

# Market design – Status and effect of liberalisation

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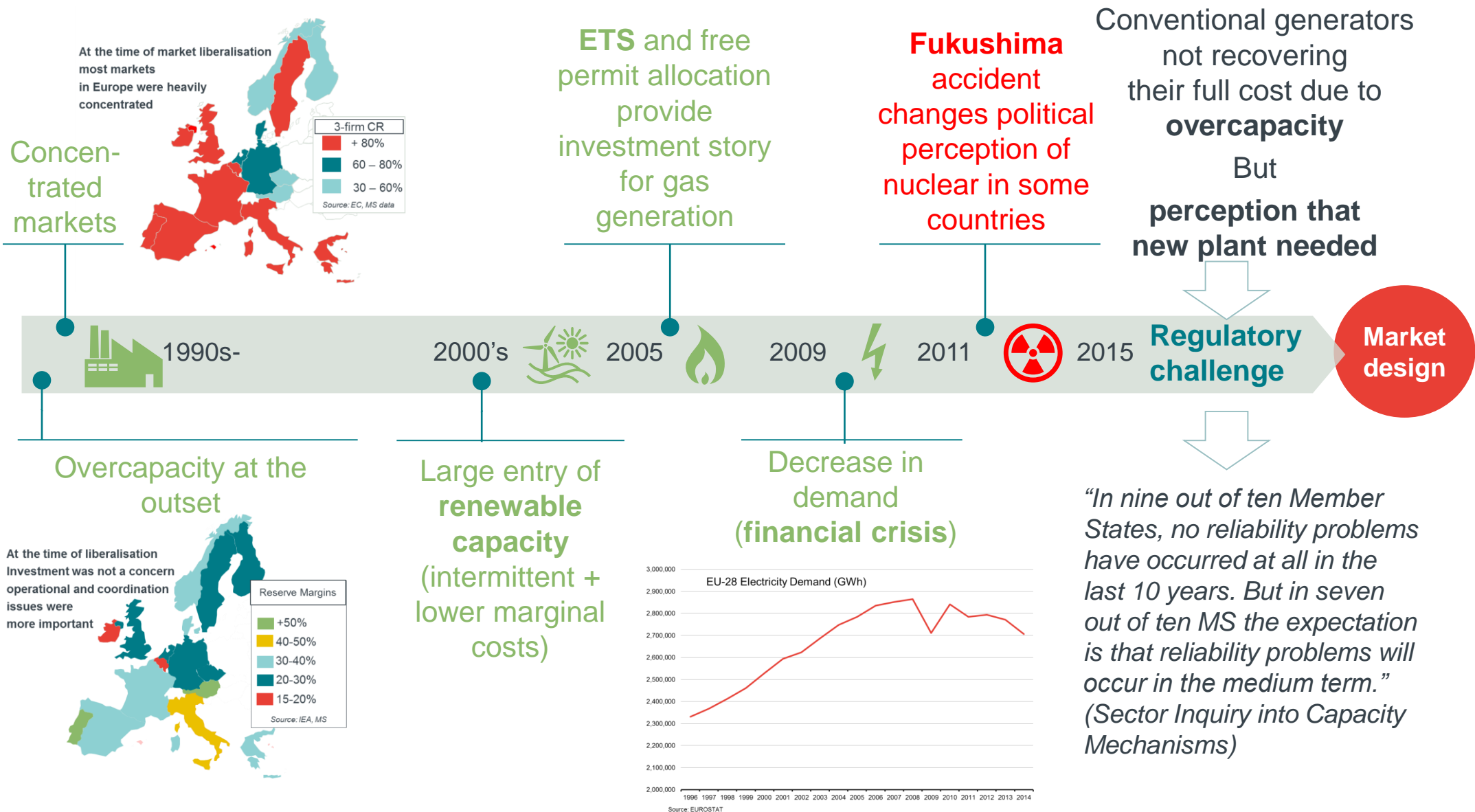
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