

The logo for Enerim, featuring the word "enerim" in a bold, lowercase, sans-serif font. The letters are black and have a slightly irregular, hand-drawn feel. The 'e's are particularly stylized with a small gap at the top. The logo is positioned on the left side of the slide, partially overlapping a large green circular graphic that is part of a larger background design consisting of a grid of overlapping circles.

Enabling the future Energy System
Jan Segerstam, May 2022

Enerim at a glance

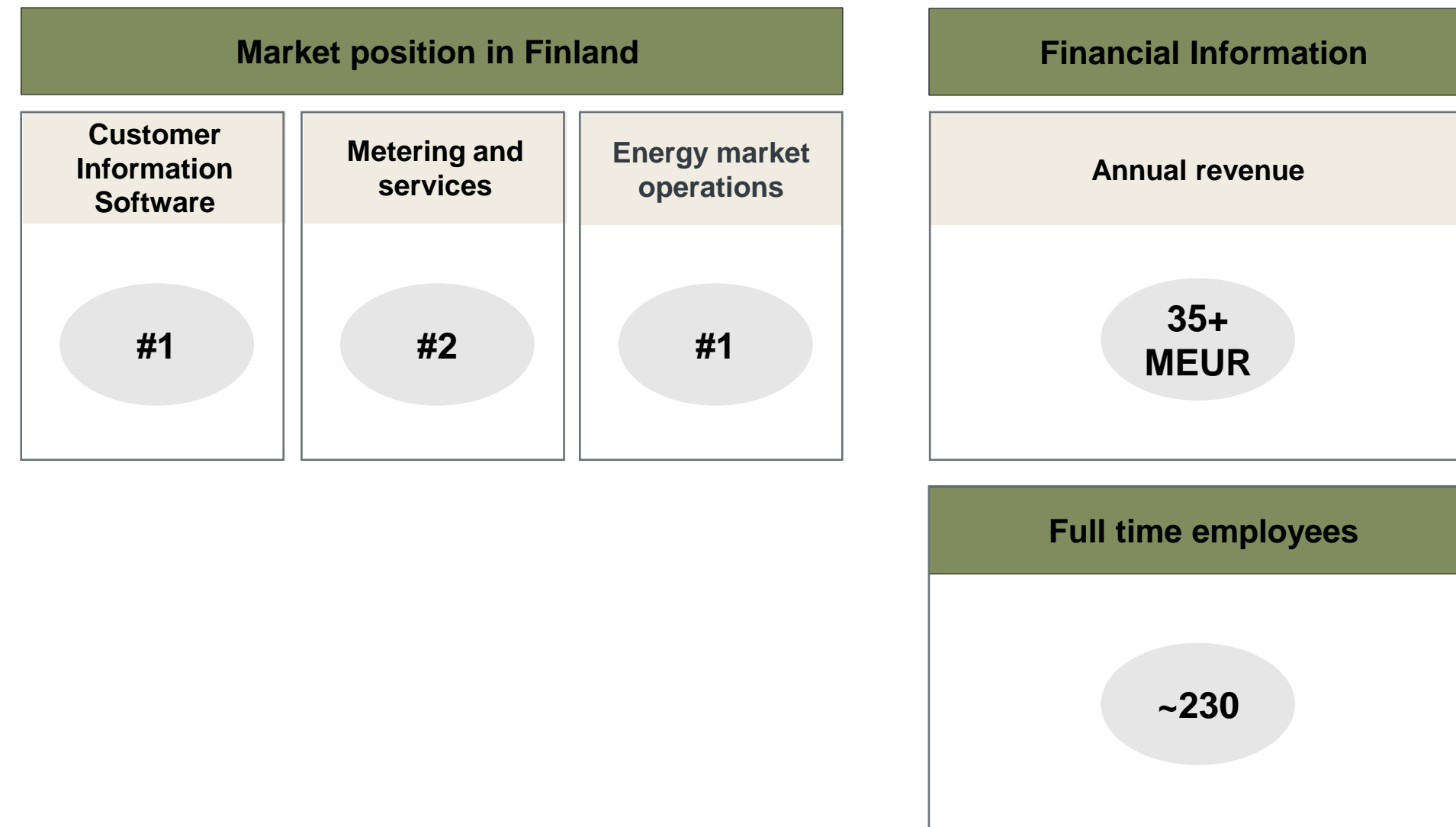
Overview

Enerim is a unique business service supplier for the energy sector with three main offerings:

1. **Software and services for automating energy market processes, ensuring compliance and efficiency**
2. **Metering, meter data flow, and related services**
3. **Energy market operations including 24/7 monitoring and control room services**

Enerim Oy has over 200 customers including distribution and transmission grids, energy retailers, energy producers, energy intensive industries and large energy consumers.

