Ørsted

Introducing Ørsted's biodiversity measurement framework

– a new tool to ensure renewable energy has a net-positive impact on nature.

Now open for feedback

We have launched a next-generation framework for holistically measuring and reporting biodiversity impacts across markets, founded in established scientific methodologies but applied by industry to renewable energy assets on- and offshore for the first time.

The framework will allow us to deliver our net-positive 2030 ambition for all our clean energy assets. Our aim is to accelerate industry consensus on measuring biodiversity impacts, so that together we can achieve a global energy transition with positive outcomes for nature.

The framework is a new tool in that it incorporates global and local frameworks for nature impact reporting. It builds on the robust environmental measurement and monitoring we already do across the world, and is:

- broad enough to cater for a wide range of projects
- flexible enough to account for the specific biodiversity features in each location, and to enable targeted action with local partners.

Our approach, developed in collaboration with The Biodiversity Consultancy, aligns with emerging nature-related impact metrics and reporting frameworks from organisations like Science Based Targets for for Nature, the Taskforce on Nature-related Financial Disclosures, World Economic Forum, and the Global Initiative for Nature, Grids, and Renewables.

Emma Hospes, Head of the Biodiversity Programme at Ørsted, explains why we've created a new framework:

"Measuring biodiversity is not straightforward. Biodiversity, unlike carbon, does not have a single metric, and each project needs to consider different indicators. This makes it challenging to set targets, establish baselines, align regulatory requirements with voluntary ambitions like our net-positive ambition, and then measure progress over time.

But measuring our impact on biodiversity matters. It allows us to understand whether we're achieving what we set out to do, and to hold ourselves accountable for our biodiversity impact. It is also key to refining what our ambition will require in terms of financial investment. This will prove critical in securing additional financing to scale up this work, for example through blue bond issuances tied to net-positive impact projects.

We need an internationally recognised measurement framework that can be applied across both onshore and offshore renewable energy assets. This is complex and requires collaboration between developers, but the release of our working framework for discussion and feedback from all interested stakeholders is a step towards measurable action for nature, both terrestrial and marine."

Call for feedback

From June 2024, we'll be publicly consulting with a variety of stakeholders to help ensure our approach is robust as we pilot its application on the ground. We want to hear from you.

Are we missing something?
Scan the QR code or click here and let us know!

Read more about

You can read more about Ørsted's broader Biodiversity Programme at orsted.com/nature, or by downloading our Biodiversity Ørsted Paper at orsted.com/uniting-climate-biodiversity-action

Our 8-step biodiversity measurement framework

Our measurement framework allows us to calculate our project-level net biodiversity impact.

It provides our business with a new global standard for assessing habitats and species, according to their threat status and their potential to be affected by infrastructure development.

This means we can focus resources where they are most needed and take an enhanced ecosystems approach to project design.

Step 1

Early risk screening

In the early project feasibility assessment phase, we conduct a desktop study using datasets such as the Integrated Biodiversity Assessment Tool. We identify priority habitats and species in the area of interest using quantitative thresholds defined by:

- the International Finance Corporation's Performance Standard 6 and Guidance Note 6
- the Critically Endangered, Endangered, or Vulnerable categories on the IUCN Red List or equivalent national/regional classifications
- which habitats and species are at high risk of cumulative population-level impacts
- which habitats and species are of high concern to interested stakeholders.

Step 2

Identify priority biodiversity features

We filter that complete list of habitats and species to determine those at highest risk that are most receptive to enhancement actions, through questions like:

- Is that species present at the project site?
- Is a habitat particularly impacted by company induced pressure?
- Can the habitat or species feasibly be monitored and is it responsive to change?
- How representative is a species of the state of the broader ecosystem?
- Is the species of high concern to stakeholders?

Step 3

Scope additional monitoring needs

We check what data the local regulatory regime requires us to collect for a given priority habitat or species, then identify what additional monitoring we might need to do.

To measure habitat condition we use a quality hectares assessment, and to measure species health we use either species abundance or a related proxy. We then look at project-specific design criteria with these measurements in mind, to understand how specific project constraints could affect the habitats and species.

Step 4

Establish baselines for priority biodiversity features

Leveraging Ørsted's decades of experience in monitoring on-site biodiversity, our specialists confirm the presence of priority habitats and species in the area of interest, sourcing or developing a pre-project reference baseline.

