

How to promote the necessary investment in the European energy transition?

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Energy transition: A multifaceted challenge for Europe – 2nd symposium
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Transformation of European energy sector will require unprecedented investment



According to the Green Investment Bank Commission, decarbonising the UK economy will require up to **£550 bn** of investment by 2020

sector - Lords Committee
Trillion-euro shortfall facing EU energy



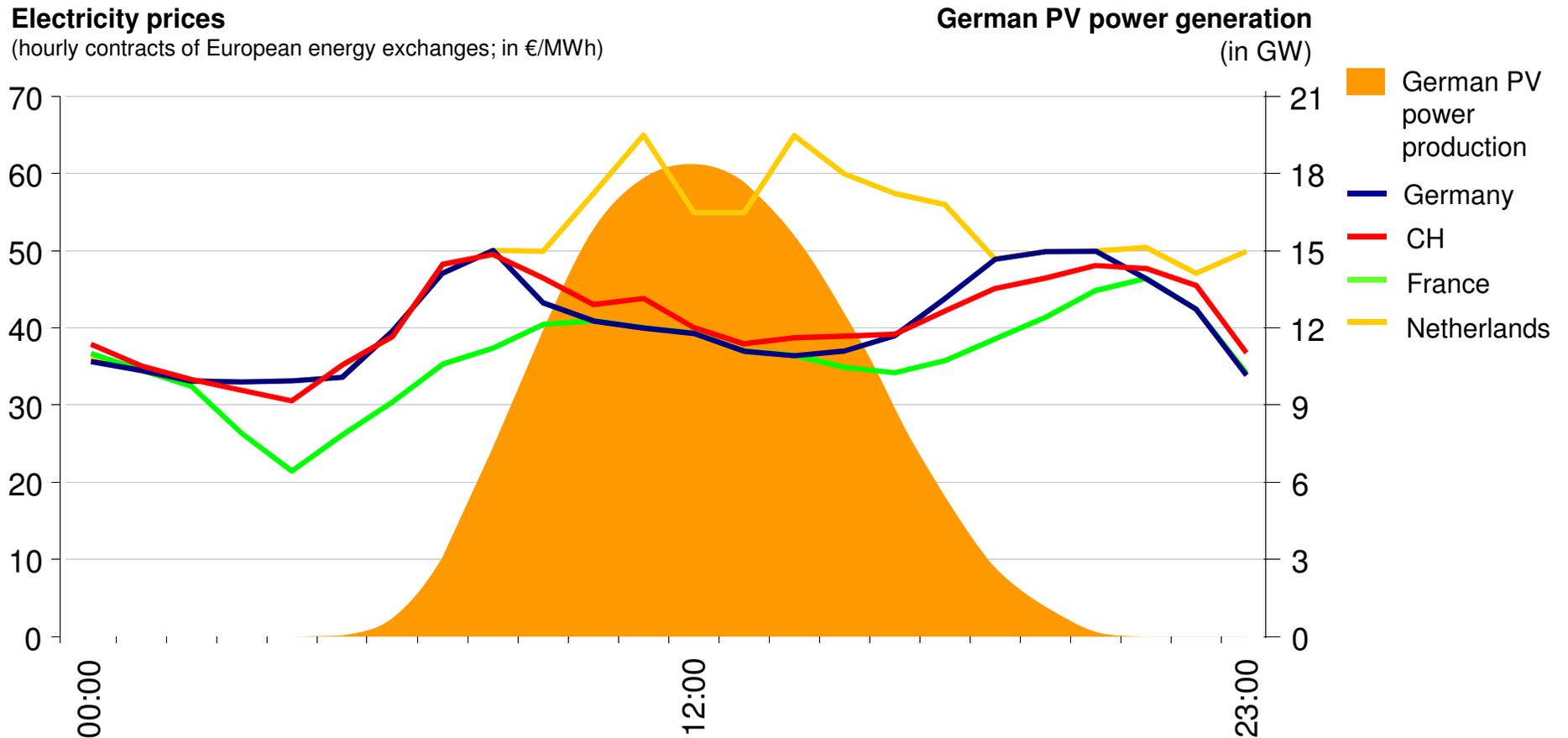
The sums required to upgrade the grid are huge, as much as **€1 trillion** in Europe by 2020



