Rijkswaterstaat
Ministerie van Infrastructuur en Waterstaat

Market consultation

Bird detection systems on the North Sea

Peter Jonk
Melissa/Raymond
Mainah Folkers

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Welcome

- Introduction: project team and suppliers
- Announcements:
  - Please don’t take screen shots or record video
  - Questions can be asked during the presentation
    - Please raise a hand in Teams

Questions

Today Rijkswaterstaat will only provide preliminary answers.

Relevant questions will be noted, answers will be published in a Memorandum of Information.

Participating companies

- Strix Lda - Portugal
- BioConsult SH GmbH & Co.KG - Germany
- Robin Radar Systems BV – The Netherlands
- Stichting Wageningen Research – The Netherlands
- Swiss Birdradar Solution AG - Switzerland
- Terma A/S – Denmark
- Liquen Consultoría Ambiental S.L. Spain

Agenda

- Purpose of the market consultation
- Planning and process of the market consultation
- MIVSP project
- Need for the tender and scope
- Bird detection on the North Sea
- Functional and technical requirements

Purpose of the market consultation

- To involve the market at an early stage
- To gain insight into the feasibility of the project
- To explore alternative solutions to the currently used bird radar systems
- To investigate the possibilities for achieving sustainability benefits

And in particular

- The role of the supplier after delivery of the bird detection systems
- The technical and functional requirements: are they feasible?

Process market consultation

- Information session
- Submission of questionnaire
- Optional: individual clarification meeting based on responses to questionnaire
- Publication of report based on questionnaire responses and any individual meetings

Planning

Activity	Date and time
Publication of the market consultation document on TenderNed	17 December 2025
Deadline for registration and submission of questions for the information session	21 January 2026 by 12:00 PM
Information session for market parties	22 January 2026
Deadline for submitting questions regarding this document	26 January 2026
Deadline for submitting the completed questionnaire	3 February 2026
Dates for possible individual clarification meetings	16 – 20 February 2026
Completion and publication of the consultation report	March 2026

Expected publication of tender for bird detection systems summer 2026

MIVSP project

- Maritiem Informatie Voorzienings Service Punt (MIVSP)

  (Maritime Information Provision Service Point)

Offshore Expertise Centrum (OEC)

Offshore High Voltage Stations (OHVS)

Wind Turbine Generators (WTGs)

