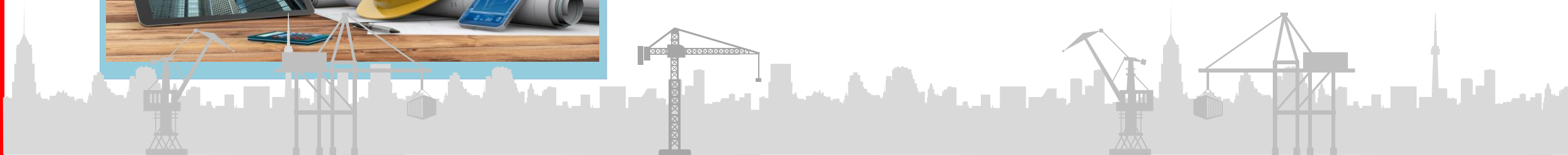


# EUROPEAN CONSTRUCTION INDUSTRY: Ensuring a clear and fair relationship with software companies



**26 June 2020 – webinar**



# Introduction by the moderator

---

**Domenico Campogrande,  
FIEC Director General**



# Key messages from FIEC's Position Paper

## José-Michaël Chenu, FIEC Vice-President, President of the Technical Commission



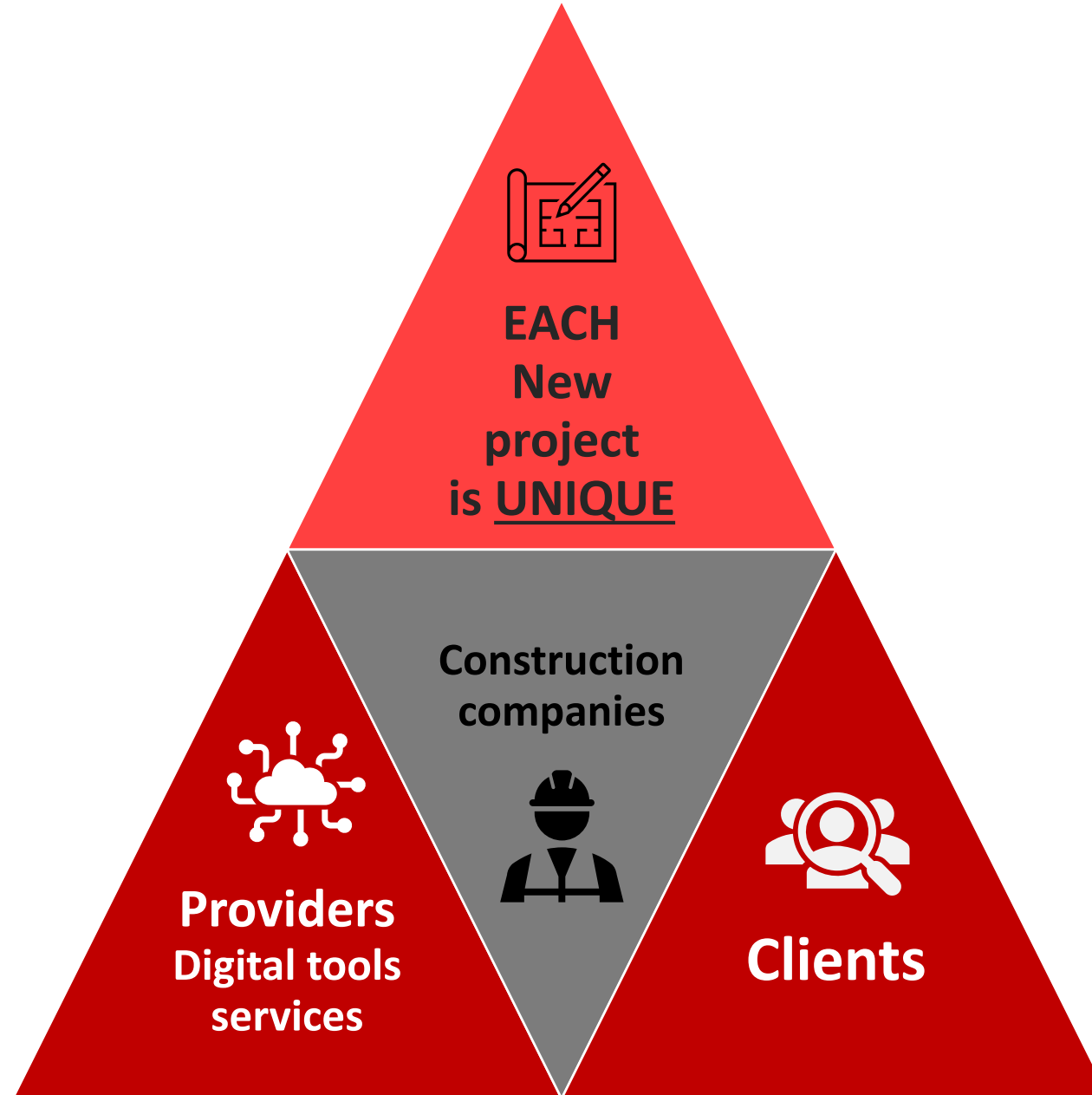
FIEC is the European Construction Industry Federation, representing via its 32 National Member Federations in 28 countries (25 EU, Norway, Ukraine & Turkey) construction enterprises of all sizes, i.e. small and medium-sized enterprises as well as “global players”, carrying out all forms of building and civil engineering activities.



