

THE CURRENT STATE OF BIM IMPLEMENTATION IN THE SLOVAK REPUBLIC

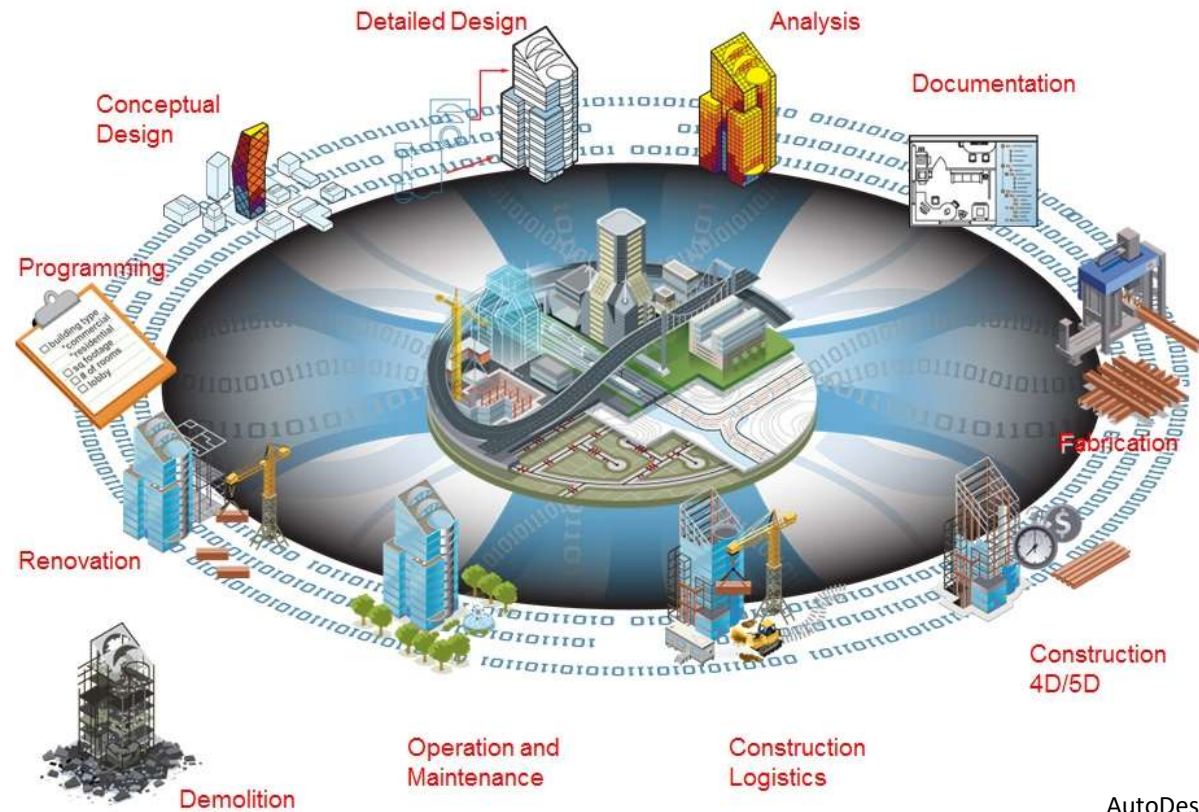


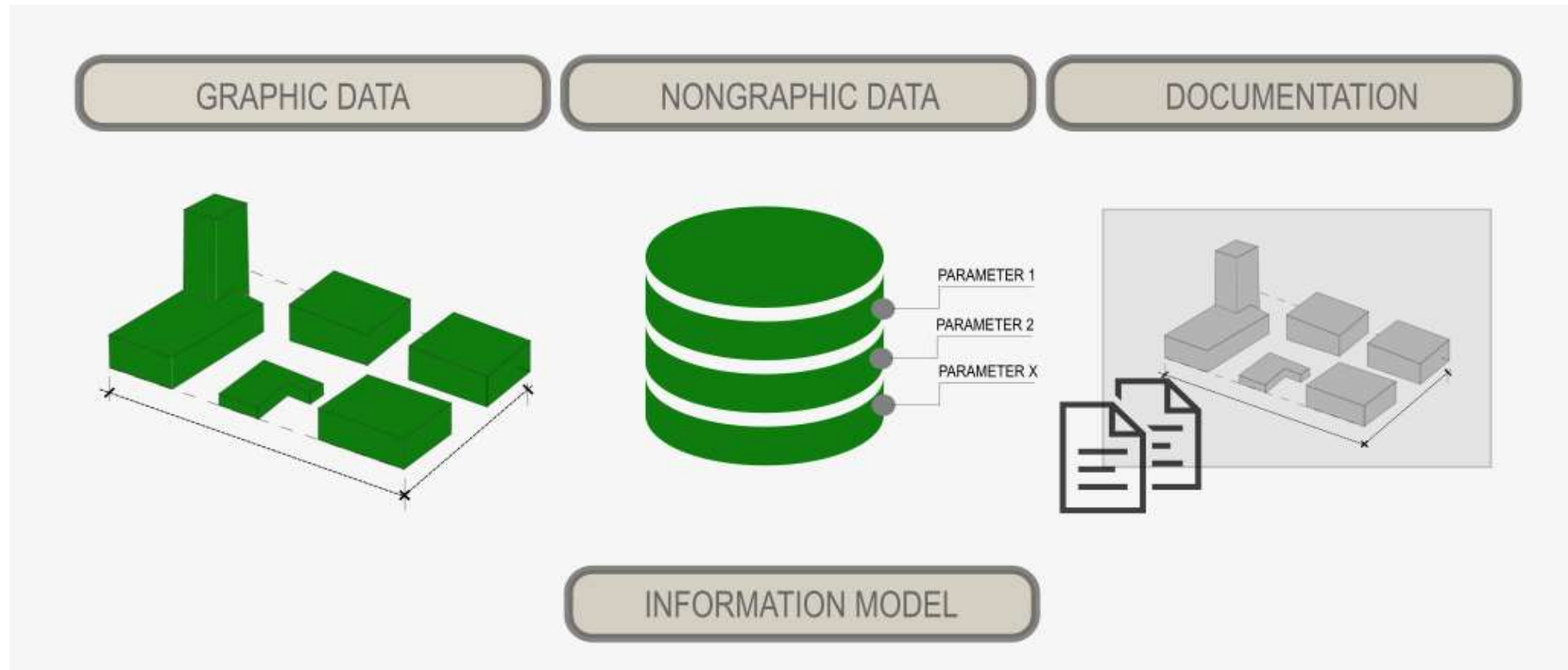
STW Architects/ Bouygues UK

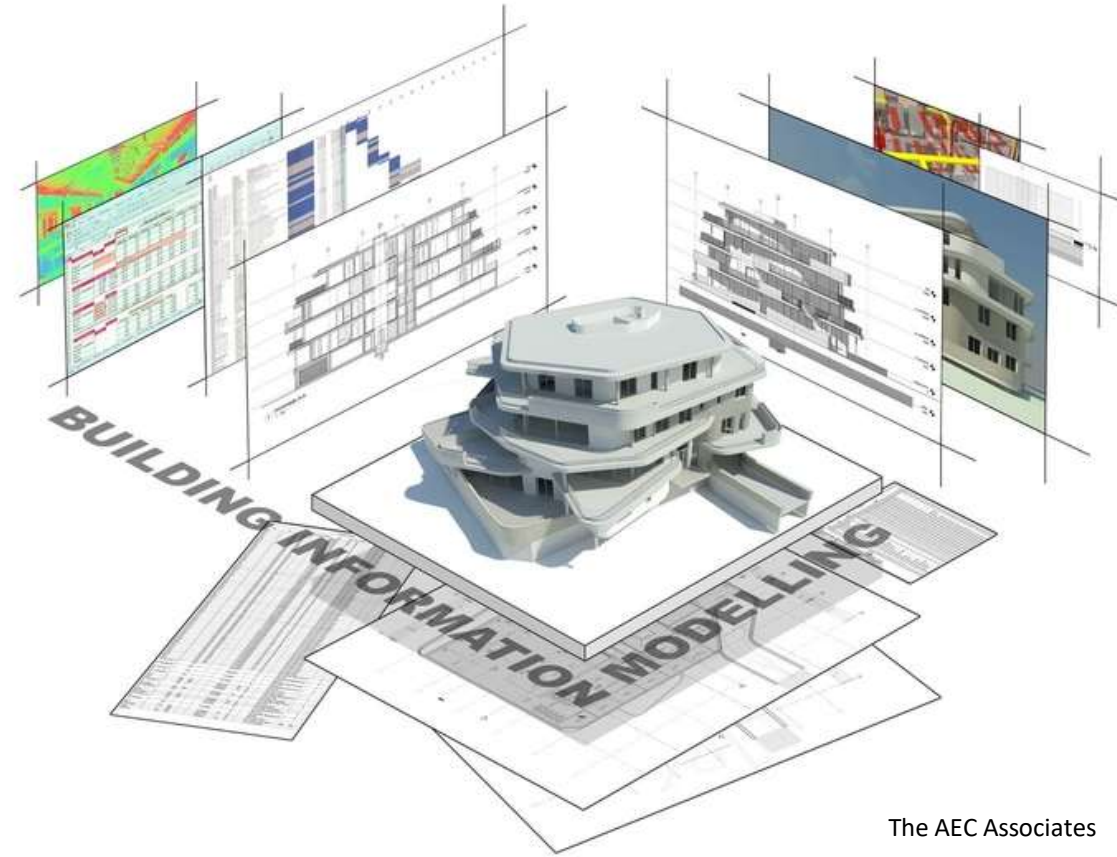
JÁN ERDÉLYI

Building Information Modelling

“BIM is a digital form of construction and asset operations. It brings together technology, process improvements and digital information to radically improve client and project outcomes and asset operations. BIM is a strategic enabler for improving decision making for both buildings and public infrastructure assets across the whole lifecycle...” EU BIM Task group



