# The importance of oil and gas platform foundations for a key commercial fish species, the Atlantic cod

**Ibanez-Erquiaga, B.; Baktoft, H.; Wilms, T.; Svendsen, J.C.**

*Publication date:*
2022

*Document Version*
Publisher's PDF, also known as Version of record



*Citation (APA):*
Ibanez-Erquiaga, B., Baktoft, H., Wilms, T., & Svendsen, J. C. (2022). *The importance of oil and gas platform foundations for a key commercial fish species, the Atlantic cod*. Abstract from Danish Offshore Technology Conference 2022, Kolding, Denmark.

# The importance of oil and gas platform foundations for a key commercial fish species, the Atlantic cod

## SUBTITLE

*Ibanez-Erquiaga B, Baktoft H, Wilms T, Svendsen JC*

Offshore oil and gas (O&G) platforms populate the continental shelves of 53 countries. Increasingly, the platforms are aging, and the local availability of O&G is diminishing. Current regulation mostly calls for complete removal of ageing platforms through decommissioning. In the North Sea (NS), >€90 billion will be needed for decommissioning by 2060. Concurrently, growing evidence support that platforms may provide productive habitats for fish communities due to reef effects associated with the foundations. Also, the areas within and surrounding platforms may act as *de facto* marine protected areas with limited or no ongoing fishing. Indeed, preliminary investigations show that the Atlantic cod (*Gadus morhua*), an important target for NS fisheries, but with declining populations, is associated with platforms. However, a poor understanding remains of the mechanisms underpinning platforms' effects, and assessments of the ecological outcomes in relation to fish ecology and fisheries are scarce. This challenges the prediction of possible fisheries scenarios associated with different decommissioning options. Here, we aim to provide an understanding of the role that platforms play for marine ecosystems in the Danish NS using cod as a case study. To answer if O&G platforms are influencing cod population in the NS, we will estimate cod abundance along distance gradients towards a platform. Additionally, we will track individual cod in 3D to demonstrate habitat use near a platform. Our goal is to inform decision-making processes on platform decommissioning by assessing to what degree platforms act as artificial reefs and provide important refuge and substrate for other species.