

Shaping the Gas Transmission System of the Future

Digital strategy and information provision

We will start at 14.02 to allow people to finish previous meetings

nationalgrid



Slido.com
#NGG2

Who will be speaking today?

Ian Radley
Head of Gas System
Operator



Dr Richard Dobson
Energy Systems
Catapult



Harj Kandola
Data Integrity
Manager



Josh Bates
Operational Liaison
and Business
Delivery Manager



Jennifer Pemberton
Stakeholder Manager



Logistics

Should last for approximately about 60 min

Questions and polling via slido #NGG2

All callers will be placed on mute

We will circulate the slides and a recording of this webinar



Based on
stakeholder insight



Opportunity for
stakeholder input

Agenda

1 Welcome and opening

2 Energy Data Taskforce

3 Data and Digital Strategy

4 Q&A

Energy Data Taskforce

Dr Richard Dobson

2nd November 2020

 @EnergySysCat 



A Strategy for a Modern Digitalised Energy System

- In October 2018 the Energy Data Taskforce was established to provide Government, Ofgem and Industry with a set of recommendations on how data can assist with unlocking the opportunities provided by a modern, decarbonised and decentralised Energy System at the best value to consumers.
- In June 2019 the Energy Data Taskforce published a report entitled
A Strategy for a Modern Digitalised Energy System
which presents five key recommendations that will modernise the UK energy system and drive it towards a net zero carbon future through an integrated data and digital strategy throughout the sector.

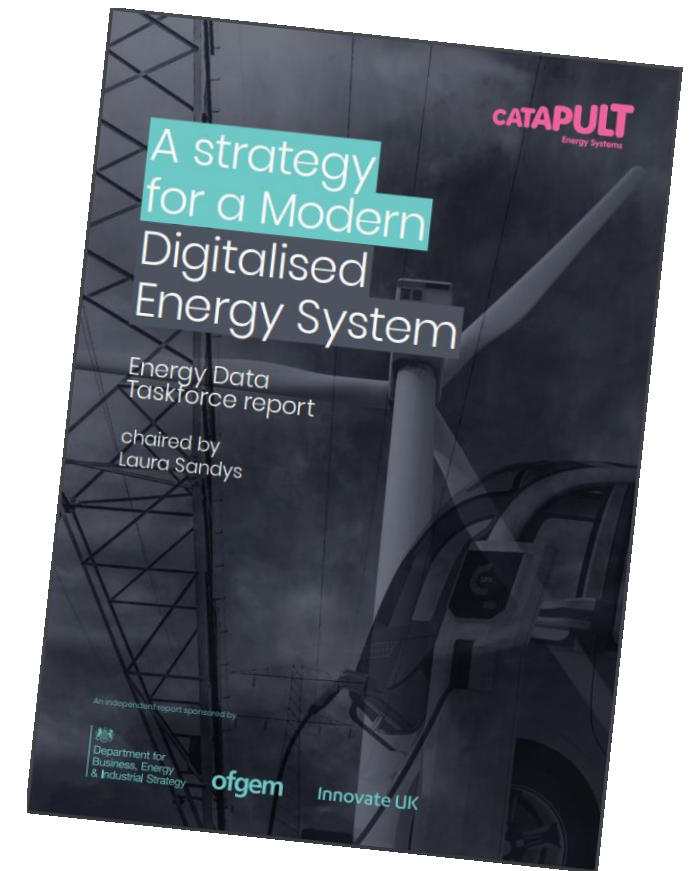
Commissioned by:



Innovate UK



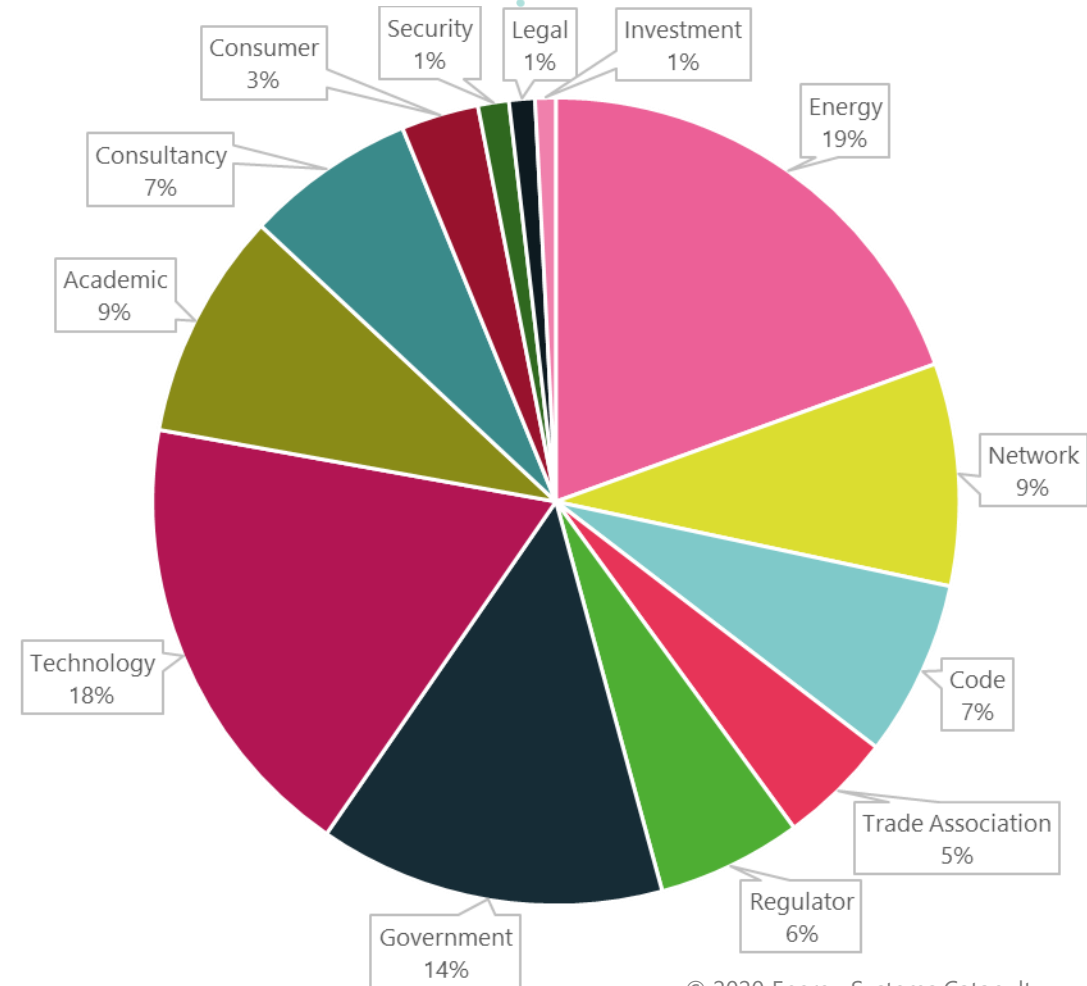
Department for
Business, Energy
& Industrial Strategy



