Motivation

Huge Potential Benefits for Industry...

- **Global**
  - 35% expect revenue gains over 20% over the next five years
  - 43% expect to lower costs more than 20% over the next five years
  - 56% expect to increase efficiency by more than 20% over the next five years

- **Increased Revenue**
- **Reduced Costs**
- **Improved Productivity**

pwc
Purpose

Form an industry-led platform to drive and direct the digitisation of UK industry, accelerating the realisation of the benefits for the national economy.

Aims:

• Create a joined-up approach and a single point of contact;
• Make recommendations to the UK government to drive tangible benefits;
• Mobilise strategic initiatives with measurable benefits and impact;
• Monitor and ensure progress and impact, creating accountability.
The Industry Leadership
The world is talking about Digital Media saturation

Revolution? Evolution? Acceleration?

• Post WW2 origins of digital in manufacturing
• Many sources of ongoing research and application
• The change? Digital storage, speed and connectivity
Two Digital conferences this time last year

• Common understanding of the opportunity – knowledge sharing
• Industry impact and the work of pioneers
• International perspective
• Building on strong foundations
• The need for Government / Industry collaboration across sectors
Progress

Formation of an action group focussed on Intelligent Manufacturing

January 2016 contribution to UK Government Digital Strategy consultation

March 2016 integration & alignment with Productivity Leadership Group

Pre and post referendum engagement with Government

Influence on Industrial Strategy & National Innovation Plan

EPSRC Network Plus: Industrial Systems in the Digital Age
Current work driven by this opportunity...
Terms of Reference being revised – reasons?

• Need to manage inclusion and engagement
• Consolidate disparate activity to deliver impact
• Firmly establish Governance & Accountability
• Establish sub-level Working Groups
ToR & Objectives summary...
Initiatives & Objectives

Primary initial objective of the group

Deliver an implementation proposal to Government ahead of March 2017 Budget
By working in the relevant areas: Working Groups

- Business models
- Implementation
- Research
- Skills, Work and Society
- Cyber-Security and Legal Aspects
- Standards and Regulation
Purpose and Motivation

Huge Potential Benefits for Industry...

Impact Through:
- Focused research projects
- Demonstrators to spark ideas and show the art of the possible
- Outreach to demystify and develop new skills

Impact in:
- Aerospace
- Automotive
- Healthcare & Pharma
- Construction / Infrastructure
- Food & Drink

Global

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- Reduced Costs: 43% expect to lower costs more than 20% over the next five years
- Improved Productivity: 56% expect to increase efficiency by more than 20% over the next five years
Network Plus will bring together core actors from the Manufacturing, Digital Economy, Design, Human Factors and Business communities to build new collaborations between leading academics and industry partners.

The network will move beyond Industry 4.0 to develop new 'state of the art' perspectives on future industrial systems, to ensure a full understanding of the realities of implementing digital technologies into future industrial systems.
HVM Catapult Digital Manufacturing Demonstrators

**Factory 2050, AMRC**
Our revolutionary, “reconfigurable factory”

**Factory in a Box, MTC**
Distributed manufacturing and new business models

**Automated Inspection Welding, AFRC**
Automated robotic welding of complex components

**Inkjet Flex®, CPI**
A fully automated digital R2R Inkjet circuit printing

**Intelligent Automated Composites Processing Cell, NCC**
Machine learning to optimise production of composites

**Automation System Workbench, WMG**
A modular full-scale multi-purpose R&D and training system

**Digital Twin, Nuclear AMRC**
Real time input into a virtual model
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