

Evolution towards a Prosumer Centric System

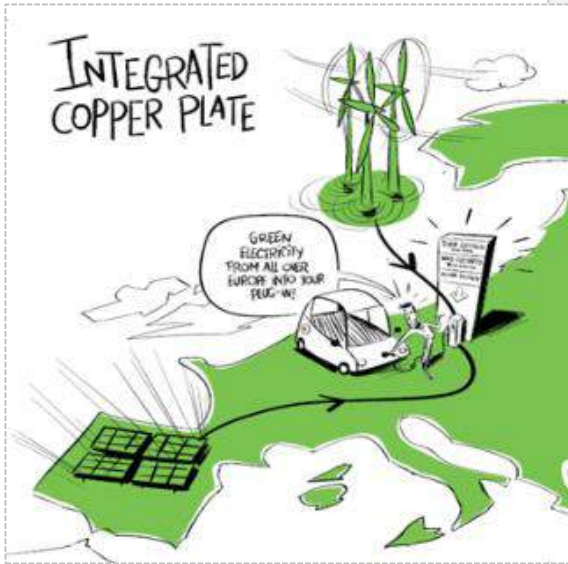
KVAB – Reflectiegroep Energie

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An interconnected and decentral green transition ?



- Strong **increase** of **wind** and **solar PV**



- Role of fossil fuel will change from baseload to backup capacity and **nuclear phase out**



- Electrical vehicles, heat pumps and batteries add a huge amount of flexibility



- Network infrastructure, demand side response and storage to increase



- Green EU and energy independency



The future energy system will be **green** and both **more decentral** as well as **more interconnected**

**Societal ambition:
put the consumer at the centre**



The consumer wants EaaS as soon and as open as possible



Keep
comfort/quality

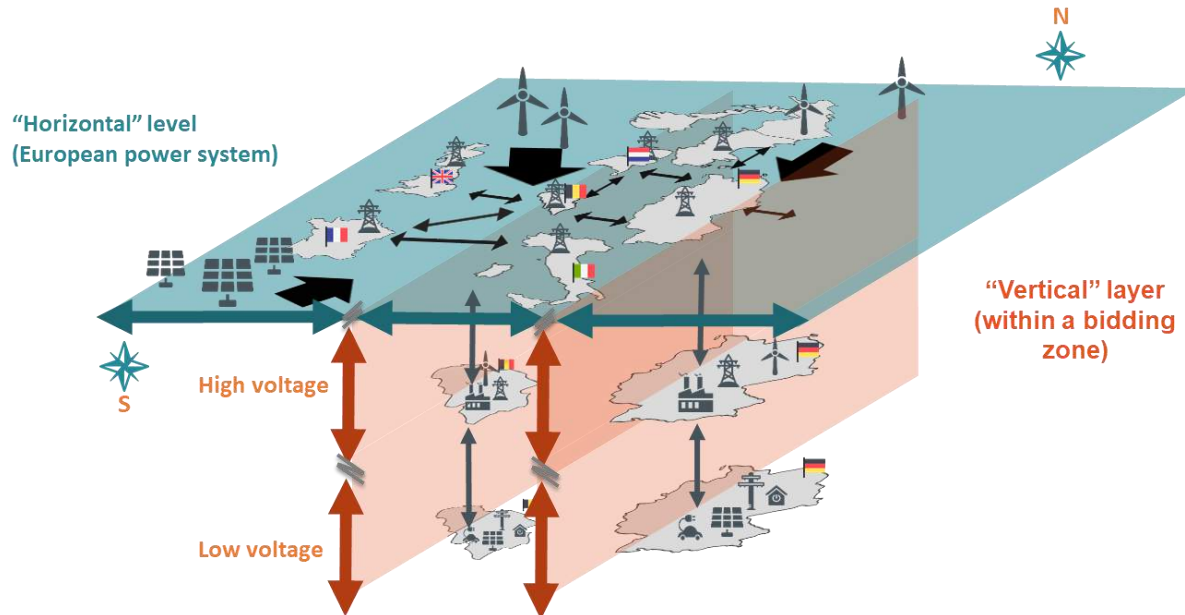


Optimise
energy bill



Monetise
flexibility

New challenges emerge for managing power system



At “horizontal” level

- Bringing renewables to the consumer requires more transmission infrastructure
- Fast-paced RES development requires us managing the discrepancy between market & physical flows