**Position Paper**

**24.02.2020**

**FIEC position paper on the relationship between users and software  
companies/editors/service providers**



On-site work conducts and solves several and multiple tasks and events:  
interdependently or simultaneously



INSTALLATIONS HYDRAULOGY INNOVATION  
OWNERSHIP OPERATIONAL  
ENVIRONMENT METRES VALIDATION PLANS  
CYCLE HISTORY TENDER WASTE  
RESPONSABILITY SHEETS MEP DATA CRANE  
PENIBILITY PLAN  
MEASURES HANDS SITE OBJECT  
CLIMATIC FACTORS TRADES  
PILOTING MODES IOT LIBRARY  
CARBON POSE RECEPTION ROTATION  
BALANCE RECEPTION TRAFFIC  
SATURATION WORKING SYNTHESIS  
ASSEMBLY

## Main issues

- Dominant position of few software companies/ providers – **non-EU origin** -

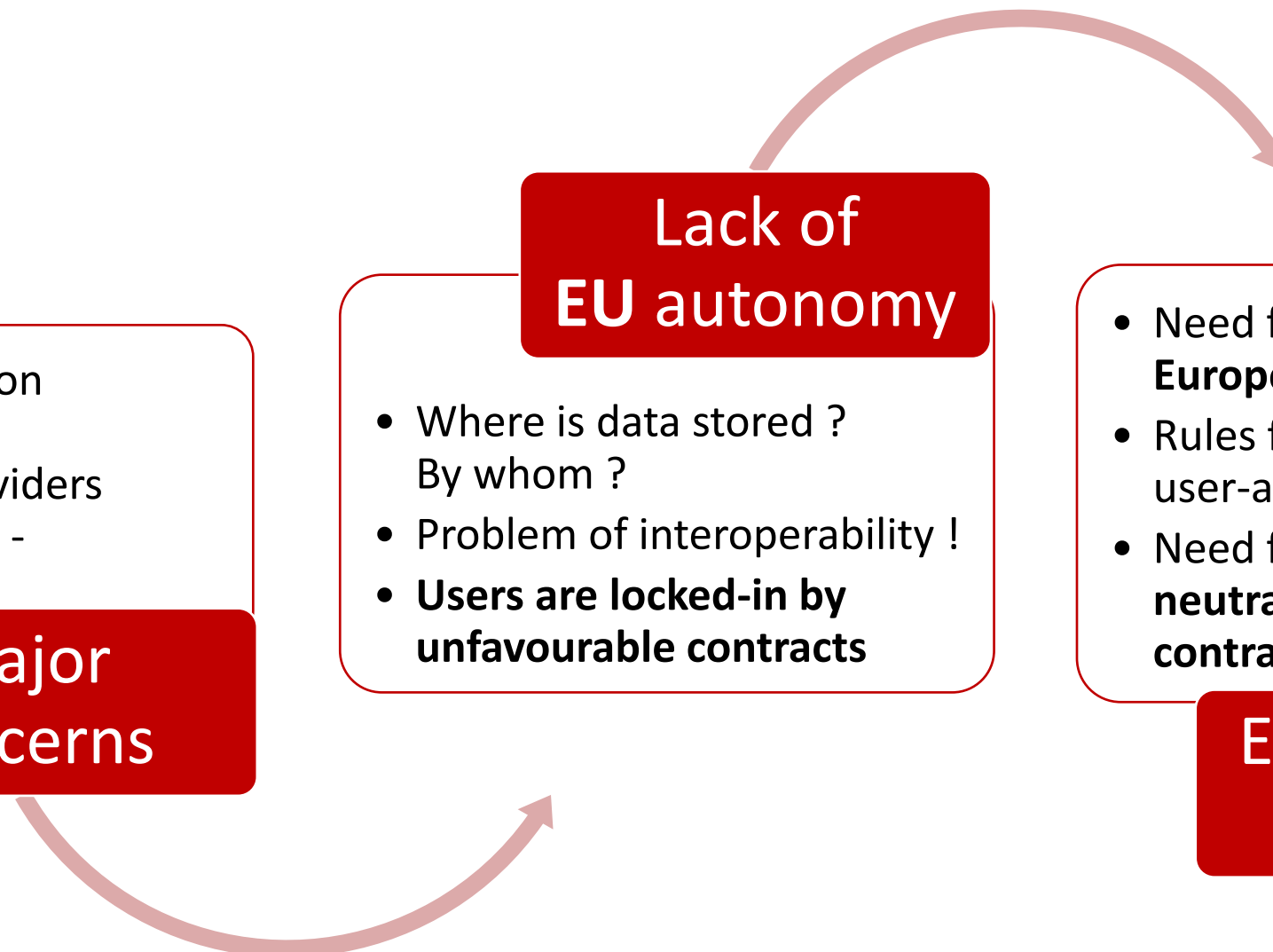
### Major concerns

### Lack of EU autonomy


- Where is data stored ?  
By whom ?
- Problem of interoperability !
- **Users are locked-in by unfavourable contracts**

- Need for a **SECURE European Cloud**
- Rules for multiple-user-access platforms
- Need for **Software-neutral public contracting authority**

### EU measures needed



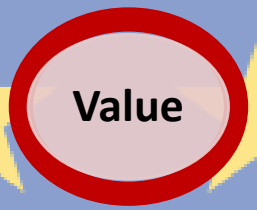
# DATA is the new OIL



**NEW business  
models in EU  
Construction**



**Data**



**Value**



# View from European of Engineering Consultancy Associations - **EFCA**

**Christophe Castaing,  
Chair of EFCA  
Digitalisation  
& BIM Task Force**







EFCA - the voice of the European  
engineering consultancy industry



efca



Representing  
FIDIC in Europe

# BIM Task Force

Christophe CASTAING –



# FIEC position paper



## ■ EFCA is fully supporting the FIEC position paper

- Dominant position and impact on our productivity gain
- Programmed obsolescence
- The construction industry has to keep the control on software specifications
- The European Commission to take care on the real competition matters

## ■ EFCA Supporting this initiative to develop European autonomy

- Technical specification according to European regulation
- Control on the data storage and recovering
- Open BIM, Open Gis and openSource

## ■ EFCA requirements

- Intellectual property protection :
  - Digital twin and new type of deliverable : digital services
- Keep the control of services:
  - Cloud computing and services based on Open BIM

# Next steps

- develop the European industry's policy statement on the use of cloud services, bringing special focus to issues related to security, financial concerns and economic sustainability, classification, data ownership & transfer, access/user/storage rights, and regulation
  - **As member of the EU project 856943 - DigiPLACE**
- organise action and debate on EFCA and FIEC recommendations to positively influence policy makers at national/European level

# ISO 19650, IFC 4.xx



[Home](#) > [All about ISO](#) > [News](#) > [News archive](#) > [Better building with new International Standards...](#)

