



# The Role of Bioenergy in the Energy Union

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# The European Energy Union

## Overall goal

*Secure, sustainable, competitive, affordable energy for every European*

## 5 interlinked dimensions

- *Energy security, solidarity and trust*
- *A fully integrated internal energy market*
- *Energy efficiency*
- *Low-carbon*
- *Research, innovation and competitiveness*

## 2016: year of delivery

### February

Security of  
Supply package

### July

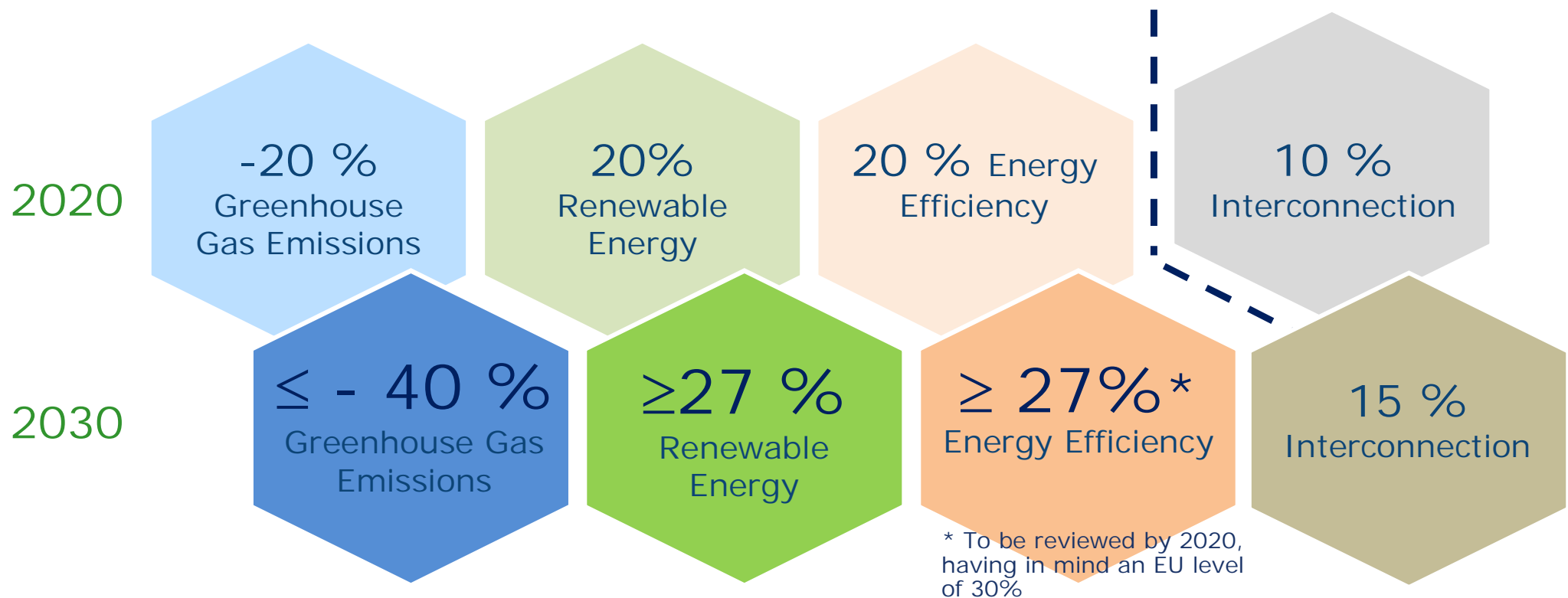
Effort Sharing  
Regulation for  
non-ETS  
emissions  
Strategy for low-  
emission mobility

### End of year

Energy Efficiency  
Legislation  
Renewables &  
bioenergy  
sustainability  
Market Design  
Governance



