

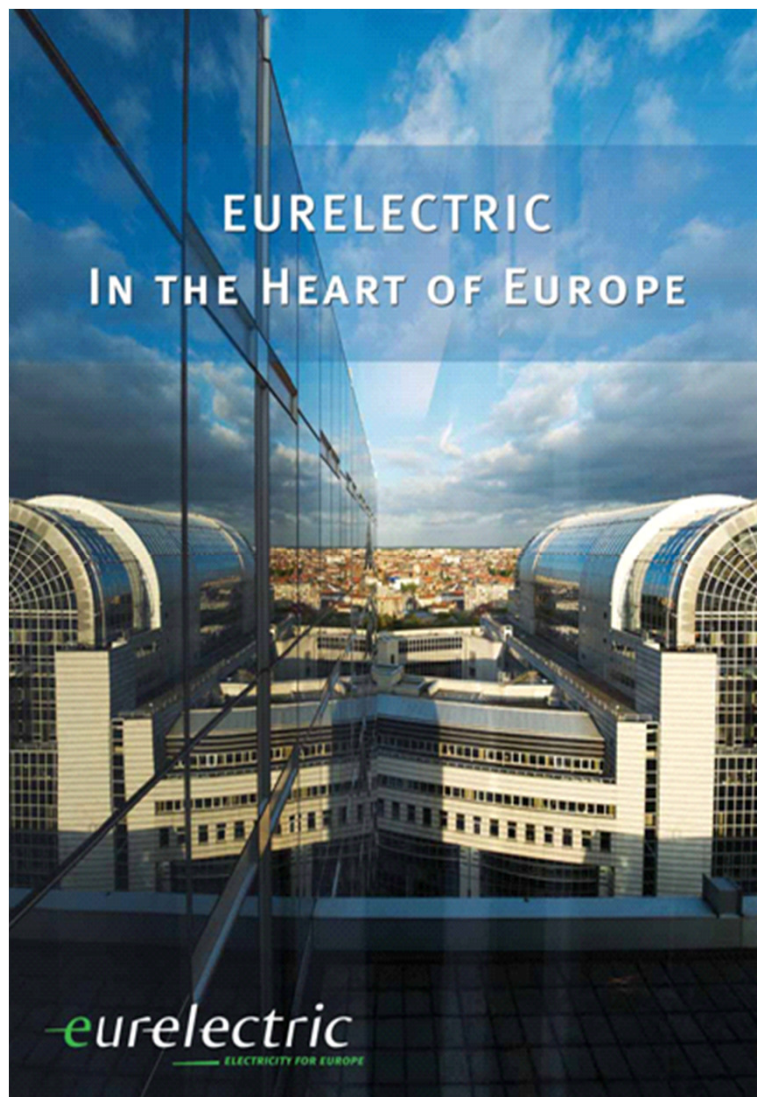


BIOMASS 2020: OPPORTUNITIES, CHALLENGES AND SOLUTIONS



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Workshop on “Biomass supply challenges: How to meet the biomass demand by 2020?”, Rotterdam, 15 March 20



OUR COMMITMENT

Combat climate-change

- Become carbon-neutral by 2050
- Boost energy efficiency & help electrifying transport, heating/cooling etc. to fight climate change

