

Building Technology Enabled Design and Construction Capability

Better Information Management (BIM)

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Overview

Putting BIM into Context

What is BIM

Why is it important

How to build a model

BIM in action

Lessons

Putting BIM into context for us

Historical

- the domain of specialist building providers
- focussed on vertical construction



Putting BIM into context

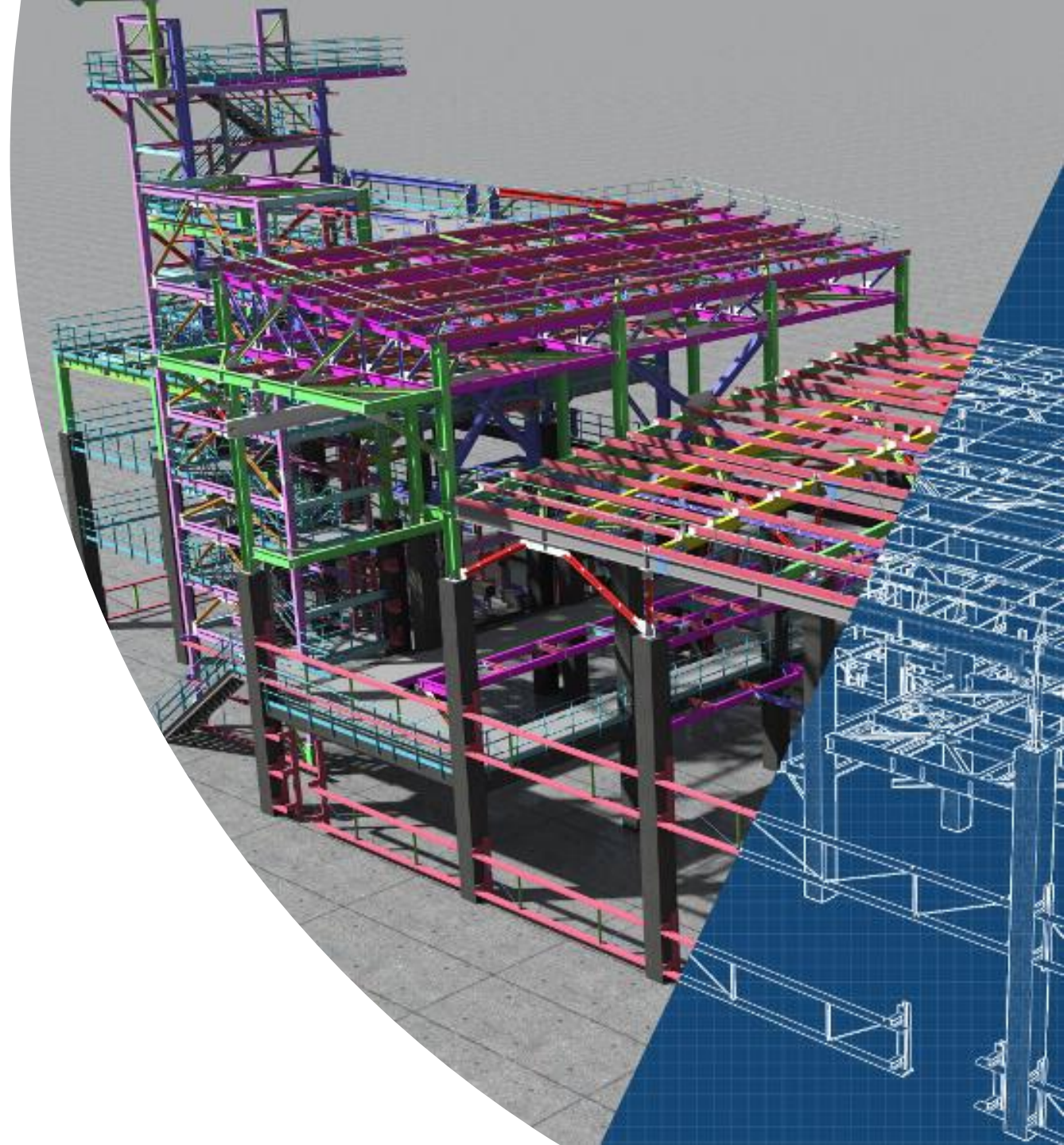
Today – Data Economy

- Data has untapped value
- now needed & used by value chain
- across the spectrum not just vertical

