

Project Controls Expo UK - 13th November 2019
Emirates Arsenal Stadium, London

Project Controls (as we know it) will be obsolete

David Dignam & Camilo Buitrago
Capital Projects Services, PwC



Project Controls
EXPO
London, UK

Project Controls (as we know it) will be obsolete

Presentation by **David Dignam** and **Camilo Buitrago**
November 2019



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Introduction

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Project Controls
today

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The Project
Controls world
of the future

4

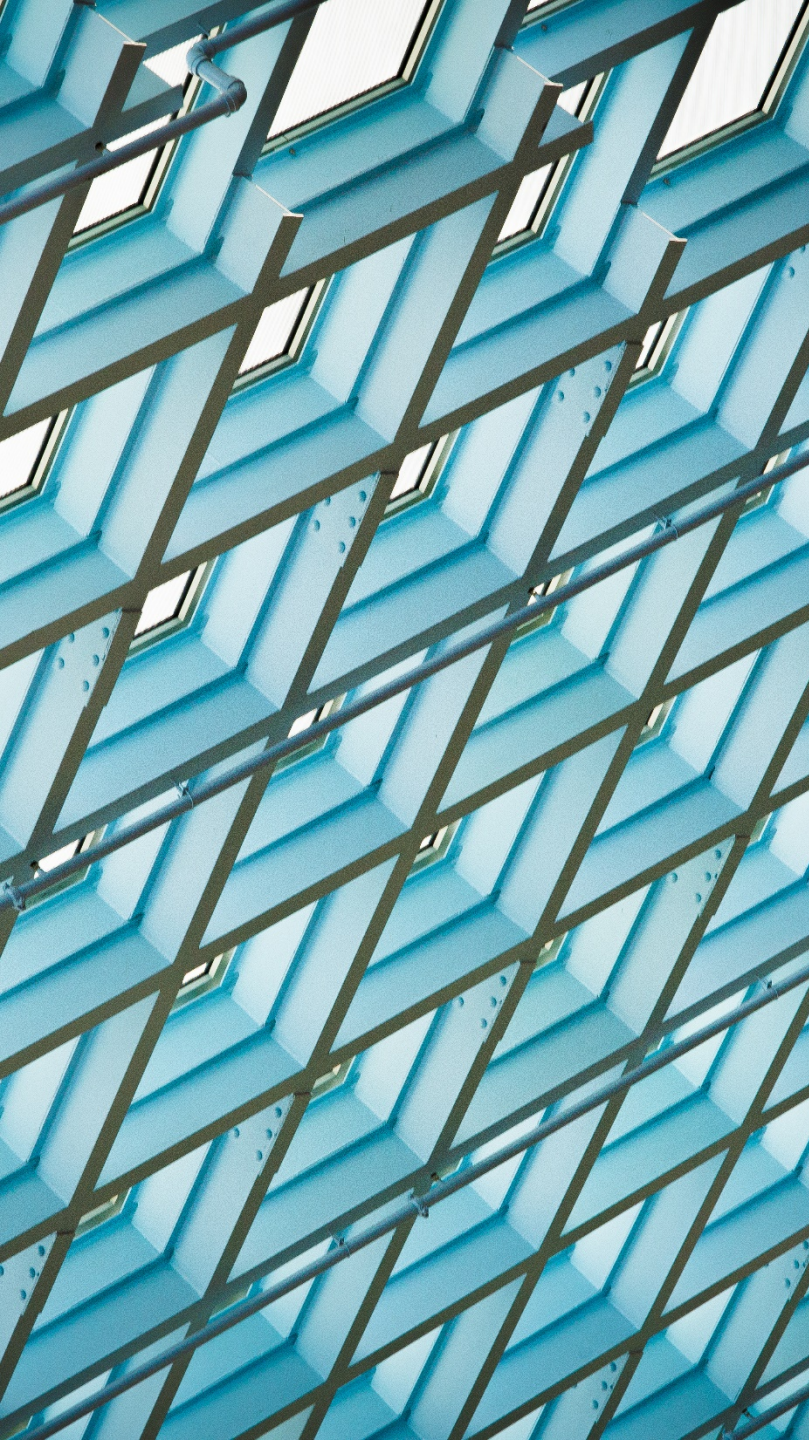
How is the
industry
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1

