Lifelong Project Value through Digital Asset Information Management (DAIM)

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Industry Drivers

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- Construction industry looking to embrace benefits of digitalisation
- Client demands
- Pressure on O&M budgets
- Streamline the supply chain from design to construction to asset management

The Journey Towards Digital Asset Management

Prof Xiangyu Wang

- Curtin-Woodside Chair Professor for LNG Construction and Project Management
- Director of Australasian Joint Research Centre for BIM
- Chair of Curtin Advanced Technology Research and Innovation Alliance (CATRINA)
- College of Experts, Australian Research Council (ARC)

Digital Engineering and Construction

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2.24 Integrated Project Environments – Leveraging Innovation for Productivity Gain through Industry Transformation

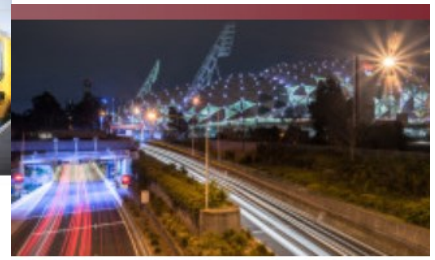
This research will contribute to realising productivity benefits of digital modelling and integrated project

Processes — Completed

2.34 Driving Whole-of-life Efficiencies through BIM and Procurement

In 2013, the Australian Department of Industry identified lifting productivity and economic growth as

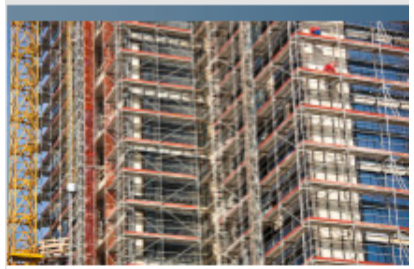
Processes — Completed



2.51 Developing a Cross Sector Digital Asset Information Model Framework for Asset Management

Project 2.51 Fact Sheet Asset management in the built environment has been the

Processes — Current



3.27 Using Building Information Modelling (BIM) for Smarter and Safer Scaffolding Construction

Information Sheet (544Kb, Sept 2014) Temporary structures like scaffolding have a significant impact

Productivity — Completed

3.28 National BIM Guidelines and Case Studies for Infrastructure

Information Sheet (472Kb, March 2015) Mechanisms that improve collaboration and communication in the

Productivity — Current

3.48 Sustainable Asset Management: Selecting Optimal Maintenance Strategies Based on Multi-criteria Decision Making

Project Fact Sheet In an economic downturn, it is of critical importance to

Productivity — Current

Two National BIM/DE Guidelines

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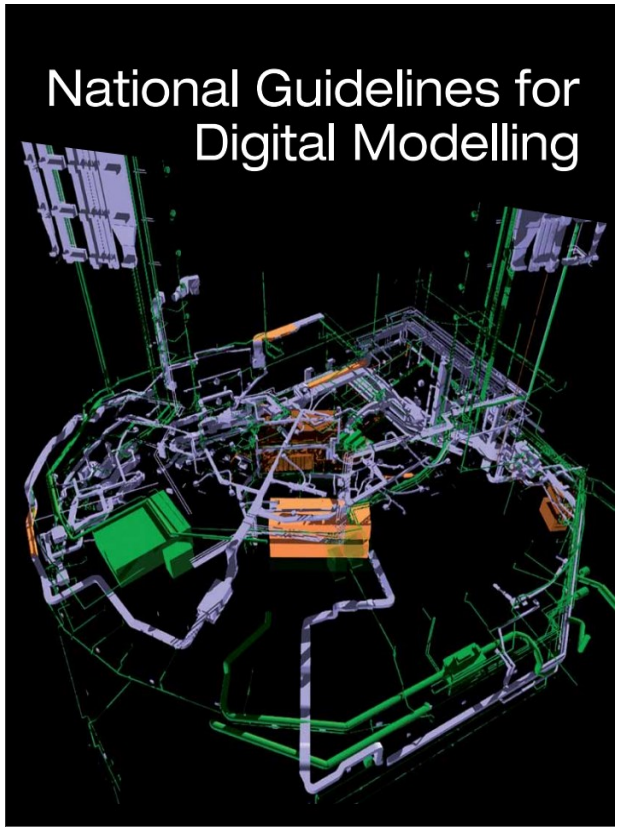

