Thursday, 16 September

Digital Supply Chains
Why and how the UK food and drink industry should lead the way

CATAPULT
Digital

Housekeeping

Introduction

Digital Supply Chains:
Why and how the UK food and drink
industry should lead the way

Ben Ramsden, Partnership Manager - Food & Drink, Digital Catapult

Digital Supply Chains: What are they?

A digital supply chain is one where advanced technologies replace analogue and paper based technologies in order to generate real time analysis from data that significantly improves the flows of products and money.

This means we first digitise information and then digitalise processes to deliver optimised operations, resilient networks and new data driven business models.

Digital Supply Chains: What are the boundaries?

Today when we're discussing the supply chains, we are looking holistically at the end to end system.

This means we're looking across all tiers:

- Agriculture
- Manufacture
- Logistics
- Retail

Whereas the UK has a large and vibrant food system, most supply chains have an international connections and so must be understood in this context.

Keynote

Why does the UK need to act now to digitalise supply chains?

Ian Noble, Head of Research and Productivity - RDQ, Mondelez International

Why does the UK need to act now to digitalise supply chains?

Ian Noble
Head of Research and Productivity - RDQ, Mondelez International

Panel Discussion

At what cost, who is going to pay and how?

Chair: Chris Tyas - GS1 UK

At what cost, who is going to pay and how?

Chris Tyas
Chair - GS1 UK

Ian Wright
CEO - Food and Drink Federation

Jan Godsell
Professor of operations & supply chain strategy - University of Loughborough

cATAPULT
Digital

Panel Discussion

How can the UK food and drink industry lead the way?

Chair: Ruediger Hagedorn, Director - Consumer Goods Forum

CATAPULT
Digital

How can the UK food and drink industry lead the way?

Ruediger Hagedorn
Director - Consumer Goods Forum

Tom Hollands
Innovation & Technical Director -
Raynors Foods

Wendy Herrick
Vice President Digital Supply Chain -
Unilever

Tom Rose
Global Operations Director - Spar
International

Moving forward

Aligning the work of Digital Catapult to sector needs

Chair: Ruediger Hagedorn, Director - Consumer Goods Forum

Digital Supply Chains: Overcoming the market failure

PROBLEM

Because information doesn't flow across the system, products and money are wasted, leaving society and the environment to pick up the tab.

GOAL

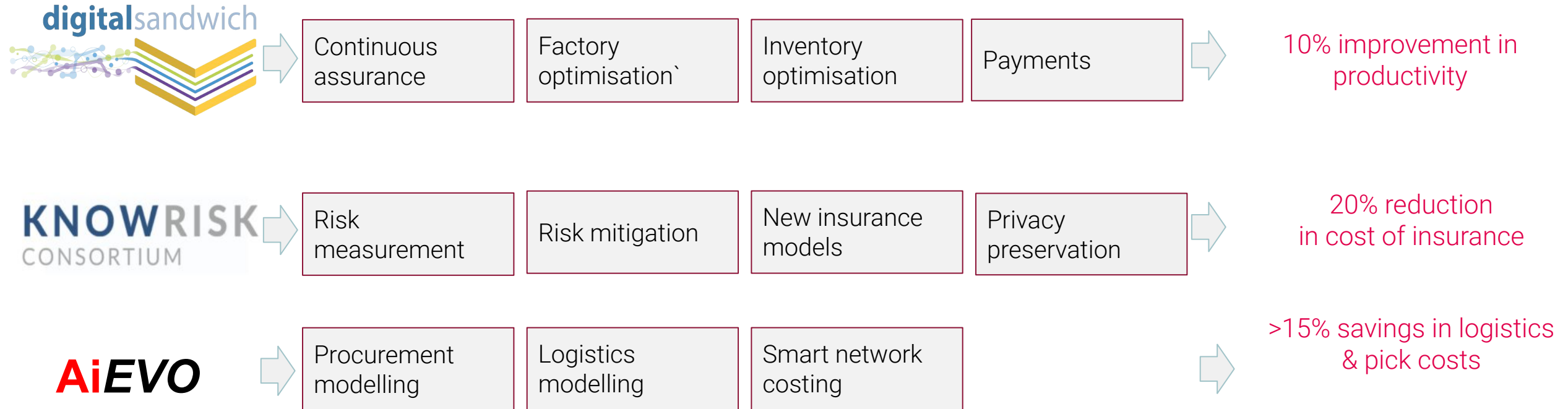Open, interoperable, and digitalised food system that's capable of responding to shock

METHOD

Develop globally competitive & interoperable assets and capabilities that mobilise a diverse array of technology providers to meet the needs of industry - both large and small.

