EUROPEAN CONSTRUCTION INDUSTRY FEDERATION

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

26 June 2020 – webinar

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Introduction by the moderator

Domenico Campogrande, FIEC Director General

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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

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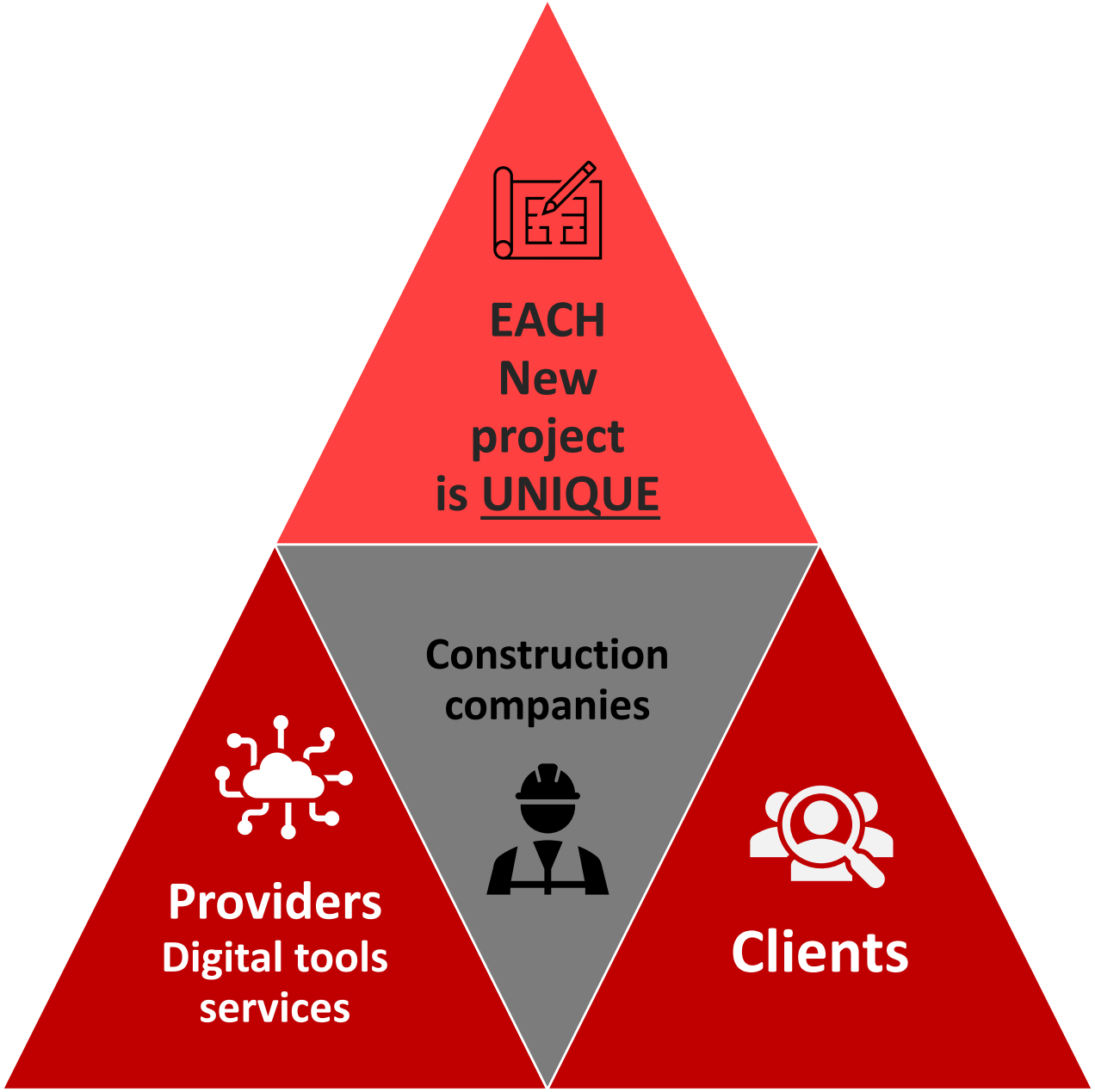

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On-site work conducts and solves several and multiple tasks and events: interdependently or simultaneously

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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

