



Capacity mechanisms

**EPRG & CEEPR European Energy Policy
Conference**

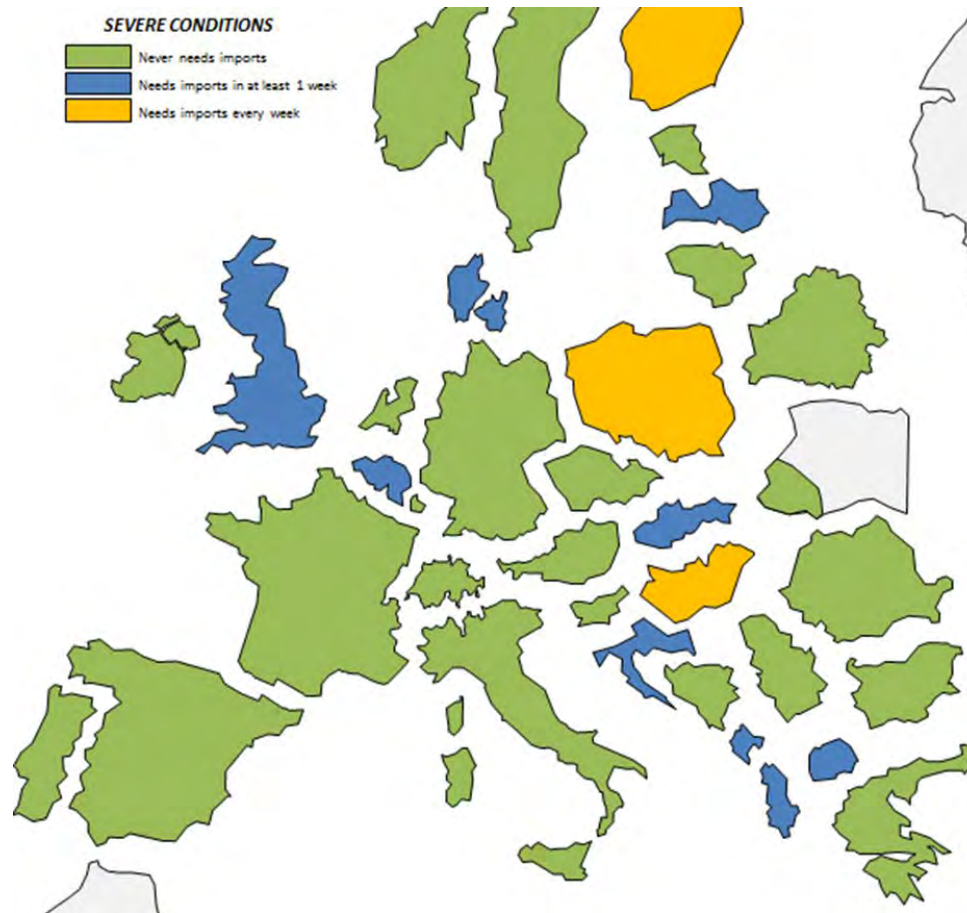
Helsinki, 11-12 June 2013

Matti Supponen

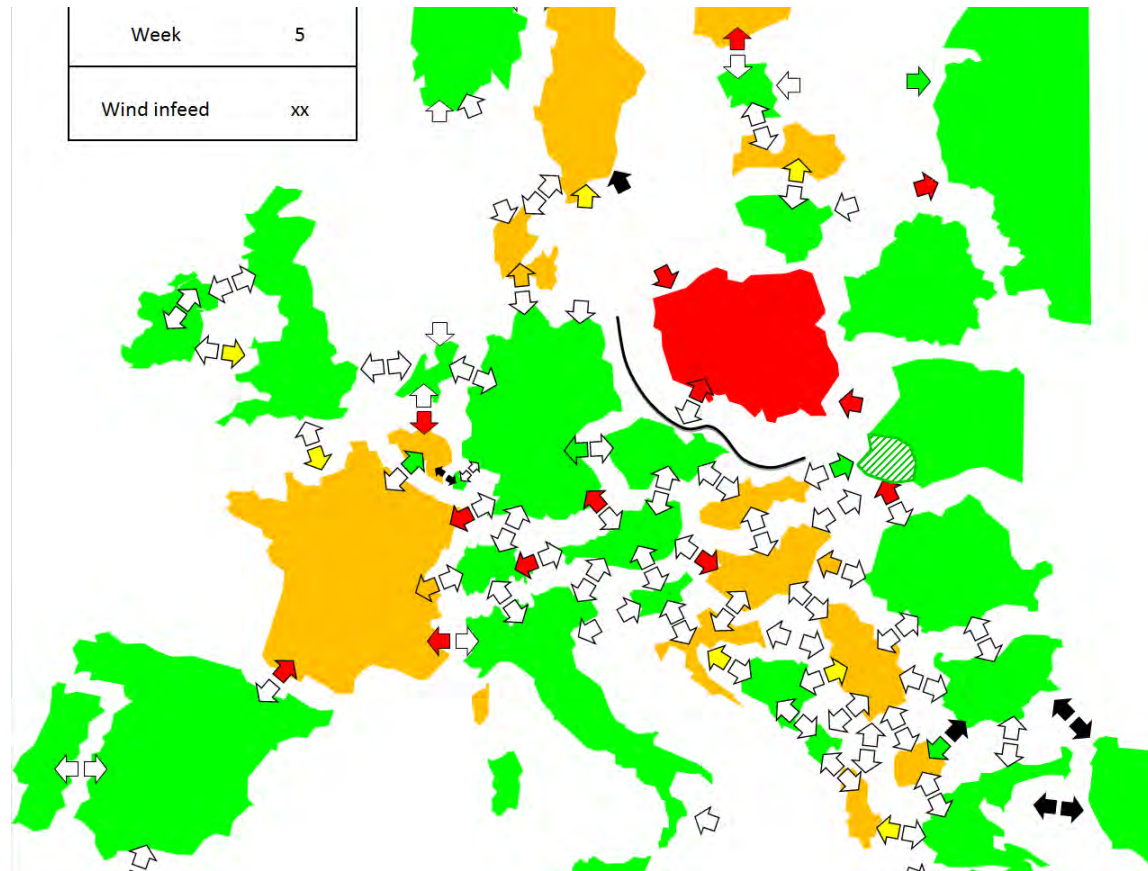
Menu

- **Need for capacity mechanisms in Europe**
- **Status and developments**
- **Discussion on the way forward**