Examples of complementary programmes

System engagement →	**feed UK** / **fdf** Innovation Gateway / **Digital Supply Chain Innovation Hub**
Accelerators →	**MADE SMARTER** TECHNOLOGY ACCELERATOR / **TENFOLD** NetZero food system accelerator
Collaborative R&D →	**KNOWRISK** CONSORTIUM / **digitalsandwich** / **AiEVO**
Bespoke solutions →	**afbi** / **AHDB** AGRICULTURE & HORTICULTURE DEVELOPMENT BOARD / **Brambles**

Capabilities we're building today

digitalsandwich

Continuous assurance	Factory optimisation`	Inventory optimisation	Payments

10% improvement in productivity

KNOWRISK
CONSORTIUM

Risk measurement	Risk mitigation	New insurance models	Privacy preservation

20% reduction in cost of insurance

AiEVO

Procurement modelling	Logistics modelling	Smart network costing

>15% savings in logistics & pick costs

Digital Supply Chain Innovation Hub

A £20M virtual hub, data observatory and network of industrial "living labs" to optimise the physical, informational & financial flows across all tiers of manufacturing supply chains

We will develop a globally competitive, resilient and sustainable industrial digitally enabled ecosystem solving the challenges of today's manufacturing supply chains

Over 1000 people developing digital skills

100 digital technology solutions developed

Increased visibility leading to 20% greater resilience within supply chains.

10% reduction in waste

Next steps

- [Recording available on youtube](#)

- Questionnaire based on content today

- Roundtables

- Action plan

The time is now to engage in the benefits of digitising supply chains.

We look forward to some of you joining us on this journey.

Q&A

Questions that we did not have the chance to answer during the webinar

CATAPULT
Digital

Q&A

1. Role of academics in enabling Digitalisation?

Academia is fundamental in the creation of new innovations across the sector and is a world class asset for the UK. Potential areas for improvement include greater collaboration across institutions and networks, and as such we are establishing an academic network for the Digital Supply Chain Innovation Hub. The Hub will have a portal for industry intelligence that will be able to both enhance the distribution of academic research and foster collaboration across complementary research programmes.

2. How do we better overcome the data silos across the supply chain to deliver impact to consumers?

Data is seen by companies across all tiers of the system as an extremely valuable asset. As such, many are not comfortable to share data unless the appropriate enablers to data flow are in place. These include:

- 1. Effective Governance of the data (to ensure trust);
- 2. Clear incentives to share data and controls around its use.
- 3. Interoperability of data.
- 4. Supportive regulation
- 5. Appropriate investment in skills

This therefore requires an ecosystem approach which will ensure that a common approach can be found to these enablers.

Q&A

3.   How do we ensure data quality in the development of digital twins to ensure the accuracy of the simulations?

Data quality is fundamental to any system and needs to be considered across these 6 areas:
- Completeness - the state or condition of having all the necessary or appropriate parts
- Uniqueness - the quality of being the only one of its kind
- Timeliness - the fact or quality of being done or occurring at a favourable or useful time.
- Validity - logically or factually sound
- Accuracy - the quality or state of being correct or precise.
- Consistency - harmony of parts or features to one another or a whole

4.   When data is monetised, how can we be sure that the appropriate value goes to the providers of that data ?

This will very much depend on the governance and technical capabilities of the platform but we believe that the equitable distribution of value generated from data is fundamental to the adoption of digital technologies and the sustainable business models that will emerge from them.

5. How do we enable businesses of all sizes to participate in a way that enables them to improve their margins?

Improving margins is a central plank of sustainable digital supply chains. Through our work to date, we see that incremental gains of <5% can be achieved on a node level with potentially transformational savings of 20-30% on a supply chain network level. These savings can only be achieved if SMEs are positioned at the centre of the innovation as they represent the majority of the supply chain network, therefore all effective programmes need to meet the needs of all sizes of organisations.

6. What is the critical scale for digitalisation in the food and drink system to be able to deliver impact?

Rather than risk boiling the ocean, we find it best to adopt a "massive small" approach to delivering impact. We must first prove out impact across one factory, then across several in a supply chain and design the work in a way that it can scale exponentially. Therefore, critical scale for digitalisation is 2 nodes in a supply chain, and then iit can be scaled from there once value is proven.

7. How do we best build on existing initiatives?

There are a great many initiatives across the sector and unless they come together, the digitalisation of the Food System will not be possible. We suggest that one of the roundtable sessions be to focus on how the convergence of these systems can be better enabled.

Q&A

8. How to connect consumers to the supply chain?

Consumers are important, but first they must have something to connect to, therefore we need to first meet the needs of the supply chain for digitalisation and then bring in consumers.

9. What happened to FeedUK?

FeedUK was an initiative of the Food and Drink Sector council that proposed a national innovation programme to create a family of digital twins for the food system led and owned by industry. However due to the delay in the Comprehensive Spending Review and changes in Industry, the programme was put on hold. There is potential to relaunch this working Industry lead it.

Thank you, & 'til soon!

digicatapult.org.uk