

Asset Information Landscape

**The
Economist**

MAY 6TH-12TH 2017

Theresa May v Brussels

Ten years on: banking after the crisis

South Korea's unfinished revolution

Biology, but without the cells

The world's most valuable resource



**Data and the new rules
of competition**

Asset Information Managers' Forum

Scope

Asset Information Managers from generation, transmission or distribution organisations

Participants

- Transpower, EEA
- Genesis, Meridian
- WEL, Orion, Powerco, Unison, Wellington Electricity

Goals

1. Learn from others and collaborate
2. Facilitate cross industry data exchange
3. Understand impact of changing platforms and technologies

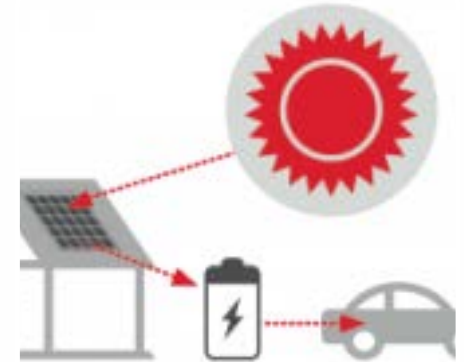
Next Steps

1. Asset information maturity model
2. Increase usage of IEC Common Information Model
3. LinkedIn group for ongoing discussions

Asset management effectiveness
is determined by the
quality of decisions made about assets



