarchy is the process of measures to avoid and minimise the impacts of wind turbines to local wildlife
- It should be tailored to the site and the species.
- The measures within the hierarchy are usually agreed between developers and the local permitting authorities
- Wind energy in the UK can be developed in or near NATURA2000 areas (a network of protected areas in Europe for threatened habitats and species) if the correct impact assessments are done in line with legislation.



Avoid	During the decision-making process: designing a project a significant distance from MPAs and planning the project to minimise the overall environmental impact.
Reduce	For impacts that cannot be avoided, measures such as curtailment and noise reduction can reduce impact on the environment.
Compensate	A measure of reversing some of the degradation and the compensation can be incorporated into the design of the OWF to repair previous industrial impact. This may also be delivered strategically.
Outcomes	The ultimate goal is to leave nature in a better state as a result of offshore wind developments.

UK process for environmental compensation – Key legislation

- The Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017 stipulate that the appropriate authorities need to ensure that **compensatory measures are secured when adverse effects to European sites cannot be avoided**.
- **Compensation must be independent of the infrastructure project** and have the objective of counteracting the residual negative effects of the project.
- European Commission Guidance (2018) has guidance on various measures that are appropriate compensatory measures for effects on Natura 2000 sites:
    - ✓ Habitat re-creation/restoration and enhancement
    - ✓ Species recovery and reinforcement
    - ✓ Reserve creation
    - ✓ Incentives and disincentives for certain activities

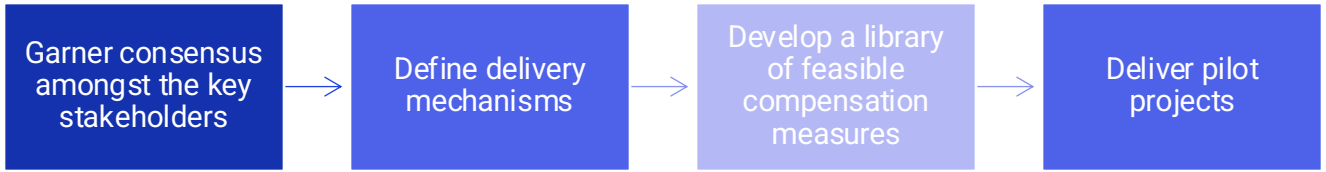


Establishment of a Marine Recovery Fund to deliver strategic compensation

- Industry-funded to provide optional compensatory measures from the end of 2023
- Developers will pay into the fund and their contributions will be used to cover compensation. Expected to be government-managed, but delivery mechanism not yet certain.
- The recent Energy Act is an acknowledgement of government-led actions to meet offshore wind targets.
- Developers will still be obligated to undertake EIA and HRAs before receiving the Development Consent Order but the fund could reduce consenting delays.

Collaboration on Offshore Wind Strategic Compensation (COWSC)

- Compensation intends to reduce delays to consenting process.
- Consensus is needed to deliver measures that are effective and strategic.
- Certainty is needed for project developers.



Individual project compensation vs Strategic compensation

Focus on individual sites

Able to provide bespoke solutions based on the surrounding habitat with a project-specific focus.

More simplified decision-making

Decisions on environmental compensation focus on one project site and one species at a time.

Administrative burden

Managing projects separately can result in more of an administrative burden as compliance and negotiations are separate for each project site.

Speed

Environmental compensation can be addressed more promptly at a project level compared to at a wider fund level.

Large pool of reserves

As developers would be pooling funds there would be more resources and funding available for projects.

Replicability and scale

For strategic compensation, it would be possible to repeat habitat creation across other sites and deploy more generic solutions at a wider scale.

Holistic approach

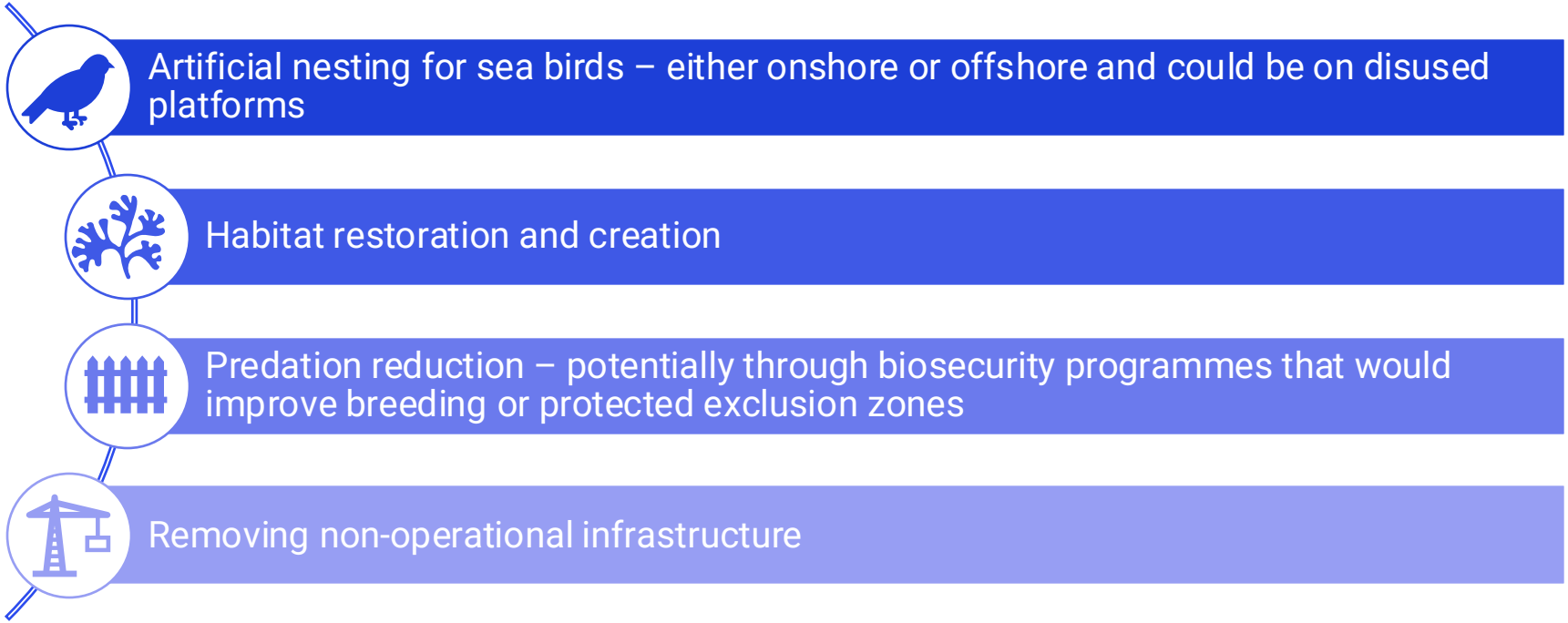
A broader project view can consider the cumulative impacts and can look at the wider approach of environmental compensation for OSW in a country.