Introduction

Capital Projects Services

PwC

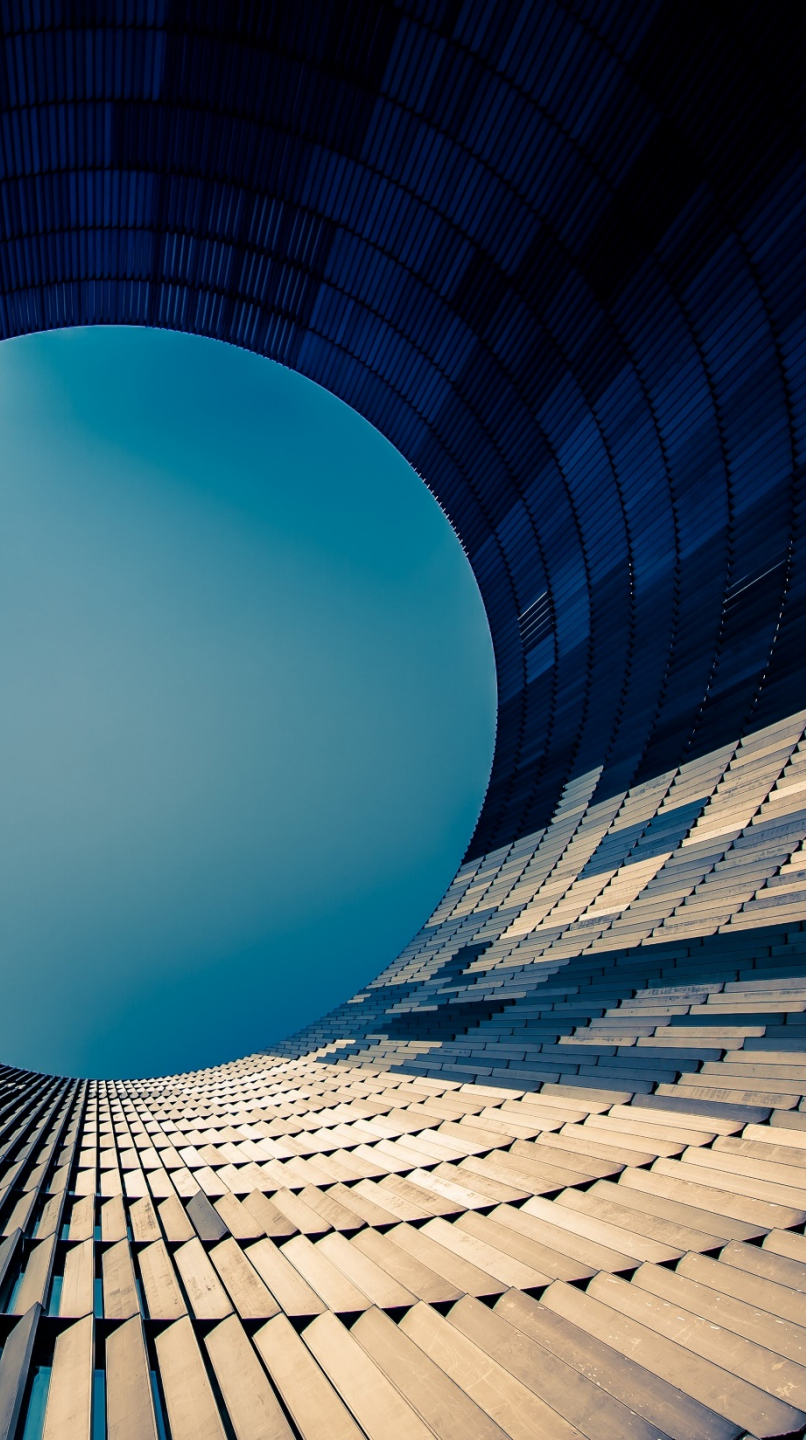
David Dignam

SME with 13 years of experience in Project Controls, with emphasis in cost and commercial advisory of Capital programmes.

Camilo Buitrago

SME with 11 years of specific experience in Controls, specialised in Project Controls transformation





2

Project Controls today

Project Controls today



Data is being used to measure past performance, and in some cases, to take strategic decisions

Most of the systems are client centric, which results in inefficiencies

Heavily dependant on technically skilled resources

More often than not, the sources of Project controls data are misaligned across systems

The industry is in a better position compared to a few years ago, but there is still room for improvement



