

# Project 13: Digital Transformation

Andy Moulds

Digital Transformation across UK Infrastructure Enterprises

Join the conversation #AUCity #AU2018





## About the speaker

### Andy Moulds

- Smart Infrastructure – Head of Information Advisory
- Mott MacDonald
- Chartered Civil Engineer



# Project 13

## Embracing Digital Transformation

**Andy Moulds**

Head of Information Advisory

**Mott MacDonald**

[@andymoulds](https://twitter.com/andymoulds)

# Project 13

## Measuring Enterprise Digital Maturity



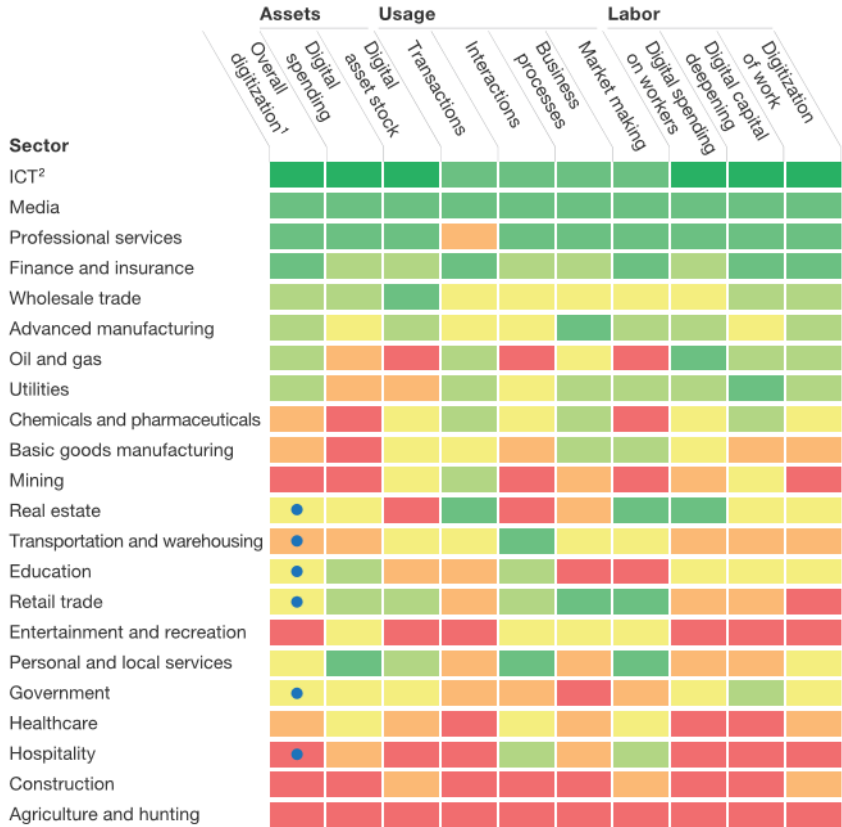
What are your top digital pain points?

Go to: [www.sli.do](http://www.sli.do)

Ref: #1217

M M  
MOTT  
MACDONALD





“The construction industry is among the least digitized”

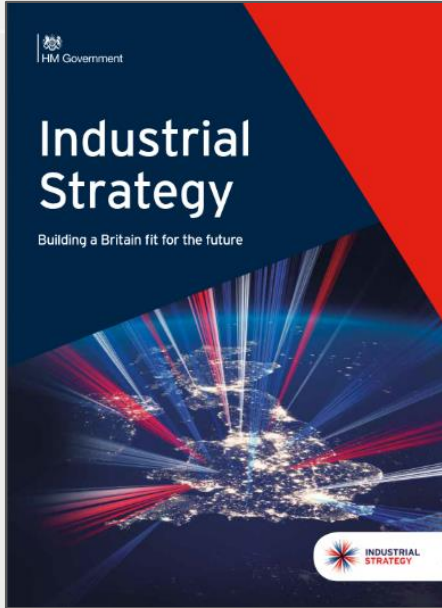
Source: McKinsey&Company



M M  
MOTT MACDONALD



# Aligning government messages



# The ICE Response

## Infrastructure Client Group (ICG)



*A better business model for infrastructure delivery*

- to identify, share and disseminate best practice in the development and delivery of infrastructure
- to provide a single voice to government and industry
- to support the effective deployment of products
- to achieve these by collaborating with other key industry groups



