Technology & Governance Advisory Group

Meeting 8 Minutes

Date:	22/05/2024	**Location:**	Virtual
Start:	13:00	**End:**	14:30

Participants

Attendee	Organisation
Sebastiaan Van Dort (Chair)	BSI – British Standards Institute
Tom Pollock	Northern Gas Networks
Dr Priya M Bhagavathy	Power Networks Demonstration Centre
Erwin Frank-Schultz	IBM
Prof Gareth Taylor	Brunel Institute of Power Systems
Ian Dunstan	Wales & West Utilities
Prof Chris Budd	University of Bath
Gea Mikic	Icebreaker One
Kevin Reeves	KJR Digital
Ali Nicholl	IOTICS
Jonathan Barcroft	ESO
Divya Mahalingam (Facilitator)	ESO

Agenda

1.	**Apologies for absence**
2.	**Discussion: Digitalisation Orchestrator**
3.	**Discussion: Use case & benefits**
4.	**Discussion: Pilot catalogue requirements**
5.	**AOB**

Discussion and details

1. Apologies for absence

- Abbas Mahmood - Energy Networks Association
- Claire Addison - Flexitricity
- Barbara Bormann - Drax
- Teodora Kaneva - techUK
- Ankit Patel - Arup
- James Edwards-Tombs - ESO

2. Discussion: Digitalisation Orchestrator

Reflection Points

- ***Are there any capabilities the Orchestrator is missing to support the development of a Data Sharing Infrastructure?***
- ***How would you suggest the Orchestrator and Virtual Energy System (VirtualES) programme interact? Considering the interim state where the orchestrator organisation is under development, and then once it has been established.***

Discussion

- ESO explained that prior to the upcoming Ofgem consultation on governance of a data sharing infrastructure, we are presenting our thoughts on how the digitalisation orchestrator entity could be responsible for delivering the Data Sharing Infrastructure (DSI).
- It was suggested considering a specific security role within the orchestrator, given the importance of data sharing and cybersecurity.
- It was mentioned the need for a role focused on orchestrating the legal and commercial elements of the VirtualES.
- Discussion moved to the size of the digitalisation orchestrator and potential allocation of the headcount.
- The group expressed surprise at the size of the digitalisation orchestrator, noting that there were more potential full-time equivalents (FTEs) than expected.
- There is need for a security role and suggested having someone explicitly responsible for data within the orchestrator. The importance of data exchange and aligning different data exchanges effectively was emphasised.
- It was recommended to consider the direct line between the data team and the knowledge base in the flow diagram.
- It was expressed confusion about the governance and regulatory aspects of the digitalisation orchestrator's work, particularly the blending of government and regulatory engagement.
- The group questioned the board composition and who would be responsible for regulatory compliance within the headcount.
- ESO confirmed that the board composition should represent government, industry, and consumer groups. It was clarified that the roles in digitalisation strategy and regulation are reasonably clear and there would not be significant changes to existing roles in energy strategy and regulation. The focus would be on how strategy and policy get translated into regulation and how it aligns with the digital needs of the sector.
- A question was raised about whether the research and engagement team would include someone responsible for leadership communication with executive/C-suite levels. A member highlighted the need to bridge the gap between engineers and the board level, citing an example from the water sector where poor communication led to a halt in publishing open data.

- ESO acknowledged the importance of leadership communication and noted that it was not explicitly mentioned in the current role descriptions, and it was agreed that this aspect will be addressed.
- It was suggested having a clearer roadmap for the phased implementation of the orchestrator.
- It was agreed that for the implementation process to manage expectations and make it clear what the orchestrator will and will not deliver.
- It was acknowledged that there will be multiple expectations that may or may not be met, and it is important to proactively address them.
- It was agreed that there is a need for creative tension between the orchestrator and the delivery team to achieve the best outcomes.
- The group supported the perspective and advised to use an agile methodology, comparing the orchestrator to a product owner who manages stakeholders and understands priorities without getting involved in the actual implementation and the ability to maintain different priorities and objectives.
- The engagement with stakeholders should be more explicit and this requires clear communication and engagement strategies.
- It was agreed to have a clearer governance system, including setting priorities and architectural principles.
- ESO explained that the strategic plan would address the governance and prioritisation aspects. It was mentioned the sequence of events that leads to a prioritised set of use cases and definitions, involving input from different organisations and experts.
- The importance of keeping the orchestrator team lean in the beginning to foster rapid creative tension. It was explained that larger teams tend to restrain decision-making and suggested keeping the team small until necessary.
- It was concluded on the need for more explicit engagement and governance, and the importance of keeping the orchestrator team lean in the beginning.