Engagement

Goal: to understand the needs of prospective data users and identify data best practice

- >300 unique stakeholders meaningfully engaged in initial 9 month project
 - Rising to >500 unique stakeholders in subsequent work (Energy Data Best Practice)
- Circa 50% of engagement from incumbent energy sector
- Actively seeking views from outside of the sector to bring in new ideas



What did stakeholders tell us?

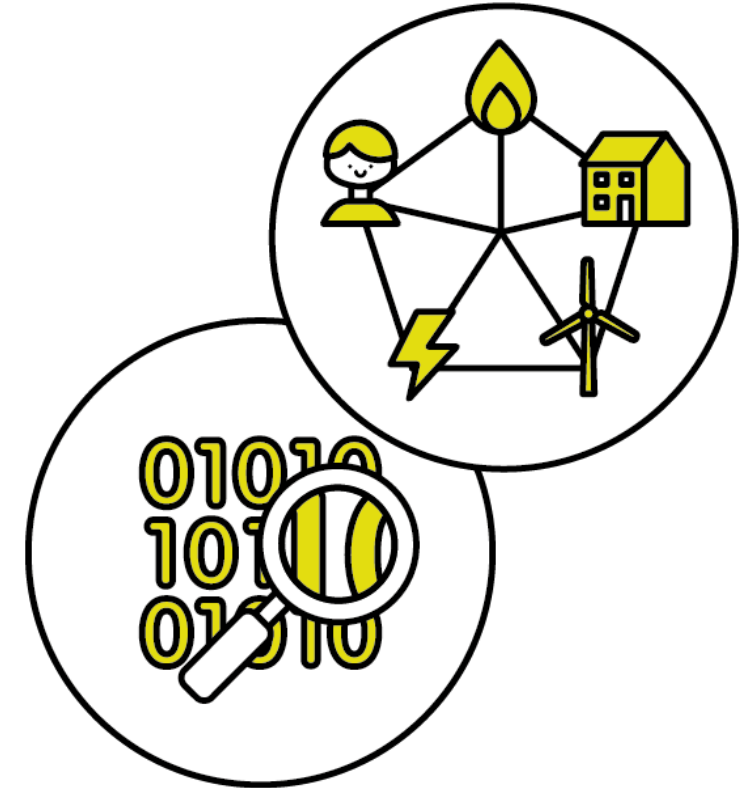
Energy Data is an essential resource for decarbonisation planning and action, especially cross vector / sector

