What is Marispace-X?

Marispace-X – Establishment of a comprehensive Digital Ecosystem for the Oceans

Goal: A digital maritime data space that enables actors from industry, science, public administration, and NGOs to manage, share, and analyse ocean-derived data in a sovereign, secure and efficient manner.

Innovation: Enables access to large, previously difficult-to-access ocean datasets and creates new pathways to maritime big data processing and analysis of sensor data using edge, fog, and cloud computing.

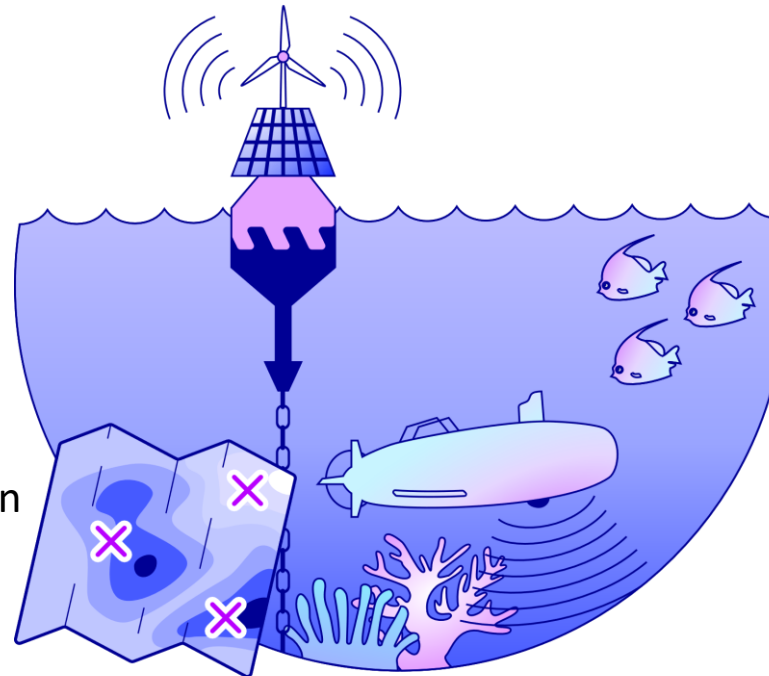Marispace-X develops **four use cases** based on the digital ecosystem of the oceans:

a) Internet of Underwater Things – Digital Twin of the underwater world
b) Offshore Wind - Development of new sites and smart maintenance
c) Munitions in the sea - analysis and management of data for the clearance of munitions
d) Biological climate protection - coastal vegetation for the storage of CO_2

marispacex.com

Use Case: Munition in the Sea

Targets businesses, governmental institutions, and research organisations

Through AI-based software combined with additional datasets, information about the quantity and location of sunken munitions is provided.

It showcases promising and new opportunities in utilising maritime datasets for marine and environmental conservation.

Based on this data and its targeted analysis, old munitions stocks in the sea can be more easily located and their recovery optimised.

Further Use Cases

Internet of Underwater Things (IoUT) – supports the sustainable use of marine resources by obtaining detailed underwater data.
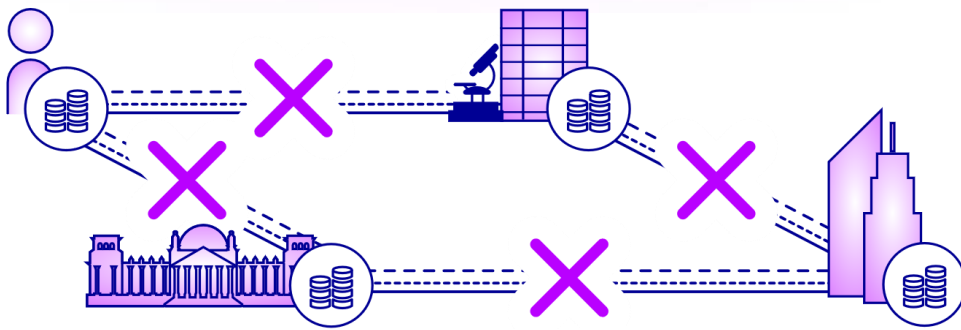
Offshore Wind – creates new options in the planning, maintenance, and connection of facilities.
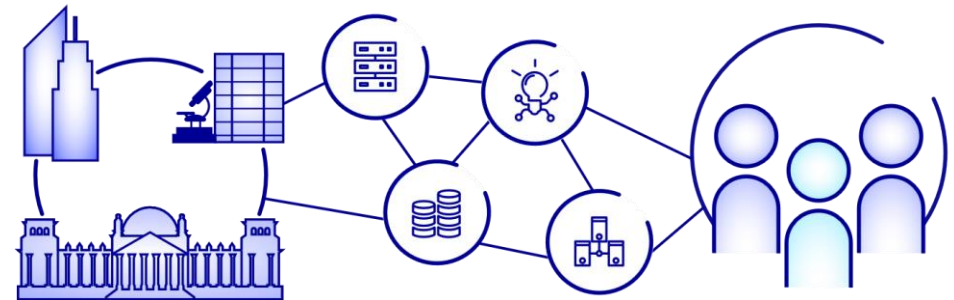
Gaia-X makes Marispace-X possible

Situation without Gaia-X

- Many self-contained "data silos" exist within individual research institutions, companies, government agencies, or non-profit organizations.

- Since the partially sensitive maritime data are subject to strict regulations and exist in different file formats, they often cannot or only with great difficulty be exchanged.

Solution with Gaia-X

- Marispace-X is establishing a maritime data space compliant with the Gaia-X standard.

- In this data space, stakeholders from industry, science, government, or NGOs can exchange and utilise large quantities of maritime data in a trustworthy and interoperable manner.

- This creates new opportunities for science and research, but above all, new economic business models in the maritime domain.

Marispace-X – enables privacy-compliant, interoperable access to a large quantity of maritime data