## Better building with new International Standards for BIM

# Views from Contractors

**Menno de Jonge**



**Director  
Digital Construction  
Royal BAM Group nv**

**Charles-Edouard Tolmer**



**BIM  
Project Manager  
EUROVIA**

**Jakob Diget Møller**



**Senior consultant,  
Danish Construction  
Federation**



# FIEC Webinar

Ensuring a clear and fair relationship with software companies

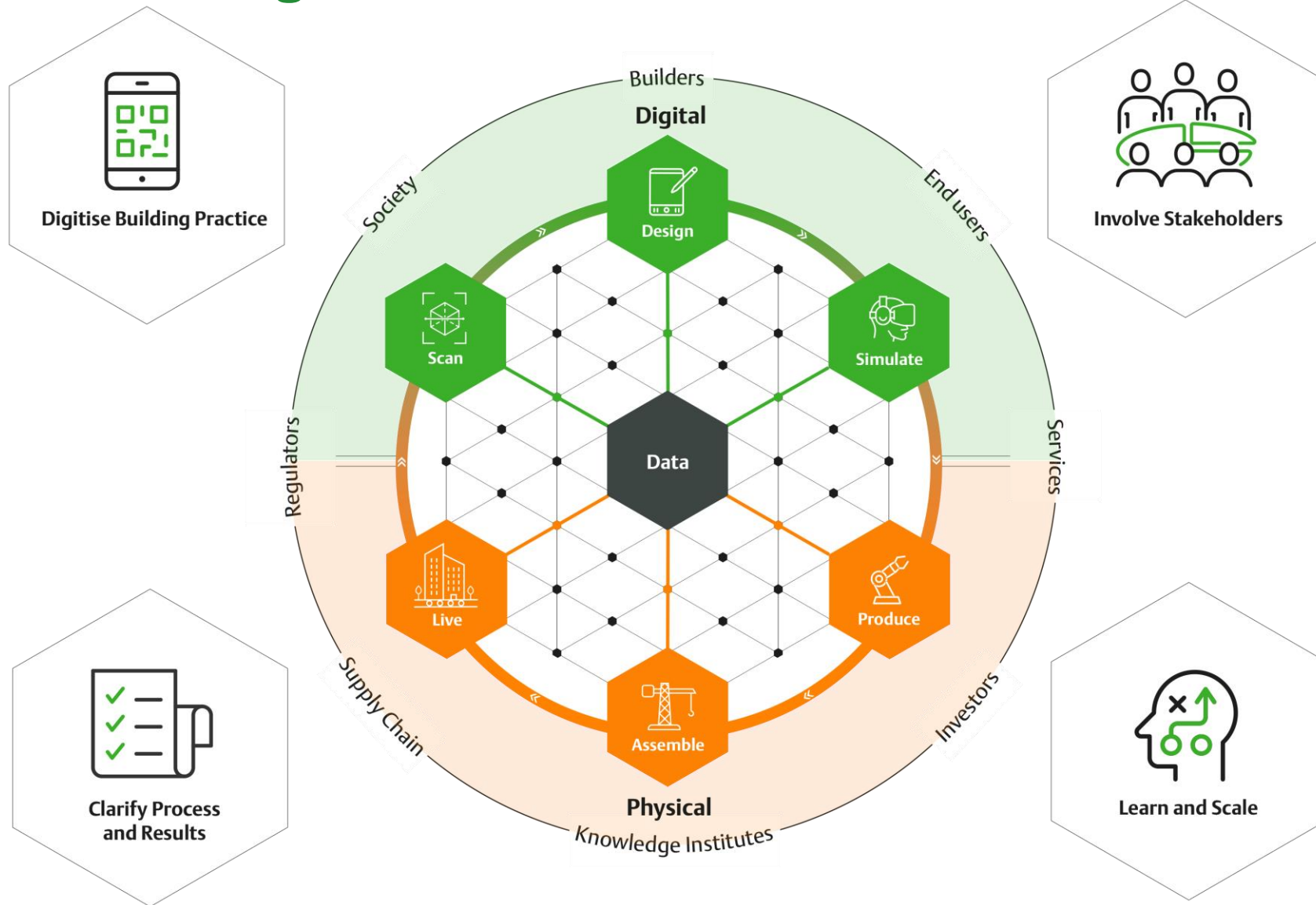
**Menno de Jonge**  
**Director Digital Construction**

Online, 26 June 2020

@ menno.de.jonge@bam.com  
@mfdejonge

FIEC Webinar software companies  
Online, 26 June 2020

# Digital Construction - Vision 2020





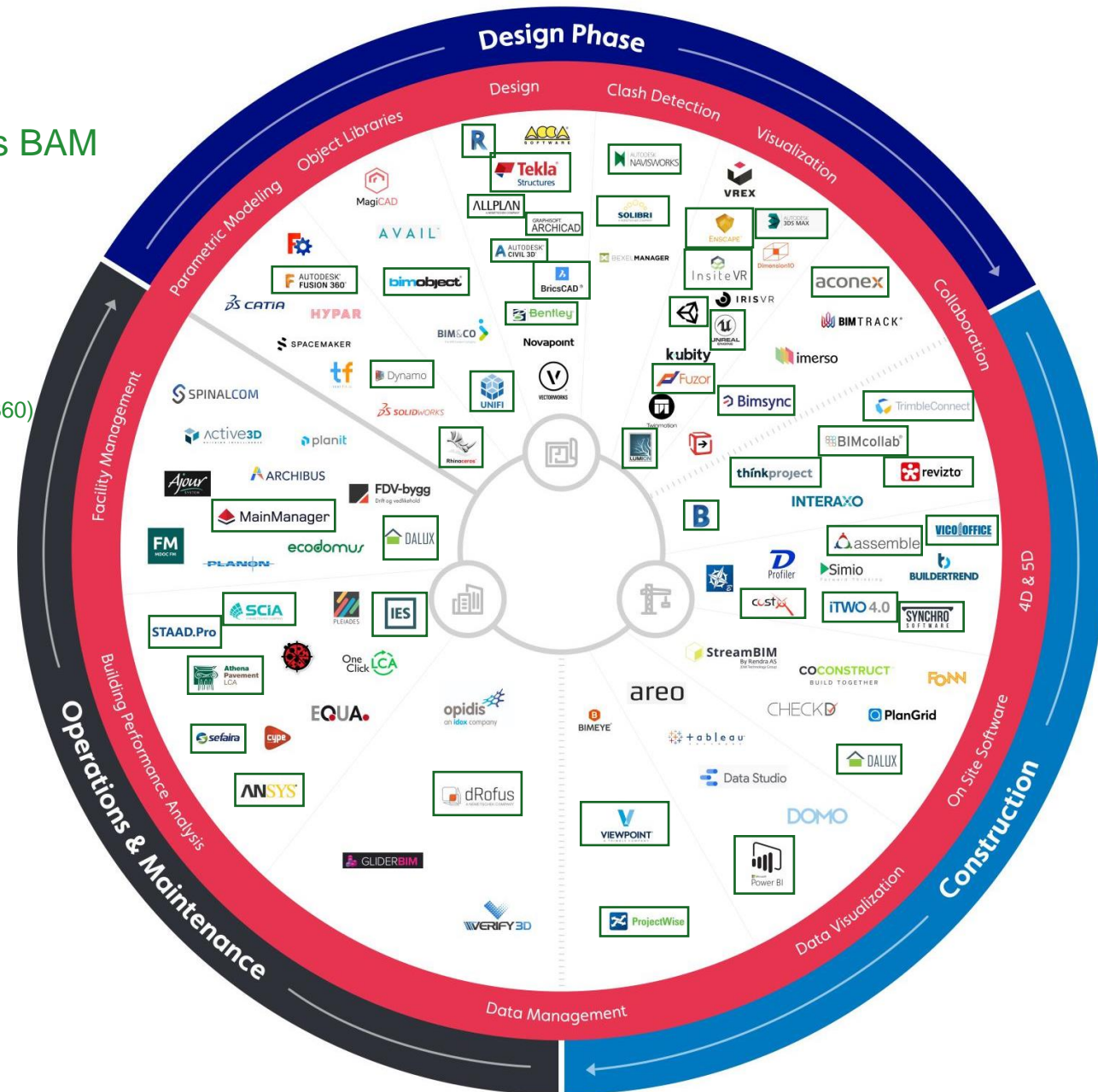
# Digital Construction Software providers