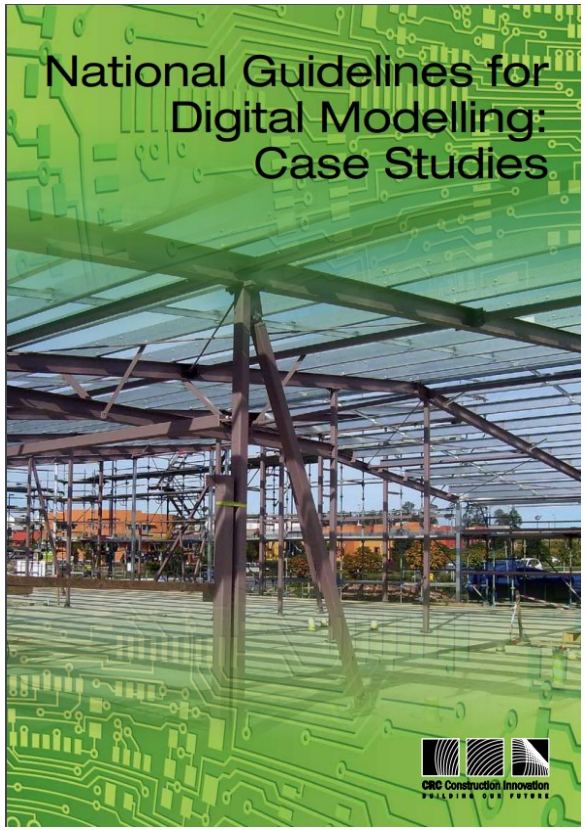

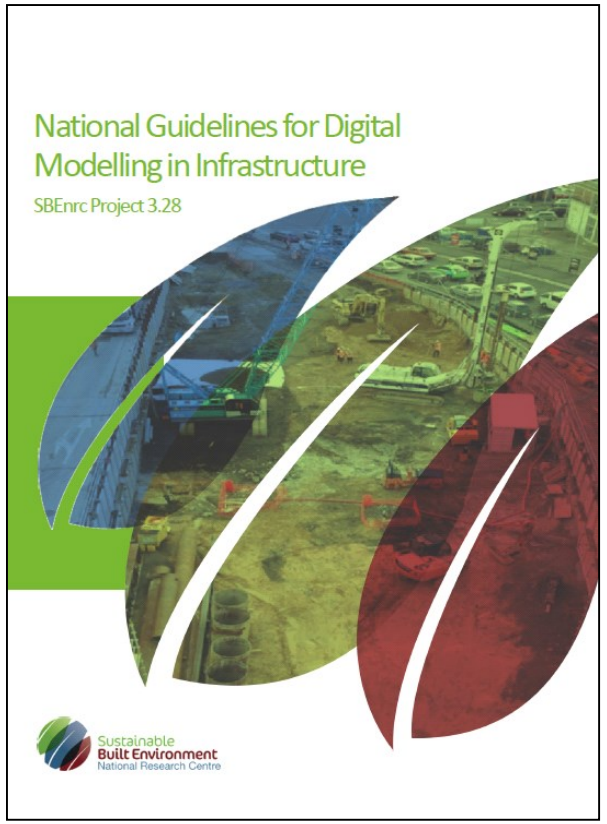

Australian Research Council (ARC)