Asset Information Landscape



Foundations

- Getting the right data

Leveraging the possibilities

- Getting maximum value from the data

Disrupted

- What will change
- What will remain important

Asset Information
Standards

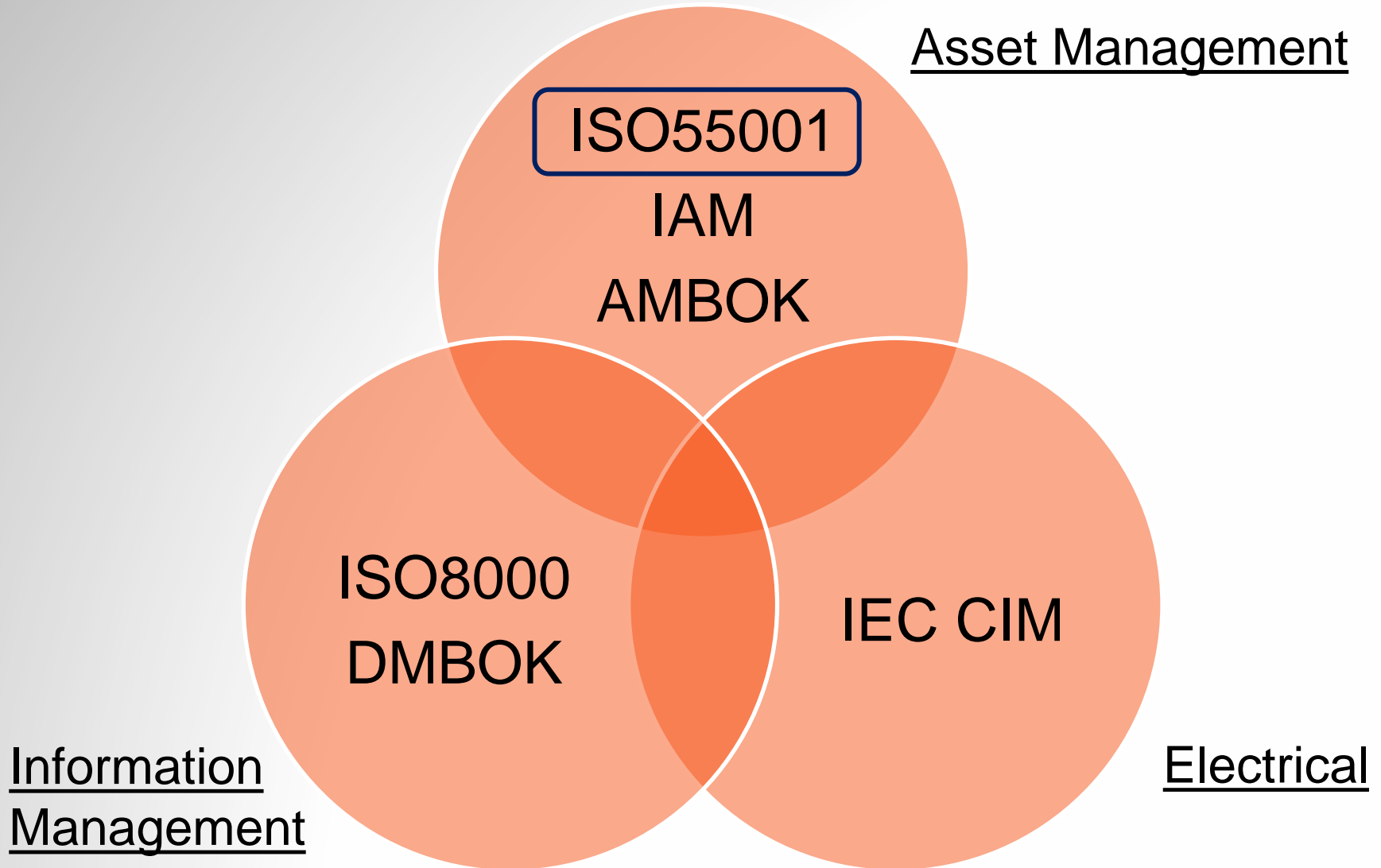
Data Quality and
Governance

Foundations:
Getting the right
data

Understanding
Risks in our Assets

Privacy and
Sharing

Core Asset Information Standards



ISO55001 – Asset Information Aspects

Requirement	Asset Information Management System
<p>7.5: Determine information requirements.</p> <p>(a) Consider:</p> <ul style="list-style-type: none"> - Risks - Roles and Responsibilities - AM processes - Exchange with stakeholders - Impact of quality on decision making <p>(b) Determine:</p> <ul style="list-style-type: none"> - Attributes required - Quality requirements - How collected, analysed and evaluated <p>(c) Specify, implement and maintain information management processes</p> <p>(d) Align financial and non-financial terminology</p> <p>(e) Ensure consistency and traceability between financial and technical data, to meet:</p> <ul style="list-style-type: none"> - Legal and regulatory requirements - Stakeholder requirements - Organisational objectives 	<ul style="list-style-type: none"> • Define the Asset Information Management processes, including: <ul style="list-style-type: none"> • roles & responsibilities • risks • processes for exchange of information with stakeholders. • Capture and document all information required for each asset management capability, including: <ul style="list-style-type: none"> • attributes required • where mastered • quality requirements • the impact if not met • Make this information searchable and accessible: <ul style="list-style-type: none"> • information requirements, • where mastered • traceability from data to information requirements • current quality of the data

Data Ownership - Roles and Responsibilities

Data collectors



- Collect data to specified data quality standards

Data custodian



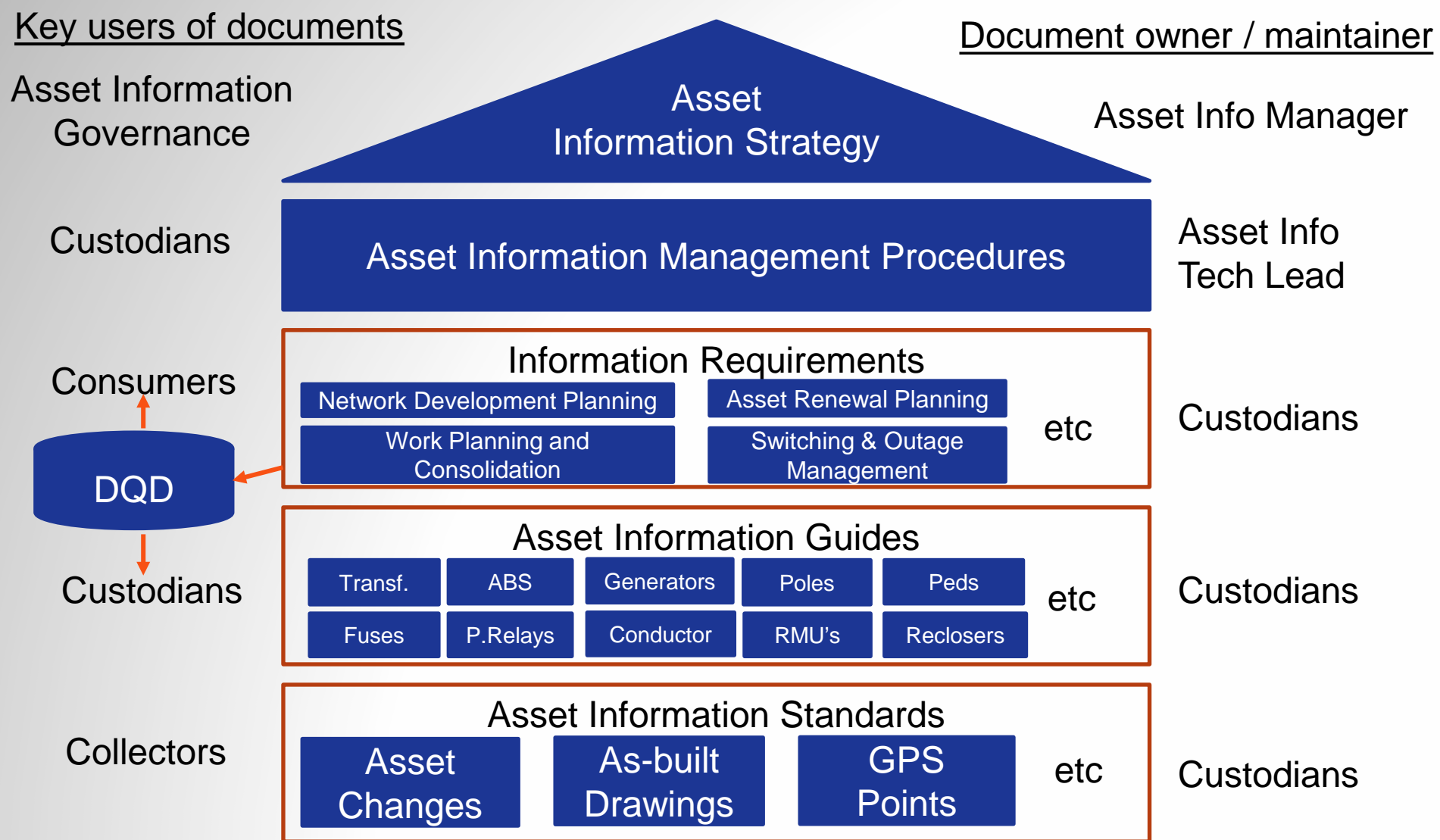
- Plans the best way to acquire data
- Puts in place regular checks to assess whether data is fit for purpose
- Checks data is fit for purpose and addresses root cause where it is not