Key facts



Owned by KLAR Partners

We are KLAR

We are KLAR Partners - an independent, mid-market private equity firm focused on the business services and industrial sectors, investing primarily in the Nordic, Benelux and DACH regions. We make control investments in companies providing mission critical products and services, partnering with management to build sustainable,

market-leading businesses through a responsible investment approach. We are driven by our values of Clarity, Community, Curiosity and Courage and deploy our transformational investing experience to realise the full potential of our companies through growth, operational improvement and buy & build strategies.

Our contribution as owners is most effective in industries and geographies that we know well



Mission-critical
B2B services



Asset-light
industrials

Our core regions



Enerim Development, Creating a Thought Leader Position from collaboration

European development

ITEA and EU Projects,
M2MGRIDS, SEAS,
SENSIBLE, DOMINOES,
INTERFACE, ONENET
...

Engagement in key development subjects

Datahub, Nordic Retail Market, Nordic Balance Settlement, Next generation AMI, Flexibility Management, Local Energy Communities, 15 minute settlement, flexibility markets

Nordic Change

Industry organisation
collaboration, Finnish
Energy Industries,
Datahub design
collaboration

Government collaboration

Regulatory development
of market model &
settlement content

Enerim builds on deep expertise in the energy industry

Our proactive role in international smart energy development ensures key expertise in market dynamics, upcoming regulation and solution value drivers

Key development areas

Enerim works together with key stakeholders to discover and shape tomorrow's energy market environment together with legislators and market facilitators

- **Engagement in key development areas**
 - Datahub, Nordic Retail Market, Nordic Balance Settlement, Next Generation AMI, Flexibility Management, Local Energy Communities, 15 minute settlement and flexibility markets
- **Active membership in market organisations**
 - Finnish Energy Industries with collaboration across the Nordics
- **Co-operation with national and EU development bodies**
 - ITEA, EU Commission, Business Finland, Finnish Energy Authority, ECSEL
- **Key subject EU development projects with stakeholder consortia**
 - DOMINOES, INTERRFACE, SENSIBLE, M2MGRIDS, SEAS etc.

EU level development projects

DOMINOES

Future local market models for interactive markets meshing with wholesale markets and network management on DSO and TSO levels

INTERRFACE

Single Flexibility Platform Demonstrator to link flexible energy resources from all network levels to cross border reaching congestion management markets

SENSIBLE

Distributed storage as a tool to enhance network capabilities and facilitate integration of renewables into the energy system

M2MGRIDS

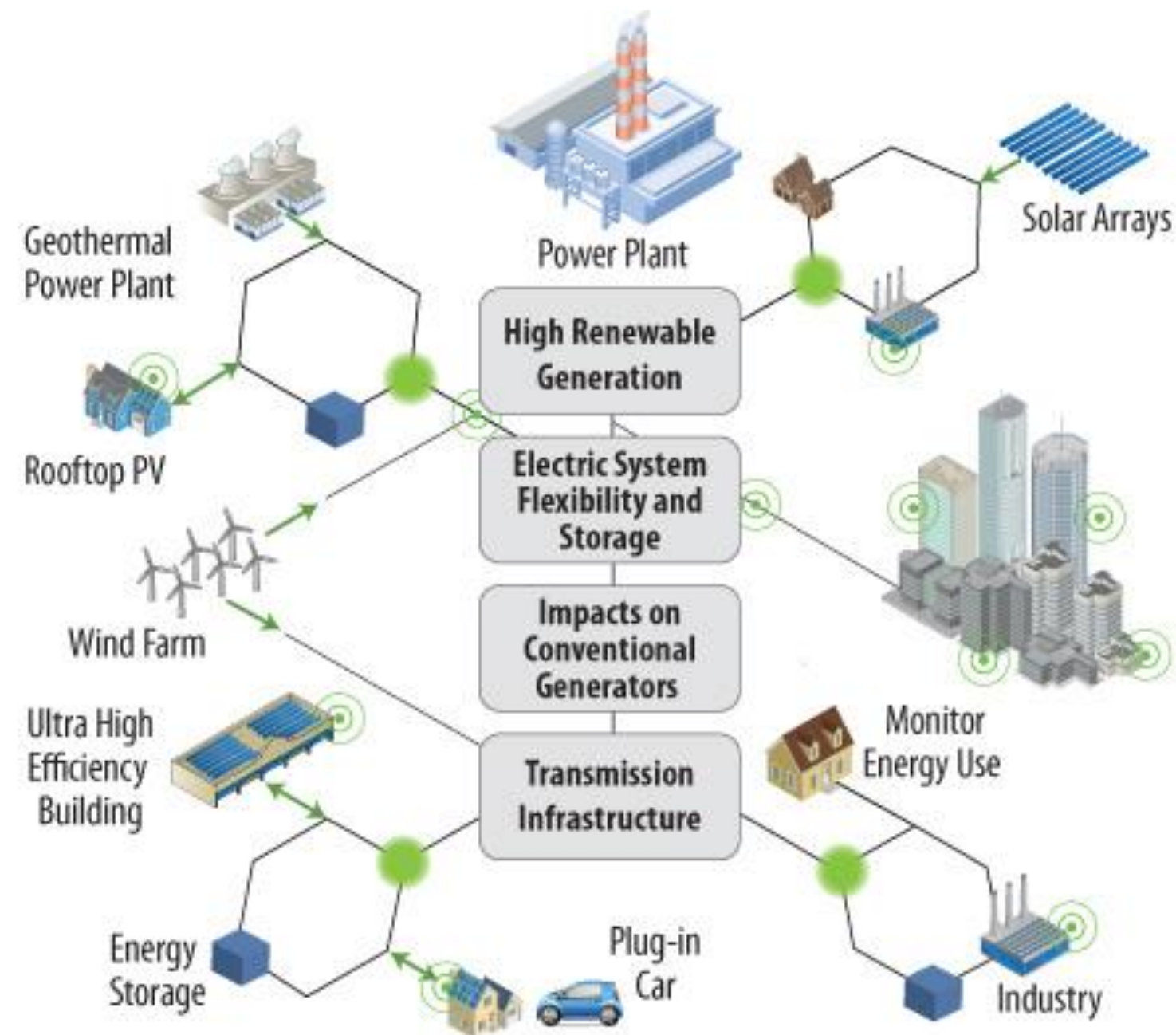
Cross domain demonstration of dynamic automated microgrids and flexibility management through cross domain information such as presence or environmental factors