£200bn - level of investment required over current decade for UK to meet its 2020 energy policy and environmental objectives

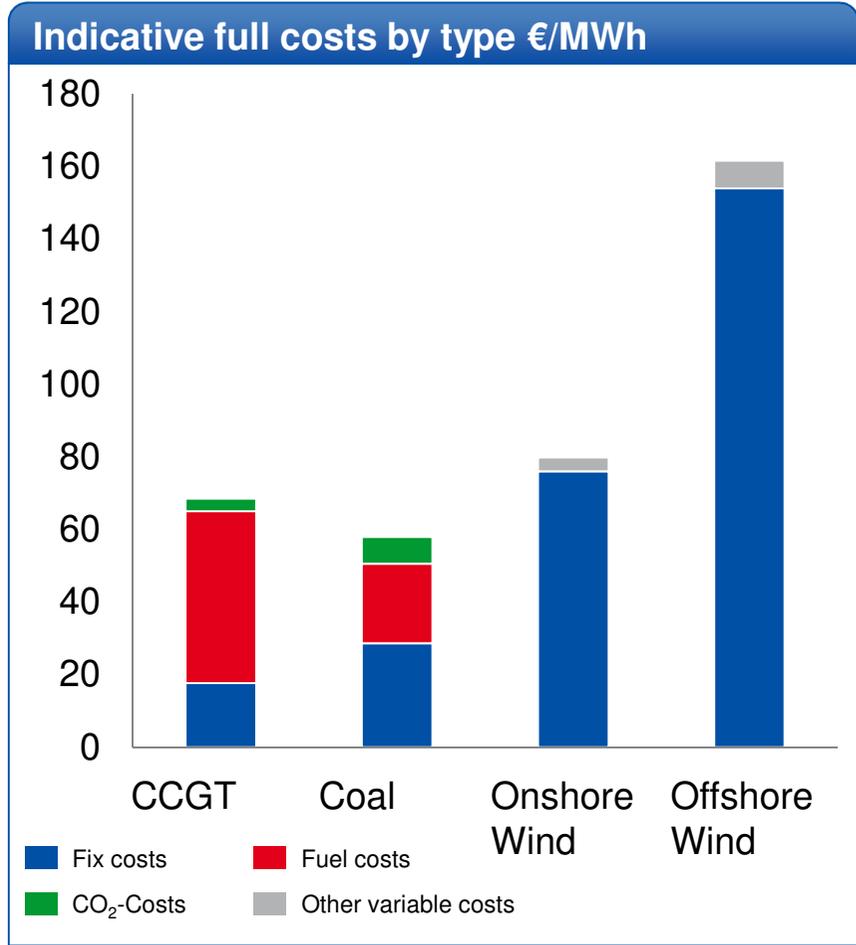
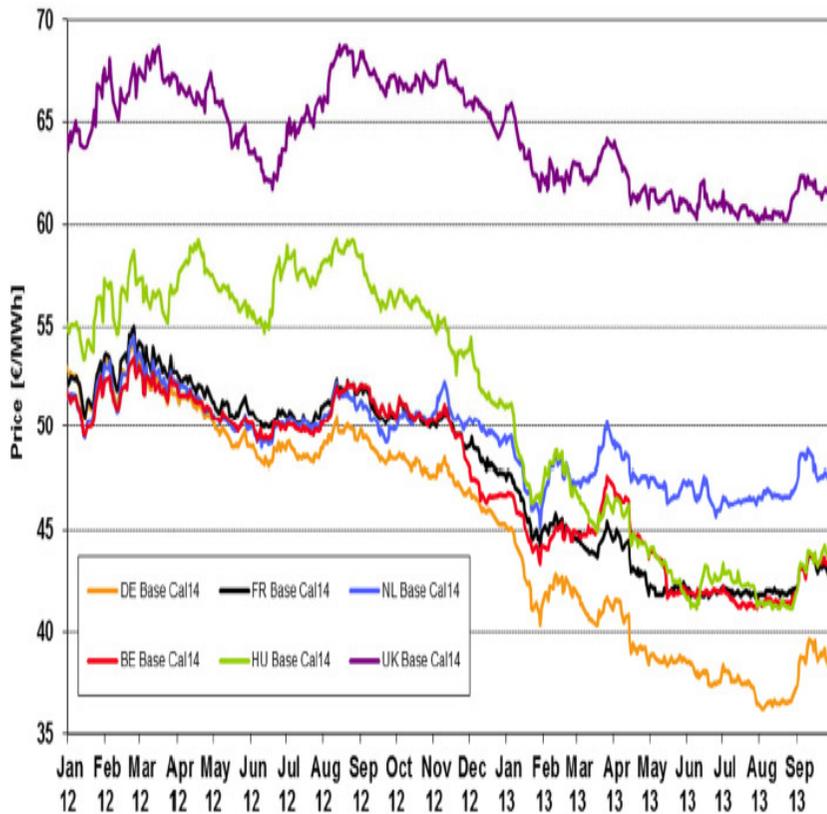
Renewable growth is changing the shape of the electricity system in Europe