Reduced delays

Streamlining of the overall process and can reduce the length of negotiations at a project-by-project basis.

Research to prove compensation concepts and evaluate effectiveness

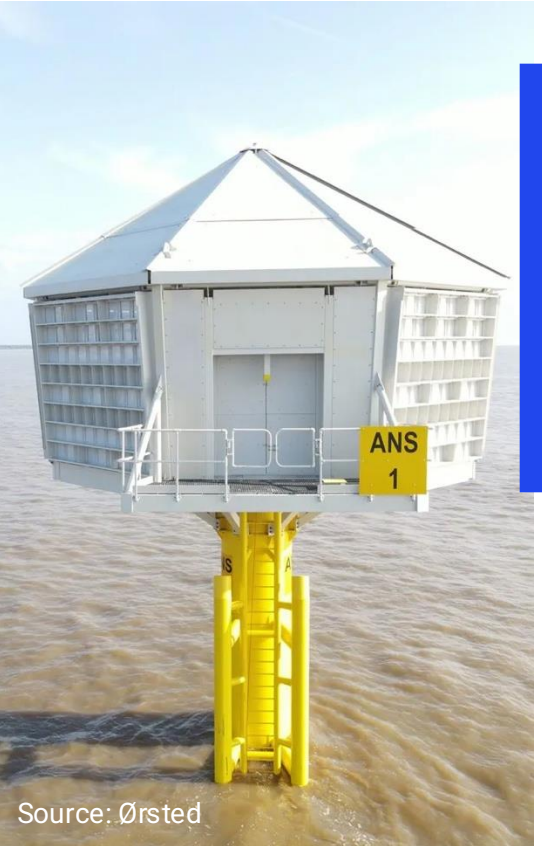
- Launched by The Crown Estate and Offshore Wind Industry Council, a £3.5m project aims to test the effectiveness associated to environmental compensation measures.
- Investment and the pilot research would be targeting the following types of compensation:



CASE STUDY

Kittiwake protection at Hornsea 3

A method of environmental compensation to protect a vulnerable seabird



Source: Ørsted

- To obtain permission to construct and maintain the Hornsea 3 project, Ørsted applied for a Development Consent Order from the UK government.
- Permission was obtained with **a requirement to implement ecological measures to mitigate potential environmental impacts** with a specific focus on black-legged kittiwake (gull species).
- Ørsted was required to construct artificial nesting structures across the coastlines where no suitable nesting areas were present (such as cliffs or manmade buildings)
- Stakeholder engagement with DEFRA, RSPB, JNCC and Natural England.

How is success measured?

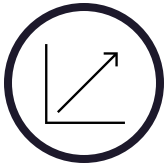
1.
Kittiwakes have yet to colonise the structures (space for 400 nests each) as this will take a few years.

2.
Risks linked to the failure of the scheme are mitigated through monitoring and management. An **Offshore Ornithology Engagement Group** was established for this purpose.

3.
The impact assessment estimated an annual collision risk mortality rate of up to 73 breeding-age kittiwakes and compensation is to target 104 a year.

Measure of success

Sustainability – minimal additional impacts associated with the project.



Ecological gains – Through monitoring impacted populations and reporting.

Ecological equivalence – Ecological gains must be equivalent to the negative impact caused by OSW

Longevity – The net gains must continue delivering benefits as long as the OSW project impact lasts

Summary of experiences in the UK

1. Compensation is the last resort after avoidance, mitigation and impact reduction.
2. Strategic compensation offers a more rapid and holistic approach to the environmental compensation process with opportunities for wider replicability than existing project-level initiatives.
3. Research projects undertaken to test effectiveness of compensation measures to give developers more certainty.
4. Success of compensation can be viewed by the longevity and sustainability of a project but also the net ecological gains.

Thanks for listening