



Decarbonising the Aviation Sector

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JETSCREEN



Ursula von der Leyen ✓

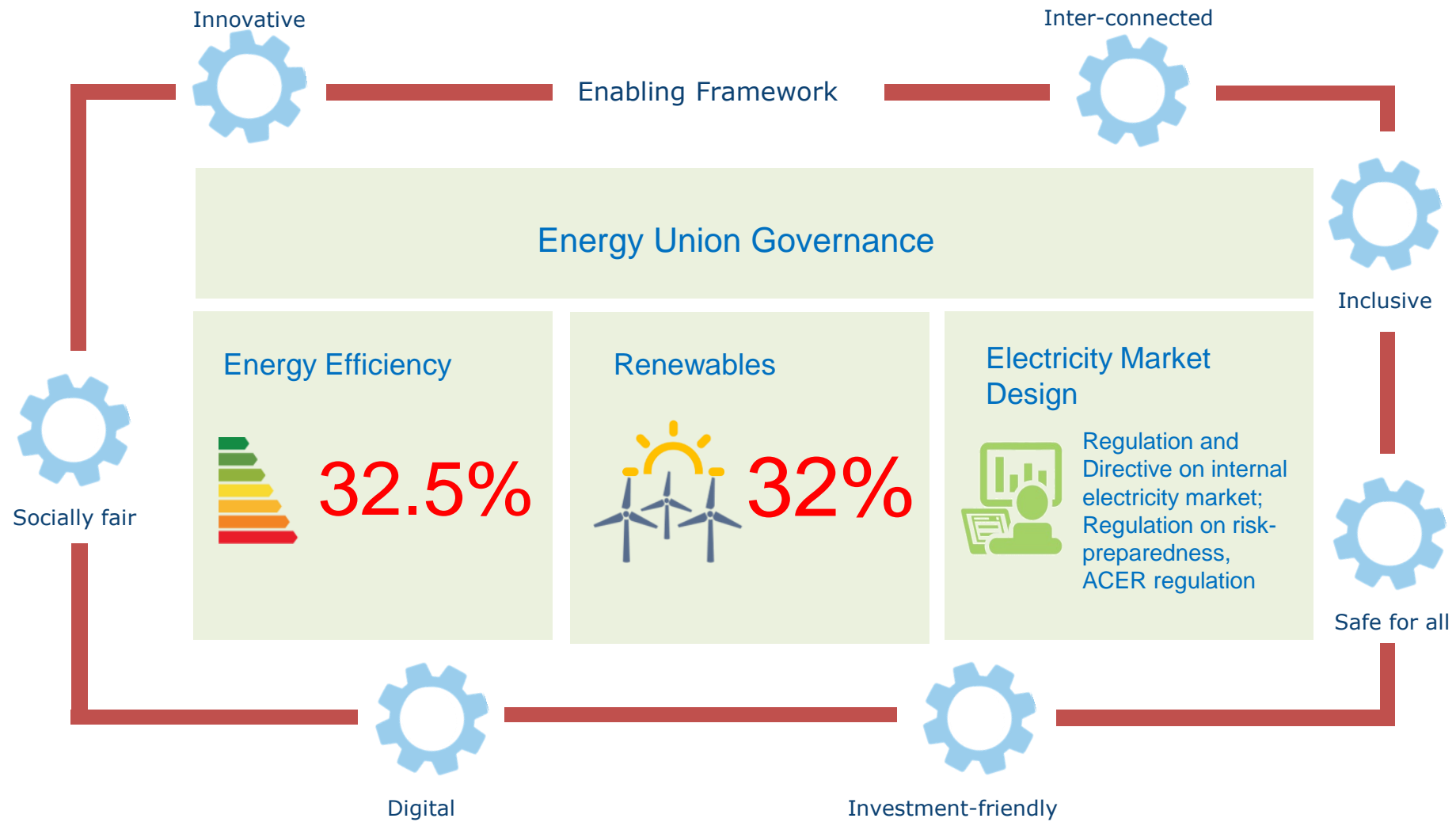
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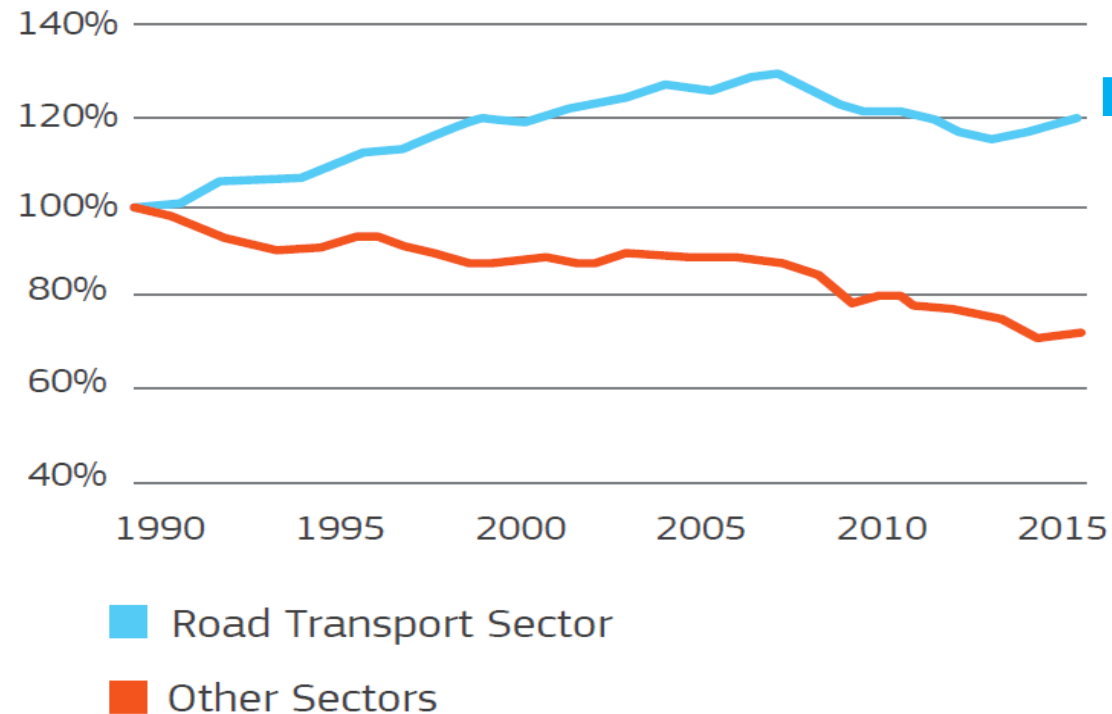
Europe should be the first climate neutral continent in the world.