# Project 13 Initiative



## Project 13 Community

### Shapes

- 350 individuals
- 140 organisations

## Project 13 Executive Group

### Delivers

- 8 Industry Leaders
- 7 Future Leaders

## Infrastructure Client Group

### Sponsors

- 24 Client & industry organisations

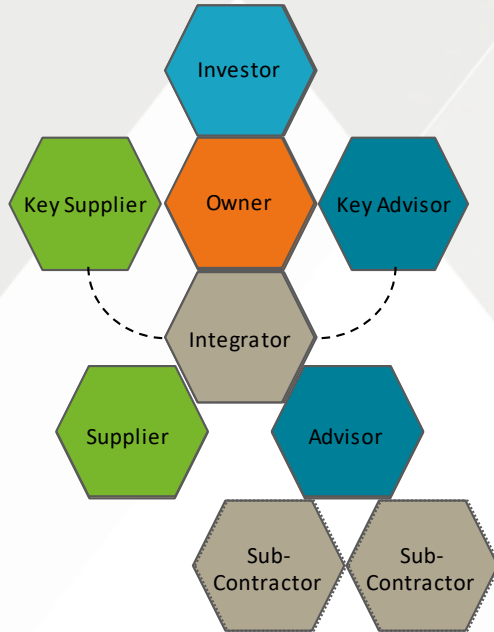




# A new business model

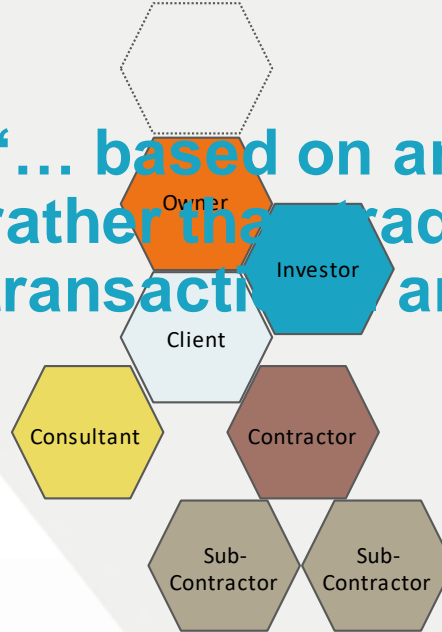


Enterprise



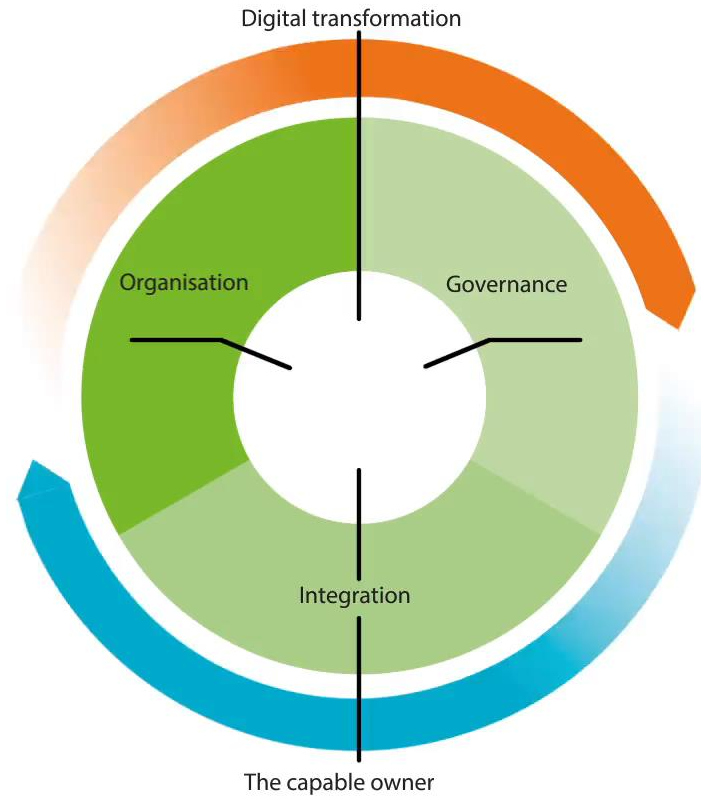
Private

“... based on an ‘enterprise’ rather than traditional transactional arrangements...”