Data consumer



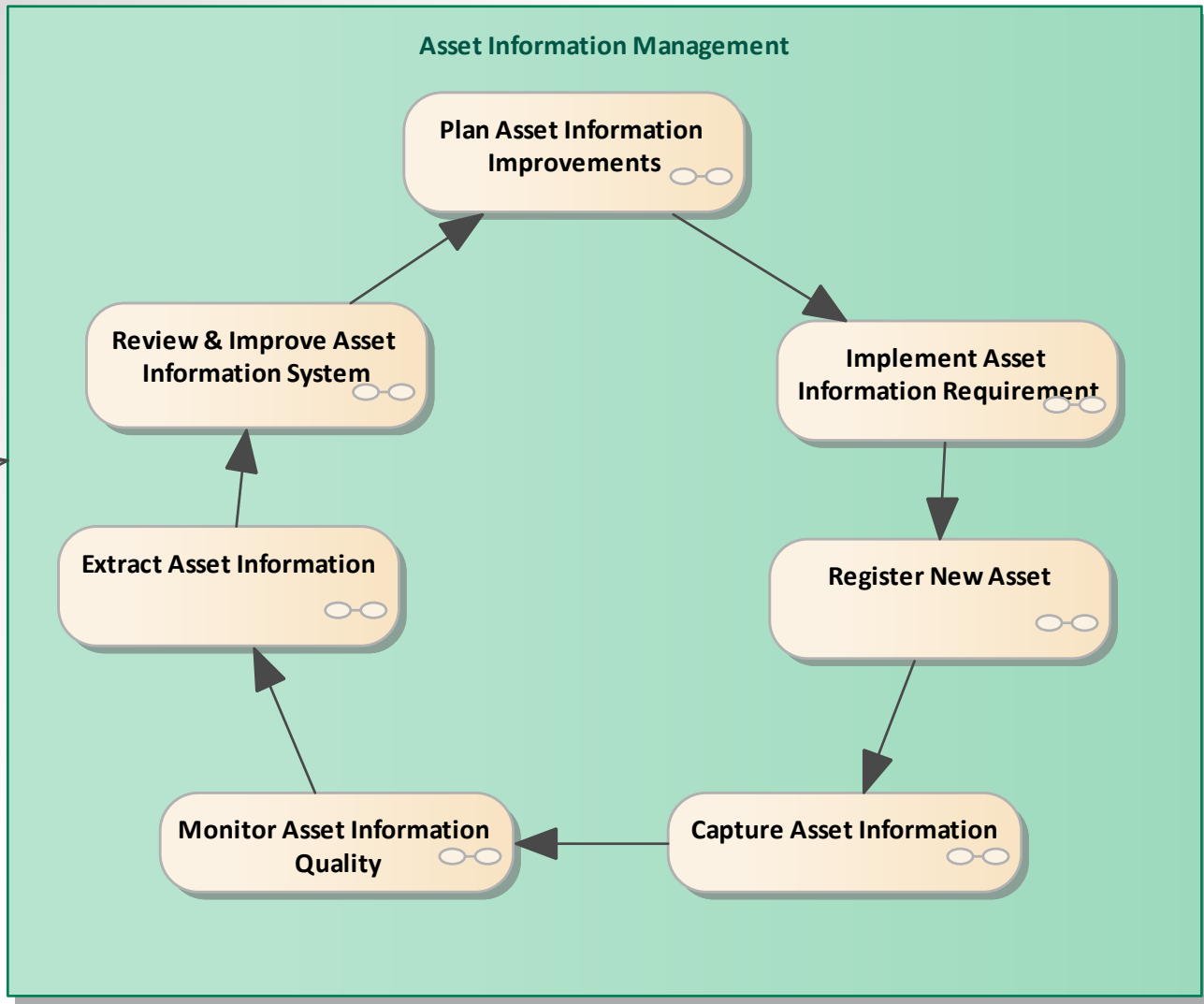
- Decides what data is required to achieve business goals and what level of quality is required

Asset Information Management System

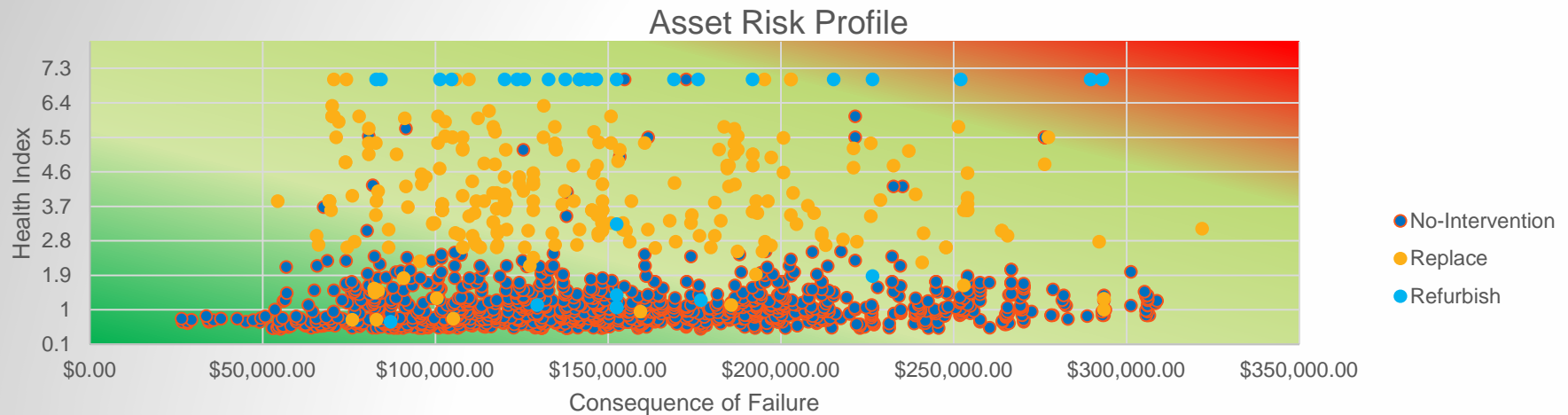




«flow»