Many stakeholders do not know what data exists

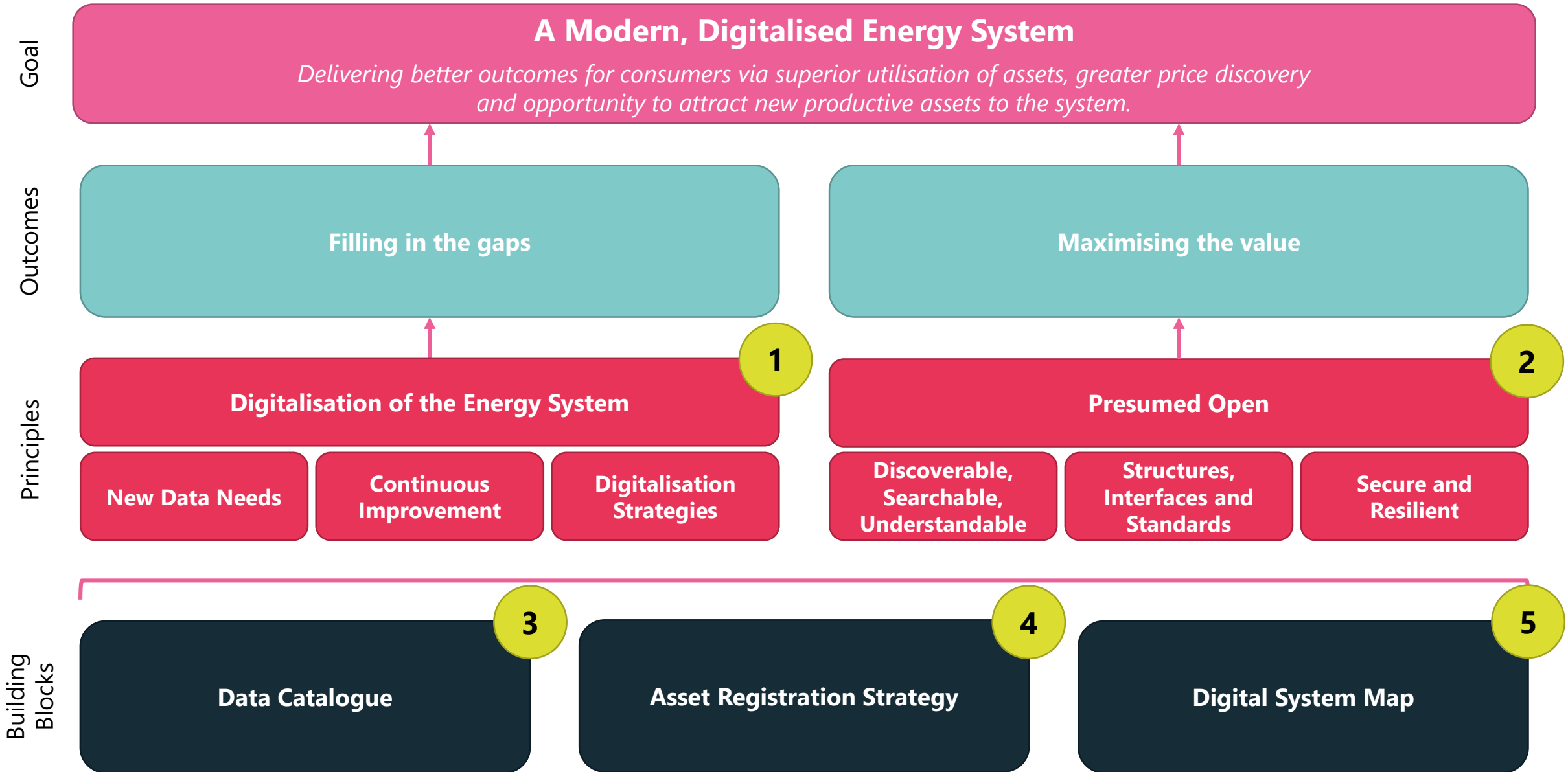
There are many areas of 'missing' data and 'poor quality' data which inhibits innovation

Data and digital skills are lacking across the sector

Data interoperability is poor which makes data driven innovation more challenging



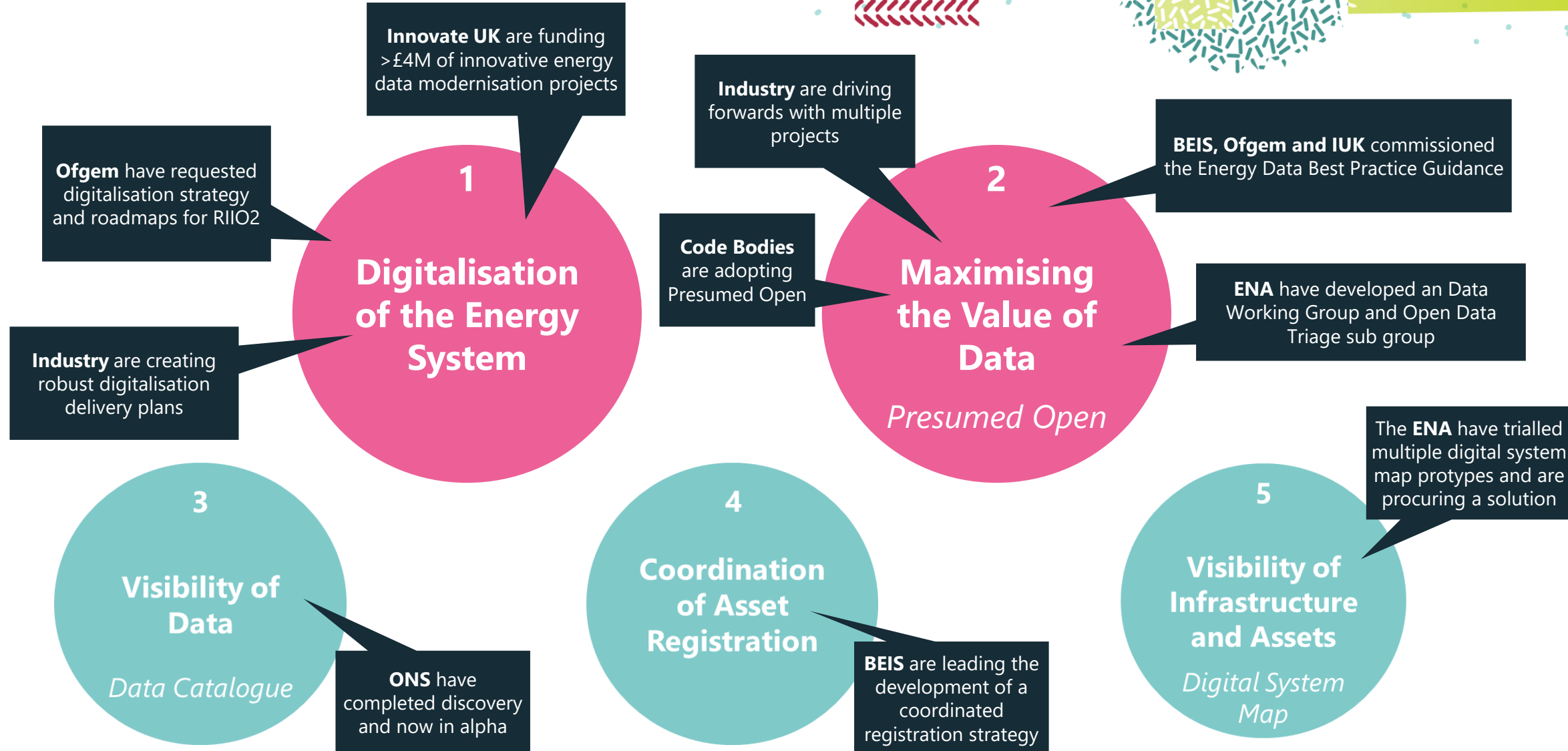
A Strategy for a Modern Digitalised Energy System



