

What is iECO?



iECO – Common data space for the construction industry

Goal: Data can be shared across the entire value chain beyond company boundaries to reduce the high coordination efforts and increase the productivity of the construction industry.

Innovation: Through iECO, a digital twin is created for the entire lifecycle of a building, incorporating all steps of the value chain from approval to demolition.

Further optimisation of the construction process with **Advanced Smart Services:**

- a) Environmental Planning Service - Digital Environmental Impact Assessment
- b) Model-based control inquiries and reporting
- c) Digitised examination of the standardised stability verification
- d) Automated performance monitoring via drone
- e) Asset tracking for a secure construction site
- f) Structure documentation & commissioning with AI support



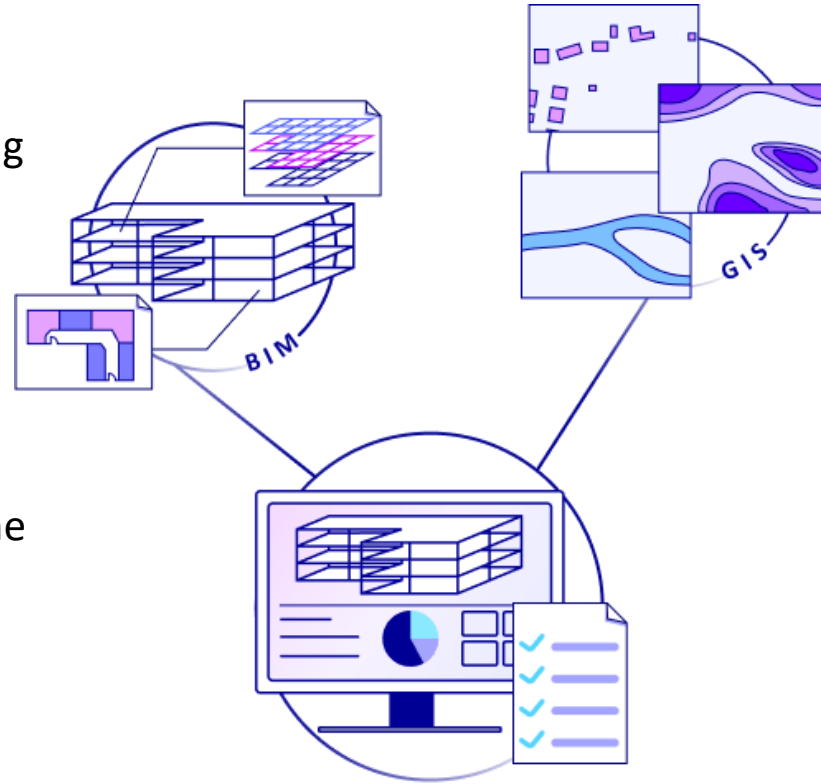
ieco-gaiax.de

Use Case: Environmental Planning Service



Connects environmental technical consultants, architecture and planning offices, geospatial data services, and public institutions.

Development of a planning tool that considers environmental factors in the construction planning process.



Through the integration of BIM and GIS data, the location of protected areas can be determined as well as the vulnerability of the buildings to natural hazards where necessary protective measures are analyzed.

The necessary environmental impact assessment is greatly simplified and accelerated.



Further Use Cases

Model checker to assess relevant standards,
Digitised examination of site security certification,
Automated performance reporting via camera/drone,

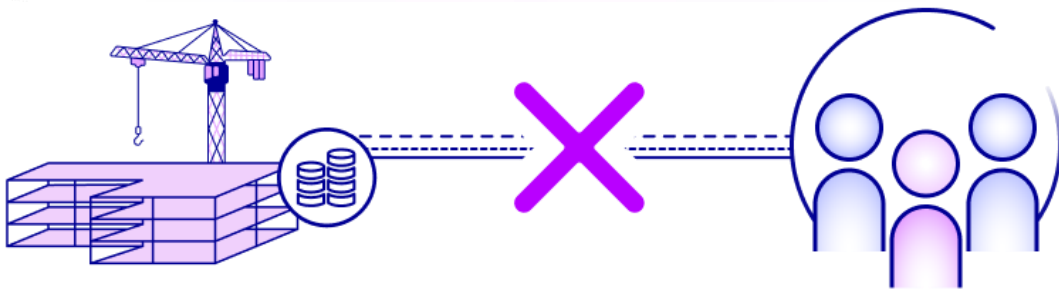
Asset tracking of building materials and machinery,
AI-guided documentation of certificates

Gaia-X makes iECO possible



Situation without Gaia-X

- High coordination effort in construction projects: manual coordination of schedules and delays, occurrence of idle times or material shortages.
- Data are distributed along the entire value chain of the construction sector and cannot be linked or evaluated together.



Solution with Gaia-X

- iECO creates a common data space for the construction industry, where data can be shared confidentially and across company boundaries.
- The entire lifecycle of a building is mapped out in a digital twin. This enables all stakeholders to access real-time data at all times.
- Advanced Smart Services based on Gaia-X make the construction process faster, more efficient, and cost-effective.



iECO – Makes data available along the entire value chain of constructions.