

A paradigm shift in network planning in the face of diverse flexibility

PowerSwarm

5 September 2019



Bless Kuri



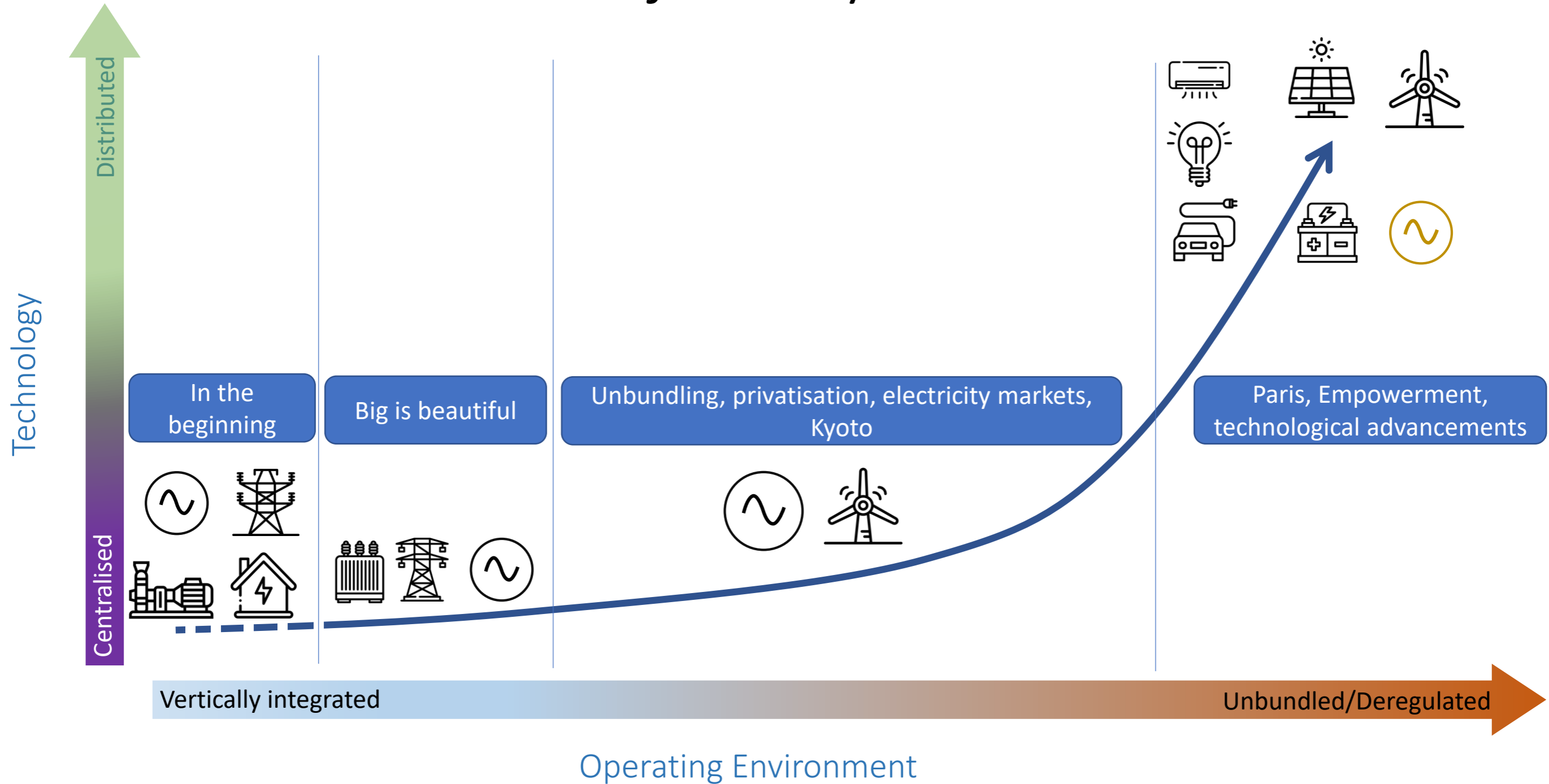
Scottish & Southern
Electricity Networks