Summer outlook 2013, upward adequacy



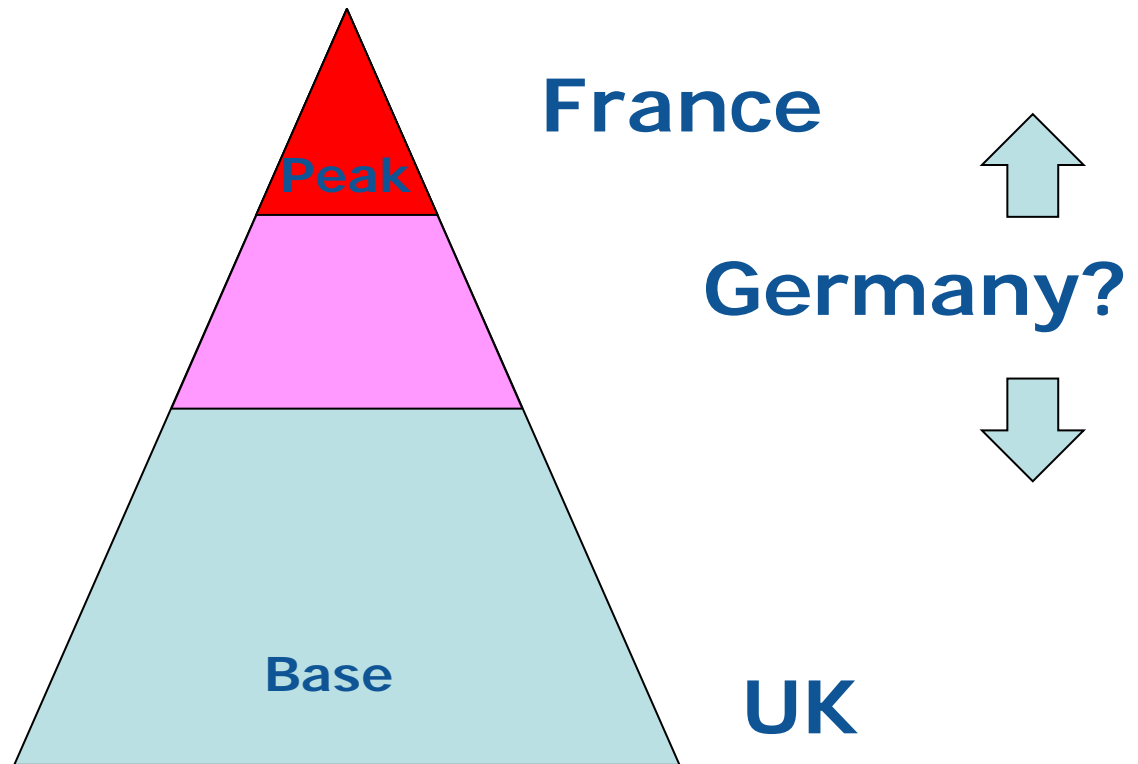
Winter outlook 2012-2013



Current capacity mechanisms

Country	Type	Intensity ~ €/MWh per gross generation
Finland	Strategic reserve	0.3
Greece	Capacity payment	8
Ireland	Capacity payment	20
Italy	Capacity payment	0.5
Norway	Strategic reserve	0.2
PJM	Strategic reserve	5.5
Spain	Capacity payment	2.5
Sweden	Strategic reserve	0.1