Step 5

Model impacts and interventions

Using quantitative and qualitative data and looking at the project's mitigation plan, we predict the residual impact of our project – if any – and then estimate what we need to do to achieve a net-positive impact on the habitats or species in question. Our interventions could be on- or off-site.

Step 6

Determine net-positive actions

We rank possible biodiversity initiatives based on technical feasibility, evidence for success, cost-effectiveness, and stakeholder alignment. Based on this ranking, we decide on a course of action.

Step 7

Implement and monitor

We start the biodiversity initiative and monitor whether it is having the intended impact.

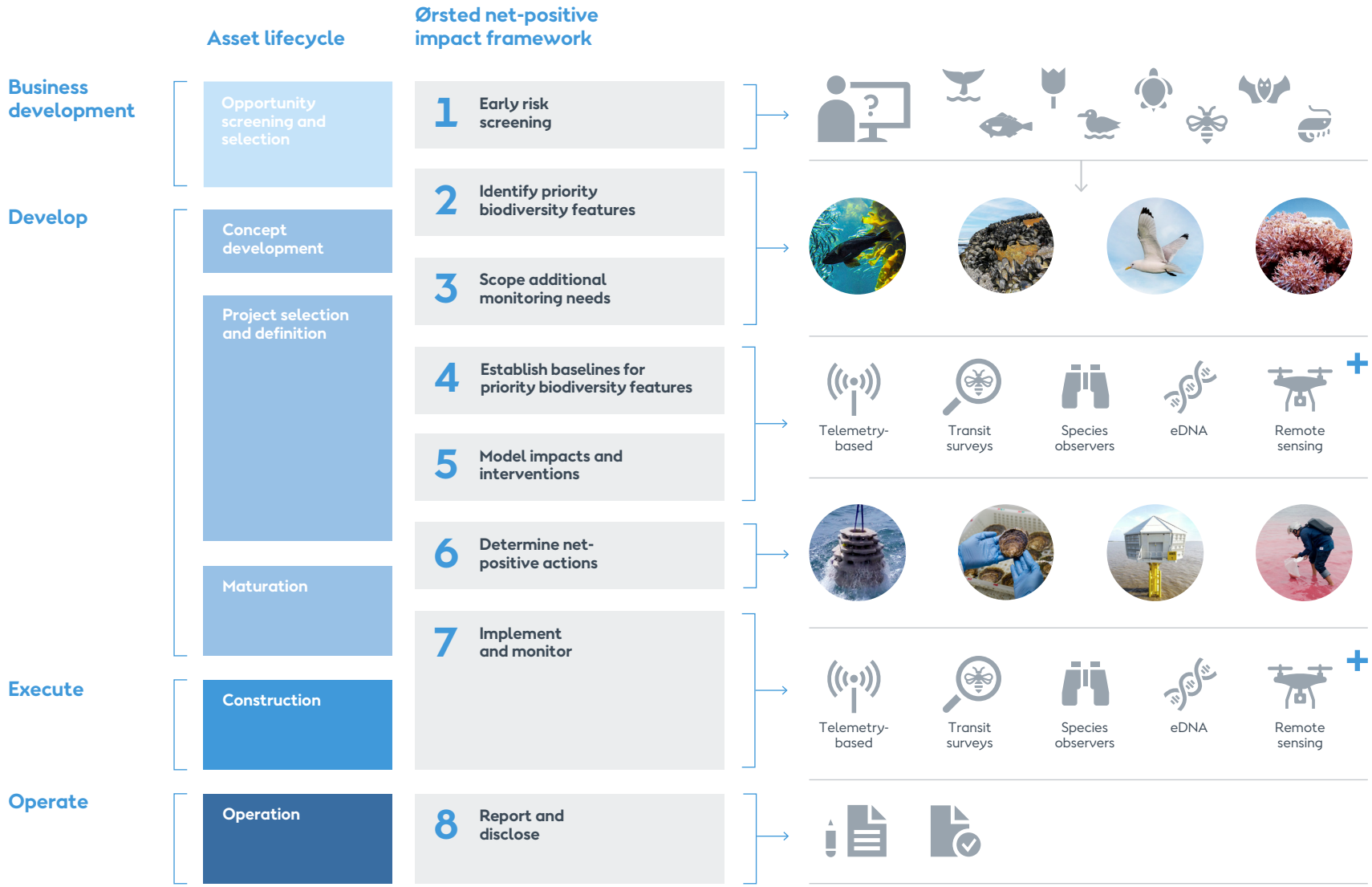
Step 8

Report and disclose

Using standardised formats and processes, we annually report and disclose our findings, illustrating the biodiversity impact of the project and the net position of the priority habitats and species.