Overview

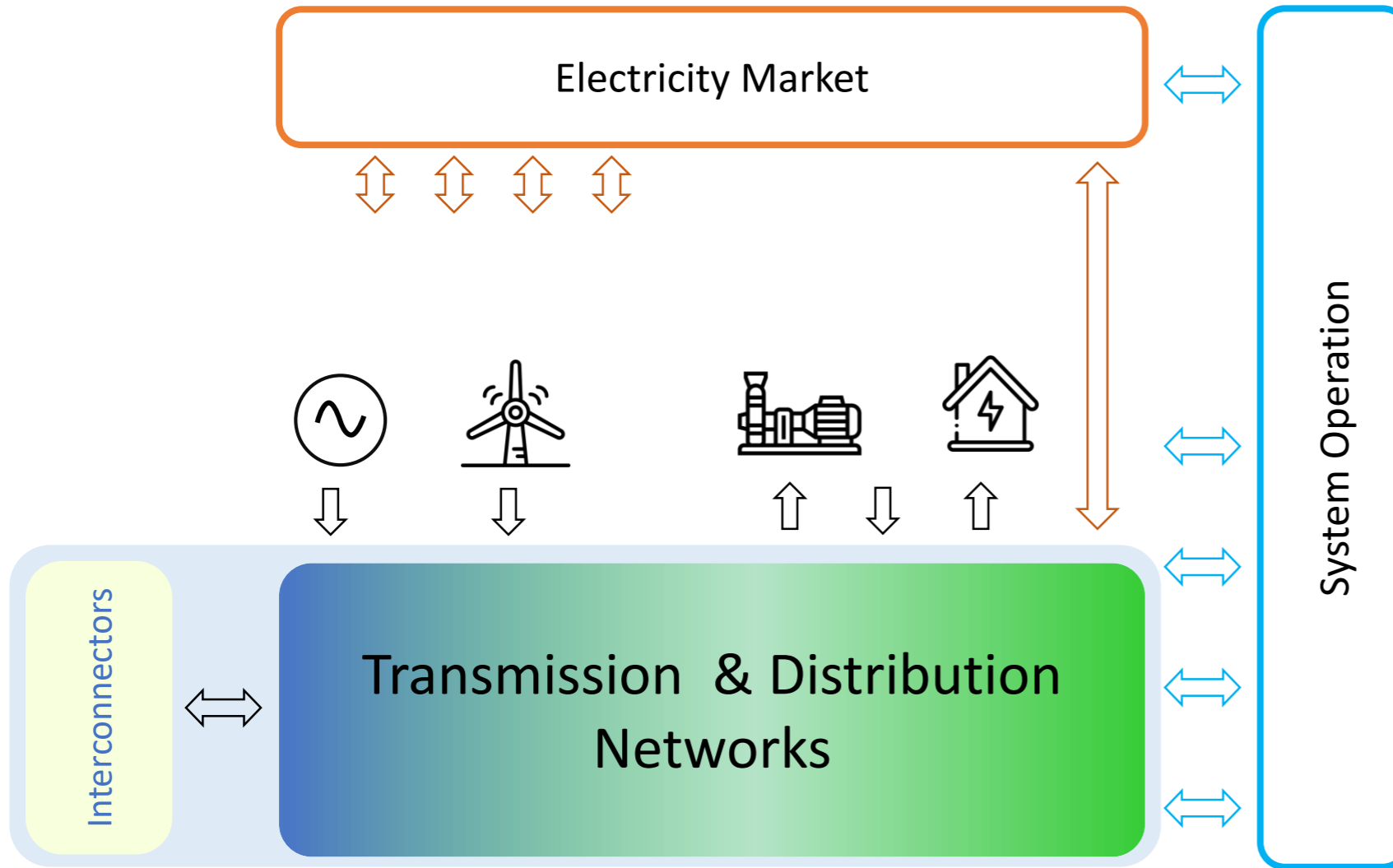
- The journey so far
- Networks are the backbone
- Need to adapt – Uncertainties here to stay
- Stakeholders
- Capability development