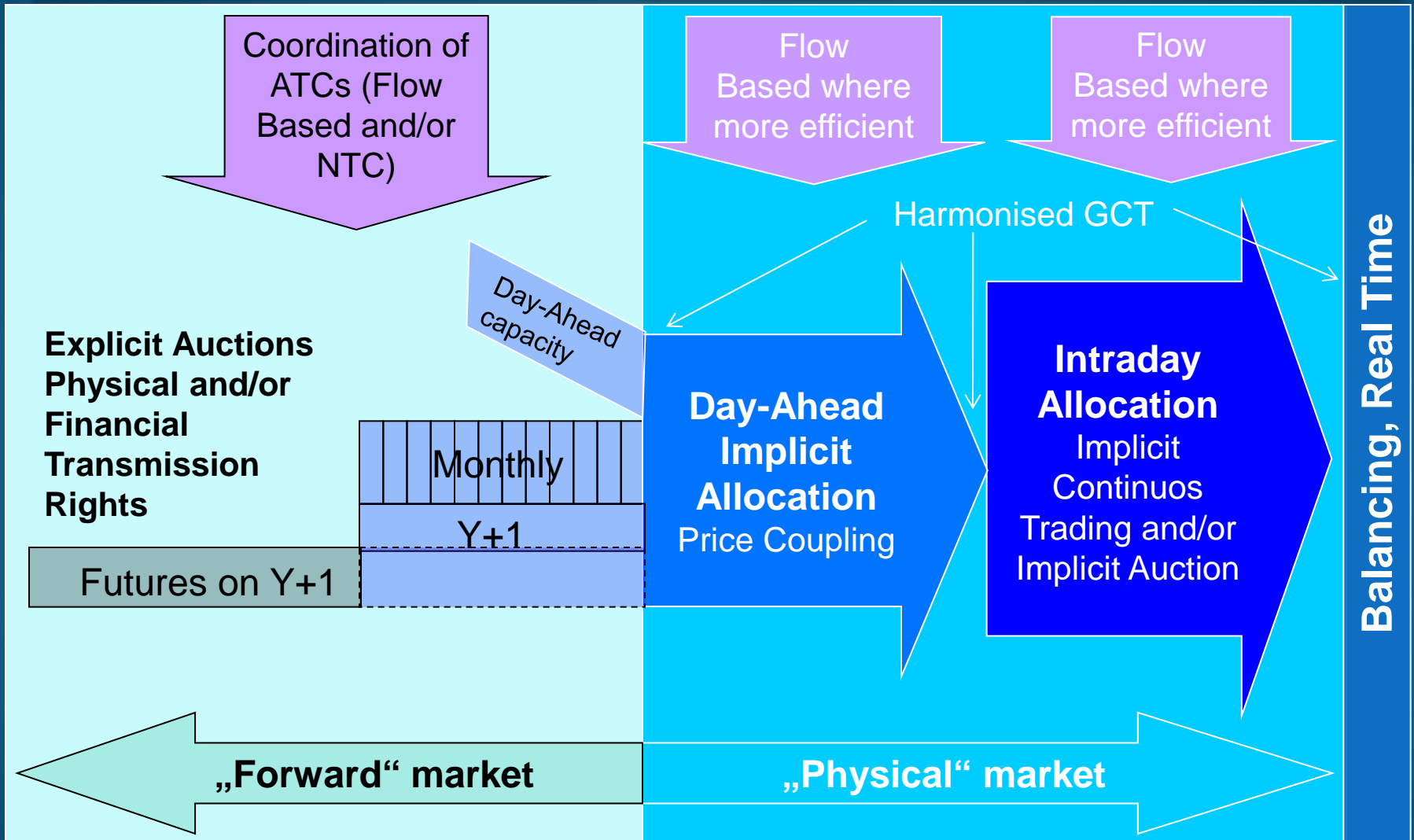
Planned capacity mechanisms in Europe



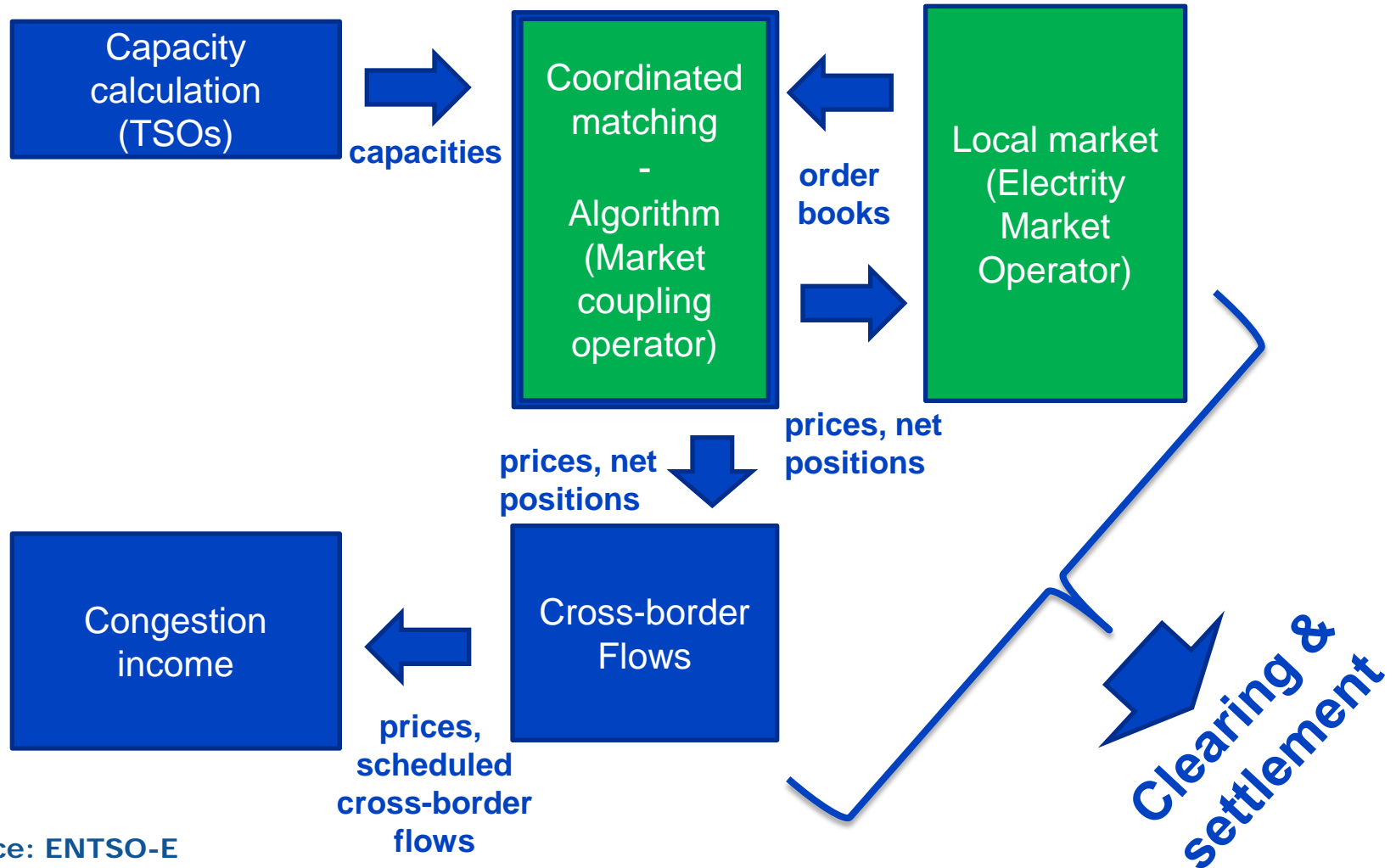
Implement the European electricity market target model