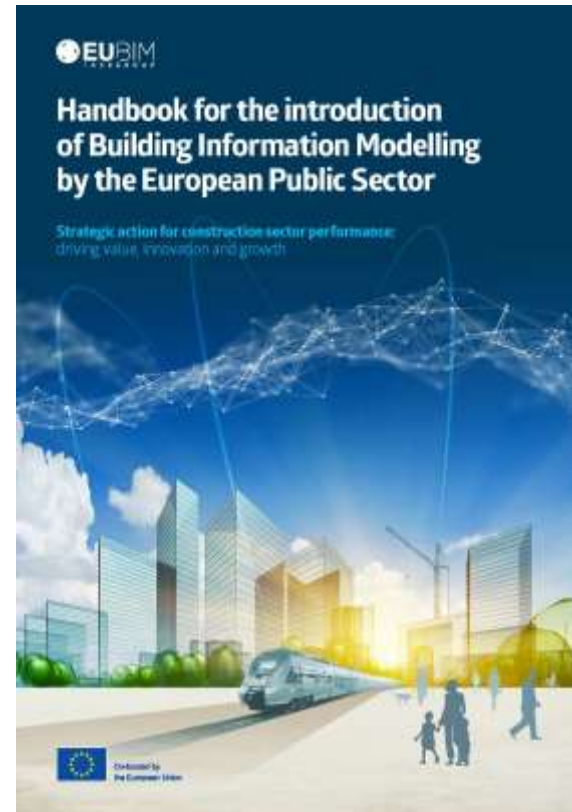




LOD = LOG + LOI

LOA = ?

The EU Parliament accepted 15th January 2014 two regulations for implementation of public contracts in EU (EUPPD). Their aim is to modernize the actual EU regulations for public procurement and to simplify the procurement processes. According these documents will BIM as strategic instrument increasing the transparency, take more flexible the procurement process and not last the instrument increasing the project quality parallel with the assurance of effective usage of costs.