## 2030 EU Climate and Energy targets



*New governance system*

## Renewables in the EU - Progress by Member State

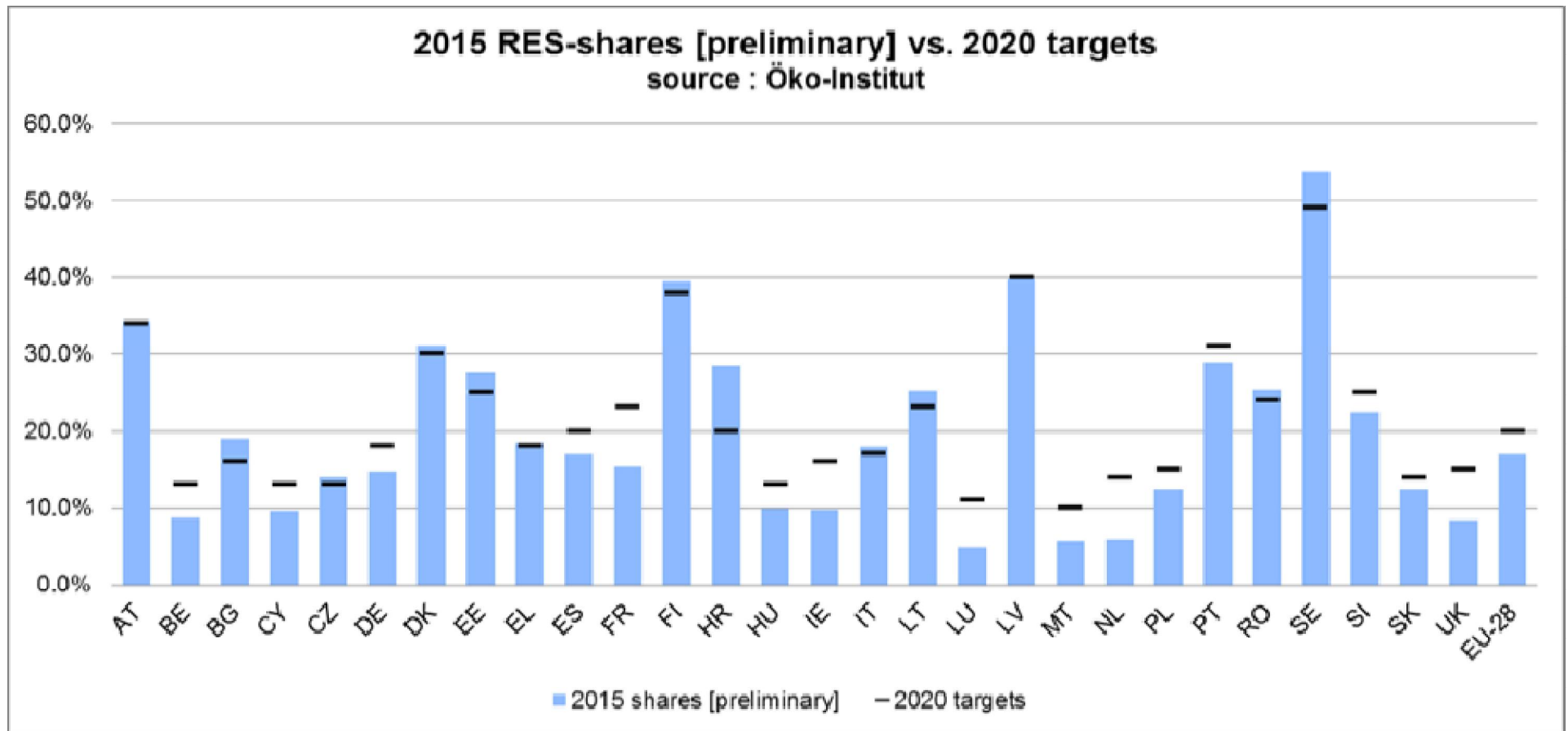
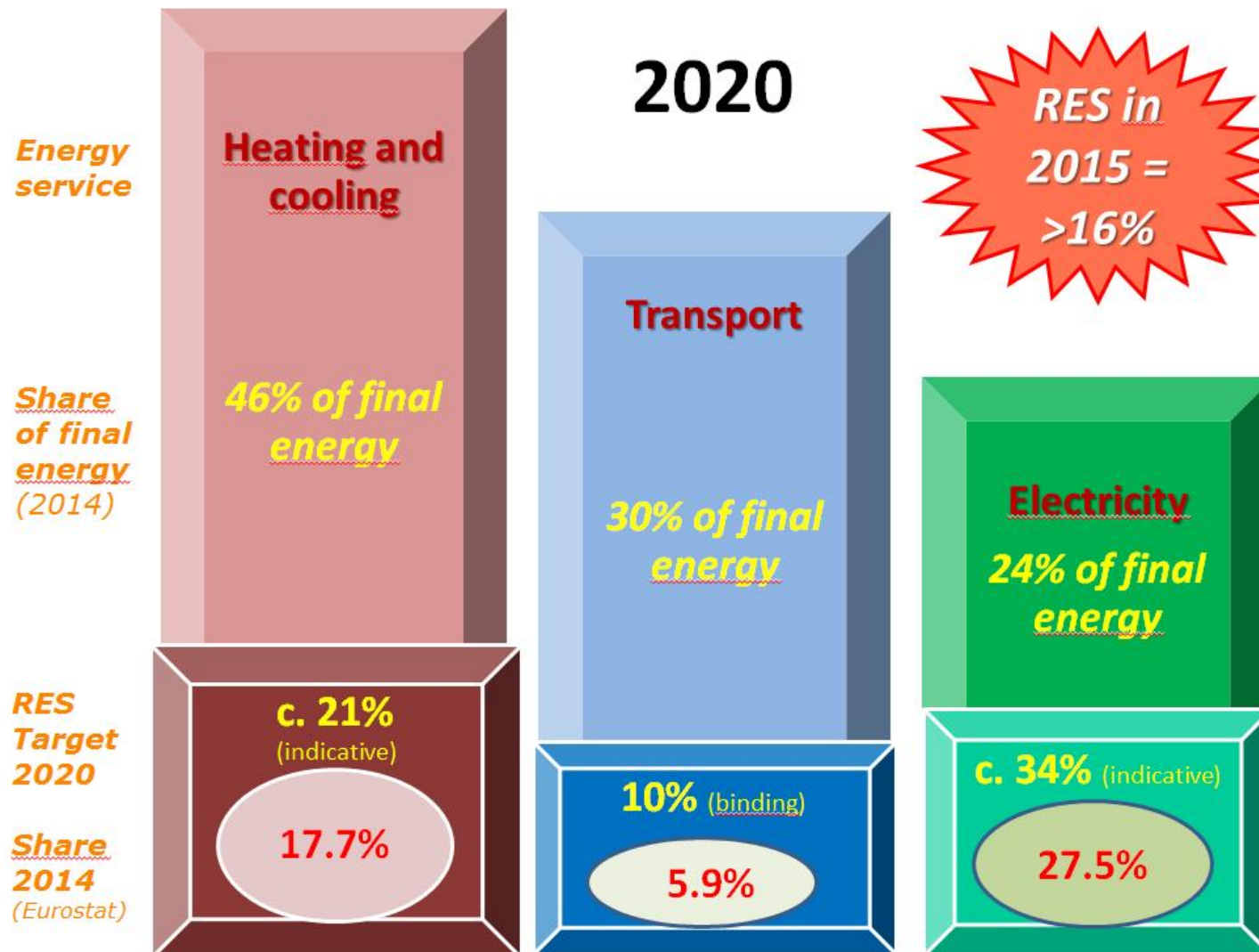