SEAS

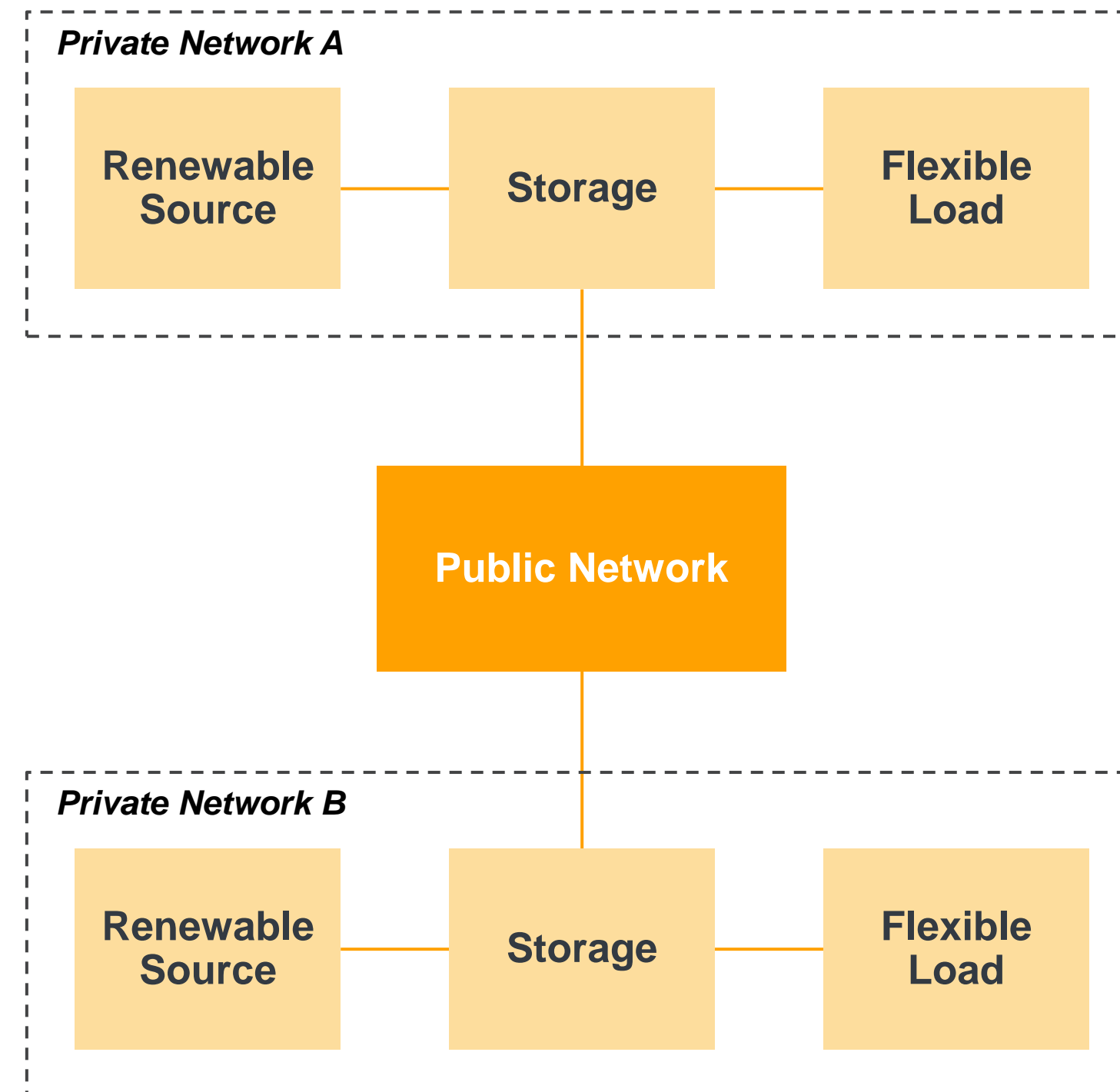
Open ontologies to allow dynamic publication of flexible energy resources for use on different markets in different portfolios without hard coded information infrastructures