Energy Data Taskforce Recommendations

Principles

Building Blocks



Digitalisation Strategy

nationalgrid



Modernising Energy Data

The Energy Data Task Force (EDTF) made five key recommendations:

1. **Digitalisation** of the energy system
2. **Maximising** the **value** of data
3. **Visibility** of data
4. Coordination of **asset registration**
5. **Visibility** of infrastructure and assets

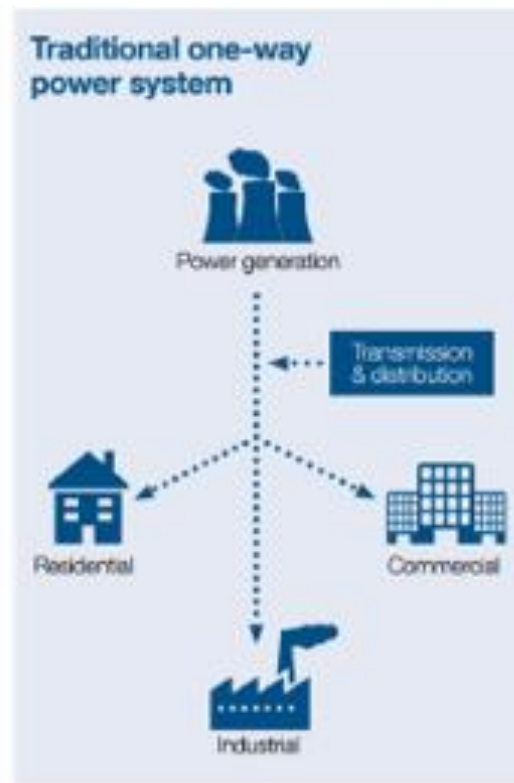


“Digitalisation releases value, opportunity and resilience, enabling decarbonisation and de-centralisation to be delivered at optimal cost for the benefit of consumers”