"ALL OF US AND EVERY SECTOR WILL HAVE TO CONTRIBUTE TO **REDUCE EMISSIONS,** FROM AVIATION TO MARITIME TRANSPORT TO THE WAY EACH AND EVERYONE OF US TRAVELS AND LIVES. **EMISSIONS MUST HAVE A PRICE** THAT CHANGES OUR BEHAVIOUR."



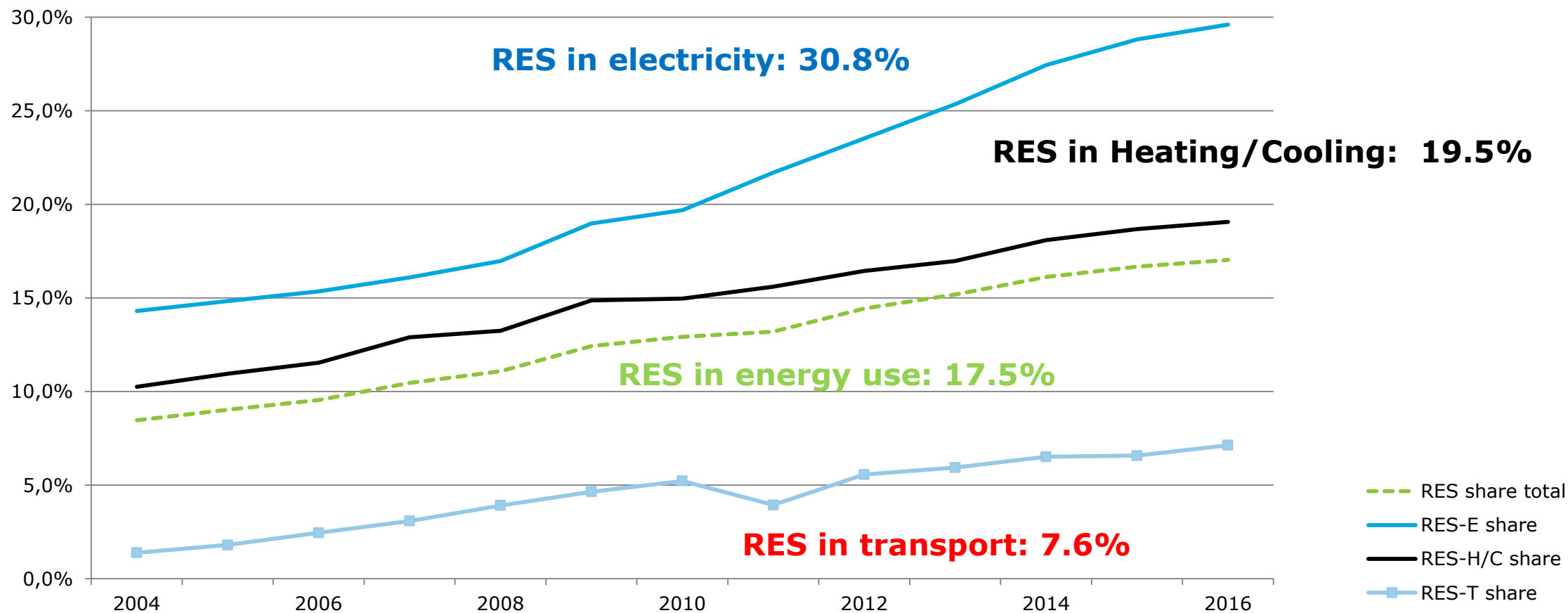
Development of GHG emissions in transport

Greenhouse gas emission in the EU
in percentage change since 1990:

