RASTI Road map for digitising built environment information management

DRAFT 4 September 2018

FOUNDATIONS | PILOTING AND SECURING ENGAGEMENT | BEST PRACTICES AND UPDATING

Government measures

- Work to develop national and international standards
- Identifying and deploying standards in-house
- Software and processing pilot projects
- Joint central and local government R&D projects and information services
- Sharing best practices and developing processes
- Statutory guidance towards work based on a uniform electronic data model
- Common foundation and research data in planning and public administration
- Securing public authority engagement
- Digitising and automating public administrative and permit processes
- Digital public representative activities
- Automation of source data and impact assessment

Data model-based administrative processing
Processing and archiving of digital decisions and materials
Open information resources
Automation of permit decisions

Planning

- Development of national and international standards for the BIM + GIS process
- Systematic deployment of ground rules and definitions
- Continuous training of planning specialists and sharing of best practices
- Identification, classification and evaluation of source data archives
- Engagement of information proprietors
- Collaboration forum and R&D projects for content producers

Updating source data materials
Simulation
Use of artificial intelligence
Resource-wise solutions

Construction development

- Developing national and international standards: Information management requirements, guidelines and operating environment
- Combining built environment data model requirements (Finnish YIV and YTV guidelines)
- Regulation of digital control
- Machine-readable task lists and model contracts supporting new standards
- Engagement and qualification of operators
- Model-based partnership with public authorities
- Standardised project information structures and information sharing procedures

Machine-readable agreements
Uniform procurement procedures
Machine-readable task lists
Digital planning and construction monitoring processes

Building

- Digital operating formats for industry training programmes
- Measuring technology to support open standards
- Automatic conversion of performance into life cycle data
- Developing national and international standards: Information management operating environment and instances of use
- Physical and digital end-product requirement: "Digital Twin"

Smooth data transfer over the construction life cycle
Internationally harmonised operating formats
Deployment of machine automation and robotics

Asset management

- BIM-GIS-compatible asset investment management (AIM)
- Activating and engaging operators
- National monitoring, feedback and regular upgrading of uniform practices
- Developing national and international standards: Reception and archiving practices for construction life cycle information
- Data model-based space and route maintenance and use services and product information - Digital Twin
- Application of IOT and tracking in condition monitoring

Open asset management interfaces
Comprehensive and updating asset management status information
Dynamic portfolio management

Product information

- Uniform product information structures
- Developing standardised product database interfaces
- Engagement of content producers
- Automatic conversion of performance into life cycle data
- Creation of conditions and requirements for digital product information (regulation)

Standardised real-time product and life cycle information
Internationally standardised product information structures

Concepts
Glossaries
Nomenclatures

Development of internationally harmonised concepts and glossaries supporting uniform information management and construction data modelling, and nomenclatures based on international standards