



H2020 project



**TOWARD MARKET-BASED SKILLS  
FOR SUSTAINABLE ENERGY EFFICIENT  
CONSTRUCTION -TRAINEE**

## INVITATION

Dear Sir/Madam,

On behalf of the Consortium of TRAINEE project you are invited to participate at the **6th workshop for promoting Building Information Modeling BIM – BIM in infrastructure**, that will be held on 4th December 2019.

Civil engineering and infrastructure are the logistic, production and mobility basis of our modern society. We can say that the level of modernization and efficiency of a society is proportional to the degree of development of its infrastructures. It is due to the incentives of Public Administration and European Directives that aim to improve the efficiency and to enhance a better management of the complexity of infrastructure projects. Transitioning BIM into the domain of infrastructure projects has provided challenges and emphasized the constructor perspective of BIM.

### Top 5 Challenges for Civil Infrastructure

1. *Deliver faster*
2. *Save more*
3. *Manage the data*
4. *Communicate effectively*
5. *Think big*

### The benefits of BIM for Infrastructure

Work in the same model  
... as contractors and clients.  
Secure your business  
... and uncover design problems.  
Export data from the model  
... for automated machine control.  
Simulating what-if scenarios  
... and construction site logistics.

This workshop will provide necessary information and initiate awareness in decision makers and related professionals to be capable of leading the implementation of BIM methodology in civil infrastructure projects.

The working language of the Workshop is English.

**Participants will be delegated by the relevant institutions.**



## 6th workshop for promoting Building Information Modeling BIM – BIM in infrastructure

December 4th 2019 (Wednesday)

Public Enterprise for State Roads, st. Dame Gruev 15, 1000 Skopje, Macedonia

11:30 -15:00

## AGENDA

**11:30 – 12:00** *Registration of participants*

**12:00 – 12:10** *Opening ceremony – Introductory talks*

**Prof. Hristina Spasevska, President of the Knowledge and skills management Centre**

□ Opening of the event

**Mr. Zoran Kitanov, Director of the Public Enterprise for State Roads**

□ Introductory note as host of the event

**12:10 – 12:30** *Lecture 1*

**Mr. Ignasi Perez Arnal, WITS Institute—BIM Academy, partner in training and research of buildingSMART Spain**

□ The context of BIM: Global commitment to the implementation of the BIM methodology

*Governments around the world have started to recognize the efficiencies that the implementation and use of BIM can bring to the table, and there are already many countries where the use of BIM is already a mandatory requirement.*

**12:30 – 12:50** *Lecture 2*

**Prof. Tomo Cerovsek, PhD, Vice-head of the Department of Civil Engineering at the University of Ljubljana, Slovenia**

□ BIM Tools, a Need and an Obligation

*There is a broad ecosystem of tools and solutions offered by different IT developers: GIS tools, planning tools, plotting tools, structure modeling tools, budget integration tools, coordination tools, quality control and safety and health tools, virtual planning tools, and tools for maintenance and operation.*

**12:50 – 13:00** *Coffee break*

**13:00 – 14:00** *Case studies, best practice presentation*

**BIM expert group: Mr. Ignasi Perez Arnal, Mr. Vangelis Rosios, Prof. Tomo Cerovsek**

**Topic: BIM in infrastructure**

Construction as collaborative process

Multidisciplinary teams, the management of the communication between the different members of the team, data sharing.

Technological solutions for models in infrastructure construction

Examples of IFC Rail, IFC Road, IFC Bridge

**14:00** *Lunch*

