



Policy Challenges for Renewable Based District Heating in Europe



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Outline

- ❖ Our approach
- ❖ Overall trends in EU DH markets
- ❖ RES DH targets of EU Member States
- ❖ Policy challenges
- ❖ Specific DH policy challenges
- ❖ Regulatory lessons

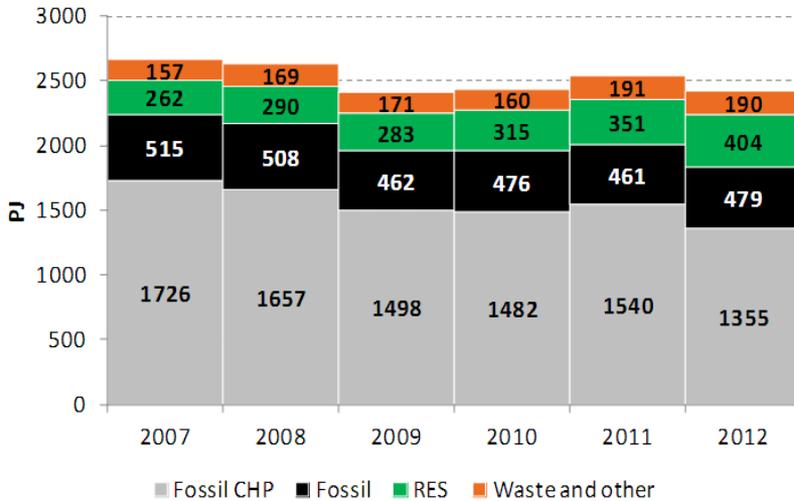
General issues in EU 28 DH markets

- ❖ *Introduce competition (e.g. connect more suppliers on the same DH network) and ensure the regulatory oversight and measurability of heat consumption in individual housing units.*
- ❖ *Increase/consolidate returns in the sector (e.g. brings RES-H into the same support level as other RES-E use)*
- ❖ *Continuity (avoid cyclical behaviour) e.g. investment support is dependent on the state budget, so it might follow a stop and go pattern introducing unwanted cycles.*
- ❖ *Increase market opportunities (e.g. compulsory connection to DH network if available)*
- ❖ *Keep the existing DH users from converting into individual heating solutions*
- ❖ *As the regulatory environment could have a significant impact on the competitiveness of the RES based DH generation, this element will be assessed in detail within the country case studies.*
- ❖ *Contribute to the Energy Efficiency targets and at the same time improve operational efficiency of DH production and distribution*

Our approach

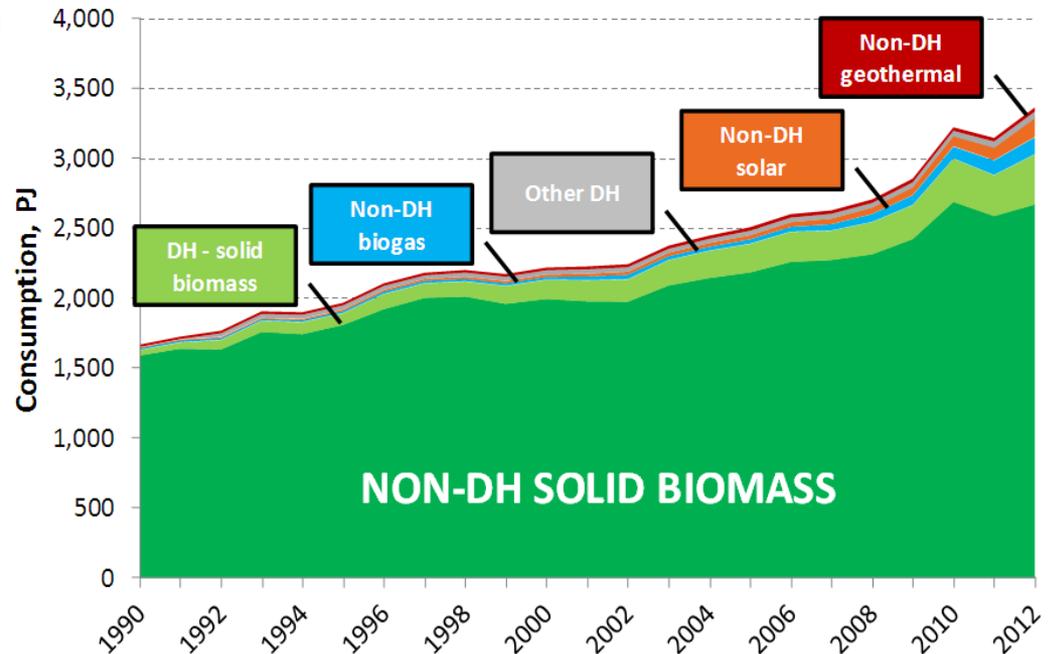
- ❖ Country studies of 7 selected countries: Austria, Denmark, Estonia, Germany, Hungary, Poland, Sweden.
- ❖ Case studies of 4 municipalities: Copenhagen (DK); Poing (DE); Pécs, Miskolc (HU).
- ❖ DH modeling for various policy assessments (presently on Hungary).
- ❖ ‚Value added’ of research:
 - Coverage to a wider range of regulatory aspects including the regulation of DH, CHP and RES heat and not only the support instruments.
 - Including heat market drivers beyond public support that could be decisive in the future development of RES-DH (e.g. prices, network availability, legal framework).
 - Covering the development of the most recent years (up till 2012) whereas the earlier studies based their assessments on data up till 2009/2010.

