CzBIM Introduction
and overview of BIM Education in Czech Republic

Petr Matějka
matejka@czbim.org
A few words about presenter...

• Lecturer at CTU in Prague
  • Faculty of Civil Engineering
    • Department of Construction Management and Economics
• Topics
  • Building Information Modeling
  • Risk and Financial Management
• Member of Czech BIM Council (CzBIM)
Czech BIM Council (CzBIM)

• Established in May 2011
• Non-profit organization
• Web page www.czbim.org
• Aim: To systematically help with BIM implementation in the Czech market
  • Main Goal is *to set up BIM for technical use among all participants of the construction process within the whole construction life cycle.*

• So how do we do that?
Czech BIM Council (CzBIM)

• Propagation
• Communication and cooperation
• Implementation support
Czech BIM Council (CzBIM)

• Propagation
  • Conferences and workshops organization and participation

• BIM Day 2015
  • Annual international Czech BIM oriented conference
  • 15 October
  • Prague, Czech National Library of Technology
    • Technická 6, Prague 6
Czech BIM Council (CzBIM)

• Propagation
  • Conferences and workshops
  • Publication
Czech BIM Council (CzBIM)

• Propagation
  • Conferences and workshops organization and participation
  • Publication
  • Consulting
Czech BIM Council (CzBIM)

• Communication and cooperation
  • Cooperation with all construction process participants
  • Use of academic research and its implementation into practice
  • Mediating communication between public and private sectors
    • Practice
    • Government
    • Universities
    • Other parties (chambers, unions, councils etc.)
Czech BIM Council (CzBIM)

• Implementation Support
  • BIM & Standards and Legislation workgroup
    • Established some time ago
    • Cooperates with government and practice
    • Standards, directives and other legislation adoption with regard to BIM
  • BIM & Education workgroup
BIM & Education

- BIM implementation into education is important
- It has to cover all parties connected with education process
- It needs to be conceptual
BIM & Education

- Educational system in Czech Republic
  - Preschool education
  - Primary education
  - Secondary education
  - Tertiary education
  - Perpetual (lifelong) education (Private sector education)
BIM & Education

• Education providers
  • Preschool education
  • Primary education
  • Secondary education
  • Tertiary education
  • Perpetual (lifelong) education (Private sector education)
BIM & Education

• Education providers
  • Preschool education
  • Primary education
  • Secondary education
  • Tertiary education
  • Perpetual (lifelong) education (Private sector education)
BIM & Education

• Education providers
  • Preschool education
  • Primary education
• Secondary education
• Tertiary education
• Perpetual (lifelong) education (Private sector education)
BIM & Education

- Education providers
  - Preschool education
  - Primary education
  - Secondary education
    - Technical oriented high schools
  - Tertiary education
  - Perpetual (lifelong) education (Private sector education)
BIM & Education

• Education providers
  • Preschool education
  • Primary education
• Secondary education
• Tertiary education
  • Technical colleges and universities
• Perpetual (lifelong) education (Private sector education)
BIM & Education

• Education providers
  • Preschool education
  • Primary education
• Secondary education
• Tertiary education
• Perpetual (lifelong) education (Private sector education)
  • Universities
  • Educational centres
  • Practice itself (on-the-job trainings etc.)
  • Other institutions etc.
BIM & Education

• Education recipients
  • Pupils
  • Students
  • Workers
  • Companies
  • Public
  • Government
  • ...

9.6.2015 ICIS Delegates Assembly 2015, Brno
BIM & Education

Current state

Desired state
BIM & Education

• Current state
  • We DO have BIM in our education to some extent
  • Providers have usually individual approach to the client
  • Opinions on what actually is BIM differ a lot
  • Often there is no management support of BIM education
  • Communication between providers is minimal
BIM & Education

Current state

Desired state
BIM & Education

• Desired state
  • Education recipients will learn BIM
    • What is BIM?