735 different DC applications in use across BAM  
DC Application rationalisation  
Preferred applications per function

## Centrally managed contracts:

- Autodesk (AutoCAD / Revit / Civil3D / Navisworks / BIM360)
- Bentley (MX / Synchro / STAAD / PLAXIS)
- Trimble (Vico Office / SketchUp)
- Nemetschek (Allplan / ArchiCAD / Solibri)
- Thinkproject
- Holobuilder
- ...

Multi vendor strategy





## Positive

Vendors produce high quality software (desktop / cloud based)

Broad and deep functionality available in (BIM) software, construction industry is only scratching the surface (easy to complain)

Vendors move from Sales focus only to Customer success approach (partnership)

Vendors apply agile way of software production and issue regular software updates

Vendors see us a demanding customer and positive critics, which allows us to get things done (bi-directional constructive approach)

Cloud based software increases ease of use / accessibility to data on sites

Construction companies have longstanding collaboration with software vendors

Availability of US (Autodesk, Bentley, Trimble) and EU (Nemetschek, RIB, ThinkProject) software vendors

International players in construction industry can acquire international contract conditions

Low cost CAD / BIM software available for SME's with limited functionality

## Negative

Complex contract structures (desktop, cloud, consultancy, support, ...)

Contract conditions change on regular basis (mostly in favour of sw vendor)

Pay upfront model (use less → lose it ... use more → pay for it)

Data is not under control of the creator (construction companies), software vendors use data internally without our consent

Software vendors make use of data storage outside of EU which conflicts with regulations (we do see improvement here)

US & EU cloud storage environments not synchronised (sw and workflows)

Slow uptake of industry requirements by software development units (tends to be US centric for US software developers)

Lack of integration between software products from specific software vendors

Lack of flawlessly functioning openBIM standards (IFC, BCF, etc.) for collaboration (needs to be free of charge)

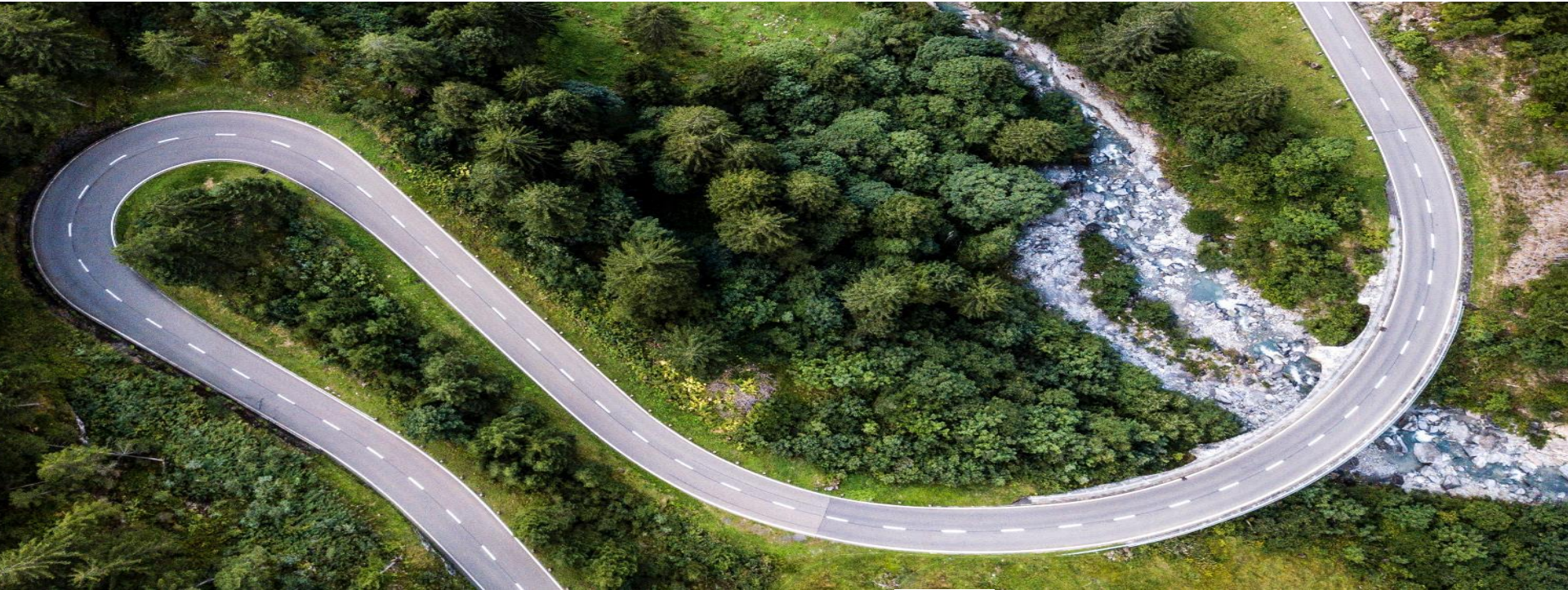
Start-ups (ConTech) are acquired by large software vendors to reduce/ kill competition (we do also see some positive cases)