The electricity system is becoming more complex

Challenge areas in the electricity system (NREL 2019)

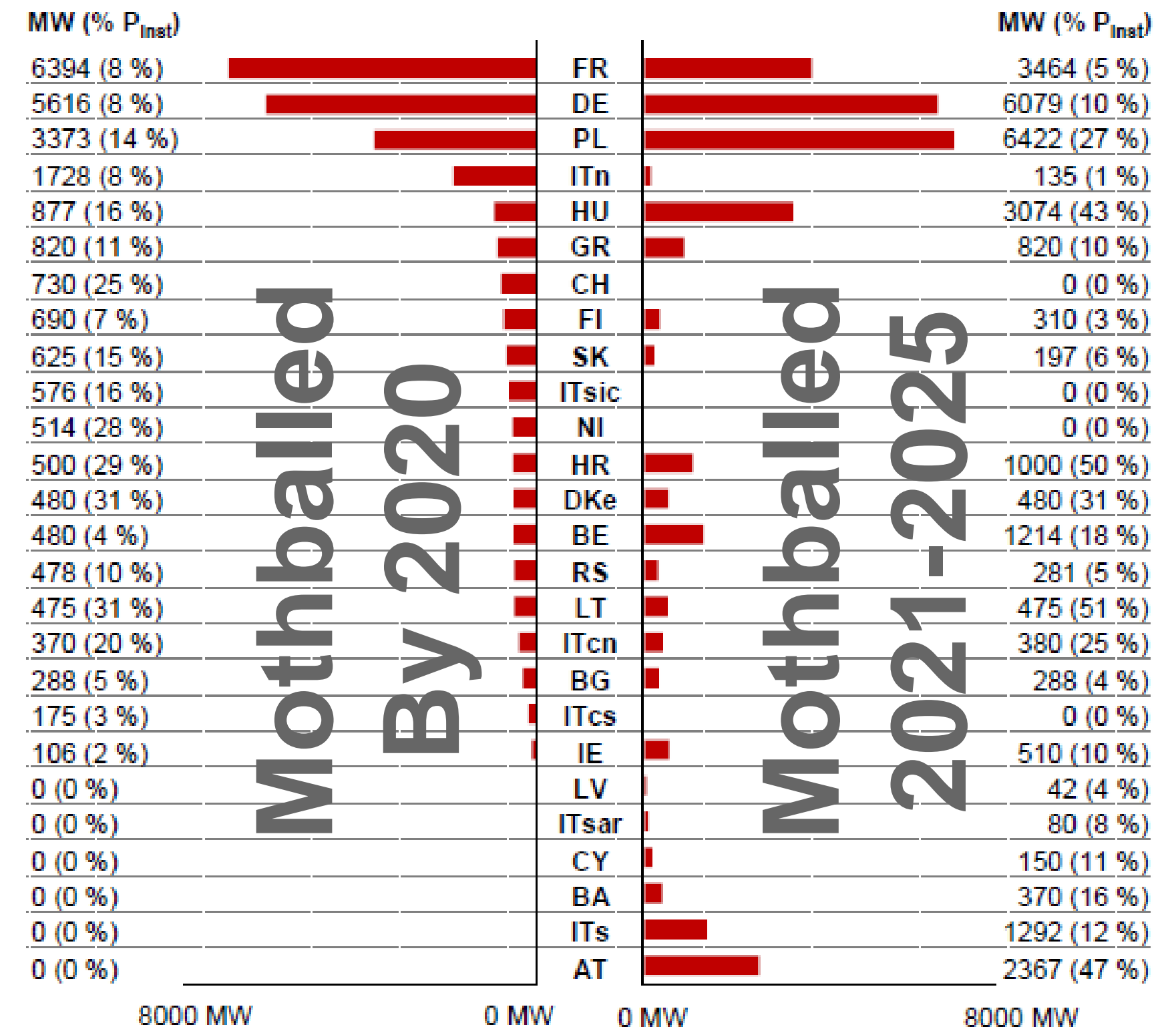


The new electricity system simplified



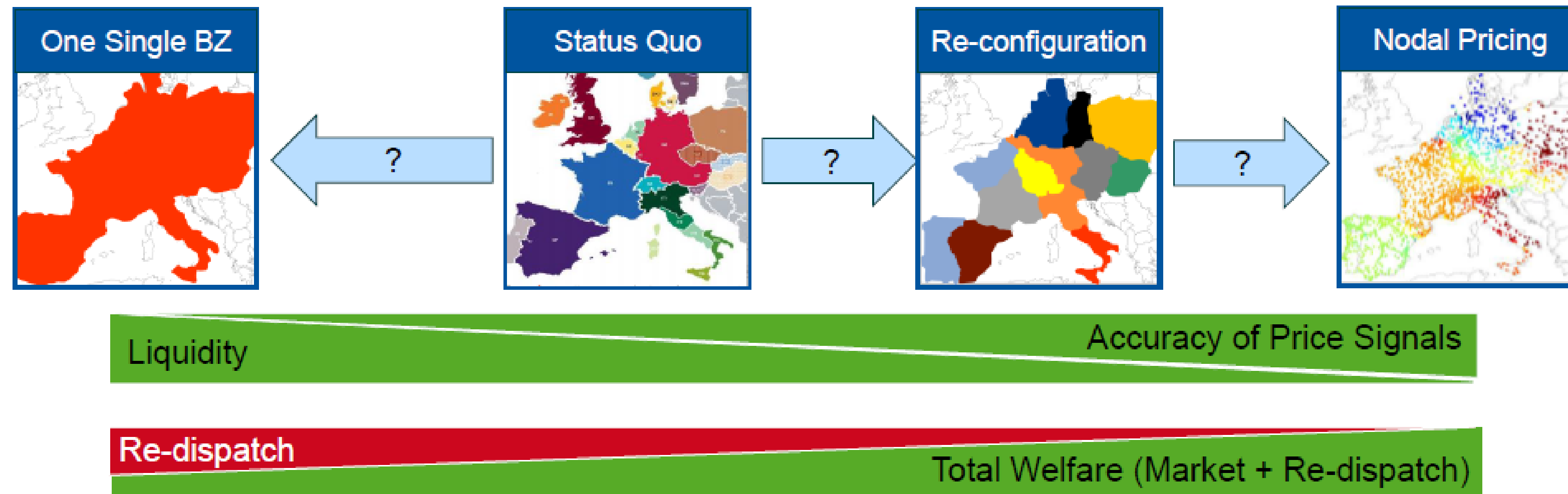
The missing money problem makes change inevitable and real on the energy system level

- Market dynamics have already changed because of renewables and policy
 - Traditional capacity sees too few dispatch hours, can't cover OPEX and will be mothballed if no changes in the market are made
- Regardless of change content, new business is generated
 - If markets support peak generation, new trading and settlement is needed
 - If markets support renewables only, new flexibility services are needed in addition to new trading and settlement
 - Right now we are seeing both and new players emerging