Know how to model
Autodesk
Nemetschek
Tekla

Know tools
Bentley
Graphisoft
Tekla

Know how to use model
BIM & Education

• Desired state
  • Education recipients will learn BIM
    • What is BIM?
BIM & Education

- Desired state
  - Education recipients will learn BIM
    - What is BIM?

- Know history of BIM
- Know future of BIM
- Know how to model
- Know how to use model
- Know tools
- Project information modeling
- Programming
- Database knowledge
- IFC
- COBie
- QTie

Or only something?
BIM & Education

• Desired state
  • Education recipients will learn BIM
    • What is BIM?
    • Should everyone know the same things?
BIM & Education

• Desired state
  • Education recipients will learn BIM
    • What is BIM?
    • Should everyone know the same things?

Building structures  Technical networks

Transport infrastructure

Water structures

Power plants
BIM & Education

• Desired state
  • Education recipients will learn BIM
    • What is BIM?
    • Should everyone know the same things?
    • ...
    • What does private sector needs?
    • How to not stay behind of rapidly changing technology environment?
    • How hard should we push?
BIM & Education

• Desired state
  • Education recipients will learn BIM
  • Education recipients will know BIM
    • What should they know?
    • How to check if they really know it?
    • ...

BIM & Education

• Desired state
  • Education recipients will learn BIM
  • Education recipients will know BIM
  • Education recipients have market value
    • What does private sector wants?
    • What does research wants?
    • Is there anyone else who wants something BIM related?
    • ...
BIM & Education

• Desired state
  • Education recipients will learn BIM
  • Education recipients will know BIM
  • Education recipients have market value
  • Top level education in Czech Republic
    • What is top level in world context?
    • How does it work together with local demand?
BIM & Education

• Desired state
  • Education recipients will learn BIM
  • Education recipients will know BIM
  • Education recipients have market value
  • Top level education in Czech Republic
  • ...
BIM & Education

Current state

Desired state
BIM & Education

• So how can we reach our desired state?
  • Tell everybody what to do!
BIM & Education

• So how can we reach our desired state?
  • Tell everybody what to do!
  • Make everyone do what we say!
BIM & Education

• So how can we reach our desired state?
  • Tell everybody what to do!
  • Make everyone do what we say!
  • Don’t do anything, it will happen on its own in time...
So how can we reach our desired state?

- Tell everybody what to do!
- Make everyone do what we say!
- Don’t do anything, it will happen on its own in time...
- Let someone else do it...
BIM & Education

• So how can we reach our desired state?
  • Tell everybody what to do!
  • Make everyone do what we say!
  • Don’t do anything, it will happen on its own in time…
  • Let someone else do it…
  • Help to implement BIM into education somehow!
BIM & Education

• Main support pillars
  • Creating dialog through educational system
  • Learning lessons abroad
  • Answering key questions about BIM education
  • Creating support documents
  • Running information portal
BIM & Education

• Main support pillars
  • Creating dialog through educational system
  • Learning lessons abroad
  • Answering key questions about BIM education
  • Creating support documents
  • Running information portal
BIM & Education

• Workgroup
  • Different levels of members
    • Active
    • Semiactive
    • Passive

• Two main topics
  • Education for pupils and students
  • Education for practice
BIM & Education

• Current progress
  • Key topics identified
  • Strategic document created
  • First official meeting of active members is coming
BIM & Education

• Main pillars of conception for BIM education implementation
  • BIM definition from educational point of view (WHAT)
    • BIM for education providers
    • BIM for education receivers
    • Knowledge correlations
BIM & Education

• Main pillars of conception for BIM education implementation
  • BIM in Czech educational system (WHERE)
    • Current state analysis
    • Desired state proposal
    • Needed changes and relevant parties identification
    • Obstacles identification
BIM & Education

• Main pillars of conception for BIM education implementation
  • BIM implementation into education (HOW)
    • Secondary education
    • Tertiary education
    • Practice education
    • Public education
BIM & Education

• Expected results
  • Accessible documents with all mentioned information
  • Everyone may or may not use them as they wish
  • Supplement networking
  • Information sharing
Thank you for your attention

Petr Matějka
matejka@czbim.org
info@czbim.org