8 May 2012¹: Electricity prices and German photovoltaic electricity generation



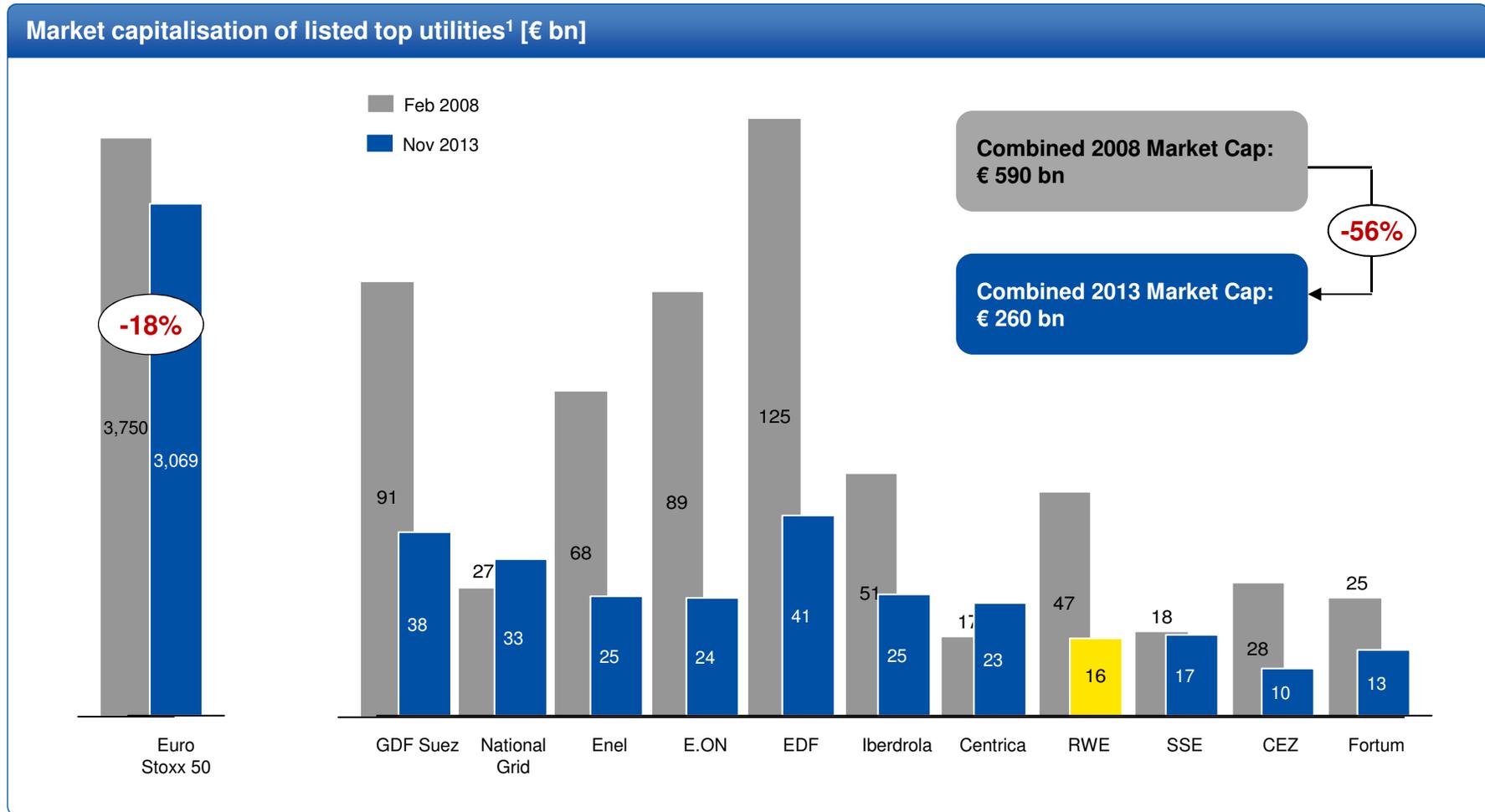
Market prices are far away from full costs of any generation type