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Australian Government

Australian Research Council

ARC Project 1: Scaffold Life Cycle Management

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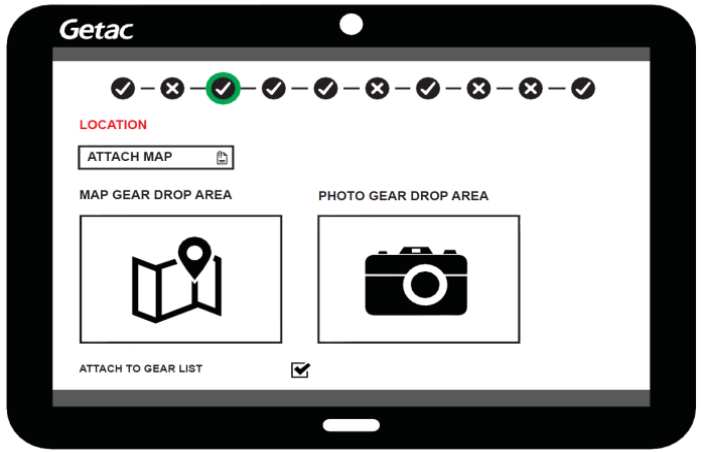
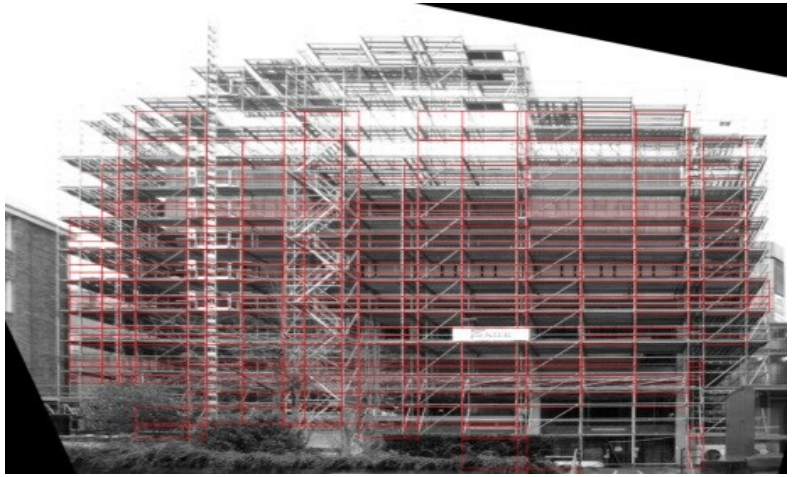
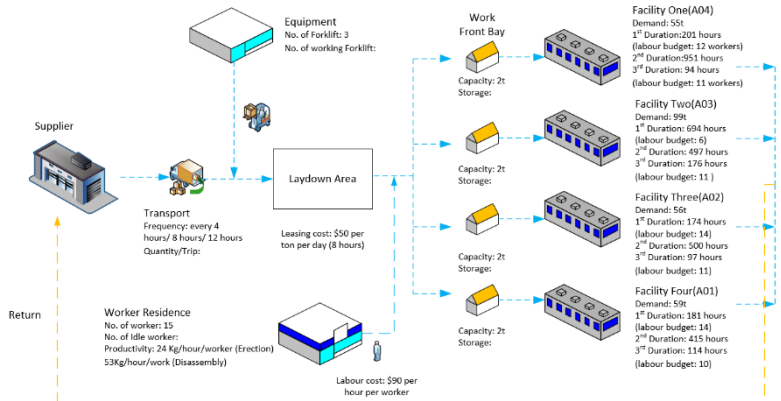
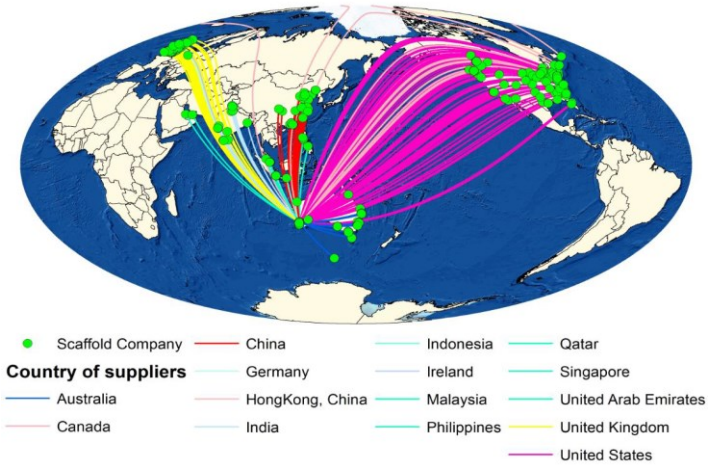
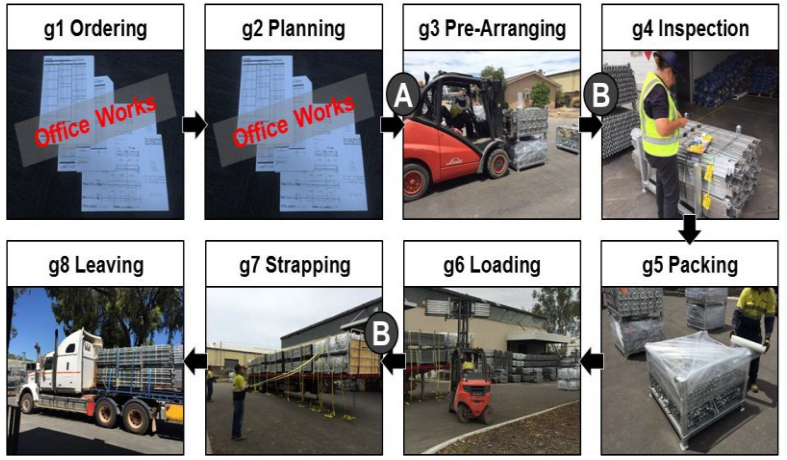
Curtin University | woodside | John Holland | mainroads WESTERN AUSTRALIA | Queensland Government Department of Main Roads











