Financing Renewables: comparison of cost of capital in 28 EU MS

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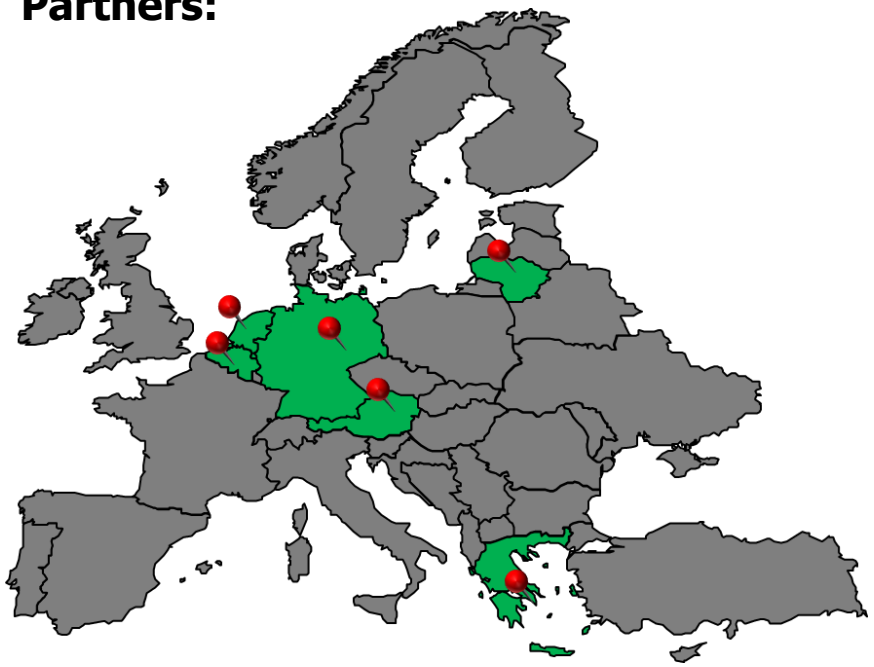
Background & Methodology of DIA-CORE Project

DIA-CORE in a nutshell

- Funded by the IEE programme; project duration 36 months (start 01/04/2013)
- Main objectives
  - monitoring MS success in meeting 2020 RES targets
  - providing unbiased and scientifically robust analysis on optimal support strategies
- Work package: Enhancing RES investment
  - Examine the role of risk and its influence on RES investments;
  - Compare costs of capital (WACC) at EU MS level

Partners:



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DiaCore

Introducing Weighted Average Costs of Capital (WACC)

What is WACC?

Why is it relevant?

How have we collected it?

Our methodology for comparing costs of capital and risks

Model

- Estimation of costs of capital & ranking of wind onshore-investments risks
- Comprehensive literature study
- Application of RE-frame barriers database (more than 900 listed barriers)
- Draft of 28 EU MS country profiles

Evaluation

- Interviews with financial experts (more than 80 interviews in 26 MS)
- Evaluation of underlying assumptions of model & estimated parameters
- Adaptation of model based on input from interviews