Cal 14 Baseload Prices:



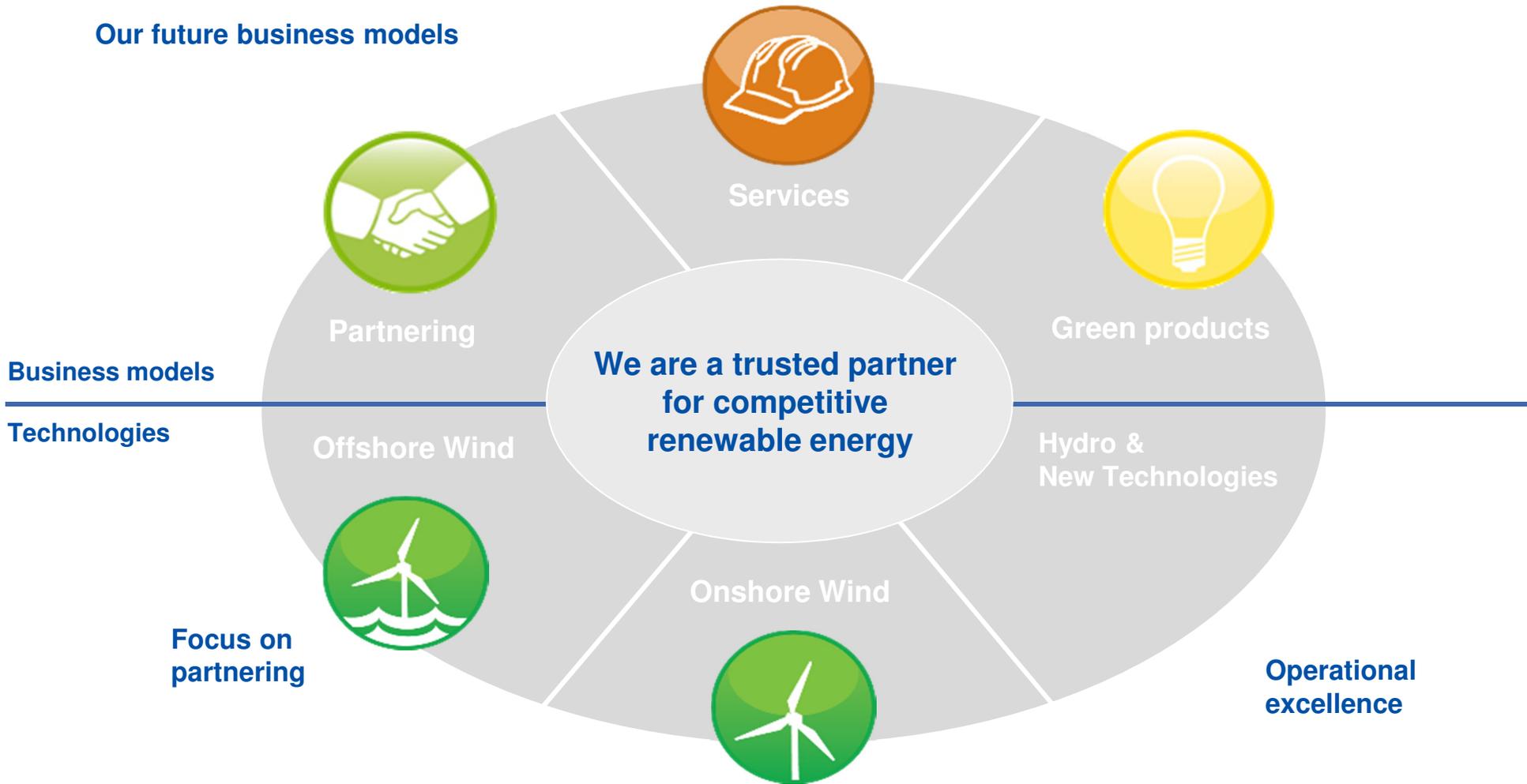
Source: Investor Relations / Fraunhofer ISE (2012) – indicative costs