Understanding Risks in our Assets



Implications: The need to understand asset risk drives asset information requirements

Information and Data governance

Providing assurance data and information is fit for purpose

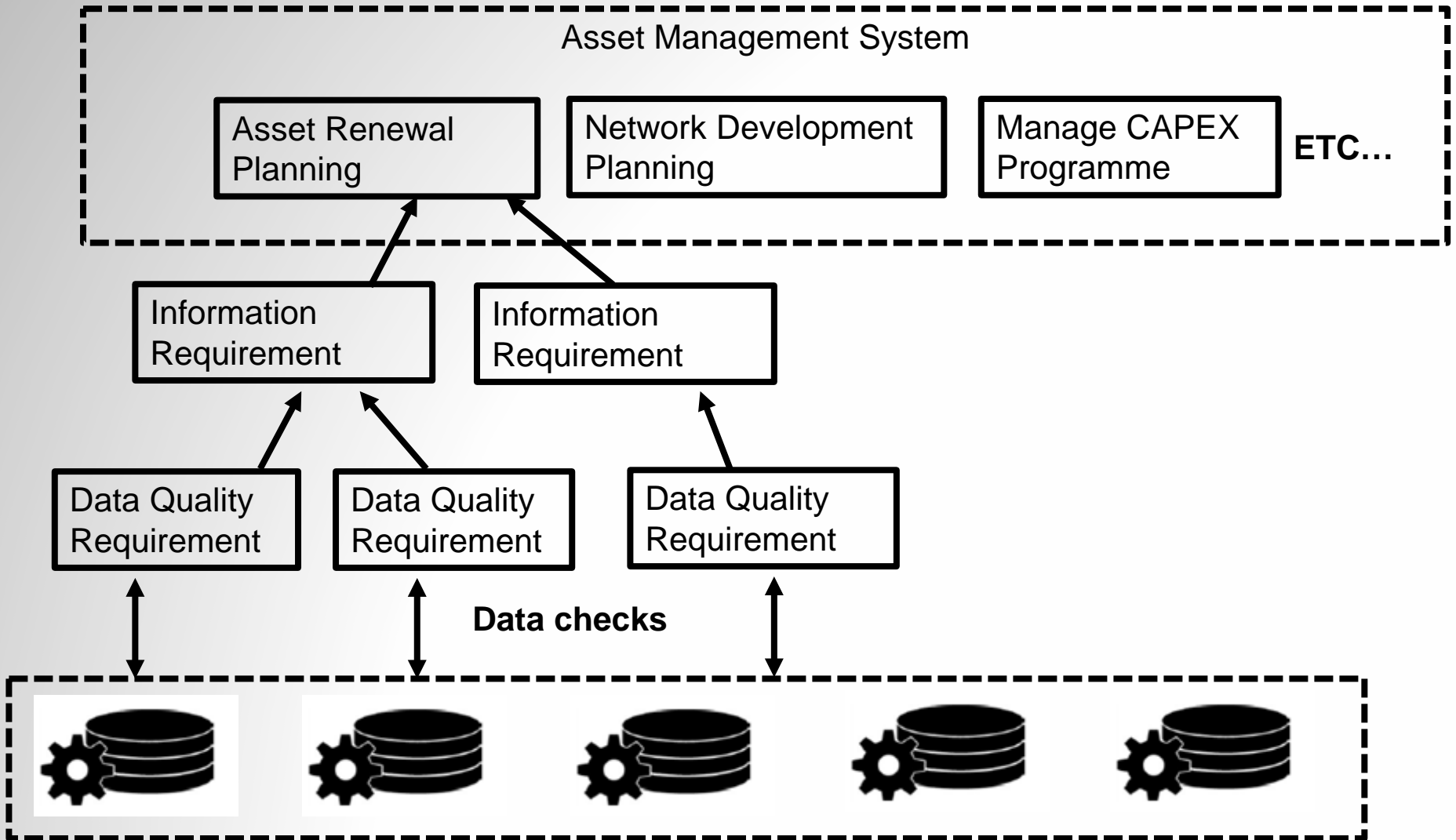
Challenges

- What data is important
- What data do we have
- How good is the data
- What is the cost

