

3. How to ensure renewables contribute to energy security

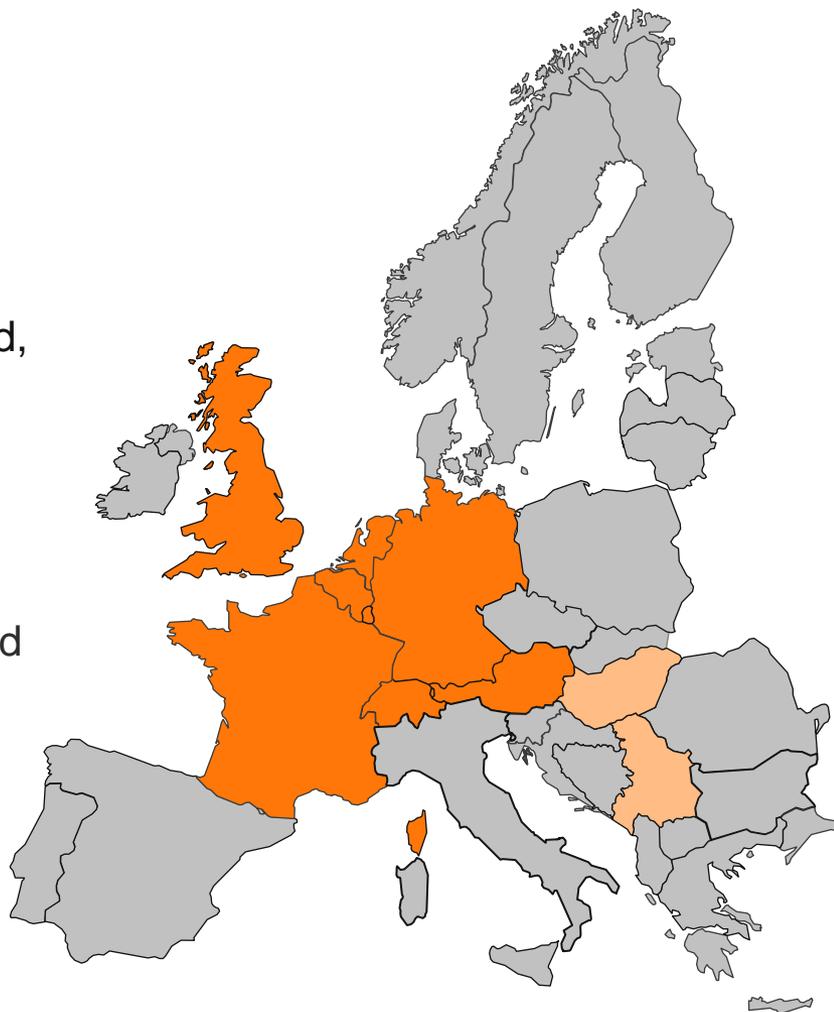
Energy Security with Renewables conference

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EPEX SPOT

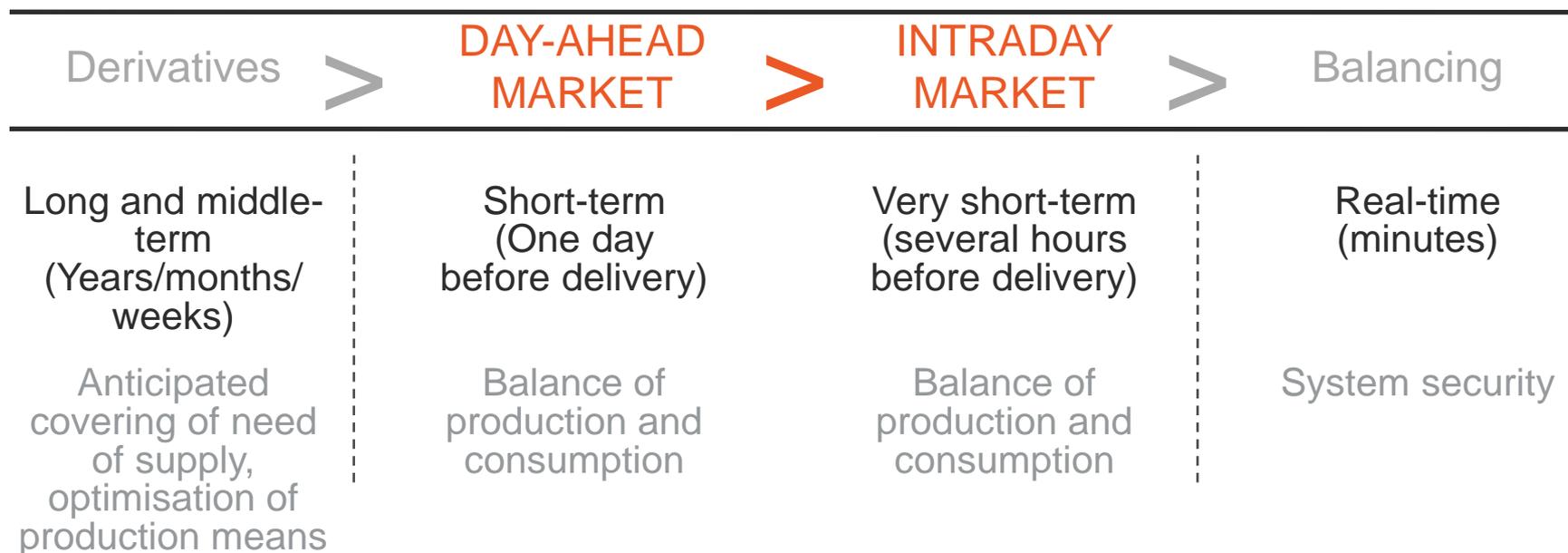
EPEX SPOT operates wholesale electricity markets covering an area of 1,700 TWh of yearly power consumption