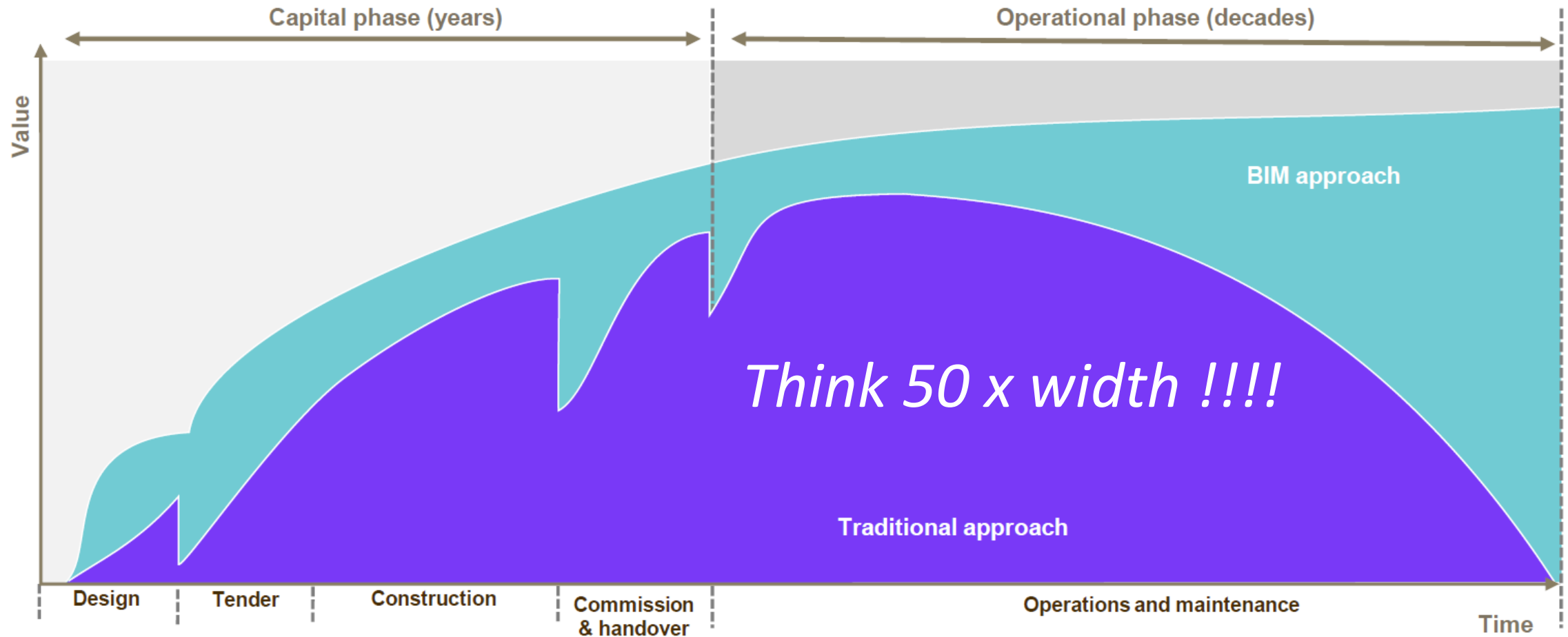
What is BIM

“Captured project data available in a consistent and accessible format”

- More than a 3D Model
- A tool for collaborative behaviour
- Accessible information library
- A repository to drive innovation



Why is it important? – we discard information



...Why is it important?



