

Is Europe on track to reach its 2020 goals?

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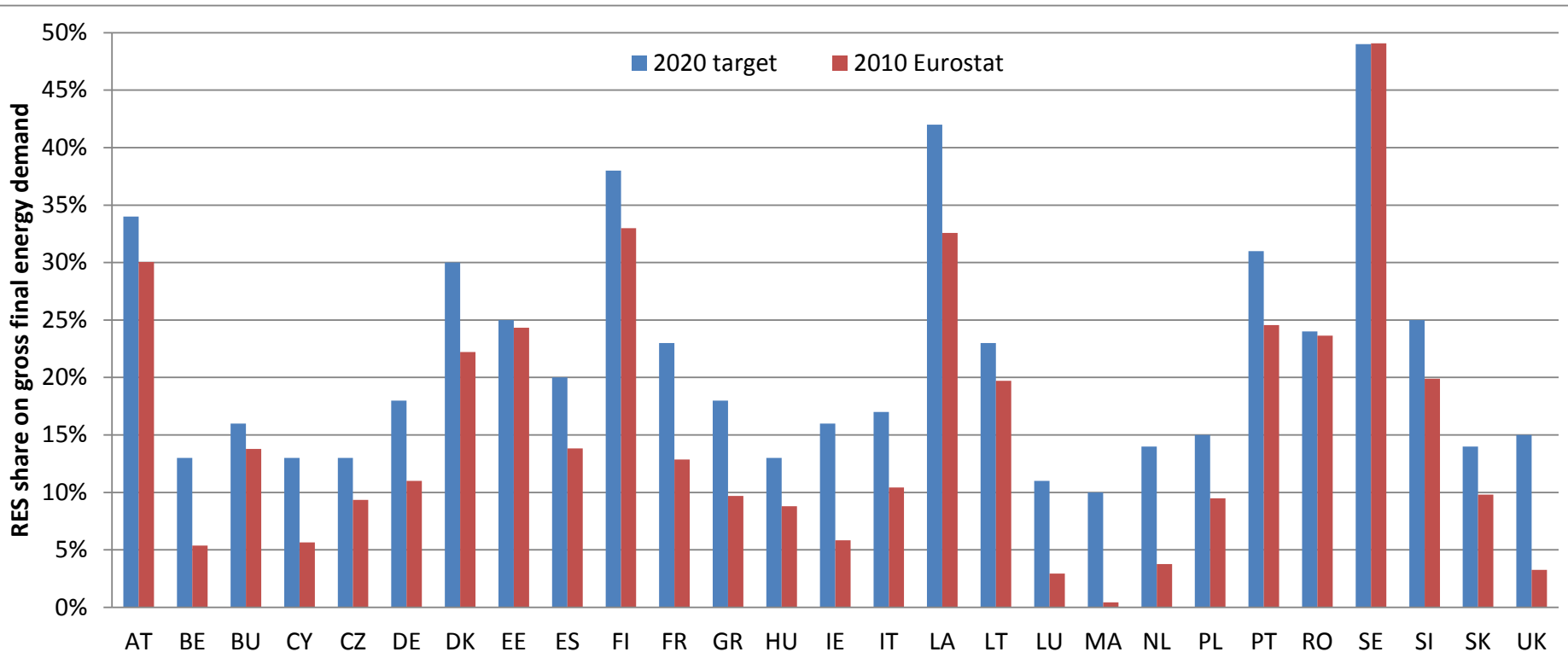
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Outline of the presentation