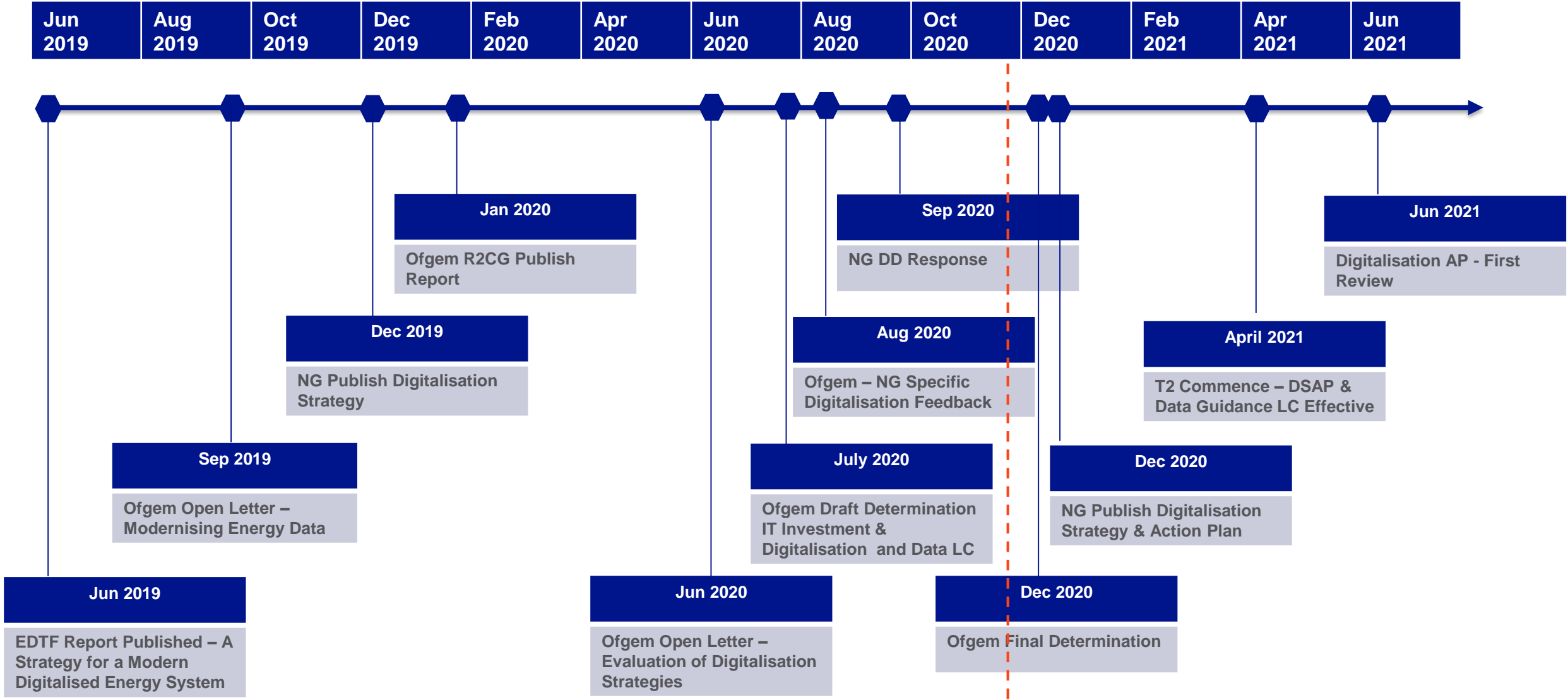
Data working group

Energy Network Association (ENA) has set-up an **Energy Data Working group** to cover Gas & Electricity across UK & Ireland.

The Data Working Group is supporting the delivery of the **Energy Data Taskforce** recommendations.



Digitalisation Strategy Timeline





I want to take gas on and off the Transmission system where and when I want

I want you to be efficient and affordable

I want you to facilitate the whole energy system of the future – Innovating to meet the challenges ahead



Optimised System Operations

We will utilise **smart tooling** to help us understand the **drivers** and **behaviours** of our customers and the **impact** of our **actions** and **decisions**.

I want all the information I need to run my business, and to understand what you do and why



Market & Customer Insights

We will have **clear processes** and provide greater **understanding** of our **interaction** with customers and their needs .

I want to take gas on and off the Transmission system where and when I want

I want you to be efficient and affordable

I want all the information I need to run my business, and to understand what you do and why



Data Driven Asset Management

We will collate **more data** on our assets than ever before and use this to **understand risk** and make **informed decisions**.

I want you to be efficient and affordable



Plant Operations Enablement

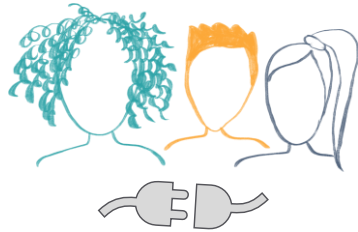
Our Plant Operations field force will be **empowered** to make the **right decisions** and have everything they need on their **mobile** devices.

We are revising our Digital Strategy to align more with the EDTF recommendations & Ofgem Feedback

Opportunity for stakeholder input

Recommendation	Digital Theme	Alignment
<p>Digitalisation of the energy system Organisations should adopt the principle of digitalisation of the energy system in the consumers' interests</p>	<p>All</p>	<p>Our digital strategy for internal processes seeks to maximise value across our business processes. This digital strategy strongly aligns with the EDTF recommendations on the digitalisation of energy networks.</p>
<p>Maximising the value of data Energy system data should be presumed open</p>	<p>Market & customer insights</p>	<p>Through the Gas Information Provision project we have facilitated easier access to market data. With the Operational Forum we have also created a mechanism which allows the market to request new data to be added.</p>
<p>Visibility of data A data catalogue, data triage processes to allow energy system datasets</p>	<p>Market & customer insights</p>	<p>We are participating in the Energy Network Associations (ENA) discussions on establishing an industry wide catalogue. As above, we already provide additional data via Gas Information Provision Platform (MIPI) to the market using triage process</p>
<p>Coordination of asset registration An asset registration should be established</p>	<p>Not applicable</p>	<p>In discussion with ENA, we believe this recommendation is not applicable to Gas Transmission.</p>
<p>Visibility of infrastructure and assets A unified digital system map of the energy system should be established.</p>	<p>Data driven asset management</p>	<p>We publish our pipelines and site data on our website. We are participating in the ENA establishment of an Energy Systems Map.</p>

We're aligning our strategy with our Data Customers' needs



Customers & Stakeholder

“We want data that supports innovation, decarbonisation, commercial decision and drives more efficient asset, commercial management”

ofgem

“We want transparent and efficient business plans and annual reporting, supported by granular data-driven cost and engineering justifications”



Wider Innovators

“We want quick access to a diverse range of data in standardised, easy to access formats”



Our Engineers / Asset Managers/Analytics Teams

“We want high quality and easy to use digital tools and data that enable innovation in decarbonisation and efficient asset management”

