EU BIM
T A S K G R O U P

WORKSHOP II

COMMON DATA
ENVIRONMENT (CDE)
IN THE PUBLIC SECTOR

Prague, 25 September 2023

WORKSHOP II
COMMON DATA ENVIRONMENT (CDE) IN THE PUBLIC SECTOR
THE WORKSHOP

? WHY?

Response to the needs of our members to specifically share their own knowledge, experience, concerns, and challenges that they go through when implementing information management (BIM) in their daily practice.

WHAT?

Share of knowledge, experience, concerns and challenges

GOAL:

To go into practical details about CDE implementation at both the project and the organizational levels with a focus on fair contract specifications and the client's CDE usage for the whole supply chain.

WHO?

The workshop participants were representatives of EU policymakers and large public clients from 8 countries – Croatia, Czech Republic, Estonia, Ireland, Italy, Bulgaria, Hungary and Spain.

THE OUTPUT IS INTENDED FOR THE ACHIEVEMENT OF COMMON GOALS

- a free market
- a transparent and non-discriminatory competitive
- environment
- efficient spending of public money
- support for digitization
- the Green Deal
- reducing the carbon footprint, etc

COMMON DATA ENVIRONMENT (CDE) IN THE PUBLIC SECTOR
FINDINGS

1 We believe that **CDE is the technological solution** to deliver in practice finding No.4 from our first workshop. **It is not one single tool** but a centrally-managed ecosystem of digital tools and processes that connects data and communication flows related to a project in a structured and standarized way.

2 **A CDE** and the information management principles defined within ISO 19650 **can be succesfully implemented** even in projects undertaken **in the tradicional manner** (i.e with no 3D modeling). Such projects can still benefit from the discipline and transparency that derives from CDE process workflows and well-organized information stores and can deliver positive outcomes in terms of time savings and quality.

3 **The final goal is to implement the CDE at the organizational level through pilot projects**. A pilot would allow employees and other project stakeholders explore the CDE enviroment and experience the advantages it can deliver through new collaboration opportunities. Organizations must create new ways of working as existing working methods may not be suitable to sustain a CDE enviroment. CDE implementation is a core part of the digital transformation of a public client in the asset industry.

4 With BIM, **there is no requirement to produce additional information over** and above **what would typically be generated on a project** using tradicional documentation-creation methods. It simply creates a transparent environment where this information is accurately named, structured and linked in an organized fashion. The whole process uses standardised procedures and storage methods.

5 **CDE is not discriminatory** when using open formats and OpenAPI connections for suppliers. And there ir no demand on suppliers for any fees or spending to buy theis own licences or tools to collaborate through public client CDEs.
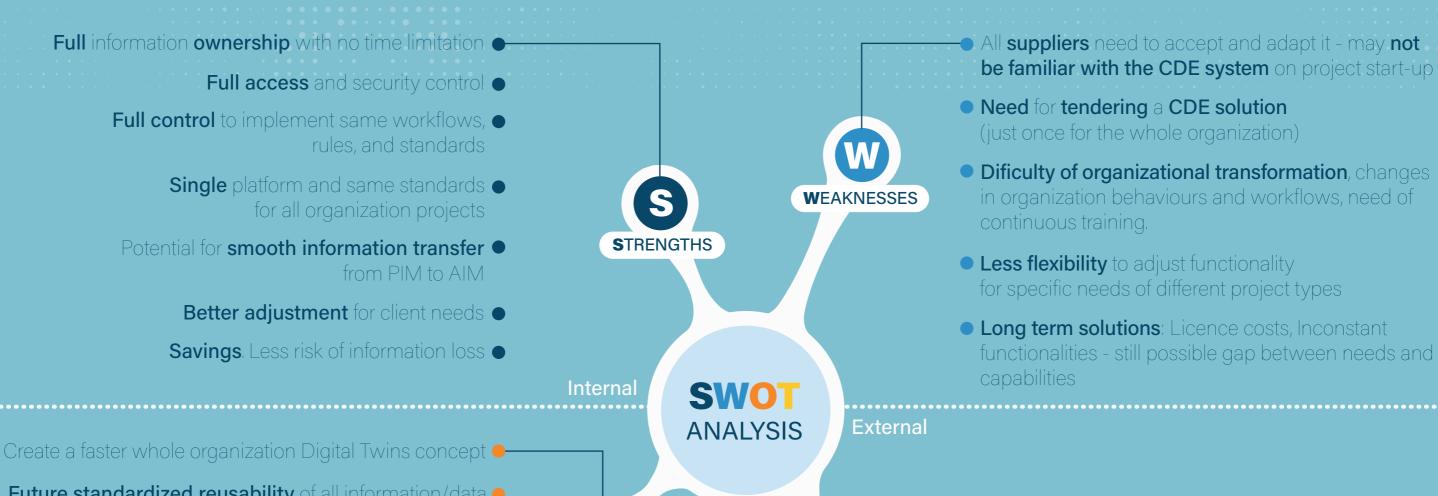
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COMMON DATA ENVIRONMENT (CDE)
IN THE PUBLIC SECTOR
CONCLUSIONS