It is clear that the traditional utility balance sheet financing approach will not suffice



RWE Innogy: We develop our future on the basis of our core values – trust, passion and performance

Our future business models



Focus on partnering

Growing in core markets, increasing profit along the value chain

RWE Innogy is already becoming a trusted partner for the European energy transition

Offshore wind		Successful Partnerships	Onshore wind	
Greater Gabbard 	<ul style="list-style-type: none"> > 504 MW > 50% shareholder > SSE lead operator 		Jüchen 	<ul style="list-style-type: none"> > 7 MW > Different stakeholders, e.g. employees RWE Innogy, cooperative Bürger-Energie, interested municipal utilities > RWE lead operator
Rhyl Flats  	<ul style="list-style-type: none"> > 90MW > 50.1% shareholder > RWE lead operator 		Green Gecco 	<ul style="list-style-type: none"> > 5 wind farms in Germany and the UK with around 80 MW > 51% Shareholder > RWE lead operator
Gwynt y Môr  	<ul style="list-style-type: none"> > 576 MW > 60% shareholder > RWE lead operator 		Zephyr	<ul style="list-style-type: none"> > 331 MW > 33% Shareholder > RWE lead operator
Dogger Bank Forewind   	<ul style="list-style-type: none"> > Up to 9000 MW > 25% shareholder 		Little Cheyne Court 	<ul style="list-style-type: none"> > 60 MW > 59% Shareholder > RWE lead operator
Thornton Bank C-Power  <p>(+ other Belgian investment & industrial companies)</p>	<ul style="list-style-type: none"> > 325 MW > RWE Innogy is largest shareholder at 26.7% 		Middlemoor& Lindhurst 	<ul style="list-style-type: none"> > 54 and 9 MW > 51% Shareholder > RWE lead operator
North Hoyle Zephyr  	<ul style="list-style-type: none"> > 60 MW > 33% shareholder > UKs first project financed offshore wind farm 			