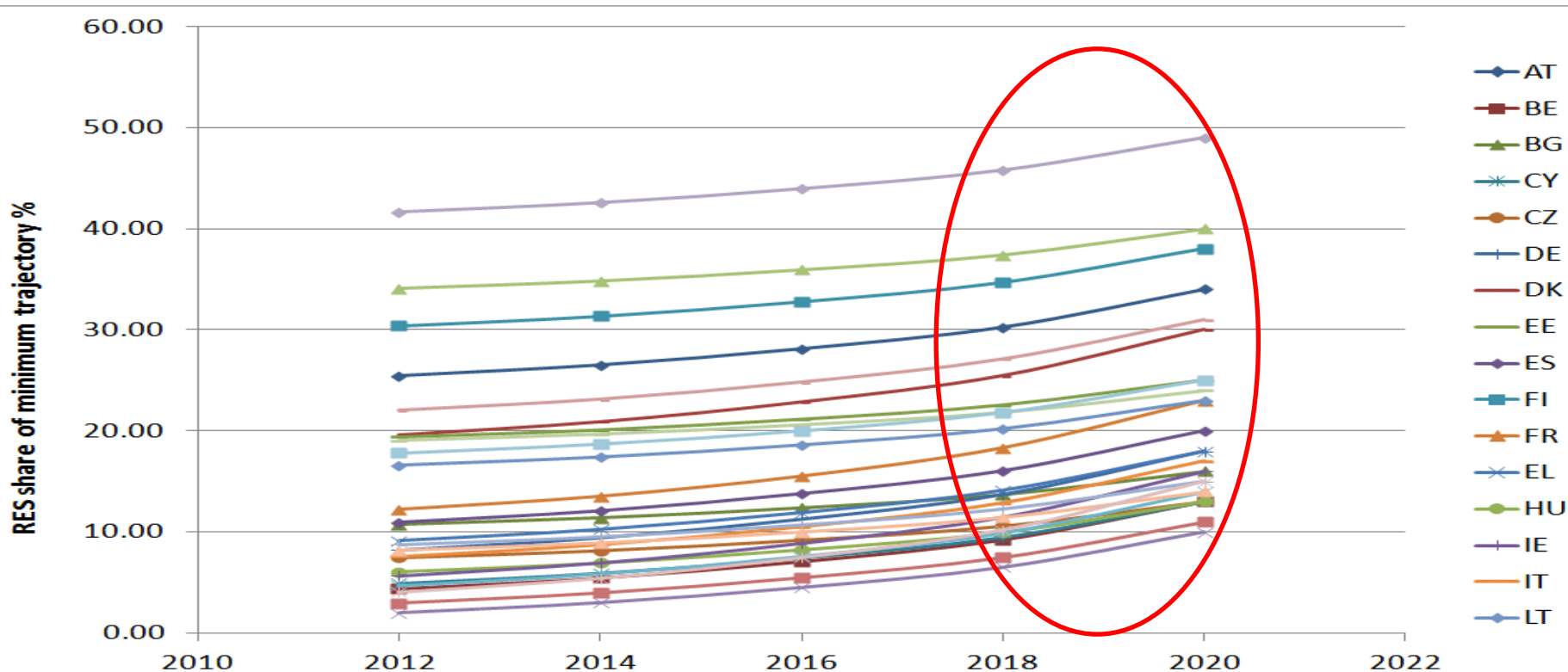
1. Renewable targets for 2020
2. National NREAP's trajectories
3. Is Europe on track - first quantitative assessments
4. Will the implemented supports schemes be
sufficient for the envisaged 2020 goals?
5. Conclusions

Goal: 20% of gross final energy demand is contributed by renewables in 2020



How the European Commission set the targets ... „FLAT RATE“ & „GDP-Variation“
 $RES\text{-target}_{2020} = RES_{2005\%} + 50\% * RES_{NEW\%} + 50\% * RES_{NEW\%} \text{ GDP-weighting} - \text{“first mover bonus”}$

Pathway: How Member States expect to meet the target in 2020? - the NREAP's



Rather modest increase in minimum trajectories across all Member States in the early stage but significant increase is expected towards the end of the time period.

