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IfAÖ – Institut für Angewandte Ökosystemforschung GmbH is part of the GICON® Group, a group of companies of independently operating engineering service providers. Together, the companies employ approximately 500 people and draw on the expertise of several thousand projects in Germany and abroad.

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Offshore Wind Farms

From the Idea to the Permit
Service Overview

APPROVAL PLANNING AND MANAGEMENT FROM THE IDEA TO THE PERMIT

FIELDWORK, ECOLOGICAL EXPERT REPORTS AND MONITORING FROM ONE SOURCE



"alpha ventus" wind farm

GICON and IfaÖ have developed into experts in the field of technical planning and environmental planning support for offshore wind farm projects in recent years and have established themselves as part of the energy transformation. The total output of all wind farm projects in whose approval procedures companies of the GICON group have participated amounts to more than 30,000 MW. This makes GICON one of the leading companies worldwide in this field.

INSTITUT FÜR ANGEWANDTE ÖKOSYSTEMFORSCHUNG

IfaÖ - the Institute for Applied Ecosystem Research, has been part of the GICON Group since 2010. Founded in 1993 as a private-sector research institution, the institute conducts monitoring and research at the highest level. Thanks to its specialized staff and modern technical equipment, the company offers high-quality, customized research and consulting services.



Installation of the GICON/IfaÖ radar

INNOVATION THROUGH RESEARCH

IfaÖ regularly participates in extensive research projects in the offshore sector, such as the EU project "NonHazCity" for the improvement of water quality or GESCHA, a first-of-its-kind project for environmental monitoring during the construction of offshore wind farms in the North Sea.

CORE SERVICES (SELECTION)

- Preparation of all process-relevant environmental documents such as individual case studies, EIA, LBP, LAP, FFH-VVU, FFH-VU, AFB species protection contributions, BRP biotope protection legal assessments, expert environmental opinions and change applications
- **Environmental monitoring, baseline surveys, construction-phase monitoring, operational monitoring**
- Support in the planning approval process, management of objections and responses for large-scale industrial projects
- Determination of environmental and pollutant stress on bioindicators in marine and limnic habitats
- Efficiency, effect and online monitoring in connection with foundation pile driving and noise reduction measures (bubble curtain), description and evaluation of fishing activities in aquatic ecosystems, especially in the context of multiple uses of marine spaces by offshore wind farms, cable routes, military training areas, gravel extraction, protected areas or maritime traffic
- Special mapping of Appendix II and Appendix IV species of the FFH Directive
- Moderation of meeting with public participation



GICON/IfaÖ North Sea Projects

EXPERT SERVICES

IFAÖ is capable of providing all expert services required in the run-up to an offshore EIS from one source. This also includes construction and operational monitoring. Our scientists also make use of the interdisciplinary resources of the GICON Group.

SAMPLING WITH IFAÖ'S OWN EQUIPMENT

- Various grabs and corers (van Veen, Ekman Birge, Günther)
- Measuring instruments for determining water quality
- Underwater video systems incl. GPS and echo sounder (Kordian, Mariscope)
- Underwater Robot (ROV)
- beam trawls, dredges, trawl nets, gill nets, trawl seines
- High-resolution camera systems (VARS - Visual Automatic Recording System) for automatic recording of flying birds by day and night
- Radar systems for the quantification of bird migration rates
- Management of vessel charters

ECOLOGICAL EXPERT REPORTS FOR ALL SPECIALIST AREAS

- Ornithology (seabirds, migratory and breeding birds)
- Ichthyology (fish/commercial fishing)
- Benthic organisms and habitats
- Terrestrial Ecology
- Marine mammals (esp. whales, seals)
- Environmental Planning
- Ecotoxicology
- Biodata Management

LABORATORIES AT THE HIGHEST SCIENTIFIC LEVEL

- **Benthos laboratory**
Sorting of organisms, identification of species and the determination of the number of individuals and biomass
- **Sediment laboratory**
Determination of the organic content (loss of ignition) and grain-size composition
- **Ecotoxicological laboratory**
Performance of biochemical / cell biological work



Remote operated vehicle (ROV)



Beam trawl



Van Veen Grab