At “vertical” level

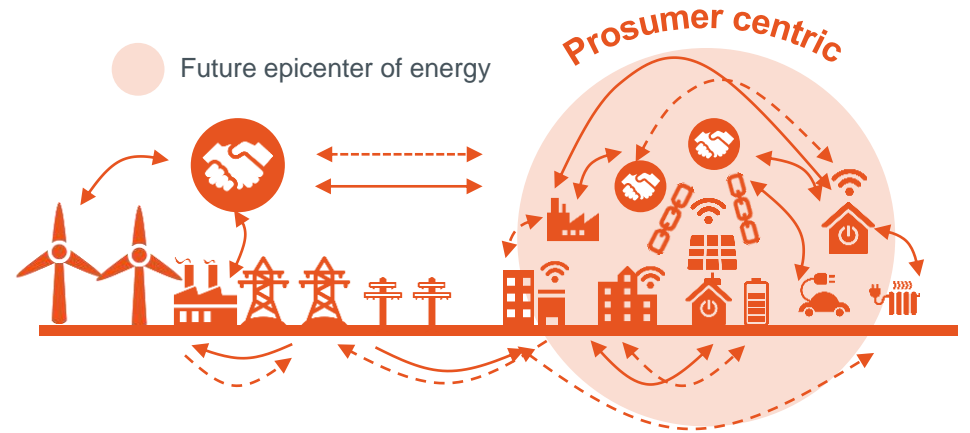
- Fragmented sector with increasing decentralisation and number of players
- Consumers not getting appropriate signals to help the system: only incentivised to self-consume

Complementing the development of infrastructure, a new approach for managing the power system is needed

A paradigm shift towards “demand follows generation” is a win-win for consumer and the system