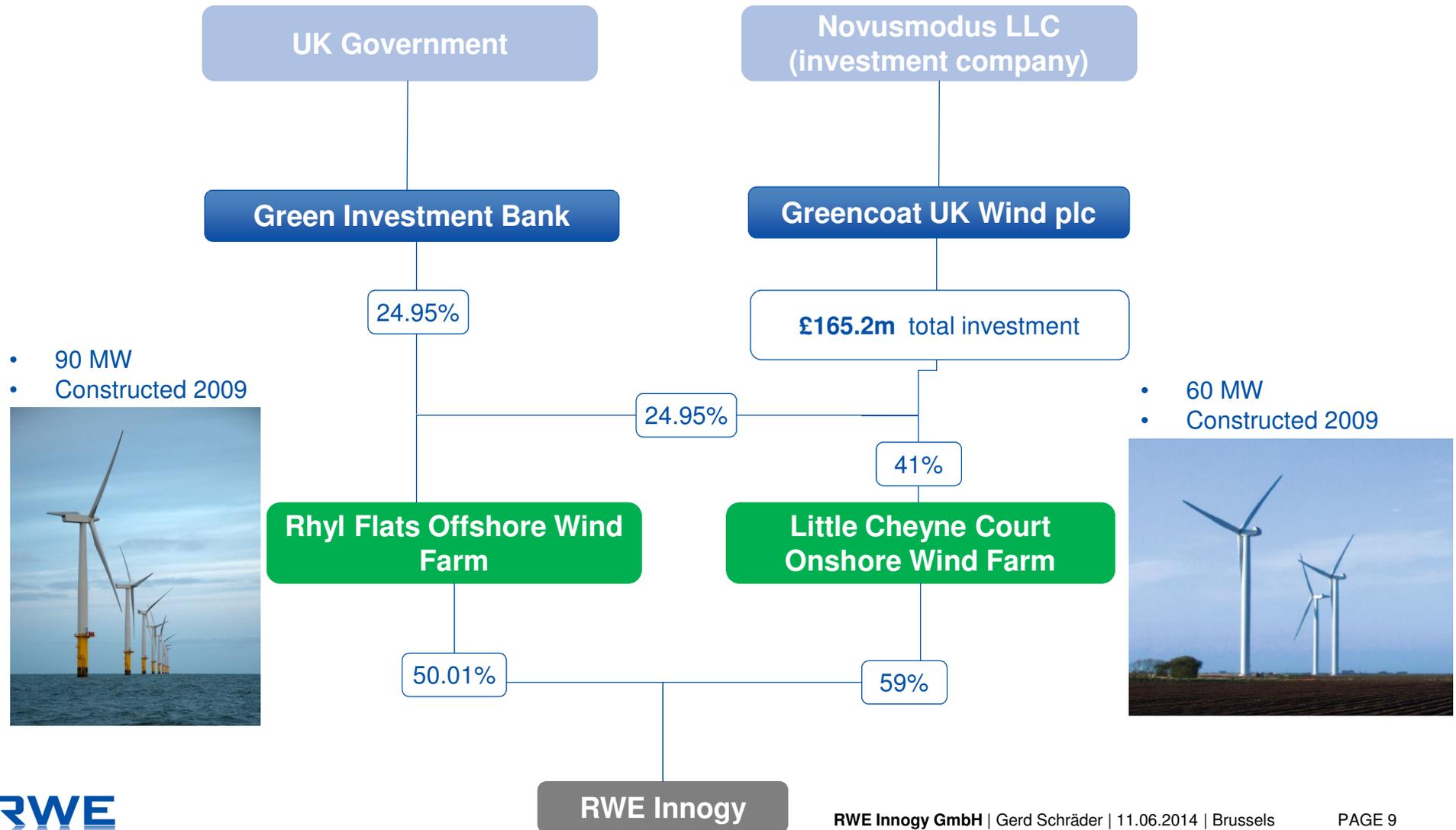
Case Study: Equity strategic partnership – Gwynt y Môr