Figure 1: Based on 2016 Interim Progress Report - Oeko-Institute

## Renewables in the EU – progress by sector



# Updated RES Directive

- Achieving the at least 27 % EU renewables target
- Making the EU world number 1 in renewables

Governance of the  
2030 EU target  
Ambition + Delivery

Market  
integration of  
renewables and  
regional  
cooperation

Mainstreaming  
renewables in  
Heating and  
Cooling

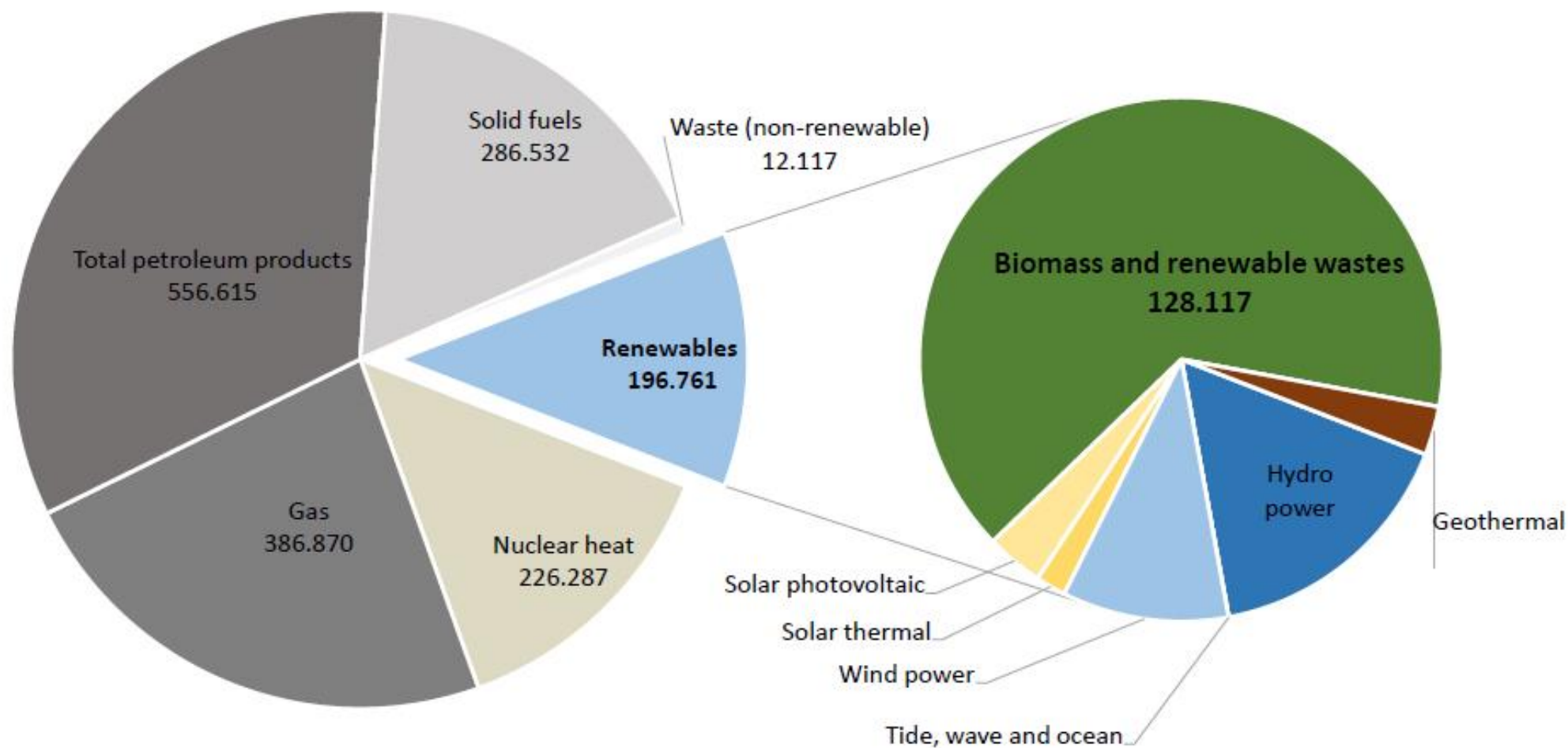
Mainstreaming  
renewables in  
transport