- Forward markets based on spot markets
- Cross-border trade optimisation based on day-ahead market coupling
- Long term cross border trade with financial products
- Further cross-border trade optimisation through allowing intra-day trade with the remaining capacity
- Final optimisation through a pan European balancing system

Target Model



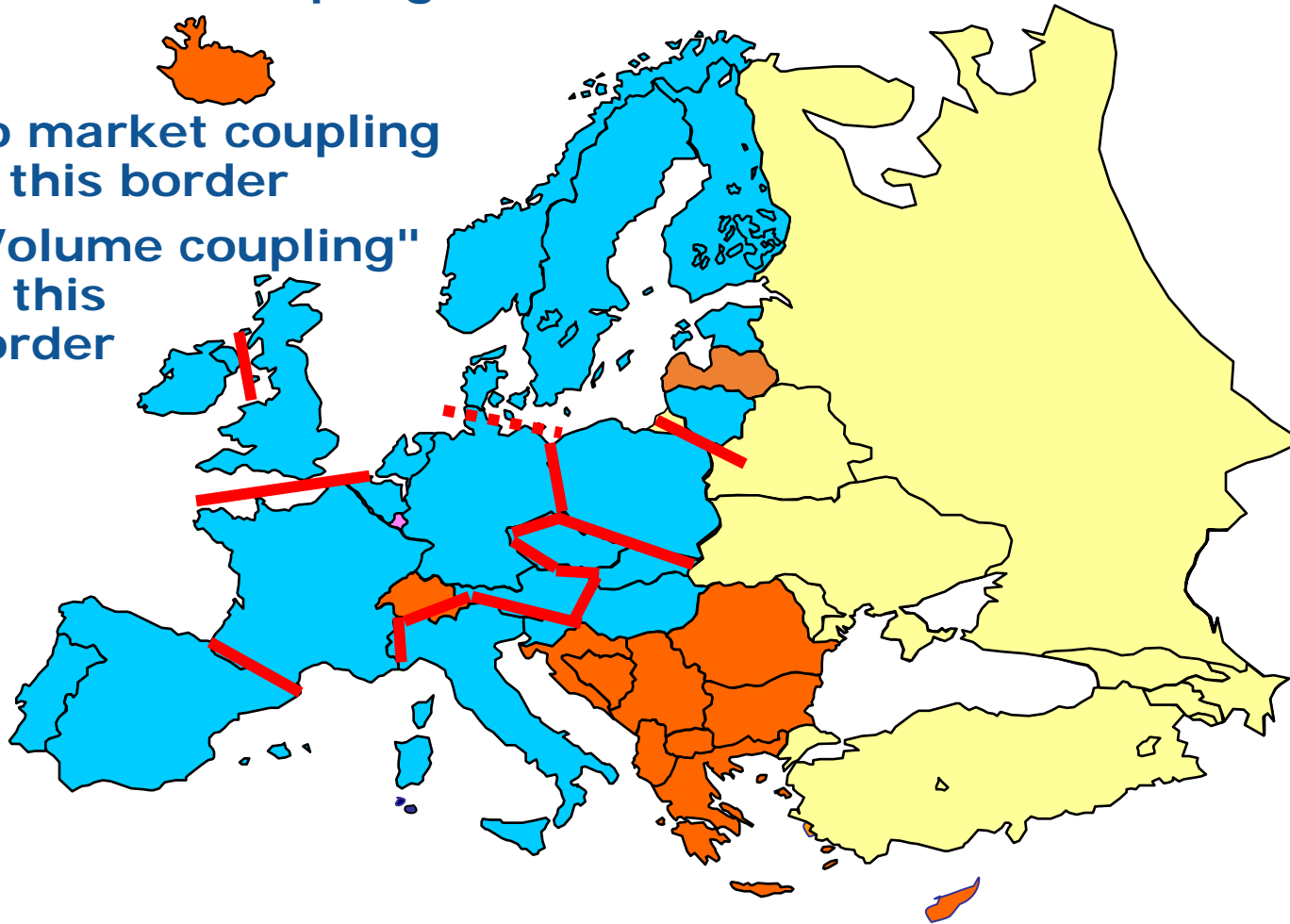
Day-ahead market coupling



Market coupling 28.5.2013

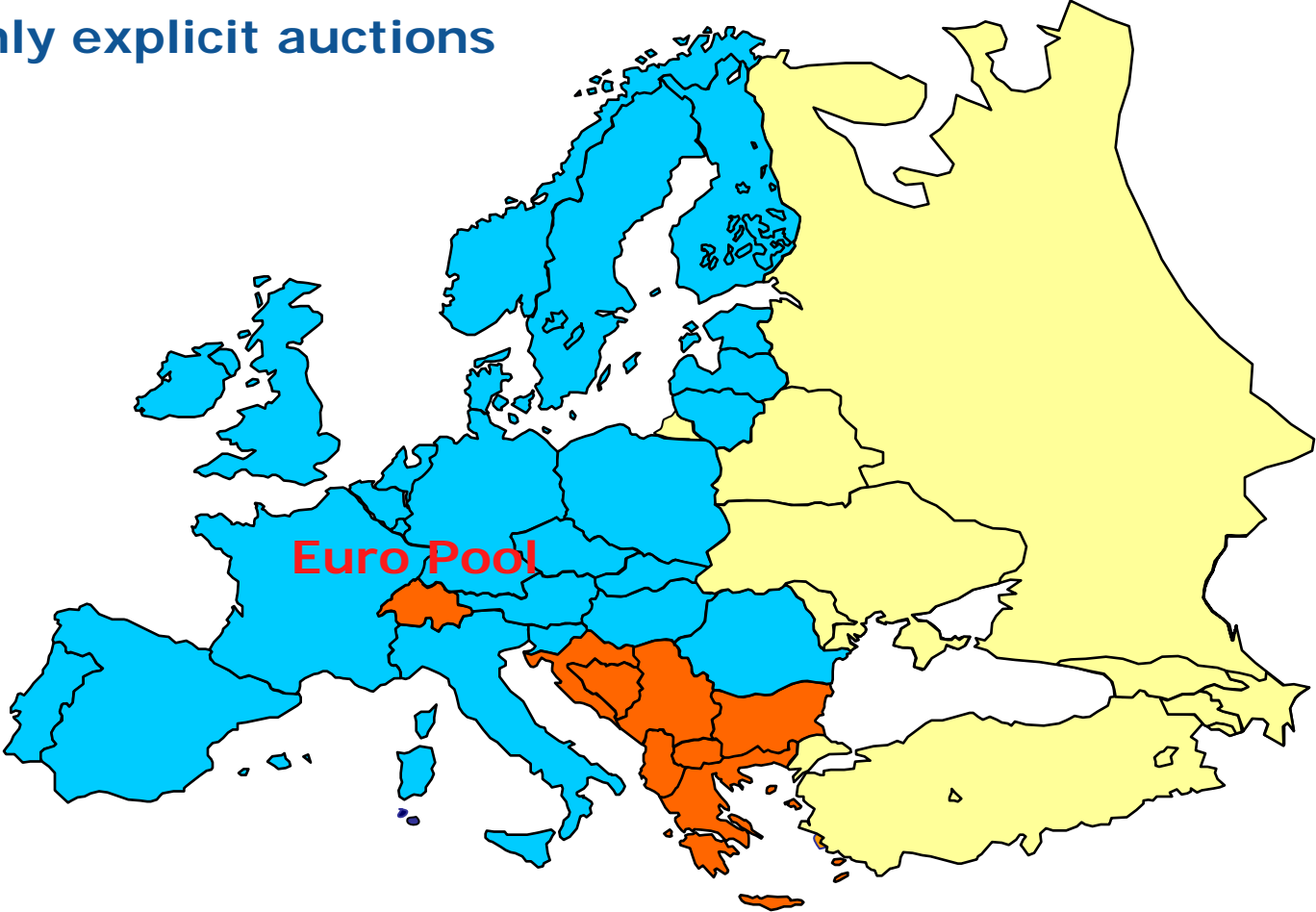
-  Market coupling
-  No market coupling

-  No market coupling at this border
-  "Volume coupling" at this border



European market in 2014?