New Gas Prevailing View

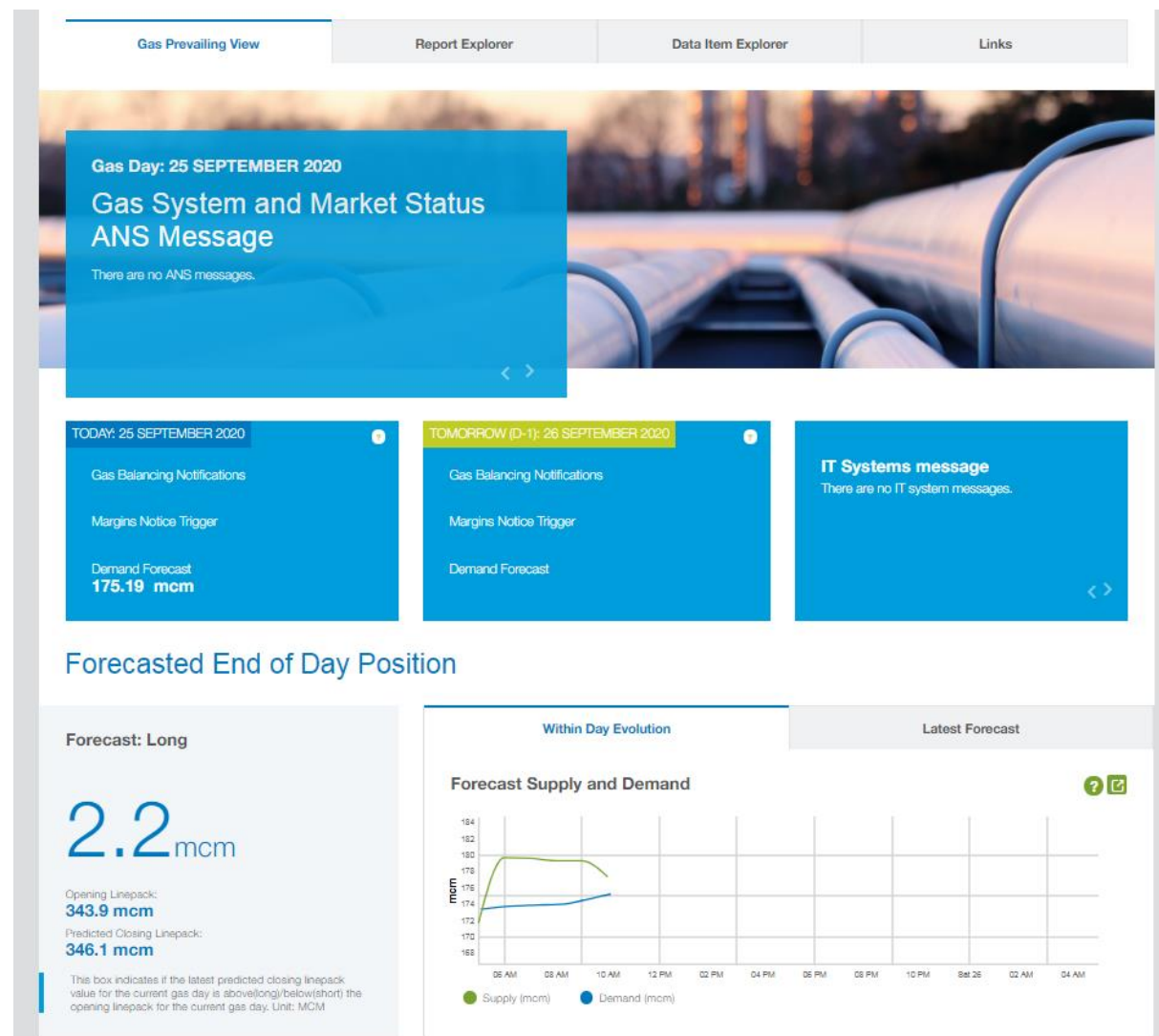
We have already completed some work to enhance our data provision in line with the EDTF themes of **Visibility of Data** and **Maximising the Value of Data**.

The **Gas Prevailing View** is the primary mechanism for providing access to our operational gas data.



Engagement with our customers and stakeholders has made our key operational data:

- **Easier to find** through improved user experience
- **Easier to use** through improved layout and visualisation
- **Easier to understand** by enhancing supporting material such as data dictionaries



Data Collaboration Platform



We host a **data collaboration platform** to maximise the shared value of open and real-time information.



- Speak to the Gas National Control Centre
- Tutorials and guides
- Webinar recordings of the Operational Forums and our Covid webinars
- Free data downloads