Deliver cost-efficient, reliable electricity

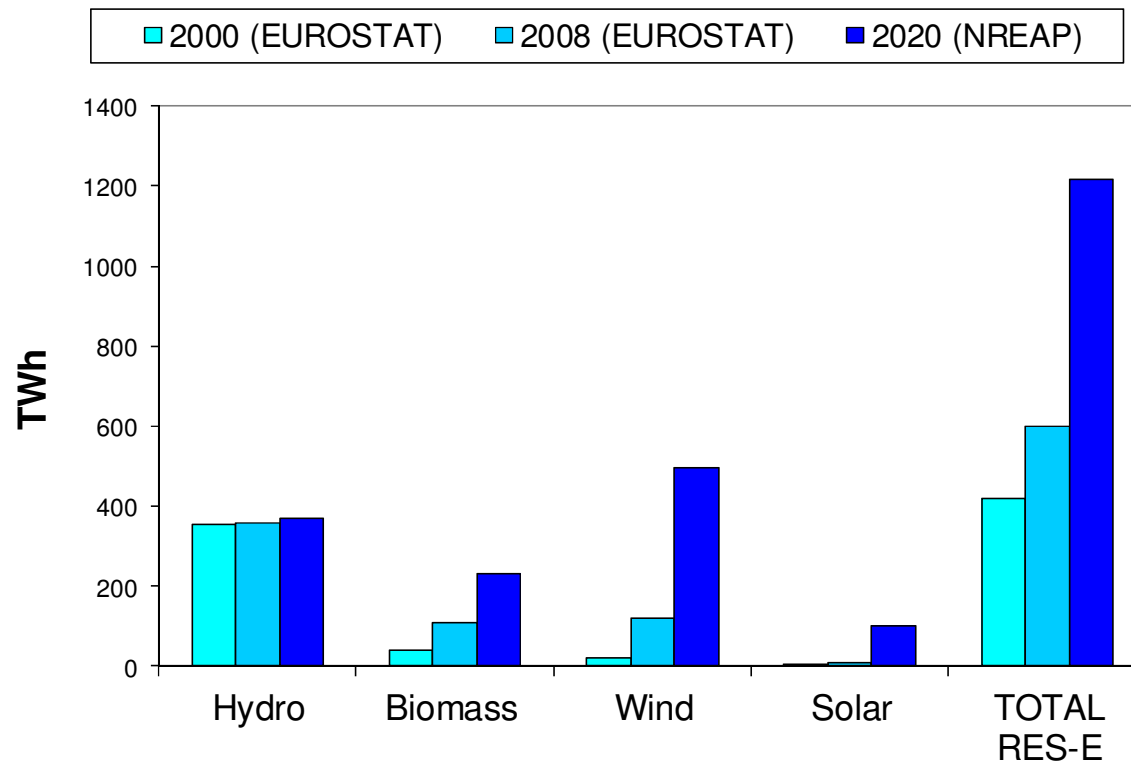
- Go for European, market-based solutions



CEO Declaration – 18/03/2009



Our starting point: Europe in 2020 = 35 % of RES-E



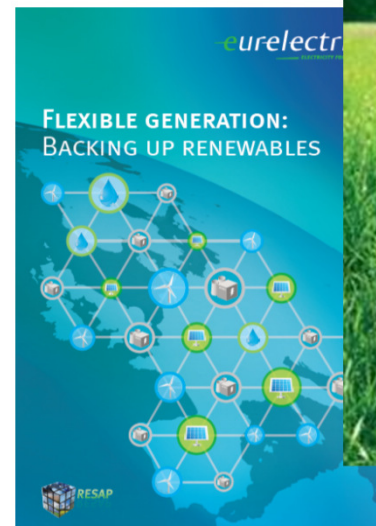
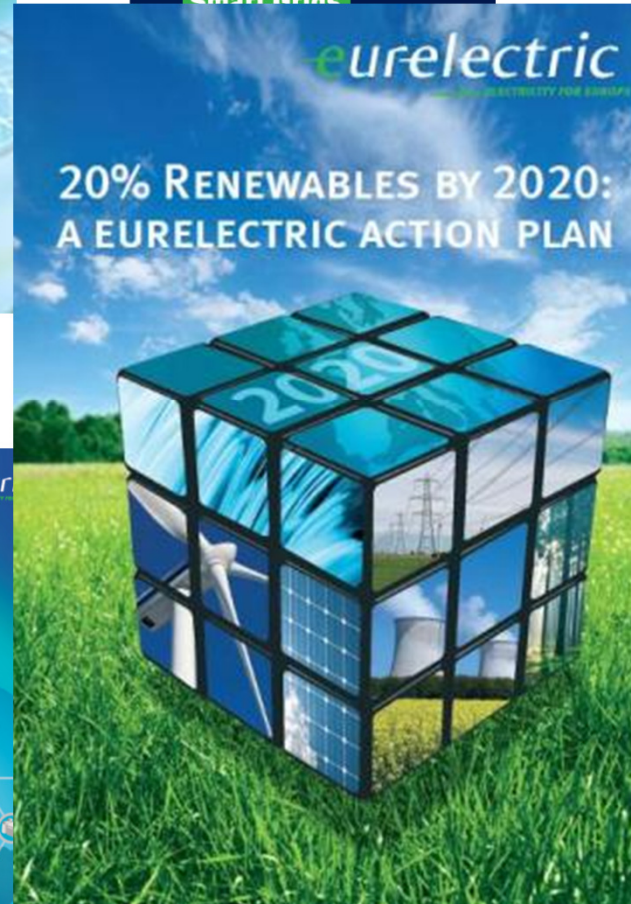
2008 – 600TWh → 2020 – 1200 TWh