- Market coupling
- Only explicit auctions

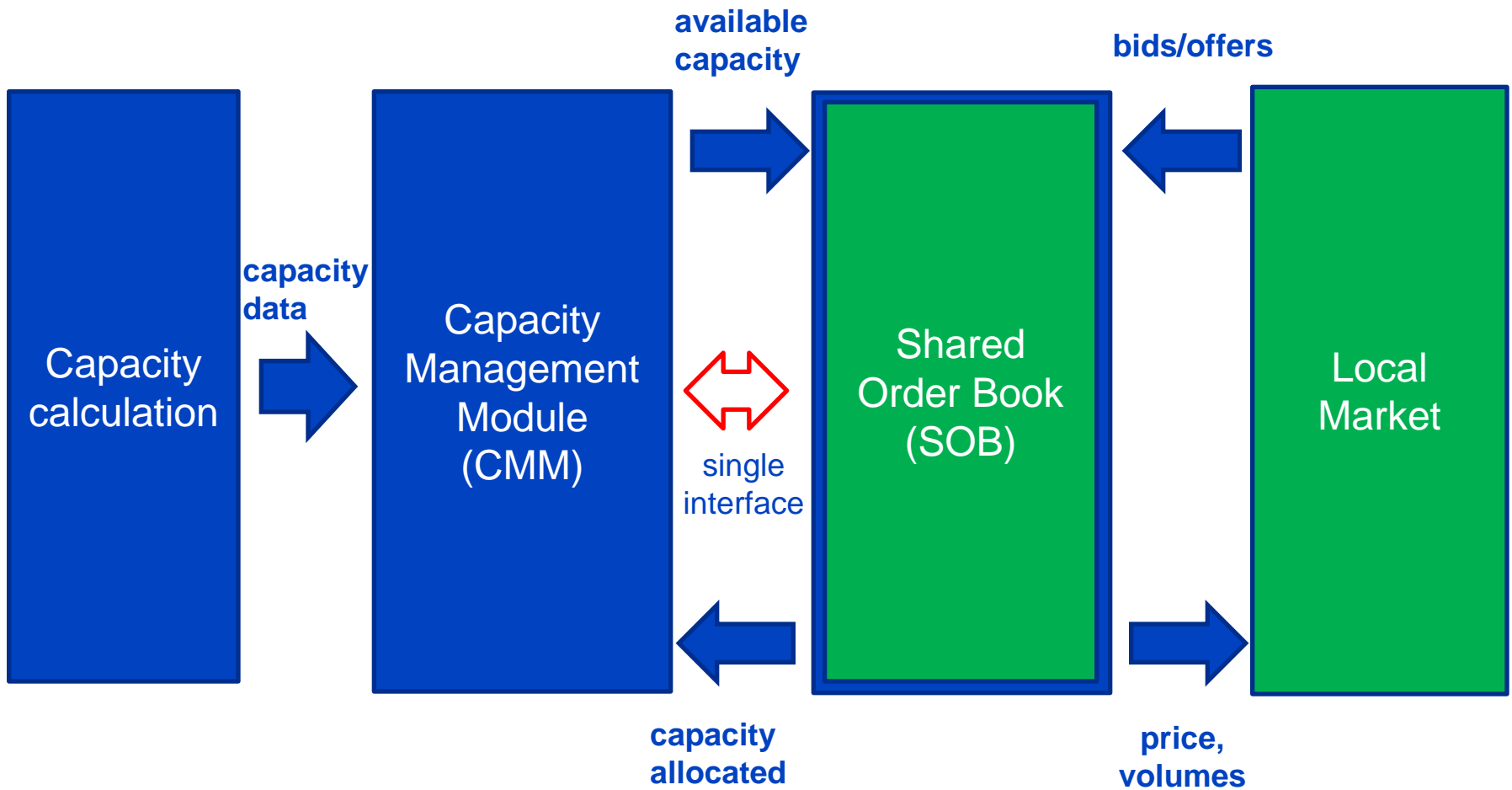


Intra day is a mess



Source: ACER

Intra-day market coupling



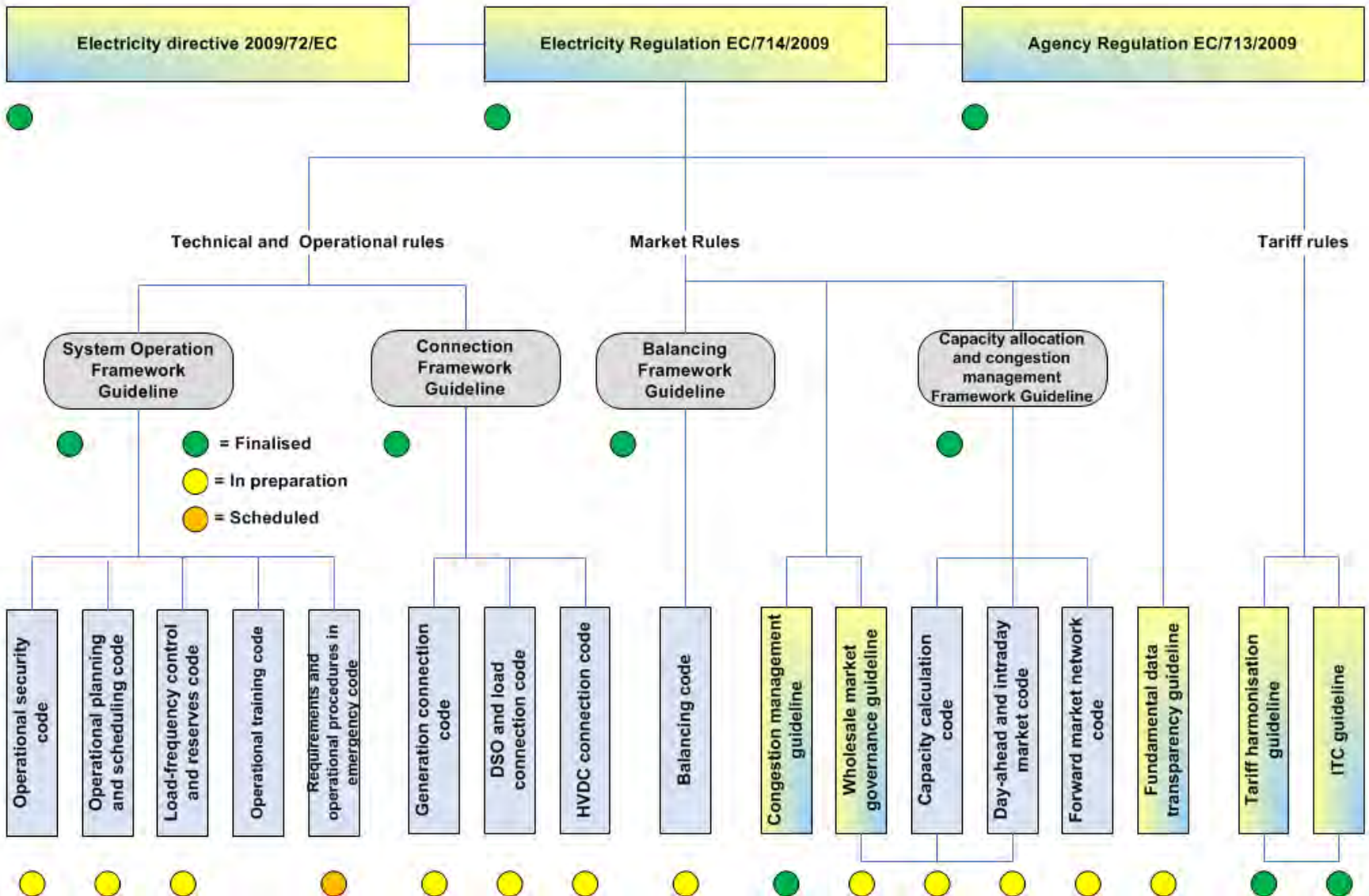
European markets have important differences

Legend	
-	Grey
Central Dispatch	Red
Self-Dispatch - Portfolio Based	Blue
Self-Dispatch - Unit Based	Cyan