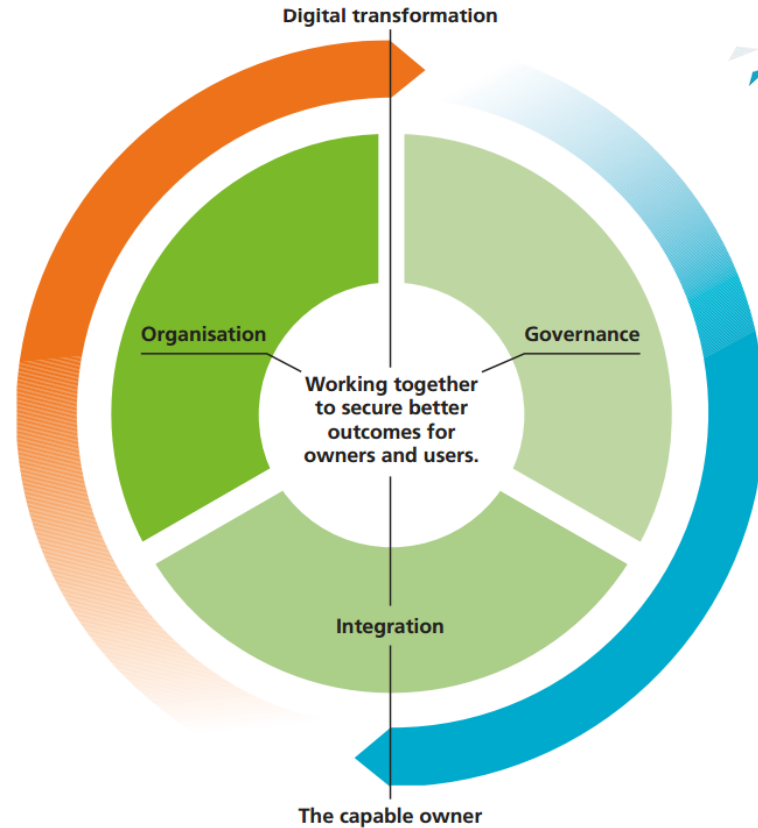
M  
MOTT  
MACDONALD





# Project 13 workstreams

Governance  
Organisation  
Integration  
The capable owner  
Digital transformation



M M  
MOTT  
MACDONALD



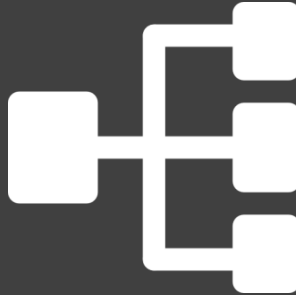
# Three stages of maturity



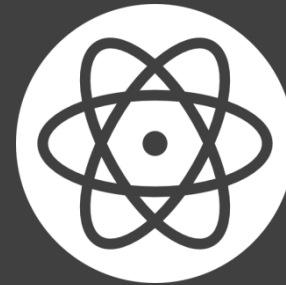
Simple  
collaboration



Integrated  
functions and  
relationships



High performing  
enterprise



M M  
MOTT  
MACDONALD



# Digital revolution

## A state of digital abundance



*Exponential reduction in cost to collect, process, transmit and store data:*

- Provides opportunities to reinvent traditional business models
- Enables asset owners to deliver better services to customers
- Facilitates the dramatic cutting of cost and carbon impacts



# Defining digital



1. Recognising that value from information can deliver better customer outcomes.
2. The combination of physical and information systems to deliver more value than the physical alone.
3. A new way of working, built around systems thinking and enabled by emerging technology. It requires openness to innovation and collaboration.