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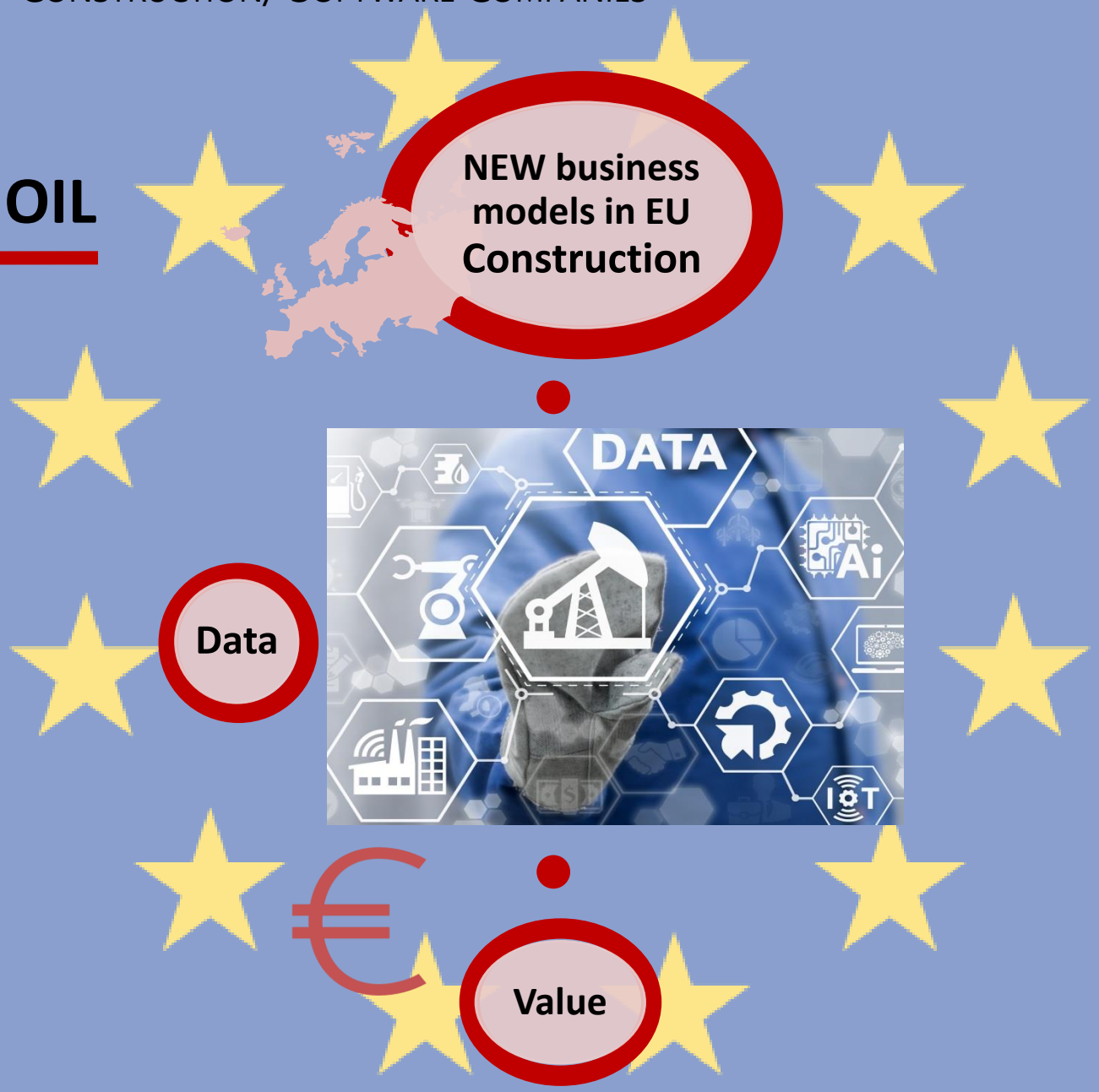
DATA is the new OIL



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View from European of Engineering Consultancy Associations - EFCA

Christophe Castaing,
Chair of EFCA Digitalisation & BIM Task Force

efca

Representing FIDIC in Europe

efca

Representing
FIDIC in Europe

BIM Task Force

Christophe CASTAING – egis

FIEC position paper

EFCA is fully supporting the FIEC position paper

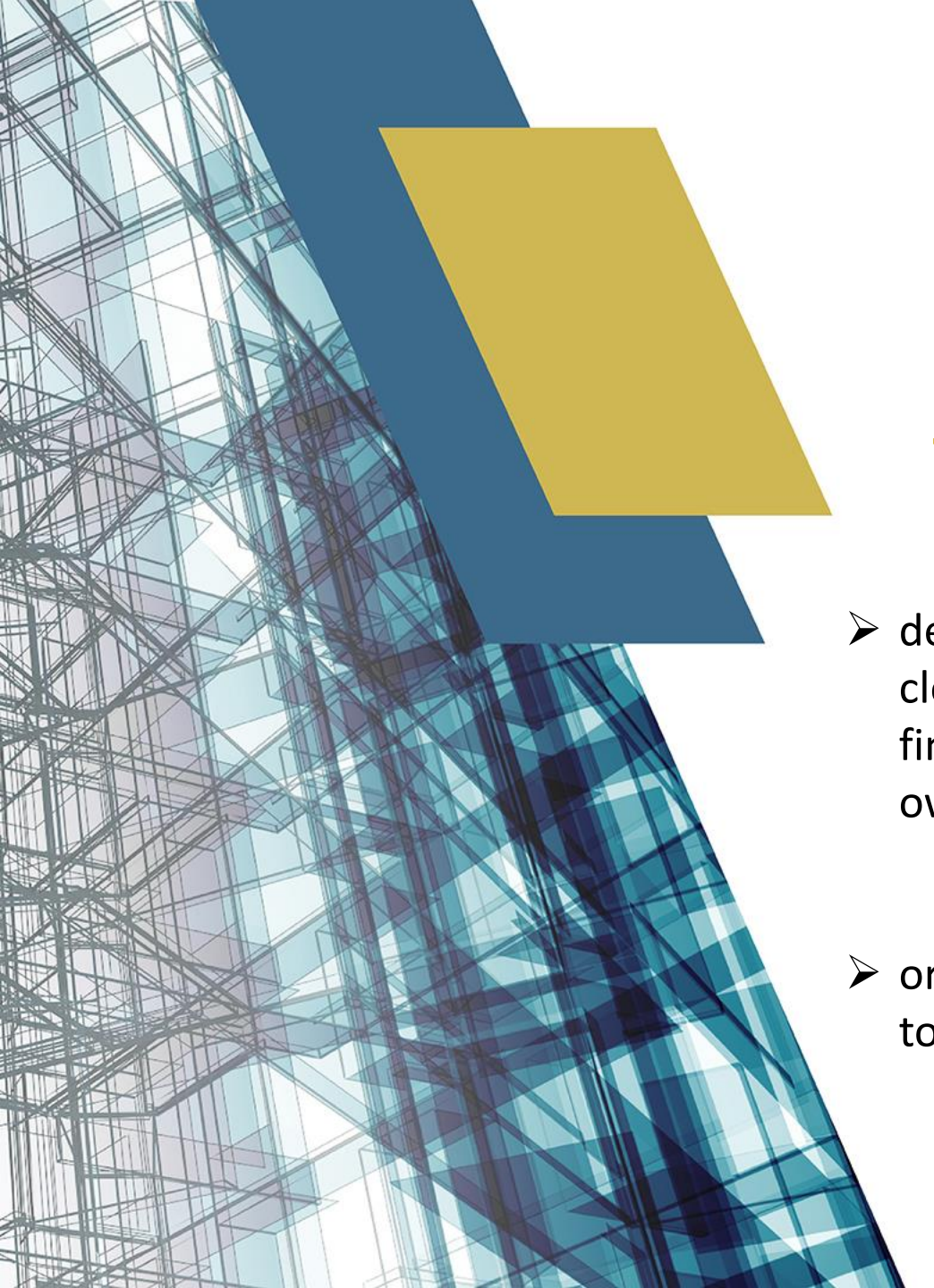
- Dominant position and impact on our productivity gain
- Programmed obsolescence
- The construction industry has to keep the control on software specifications
- The European Commission to take care on the real competition matters