Source: ENTSO-E

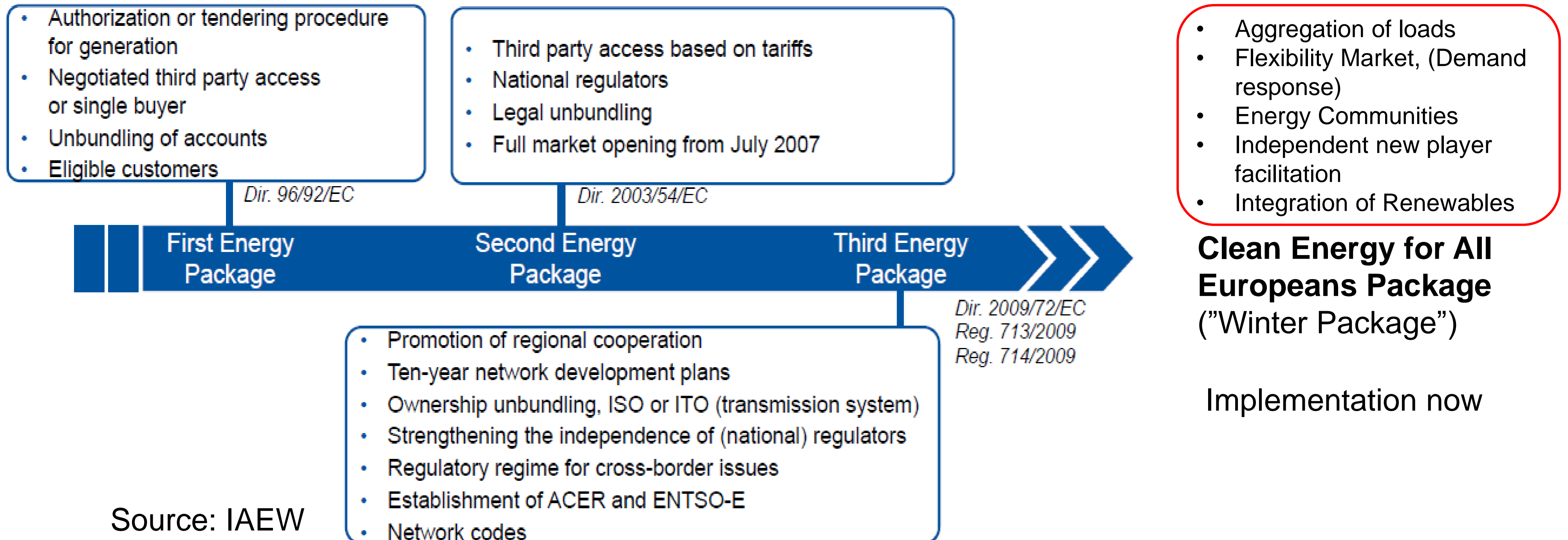
Policy and The Energy Transition are forcing market change driving new business



Sources: IAEW, ENTSO-E

- Whatever the outcome, new processes and services are needed, working platforms do not exist yet
- Market Coupling Office & XBID schemes coupled with policy are already steps towards reconfiguration