Clients mandate specific software vendors (EU should ban this)

# VIEW FROM CONTRACTORS



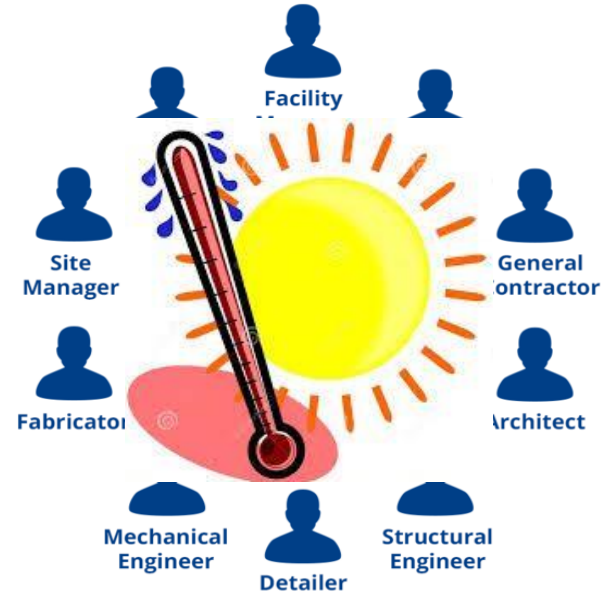
Dr. Charles-Edouard Tolmer  
Project manager BIM development



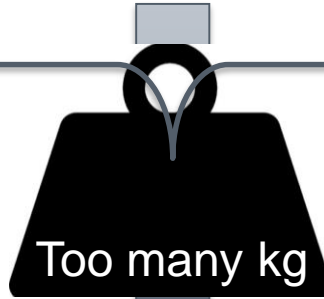
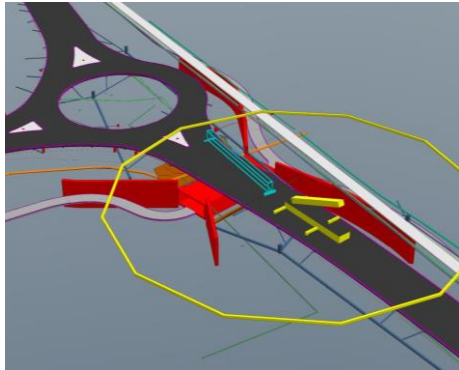
## Talking about BIM (Building Information Modelling): The common but not so relevant picture

---

- BIM, once in place, is real sunbathing...  
“Especially if you have the right software!” They say.
- In practice,
  - the perfect tool does not exist
  - BIM is not the center but the process which includes all these actors
  - if it was so simple on working site...  
Based on our experience, sunbathing can quickly turn into a heat wave
- The concept of BIM and its consequences are complex



# ABOUT DIGITAL, WHICH INCLUDES BIM



Luckily we have helmets...

LUCKILY WE NOW HAVE A SOLUTION!



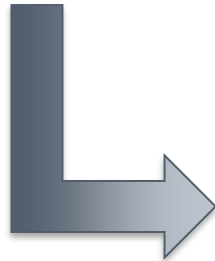
# BIM DEFINITION BASED ON ISO STANDARDISATION

- Use of a shared digital representation  
=> Open standards
- Collaborative processes  
=> Our way of working, not the one imposed by tools
- A reliable and accessible database according to access rights  
=> Open Data, collaborative platform, intellectual property
  - Our organisational skills, working methods, gathers all our project data in different tools / database
  - We now have to manage this



# Building infrastructures is not just some concrete and pieces of pipe: On site example

---



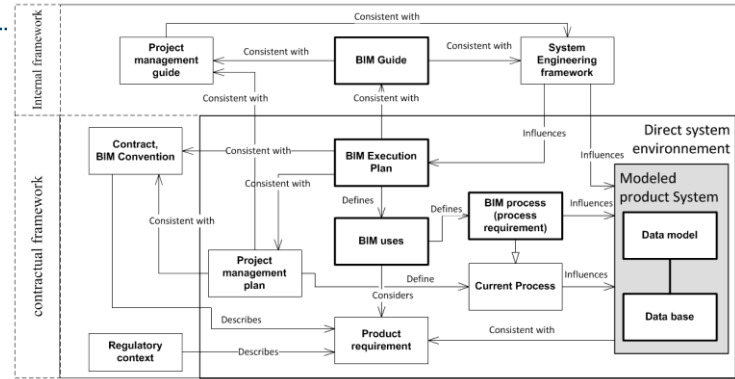
We all loose:



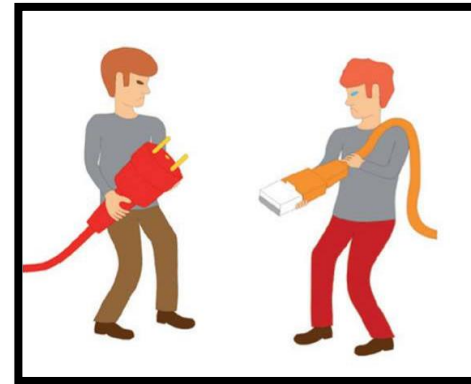
and Quality

# Building infrastructures is not just some concrete and pieces of pipe

- Several technical domains
- Contractual and legal environment
- New organisation and management for each project
- Several tools and formats that have to communicate
- Collaborative processes to deploy
- Ways of working, rules of the art
- Security, safety and environmental requirements