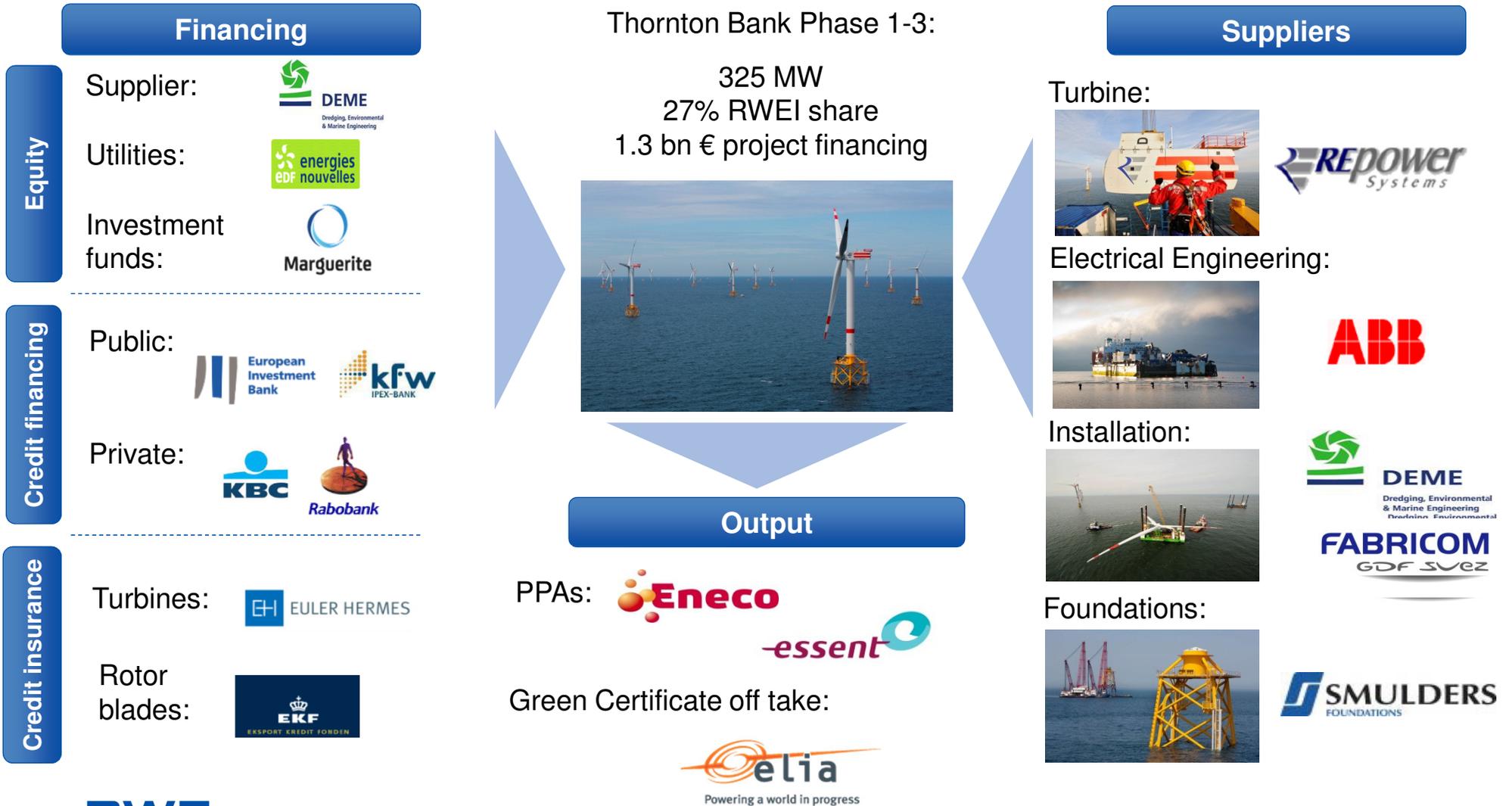
- £2.2 billion investment
- 576 MW
- Completion 2014



