

Energy Digitalisation Taskforce Launch

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 @EnergySysCat

 **Linked in**



Welcome



Department for
Business, Energy
& Industrial Strategy

ofgem

Making a positive difference
for energy consumers



**Innovate
UK**

Why Digitalisation?





Stable & Efficient System Operation

- Link Demand and Supply
- Manage complex interactions across generation, transmission, distribution, storage and demand
- Unlock deep flexibility to increase system wide efficiency
- Integrate markets and technology to deliver optimal outcomes

Decentralized Assets and Actions

- Simple, streamlined and consumer centric
- Seamless service delivery, tailored around customer preferences
- Enable value to flow to customers and make decentralization a reality
- Link consumer action and assets to market signals and rewards

Digitalisation of the Energy System is Essential

Challenge:
System Stability



From 400 actors to 100 million
actions and assets

- **Net Zero is not optional**
- The energy system is experiencing **rapid change**
- The number of **energy assets is soaring** in generation, storage and demand
- Energy assets have more **dynamic performance**
- Existing **digital silos** are increasingly interdependent
- Increasingly complex interactions creates the risk of **negative emergent behaviours**
- New roles are emerging, sometimes **without clear responsibilities and accountability**

System Stability

Consumer Experience
and Rewards

Digital Silos

Energy Assets

Emergent
Behaviours

Changing
Demand

Regulation

Digitalisation creates Opportunities and Risks



Opportunity: Transformation and Optimisation

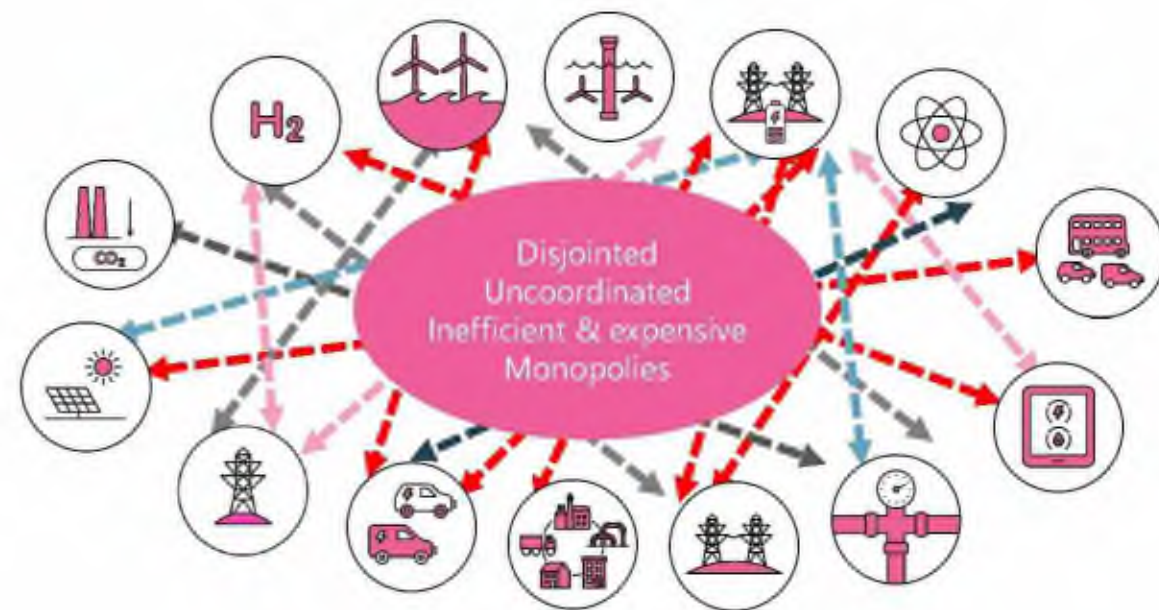
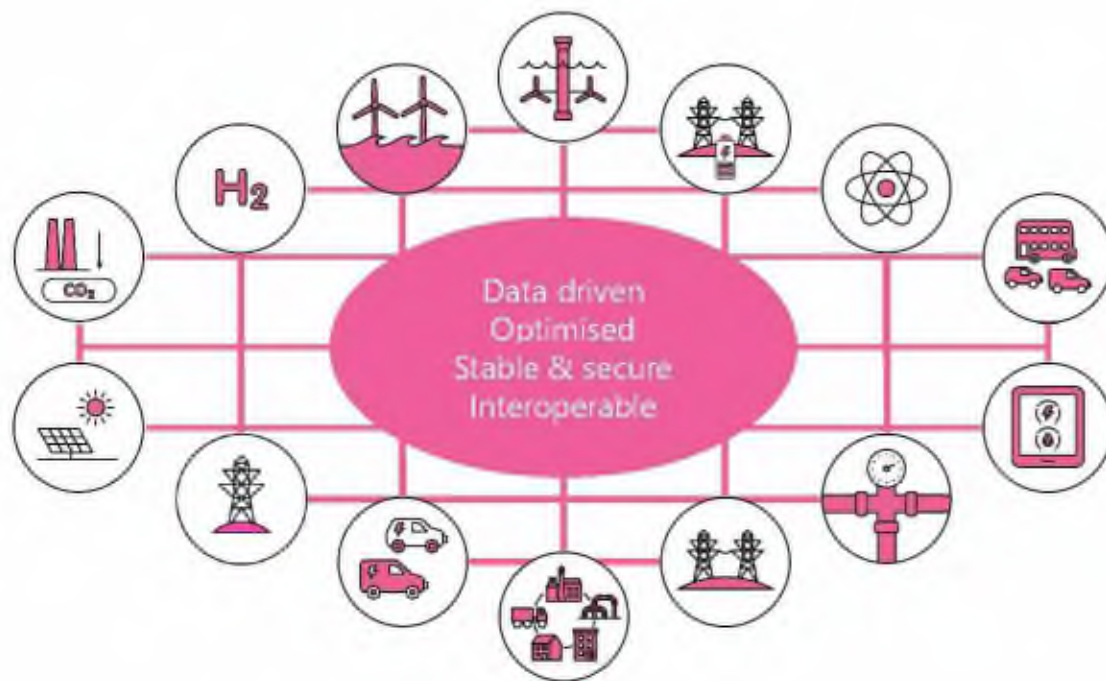
- Digitalisation can transform the industry through **new markets and business models**
- **Optimisation** not Consumption
- **Customer centric products** and services that **mitigate complexity**
- Enable consumers to be **rewarded**
- Unlock the value of **storage & flexibility**
- **Stability and security** through visibility & interactions
- Enabling more **effective investment** in net zero