Consumers and  
communities on  
renewable self-  
supply

Sustainability  
criteria



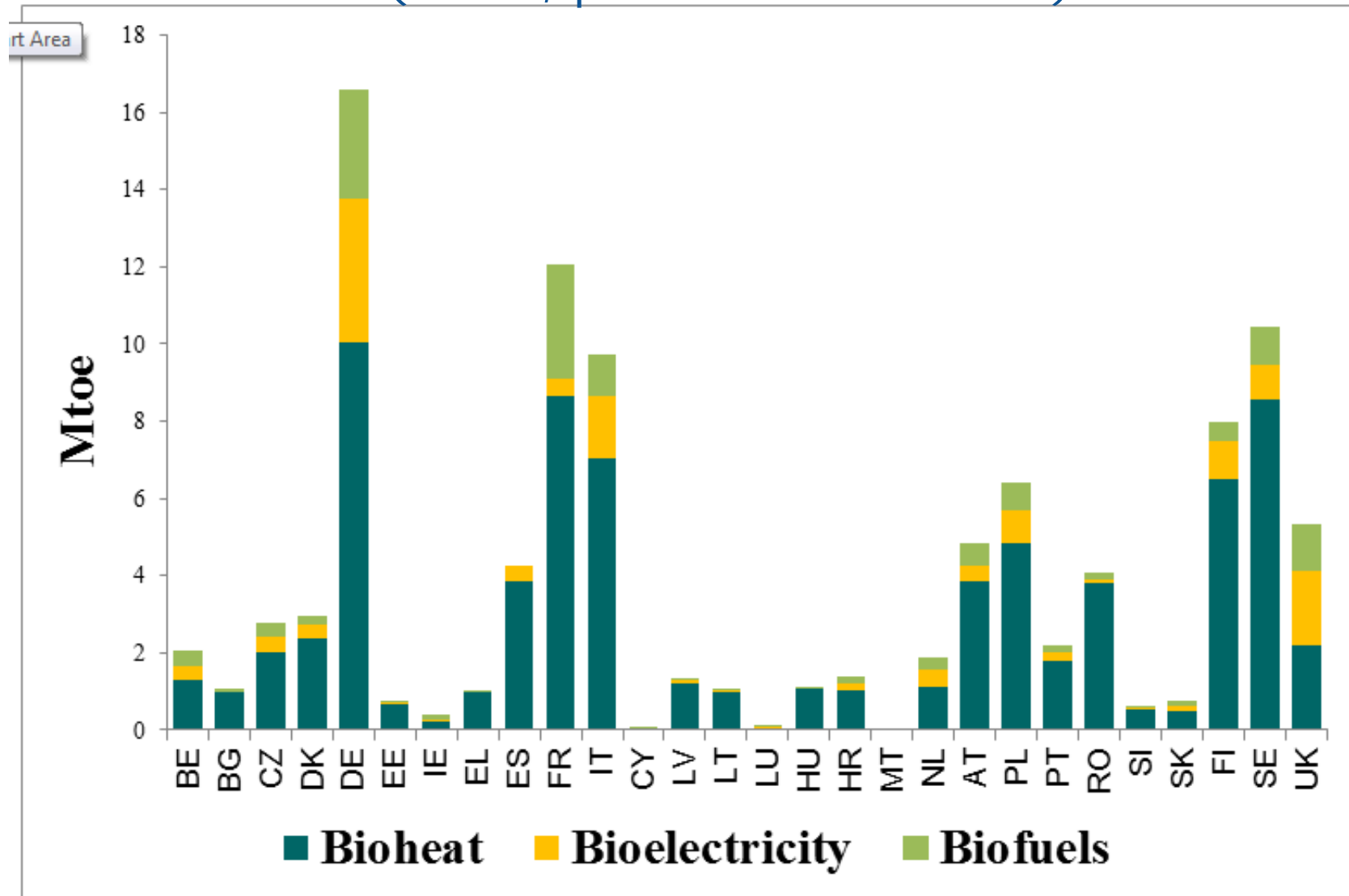
## Gross inland consumption in EU28 in 2013 (ktoe)