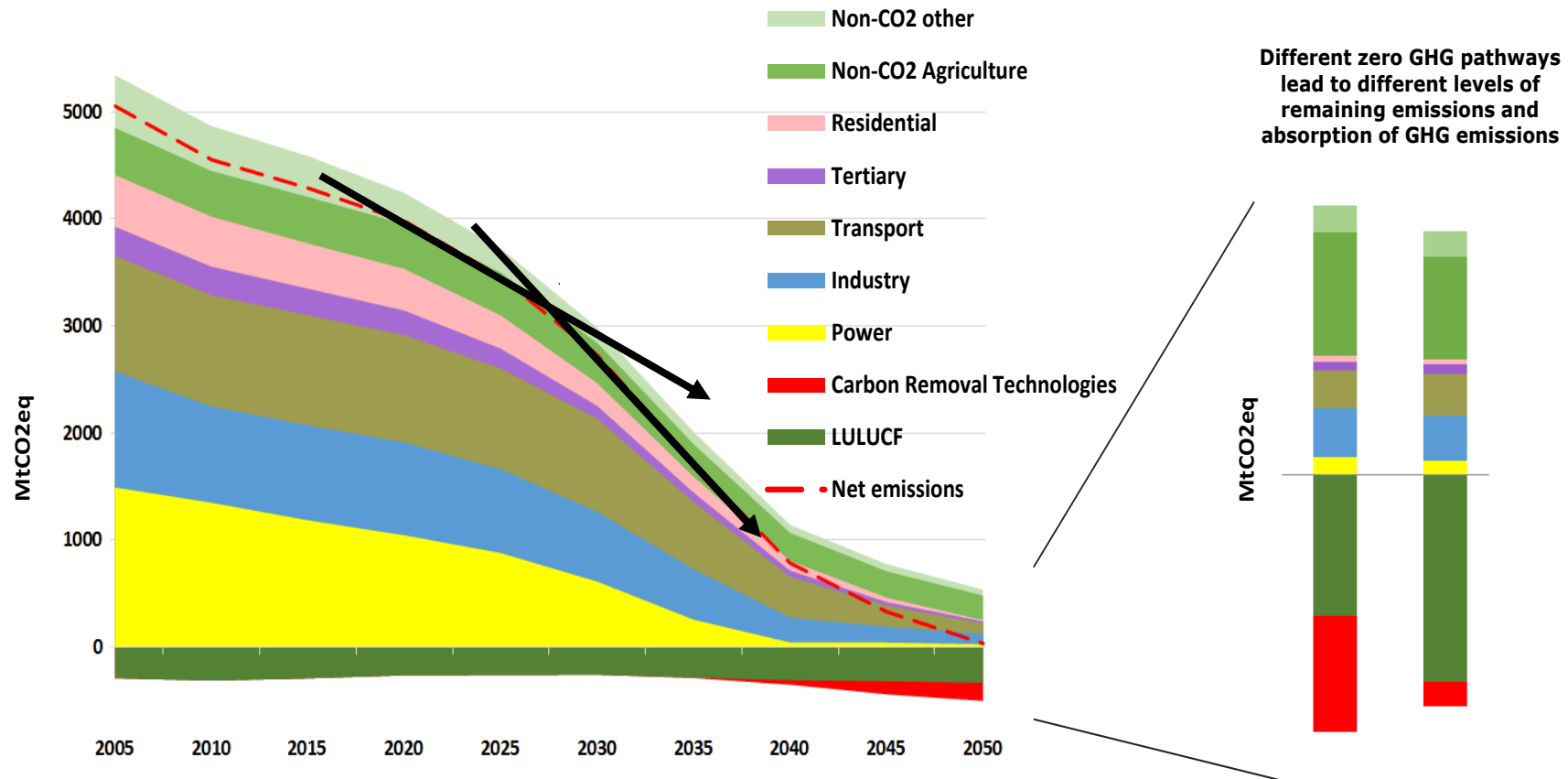


**Road transport =
22% of total EU
emissions**