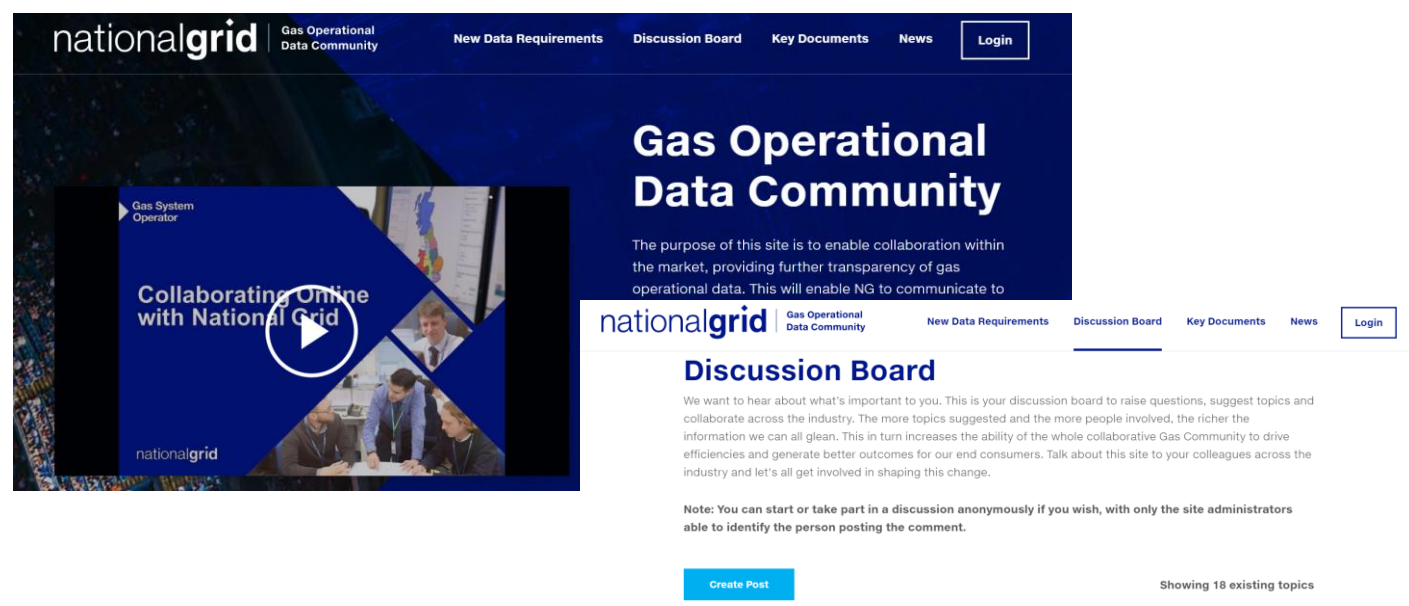


- Webinars**: Find recordings of recent industry webinars here
- Gas Network Capability**: Understanding the ability of our network to meet the needs of customers and...
- COVID-19 Webinars**: Here you can find materials from Gas Operations Webinars provided in response to...
- Custom Data Download Tool**: Here you can find supporting documents for the new tool, as well as a brief...
- Gas Deficit Warning and Margins Notice Changes**
- Guides**: Guides and how-to's relating to Gas Ops Data.
- Useful information**: A selection of documents relating to Gas Operational Data that we hope you find...
- Video Archive**: A selection of useful videos related to National Grid Operational Data.
- Prevailing View - New designs**: This page includes the new designs for Prevailing View, which we are keen to...
- Gas Ops Forums**: Throughout the year, we hold regular Operational forum meetings.

<https://datacommunity.nationalgridgas.com/>

Quick poll – slido.com #NGG2

Do you find the Gas Operational Data Community site useful?
Please explain your answer.



Data Triage Process



We have completed some work and presented it at the Transmission Working Group.

The **Data Triage Process** ensures the community can identify areas for change and that there is **transparency** of the change process.

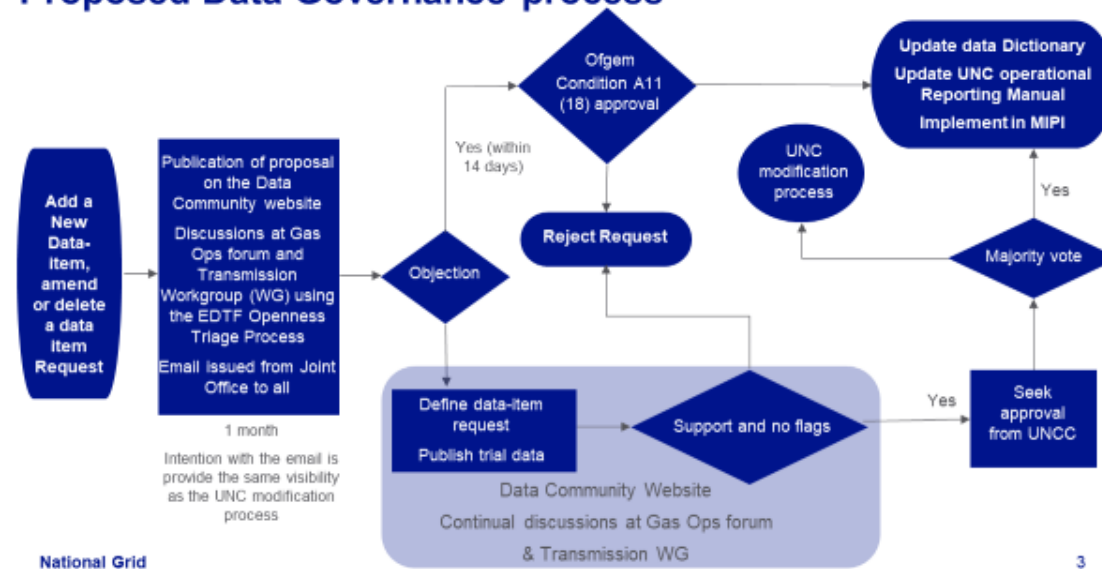


The proposed governance process for changes to data terms is designed to be simple, agile and easy to engage with.

- **Easier to propose and amend data** through reduced barriers to entry
- **Easier to use** through improved transparency
- **Easier to understand** through use of simple language



Proposed Data Governance process



National Grid formulated this governance model and fed it into the ENA working group the ENA data triage process will be discussed in future slides.

Data dictionary



The Data Dictionary has also been supported by the Transmission working group.

The Data Dictionary ensures a single, accessible version of the truth for data terminology.

The UNC Data Dictionary is subordinate to the UNC Operations Reporting Manual (UNCORM). When a change is required to the UNC data Dictionary this is completed via an update to both the UNCORM and the Data Dictionary

- **What** data items are available
- **Where** data items are stored
- **Which** data is obligated and or non-obligated



National Grid

The screenshot shows the website for the Joint Office of Gas Transporters. The page title is "Transportation Principal Document". There are two document links listed:

