

Project Danu

Monitoring emerging risks by leveraging digital twin technology

Motivation

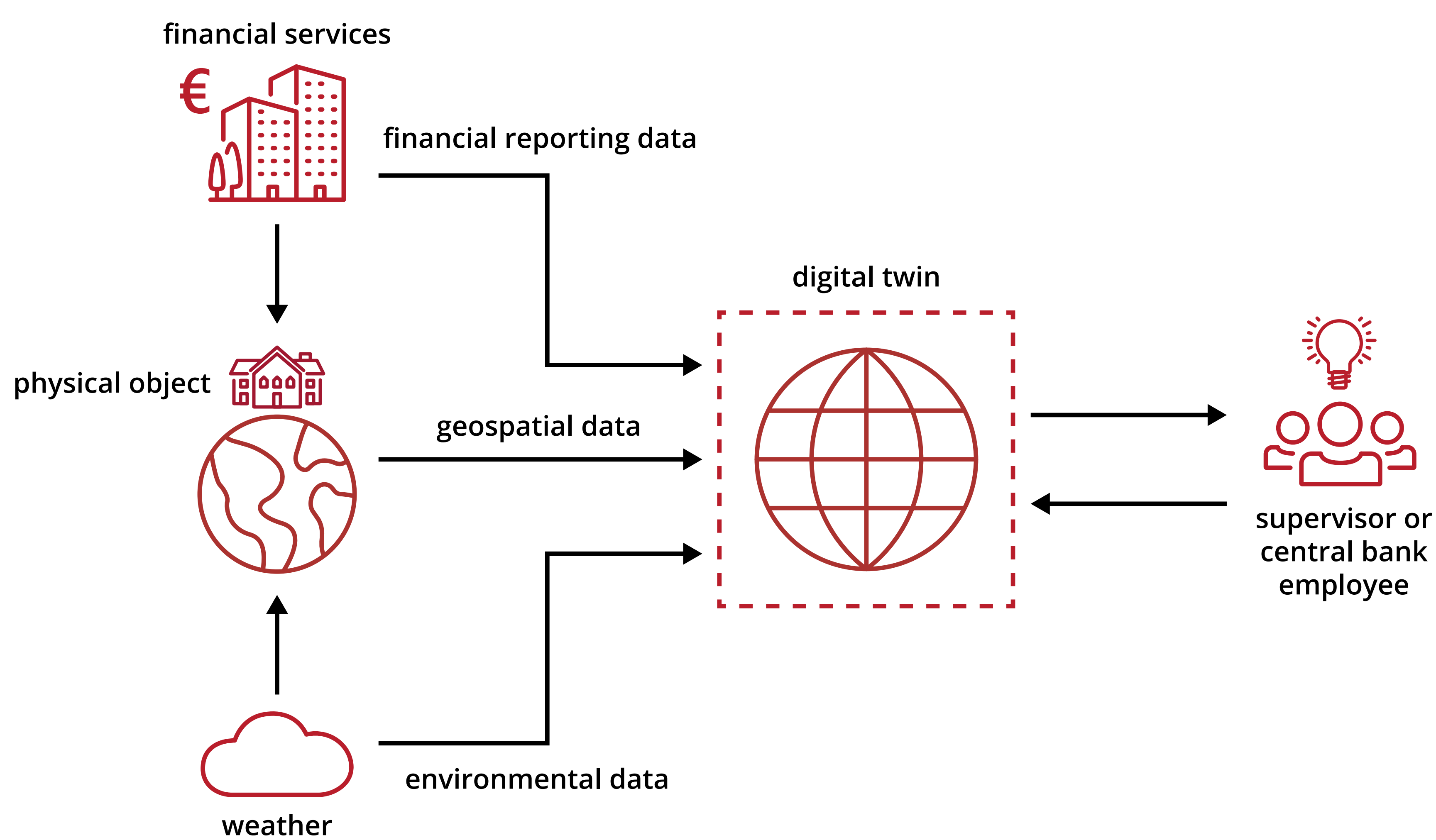
Emerging risks, such as floods and wildfires, can have a **sudden** and **significant** impact on the financial system



Challenges with emerging risks are:

- 1 Data availability is limited
- 2 Limited knowledge or access to resources to develop methodologies
- 3 Lack of interactive analyses, real-time insights and predictive capabilities

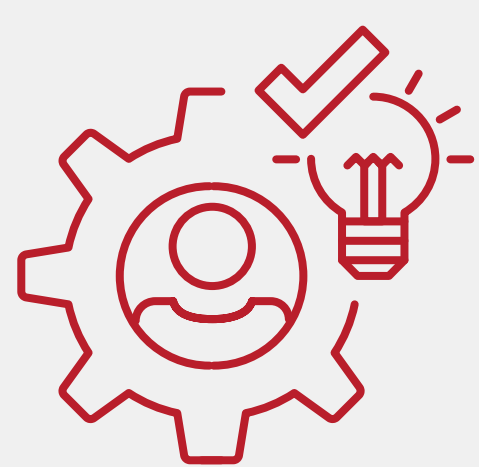
Solution



Developing a digital twin framework

- Real-time monitoring & scenario simulation
- Combining various data sources in one framework
- Continuous data ingestion and impact calculation
- Modular framework that is adaptable to different use cases and needs
- Dynamic and user-friendly

Deliverables



Prototype

A digital twin framework that is designed to be scalable and adaptable for use by the central banking and supervisory community:

- a codebase that users can implement within their own technical environments to deploy a digital twin
- a general methodology, which will be documented and delivered alongside the prototype

Report