Overall trend in EU DH systems

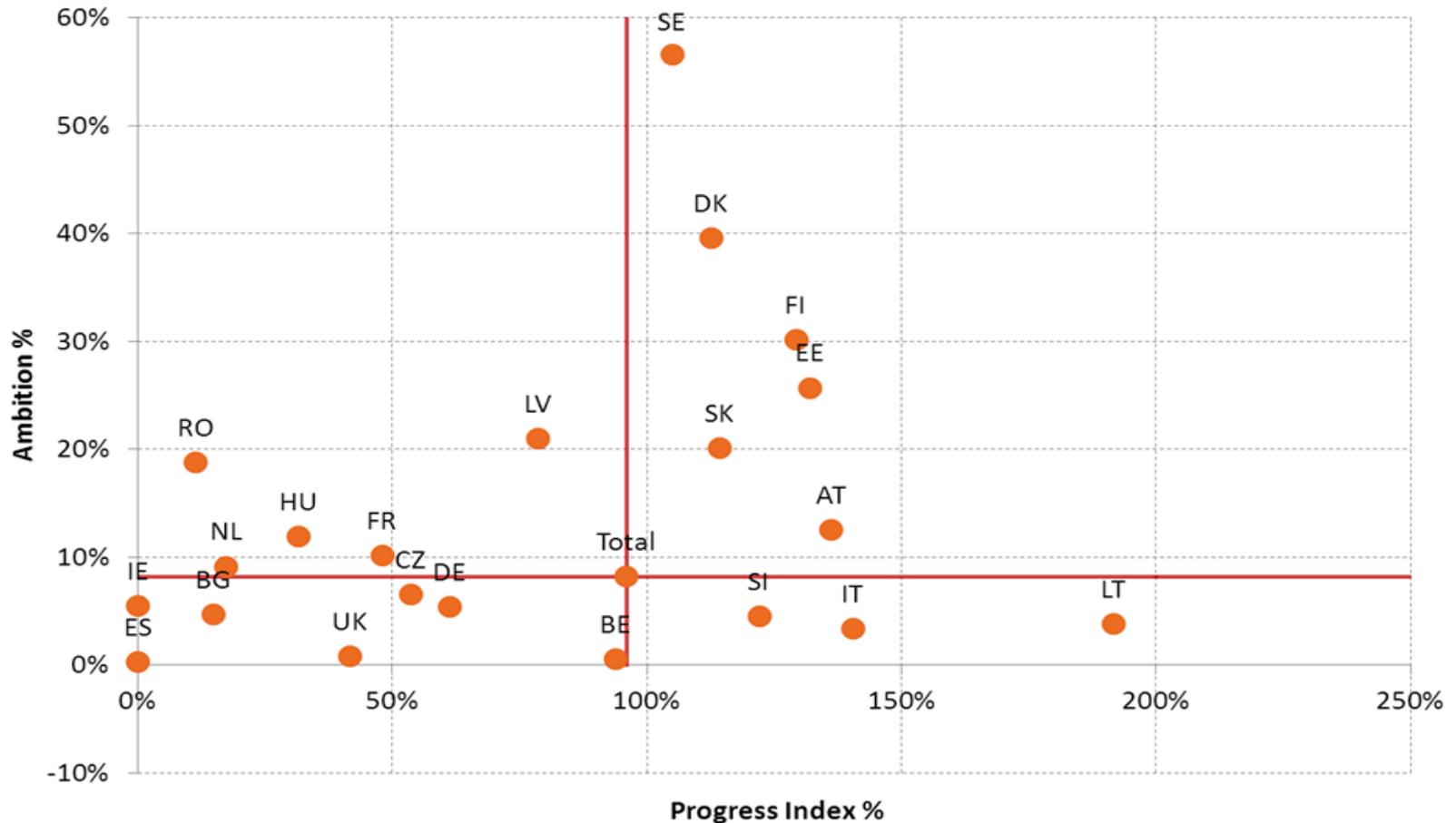


- Slightly decreasing DH production
- Increasing RES based DH production
- Reducing CHP contribution

- Overall RES heat increase
- But most of it is still non-DH
- Biomass dominates heat production