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

All about ISO › News › News archive › Better building with new International Standards...

Better building with new International Standards for BIM

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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

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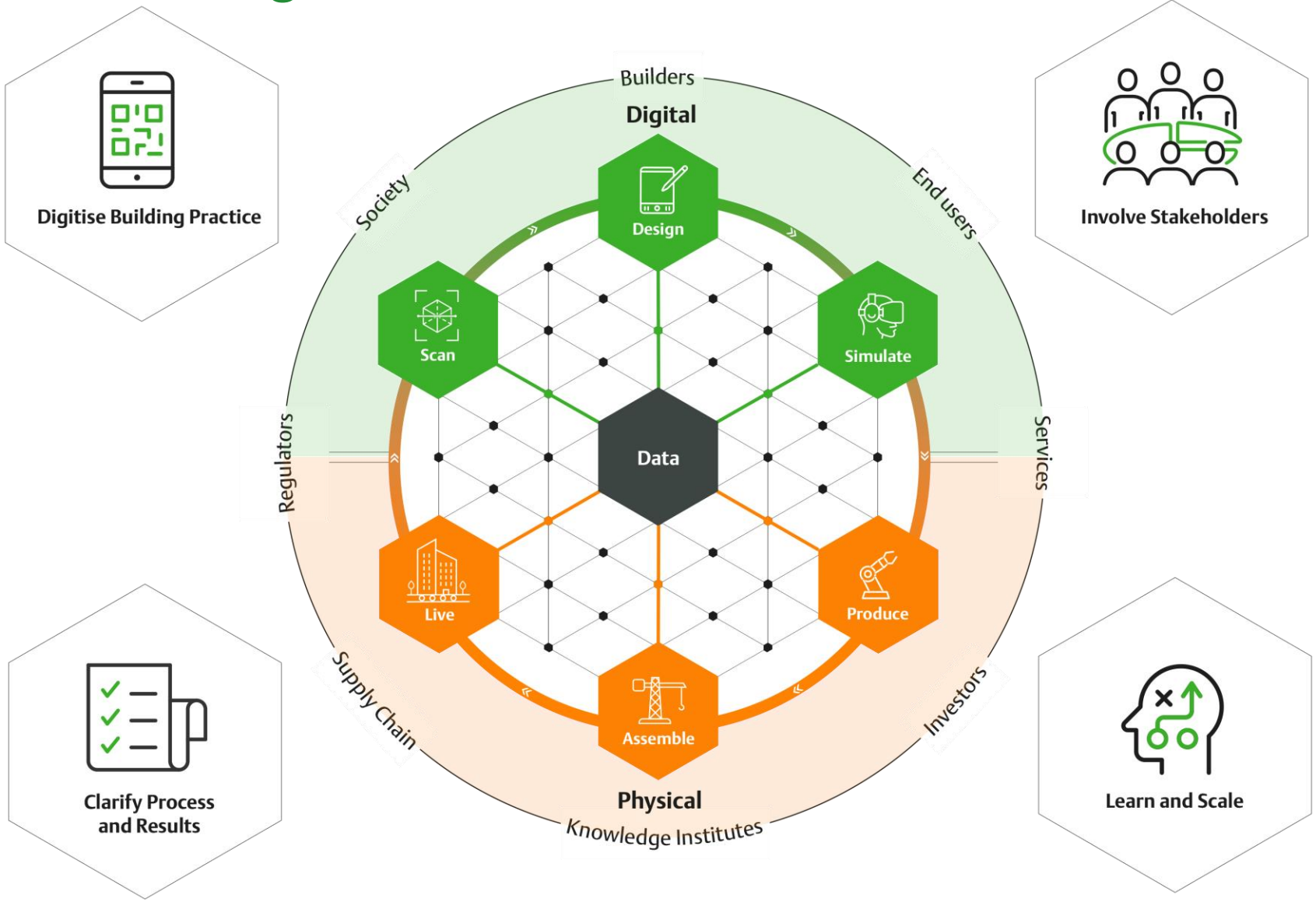
Digital Construction - Vision 2020