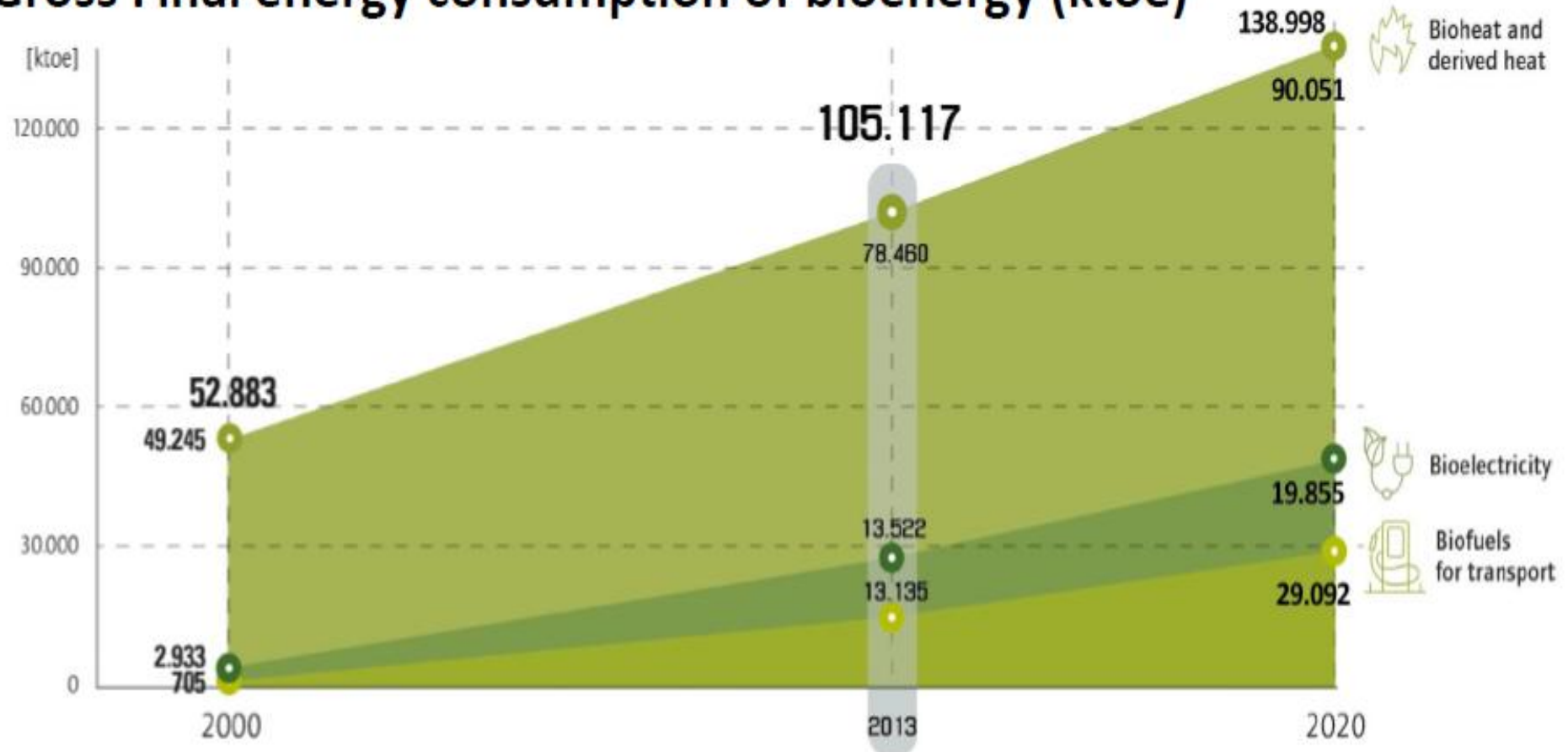
Source: Eurostat



## Final energy consumption of bioenergy in 2014 (Mtoe, per Member State)

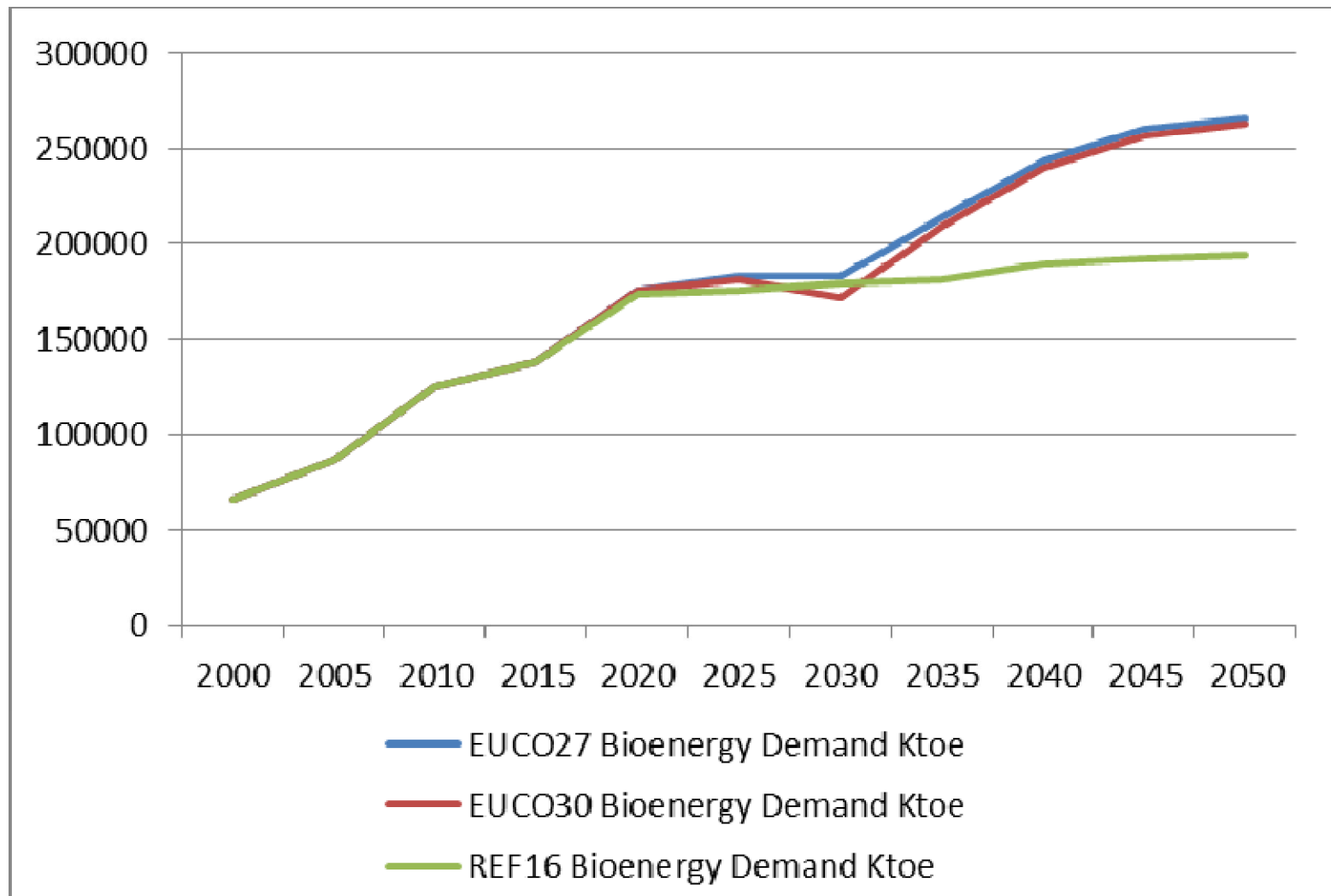