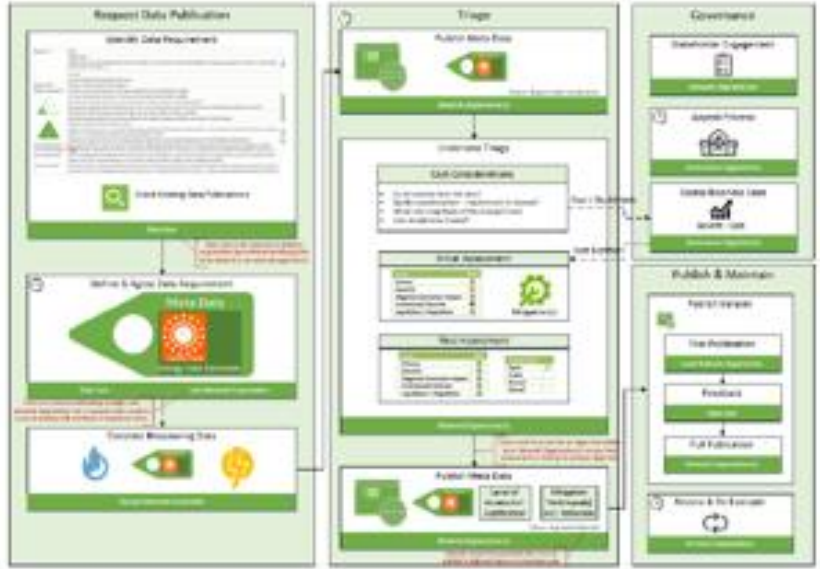
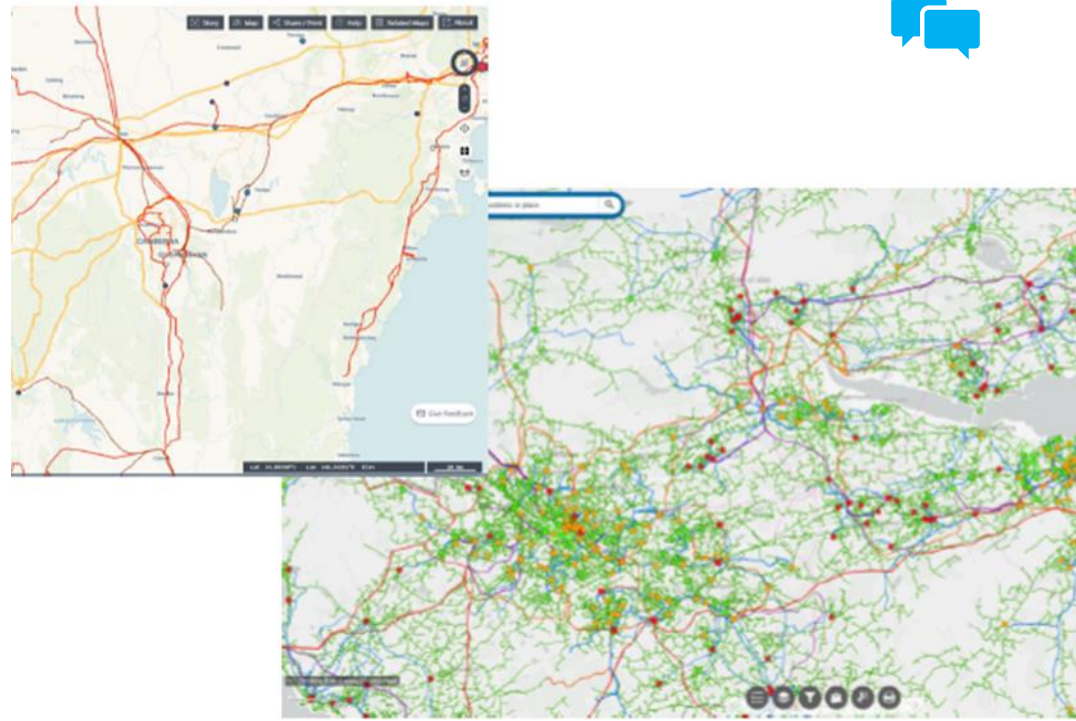
Document Name	File Size
UNC Operations Reporting Manual Version 14 (16 October 2020)	199.35 KB
UNC Data Dictionary Version 14 (16 October 2020)	821 KB


On the right side, there is a "UNC Related Documents" sidebar with a list of links: General, Transportation Principal Document, Offtake Arrangements Document, and European Interconnection Document.


The dictionary follows principles from the Dublin Core (industry driven standards).

<https://www.gasgovernance.co.uk/tpddocs>

ENA Data Working Group Initiatives



-  Would the triage process be useful to you?
Please explain your answer.

-  How would you like to engage in the future?
- Regular webinars
 - Newsletters
 - Data collaboration site
 - Other



Next steps

- Analyse your feedback
- Update our thinking
- Develop engagement programme to continue to develop the strategy
- December - Data strategy submission to OFGEM
- Working with you to deliver through RIIO-2

Thank you for joining us today

Shaping the Innovation Strategy for RIIO-2	Tue 03 rd Nov @ 14.00 – 15.00	Register here
Operating the network	Thu 05 th Nov @ 10.30 – 11.30	Register here
Building skills today for a Net Zero	Mon 09 th Nov @ 13.30 – 14.30	Register here
Reducing methane emissions: opportunities and barriers	Thu 12 th Nov @ 11.00 – 12.00	Register here
Gas Markets Action Plan (GMaP)	Mon 16 th Nov @ 10.00 – 11.00	Register here
Mapping our hydrogen transition	Wed 18 th Nov @ 14.00 – 15.00	Register here
Net Zero construction 2025/26 roadmap	Thu 19 th Nov @ 10.00 – 11.00	Register here
Heating our homes in a Net Zero future	Fri 20 th Nov @ 9.00 – 10.00	Register here
Planning the network	Mon 23 rd Nov @ 14.00 – 15.00	Register here
HyNTS FutureGrid	Tue 1 st Dec @ 14.00 – 15.00	Register here