# Industry Readiness Level (IRL)

## Digital transformation maturity assessment



Customers	0 – Traditional	1 – Simple Collaboration	
Leadership	<p><b>Insight</b></p> <p>How well do you understand your customers?</p> <p>No customer information available to most Owner functions</p> <p><b>Limited to payments</b>, complaints and formal consultation with a small sample of customers.</p>	<p>Decision making accounts for <b>defined customer preferences</b>, but with <b>limited personalisation</b>.</p> <p>Data provides insight on customer value across multiple groups - including those who don't contact the Owner.</p> <p>Customer-led culture developing across Owner functions, but does not yet extend to partners.</p>	
Commercial			
Capability	<p><b>Participation</b></p> <p>How do you include customers in your decisions?</p> <p>Customers viewed as <b>passive recipients</b> of a service.</p> <p>Owners seek customer validation of their plans.</p> <p>Captive customers have limited choice, with little transparency or differentiation in Owner's offers of services.</p>	<p>Owner is transparent in their use of personal data and <b>informs customers of service availability</b>.</p> <p>Plans in place to give customers more control over their services.</p> <p>Educated customers understand how their data is used, have insight into the bigger picture and buy into benefits of Owner activities.</p>	
Asset Delivery			
Asset Management			

M M  
MOTT MACDONALD



# Industry benchmarking - IRL assessments



## Transport

- Crossrail 2
- Heathrow
- HS2
- Transport for Greater Manchester

## Energy

- National Grid
- Scottish Power
- UK Power Networks

## Water

- Anglian Water
- Environment Agency
- Northumbrian Water
- Scottish Water
- Tideway
- Welsh Water

**M**  
MOTT  
MACDONALD





# Capturing industry data

- Self assessment tool
- Establishes baseline
- Industry benchmarking
- Launch event July 2018
- Applicable beyond ICG



M M  
MOTT  
MACDONALD





## Project 13: Digital Transformation Report

### Welcome, GoDigital

#### UK infrastructure industry digital benchmarking results:

The graphic shows a snapshot of the industry's current maturity, with scores increasing from the centre outwards, and darker shading indicating a higher percentage of owners at that level of maturity.



The infrastructure industry is ripe for digital transformation, but are the key players ready for change?

Digital transformation offers vast opportunities to improve infrastructure performance, not just in the delivery of new assets, but also in their operation and integration with existing infrastructure.

**The benefits could be worth £22 billion per year by 2030.**

This report provides a snapshot of the UK infrastructure industry's digital maturity - it's readiness for digital transformation. Despite the wide differences between owner organisations, a series of common challenges emerged:

- **Understand who your customers are - and what they want:**  
Create a line of sight between the enterprise and citizens as the ultimate customers, to understand how they value infrastructure and what outcomes really matter.
- **Embrace digital transformation as key to business success:**  
With leadership from executive level, implement a coherent digital transformation strategy that underpins the overall corporate strategy.
- **Break down data silos and better understand whole-life performance:**  
Start treating information as an asset; focus on making better use of information, creating the platform to unlock more whole-life value from existing assets.
- **Keep aspirations high - but get the basics right first:**  
Focus on embedding basic good practice as business-as-usual across the whole enterprise. Get data quality right as a key foundation.
- **Make information security everyone's responsibility, not just those in corporate IT:**  
Develop a culture of personal responsibility for information security similar to that for health and safety – both internally and for partners.