Source: Royal BAM Group

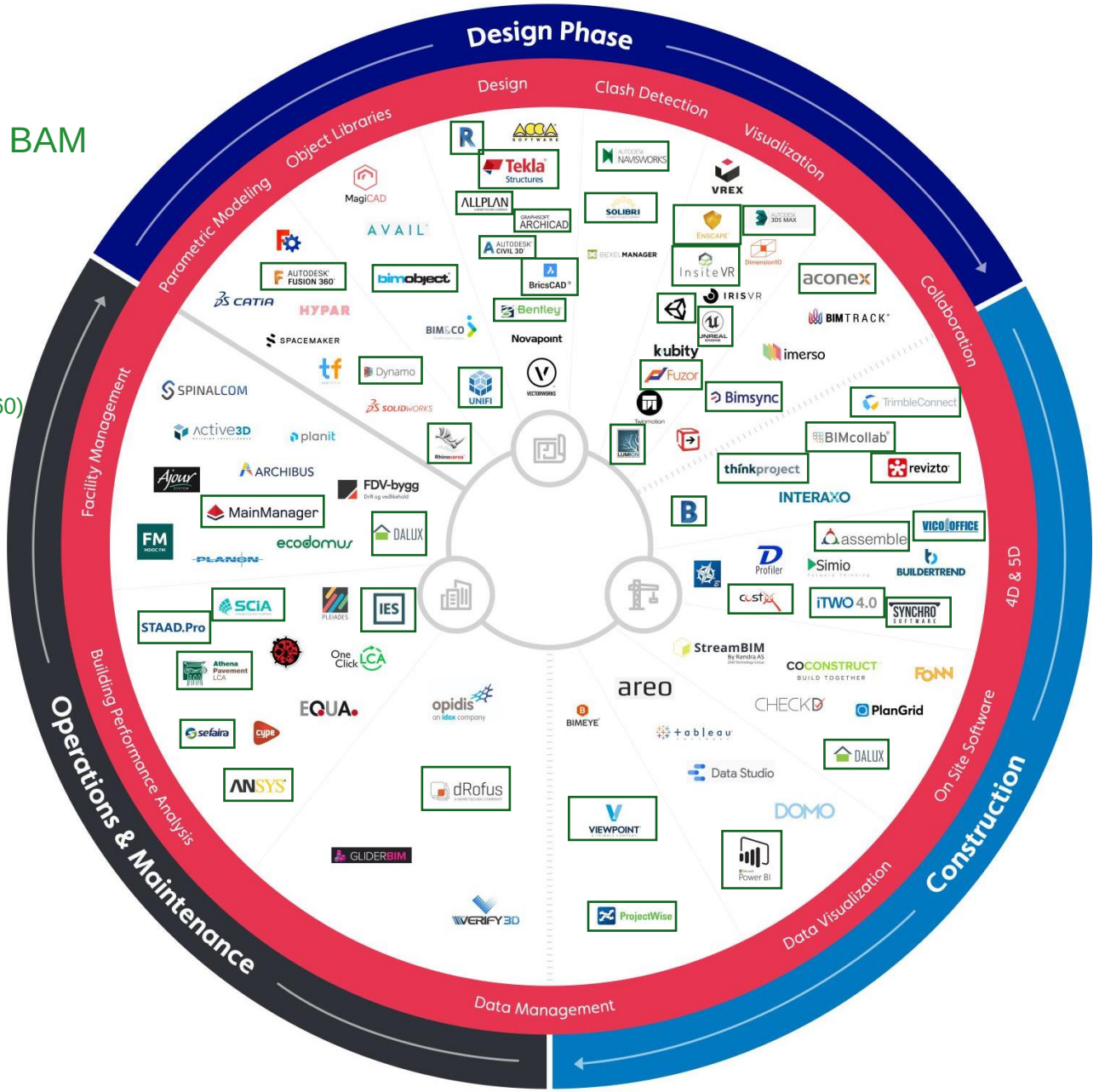
Digital Construction Software providers

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



Characteristics software vendors / contracts

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)