3

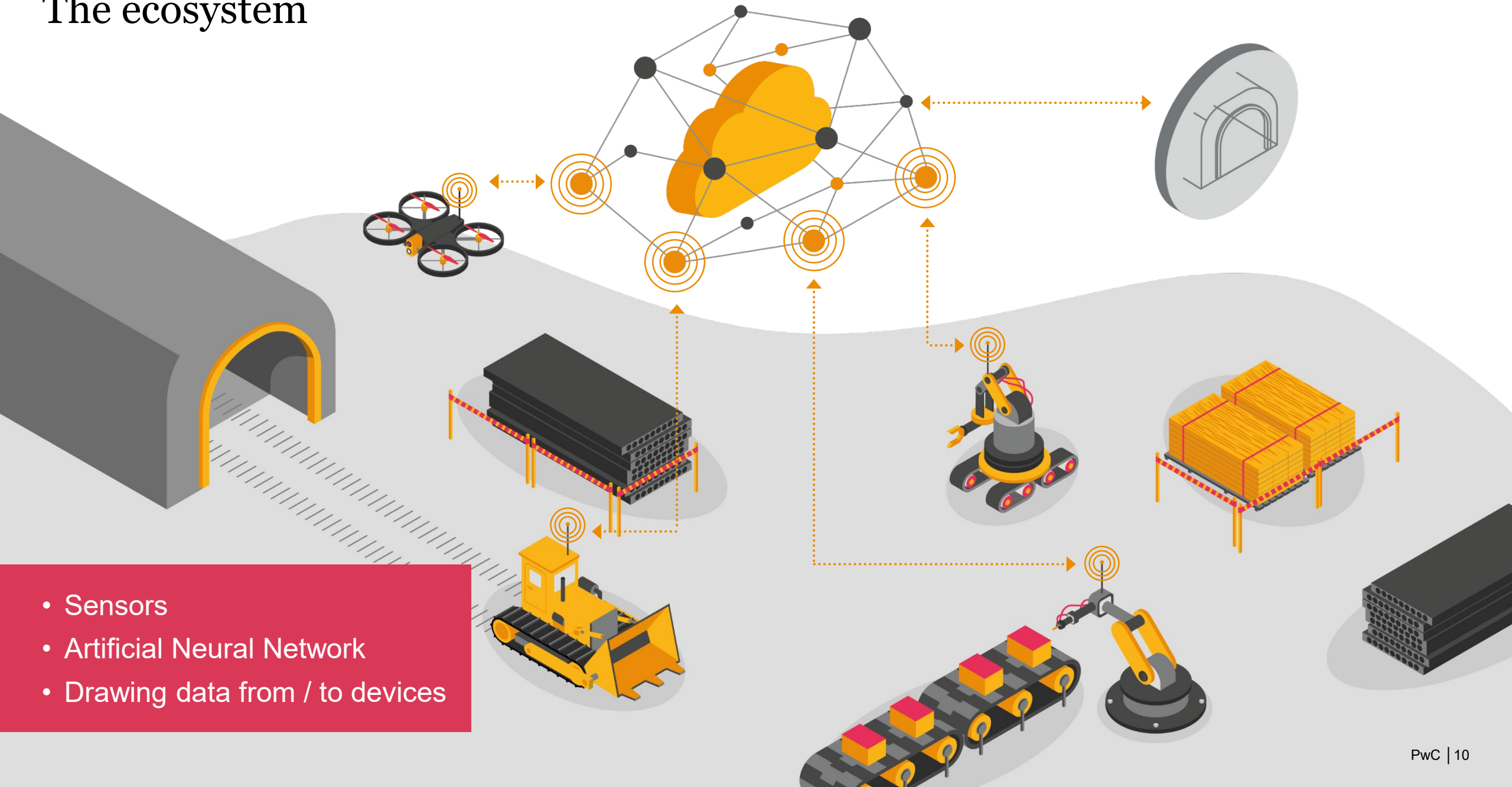
The Project Controls
world of the future



The Fourth Industrial Revolution is one of the most fundamental shifts that the world has ever seen and that society has ever dealt with. Should it scare us? I think it shouldn't.