ARC Project 2: Bridge Performance Assessment

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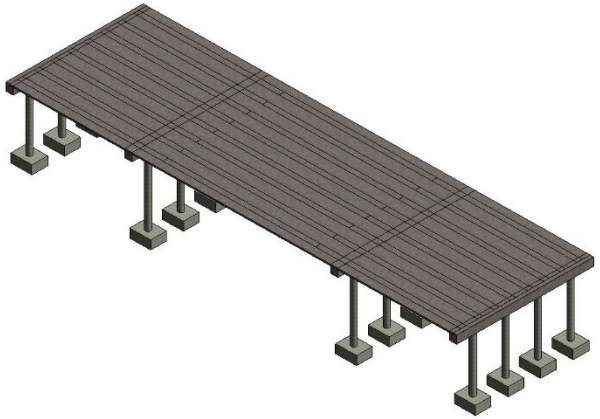
NSW GOVERNMENT Transport Roads & Maritime Services

aurecon HUAWEI



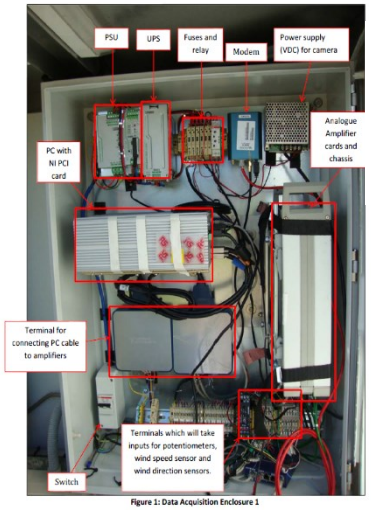
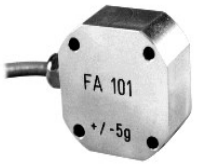
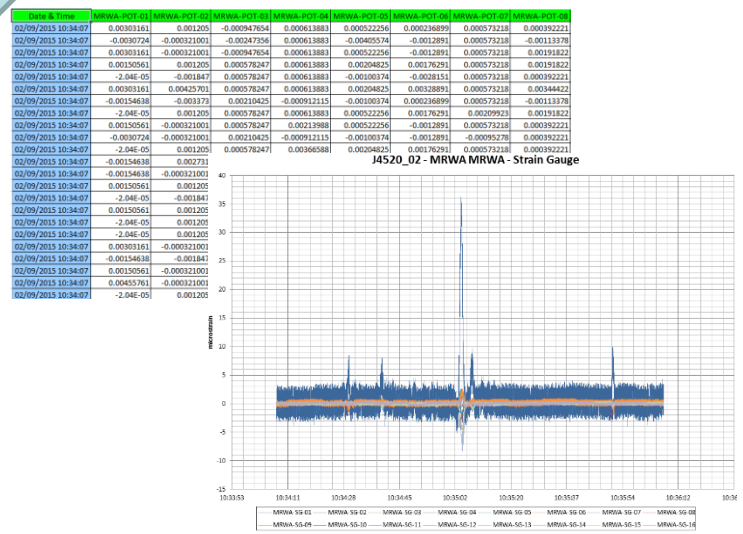


Figure 1: Data Acquisition Enclosure 1





Topic 1: Multi-Criteria Optimisation for Sensor Deployment

Topic 2: Reserve Capacity Estimation Based on Error Domain Structural Identification