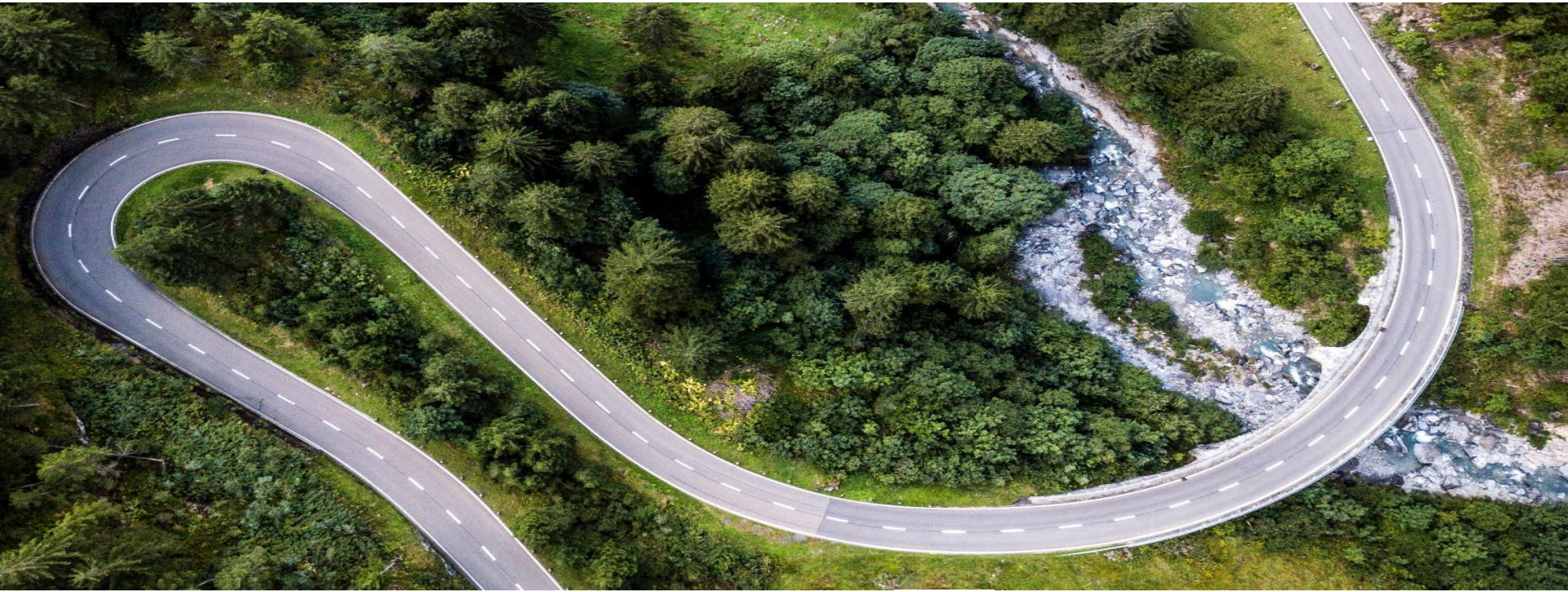
Start-ups (ConTech) are acquired by large software vendors to reduce/ kill competition (we do also see some positive cases)

Clients mandate specific software vendors (EU should ban this)

Importance of software vendors should not be underestimated, our industry needs them, just as vendors like Microsoft, Apple, Amazon, etc. (but sw vendors must follow the rules)

VIEW FROM CONTRACTORS

Dr. Charles-Edouard Tolmer
Project manager BIM development

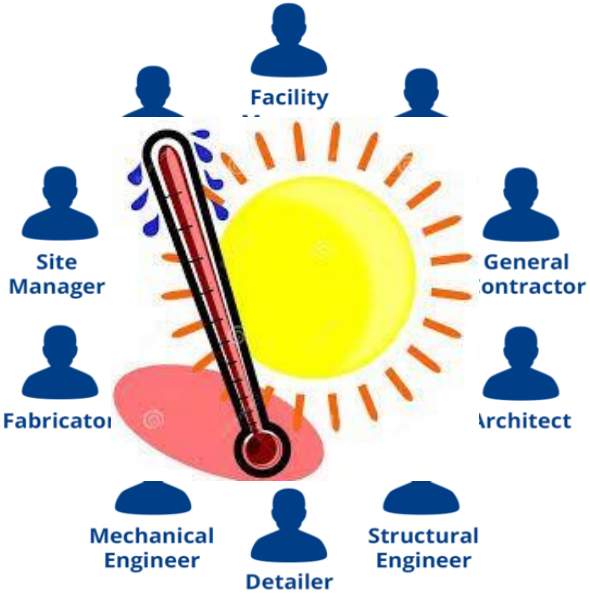


Talking about BIM (Building Information Modelling): The common but not so relevant picture

- 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



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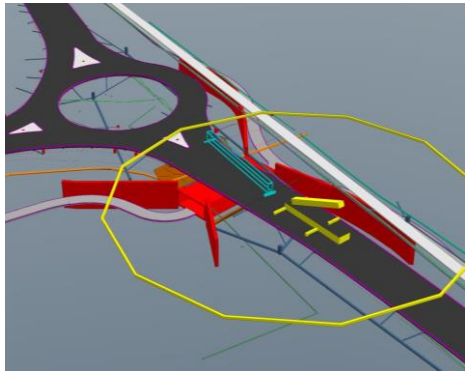
ABOUT DIGITAL, WHICH INCLUDES BIM

Smart City
Block chaine
Cloud
Data lake
BIM
IA
Augmented/Virtual Reality
Big data
Internet of things



Too many kg

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

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

You, have something to do and to deliver

Project, things happens

Project is still running

Please find here, all the project data

Give me what I need !!
(I am already late…)