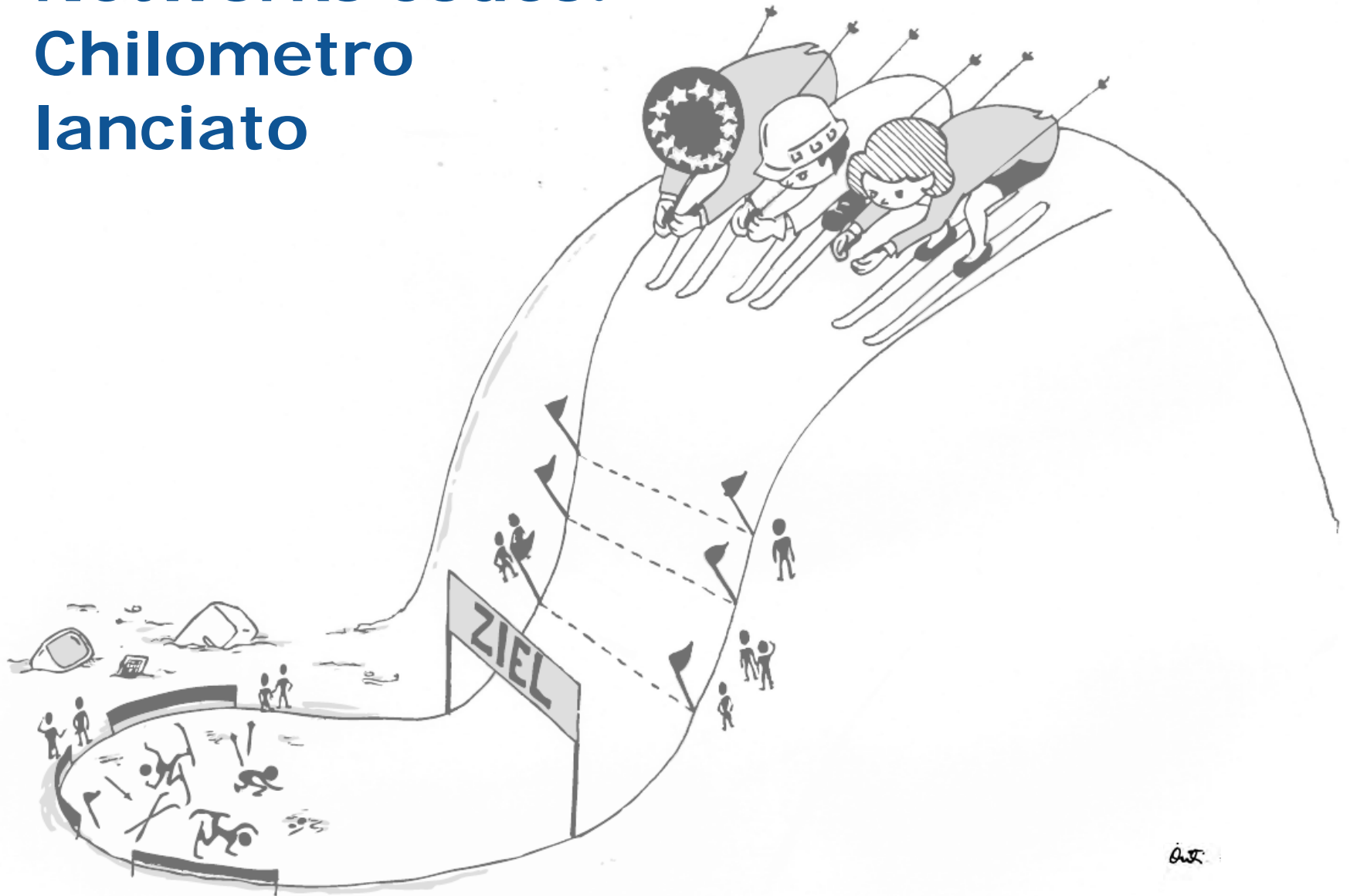


Source: ENTSO-E

European Electricity Rules



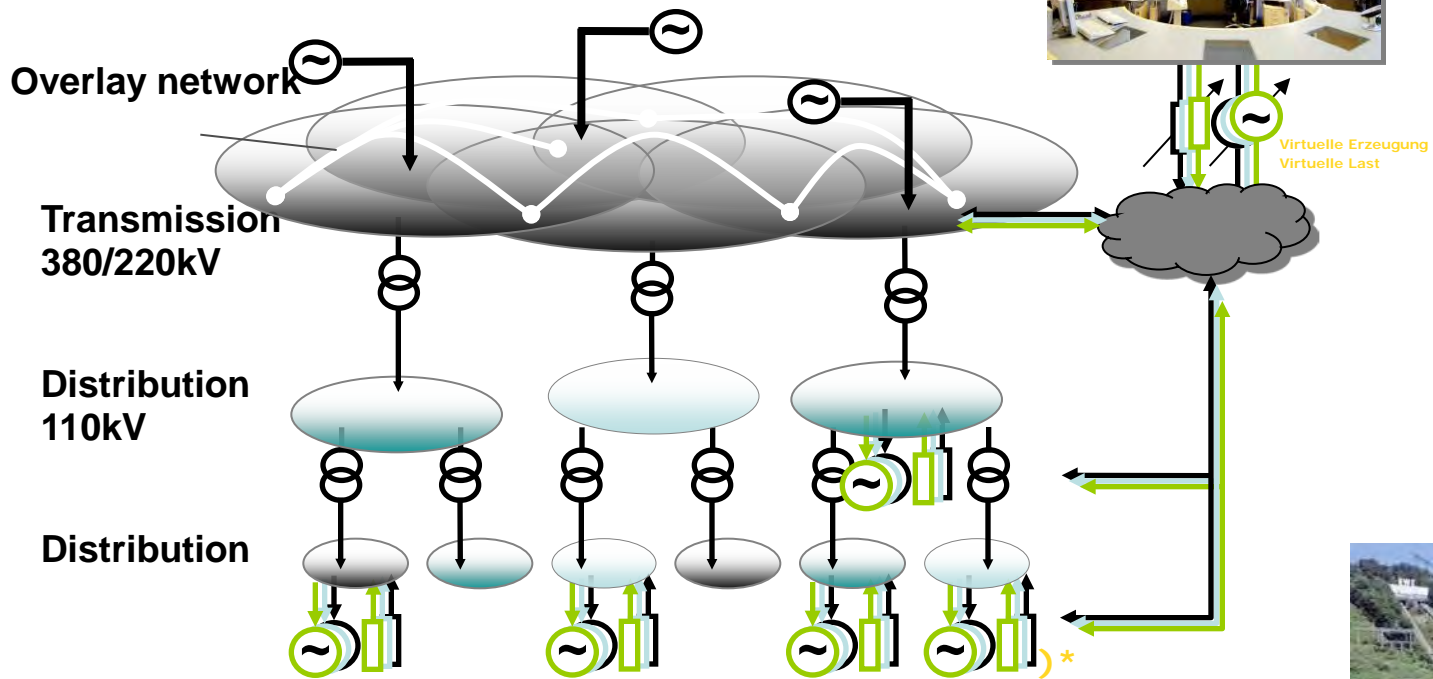
Networks codes: Chilometro lanciato



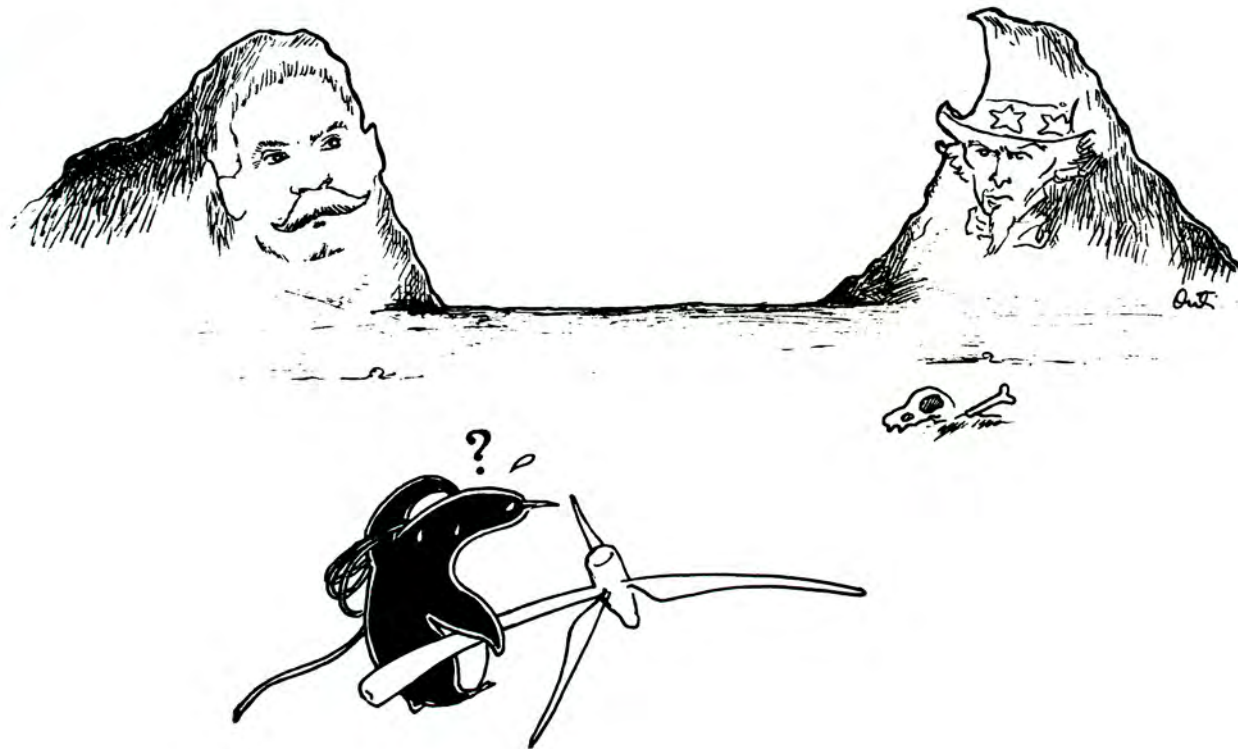
ENTSO-E ten year network development plan



Overlay network?



Market versus regulation



Market versus regulation

Regulation

- National RES targets
- Investment subsidies
- Capacity payments
- Regulated prices
- Redispatching
- Mandatory ancillary services
- Energy efficiency targets

Market

- Emissions trading
- Trading of green certificates
- Capacity markets
- Price spikes allowed
- Natural price zones
- Markets for ancillary services

Capacity markets



National versus European



National versus European

National

- National energy mix
- Moving congestion to the border and redispatching
- Investing in favorite transmission lines
- National reserve power requirements
- Cross-border fees

European

- European energy mix
- Non-political price zones
- Grid development master plan
- Sharing reserves over interconnectors

Strom- autobahnen



Conclusions

- Capacity mechanisms have been in Europe already for a while
- Now big countries are planning to introduce capacity mechanisms
- Before introducing them, the target model and network investments should be implemented
- After that, there might still be a need for a capacity mechanism
- They should be as market based as possible
- They should be as European as possible



Thank you
for your

**Atten-
tion!**