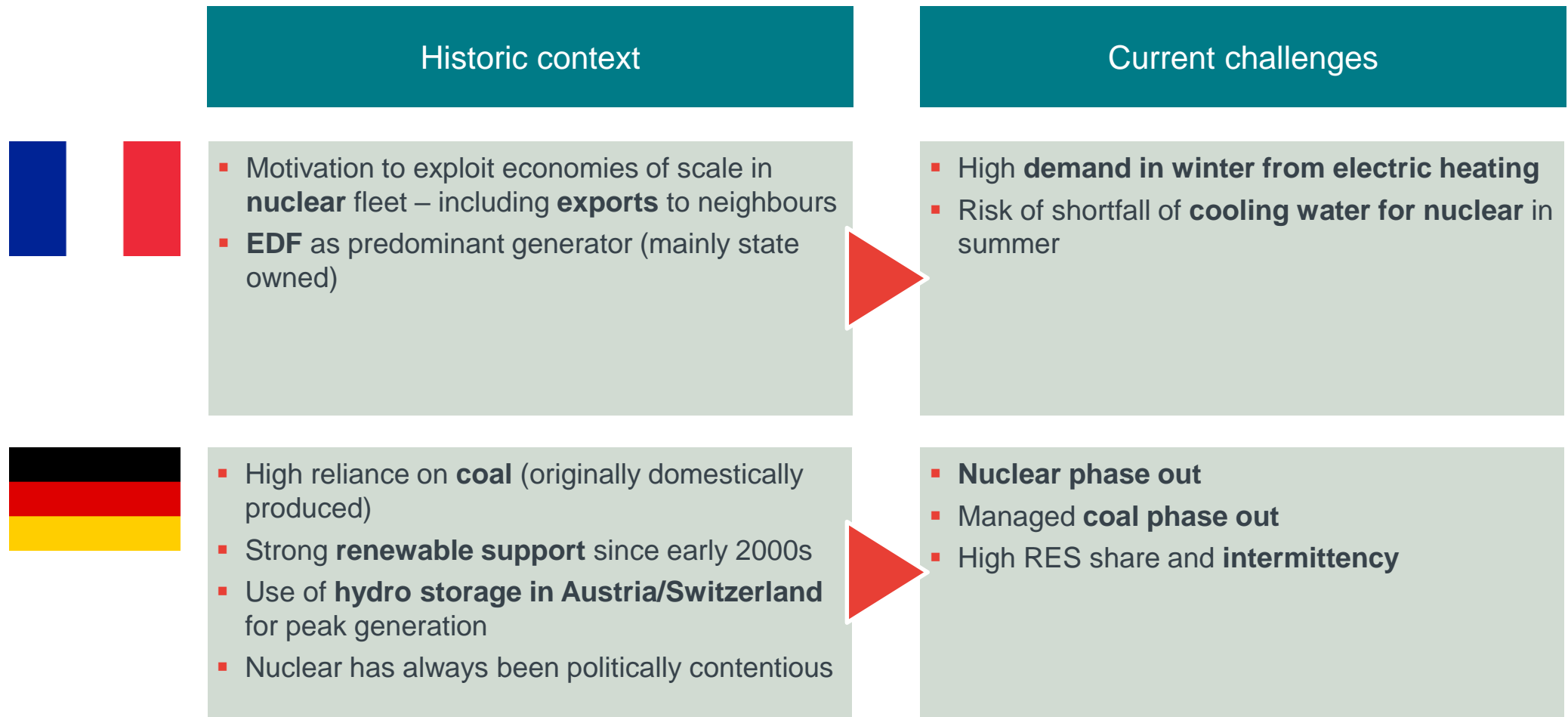
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# There is a common context to recent market design reforms