Results

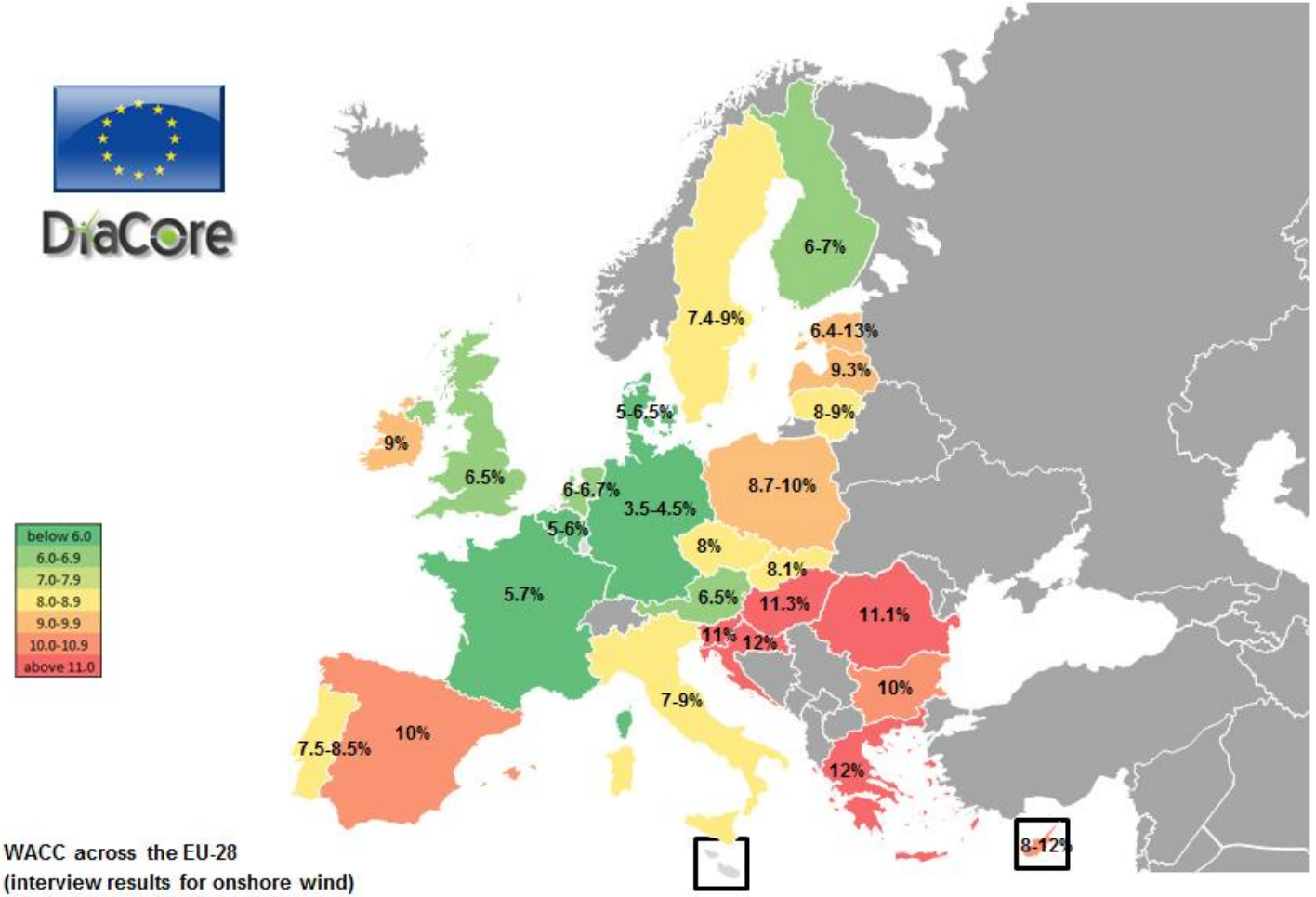
- Aggregation of EU-wide data
- Presentation of results and feedback from more than 300 national experts
- Preparation of deliverables: Country profiles, policy toolbox & final report

