

BIM International Perspective – North Macedonia



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Speaker Title: Vlatko Ivanov

Session Title: BIM
International Perspective

Contents: The importance of
BIM in North Macedonia

***Reducing the energy footprint
in the built environment***

CEIM Company profile

- Civil Engineering Institute Macedonia is one of the largest companies in North Macedonia, with over 320 employees and having with 45 years of experience in all fields of construction sector:
 - Design,
 - Construction,
 - Operation and maintenance,
 - Quality assurance and quality control.



CEIM Company profile

CEIM headquarter is in the state capitol, city of Skopje, but the company business operations are beyond the country borders and are spread in the whole South East European region, moving towards EU countries in the near future.



CEIM Company profile

- CEIM is a unique model of a modern industrial company and industrial research institute in construction and related fields.
- The employees have Bachelor, Master and Doctoral degrees in all engineering sciences.
- The company's development strategy is set towards following, implementing and contributing to modern technologies in civil engineering.
- The company has been nationally and internationally awarded for its contribution to civil engineering practice, research and innovation.



CEIM's Support to BIMcert Project

- CEIM has been engaged in the Project, providing support to the BIMcert Macedonian partner, IECE.
- CEIM's staff participated in all project activities:
 - Workshops,
 - Webinars,
 - Web page and social networks following,
 - Surveys,
 - Tests and trials of the program.



BIMcert in North Macedonia

- From the very beginning, BIMcert attracted a huge interest in North Macedonia.
- The survey on industry needs in April 2018 received 44% of responses from our country.
- The number of the project web site followers from Macedonia are on the third place, behind UK and ROI,
- The Project was endorsed by the Government of the Republic of North Macedonia.
- The Vice Prime Minister, accompanied by the Minister of Transport and Construction, attended the Project Meeting in Skopje, in February 2019, and called all the Macedonian construction workers to participate in the program.

BIMcert in North Macedonia

- Currently, BIM is not used in construction sector in our country.
- There are no academic nor professional training programs in BIM.
- However, Macedonian stakeholders showed a great interest to learn and apply BIM in their work practice.
- From the Project reports, it is evident that Macedonian construction workers share their European colleagues' vision and aspiration for digital technologies in construction sector.
- Likewise, they are understand that BIM is not just a modern modeling software applied in architectural design, but a sustainability supportive digital technology of the future.



BIMcert in North Macedonia

Macedonian stakeholders recognized the benefits of BIM when applied in their work and professional roles:

- More effective communication and collaboration processes
- Savings of time and finance, due to accurate and collaborative digital environment
- Avoidance of clashes, delays, misunderstandings, mistakes
- Optimization of resources – materials, personnel, time, money
- Environmental benefits – energy savings, sustainable construction methods and materials

BIM in North Macedonia

- Moreover, the Macedonian stakeholders were particularly interested in advantages of BIM in enabling energy more efficient design, construction and use of buildings.
- Confirmable energy savings in all phases of building process and operation
- Cost effective improvement of energy efficiency of renovated buildings
- Smart use of energy in buildings' occupancy and operation.



BIM in North Macedonia

- Therefore, recognizing benefits of implementation of BIM, and seeing future of the European construction sector in implementation of BIM, CEIM supported the BIMcert project by active engagement in all project development phases.
- We believe that BIM will bring benefits, in terms of:
 1. Increased effectiveness and quality of the construction processes
 2. Increased energy efficiency of buildings, particularly in renovation projects
 3. International interconnectivity and transferability of the construction workforce across Europe.

BIM in North Macedonia

From the international experience, we understand that:

1. All stakeholders have to join forces to enable introduction and active implementation of BIM:

- Policy makers – public administration,
- Industry – large and small companies,
- Universities,
- Individual professionals.

2. In addition to the industry interest in BIM, legislative framework needs to be established to demand and stimulate implementation of BIM.



BIM in North Macedonia

- First step has already been made – BIMcert brought this new technology to Macedonia and attracted interest of individual professionals, construction companies of all profiles, Faculties for Technical Sciences of state and private universities, and the Government.
- In the end of 2019, CEIM supported IECE in starting the Initiative for implementation of EN ISO standards for BIM, as a pre condition for start of appropriate legislative changes for compulsory implementation of BIM.

BIM in North Macedonia

- From a position of the CEO of a large and old construction company, I appreciate the benefits that implementation of BIM will provide for all participants in the construction supply chain, for the national building sector, for the national strategy for improvement of energy efficiency and for the national economy and its market recognition across Europe.
- CEIM will continue to support IECE in further steps for introduction of BIM in our country and SEE region.



Perspectives of BIM in North Macedonia

Thank you for your attention