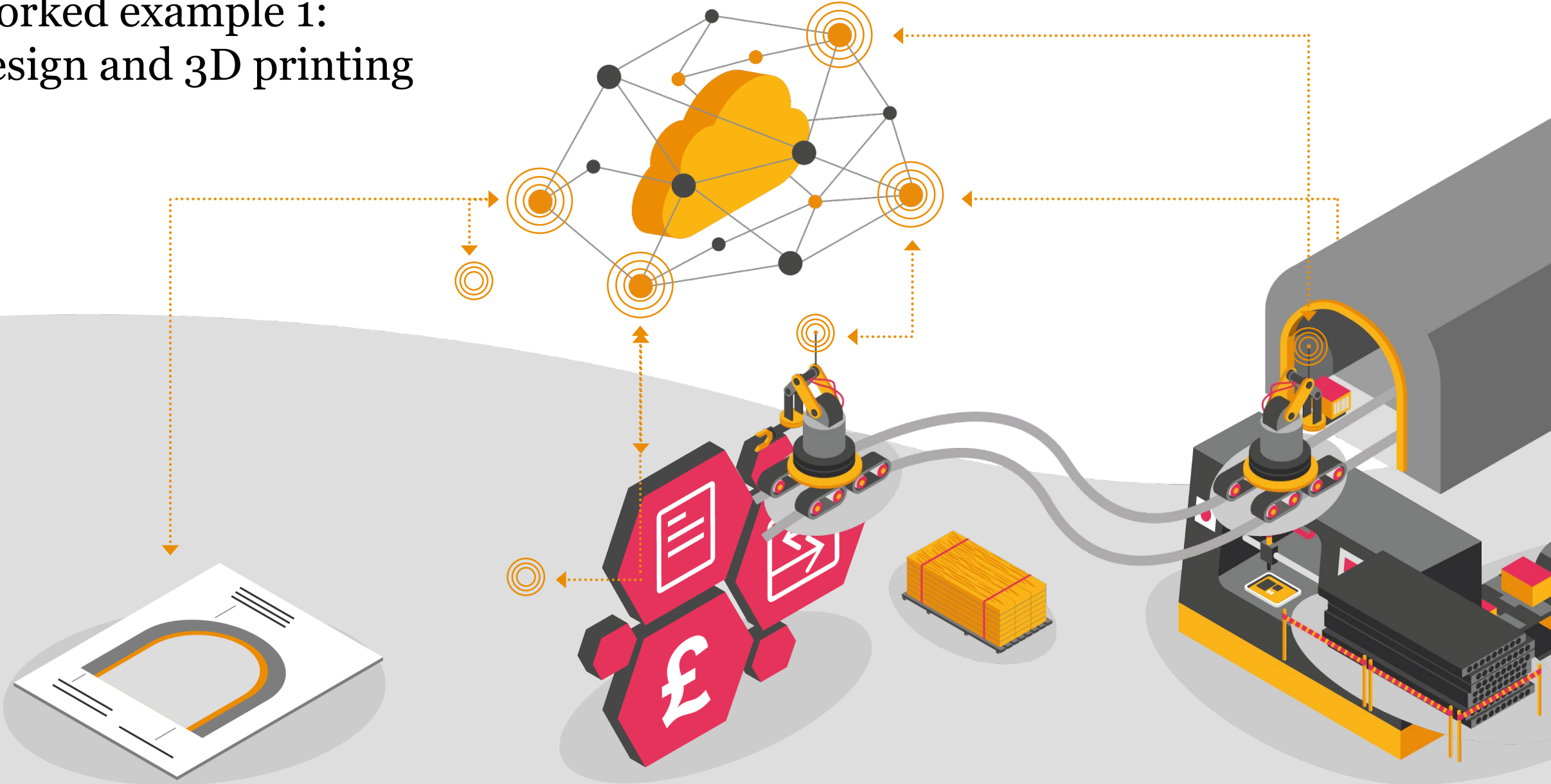
Joe Kaeser,
Siemens CEO, 2018

The ecosystem

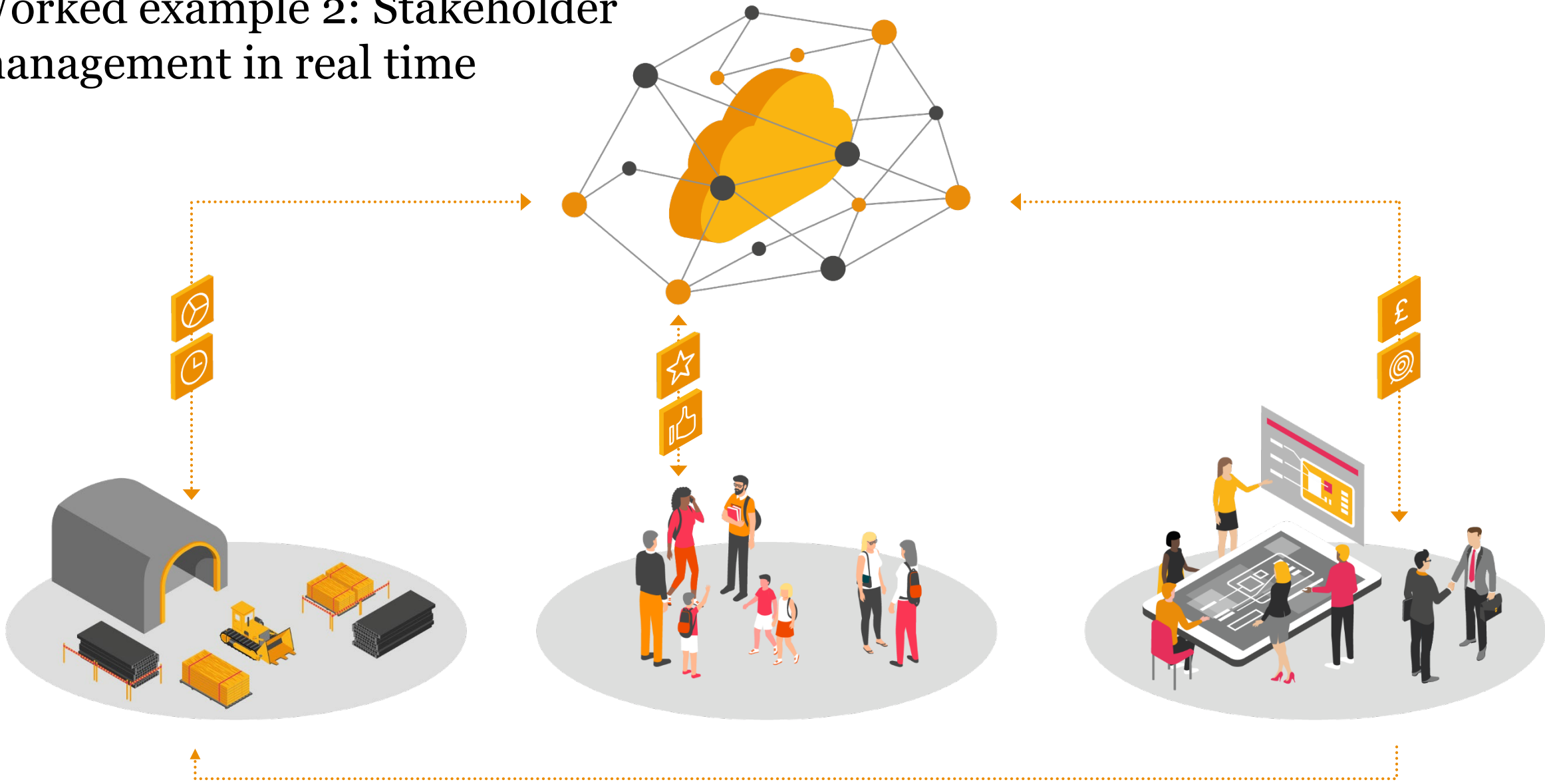


- Sensors
- Artificial Neural Network
- Drawing data from / to devices

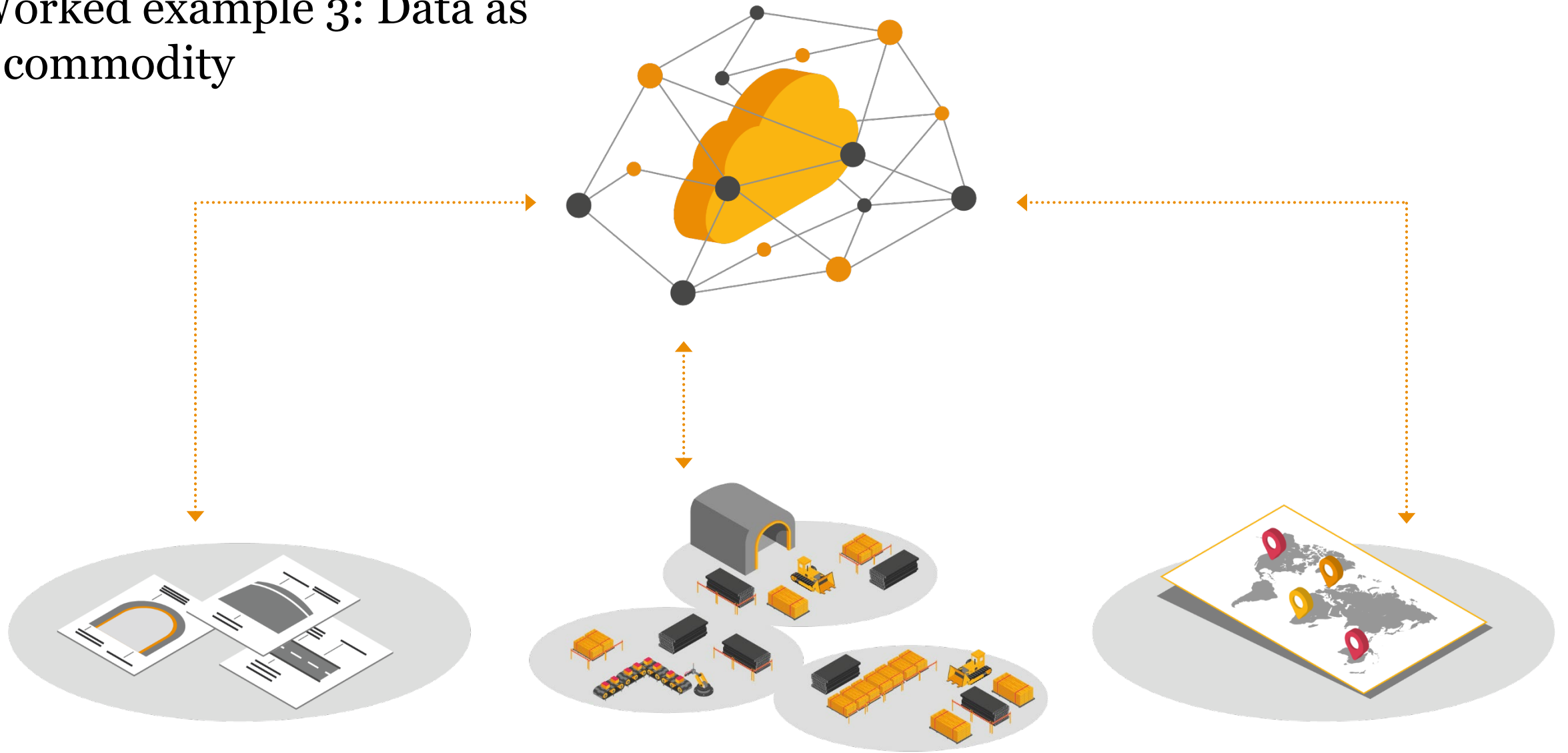
Worked example 1: Design and 3D printing



Worked example 2: Stakeholder management in real time



Worked example 3: Data as a commodity





4

How is the industry implementing this concept of the future?