## Gross Final energy consumption of bioenergy (ktoe)



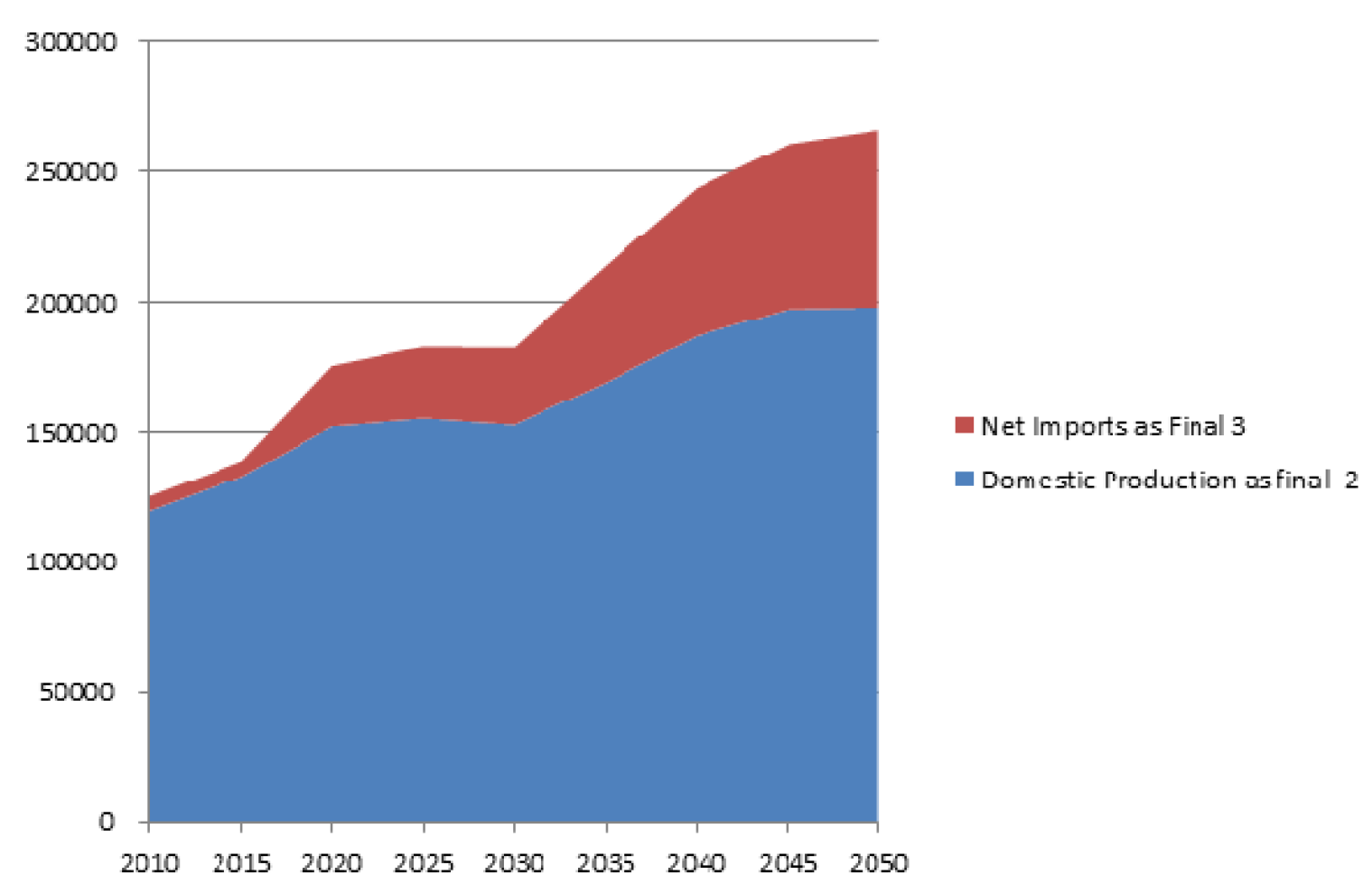
Source: AEBIOM based on Eurostat data and NREAPs