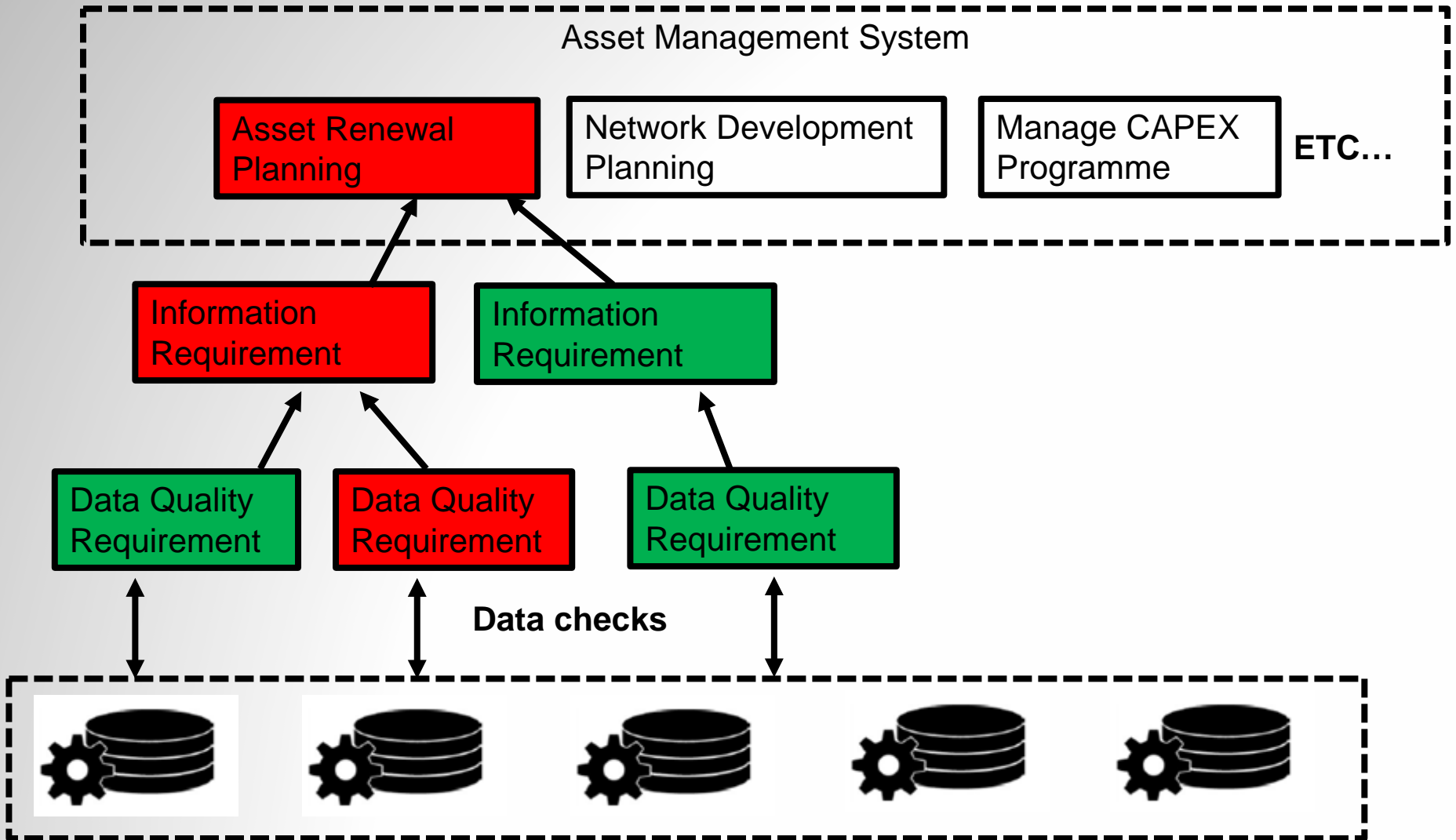
Approach

- Data ownership roles
- Capture requirements
- Quality standards
- Data quality dashboard
- Data discovery dashboard

Data Quality Requirements



Data Quality Requirements



Hands Off My Data!

The Privacy Act Principles:

1. Only collect personal information if you really need it
2. Get it straight from the people concerned where possible
3. Tell them what you're going to do with it
4. Collect it legally and fairly
5. Take care of it once you've got it
6. People can see their personal information if they want to
7. They can correct it if it's wrong
8. Make sure personal information is correct before you use it
9. Get rid of it when you're done with it
10. Use it for the purpose you got it
11. Only disclose it if you have a good reason
12. Only assign unique identifiers where permitted.

Right to privacy

Consumer benefits

Implications: Safeguarding private data needs dedicated focus.
Is an industry code of practice required?