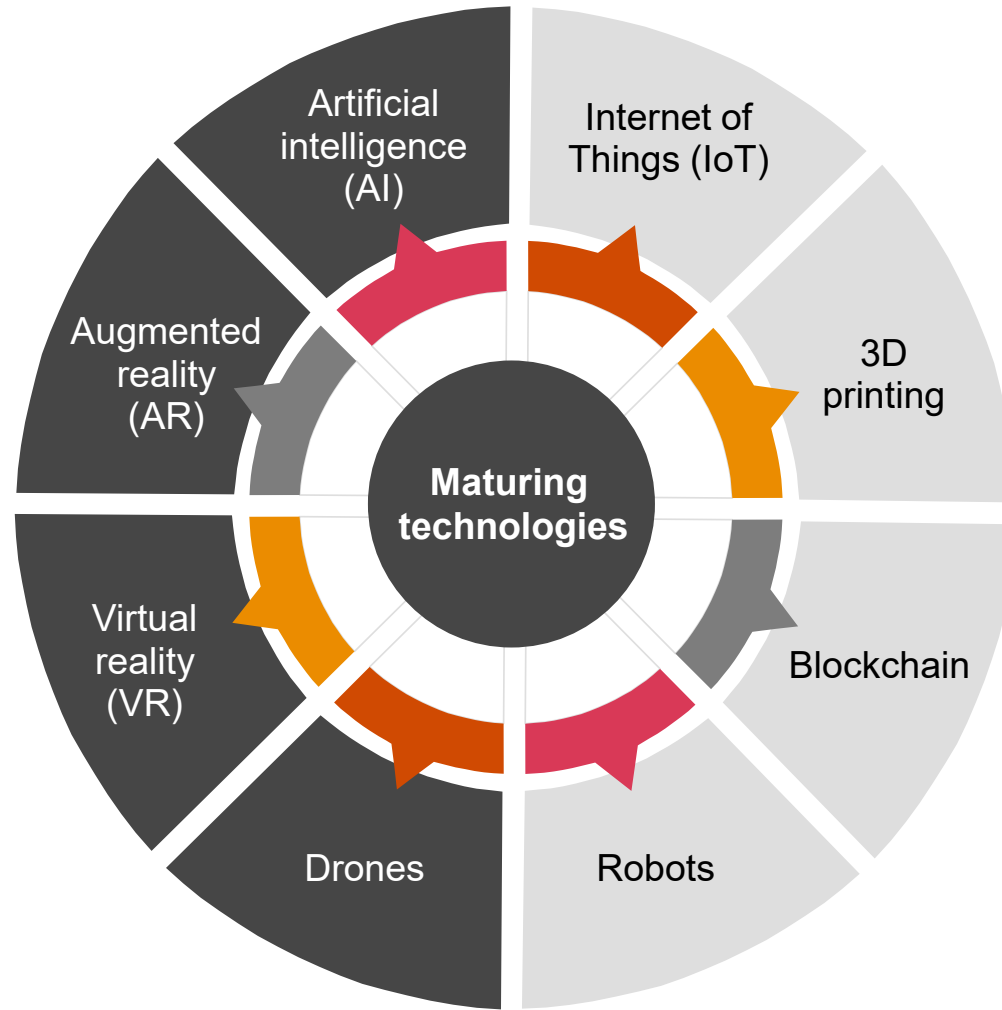


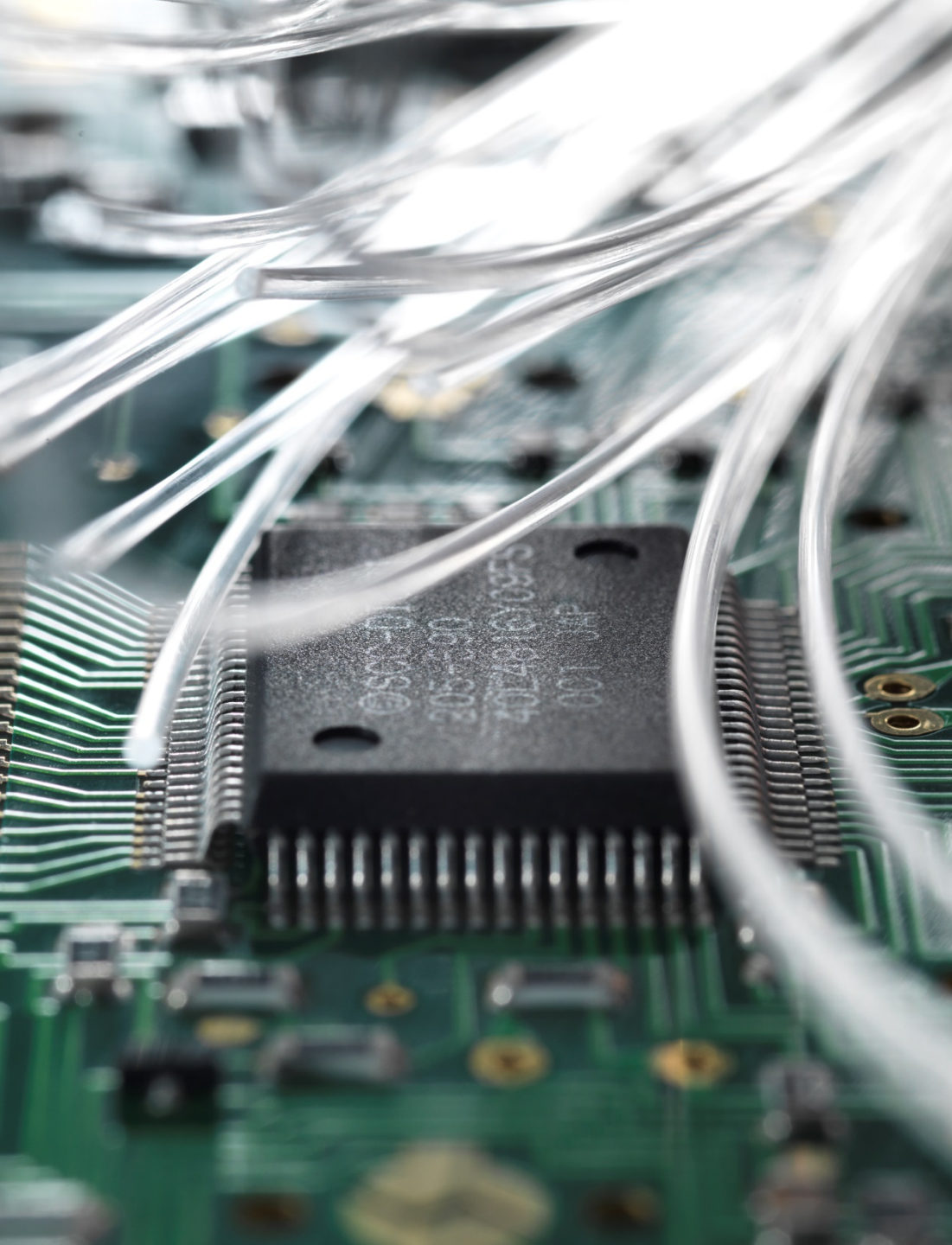
80% of today's project management tasks will be eliminated by 2030 as Artificial Intelligence takes over.

Gartner, 2019



Megatrends: Technological breakthroughs





Artificial Intelligence (AI) – Basic concepts



Basic concepts

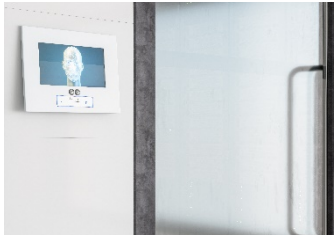
- Deep learning
- Artificial neural networks



How it can be used in the industry

- Automation of tasks
- Optimisation
- Predictive analytics

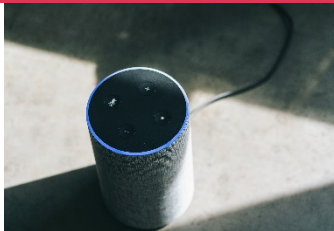
Artificial Intelligence (AI) – Worked examples



- Voice and video recognition used for automation of tasks



- Prediction of outcomes of new drugs based on previous drug trials
- Prediction of scenarios based on risk management data



Augmented Reality (AR)



Concept

- Live view of a physical world complemented by additional layers of information generated by computers.

How it can be used in the industry

- Co-design in common environment
- Safety guidance

Example

- Pilot project in Crossrail

Virtual Reality (VR)

Concept

- Fully simulated environment with interactive user experience, usually represented by a headset and controls.

How it can be used in the industry

- 5D BIM, 6D BIM.

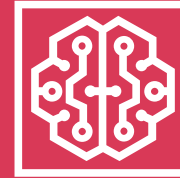
Example

- Visit our stand!





Drones



Concept

- Use of drones constantly expanding
- Used in combination of other technologies



How can be used in the industry?

