Free energy data

Blockchain enabling energy flexibility services

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EU Innovation project SOFIE

- Distributed Ledger Technology to
  - **securely** and *openly* federate IoT platforms
  - Enable **data exchange**
  - securely record **audit trails**

- 4 pilots for demonstration

- Partners
  - Aalto University, Ericsson, Rovio (Finland)
  - Guardtime (Estonia)
  - AUEB, Synelixis, Optimum (Greece)
  - Engineering, Asm Terni Spa, Emotion Srl (Italy)

Finland
Mobile Gaming

Estonia
Smart Meters

Italy
Smart Energy

Greece
Food Supply Chain

Problem in energy sector?

- Regulatory drivers
  - EU Clean energy package – must enable **data access** and deal with 50% of energy from renewable energy sources
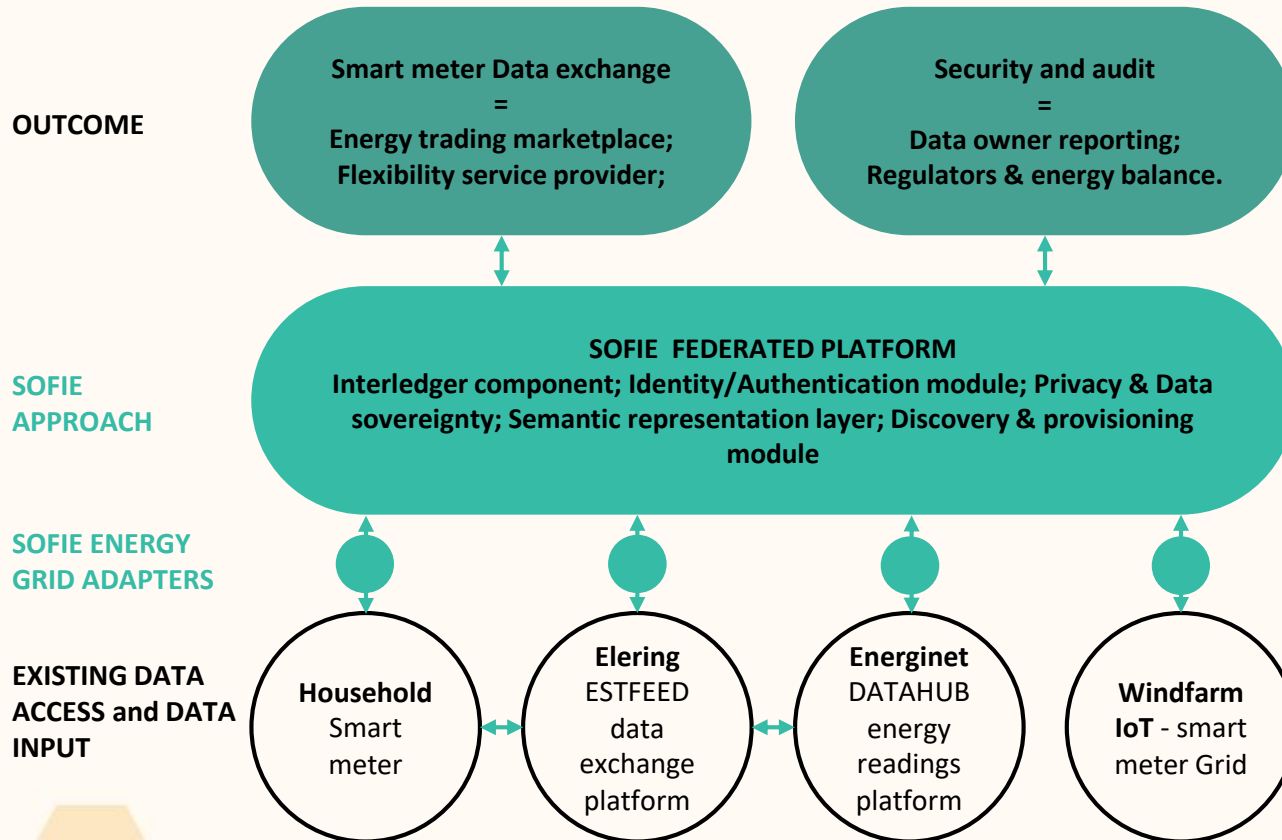 - GDPR – must comply with 7 rights

- Financial drivers
  - Race to offer suitable energy **flexibility services** to market

- End-user expectation
  - Need to be **in control** of his/her data

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SOFIE practical approach

cyberwatching.eu
The European watch
on cybersecurity & privacy

OUTCOME

Smart meter Data exchange
=
Energy trading marketplace;
Flexibility service provider;

Security and audit
=
Data owner reporting;
Regulators & energy balance.