Caption: Classical project element BIM specific element





# WHERE DOES OUR OPINION COME FROM?

## Organisations, federations



National Federation for Public Works



## Others



European Committee for Standardization  
Comité Européen de Normalisation



Data  
Environment  
Open formats  
Domain technicity



BIM  
Standards  
Interoperability  
Physical infrastructure

# View from a researcher

---

**Žiga Turk,**  
University of Ljubljana





# An Emerging Ecosystem for Digital Construction – Opportunities and Threats

Prof.dr. Žiga Turk  
University of Ljubljana, Slovenia

# Summary

- Internet changed how we live
  - Platforms and Intermediaries are game-changers
  - New structure of the ecosystem emerging
- Change coming from private sphere to work
  - Not by renting services and using tools
  - But getting/doing things on a platform
- Opportunities
  - Empowerment of SMEs
  - Delivery of technology, knowledge
  - Integration of processes
- Threats
  - Power and control shifting from lead contractors to platforms

# Platforms are a paradigm shift

## Service / tool ecosystem

- worker/business in the center
- actor, tool, world

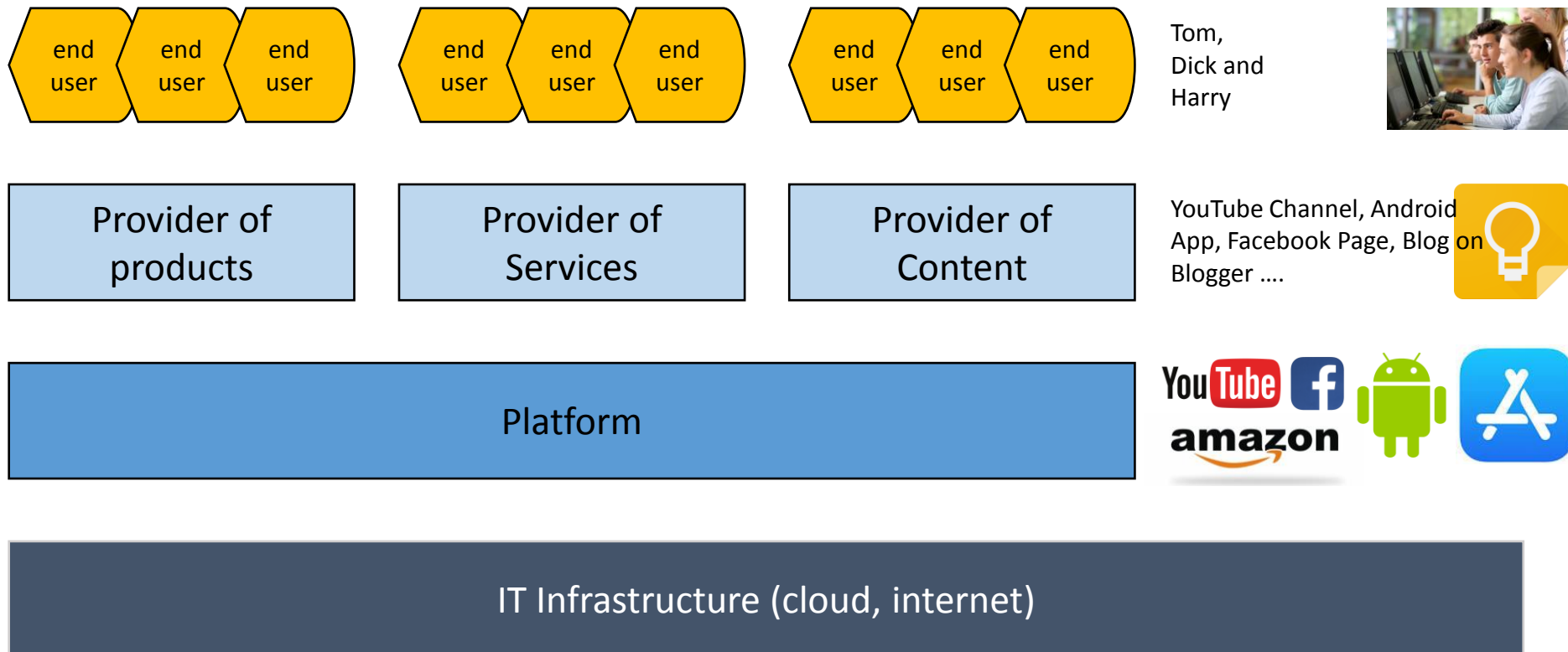


## Platform ecosystem

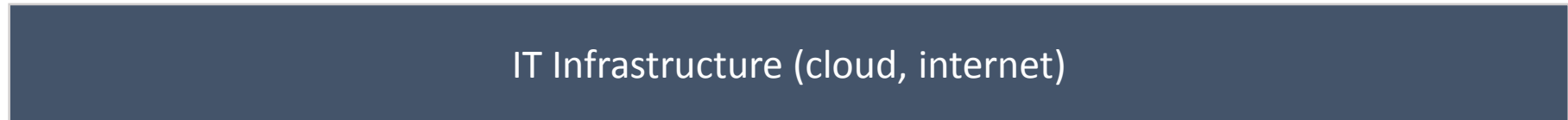
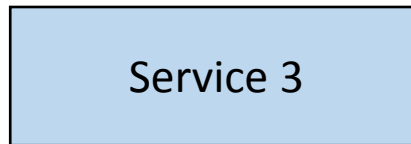
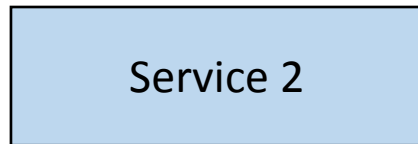
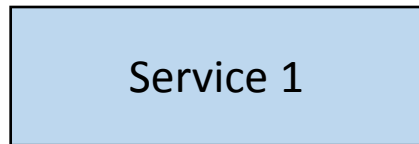
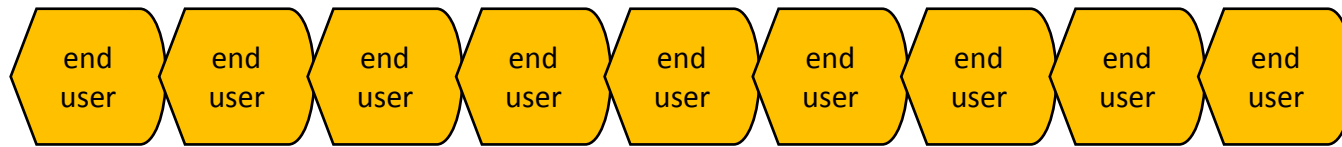
- platform in the center
- actor, platform, tool, world