# But there are also specific characteristics in France and Germany



# The energy mix and market structure continue to largely reflect this legacy

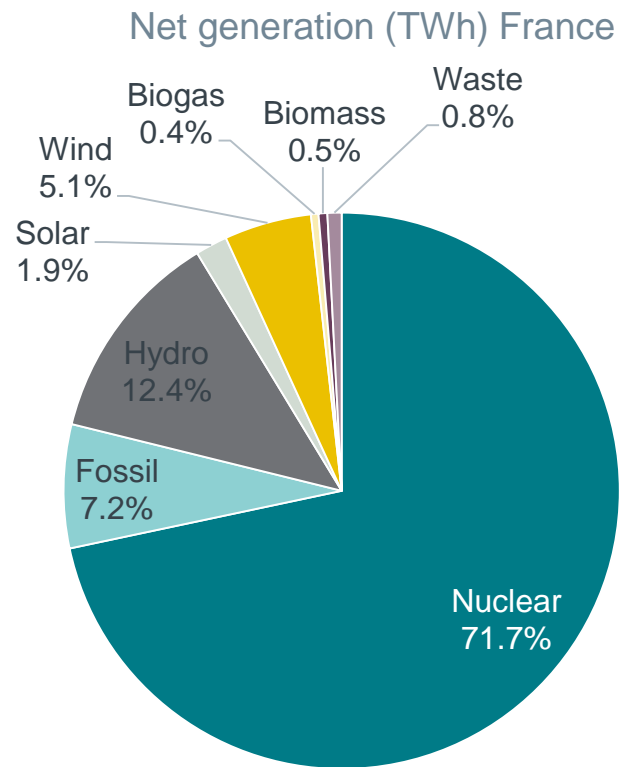
>90%

Of power produced by the largest producer

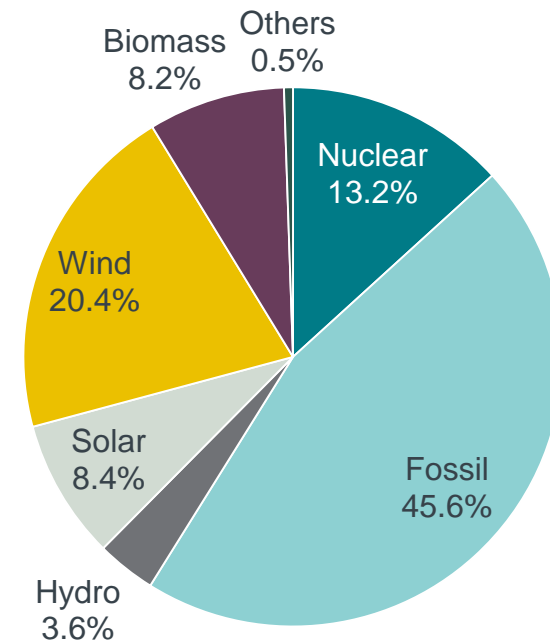


~66%

Of power produced by the five largest producers combined





Net generation (TWh) Germany



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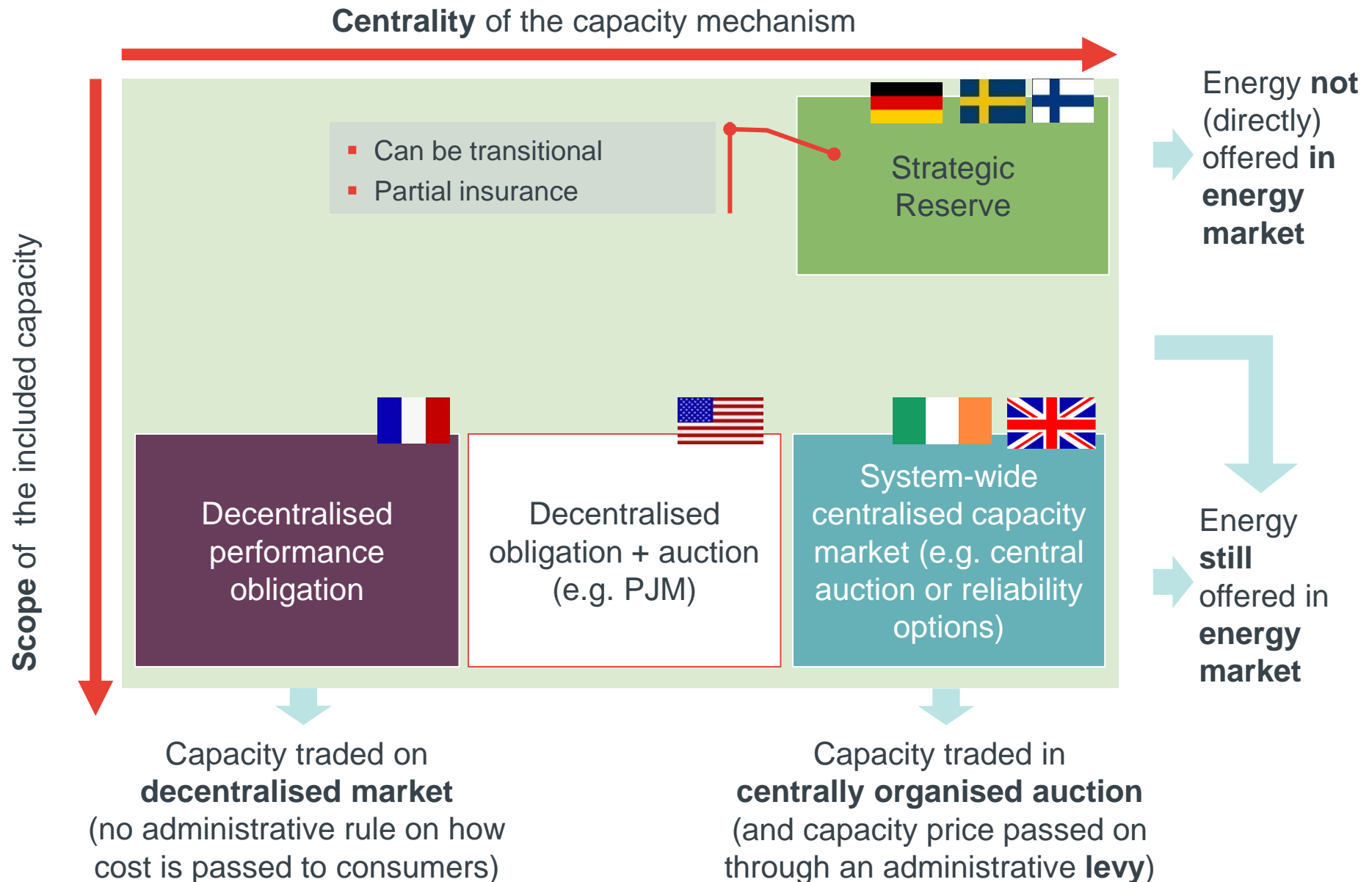
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# This has lead to distinct market designs...