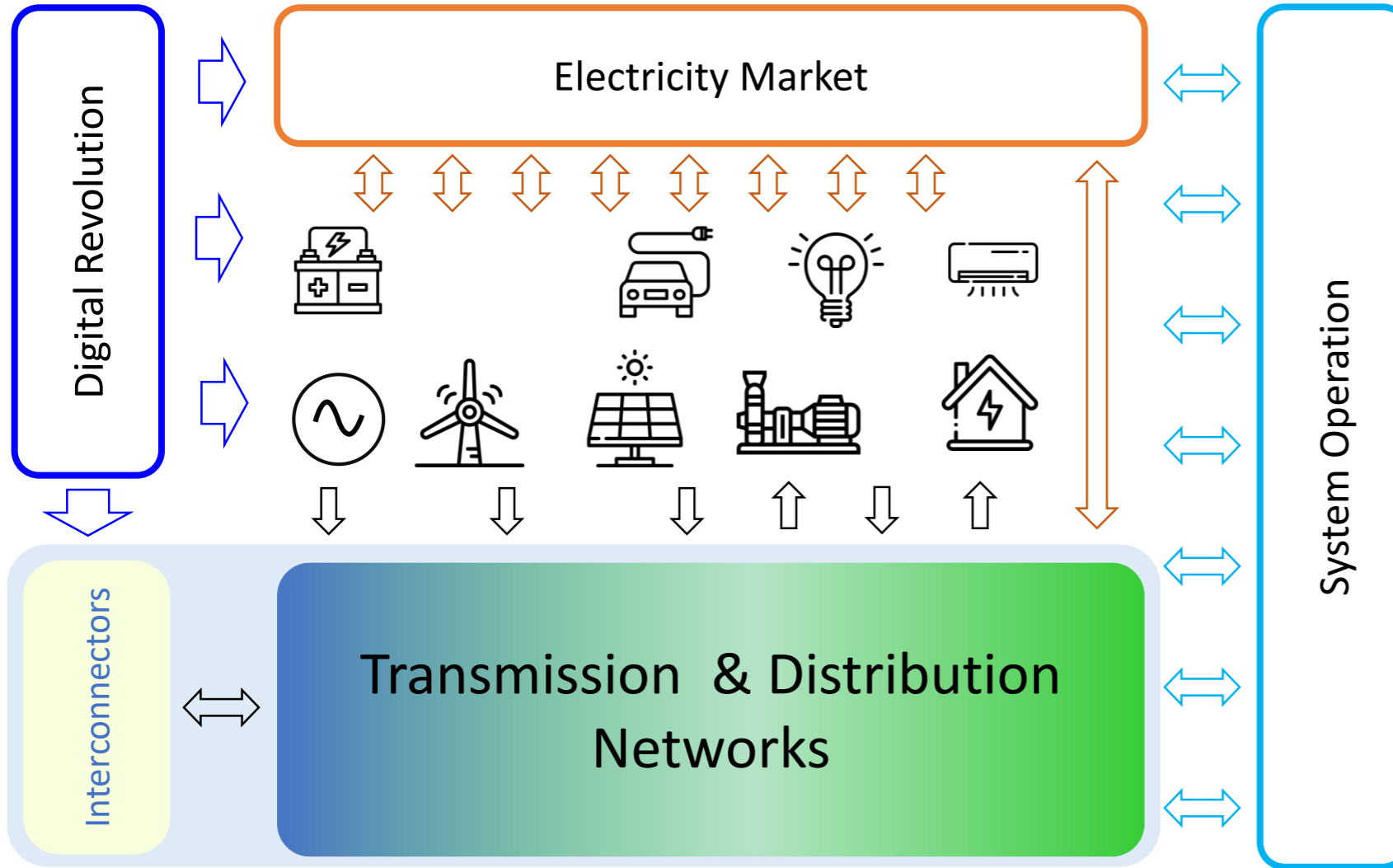
The journey so far