# Platforms emerged in B2C and C2C settings



# Platforms are emerging in C2C settings, including construction



# Existing Ecosystem – as assumed



peer to peer  
relationships



# Existing ecosystem – as really



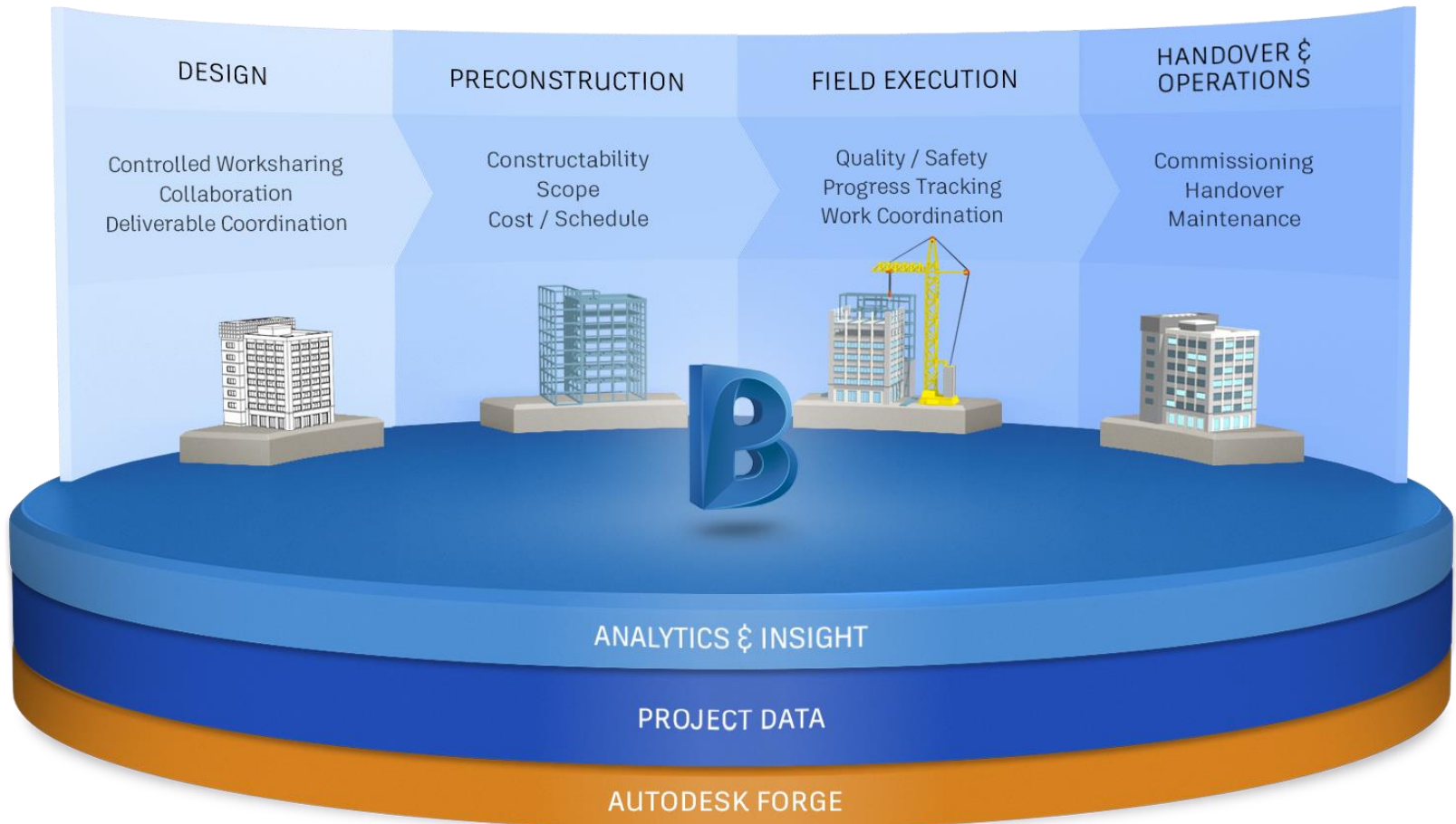
lead designers,  
lead contractors  
have a central role