## EU bioenergy demand projections post-2020 (ktoe)



Source: PRIMES modelling

## EU bioenergy import projections post-2020 (ktoe)



Source: PRIMES modelling

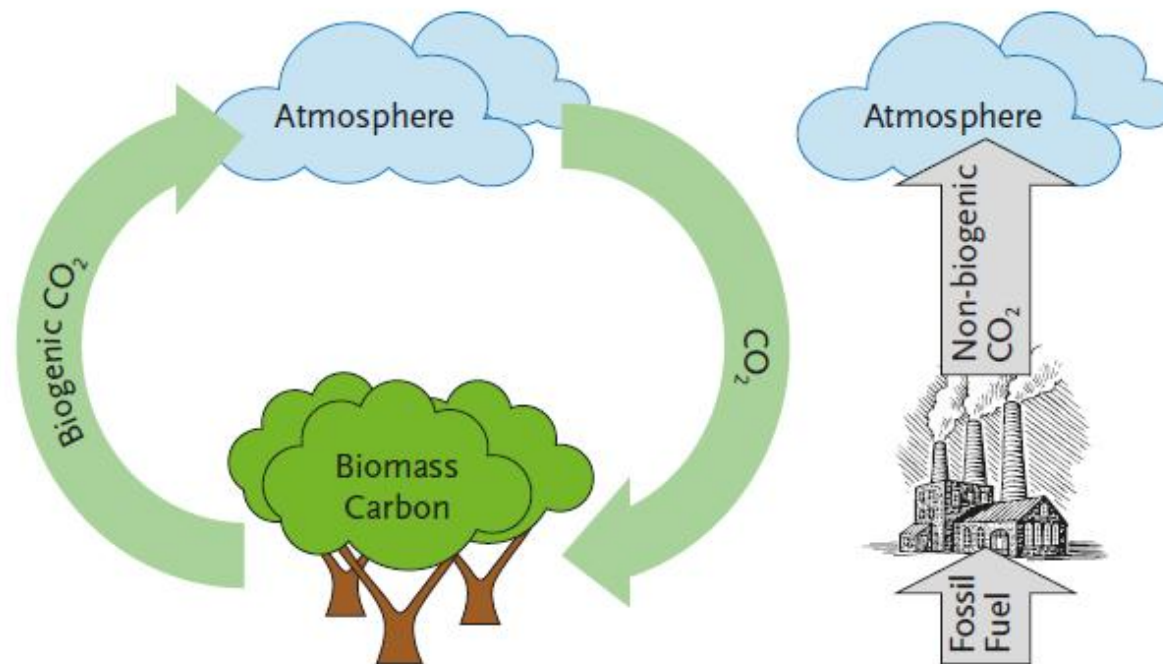


# Bioenergy benefits

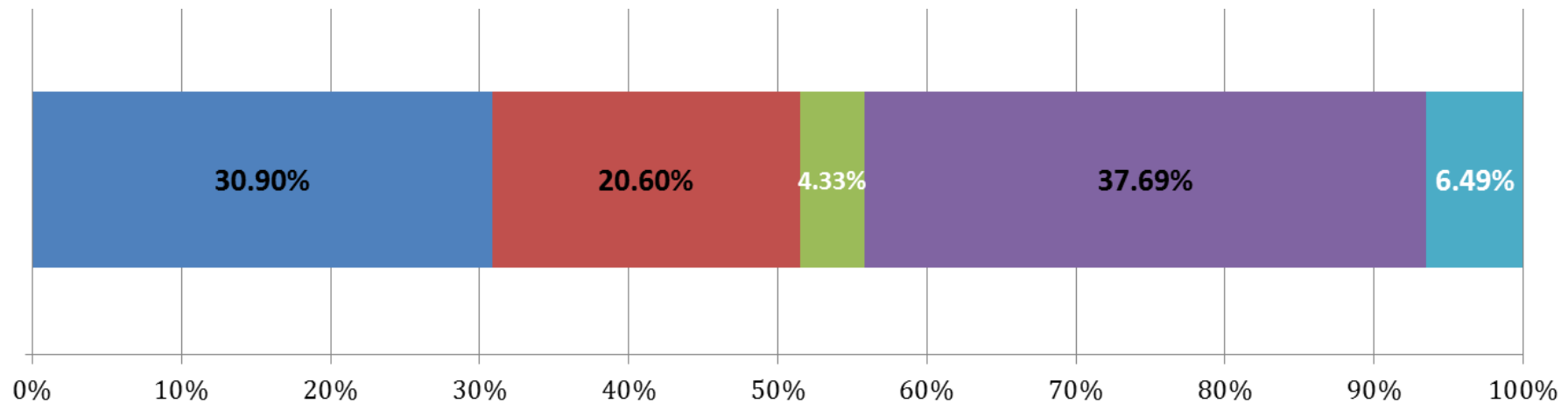
- *Energy security, growth and jobs*
  - Bioenergy is largely produced from domestic resources, imports limited
  - Bioenergy (heat and power) needed to balance variable renewable such as solar and wind
  - Bioenergy sector delivers significant employment
- *Decarbonisation*
  - Biofuels only available alternative for fossil fuels in long haul transport and aviation
  - Bioenergy only renewable to high-temperature heat for industrial processes
- *Technology innovation*
  - EU has worldwide leadership on bioenergy technologies, significant export potential

## Sustainability issues

- *Climate performance of bioenergy and its accounting (esp. forest biomass)*
- *Use of food crops for biofuels leading to indirect land-use change*
- *Other environmental and resource-efficiency impacts – biodiversity, air quality, soil, efficiency of energy conversion*
- *Possible competition for wood resources*



## Public consultation: *Need for additional EU action?*



- No: current policy framework is sufficient
- Yes: additional policy is needed for solid and gaseous biomass, for biofuels and bioliquids the existing scheme is sufficient
- Yes: additional policy is needed on biofuels and bioliquids, but for solid and gaseous biomass existing EU and national policies are sufficient
- Yes: a new policy is needed covering all types of bioenergy
- no answer



Thanks for your attention!

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