We are challenged to deliver and manage assets more efficiently



We need to Improve Safety



We need to reduce our carbon footprint



We must provide a platform for future innovation



Ongoing maintenance – ability to confirm asset in the field to put in place maintenance regimes and renewals

How to build a Model...



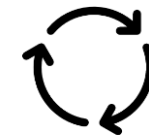
Discovery
Engagement
Information
Workflow



Standards
Protocols
Procedures
Workflow

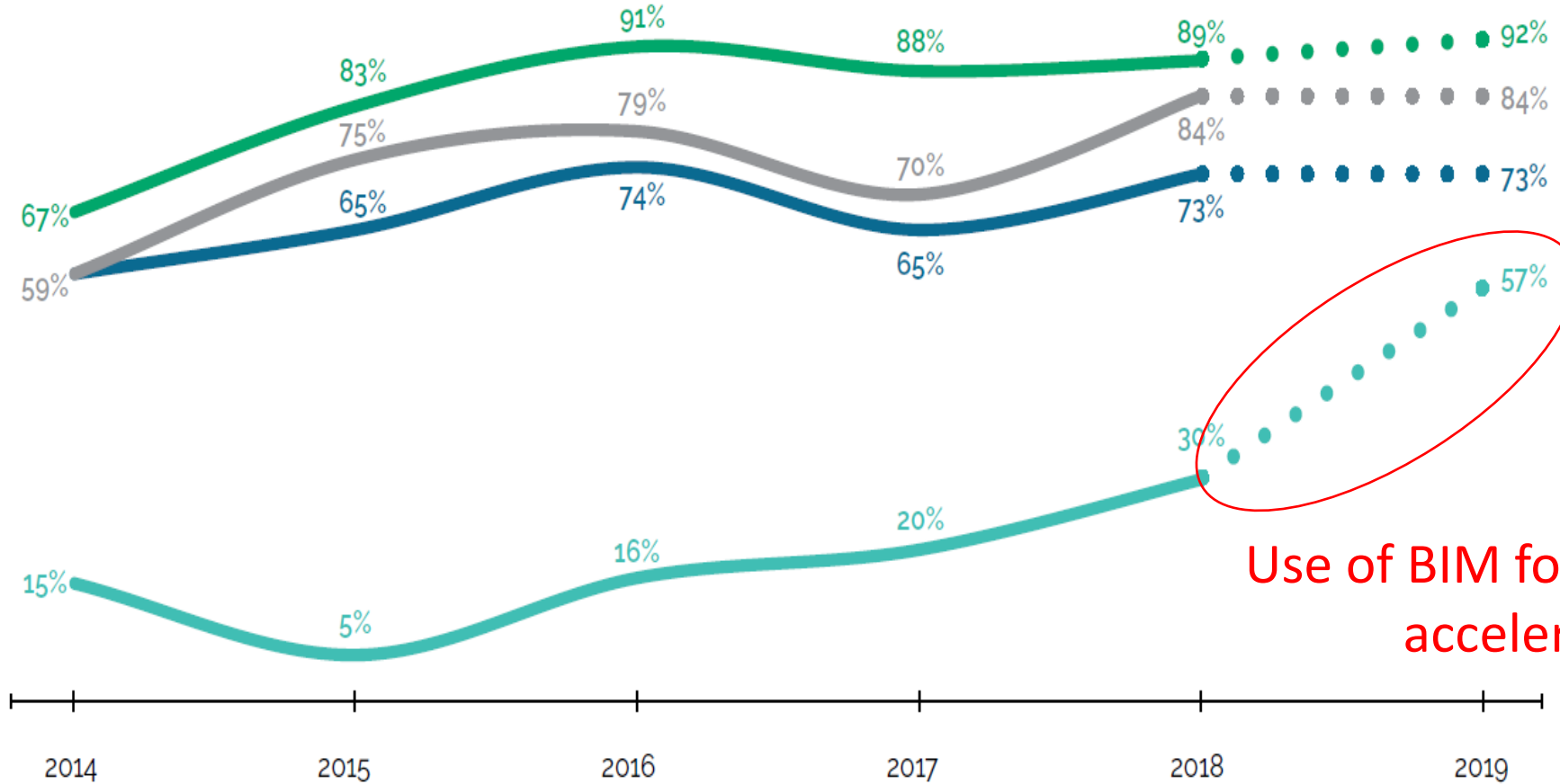


Proof of Concept
Inform roll-out
deployment



Business Adoption
Quality Assurance
Proactive Supervision

Industry BIM use across project lifecycle



Use of BIM for operations accelerating

- Planning or pre-design actual
- Design actual
- Construct actual
- Operate actual
- Planning or pre-design predicted
- Design predicted
- Construct predicted
- Operate predicted

International Insights

The world is ahead – lets learn from them....

- *nothing new here! – just to utilities*
- It's a process and structure challenge
- 'Clients' can work a LEAN approach
- Everyone has difficulty articulating the value
- Consider **security** and **commercial** issues