BIM Implementation





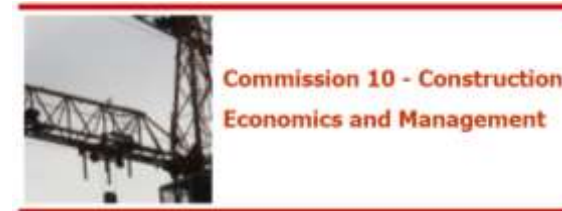
V4 BIM Task Group
Non-Governmental Organization



International federation of Surveyors

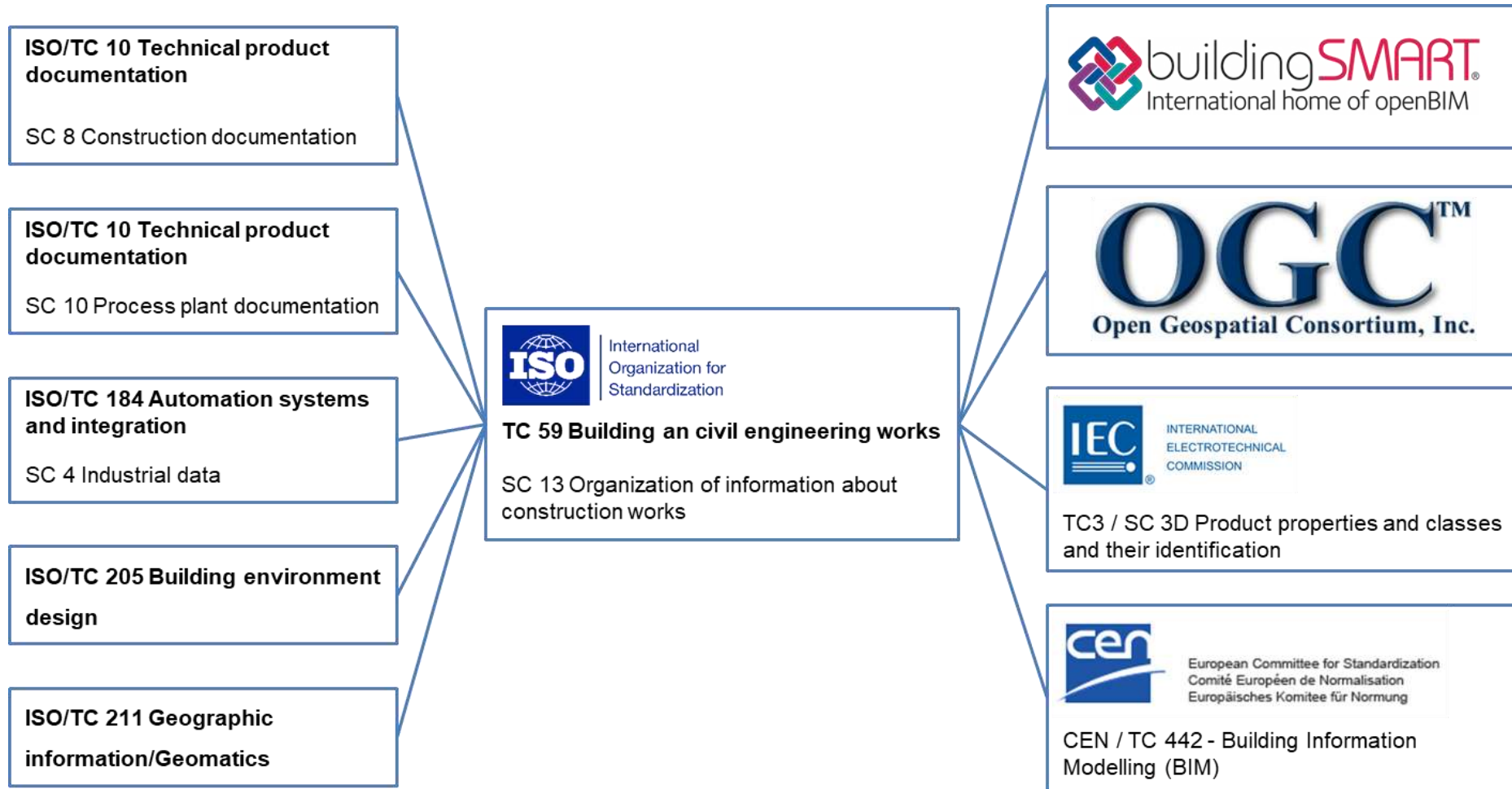


MABIM
MAGYAR BIM SZÖVETSÉG

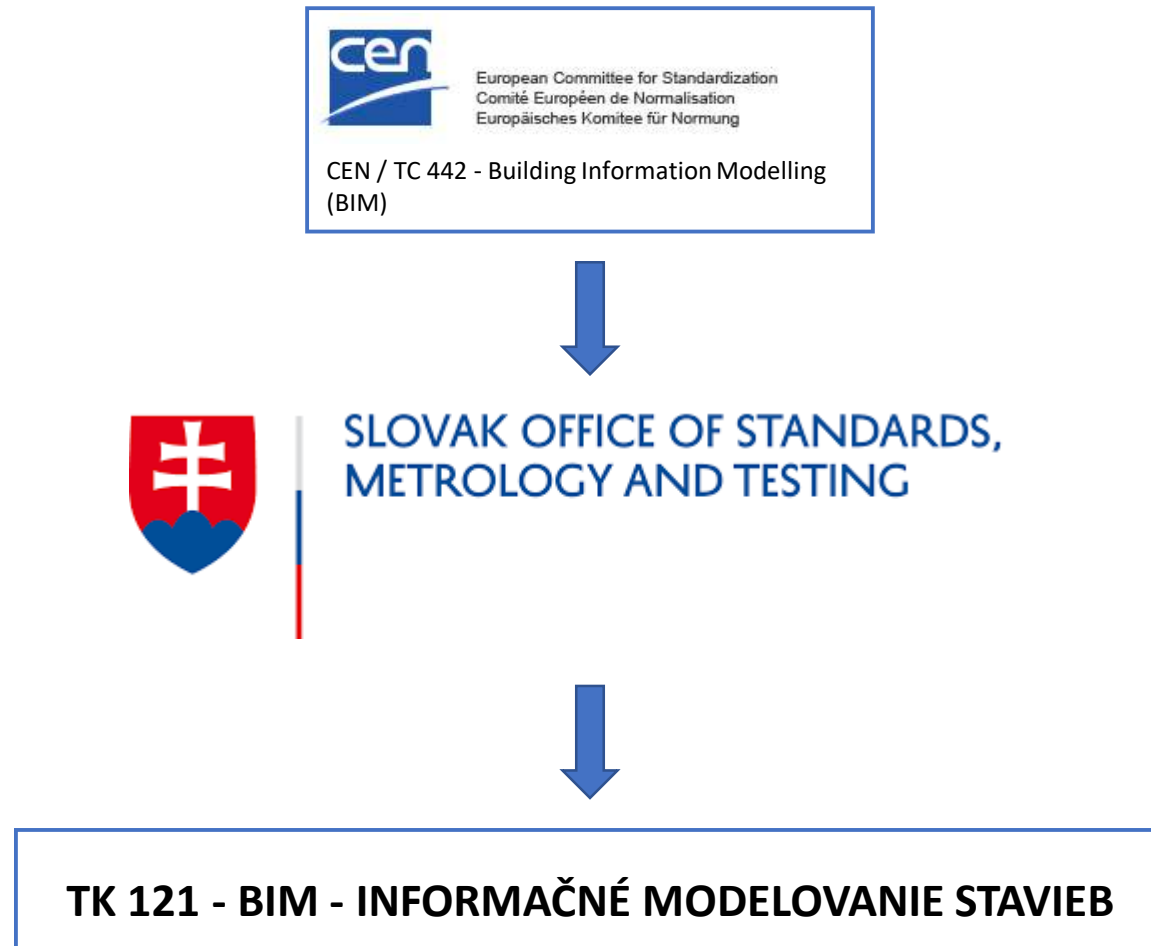


**Working Group 10.2 – Building
Information Modelling**

Standardization process



Standardization process



- **STN EN ISO 16739:2016** Dátový formát Industry Foundation Classes (IFC) pre zdieľanie dát v stavebníctve a facility managemente
 - *Industry Foundation Classes (IFC) for data sharing in the construction and facility management industries*
 - **STN EN ISO 29481-2:2016** Informačné modely stavieb (BIM) - Príručka odovzdania informácií – Časť 2: Rámec interakcie
 - *Building information models. Information delivery manual. Part 2: Interaction framework*
 - **STN EN ISO 12006-3:2016** Pozemné staviteľstvo - Usporiadanie informácií o stavebných prácach – Časť 3: rámec pre objektovo orientované informácie
 - *Building construction. Organization of information about construction works. Part 3: Framework for object-oriented information*
-

- **prEN ISO 19650-1** Organization of information about construction works - Information management using building information modelling -- Part 1: Concepts and principles