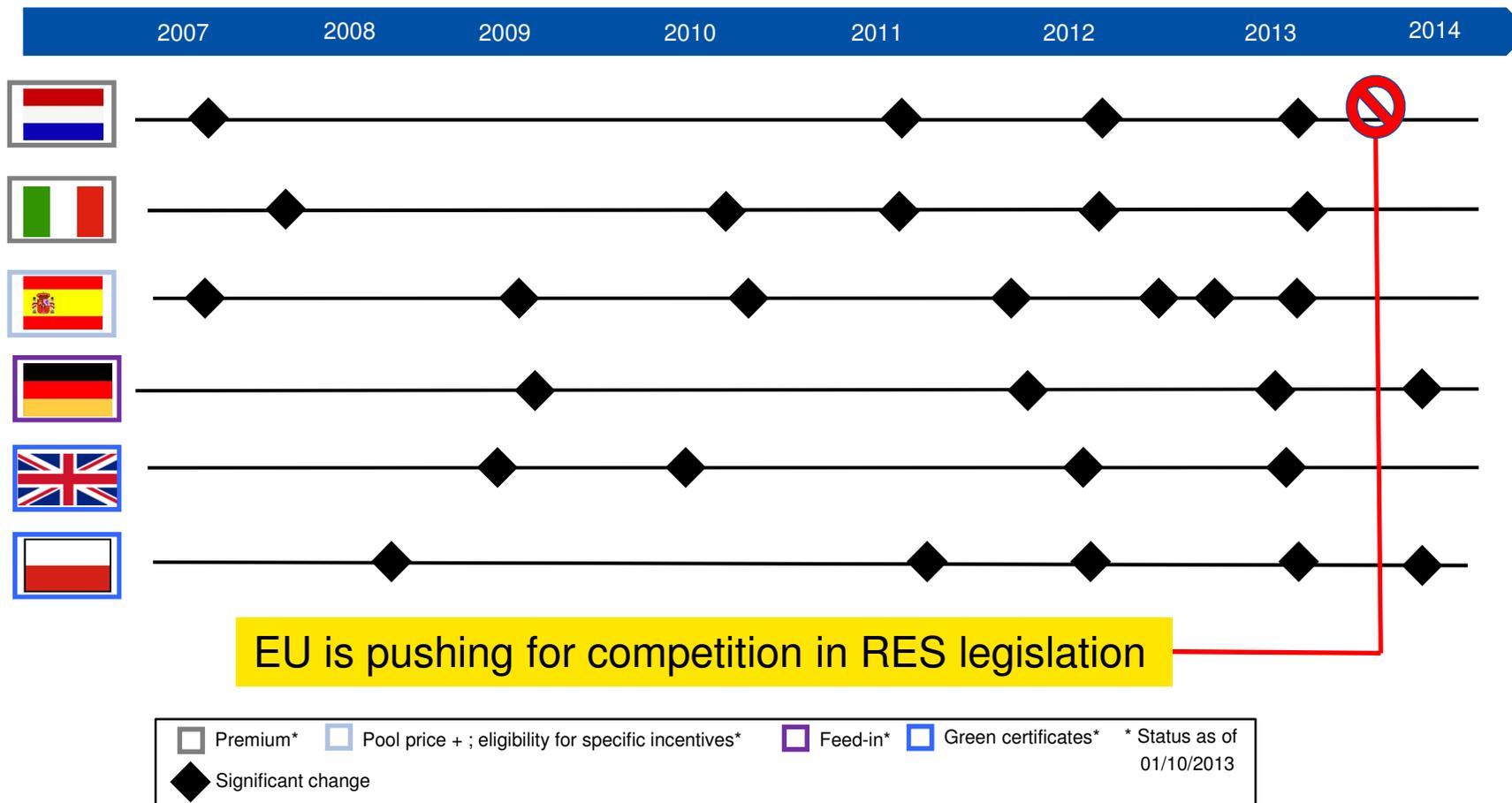
Case Study: Equity financial partnership – Greencoat UK Wind plc



Case Study: Non recourse debt partnership – Thornton Bank



Recent changes in regulatory regimes, legislative processes and political discussion increasingly lead to less reliable support conditions for RES, delay projects and endanger investments ...



Investors expectations

- > Long-term stable investment climate
- > No retroactive changes in legislation
- > Necessity to earn back the invested capital to generate new investments
- > Investors can manage project and market risks but no regulatory risk
- > Avoid regulatory-driven boom and bust cycles



RWE

The energy to lead

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