3. **Discussion: Use case & benefits**

Reflection Points

- ***Do the selected sample networks satisfy the development of the particular use case?***
- ***Are you aware of any further risks to be aware of associated with these sample networks?***
- ***Do you have any experience of projects tracking value realisation from proof of concept through to operational implementation and recommendations from these?***

Discussion

- To manage sensitivities of the data, it was proposed that development and testing will follow a sequence of models that increase in scope and complexity as capabilities of the Data Sharing Infrastructure (DSI) are proven. The ambition is that by the end of the pilot, this will reach a state of sharing a network model from each network of a reduced sample area.
- Discussion on the importance of incorporating fictitious sensitivities into the sample data development process, such as contract or licensing issues and elements that can test access control. It was emphasised the need to address these challenges from the start and not rely on idealised scenarios.
- It was explained that these fictitious sensitivities can be collected by considering real-world problems and challenges that exist. And suggested incorporating them into the roadmap and implementation milestones.
- Discussion moved to the sharing of models and the need to involve other energy vectors.

- The importance of identifying the data that needs to be exchanged and minimising the risks of using sensitive data. The group raised concern of sensitivity around sharing models and suggested considering synthetic data or anonymised data is appropriate to address privacy concerns.
- The group suggested speaking with the Alan Turing Institute to learn from their experience with producing synthetic data.
- The group recommended to plan for the involvement of other energy vectors beyond electricity in future demonstrations.
- It was advised considering the inclusion of challenges related to data completeness, data quality, and interoperability in the sample data development process. The need to address these challenges from the start and set a minimum level of compliance would be beneficial.
- It was highlighted to clarify the sharing of models and data in the context of the use case. The importance of maintaining the opacity of models and focusing on the exchange of inputs and outputs to accelerate the pilot.
- The discussion was centred around the importance of value realisation, shorter sprints, and operational implementation in the context of a project. Some key points mentioned include:
  - The need to answer value-related questions early in the project to determine feasibility.
  - Mapping out dependencies and considering them at every stage of the project.
  - The importance of setting up the project properly, including considering environmental impact, code quality, and data models.
  - Ensuring security is addressed throughout the process, including considering attack vectors and risk profiles.
  - Considering the financial aspects of the project, such as who is responsible and how it will be funded.
  - Quantifying the risk associated with operational processes that rely on data.
  - Demonstrating compliance and risk management in relation to data usage.
- It was concluded the need for an agile approach, iterative testing of value delivery, and thorough consideration of dependencies, security, and financial aspects throughout the project.

4. Discussion: Pilot catalogue requirements

Reflection Points

- ***For the first sub-step of technical user journey (setting up DPN) do you think the proposed functional requirement is sufficient in terms of user personas and steps?***
- ***What user documentation and artefacts would you consider appropriate to a pilot phase?***
- ***What key legal challenges have you come across in similar projects and how might they be captured as non-functional requirements to mitigate associated legal risk?***
- ***How should performance of these requirements be assessed?***

Discussion

- The focus was on the requirements for a catalogue containing both functional and non-functional aspects. The discussion revolved around the sufficiency of the proposed functional requirements in terms of user personas and steps. The importance of outcome-based technical user journeys and tools like Amplitude for user behaviour analysis and failure points was highlighted.
- ESO clarified the reference to hexagonal user journey, which refers to steps related to data preparation, sharing, and access. The user personas were not explicitly defined, and it was suggested to provide more clarity on this aspect for future groups.
- A question was raised about the who the commercial beneficiaries in each outcome of the benefit map are. It was discussed the need to identify the specific organisations, actors and consumers that could benefit. This information could help in building a shared initiative commercial model and funding mechanism.

- It was suggested expanding on the geographical sample regions for testing. Specifically, differentiating between urban and rural areas to account for variations in customer profiles and distribution networks.
- The discussion touched upon the importance of feedback forms and mechanisms for users to provide improvement suggestions. This feedback would be valuable for tracking user experiences and identifying areas for enhancement during the pilot phase.
- It was mentioned the need for additional detail in the most advanced test case section. By explaining the main actors involved and the data provided, such as a reduced model of the transmission system, grid supply points, and infrastructure levels.
- Discussion moved on to data classification and aggregation risks, drawing from experiences in the defence sector. It was noted that specific data, when aggregated, can change its classification and impact access, security controls, and legal requirements. The importance of clear data classification and mitigating risks early on was emphasised.
- The importance of traceability and liability in the decision-making processes was highlighted. Data quality was also mentioned as a key requirement, with traceability and data quality being essential from a legal perspective.
- It was suggested to involve legal counsel early on, following best practices and incorporating legal requirements into the project.
- The discussion touched upon the challenges of involving legal experts in an agile environment and the need to balance innovation with legal considerations. The importance of data classification, traceability, and metadata was reiterated.
- Work done by the Royal Society and the Alan Turing Institute in data traceability was discussed and the need to specify the level of accuracy expected from models and to align data classification and quality requirements with legal frameworks.
- It was concluded to have the clear documentation, feedback mechanisms, legal framework, collaboration with legal experts and a comprehensive understanding of user needs and benefits under pilot catalogue requirements.

5. AOB

- The Chair thanked all for their attendance and contribution.