 - *Organizácia informácií o stavebných prácach. Informačný manažment pomocou informačného modelovania budov. Časť 1: Pojmy a princípy*
- **prEN ISO 19650-2** Organization of information about construction works - Information management using building information modelling -- Part 2: Delivery phase of assets
 - *Organizácia informácií o stavebných prácach - Informačný manažment pomocou informačného modelovania budov. Časť 2: Fáza dodania*



Founded in January 2013
1st national organization supporting implementation
of Building Information Modeling

Founding members:



Cooperation:



Members:

STRABAG
TEAMS WORK.

GFI

OBERMEYER
HELIKA s.r.o.

metrocstau

Trimble
Tekla

Qservices

HILTI

GEO KOD

ALLPLAN
A NEMETSCHKE COMPANY

SIEBERTALAŠ

REMIING
CONSULT A.S.

PRODEX
PROJEKTOVANIE STAVIEB

EUROVIA
VINCI

YIT

DOPRAVOPROJEKT

KLIMA-TEPLO
DESIGNING

WELL - PROJEKT s.r.o.

M&P

PROREVIT

KERAMING

DELTA

**LANSKY,
GANZGER**
partner

iNGs

KROS

DE
DESIGN
ENGINEERING

SWIETELSKY

cadstudio
člen skupiny Autocont

- propagation, popularisation and development of BIM usage and implementation in Slovakia
- **education/popularisation** for students and practice



- **BIM Challenge** – organized on yearly base by BIMas for all civil engineering students in Slovakia, students have 5 hours to create the design of specific structure