Before we start: some caveats

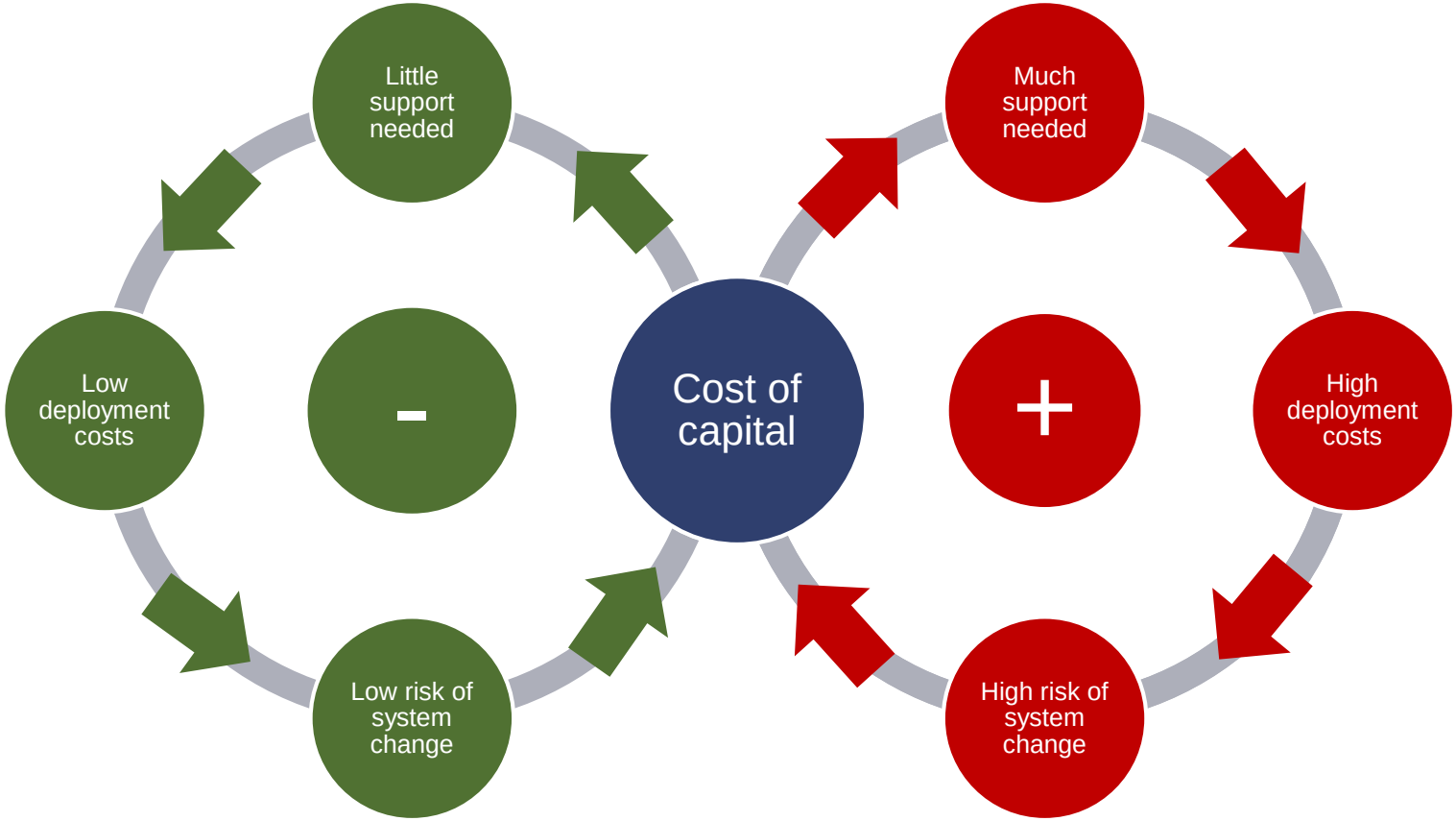
- There are several methods for wind project financing: corporate financing or project financing
- Ongoing changing (often falling) interest rates
- Constant changes of RES market conditions
- Lack of current, significant projects in some EU markets
- Trade secrets