The Policy Train is Running at Full Speed, forcing market change

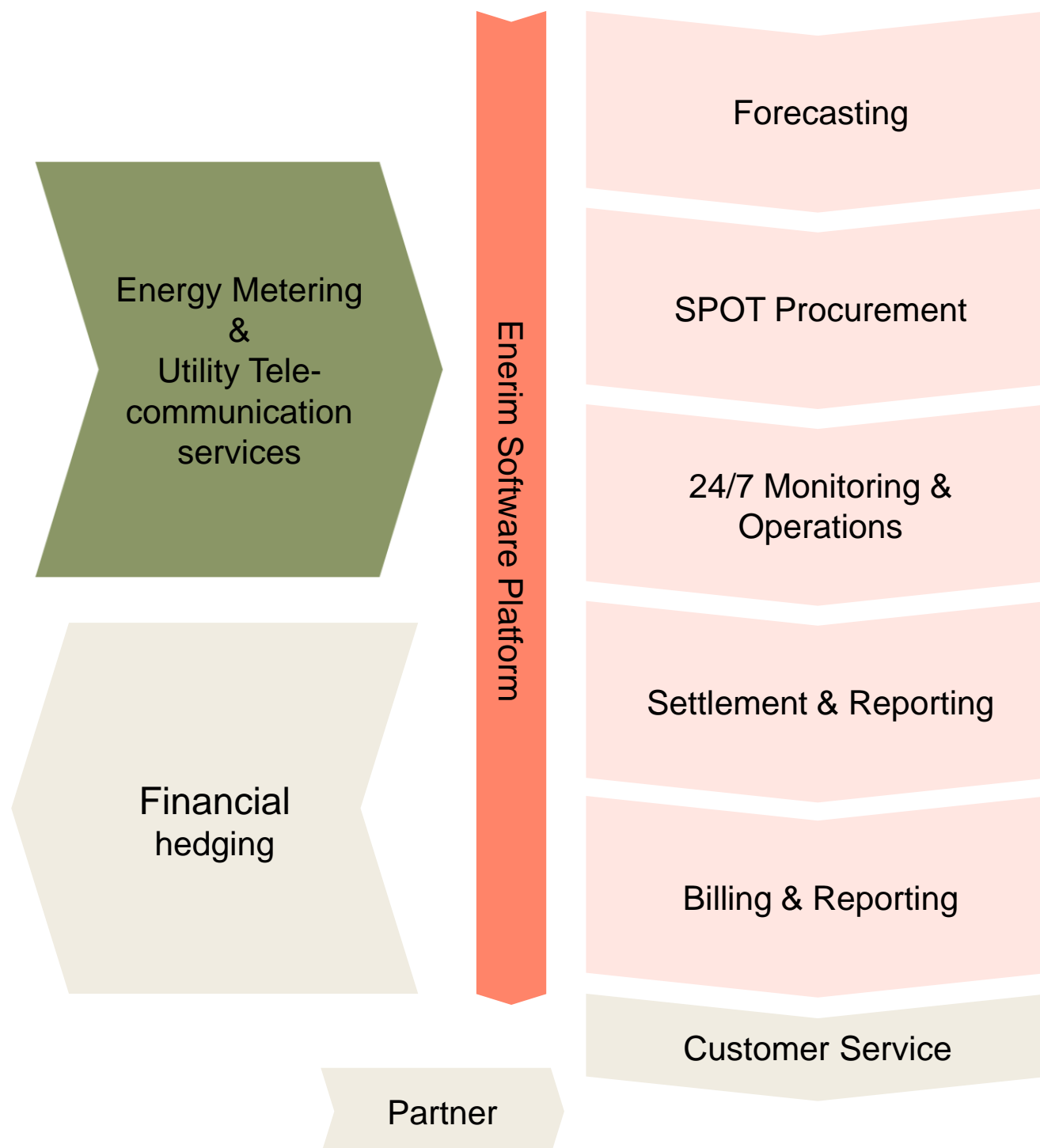


Source: IAEW

Services across the entire energy market value chain

Service offering overview

Value chain



Service description

- Consumption and production forecasts
- Historical information and planning data
- Weather data and parameters
- Data analysis and algorithms

- Collection and generation of input data
- Bid generation, updates and delivery
- Daily verifications on bid data and delivery

Commercial

- Electricity and natural gas
- Real-time balance, near real-time corrections
- Intraday trade, Elbas, regulating power markets & gas markets