MIVSP phases

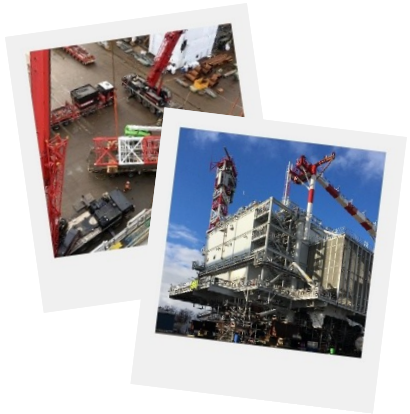
Definition

Mock-up

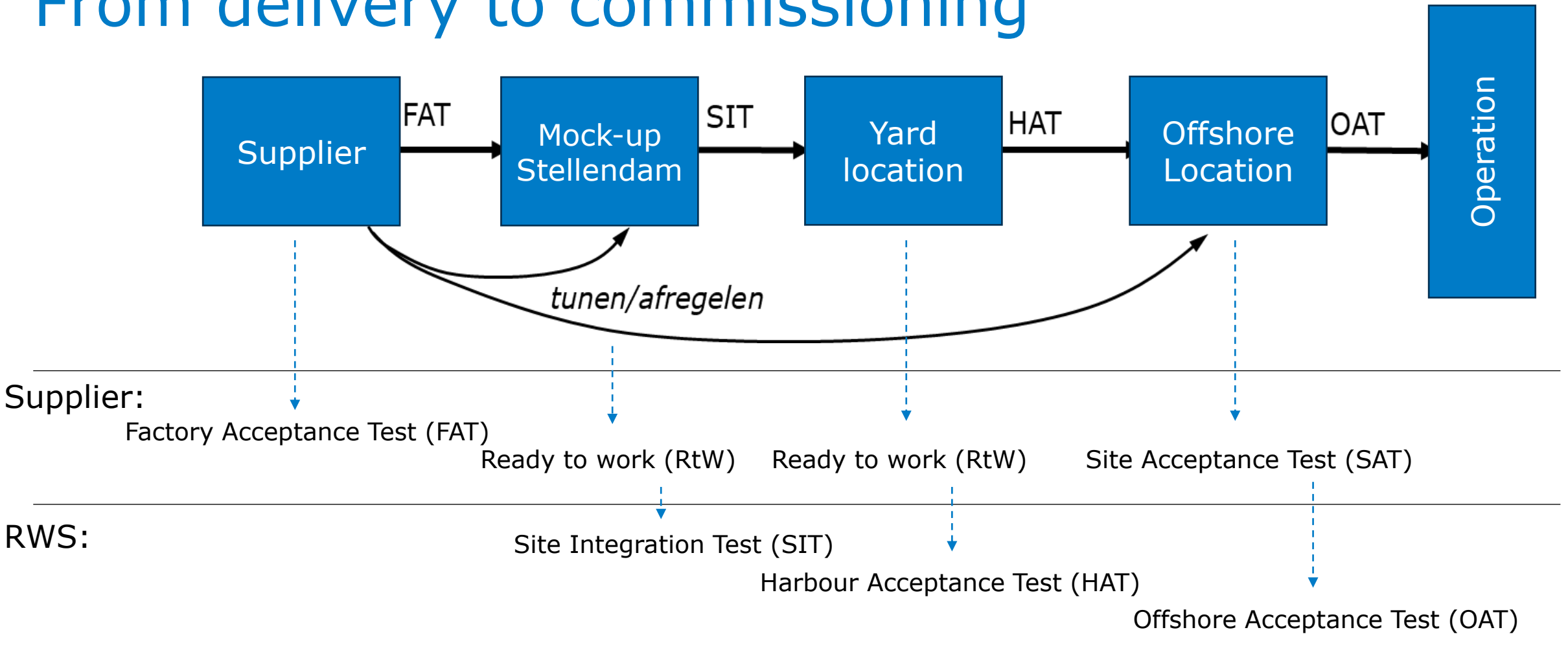
Onshore

Offshore

Maintenance

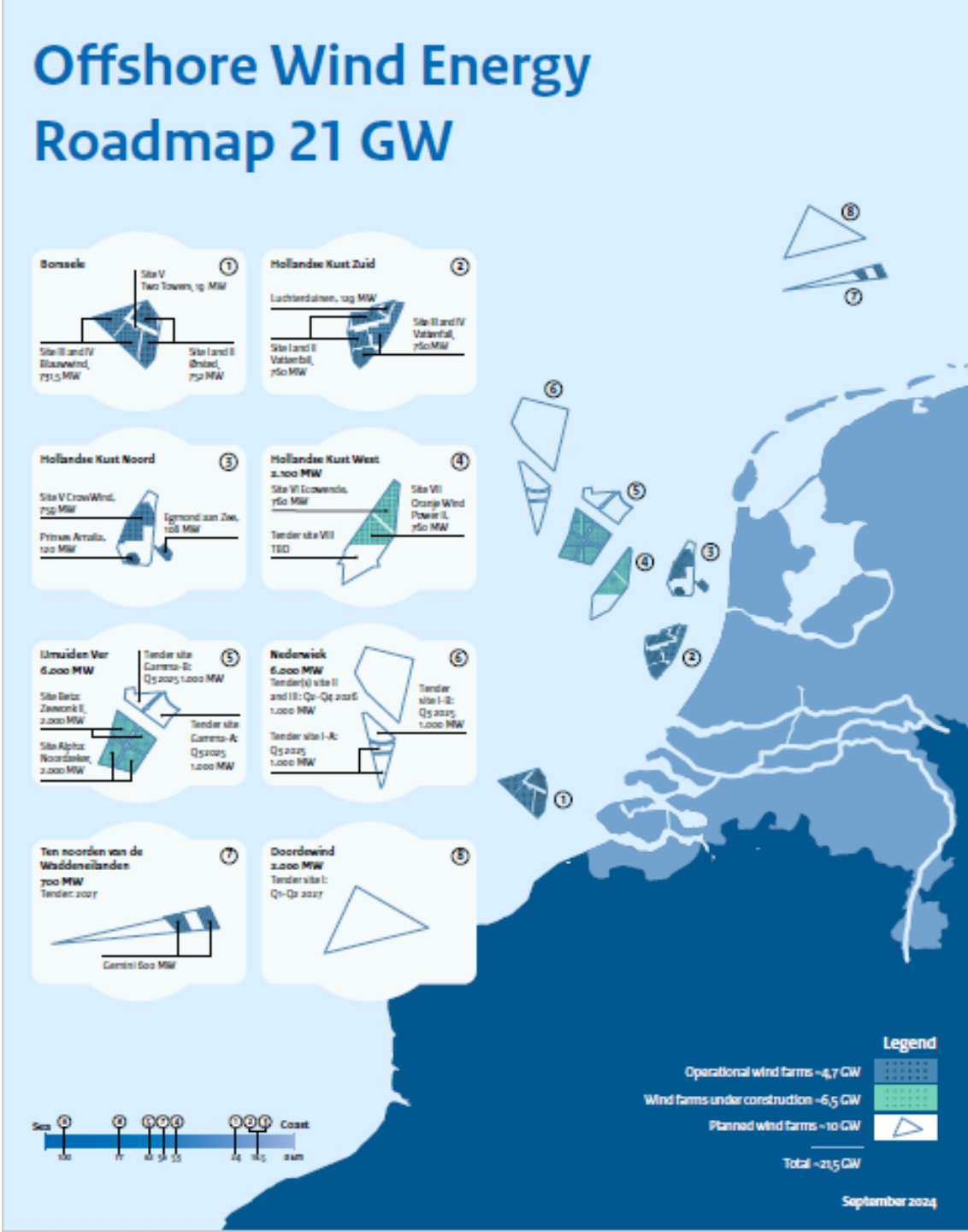


From delivery to commissioning



Need for the tender

- new bird detection systems (BDS) at new offshore locations
- replacement / life cycle management (LCM) of current BDS at operational offshore locations



Primary scope of the tender

- Delivery of between 5 and 10 bird detection systems
- Advice on installation
- System integration within the RWS chain
- Maintenance & Operations: remote service and support for hardware, software and data
- Training RWS employees and contractors for maintenance

Additional scope of the tender