Comparison of costs of capital

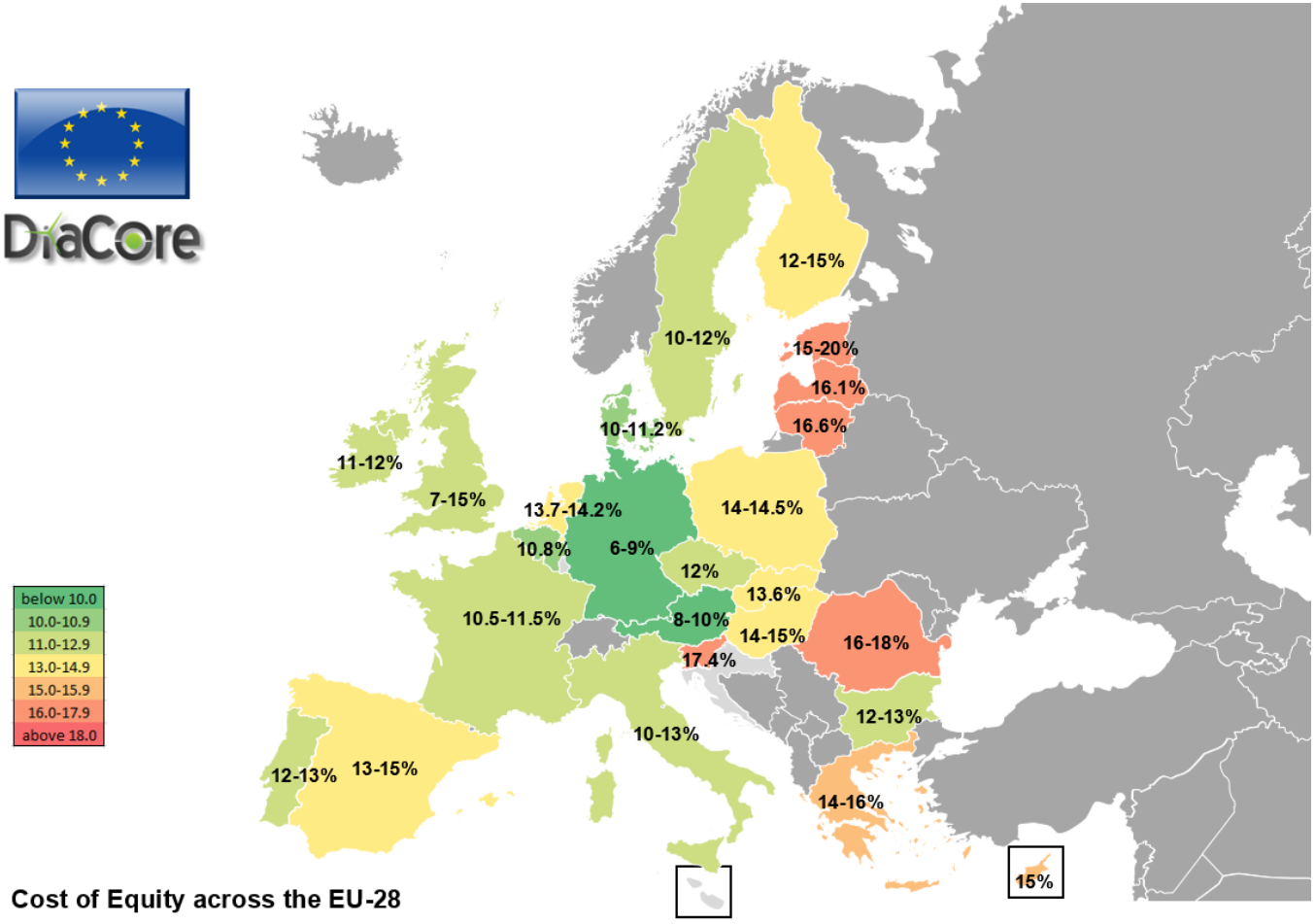
WACC estimations onshore wind – approximation based on interviews