	Energy market	Capacity mechanisms	Demand response	Renewable governance	Retail market design
	<ul style="list-style-type: none"> <li>Internationally Coupled Electricity spot market</li> </ul>	<ul style="list-style-type: none"> <li>Capacity obligation on retail suppliers</li> </ul>	<ul style="list-style-type: none"> <li>Unbundled demand response service</li> <li>DSR market (NEBEF)</li> <li>Participation facilitated in CRM</li> </ul>	<ul style="list-style-type: none"> <li><b>Direct marketing and Market premium</b> (set through auction)</li> </ul>	<ul style="list-style-type: none"> <li>Regulated tariffs for small sites – other segments liberalised</li> <li>Contribution to public service tax</li> </ul>
	<ul style="list-style-type: none"> <li>Forward markets (OTC and exchange)</li> </ul>	<p><b>System wide</b></p> <ul style="list-style-type: none"> <li>Security reserve</li> <li>Capacity reserve</li> </ul> <p><b>Location specific</b></p> <ul style="list-style-type: none"> <li>Grid reserve</li> <li>Special network-technical assets</li> </ul>	<ul style="list-style-type: none"> <li>Interruptibility scheme (ABlaV)</li> </ul>	<ul style="list-style-type: none"> <li>Feed in Tariff for legacy plants (and small installations)</li> </ul>	<ul style="list-style-type: none"> <li>Fully liberalised</li> <li>Renewable energy and CHP levy</li> <li>Electricity tax</li> </ul>






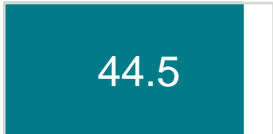
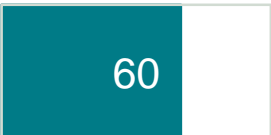
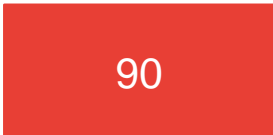
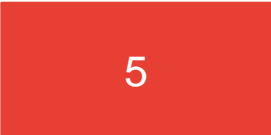
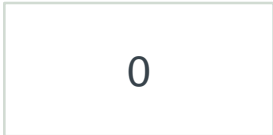
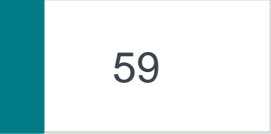
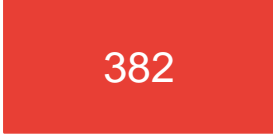
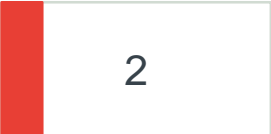
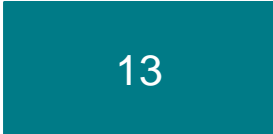
# ... reflecting that Capacity Remuneration Mechanism designs may serve different purposes



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## ... leading to different performance of the power sector in each country

	Indicator			Source/year
Wholesale price	€/MWh Avg spot	 50.2	 44.5	Tennet (2019) 2018
Retail price	€/MWh Industry IF	 60	 90	EC (2019) Dec 2018
Capacity adequacy	LOLE* h/a	 5	 0	PLEF (2018) 2019
CO2 intensity	g CO <sub>2</sub> eq/ kWh	 59	 382	Agora (2019) 2018
Market liquidity	Churn factor	 2	 13	EC (2019) 2018

EC (2019): Market Observatory for Energy, DG Energy, Volume 11 (issue 4, fourth quarter of 2018)

PLEF (2019): Pentilateral Energy Forum, Generation Adequacy Assessment, Jan. 2018

Agora Energiewende (2019): The European Power Sector in 2018, Jan. 2019

Tennet (2019): Annual market Update, 28 Mar 2019



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