# New ecosystem



platform has a central role

# Platforms are commercially available

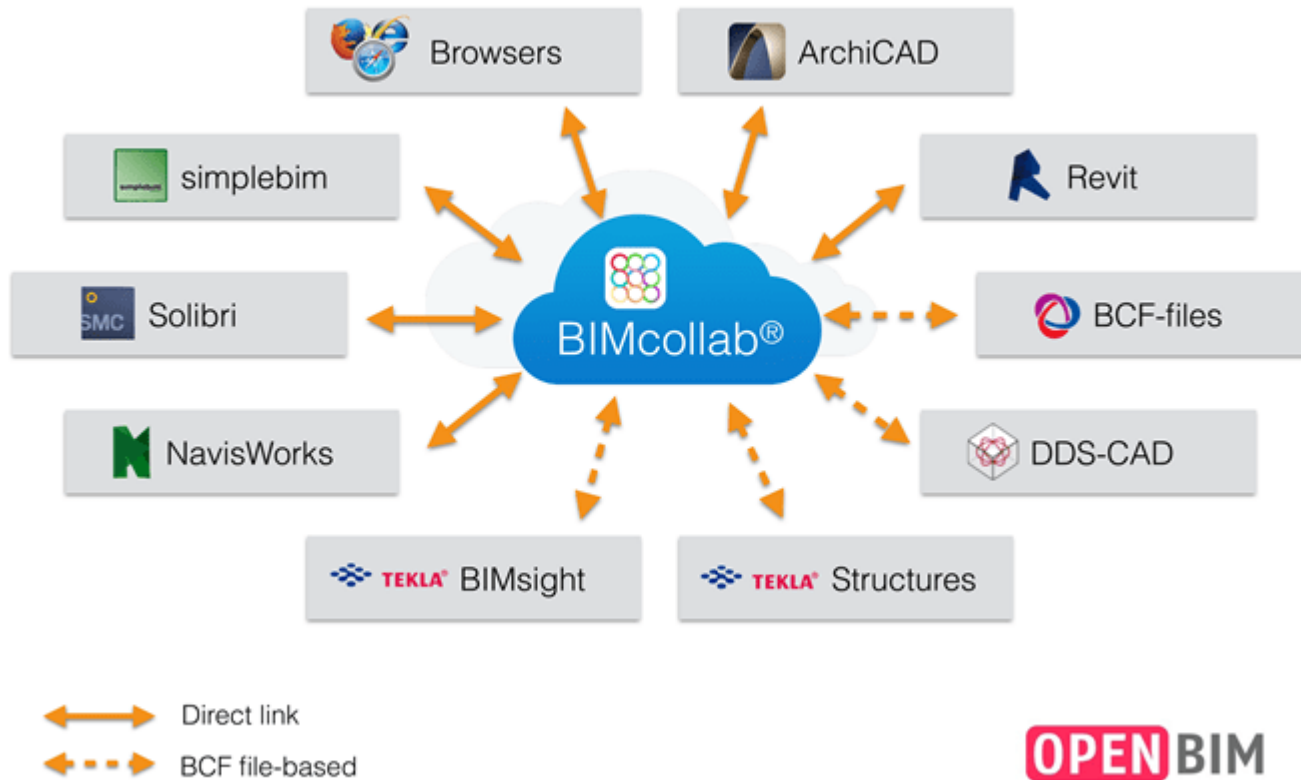


(cont.)

AUTODESK® FUSION  
CONNECTED | COMPLETE | INSTANT-ON



# ... on different levels ...



# From software to platform in construction

## Services and Tools

- Pen and paper
- Operating system
- Desktop PC
- email
- Word, Excel
- SAP
- ETABS
- Primavera
- AutoCAD
- ArchiCAD
- ...

## Platforms

- MS Teams
- G-Suite
- Slack
  
- AutoDesk 360
- BIM+
- OpenBIM / IFC

# Platforms Empower!

**As we look ahead  
into the next century,  
leaders will be those  
who empower others.**



*Bill Gates*  
[www.geckoandfly.com](http://www.geckoandfly.com)

# Opportunities

- delivery of technology
  - SME's getting ICT infrastructure of big firms
- efficiency
  - interoperability, integrated work
  - information re-use across projects
- new business models
  - IPR, data the new oil
- the long tail
  - customization, specialization



# Threats

- Shift of control
  - from owner, lead designer, lead contractor to the platform
  - like from newspapers to Google
- Changes in value chain
  - IT in construction promises 20%+ efficiency gains
  - whose gain?
- The great extinction
  - platforms destroyed traditional media, shops ...
  - may destroy some businesses in AEC

# Conclusions and Way Forward

- Platform model is coming
  - Very successful in end-user activities
- Will improve efficiency
  - Who will reap the rewards?
- Strategy
  - support European platforms
  - industry's strategy
  - <https://www.digiplaceproject.eu/>
- Regulation
  - prevent anti-competitive practices of the platforms
  - manage intellectual property rights
  - think of industrial platforms when introducing Digital Services Act



## Reaction from European policy makers

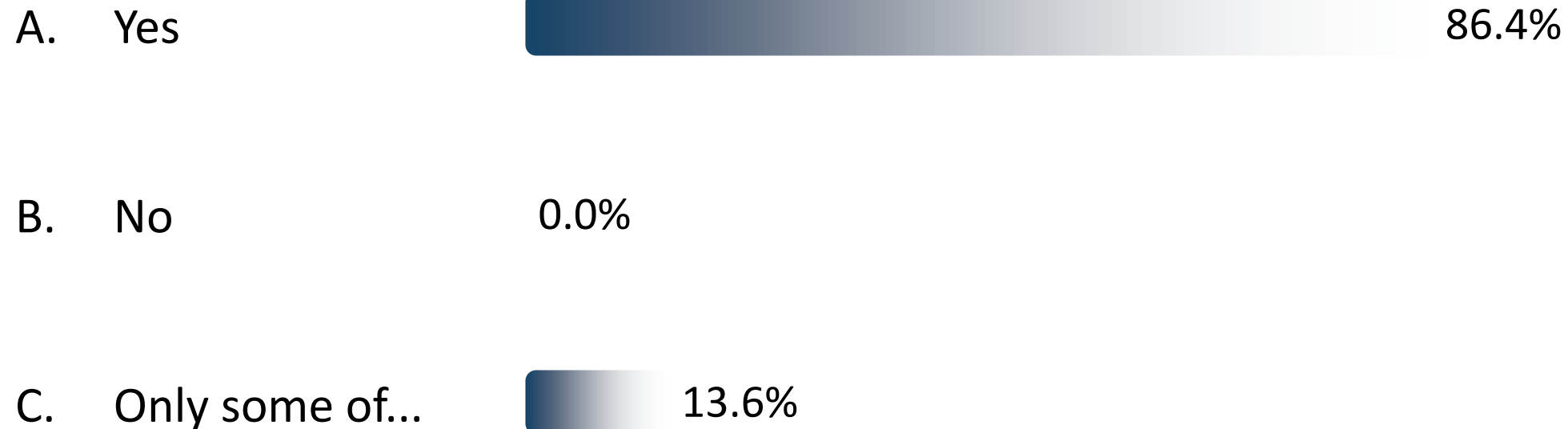


**Iskra Mihaylova MEP**  
Renew Europe Group,  
Bulgaria

**Arian Zwegers,**  
EU Commission, DG CNECT  
Communication Networks,  
Content and Technology



# Do you share the concerns identified in the FIEC position paper ?



# What is the level of urgency / priority ?

**A. High**



84.0%

**B. Medium**



16.0%

**C. Low**

0.0%

# How should the EU intervene ?



# Conclusions



CONSTRUCTION 4.0  
COMPETITIVENESS  
GROWTH  
ENERGY NETWORKS  
EMPLOYMENT  
ENERGY EFFICIENCY  
IT-NETWORKS  
SOCIAL INFRASTRUCTURE  
BIM  
WATER NETWORKS  
ENVIRONMENT  
TRANSPORT INFRASTRUCTURE

# CONSTRUCTION IS THE SOLUTION INDUSTRY

YOUTH EMPLOYMENT  
RESOURCE EFFICIENCY  
JOBS  
SKILLS TRAINING/EDUCATION  
ENERGY PRODUCTION  
STANDARDISATION  
CLIMATE CHANGE  
RECYCLING  
INFRASTRUCTURE  
INNOVATION