Digital transformation

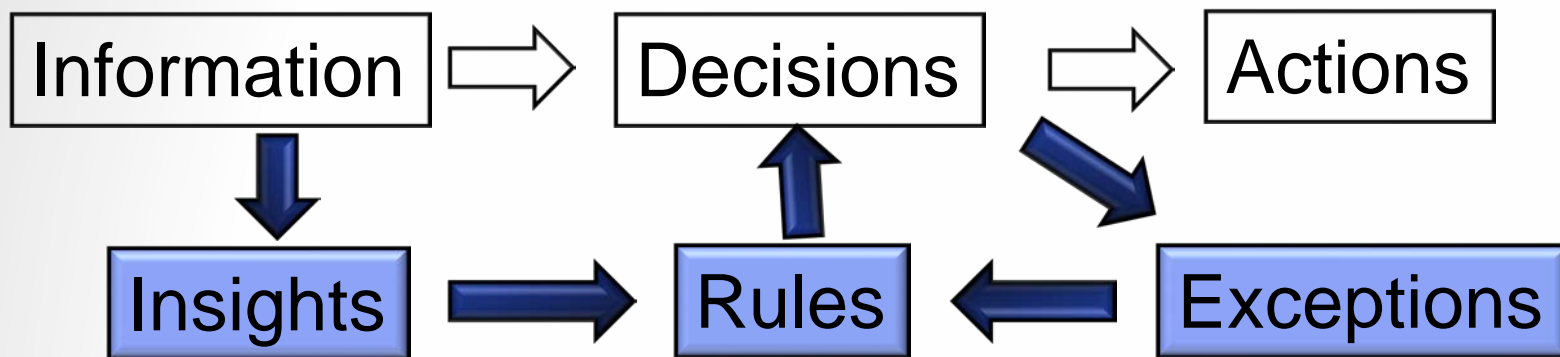
Realtime condition

Leveraging the possibilities:
Getting maximum value from the data

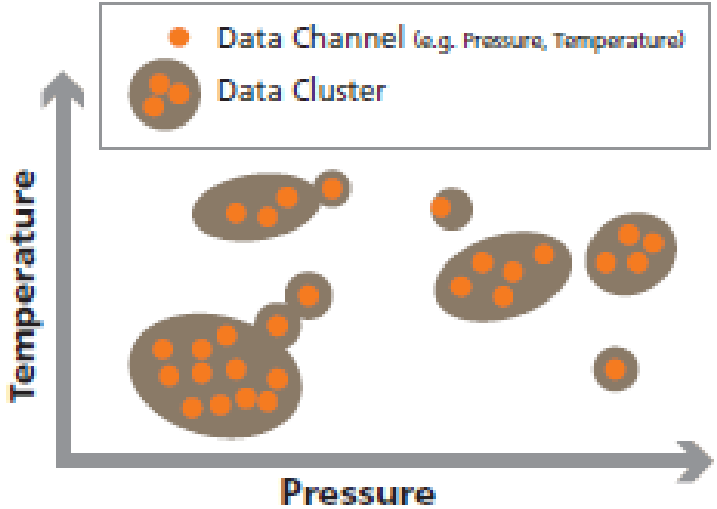
Algorithms

Augmented reality

Integrate Mobile Usage Innovation Embracing
 Society DIGITAL Change
DIGITAL TRANSFORMATION
 Application Technology Cloud
 Leverage Competence Business
 Aligned Paperless Global Future
 Opportunities

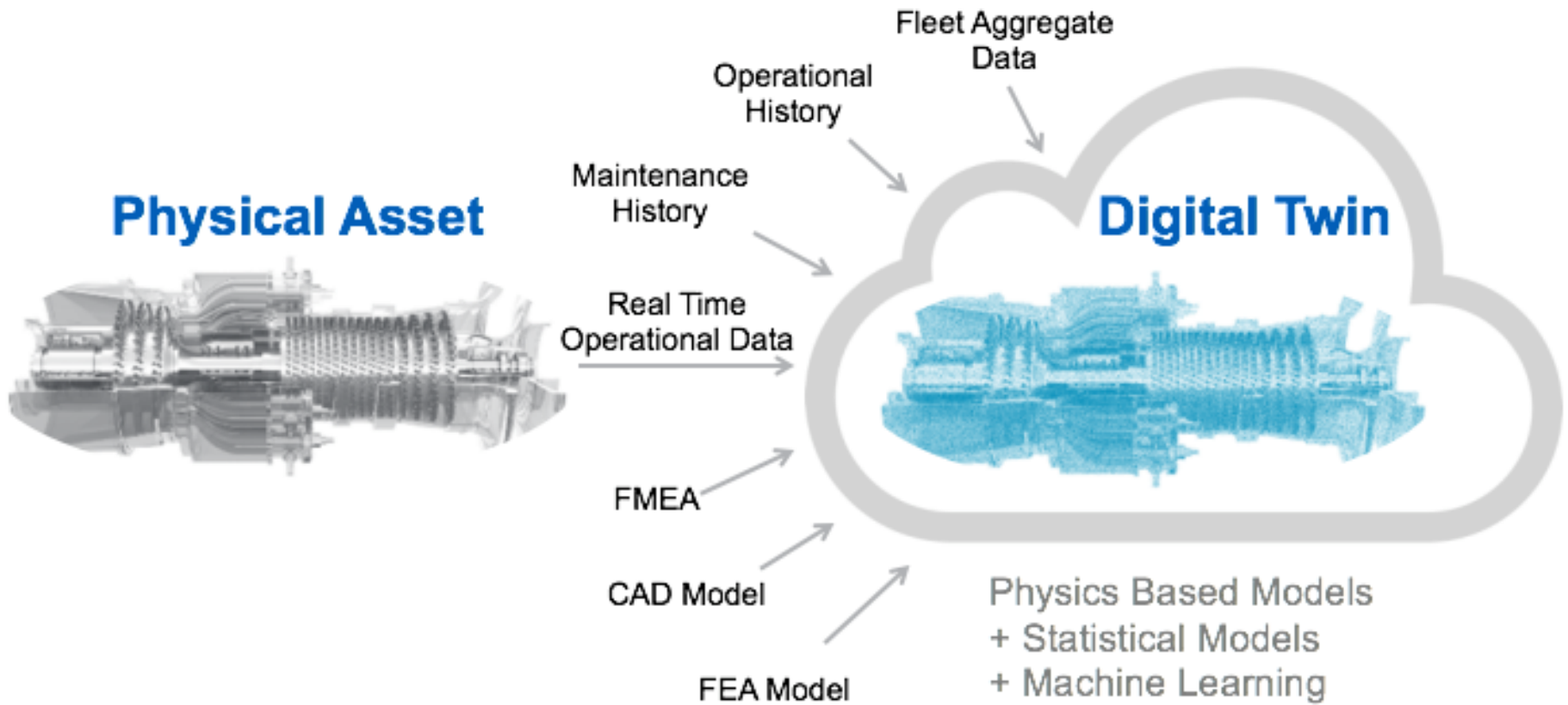


Realtime Condition Data & Algorithms





Make asset information easy to use = make work on assets safer and simpler



- Digital twin built before the physical asset
- Sensor data to gain unique insights about its performance and operation
- Model different scenarios