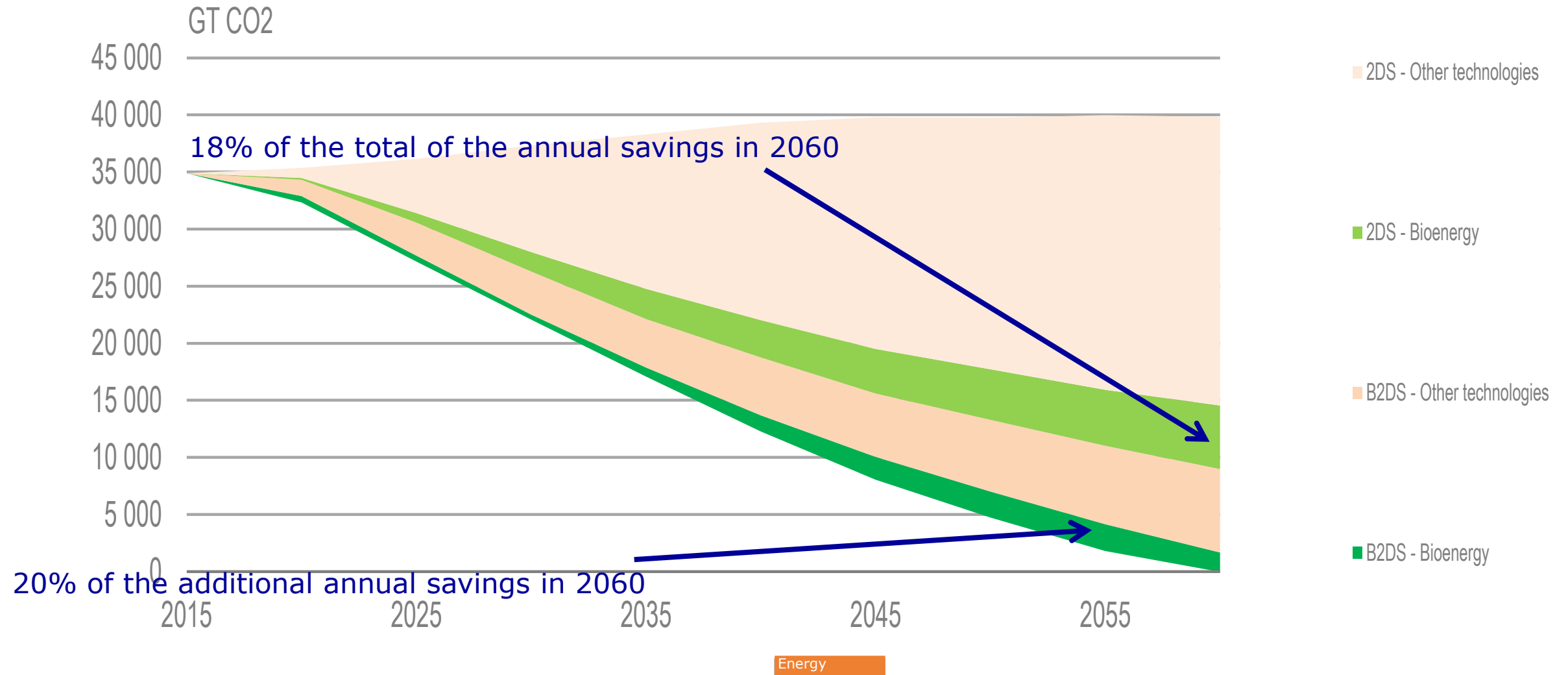
SECTORIAL RENEWABLE ENERGY SHARES (2004-2017)