The RESAP, a holistic approach:

- Engaging all EURELECTRIC committees and full structure of expertise
- ~ 400 experts across European power industry involved
- 13 different reports, and synopsis

www.eurelectric.org/RESAP



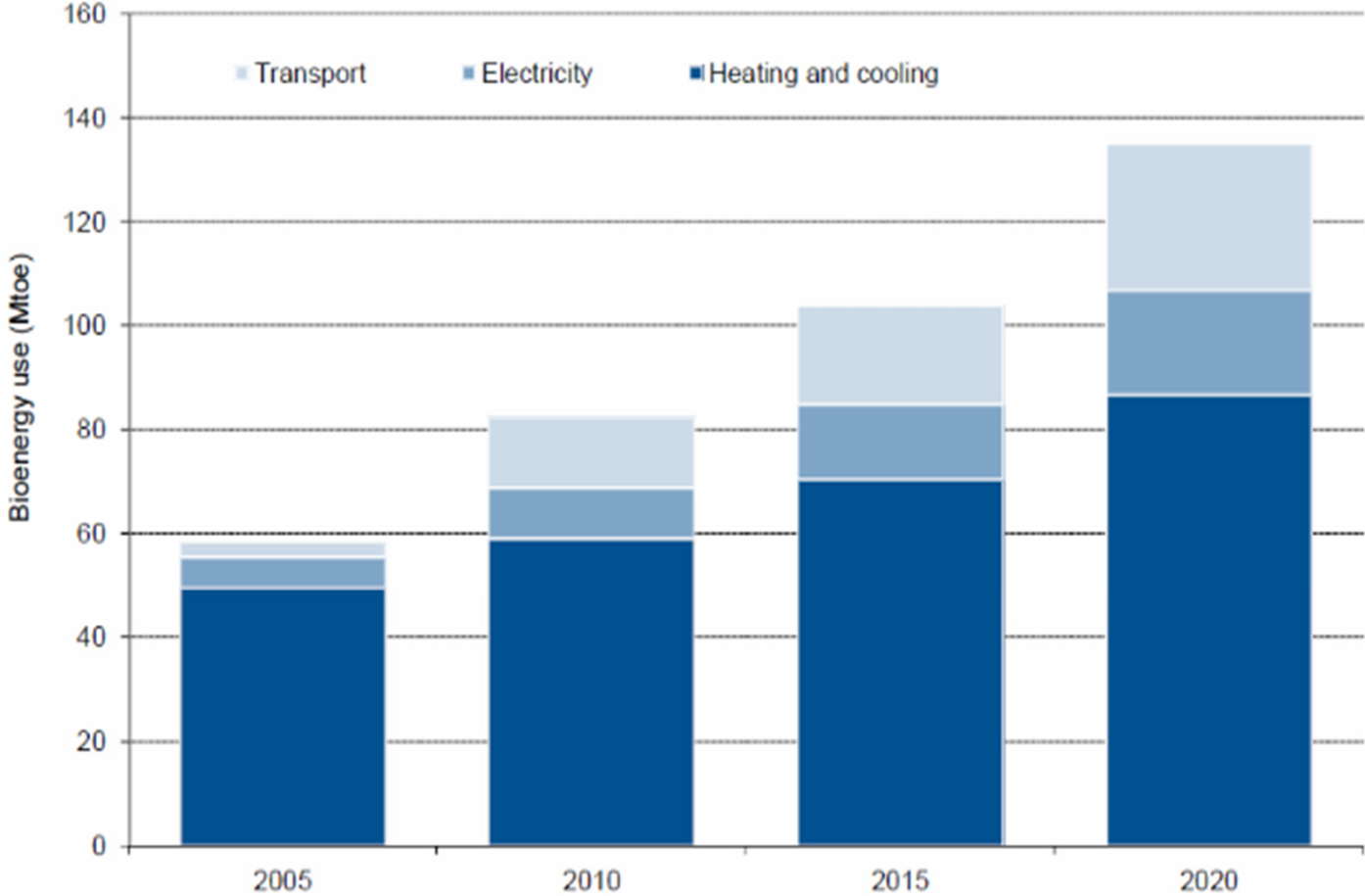


Key Policy Recommendations on RES from the EURELECTRIC RESAP

- 1. Successful growth in renewable energy depends on a well functioning and integrated European energy market**
- 2. Obstacles for investments in renewables and grid infrastructure must be removed.**
- 3. Flexibility on both the demand and supply side should be promoted through a consistent policy framework.**
- 4. Use of cooperation mechanisms and progressive convergence of support schemes for RES must be incentivised.**
- 5. A long-term RES policy must build on the EU ETS as a key driver of cost-effective decarbonisation.**



Member State estimates of bioenergy use towards reaching 2020 Renewable Targets, according to NREAPs



