

BIM4CE

Bridge monitoring using real-time data and digital twins for Central Europe

Bridges are critical transport infrastructure and need regular maintenance to be safe. Smart systems help with monitoring and allow to optimize maintenance processes - but they carry a high price tag.

BIM4CE project aspires to develop a new bridge management solution that will be efficacious as well as cost-effective.

Project budget in EUR:

2,701,235.41

Project duration:

01.04.2023 - 31.03.2026



NEWS

BIM4CE consortium meeting in Dresden and visit to Pilot site

On 2nd and 3rd September took place in Dresden the BIM4CE consortium meeting hosted by Technische Universität Dresden (TUD).

Day 1 was dedicated to the workshop open to stakeholders and experts. TUD introduced the project objectives and state of the art of WP1, followed by Schübler-Plan Digital and FOS that presented respectively WP2 and WP3.

In the afternoon we visited the IDA-KI research bridge near Dresden. The 3-span bridge, which will be the pilot case for Germany, was built by Hentschke Bau GmbH, and it serves as a laboratory where different structural monitoring sensors can be tested. It was an interesting moment of collaboration and technical experience exchange!

Day 2 was dedicated to financial management, reporting, communication and brainstorming of WP2. Collaboration and teamwork among the consortium are growing every day!



Bridge collapse in Dresden

On September 11, 2024, one of the most important Elbe bridges in Dresden partially collapsed. The bridge collapse highlights the urgent need to rethink our bridge management strategies. We need deeper insights into our infrastructure to better mitigate risks and address the challenges ahead. It's a striking coincidence that our BIM4CE consortium visited Dresden approximately one week before.

[Learn more](#)

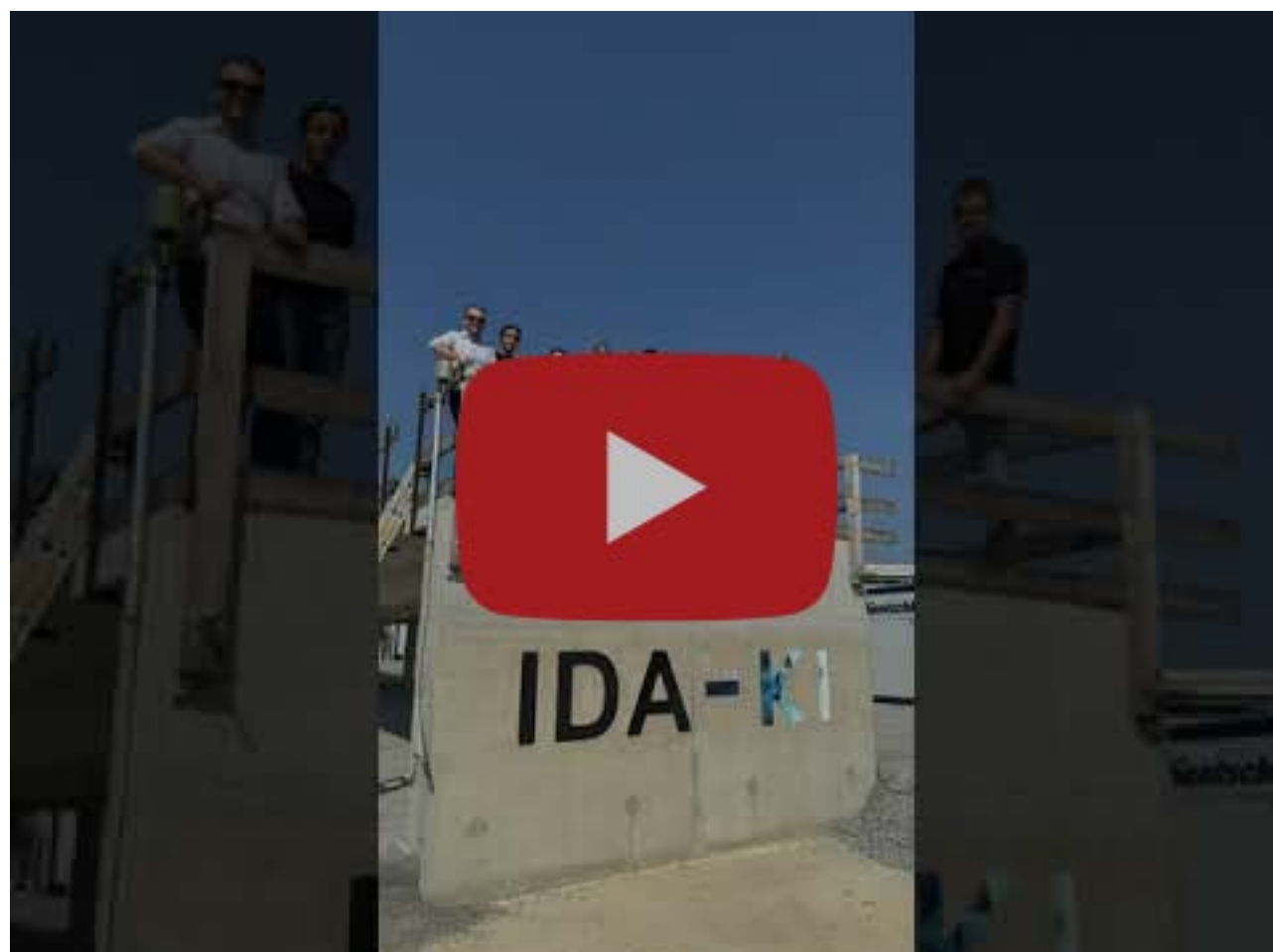
Flexible sensor foil development

As part of the BIM4CE project consortium, Technische Universität Dresden has developed a flexible sensor foil capable of detecting leakages on bridges caused by various defects or cracks. In light of the recent bridge collapse in Dresden, this is an especially relevant topic. Although no official statement has been made yet, early indications suggest that the collapse may have been due to corrosion of internal reinforcements — highlighting the critical need for advanced monitoring solutions like these sensors.



Video

Visit to the IDA-KI research bridge near Dresden.



Events



Nordic BIM Summit 2025

9th April 2025
Online, Stockholm, Oslo and London

This summit will take place in Stockholm, Oslo and online. It is one of the most important events for the building and infrastructure industry, focusing on sustainability, collaboration, and digitalization.

[Vist Website](#)



July 21th to 24th, 2025 Paris, France

July 21th to 24th, 2025
Paris, France

This conference will cover state-of-the-art knowledge in bridge engineering, including BIM technologies, structural health monitoring, and innovative design.

[Vist Website](#)

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