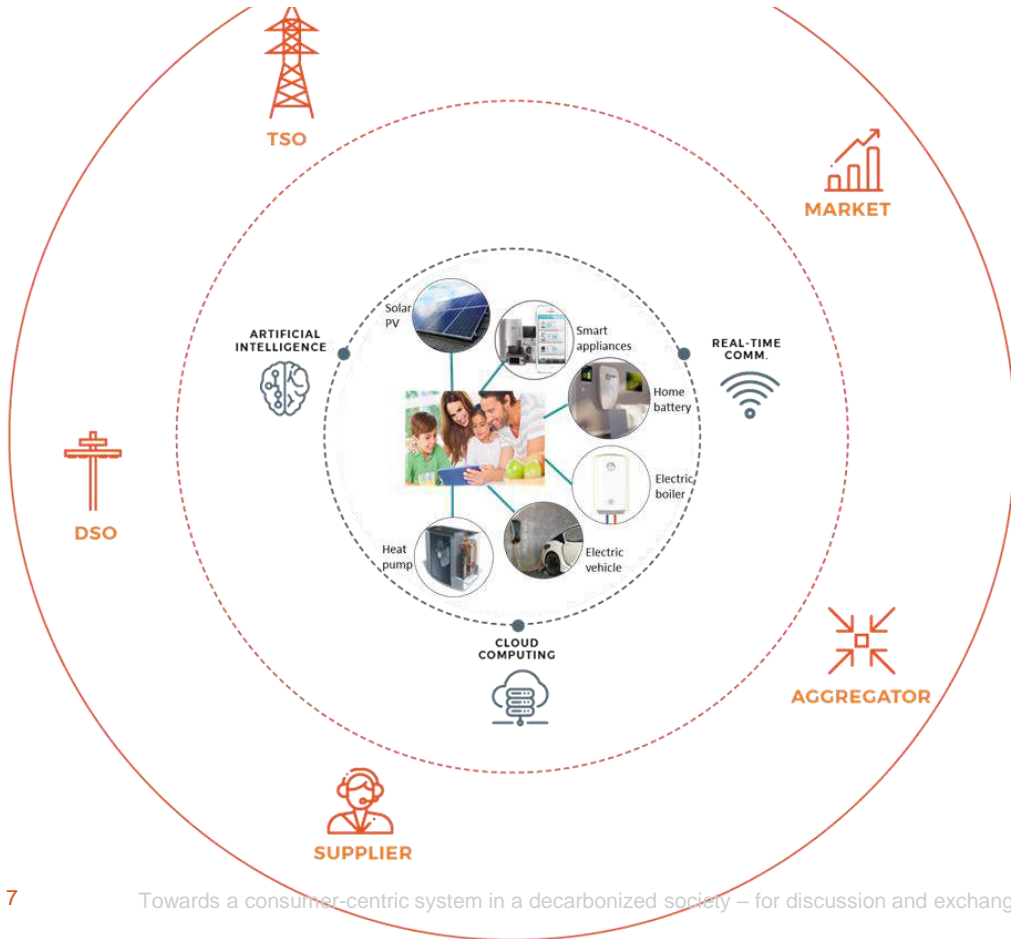


Generation follows consumption



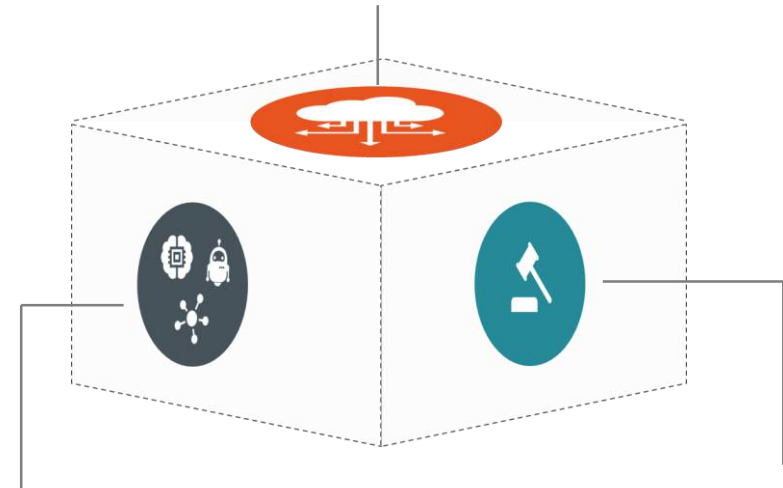
Demand will follow generation

An empowered consumer is necessary to operate the paradigm shift



What are today's barriers?

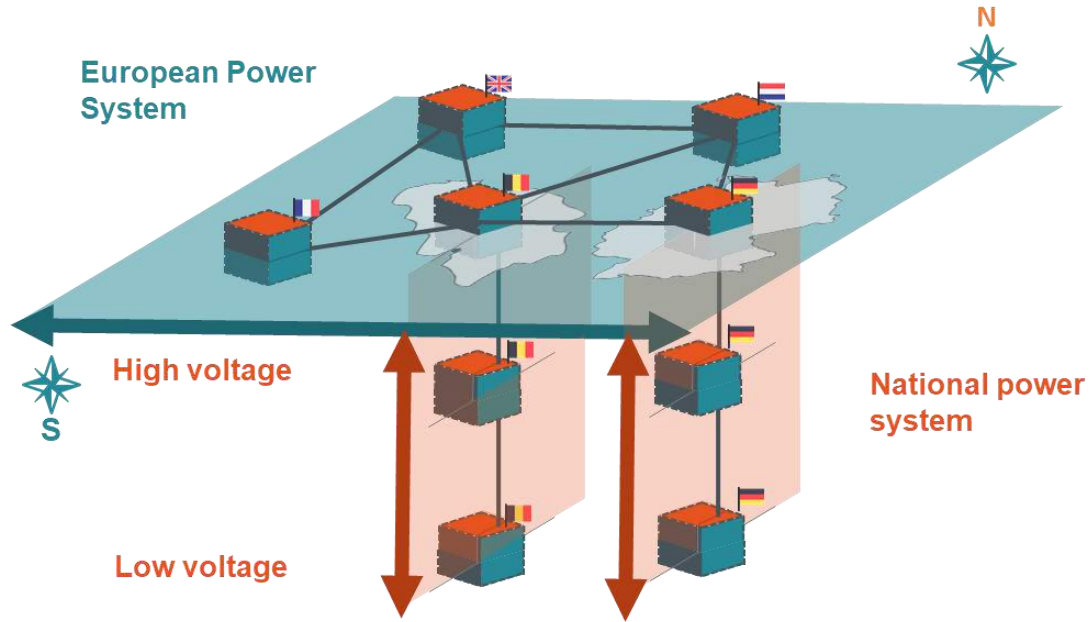
No real-time communication layer from/to smart meters



Tools need to be adapted to address more complex system management and enable delivery of market-based services

Consumer not exposed to the market so he can value his flexibility and contribute to the system management

Our vision



Delivering a consumer-centric system in a decarbonised society can be possible thanks to three key elements:



An adapted market that puts the consumer at the centre while optimising infrastructure use



A real-time communication platform that is unique, open and secure



Tools powered by new (digital) technologies to enhance system management



Thank you for your attention!!