- Installation at an offshore location
- Commissioning
- Maintenance & Operations: an ongoing service related to performing preventive, corrective and adaptive maintenance
- Training: in data analysis
- Perform data validations and calibrations

Need for bird detection

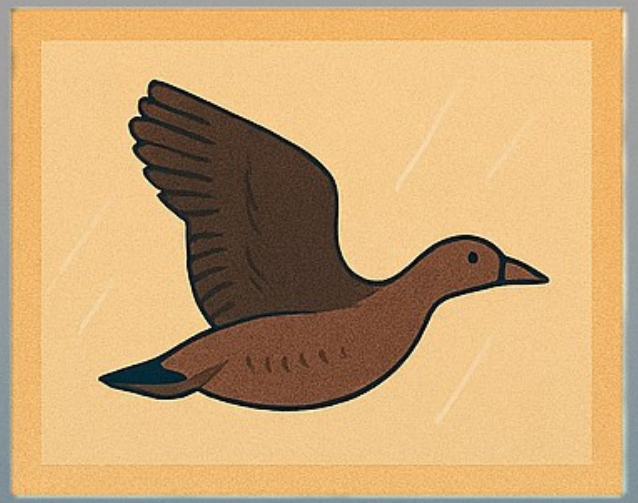
- Mass spring and autumn bird migration
- Collision risk with WTGs
- Cooperation required based on site decisions
- Start/Stop procedure
- Train and validate predictive model

Predictions to stop wind turbines at right timing for mass bird migration

Detection of Different Size Classes

SMALL
10 cm² (songbird)

MEDIUM:
30 cm² (lapwing)



LARGE:
250 cm² (goose)

GROUP:
≥1 m² (flock of birds)