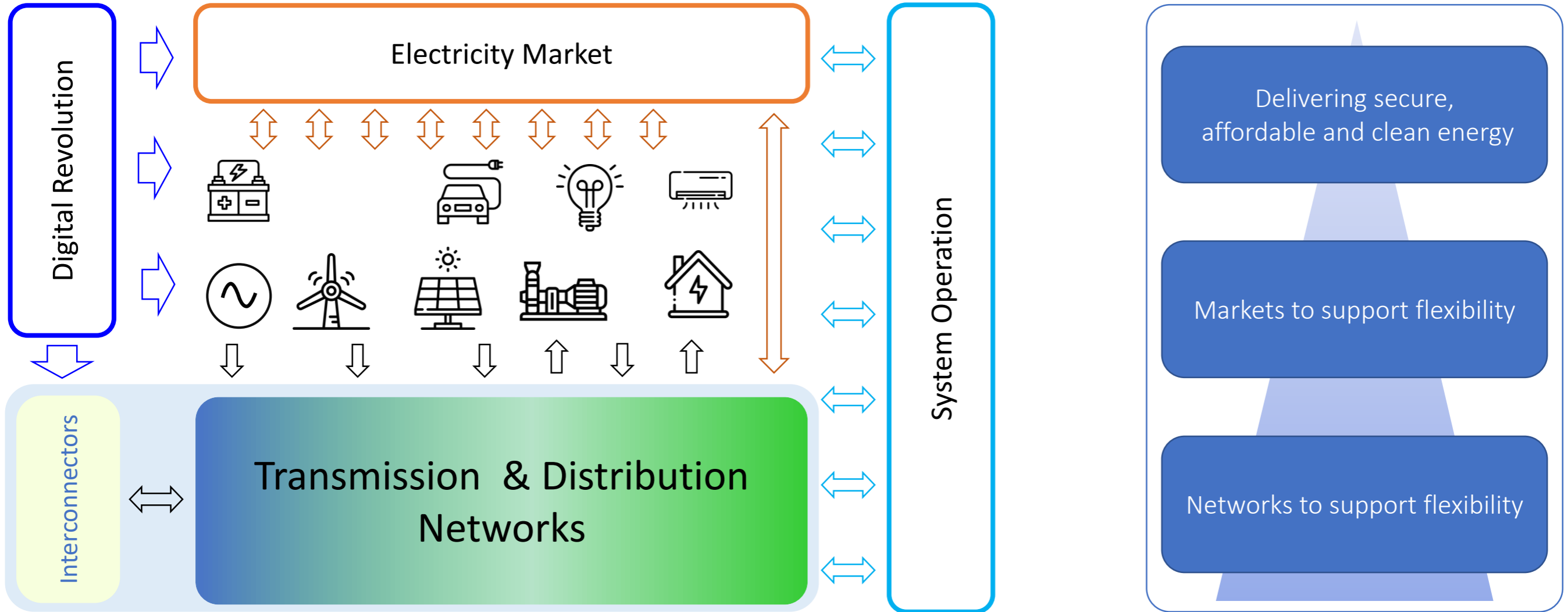
Networks are the backbone of the electricity system



