MEASUREMENT, VISUALISATION AND PROCESSING IN BIM FOR DESIGN AND CONSTRUCTION MANAGEMENT 2019

Josef Žák 9/2019

Digital transformation

Transportation



Media





Hospitality









Who is next?

Challenges and opportunities



Construction works prices +3,3% annually – ČSÚ Construction costs 3,7% annually – ČSÚ Increased nominal wages +8,4% annually – ČSÚ Request for information of documentations +12% annually - Skanska Global BIM Knowledge Expert Group GDP +3% annually – World Bank ICT (Information and Communication Technologies) solutions +70% annually - EU commission PC performance 100x in last decade - CTT

Internet connection speed +26% annually - Reddit

Economist.com

Challenges and opportunities

Digitalization

Automatization

Manual labor cost decrease

Construction works systematization

Increased efficiency, quality and safety







BIM in Czech - Timeline

• Separated industry activities



- Plan for Expanding the Use of Digital Methods and Building Information Modeling (BIM) for Transport Infrastructure
- Framework for BIM integration in CZ
- Established national body for BIM standardization
- Methodologies releases
- National pilot projects
 - Civil SFTI
 - Building CAS

(SFTI, May 2017)

(MIT, September 2017)

(CAS, January 2018)

(CAS and SFTI, 2019)

(2019-2022)

Methodologies





Czech industry standard



Employer's information requirements (EIR)

- Based on use cases
- Reflects complexity of projects
- Reflects client's maturity
- Developed in cooperation with key market players



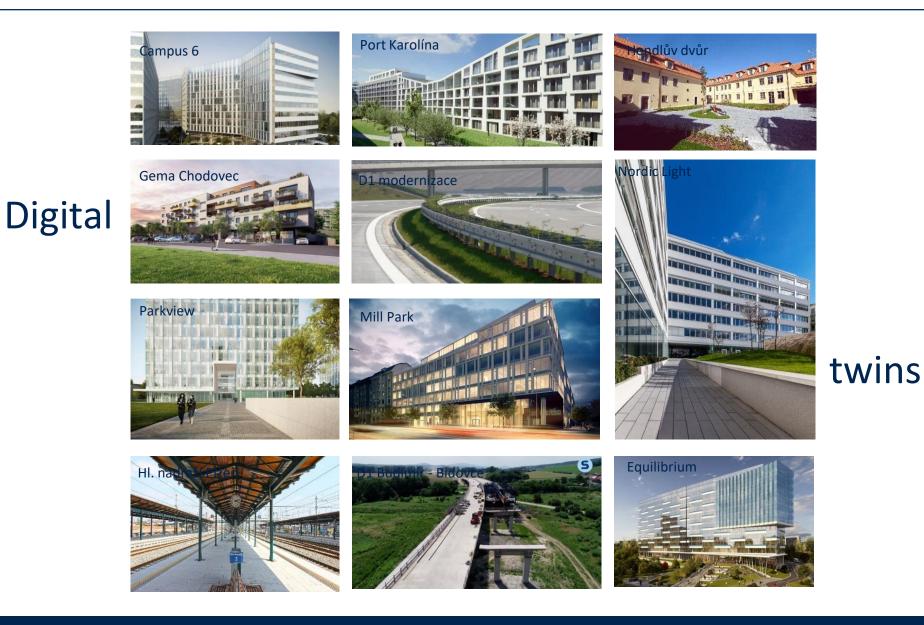
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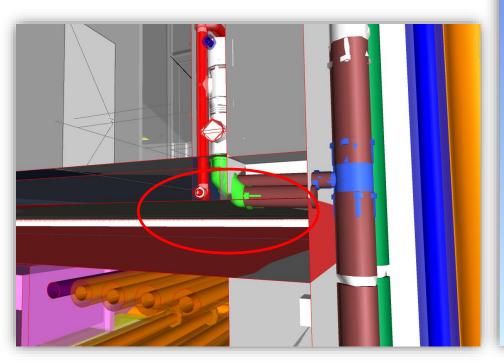
Database for Construction Data Standard - DDSS

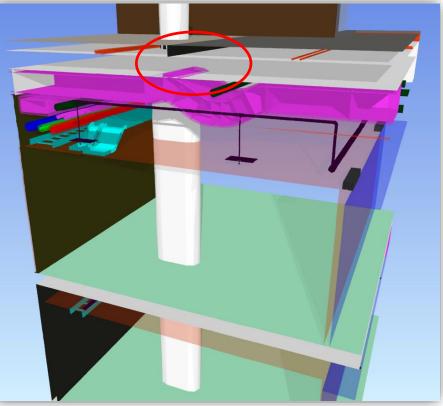


Enhanced construction sector cooperation efficiency development



Project Risk Mitigations

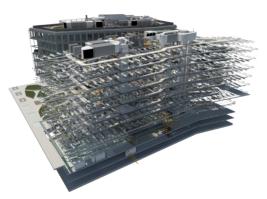


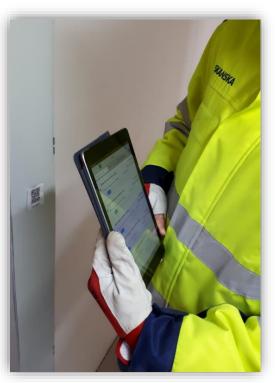


Mobile Technologies On-site

Health and safety Issues and checklist RFIs Documents database Gallery







MEP Prefabrication









Machine controll systems





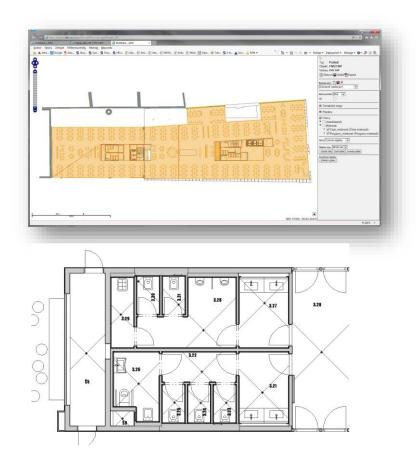
Data Rich Cost Management





Operation and Asset Management









Current Skanska Joint Developments





Education

BIM Lab since 2014

4 voluntary courses since 2015

First mandatory course since 2019





CTU in Prague K126 Department of management and economics



Thank you for your attention.