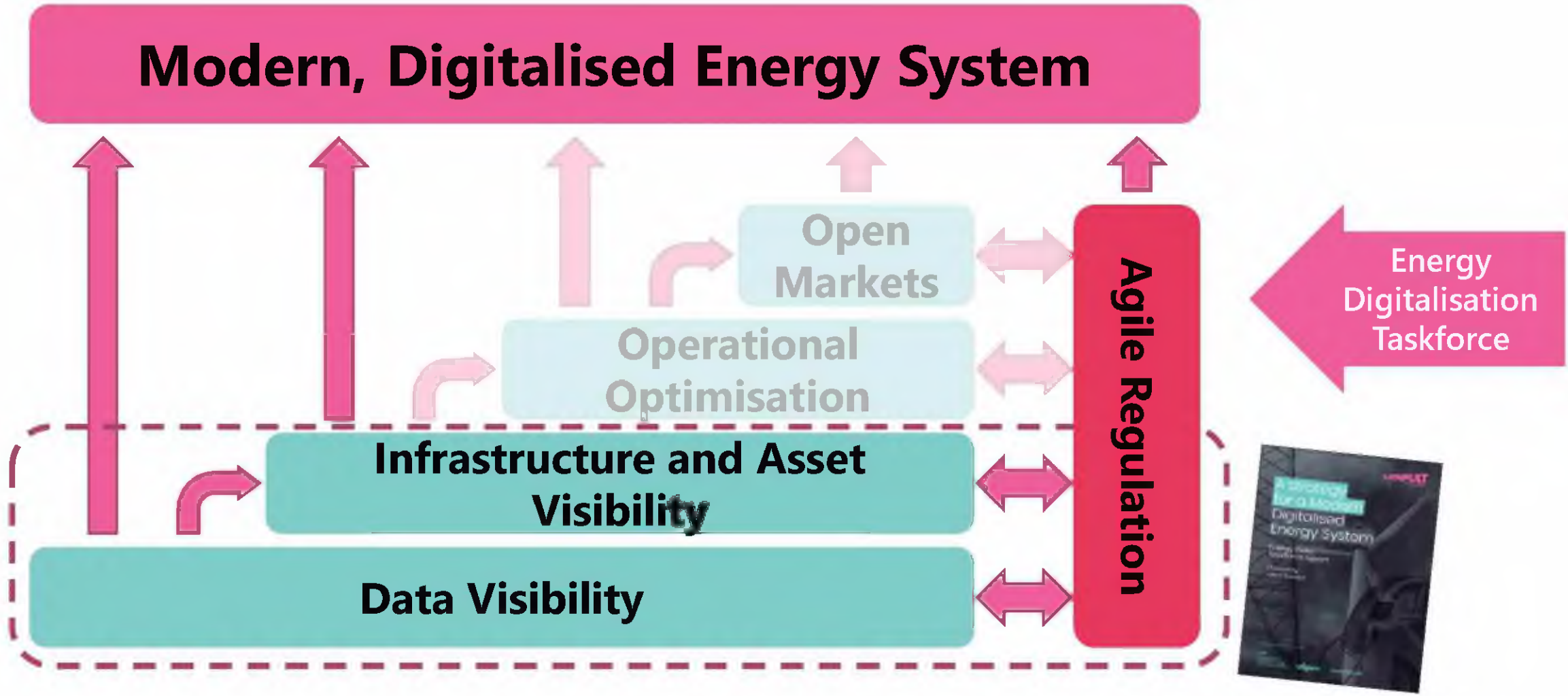
Risk: Vulnerability and System Dominance