BIM CHALLENGE

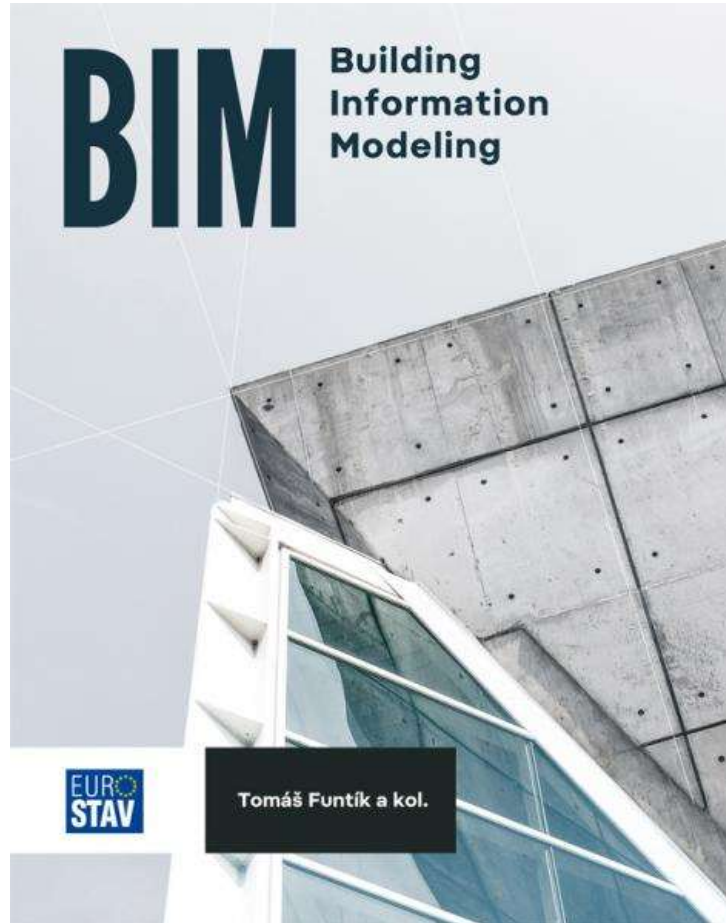


- **BIM4FREE** lectures for students implemented to curricula of different study programs prepared by experts from practice
- **National BIM Conference** – organised on yearly base by BIMAS, education/training for professionals, promotion of BIM projects, targeting specifics of BIM usage, space for discussion
- Seminars/conferences – partly devoted to BIM, conference on „**Engineering and Industry Surveying**“, 110 participants (surveyors)

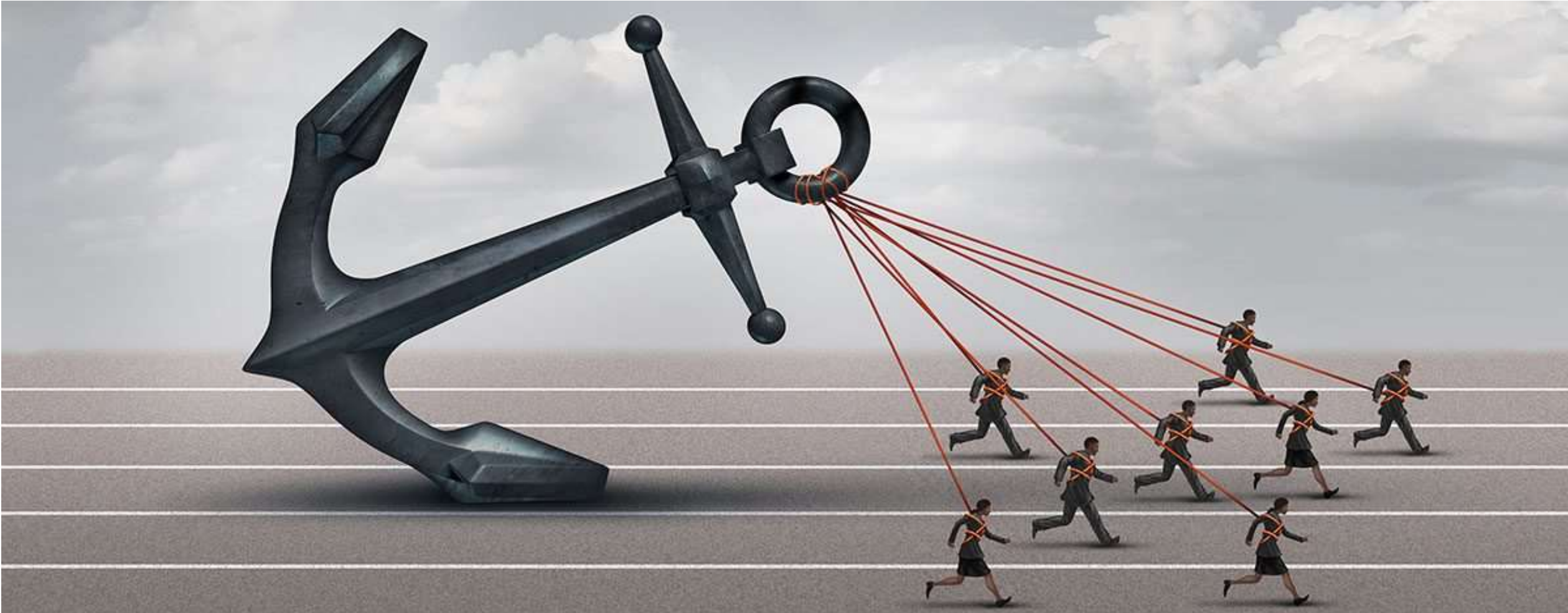


BIM 4 FREE

- **BIM Building Information Modeling** – 1st handbook of BIM in Slovakia



...ready for BIM?



- realized between professionals, with the **scope** to determine the **level of usage of BIM in Slovakia**
– attend **2327 persons**, from these were **199 surveyors**