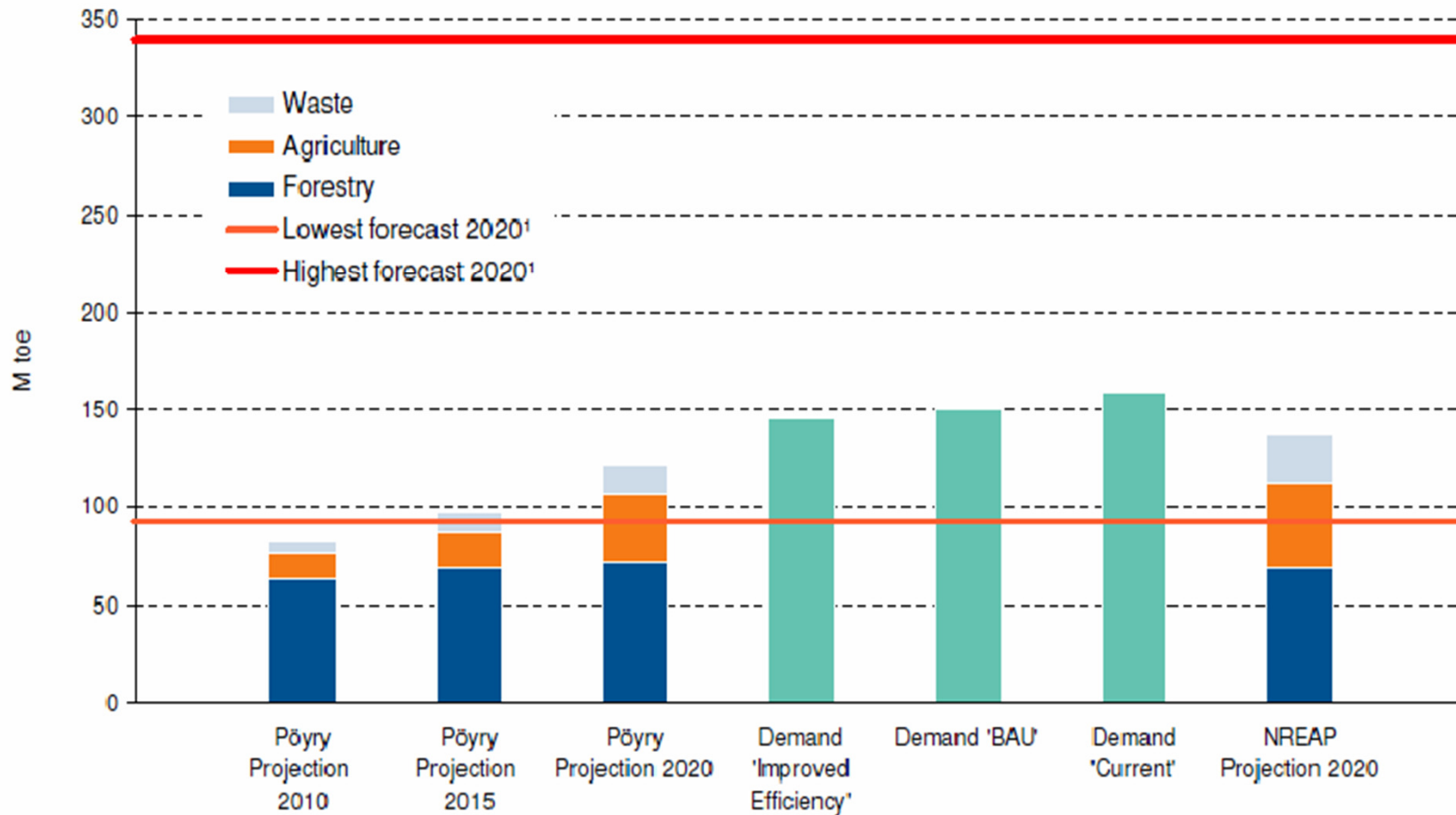
Source: EURELECTRIC Report Biomass 2020



Biomass use for energy will grow significantly to 2020

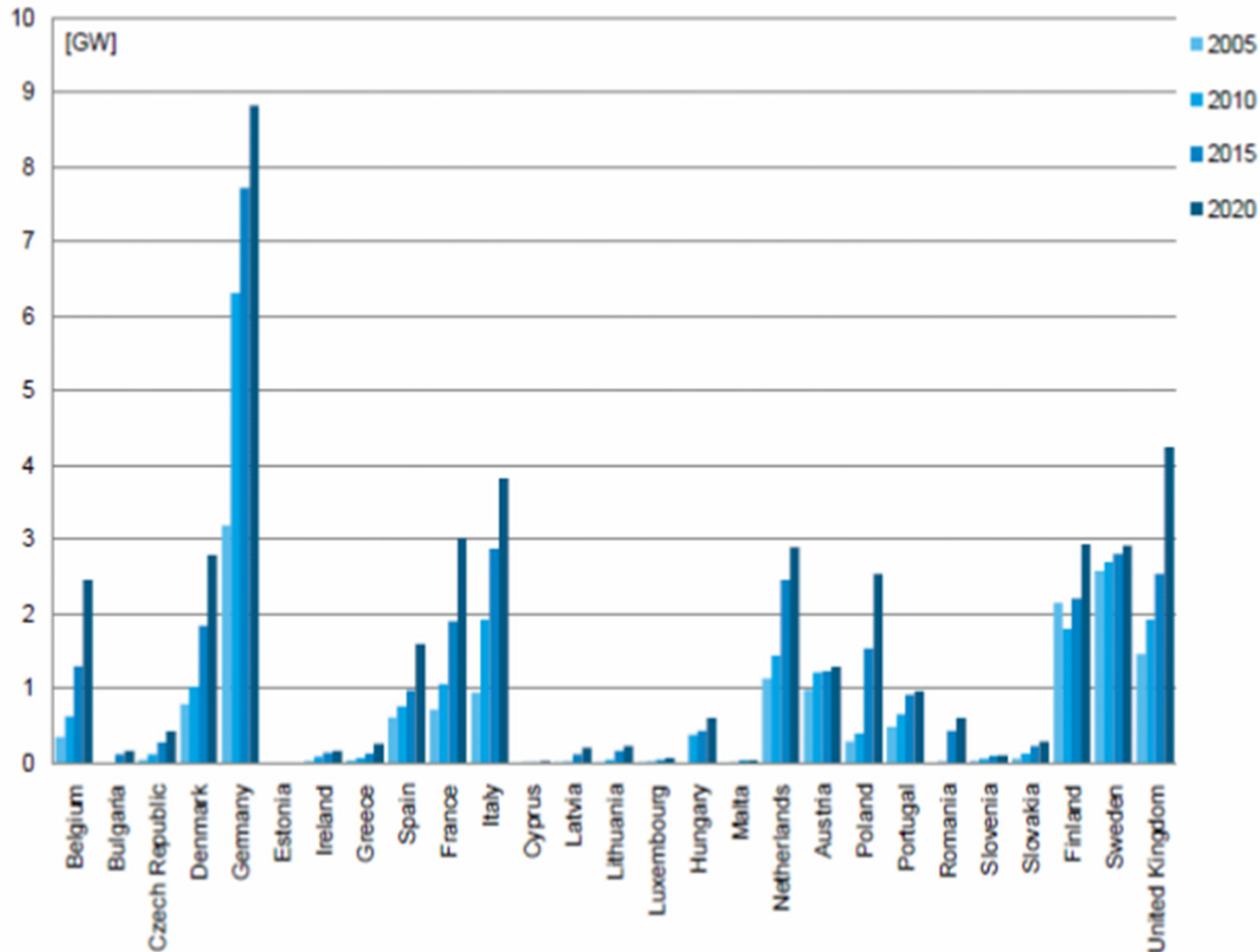
- Bioenergy use will increase **2.5 times by 2020**
- Primary solid biomass use for the EU power and heat sector EU will increase to **146-158 Mtoe by 2020**
- Currently, primary production of solid biomass within the EU is around 82 Mtoe, while our projections indicate that this could increase to around 120 Mtoe by 2020 (**supply gap of around 25-40 Mtoe**).
- Our analysis indicates that, at present, this supply gap could be filled by imports. If the entire solid biomass supply gap was filled by wood pellets, the form of biomass with the highest energy density, **this would imply the annual importation of**

