ice
Institution of Civil Engineers

PROJECT 13
Embracing Digital Transformation
3 July 2018

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#JoinProject13

Recognising infrastructure as an information-based industry

Digital transformation

Organisation

Governance

Working together to secure better outcomes for owners and users

Integration

The capable owner

Project 13 is an industry-led initiative to establish a new long-term, value-driven approach to delivering and managing infrastructure. It sets out a blueprint for more productive operating models, based on enterprise working rather than transactional relationships. Tools and resources are available on the **Project 13 website.**

Digital transformation is recognised as a key enabler of this new business model. Project 13's digital report, **Ripe for Transformation, Ready for Change?** provides a snapshot of the sector's readiness to embrace digital opportunities and identifies the steps to unlocking more value from information.

MOTT MACDONALD

ICG

Pinsent Masons

Launch of Project 13 Digital Transformation report

Launch event
London 3 July

Ripe for Transformation, Ready for Change? provides a snapshot of the UK infrastructure industry's digital maturity, across energy, transport and water, and supports development of a national digital transformation strategy.

Led by Mott MacDonald, and utilising the Industry Readiness Level (IRL) model, the report assesses digital progress of major infrastructure owners across six core business areas.

Our launch event gathered digital transformation leads from across infrastructure to debate the report's findings, challenges and next steps to improving digital maturity.

Core business areas:

CUSTOMERS	LEADERSHIP	COMMERCIAL	CAPABILITY	ASSET DELIVERY	ASSET MANAGEMENT

Key recommendations for improving digital maturity:

Understand who your customers are, and what they want	Embrace digital as key to business success	Break down data silos and understand whole-life asset performance	Aim high, but get the basics right first	Make information security everyone's responsibility

Mark Enzer
Chief Technical Officer

Mott MacDonald

Jamie Radford
Information Consultant

Mott MacDonald

Which challenges are top priority, and how can we tackle them?

We polled our delegates on the top priority challenges and identified actions and next steps through collaborative discussion:

Jennifer Macdonald
Principal Information Consultant

Mott MacDonald

1. **Embrace digital transformation as key to business success**

   - Understand the questions we need to ask of data in order to support core business decisions
   - Leadership must recognise the importance of embracing digital culture
   - Move away from digital as a bolt-on solution and instead organise core business around information
   - Clients must find ways to embed digital practice throughout supply chain
   - Industry should kick on from government level drive for a national digital twin

2. Bridge the skills gap

- Create a strong, outcome-focused learning culture that encourages personal buy-in
- Data science capability is crucial to maximising the value of technology investment
- Engineering firms must look beyond traditional supply chains
- Education sector must be more agile and incorporate digital and data science
- Play to workforce strengths – recognise attributes and emotional intelligence

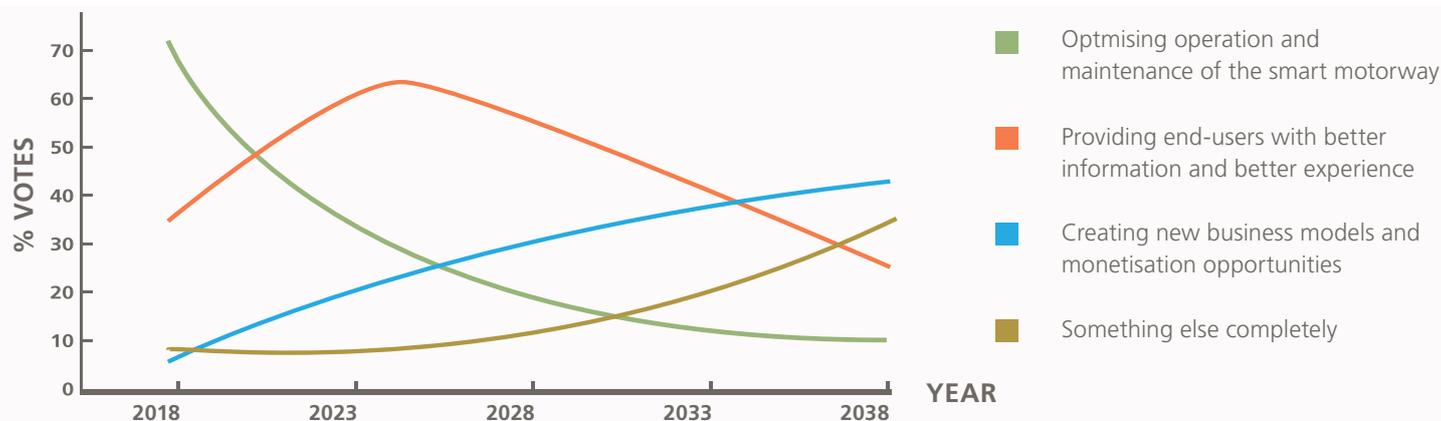## 3. Understand who your customers are, and what they want