Impact of costs of capital on RES costs in a system dynamic approach

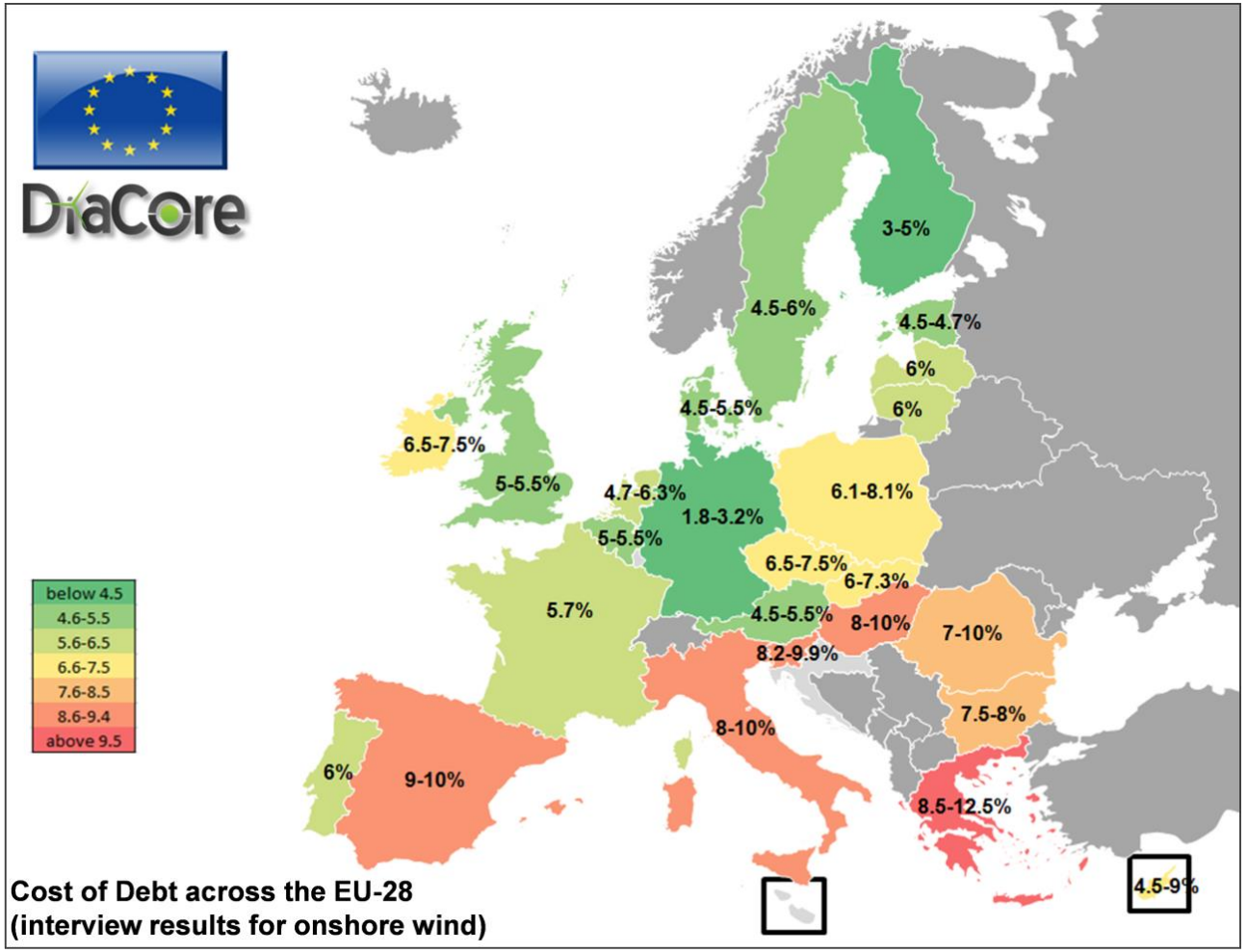


Cost of Equity (approximation based on interviews for onshore wind)