NORTH SEA

up to and including sea state 4

at night, during rain, with low visibility


3D bird flight paths over time
noise reduction of wind turbines, waves, rain

Technical Requirements for Offshore Bird Detection Systems

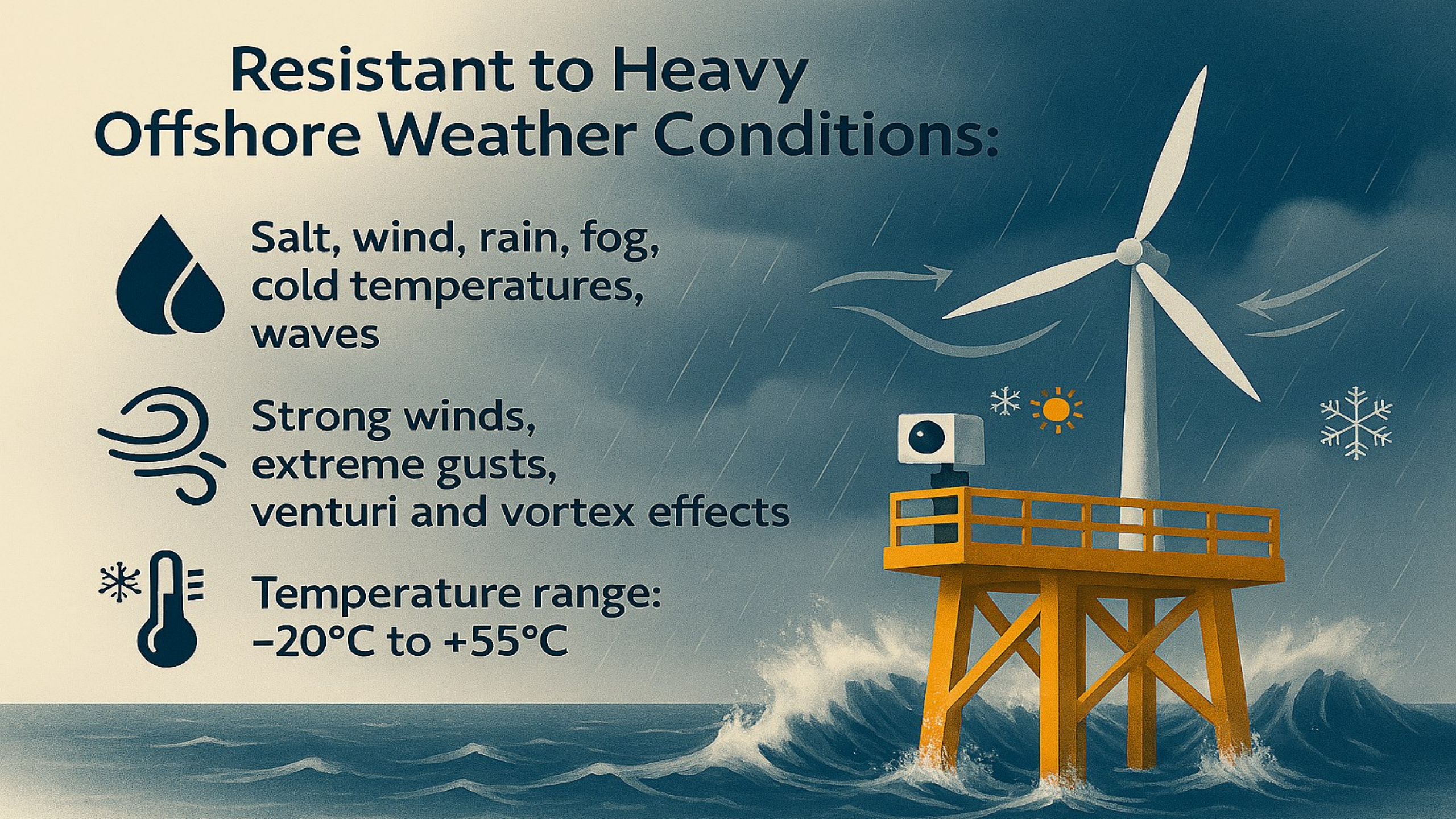
- Minimum service life: 10 years
- Repair by replacernent (modular design)
- Low maintenance, minimal moving parts
- Operates adjacent to turbine/mast and platform edge

Resistant to Heavy Offshore Weather Conditions:

Salt, wind, rain, fog, cold temperatures, waves

Strong winds, extreme gusts, venturi and vortex effects

Temperature range: –20°C to +55°C



Maintenance & Operations

Maintenance interval
max once a year
at offshore location

Remote monitoring
and setting adjustments

Max 4 hours
offshore maintenance

Efficient support
and spare parts

Optional: 7 days
per week support

Expected duration of the agreement

- Expected term for the systems is approximately 10 years
- The exact term will be determined later.

closing the meeting

We look forward to receiving your completed questionnaires.