- Slovak Chamber of Civil Engineers



- Chamber of Surveyors and Cartographers



- Slovak Chamber of Architects



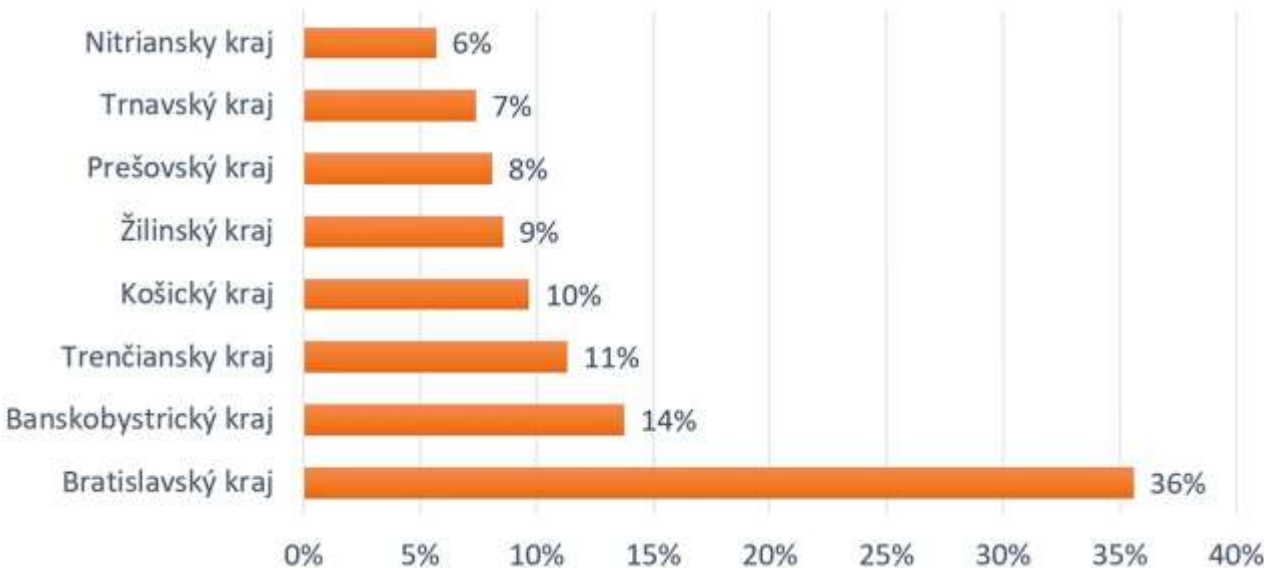
- Association of Slovak Enterprisers in Civil Engineering



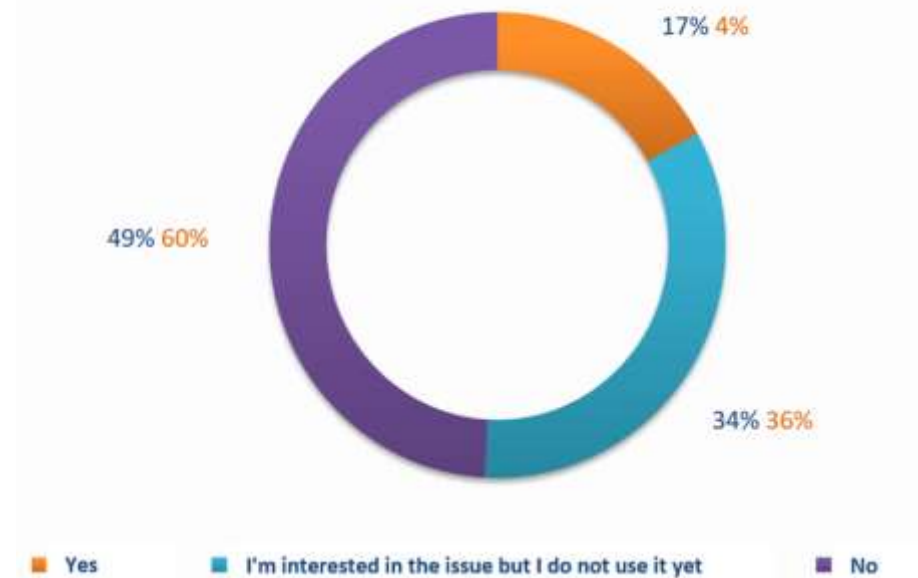
2327 respondents

- realized between professionals, with the **scope** to determine the **level of usage of BIM in Slovakia** – attend **2327 persons**, from these were **199 surveyors**

Which region are the main interest of your company?



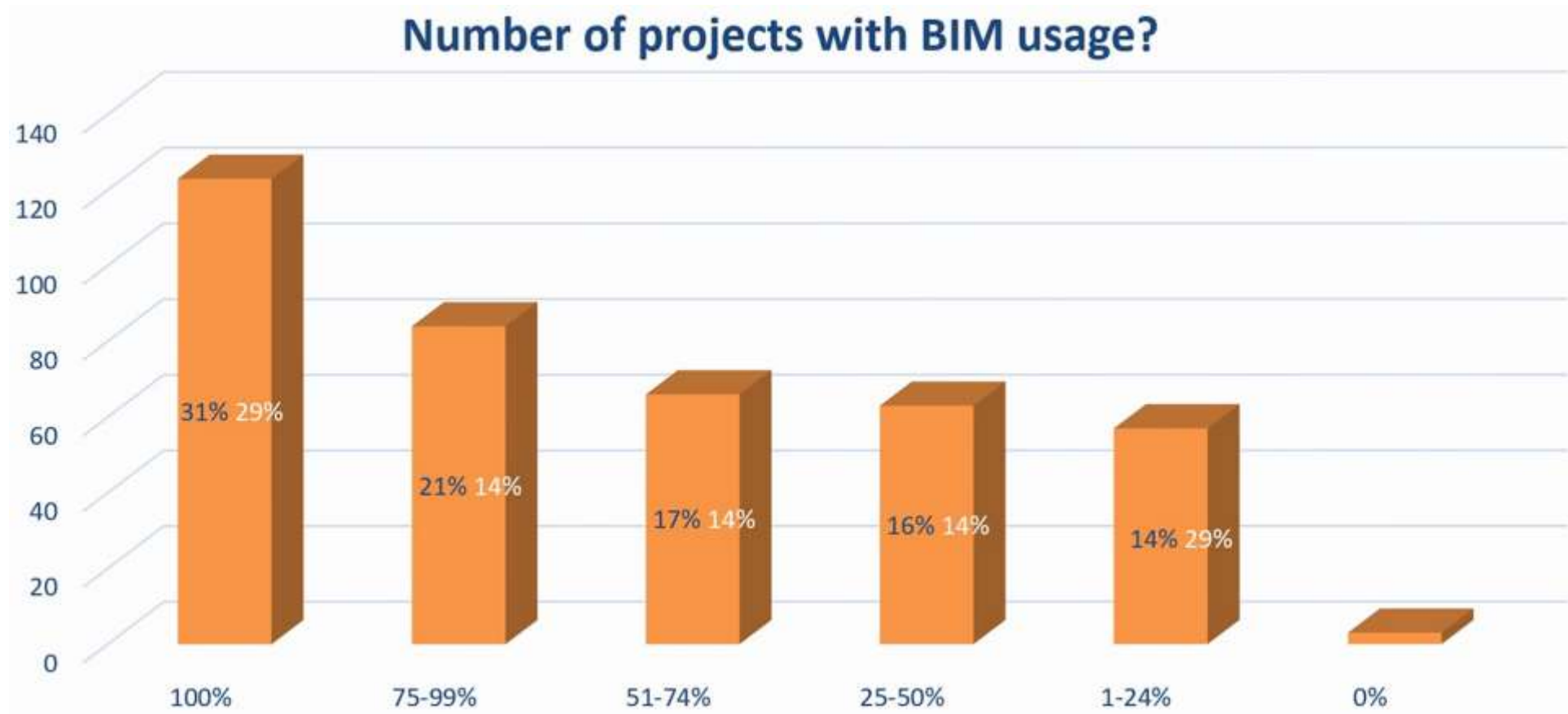
Do you use BIM to practise your profession?