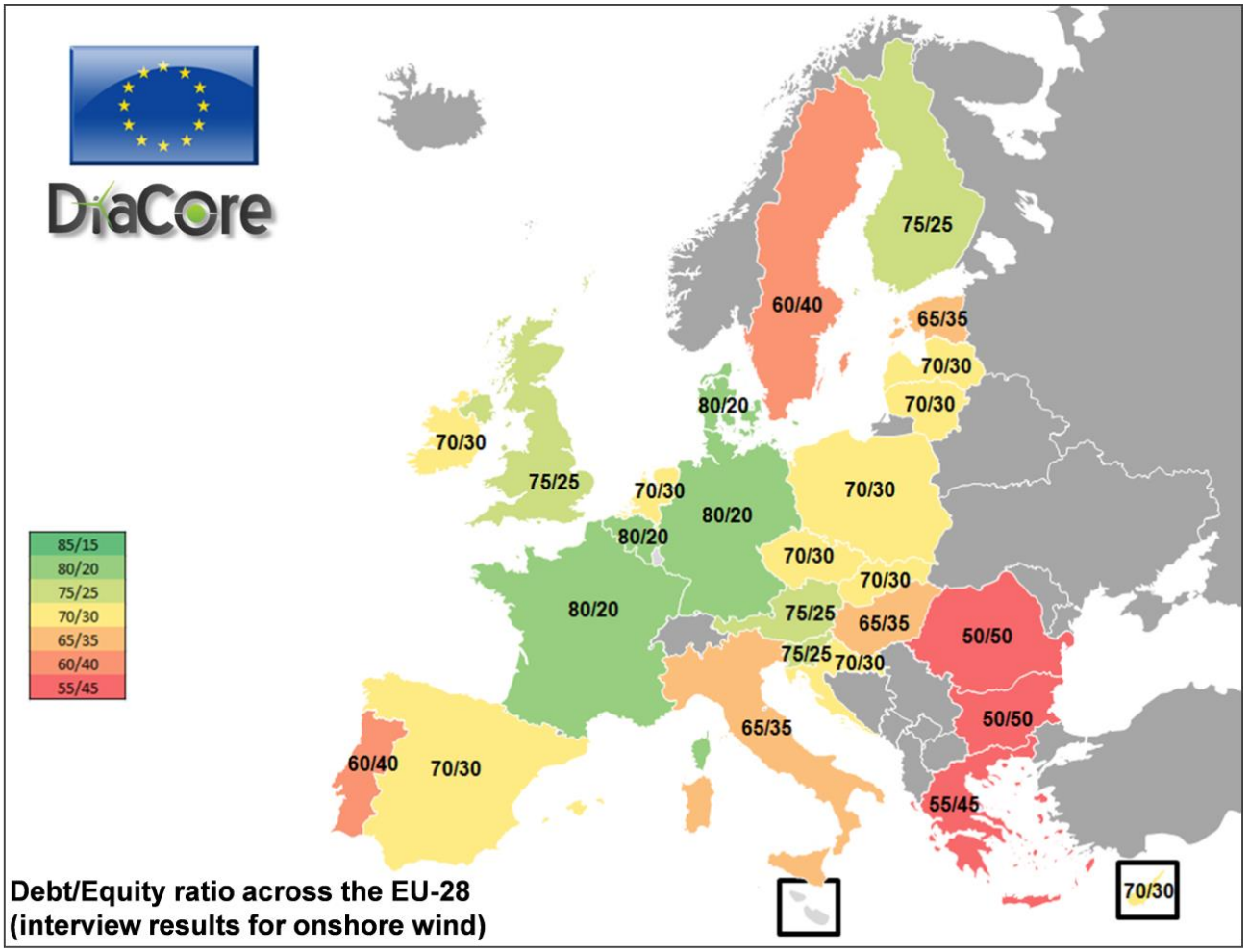


Cost of Equity across the EU-28
(interview results for onshore wind)

Cost of Debt (approximation based on interviews for onshore wind)



Debt/ Equity Ratios (approximation based on interviews for onshore wind)



Conclusions

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- Huge variation in costs of capital for wind onshore projects in EU Member States
- High cost of capital lead to increasing wind onshore deployment costs
- Variation in WACC are in particular due to cost of debt and cost/equity ratio
- Factors for differing costs of capital are
  - Country specific risks
  - RES specific risk premium
  - Competition between investors

Questions for follow-up?

- Update of information (development of WACC 2014-2016)
- Development of WACC over project cycle (impact of tendering schemes)
- Connection of WACC development with legal changes and existing barriers
- Quantification of WACC – Costs (Price-tag)

More information:

http://www.diacore.eu/

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