Digital Prosumers

Many to many
exchanges

Disrupted
Future

Information is the
asset

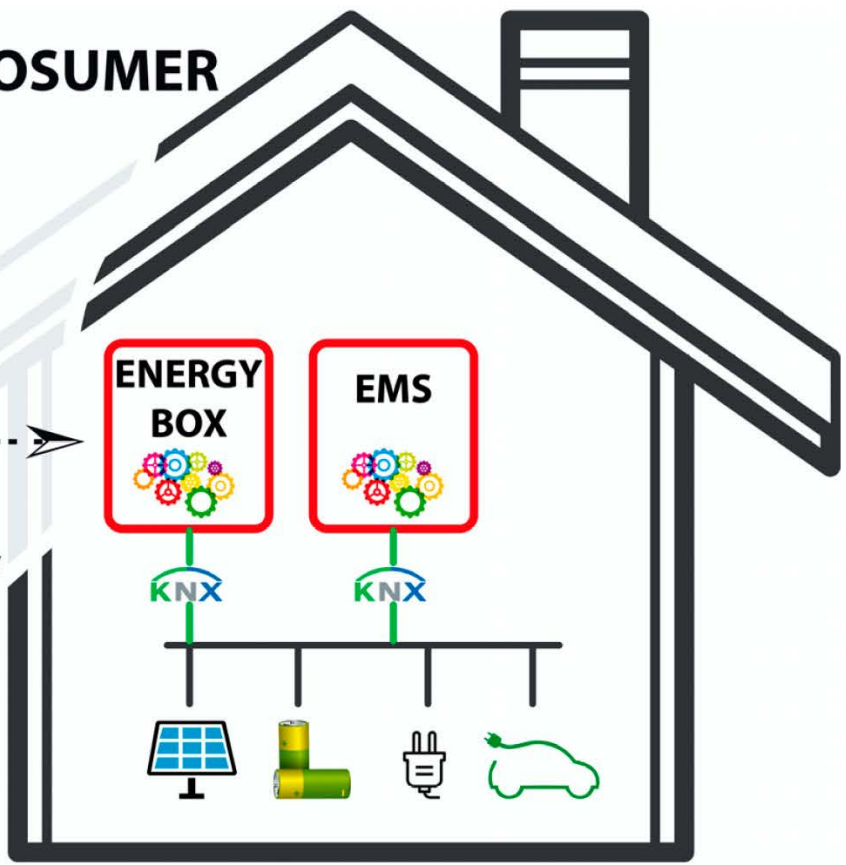
Renegotiated
social contract

AGGREGATOR

PROSUMER

Weather forecasting
Prosumer Problem
Price signals & Finance
Monitoring & Calculation

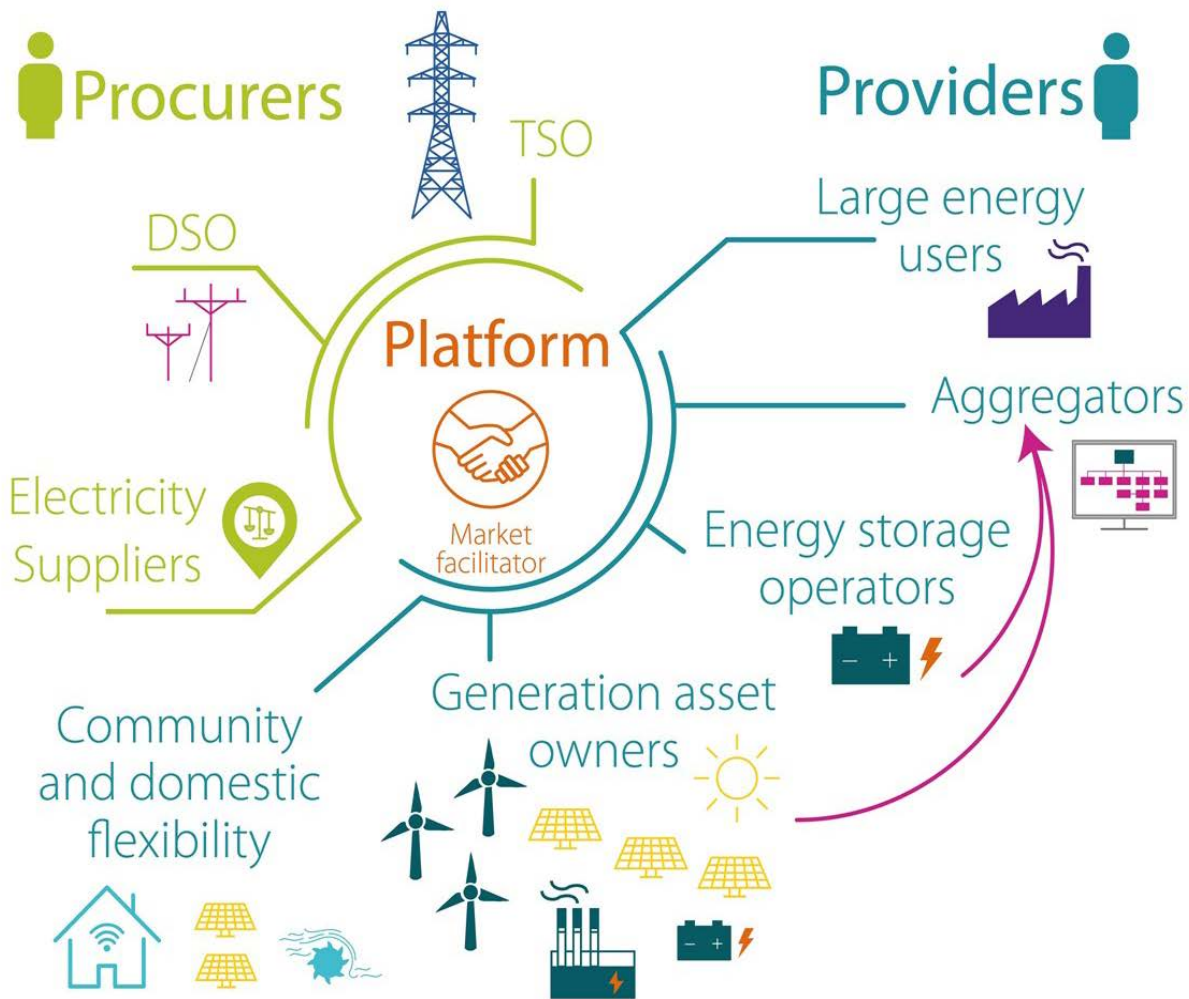
User's preferences
Measurements
Load Scheduling
Reports & Statistics