- Map all your customers and stakeholders – consumers, clients, regulators, government
- Engage with customers – base yourself in a client office or build links with consumers
- Develop a clear value proposition that meets the need of each customer
- Identify decisions needed to deliver value and the data needed to make them

Transforming how we use and manage data on projects

To truly realise the information opportunity we must better understand what data we have (and will have in the future) and how to harness its value. Our workshop explored the data challenge within a smart motorways project and drew the following conclusions:

- We must better understand data sources and how data use and value may change over time

Chart legend:
- Optmising operation and maintenance of the smart motorway
- Providing end-users with better information and better experience
- Creating new business models and monetisation opportunities
- Something else completely

Chart: % VOTES (y-axis) vs YEAR (x-axis: 2018, 2023, 2028, 2033, 2038)

- Generally, data cannot be "owned" – it must be controlled and managed through contractual rights and obligations and though technical measures around access

- The role of the data steward/integrator will be key, e.g. to act as custodian of data, and to manage and curate data

- Clients, industry and advisors must collaborate to overcome the risks and challenges rated most critical to unlocking value from data

Quality **Trust** Regulation
Security Interoperability
Standardisation
Liability
Collaboration

Anne-Marie Friel
Partner, Infrastructure
Pinsent Masons LLP

Natalie Trainor
Partner, TMT
Pinsent Masons LLP

Daryl Cox
Senior Associate, TMT
Pinsent Masons LLP

How can we realise the opportunity to transform business models with digital?

- Clients and owners must get on the journey and enable supply chain innovation

- Clearly communicate business benefits of digital to secure board level buy-in

- Keep an eye on the 10+ year timeframe, but focus mainly on change over 2-3 years

- Put customer needs front and centre and be agile enough to adapt business approach

- Collaborate to develop ways to reward the value added to information

Miranda Sharp
Director Innovation Ordnance Survey

Future Leader Project 13

Antony Walker
Deputy CEO

techUK

Peter Austin
Head of BIM

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Next steps

The infrastructure sector is just at the beginning of its digital maturity journey. The Industry Readiness Level model provides a snapshot, and sets out the actions needed to advance progress and enable the development of Project 13 working models.

The sector's direction of travel on digital is being spearheaded by the Digital Transformation Task Group (DTTG) and the Centre for Digital Built Britain (CDBB). In response to calls to action from the National Infrastructure Commission (NIC), this partnership is developing:

A common digital transformation strategy for infrastructure

A digital framework for infrastructure data

Principles for a national digital twin for infrastructure

The Industry Readiness Level model seeks to build a developing picture of infrastructure's digital maturity. If your organisation is interested in benchmarking its progress, please contact:

informationadvisory@mottmac.com

To find out more about ICE's Project 13 programme, please contact:

policy@ice.org.uk

Further information

- Read the full report: **Ripe for transformation, ready for change?**
- Visit **p13.org.uk** for the Project 13 blueprint and supporting tools and resources
- Attend **ICE Shaping a Digital World** on 25 September 2018 for updates on the work of the DTTG and CDBB
- Follow **ICE's Digital Transformation** campaign to find more knowledge and best practice resources