The 8 steps to net-positive impact

We've embedded transparent, measurable action for nature throughout the lifecycle of a project.



A labyrinth of measurement frameworks

We all know it's a complex landscape for assessing, prioritising, monitoring, and reporting on biodiversity impacts for large-scale infrastructure projects.

Ørsted's measurement framework helps us interpret and efficiently deliver across these expectations and requirements.

Just how complex are they?

Measuring and reporting frameworks

Regulatory reporting frameworks

- Local regulatory regimes, e.g., Net Gain in the UK
  - Locally, national regulations in some countries include requirements for additional action for local ecosystems
    - In the UK, small infrastructure projects must now deliver a 10 % net gain for terrestrial ecosystems, and regulators are developing standards for larger onshore projects and marine ecosystems as well
- Corporate Sustainability Reporting Directive (CSRD)
  - EU based companies are required to report extensively on ESG in order to comply with the CSRD
    - The European Sustainability Reporting Standards (ESRS) supplement the CSRD on ESG matters
      - ESRS E4: Biodiversity and ecosystems are the specific standards under the ESRS applying to biodiversity

Voluntary reporting frameworks

- Science-Based Targets Network (SBTN)
  - SBTN is the suggested methodology by both CSRD and TNFD
    - SBTN will provide a framework for setting SBTs across land, oceans, and freshwater
      - Metrics and indicators for biodiversity will be integrated into the existing methodology by 2024/5
- The Taskforce on Nature-related Financial Disclosures (TNFD)
  - TNFD has developed a set of disclosure recommendations and guidance for organisations on nature-related dependencies, impacts, risks and opportunities
    - Key stakeholders for TNFD are C-suite (to integrate nature into decision-making), investors, financial advisors and asset partners
- Others, e.g., the Global Reporting Initiative (GRI)
  - Reporting initiatives, e.g. the GRI, are meant to support companies/ governments in understanding and communicating their ESG impacts

Global Initiative for Nature, Grids and Renewables (GINGR)

- Initiative launched in 2023 by the Renewables Grid Initiative (RGI) and the International Union for Conservation of Nature (IUCN)
  - The aim is to contribute to a rapid transition towards nature- and people-positive renewable energy sources and electricity grids
    - The framework for this is under development and will build on existing tools and methodologies and it will be validated with ground data

WWF Nature Positive Pathways programme

- Aim of framework is to deliver science-driven targets and indicators for contributions to nature positive
  - Includes qualitative and quantitative guidance for metrics and targets that compliments the SBTN Ocean Hub

Ørsted's biodiversity measurement framework

- Measurement framework developed internally in collaboration with The Biodiversity Consultancy
  - The framework can be used to assess biodiversity net-gains and -losses at an asset level
    - Provides key information for new assets that aligns with the CSRD, SBTN, TNFD, GRI, etc.
      - The framework supplements existing frameworks with the ability to assess biodiversity using on-the-ground measurements

Measurement coalitions

Nature Positive Initiative (NPI)

- Initiative launched in 2023 to promote the integrity and implementation of the Global Goal for Nature[1]
  - The initiative seeks to bring collective action to reach the Global Goal for Nature by driving strategic direction, policy positioning, and joint activities amongst 27 of the world's largest nature conservation organisations, institutes, and business and finance coalitions

Responsible Clean Power coalition by the World Economic Forum

- To accelerate the clean energy transition in a rapid and responsible manner, the Forum is mobilising an industry-led multi-stakeholder coalition to lay the foundation criteria for clean power projects that can lead to positive outcomes for communities and natural ecosystems. Based on industry consensus, this effort will also inform non-price criteria in renewable tenders, permitting processes and corporate PPAs

1. Nature Positive.

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