# Unlocking value from digital transformation



## Customers

### Best practice

Customer experience is a key metric for business performance

### Trailing edge

Limited or no engagement with the ultimate customer



**M**  
MOTT  
MACDONALD



# Unlocking value from digital transformation



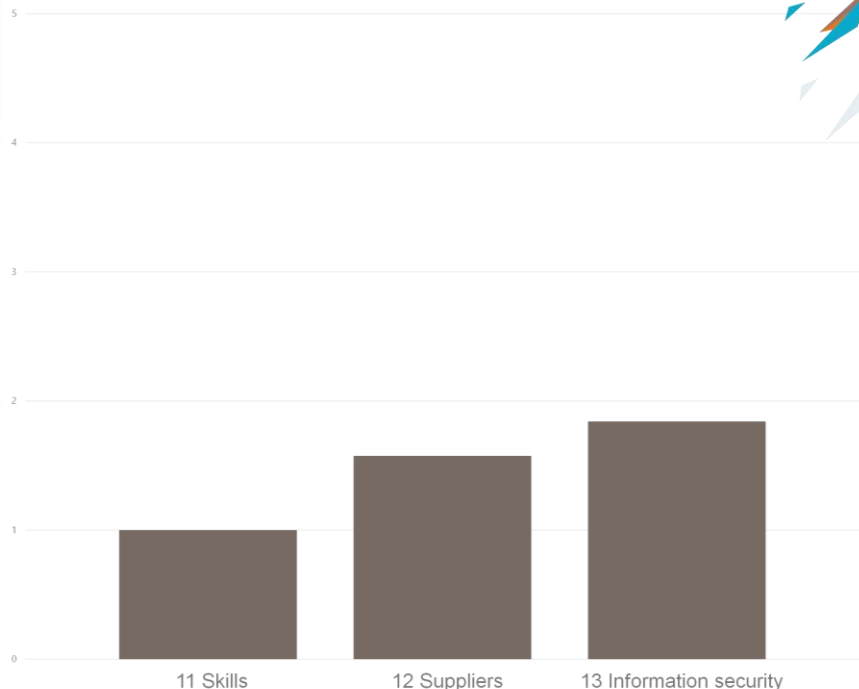
## Capability

### Best practice

Digital skills have been identified, with plans to manage them more strategically

### Trailing edge

Digital skills are only considered where they are fundamental to specialist roles