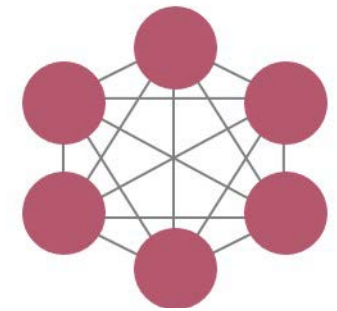
The assets information required will have mixed ownership

Managing assets will require access to real time measurements

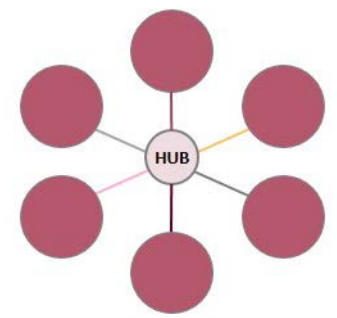
Information gateway will be needed to directly connect producers to consumers



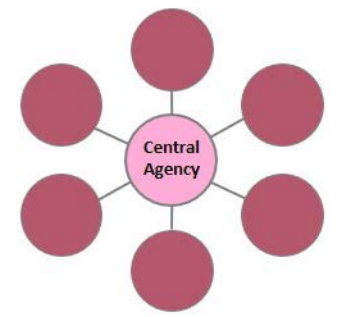
Bilateral



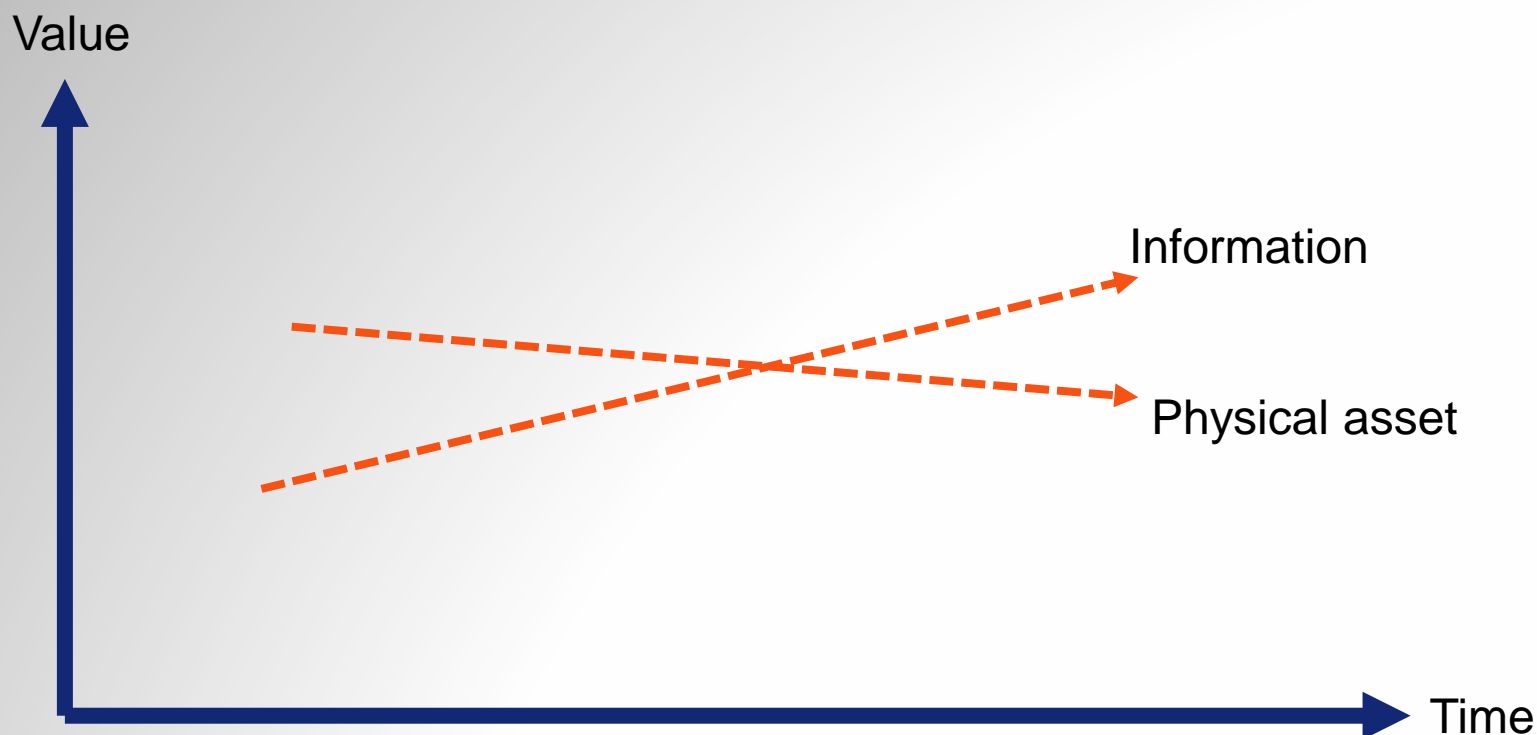
Hub



Central Agency



Better utilisation of assets across the supply chain requires comprehensive sharing - agree and industry wide approach and renegotiate the social contract



Value of asset information may overtake value of physical asset

- More efficient use of assets
- Rate of technology change - faster renewal
- Uses for information increase
- Physical asset ownership dispersed

Value information as an asset

Questions?

References

Slide “Realtime Condition Data & Algorithms”

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