- realized between professionals, with the **scope** to determine the **level of usage of BIM in Slovakia**
– attend **2327 persons**, from these were **199 surveyors**

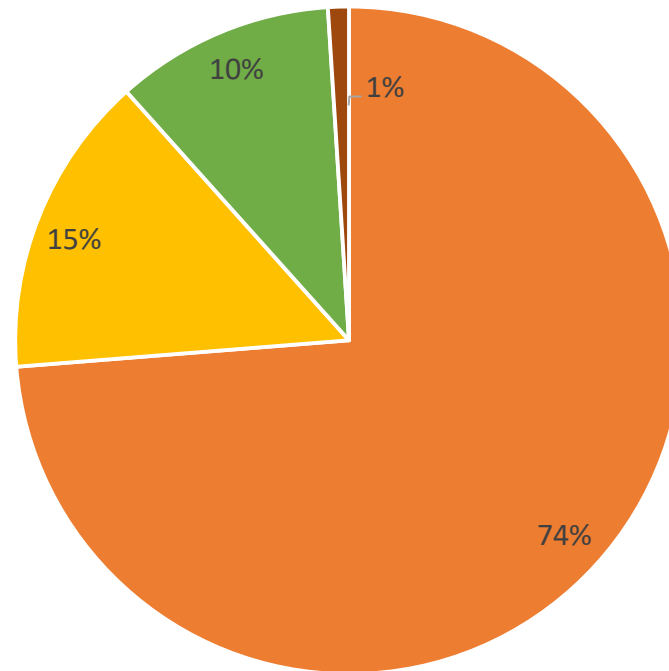


- realized between professionals, with the **scope** to determine the **level of usage of BIM in Slovakia**
– attend **2327 persons**, from these were **199 surveyors**



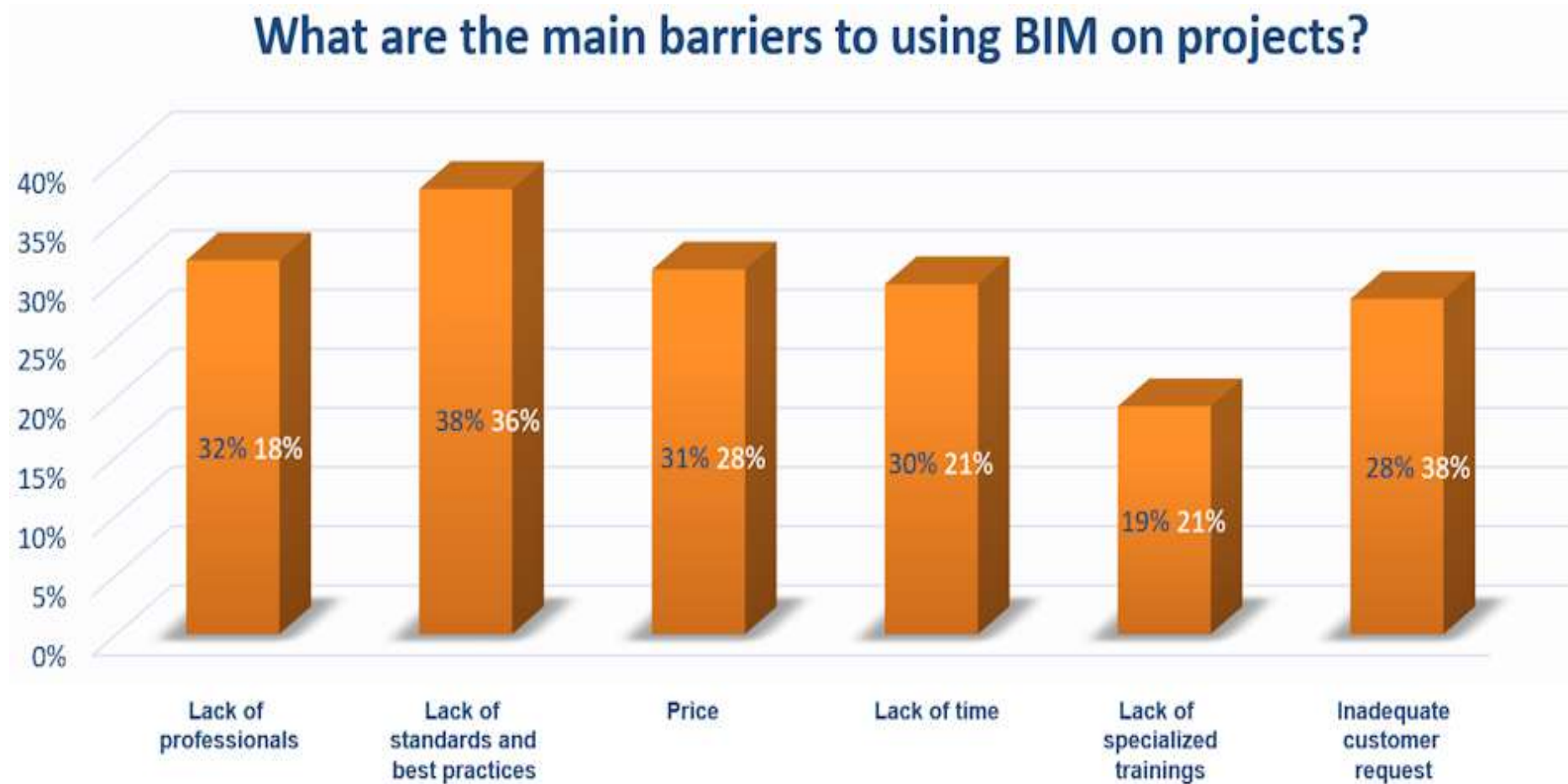
- realized between professionals, with the **scope** to determine the **level of usage of BIM in Slovakia**
– attend **2327 persons**, from these were **199 surveyors**