SOFIE APPROACH

SOFIE FEDERATED PLATFORM
Interledger component; Identity/Authentication module; Privacy & Data sovereignty; Semantic representation layer; Discovery & provisioning module

SOFIE ENERGY GRID ADAPTERS

EXISTING DATA ACCESS and DATA INPUT

Household
Smart meter

Elering
ESTFEED
data exchange platform

Energinet
DATAHUB
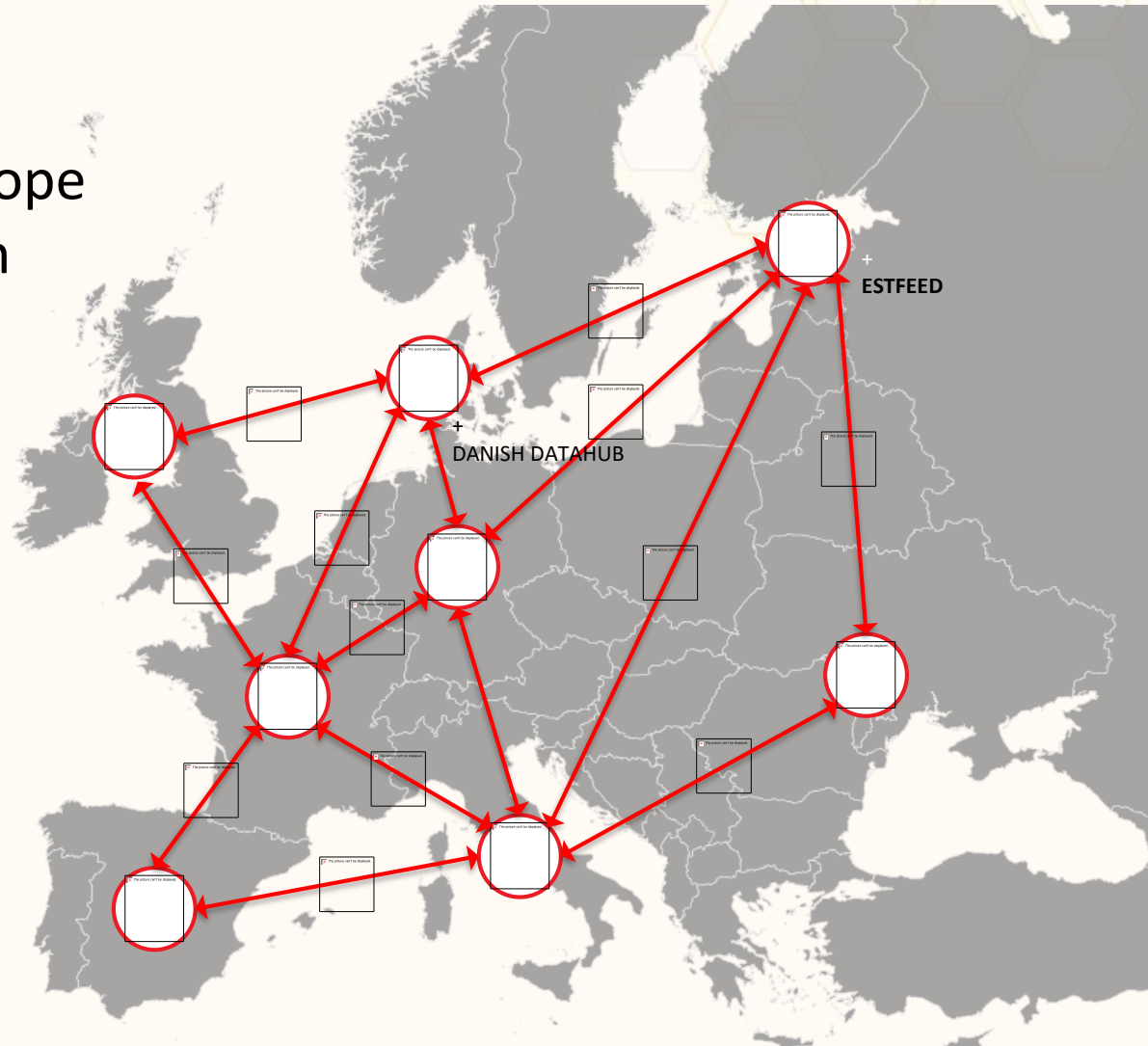energy readings platform

Windfarm
IoT - smart meter Grid

- Access to data
- End-Users Dashboard and situational awareness
- 3rd party auditability
- GDPR compliant authorization

- Mediator of trust between participants
- Reduction of the integration cost
- Data normalization, indexing and search

- Source of smart meter data
- Lack of trust
- Data normalization challenge
- Cyber security issues, log security

SOFIE

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Vision and way forward

To enable seamless exchange of data in Europe with just few clicks from data owner side

Cooperation with:
- Data owners
- Intra day energy brokers
- Retailers
- Network operators

+ ESTFEED

+ DANISH DATAHUB

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Thank you!

http://www.sofie-iot.eu/

Contact us:

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