We all loose:

and Quality

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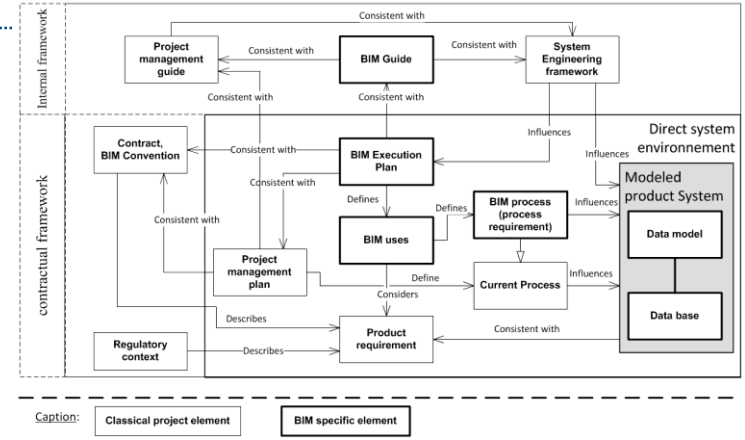
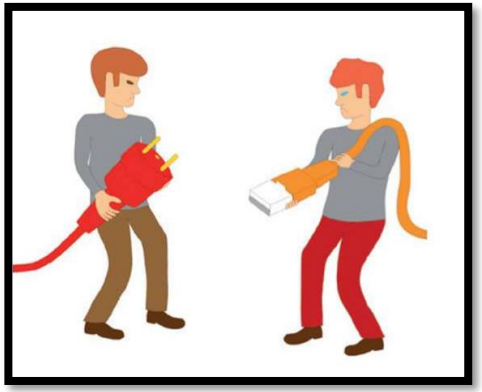
Building infrastructures is not just some concrete and pieces of pipe

- 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





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WHERE DOES OUR OPINION COME FROM?

Organisations, federetions

Others

Data
Environment
Open formats
Domain technicity

BIM
Standards
Interoperability
Physical infrastructure

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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

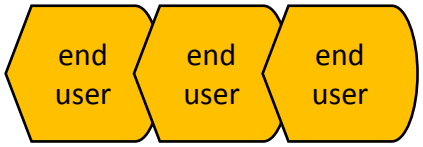
Service / tool ecosystem

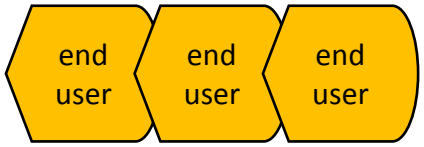
- worker/business in the center
- actor, tool, world

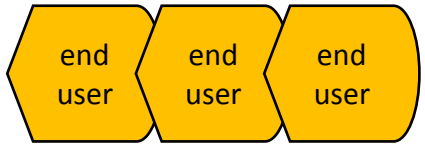
Platform ecosystem

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

Platforms emerged in B2C and C2C settings







Tom,
Dick and
Harry

Provider of products

Provider of Services

Provider of Content

YouTube Channel, Android App, Facebook Page, Blog on Blogger ….

Platform

IT Infrastructure (cloud, internet)

Platforms are emerging in C2C settings, including construction

end user | end user | end user | end user | end user | end user | end user | end user | end user

Service 1 | Service 2 | Service 3

Platform for Engineering

IT Infrastructure (cloud, internet)