Demand for biomass in Europe in 2020 (in green) under 3 conditions against projects of biomass supply (source: Poyry and NREAPs)





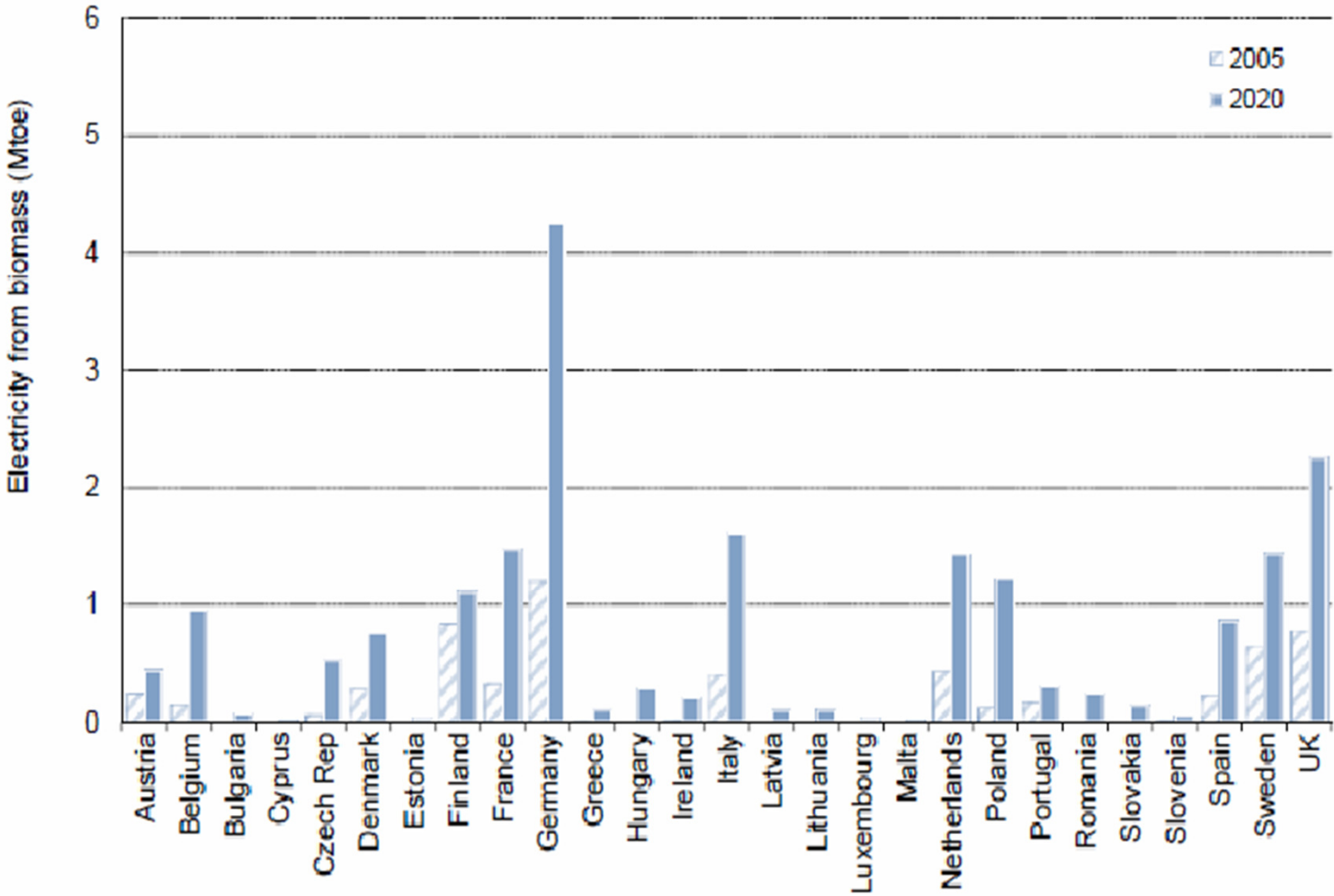
Biomass electricity production capacity in 2005, 2010, 2015 and 2020 (source: NREAPs)



