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STATUS OF ENERGY DATA ACCESS IN EUROPE

Åsmund Jensen, Partner THEMA Consulting Group



Data access models: Key considerations – apply to both central and decentral models for data exchange

RETAIL MARKET COMPETITION

- Neutrality and non-discrimination
- Transparency

EFFICIENCY

- Cost efficiency of retail market processes
- Targeted regulation
- Data quality and quality of market processes
- Benefits for network planning and operations

CUSTOMER ENGAGEMENT

- Access to data on energy use and own generation
- Access to new services and business opportunities
- Data security and privacy

Different classes of data hubs – we tend to differentiate by data that is stored

Communication hub

No meter or master data is stored centrally

- Facilitates communication between supplier and DSO
- Increases transparency and enforces standard conformity

Datahub with master data

In addition, holds master data

- Essential to prevent inconsistencies in master data between supplier and retailer

Full data hub with metering data

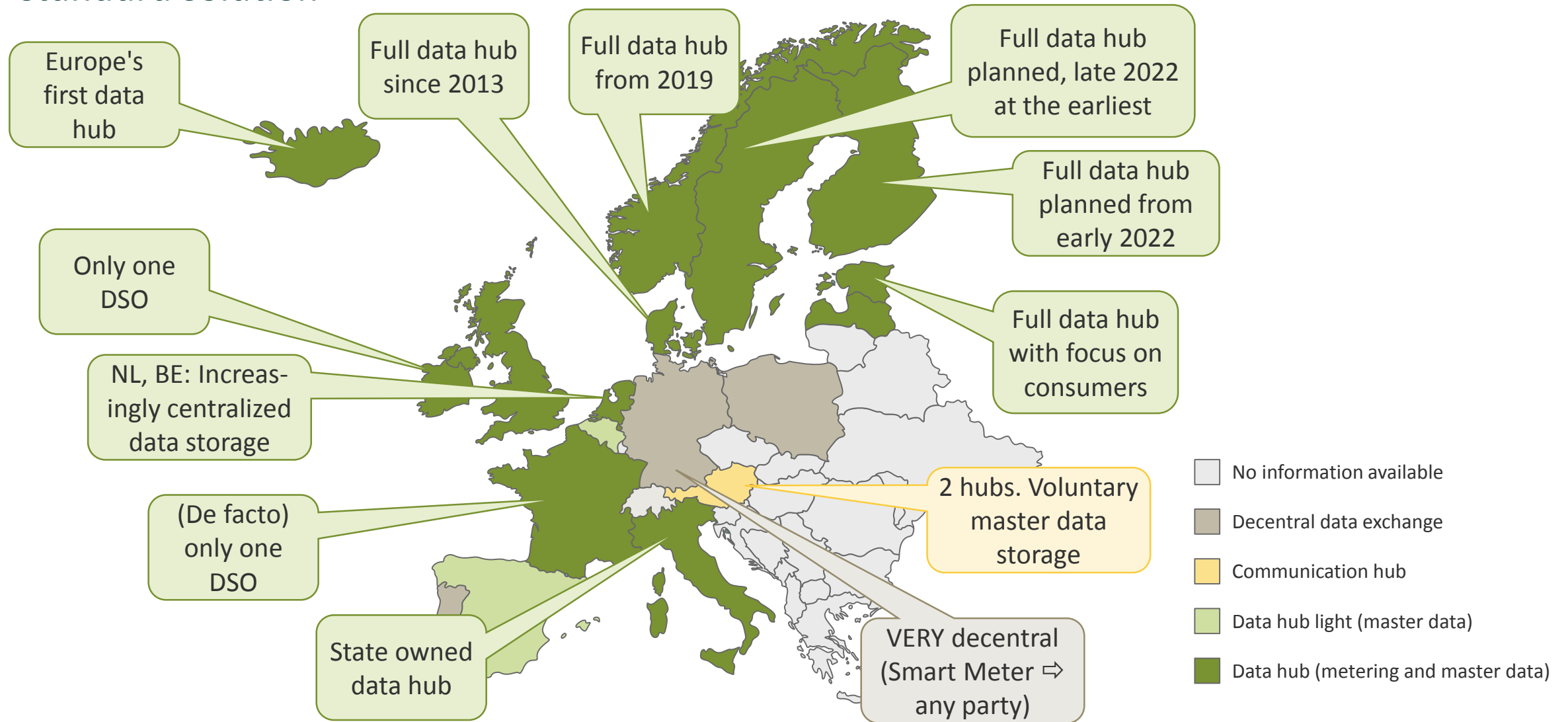
In addition, holds metering data

- Allows authorized third parties to access meter data
- Improves access for consumers to own data
- Central storage may reduce need for decentral meter data storage

Other dimensions:

- Which functionalities / business processes are provided by the hub?
- Is participation mandatory, and/ or are hubs in competition with other hubs?
- Who owns and operates the data hub? TSO, DSOs, State or independent private party?
- ...