- Own markets: Germany, France, GB, Switzerland, The Netherlands, Austria, Belgium, Luxemburg
- Market operations for HUPX (Hungary) and SEEPEX (Serbia)
- Over 280 Exchange Members, 566 TWh of traded volume (2015)



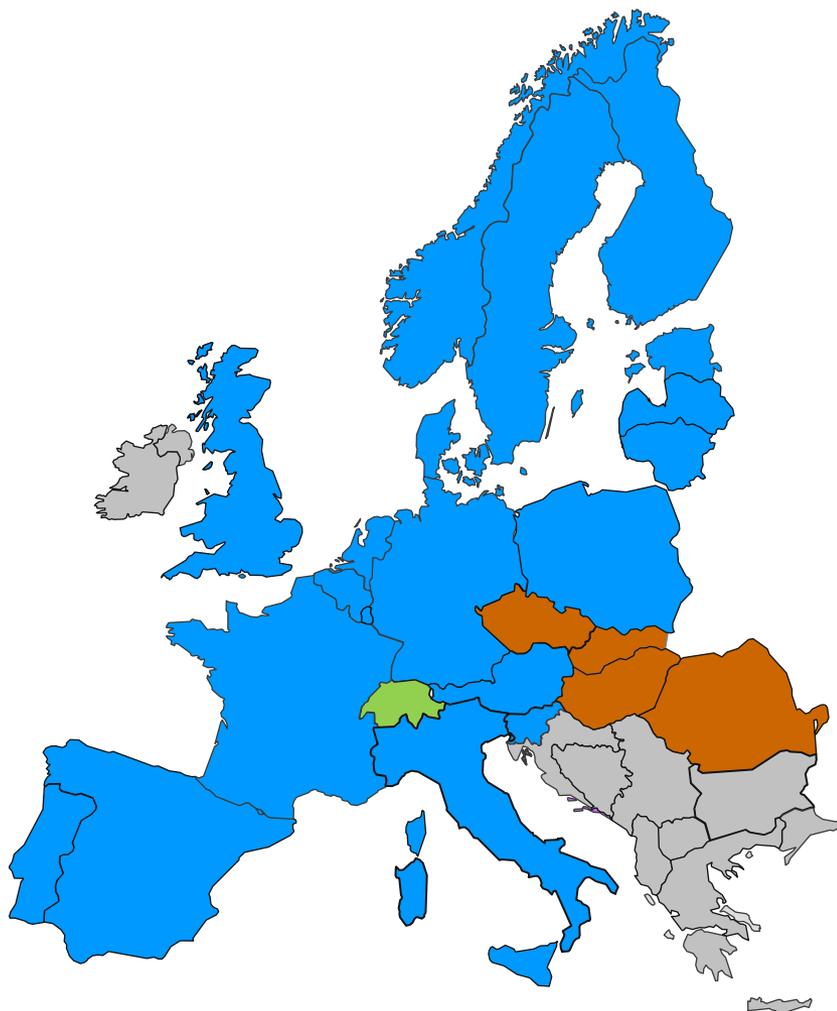
The role of the spot market

Part of the market-operational framework for ensuring an economic and secure electricity supply



Markets and the impact of price: electricity supply is far too complicated a system to manage efficiently any other way

An Integrated Electricity Market



- Multi Regional Coupling (MRC) is a day-ahead price coupling now covering 85% of European demand
- Optimises use of transmission consistent with operational security
- Robust price formation from a single market, maximising European economic welfare

EVOLUTION		
	NWE, Baltic SWE Italy, Slovenia	Feb 2014 May 2014 Feb 2015
	Switzerland	Technically feasible
	4MMC	Separate MC solution, end 2014

How ensure renewables contribute to energy security?

Let the market work!

1. Integrate renewables into the market-operational framework
 - Balance responsibility
 - Technology neutral TSO ancillary services/reserves – open to renewables
2. Eliminate market distortions
 - No per MWh subsidies
 - Unbundle energy resources from DSOs or TSOs (incl storage)
3. Facilitate market access for DER/DSR
 - No DSO capture, but need to respect distribution constraints
4. Avoid fragmentation into multiple “markets”
 - Integrate access for DSO, TSO and BRP trading
5. Enable market design innovation
 - National is OK
6. Be cautious about capacity support mechanisms
 - Scarcity pricing – provides price signal for flexibility and capacity
 - (if absolutely necessary) National generation margin/mix obligations within a regional security plan