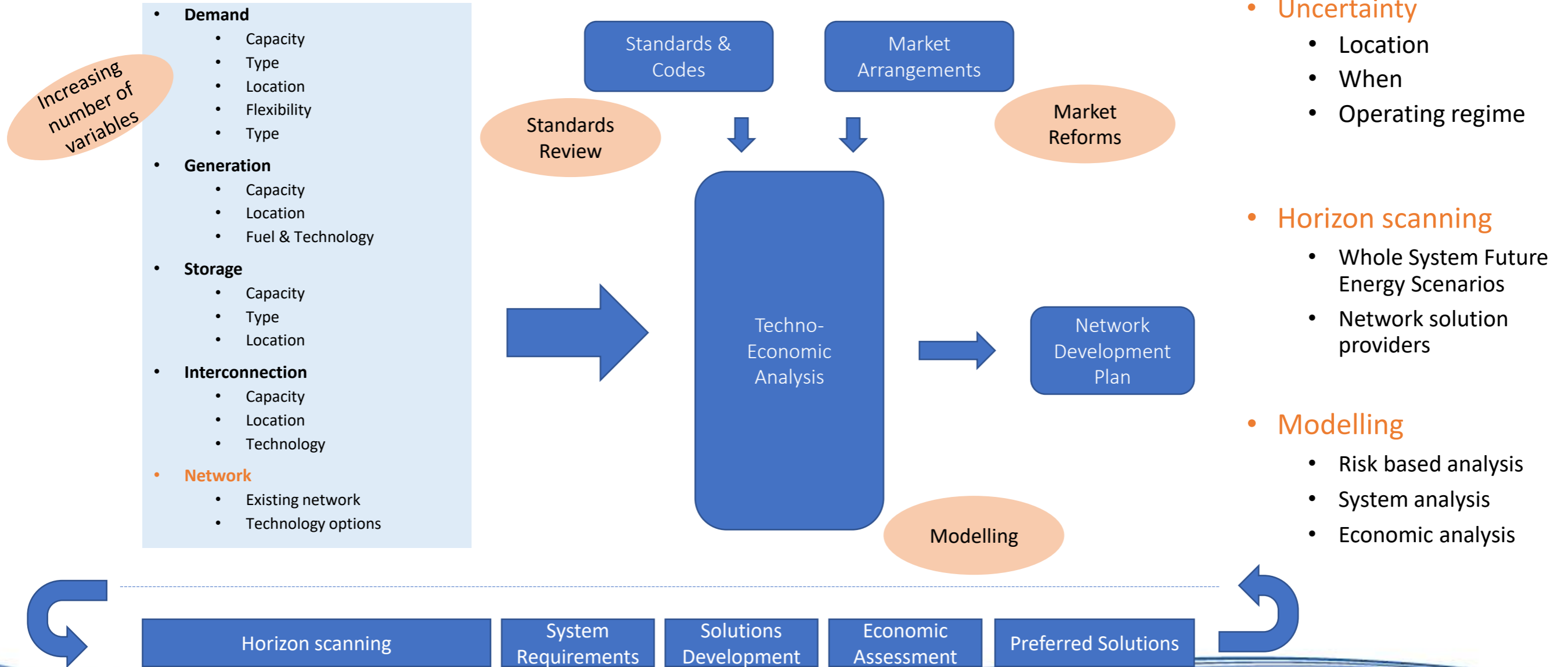
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Need to adapt – Uncertainties are here to stay



Transmission System Planning - Stakeholders



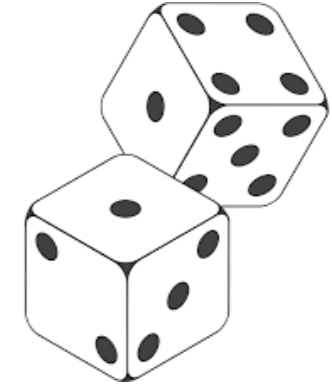
- Wide range of stakeholders
- Working within industry framework codes
- Broad view of the business and of the Electricity industry