1 With **BIM**, there is **no requirement to produce additional information over** and above **what would typically be generated on a project** using traditional documentation-creation methods. It simply creates a transparent environment where this information is accurately named, structured and linked in an organized fashion. The whole process uses standardised procedures and storage methods.

2 **A client-managed CDE platform allows public clients to set common** structures, **rules** and standards from the national level (e.g. building permits), through the organisational level and all the way up the supply chain, interconnected (LOIN-level of information need principle). That will bring significant savings and efficiency for information management (BIM) in the public sector.

3 For transparent and fair tendering, **BIM public projects must be included in tender documentation** and contracts must clearly describe and specify what precisely will be provided **via the public client´s CDE**. The roles and responsabilities of the various parties in relation to the management and operation of the CDE need to be clearly set out in the contract, along with the processes for managing and sharing information and project communications. This also needs to factor in possible API connectivity with the supplier´s own CDE solution.

4 **Well- implemented CDE**, clear rules and well-documented standards on the public client side, together with a Data dictionary **would facilitate the reuse of** verified project and **building information/data for future new purposes**. This would allow CDE to deliver additional value.

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SWOT ANALYSIS

S — STRENGTHS

- **Full** information **ownership** with no time limitation
- **Full access** and security control
- **Full control** to implement same workflows, rules, and standards
- **Single** platform and same standards for all organization projects
- Potential for **smooth information transfer** from PIM to AIM
- **Better adjustment** for client needs
- **Savings**. Less risk of information loss

W — WEAKNESSES

- All **suppliers** need to accept and adapt it - may **not be familiar with the CDE system** on project start-up
- **Need** for **tendering** a CDE solution (just once for the whole organization)
- **Dificulty of organizational transformation**, changes in organization behaviours and workflows, need of continuous training.
- **Less flexibility** to adjust functionality for specific needs of different project types
- **Long term solutions**: Licence costs, Inconstant functionalities - still possible gap between needs and capabilities

Internal

SWO**T** ANALYSIS

External

O — OPPORTUNITIES

- Create a faster whole organization Digital Twins concept
- **Future standardized reusability** of all information/data
- **Productivity enhancements** - common access and search across projects
- **Better decisions** based on common knowledgebase from all projects and all agents
- **Employ Data analysis**: Business intelligence (BI) - analyses across projects
- **Improvement of expertise across organizations** based on valid and trustworthy information
- **Higher chance to succeed** with change management and digital transformation
- Tight API integration with other organizational ICT tools

T — THREATS

- **Dependency on vendors** (licensing, changing market)
- **Resistance from the supply chain** (contractors, vendors etc.)
- Changes in **legal and governmental policies and regulations**
- **Data transfer** in case of change of the asset owner or technology solution
- **Lack of Interoperability** and possible **data duplicities** in case of separate client's and supplier's CDE systems
- **Cybersecurity threats**