Existing Ecosystem – as assumed

peer to peer relationships

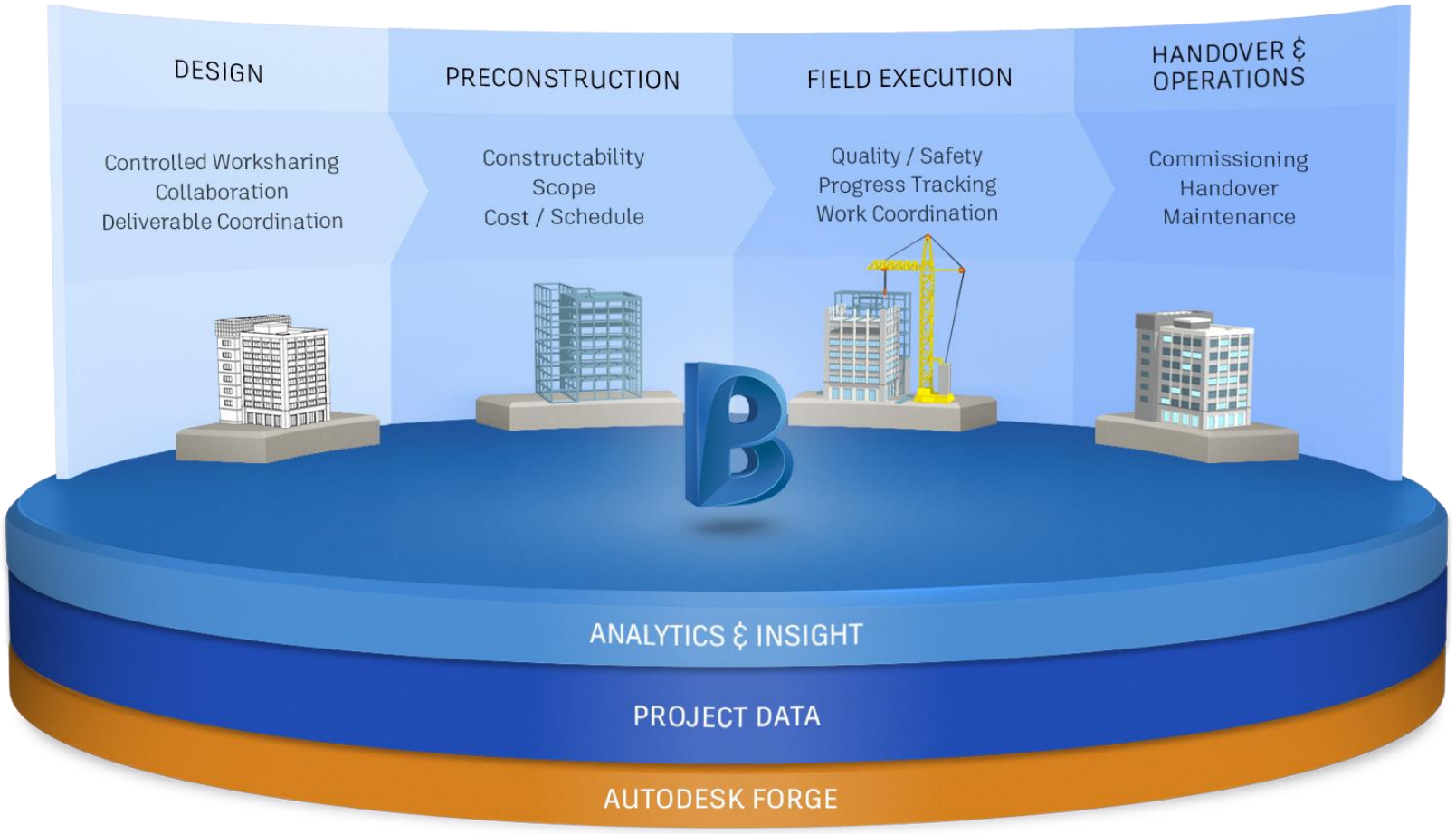
Existing ecosystem – as really

lead designers,
lead contractors
have a central role

New ecosystem

platform has a central role

Platforms are commercially available



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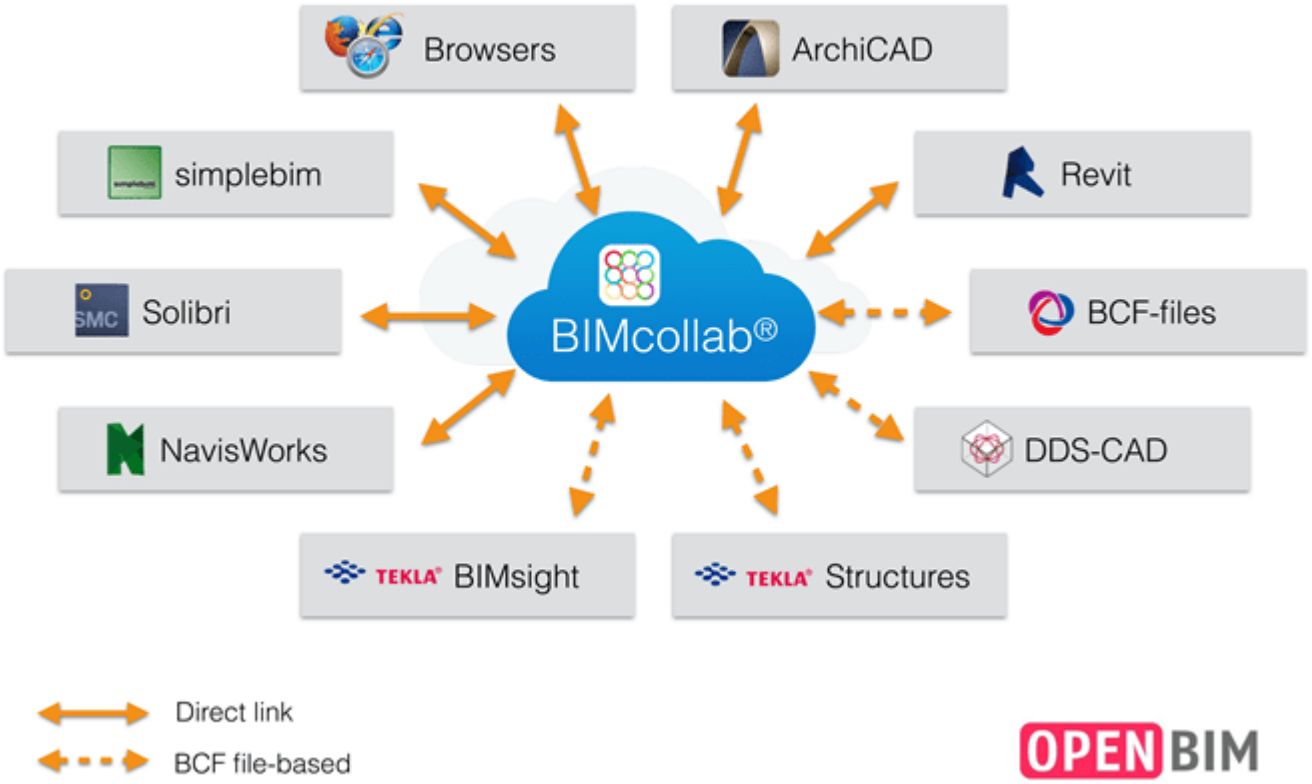
AUTODESK® FUSION
CONNECTED | COMPLETE | INSTANT-ON
USE
DESIGN
MAKE
FUSION

… 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!