Technical

- Power grid
- Generation plants
- Demand response

- Balance settlement & verification (BRP, DSO, retailer)
- Consumption and production balances
- Customer specific settlements, nettings, reporting
- Reports for authorities (e.g. emissions, REMIT, UMM etc.)

- Sales and distribution billing data to various channels
- Customer internal billing data
- Receivables management
- Reports for authorities (e.g. taxes, KPIs etc.)

Unique, proprietary Enerim software platform

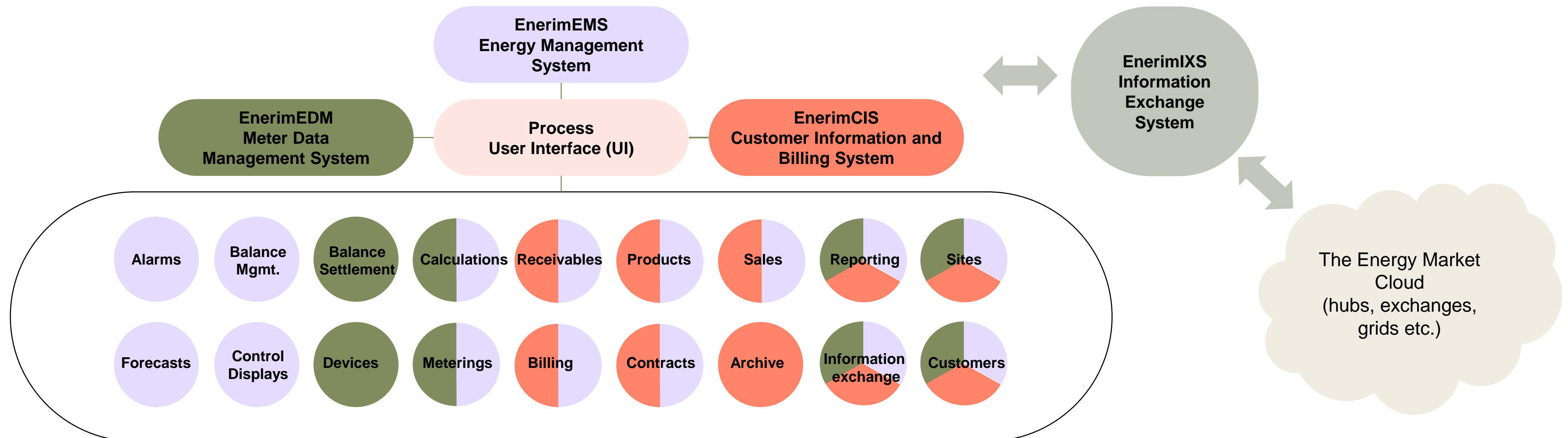
Enerim's software platform of systems enables full energy value chain functionality with full connectivity and compliance