Capability development



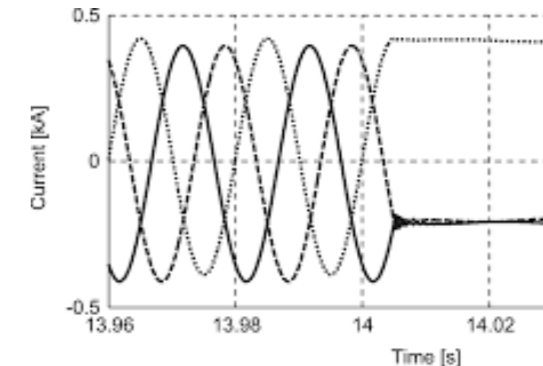
Analysis & design tools

- Software packages
- Probabilistic analysis
- Automation

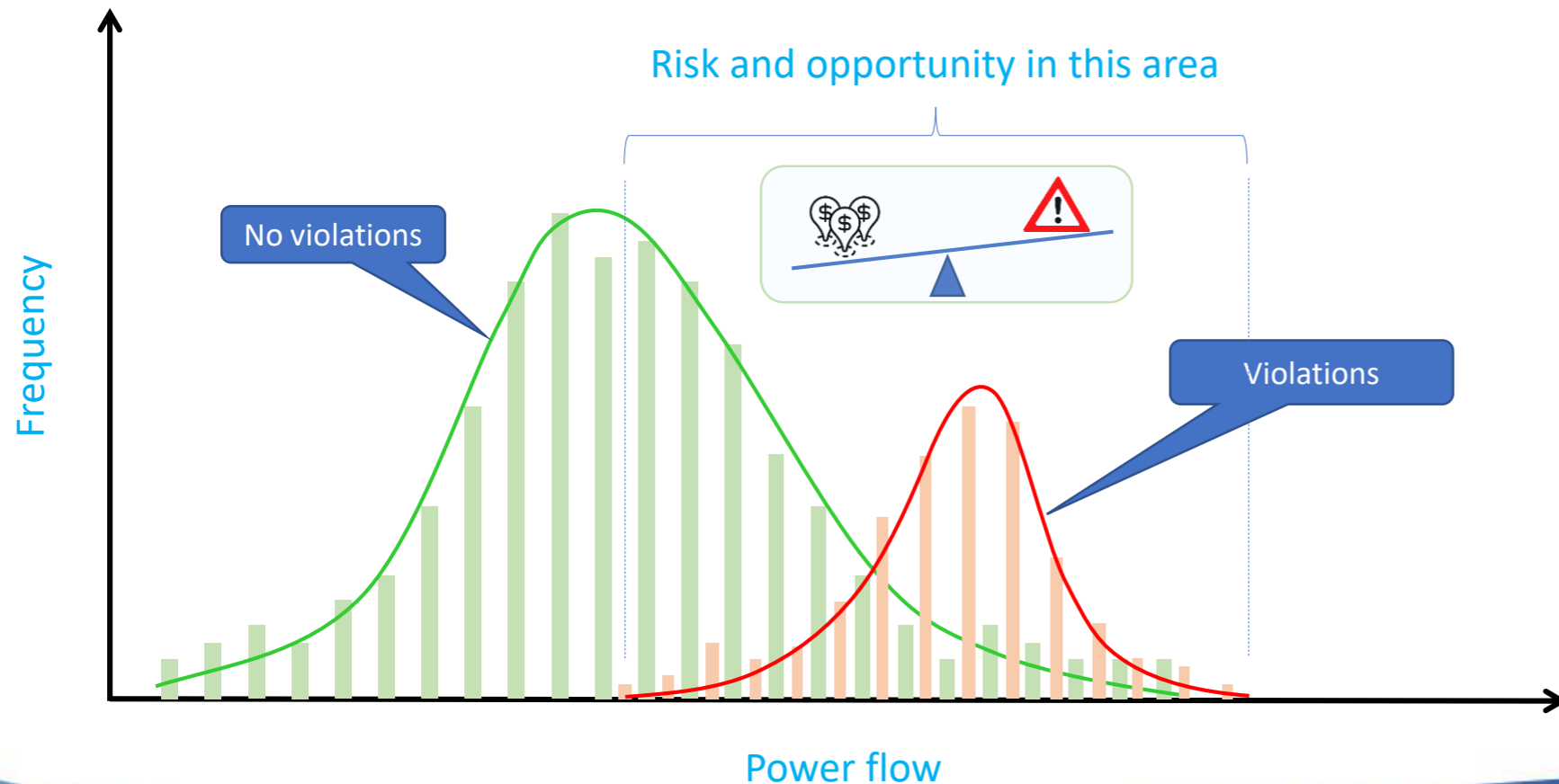


Capability development

- Customer focus
- Collaboration and partnering
- Risk based planning
- System stability, Switching transient studies



Capability development – Risk based planning example



- Probabilistic power system analysis
 - Multiple energy scenarios
 - Risk quantification
 - Trade-off between risk and opportunity
 - Risk mitigation measures
- Policy development
 - Balance between risk and benefit
 - Standards development
- Application
 - Asset ratings (cables, conductors, transformers, reactive compensation, etc.)
 - Local network capacity for connections
 - Wider system capacity

Thank you



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