Source: EURELECTRIC Report Biomass 2020



Electricity from biomass in 2005 and 2020 according to the NRI



Source: EURELECTRIC Report Biomass 2020



This massive growth in biomass use will require:

- **Significant investment in biomass supply chain within the EU to achieve the assumed 50 % increase in domestic primary biomass production**
- **Massive expansion of biomass power and heat generation: installed power generation capacity will need to increase from circa 24 GW in 2020 to 43 GW in 2020**
- **EURELECTRIC believes that EU-wide harmonised sustainability criteria will be needed in due time to provide reliable evidence to the general public that biomass is a sustainable fuel, especially for imports**
- **Markets for primary resources should be open, progressively integrated across the EU, and not subject to political interference to restrict sales of biomass to one national market or favoured industrial sectors. Any rules should be the same for all market players – i.e. all industrial users**



Key EURELECTRIC policy recommendations on biomass

- 1. We are convinced that biomass is an important renewable source and will form a significant part of reaching the 2020 RES targets (also because of its dispatchability)**
- 2. Additional measures will be needed to ensure that biomass realises its potential to contribute to the EU's renewable energy targets.**
 - Biomass has the capability to contribute strongly to meeting the European Union's renewable targets for both heat and electricity in 2020. A significant majority of the biomass required can be produced within the EU.**
- 3. Policymakers should work towards a framework that incentivises supply-side measures for sustainable biomass production within the EU and promotes long-term availability.**
 - Mandatory EU-wide harmonised sustainability criteria (... while minimising administrative burden) are necessary in the immediate future, to provide reliable evidence to the general public that biomass is a sustainable fuel.**



Key EURELECTRIC policy recommendations on biomass

4. Policymakers also need to pay attention to the enhancement of demand-side measures that support the use of biomass for the production of renewable energy within the EU.

- **Stable, consistent and sufficiently sufficient incentives are required for the production of electricity and heat from biomass towards the 2020 RES target.**
- **Without stable and sufficient support schemes, the energy industry will lack the confidence to invest in plant and in the development of biomass supply chains.**

5. The projected biomass demand-supply gap within the EU can be filled, at least in the short term, by international biomass supply.

- **Open international markets**
- **Competition for biomass materials on international markets is forecast to increase over the period to 2020 and beyond**
- **Promotion and progressive harmonisation at international level of**



Thank you for your attention!

www.eurelectric.org/RESAP