Overview

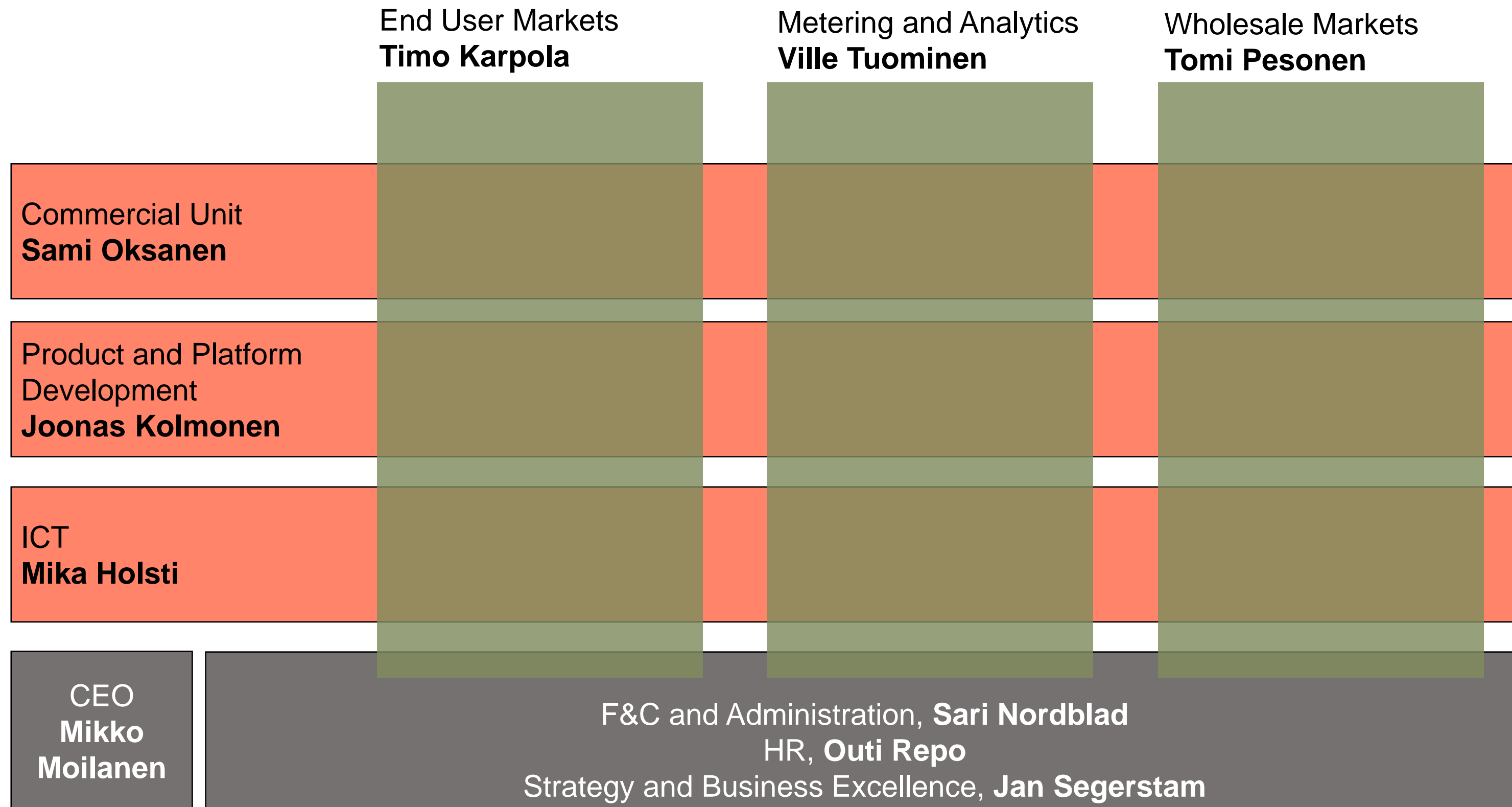
- Enerim's software platform systems are developed in-house
- Sold together with managed business process services or as SaaS, as well as on premise solutions
- Direct implementation in the energy market cloud through our datahub aware IXS messaging and information exchange system

Key features

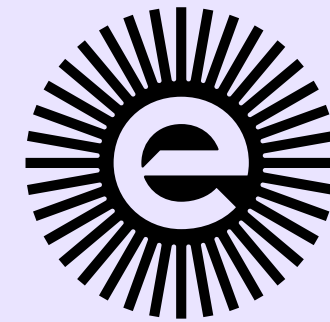
- Modular structure which enables customers to buy only the components of the platform that they require
- Code designed in separate blocks which allows for easy adaption to new and existing systems as well as changing market requirements
- Automated processes in real-time with independent databases
- Support for commodities like electricity, district heat/cool, gas, water, and various services



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