M  
MOTT  
MACDONALD



# Unlocking value from digital transformation

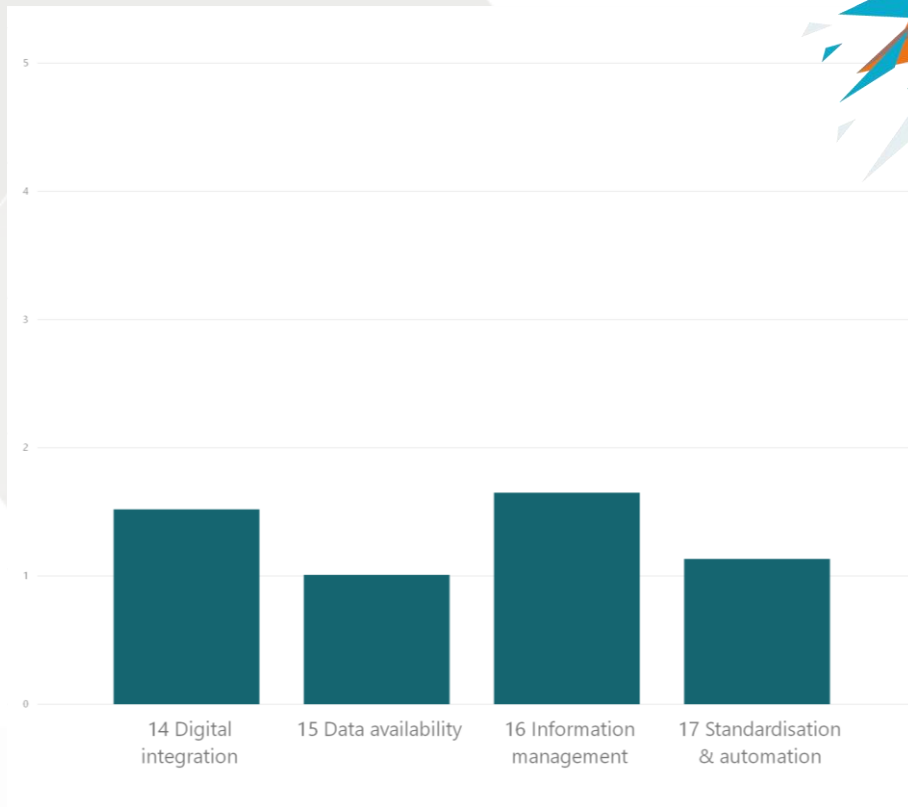
## Asset Delivery

### Best practice

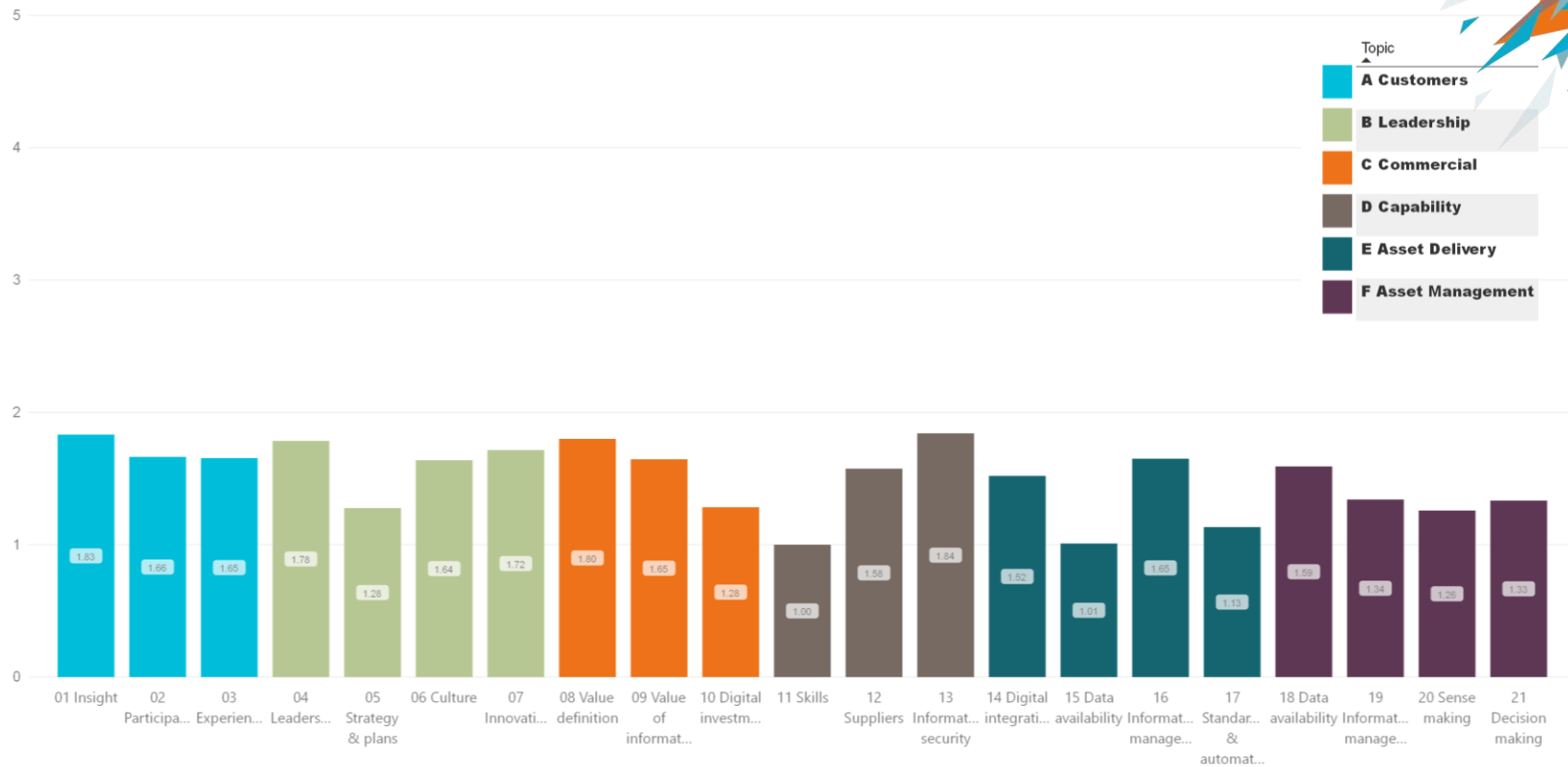
Owner has well-defined information requirements embedded in contract

### Trailing edge

Designs are produced in 2D with limited co-ordination



# Industry maturity snapshot



M  
MOTT  
MACDONALD



## Project 13

# Measuring Enterprise Digital Maturity



**Poll results: What are your top digital pain points?**

**Also ask a question for us to discuss**





# Get involved!

- Sign up and participate
- Find out more at [www.p13.org.uk](http://www.p13.org.uk)
- Live IRL results at [www.mottmac.com/project13](http://www.mottmac.com/project13)



**M**  
**MOTT**  
**MACDONALD**







# Project 13

Questions and discussion

# Contact

Please contact me to find out more.

We look forward to talking to you.

---

## Name

Andy Moulds

**E** [andrew.moulds@mottmac.com](mailto:andrew.moulds@mottmac.com)

**T** +44 207 6510395

**W** [mottmac.com](http://mottmac.com)

---