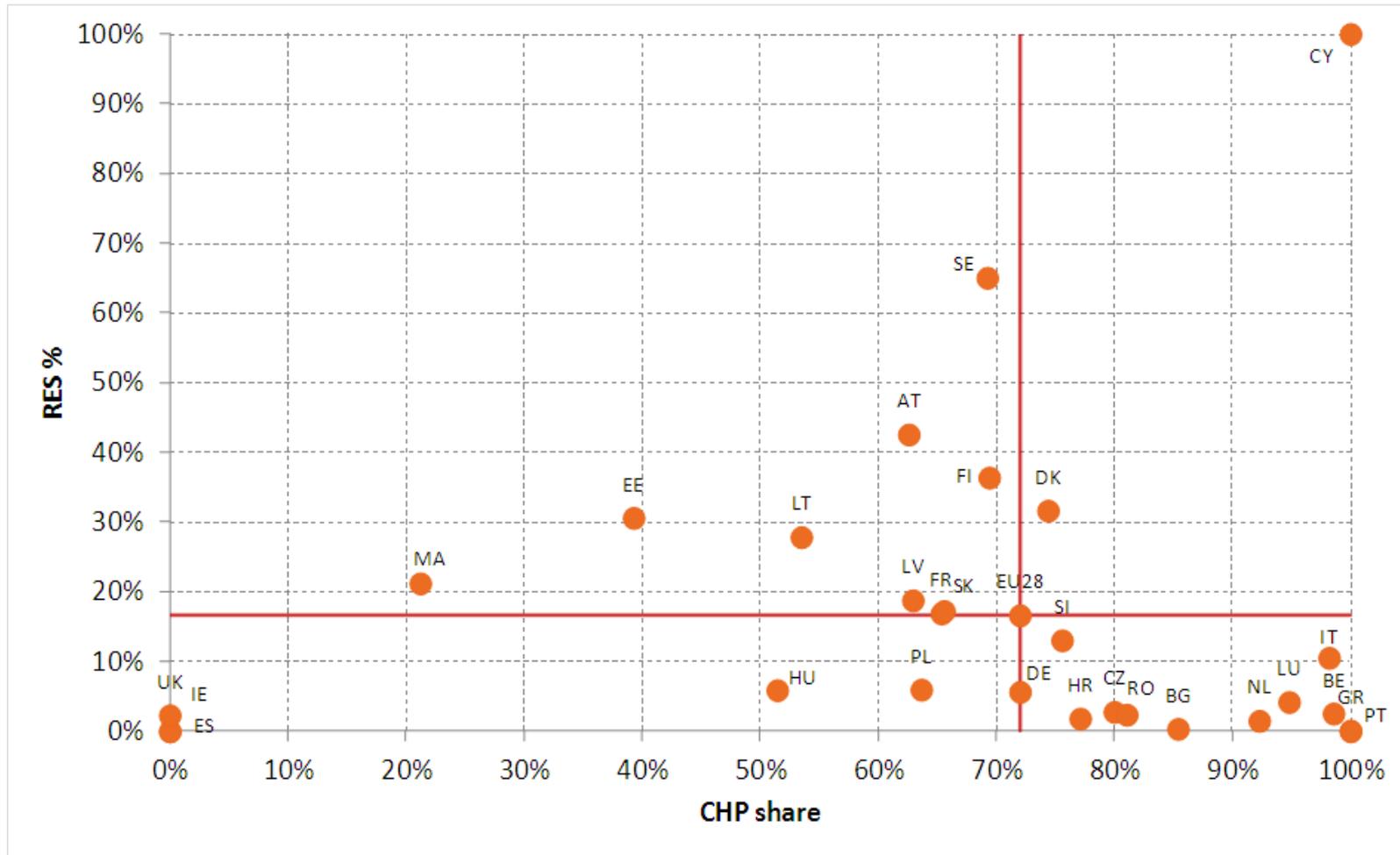
Achievements and Ambitions in the EU



- Ambitiousness %: 2020 DH target/total residential heat demand in 2011
- Progress index: achieved growth in 4 years (2008-11) compared to the 2020 target



RES vs- CHP share in the DH systems



Policy challenges – shared with RES

- ❖ Technology challenge - for less mature technologies - no significant achievements
- ❖ Uncertain evolution of factors affecting the competitiveness of DH:
 - Fossil fuel prices
 - Cost of competing technologies
- ❖ Macroeconomic related policy challenge:
 - difficulty in accessing credits in some MSs

DH specific policy challenges

- ❖ CHP based DH - danger to lock in DH systems to natural gas based systems
- ❖ Building refurbishments - reduce DH market size - also careful planning is needed
- ❖ Difficulties to competitively price DH services - limited third party access (TPA) opportunities
- ❖ Obligation schemes - dependent on the overall legal environment/licences of municipalities
- ❖ Regulatory challenges of DH companies

Regulatory lessons

- ❖ Positive externality of RES DH is not ‘priced in’ in many countries
- ❖ In liberalised DH markets private providers ‘pick up’ most profitable zones, while leaving less profitable areas to municipalities
- ❖ More investor friendly regulation: e.g. moving from cost plus to incentive regulation, or increasing length of regulatory periods
- ❖ At the same time still enforce efficient operation and pricing of DH systems