- **Consumer detriment** from service failure, mis-selling or data misuse
- Some **consumers could be left behind** and face higher or more uncertain costs
- **Digital monopolies** skew markets and business models
- New digital roles and functions may be essential to system operation but fall **outside of existing governance**
- Unforeseen cumulative actions **risking system stability and security**
- **Algorithm discrimination**

Which vision of the future do we create?



Effort since the EDTF has focused on Data and Infrastructure Visibility



Energy Digitalisation Taskforce

Energy Digitalisation Taskforce - Outcomes

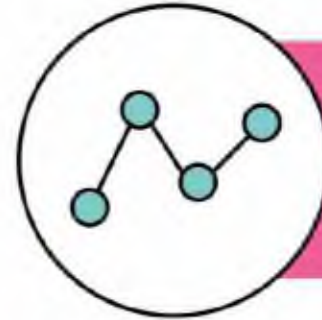


Shared digital architecture vision across sector

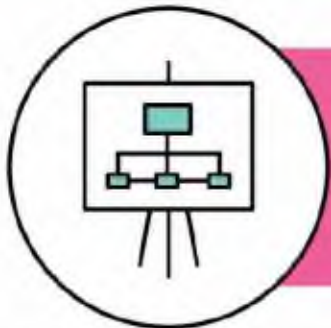
Innovation is used to address specific digitalisation gaps



Governance promotes innovation and protects consumers



Digitalisation underpins system stability and security



Net Zero business models are unlocked

The realisation of behind the meter asset value



Energy Digitalisation Taskforce - Approach

Energy Data Taskforce Review

- Build on excellent work in the sector
- Systematic review of digital and data progress since EDTF
- Critical analysis of the success of the recommendations since launch
- Updates and additions to recommendations



Publishing
Soon

Energy System Destination

- Future Digitalised System Vision
- Greenfield Design
- Digitalised Market and Industry Structure
- Potential of transformational digitalisation across other sectors and countries
- Sector Digital Architecture
- Innovation Needs



Digital Governance

- Mapping Governance Needs
- Review of Governance Best Practice
- Governance Frameworks, Functions and Responsibilities
- Governance Roadmap



Building on the Energy Data Taskforce

Energy Data Taskforce... the progress so far

Data Visibility

- **Presumed Open**
 - ✓ Great progress and strong support for Data Best Practice
 - Support for legal challenges and commercial triage is needed
- **Visibility of Data**
 - ✓ Agreement this is the best approach to make data discoverable
 - Slow progress but EDVP project timelines are very positive. Presumed Open governance needs to be a priority



Infrastructure and Asset Visibility

- **Asset Registration**
 - ✓ There is strong support for BEIS intervention
 - Need to accelerate progress and there is potential to 'leapfrog' the previous recommendation
- **Digital System Map**
 - ✓ Strong support for the recommendation
 - Need for greater visibility and speed of work



Digitalisation

- **Digitalisation of the Energy System**
 - ✓ Industry support is strong and Network Digitalisation Strategies and Action Plans are a positive step forward
 - More leadership is needed to focus on the right outcomes
 - More coordination is essential to ensure a coherent system
 - Governance is critical to manage risks of new functions and roles