Topic 3: BIM Integrated Decision Support System

From D&C to Asset Management

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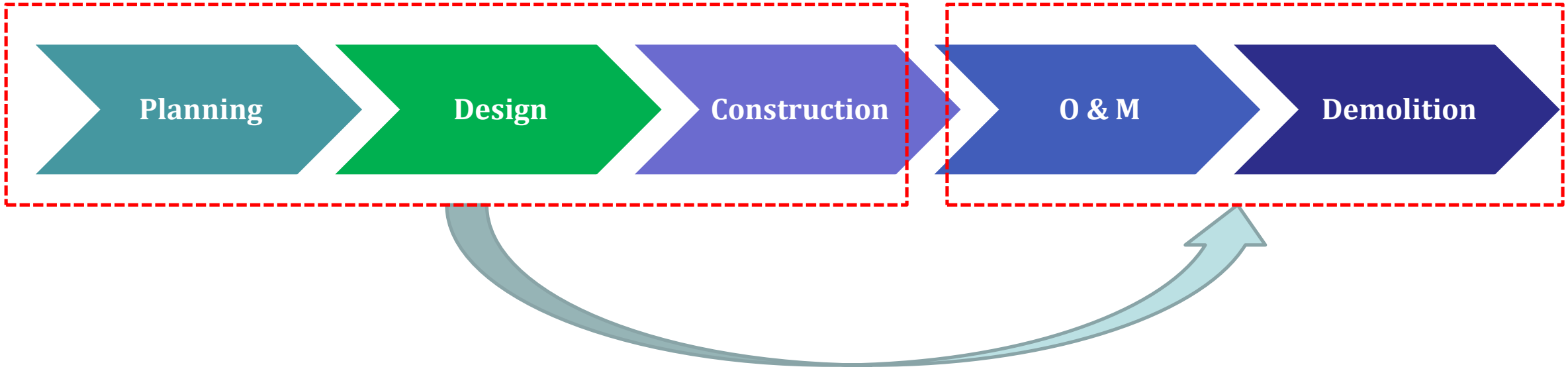

Adopting BIM for Facilities Management

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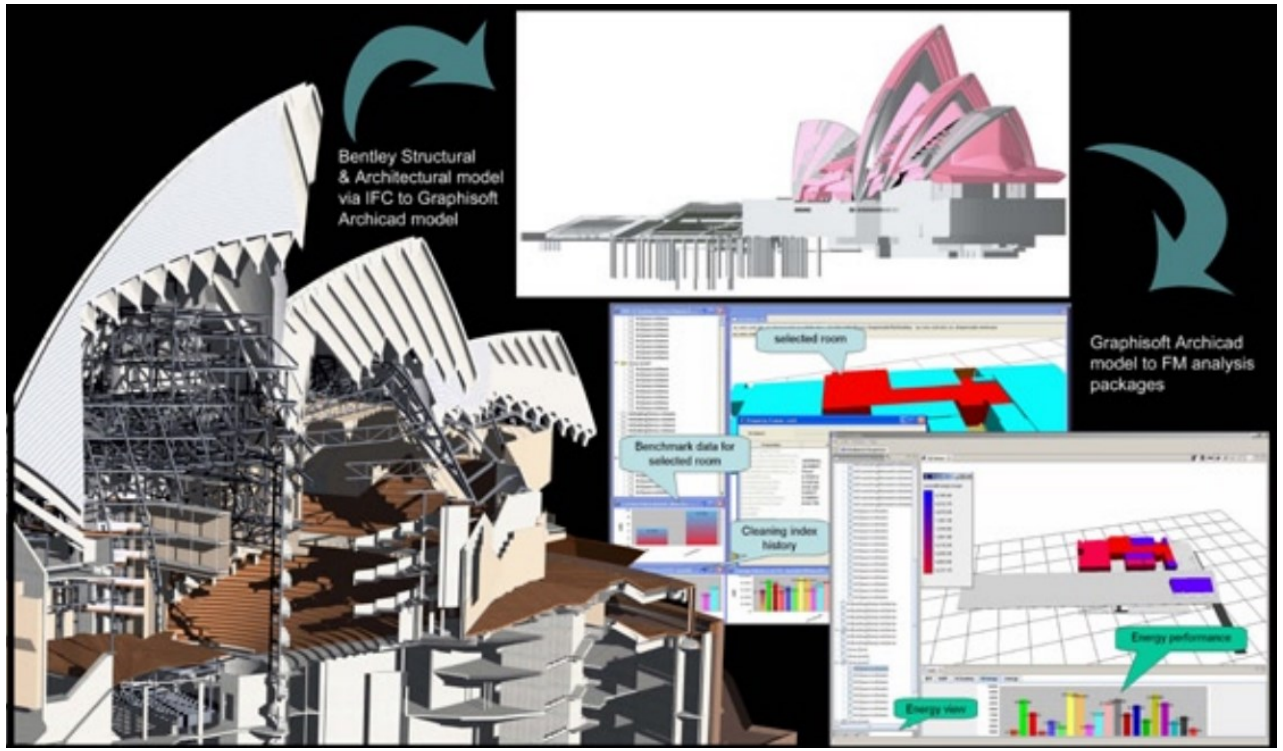