Planned and existing data hubs in Europe: *Increasing adoption over time, but still not standard solution*



Source: THEMA report 2017-03, TSO and datahub websites, THEMA research

Data hub – quo vadis? *Data exchange beyond exchange of metering data*

CUSTOMER ACCESS AND ENERGY RELATED SERVICES

- In the past, data hubs were focussed on facilitating data exchange between DSOs and independent suppliers
- *Now:* more and more focus on enabling customer access, and energy-related services
- Example: customer grants access to service provider, who computes cost savings with a new contract

WHOLESALE AND MARKET PROCESSES

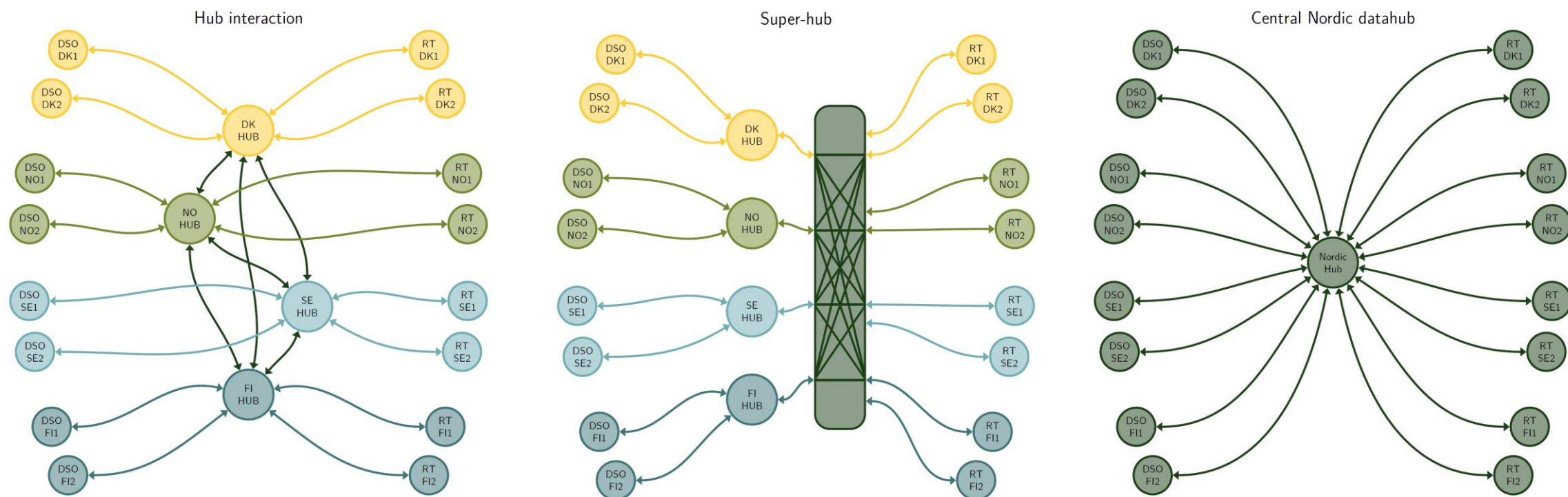
- Some hubs also include imbalance settlement
- Data hubs may aggregate data for balance groups, ensure data quality, oversee market processes (are deadlines met etc.)
- May also play a role in guarantees of origin, subsidy schemes, etc.

ADDITIONAL DATA

- Weather forecasts for demand response, decentral generation forecasts
- Spot market data
- Grid data, flexibility data, balancing market bids – *but on different platforms*

Data hub – quo vadis? *Interoperability across borders and markets*

Three options for increased interoperability and market harmonisation in the Nordics



The Norwegian case: Early experiences from establishing a datahub in a highly competitive retail market with smart metering

NEED FOR CHANGES IN INTERNAL PROCESSES OF RETAILERS AND DSOS

- IT systems must be adapted
- Work processes need to be adapted to meet reporting requirements and handle error corrections
- Many grid companies struggle to meet deadlines for reporting correct data

DATA QUALITY AND MIGRATION ISSUES

- Substantial effort needed to ensure that master data are as correct as possible on startup
- Maintaining data quality remains an issue after go-live of the hub

REALISING BENEFITS IN THE LONGER TERM

- In the short term costs of metering, billing and settlement do not seem to be reduced
- Need to iron out remaining errors and adapt work processes and IT systems
- Also need to make customers conscious of the opportunities with the hub



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