- Data collection



Drones

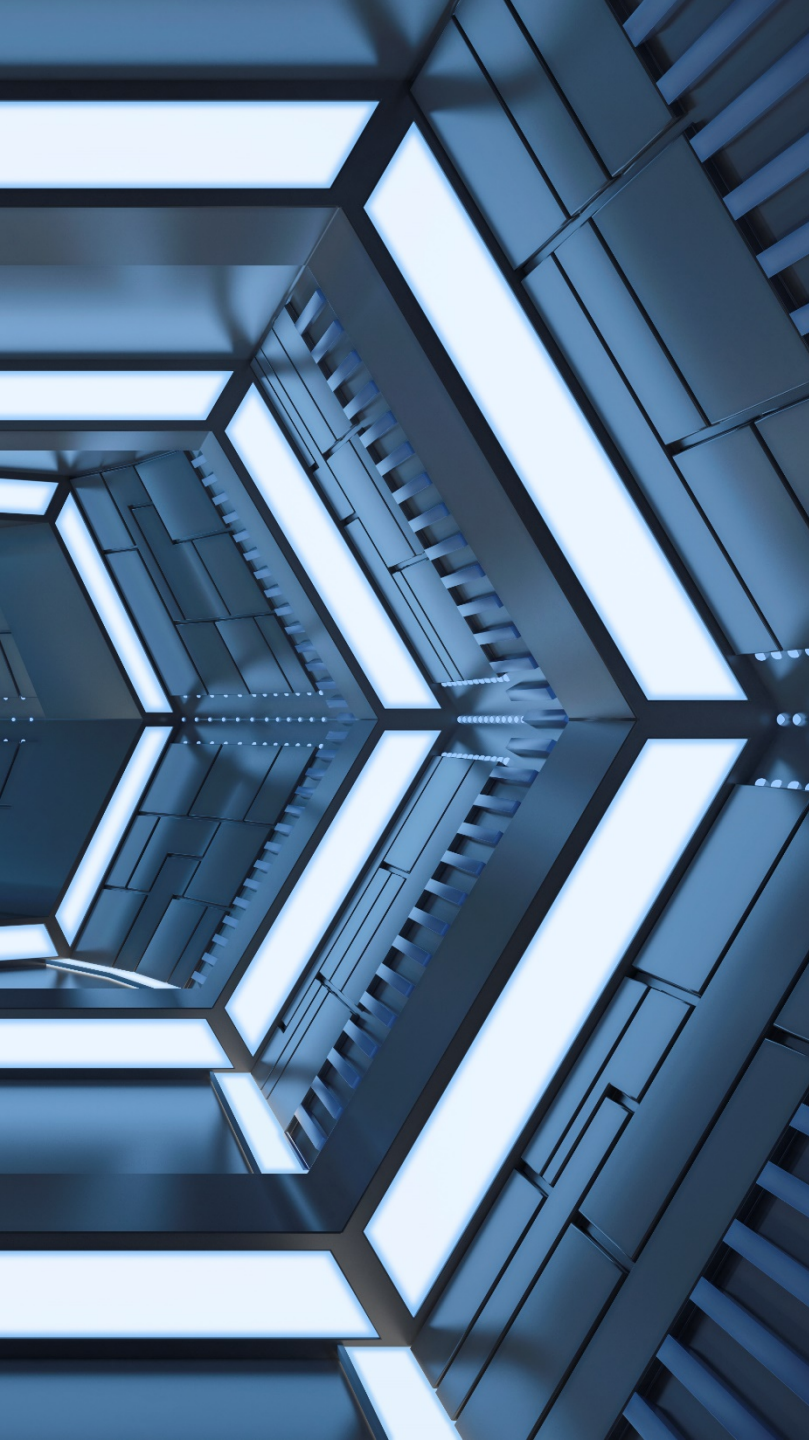
Case study: Drone modelling implementation delivers compelling cost savings for a large infrastructure client

Issue:

- Budget pressure
- Aim to increase efficiency of the payment cycle

Outcome:

- Business case outlining: details on savings, risks and key implementation considerations
- Potential cost savings c.£04bn and 2.1m kg CO2 reduction



5

Enablers to make this
future come to life

Enablers to make this future come to life



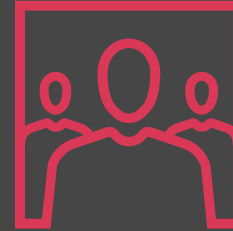
Data architecture standards



New regulation to manage, exploit and trade data as a commodity



Agility to incorporate the coming changes in organisations



Training for the professionals in the industry



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Q&A

For more information contact:

David Dignam

E: david.dignam@pwc.com

M: +44 773 006 7096

Camilo Buitrago

E: camilo.buitrago@pwc.com

M: +44 770 269 9267

Thank you

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