Digital Asset Information Model Framework

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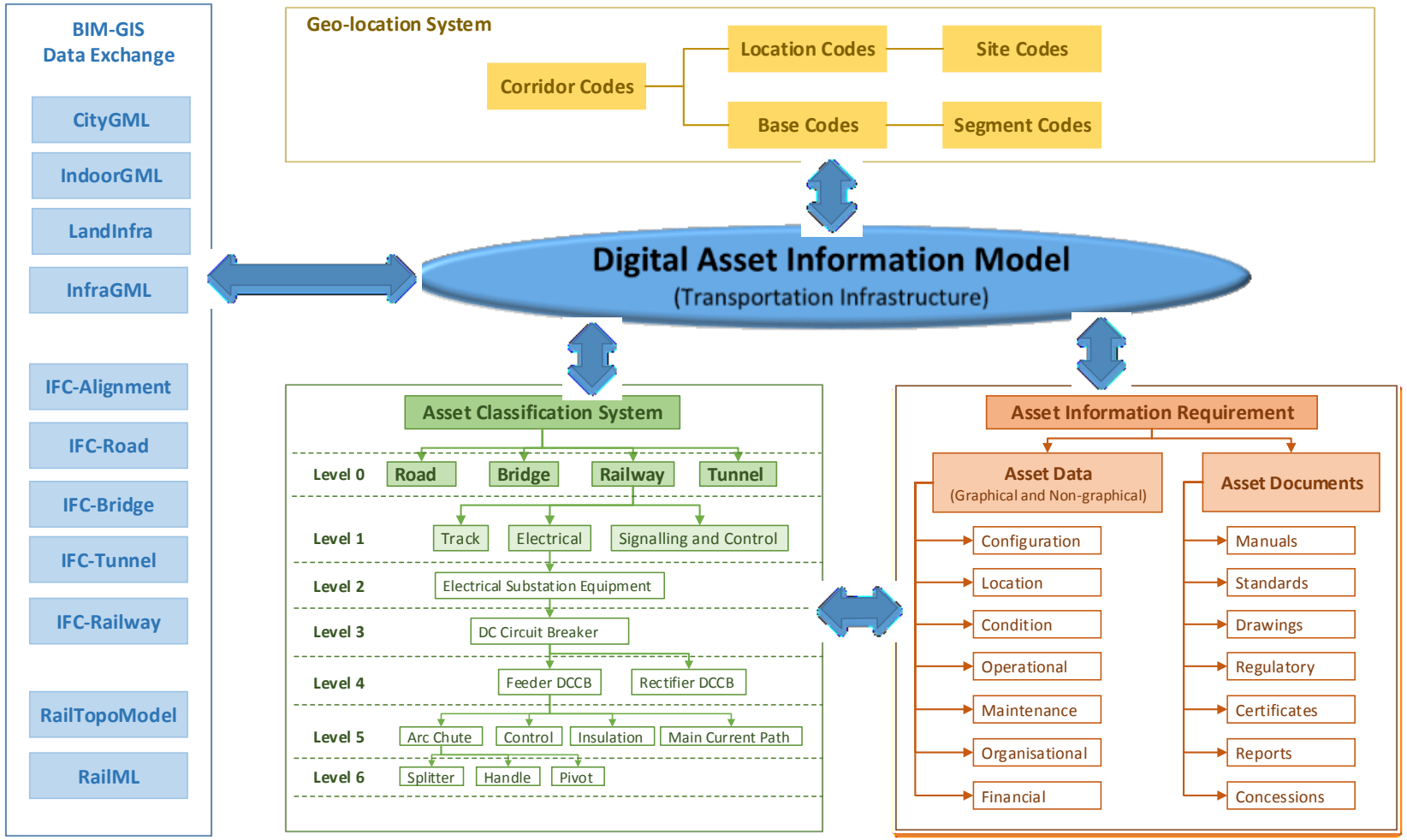
- **Asset Classification System**
- **Asset Information Requirement**
- **Asset Information Model**
- **Asset Information Delivery Manual**



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Will Hackney

Digital Leader, Infrastructure

SBEnrc Research Utilisation Committee (RUC) Chair

Bringing ideas to life

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