MOTIVATION FACTORS

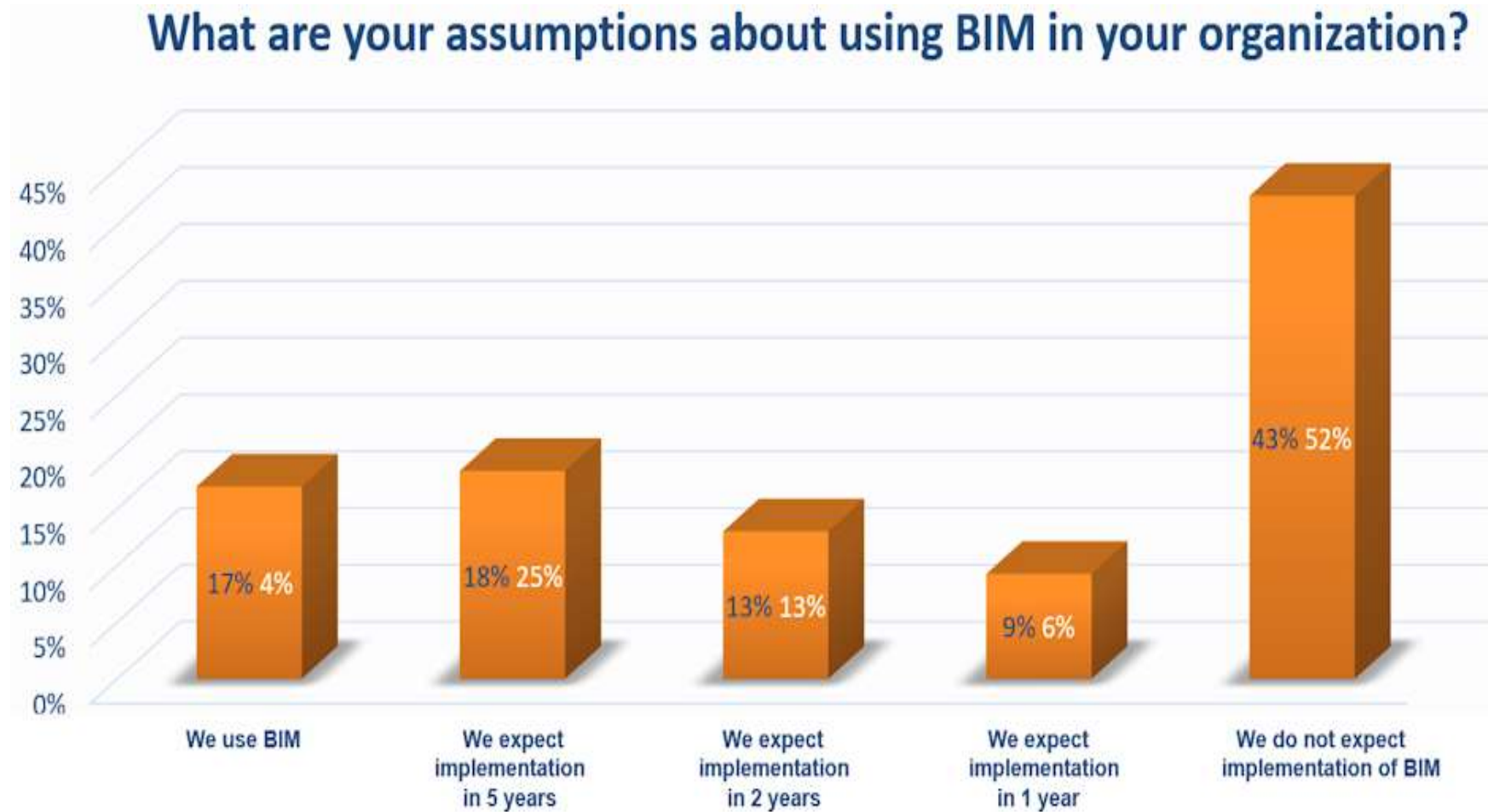


Own initiative Request from employer Request from business partner Request from mother institution

- realized between professionals, with the **scope** to determine the **level of usage of BIM in Slovakia**
– attend **2327 persons**, from these were **199 surveyors**



- realized between professionals, with the **scope** to determine the **level of usage of BIM in Slovakia**
– attend **2327 persons**, from these were **199 surveyors**



-
- The process was started by **enthusiast and innovators**, private companies
 - The support of The **European Commission**, as well as the whole **EU** is remarkable, today
 - There are **many new projects**, which results are helpful in implementation of BIM into the daily practice at different level of the construction industry in Slovakia
 - The main barriers of BIM usage - **missing standards, low number of experts**
 - **Positive** - only one thirds of respondents thinks, the price of BIM is to high
-

The Current State of BIM Implementation in The Slovak Republic

Thank you for your attention

Ján Erdélyi, PhD.
Associate Professor

jan.erdelyi@stuba.sk

**Slovak University of Technology,
Faculty of Civil Engineering,
Radlinskeho 11, 810 06 Bratislava, Slovakia,
www.svf.stuba.sk**