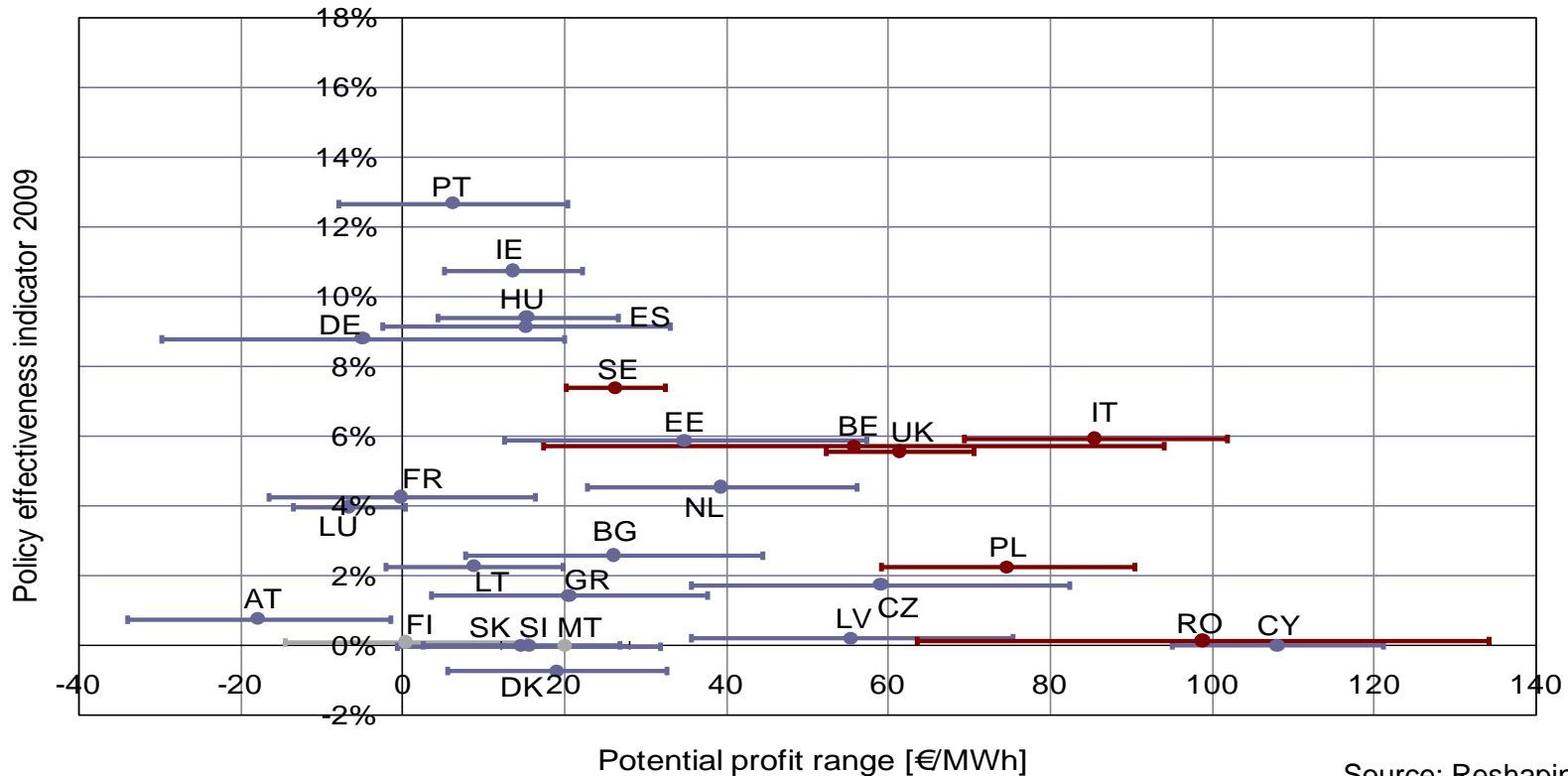
Deviation: First quantitative assessments based on 2010 figures

- Strong differences in the deviation of actual (Eurostat) to planned (NREAP) RES share across Member States - -76% to +42% BUT +9.5% on EU27 level
- The actual RES generation exceeds the minimum trajectory in NREAP's in almost all Member States, with only 4 slight exceptions.
- Several MS fail to meet the indicative NREAP targets in 2010 in the electricity sector
 - Most significantly due to less wind and biogas contribution
- Notable stronger contribution in RES-Heat sector (+13%) as indicated in the NREAP's
 - One third more generation from solid biomass and biogas
- Only 11 MS meet their indicative target on RES in the transport sector in 2010
 - Overestimation of renewable electricity in the transport sector (-11% in EU27)

Expectation: Modeling results in the 2020 horizon

- Expected 2012 RES share will slightly exceed (+2.3 to 3.9%) the indicative NREAP level in EU27 - only 9 MS will not fully meet the share (similar countries as in 2010)
 - Reduced overachievement in year 2012 compared to 2010 (+9.5%)
- Only 3 MS are expected to not comply with the minimum trajectory of the NREAP's
 - A general overachievement on EU27 level by about 23 to 25% is calculated
- Current policies appear insufficient to trigger enough RES development to meet the target in 2020 - only few countries will meet the target; total RES share about 15.5%
- New planned policies are expected to increase the RES share to about 16.5% only
- Missing contribution in all sectors - major difference in the transport sector (-30%)
 - Electricity and heat sector show an about 15% reduced contribution
- Technology specific CSP, tide and wave as well as on- and offshore wind are expected to account for less RES-E, like heat pumps and geothermal heat do for RES-H in 2020

Options: Policy effectiveness versus efficiency



Source: Reshaping (2011)

Effectiveness: How much RES is triggered from the available potential due to support mechanisms
 Efficiency: Is the support level appropriate compared to the LCOE's (no over/under compensation)

Opportunities: Recommendations and conclusions to meet the 2020 target

- **Financial support deficit**
 - Stable framework conditions - reduce the risk
 - Improve efficiency - adjust support options according to market development
 - Limit support period - consider lifetime and residual value of technology
 - Encourage cooperation and coordination schemes
- **Mitigation of non-economic barriers**
 - Simplify planning and authorization procedure - one stop shop
 - Spatial planning mechanisms for accelerate approvals
 - Harmonize grid connection approaches
- **Market integration**
 - Integration to balancing markets - gate closure closer to real time
 - Efficient congestion management
 - Efficient cross-border Intra-day markets
- **Improving energy efficiency - reducing the overall energy demand**

Thank you for your attention!

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