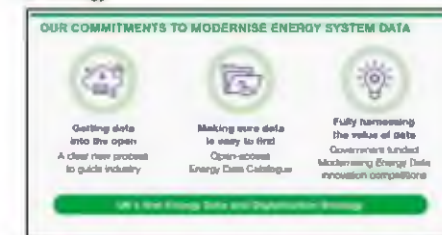
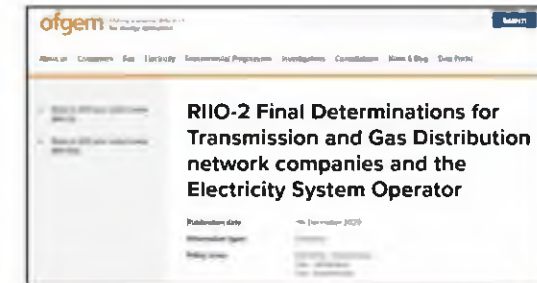
Spotlight on Data Visibility



Published Data



Tools



Policy, Regulation and Codes

Spotlight on Data Visibility



LCCC released an open data portal

National Grid created open data portal

Energy Systems Catapult published living lab data

Exelon published BSC open data

NPG published open FES data

WPD created the Connected Data Hub and real time data portal

UKPN published Open Data Portal and DSO dashboard

DNOs publish the Embedded Capacity Registers

Published Data

BEIS commissioned the Energy Data Visibility Project

ENA developed an Open Data Triage sub-group

ENA procured a digital system map solution

Innovate UK funded 9 MED Apps projects

Innovate UK funded 3 MED Access projects

Icebreaker One developed open energy data search

Electralink developed the Flexr MVP

Energy Systems Catapult developed Open Data Triage tools

Tools

Energy White Paper committed to open energy data

National Data Strategy promoted Open Data and EDTF approach

DCUSA DCP350 mandated ECR publishing

UNC enabled easier data access for researchers

WPD Presumed Open Data (Open Release Playbook)

BSC embedded Presumed Open into code

Ofgem embedded Data Best Practice into RIIO 2 Licence conditions

ESC, IUK, Ofgem and BEIS created Data Best Practice Guidance

Policy, Regulation and Codes

We need your input!

We need your input!

Industry Stakeholders

- Working and co-creating with industry stakeholders
- Regular outreach, engagement and workshops
- Drawing on the experience of industry stakeholders
- Crowding in expertise from **other sectors and countries**

Strategic Advisory Group

- A hand selected group of experts who can guide the taskforce
- Drawing on leading experts from adjacent industries
- **Announcement coming soon**

Initial Key Dates – more to be announced

Launch	12 th May
Industry Event	6th July
Industry Event	7th Sept
Publication	Dec 2021

Several smaller group meetings throughout the process focusing on key challenges and opportunities

Huge thanks for your support and input!



Chair
Laura Sandys CBE



Simon Pearson



Dr Richard Dobson



Jake Verma



Department for
Business, Energy
& Industrial Strategy

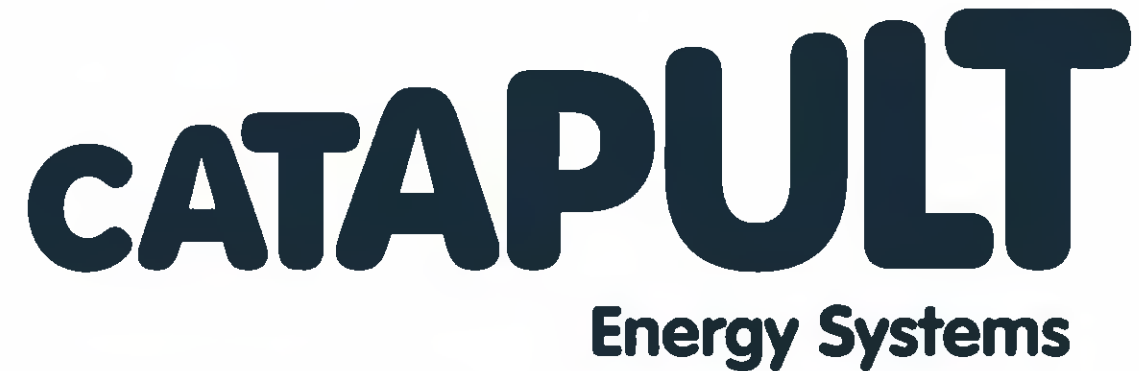
Innovate UK



If you have an idea or suggestion don't wait, get in touch via email:

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Thank You
We look forward to working with you all



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