- Common Data Environment analytics

**NORTHUMBRIAN
WATER** *living water*

BIM4WATER

 **United
Utilities**
helping life flow smoothly

*love
every
drop.* 
anglianwater

4D Digital Rehearsal

Digital world – *‘There’s never been a better place to stuff up’*

Integrates programme and design in a collaborative space

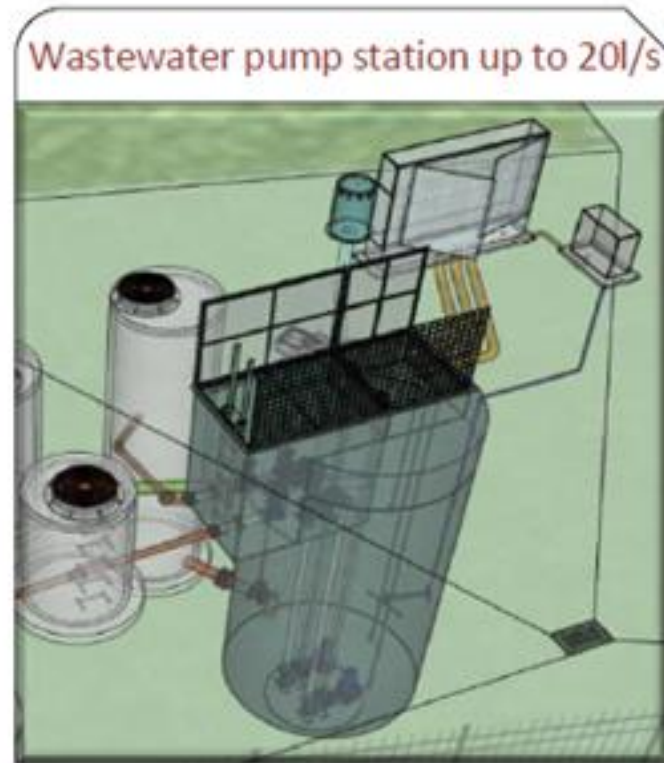
Cross discipline participants

Promotes ownership

Reduce site time and cost

Product Based Design

Productionise delivery
Product Library



3D Model

P&ID

Components & procurement guide

Carbon footprint

Functional design specification

O&M data



Dalton Piercy WTP

[@one](#)

Reduction in site time

Simpler scope split and assembly

Greater delivery certainty

Lessons so far

- **United Front** – full business support
- **Engage early**, it's naive to just 'turn it on'
- Establish '**Ownership**' and an **exit strategy**...
- **Collaboration** – it's about '**behaviour**'
- **Keep it lean** – beware of BIG DATA
- **Engage** the supply chain...
- **Join** the conversation

Better Information Management

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