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

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Reaction from European policy makers

Iskra Mihaylova MEP
Renew Europe Group,
Bulgaria

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

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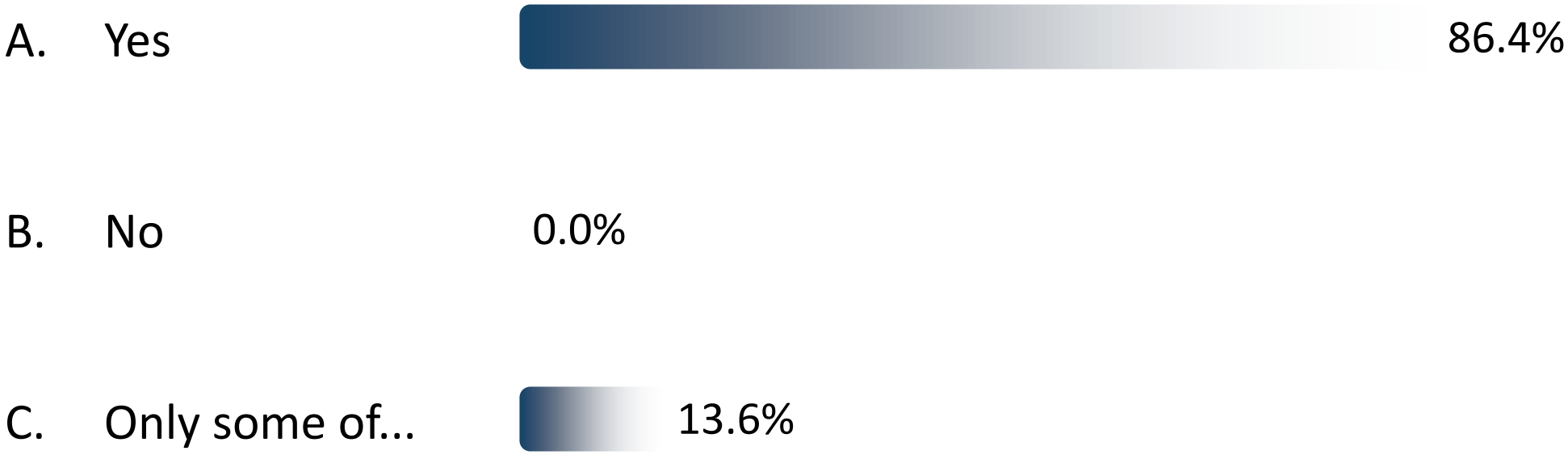
Do you share the concerns identified in the FIEC position paper ?



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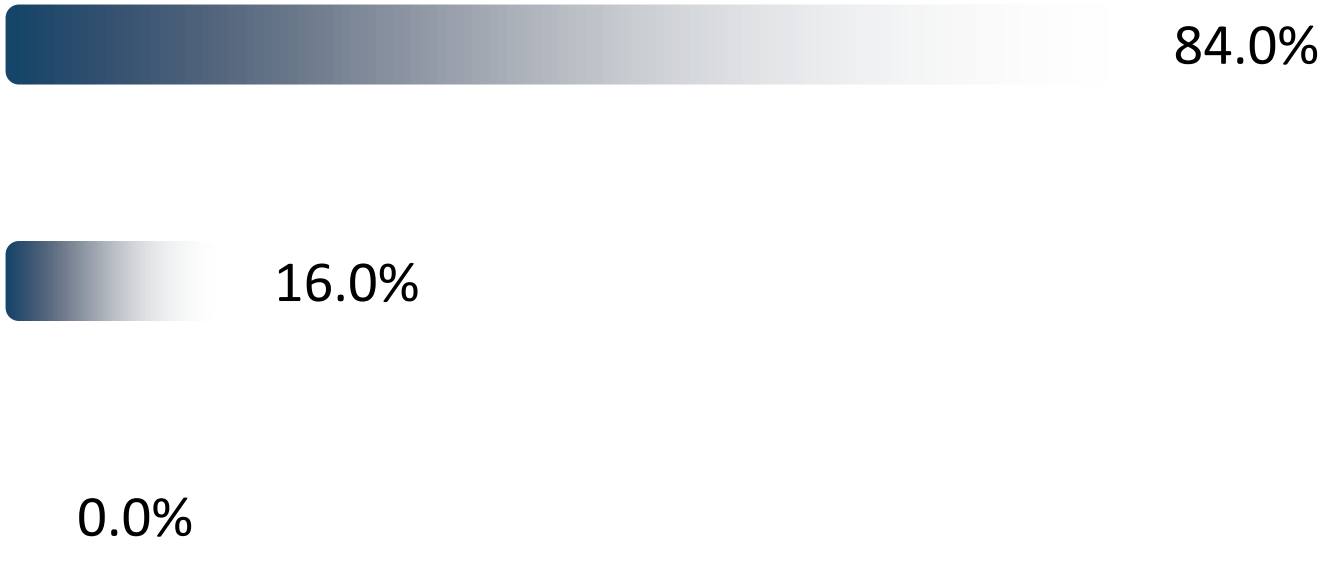
What is the level of urgency / priority ?



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How should the EU intervene ?

A. Guidelines / recommendations 21

B. Legislation 29

C. Possible sanctions / penalties 14

Closed

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Conclusions


CONSTRUCTION 4.0
SOCIAL INFRASTRUCTURE
BIM
COMPETITIVENESS
WATER NETWORKS
GROWTH
ENVIRONMENT
ENERGY NETWORKS
TRANSPORT INFRASTRUCTURE
EMPLOYMENT
ENERGY EFFICIENCY
IT-NETWORKS
CONSTRUCTION IS THE SOLUTION INDUSTRY
YOUTH EMPLOYMENT
ENERGY PRODUCTION
RESOURCE EFFICIENCY
STANDARDISATION
JOBS
SKILLS TRAINING/EDUCATION
CLIMATE CHANGE
INFRASTRUCTURE
RECYCLING
INNOVATION