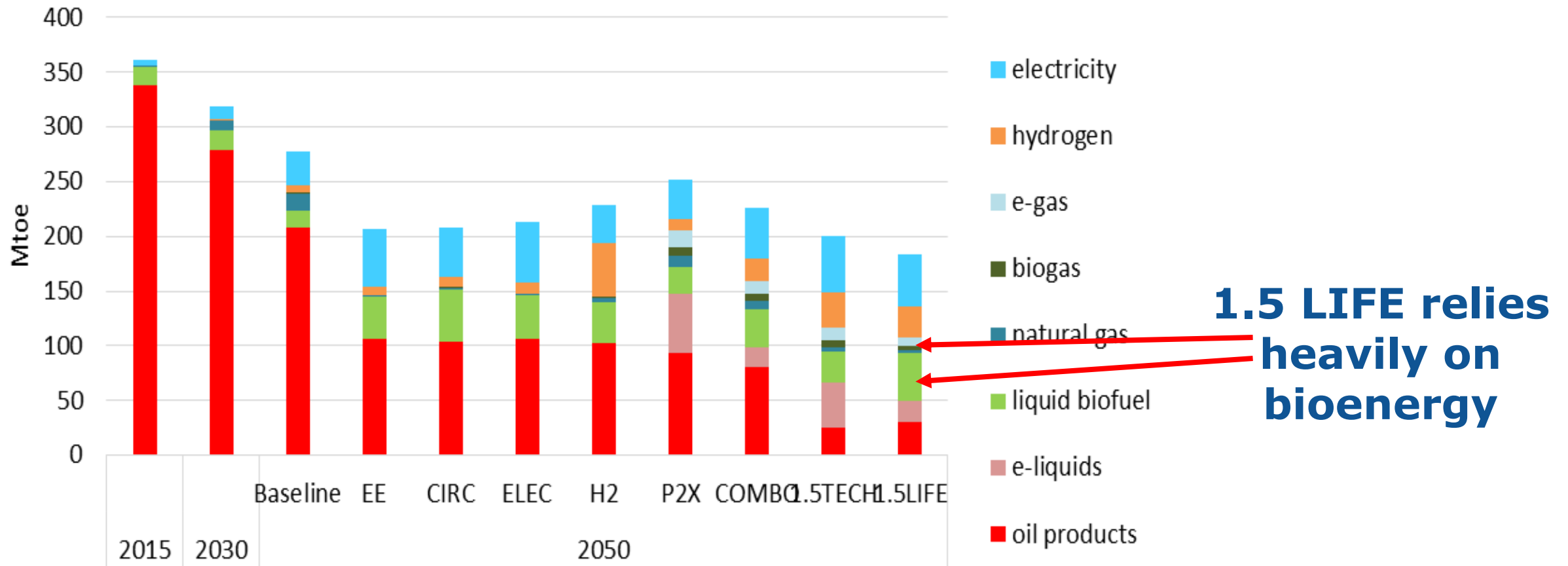
GHG emission trajectory for 1.5 °C



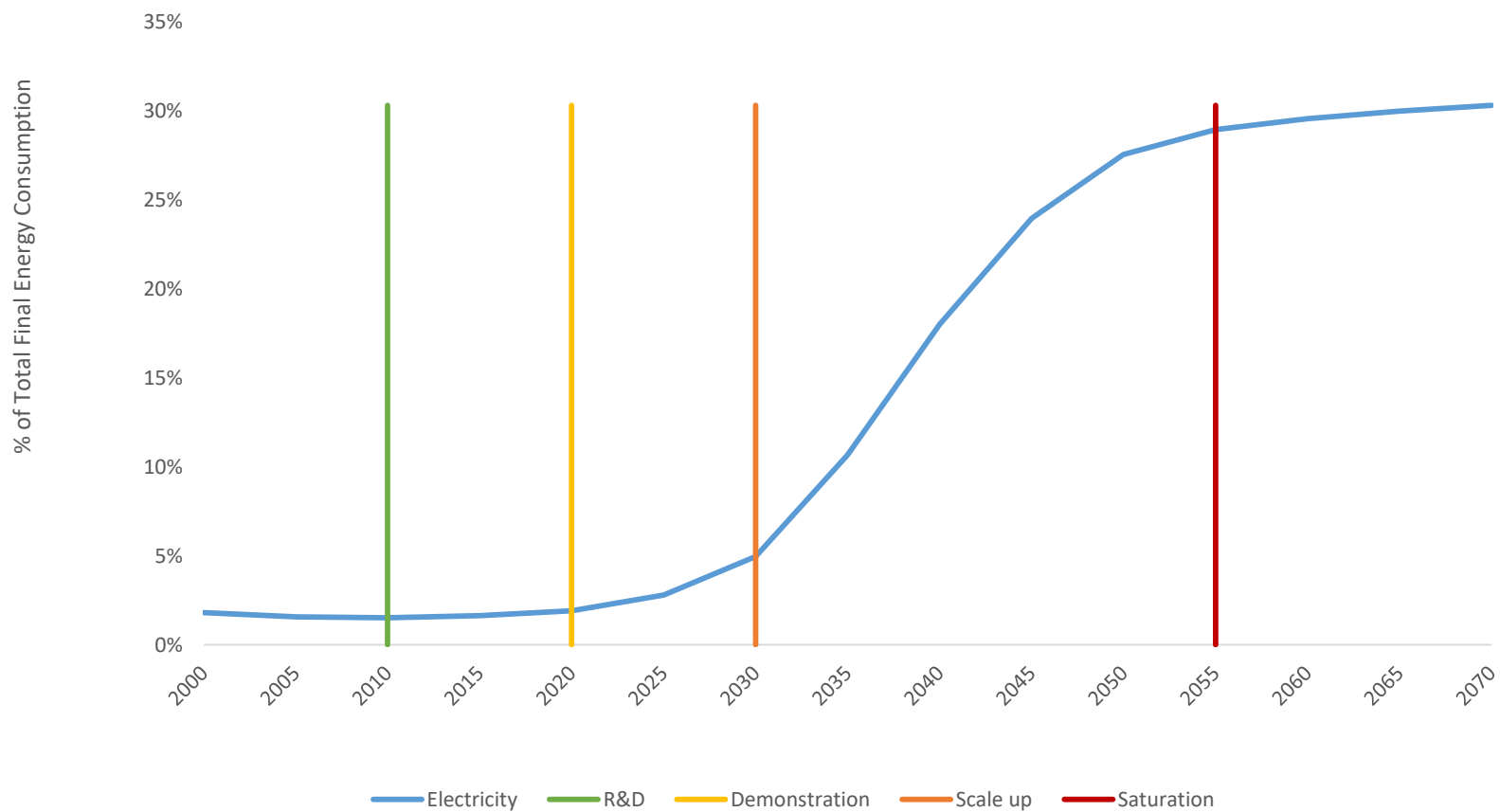
Contribution of bioenergy to emissions reductions in 2DS and B2DS, (IEA 2018)



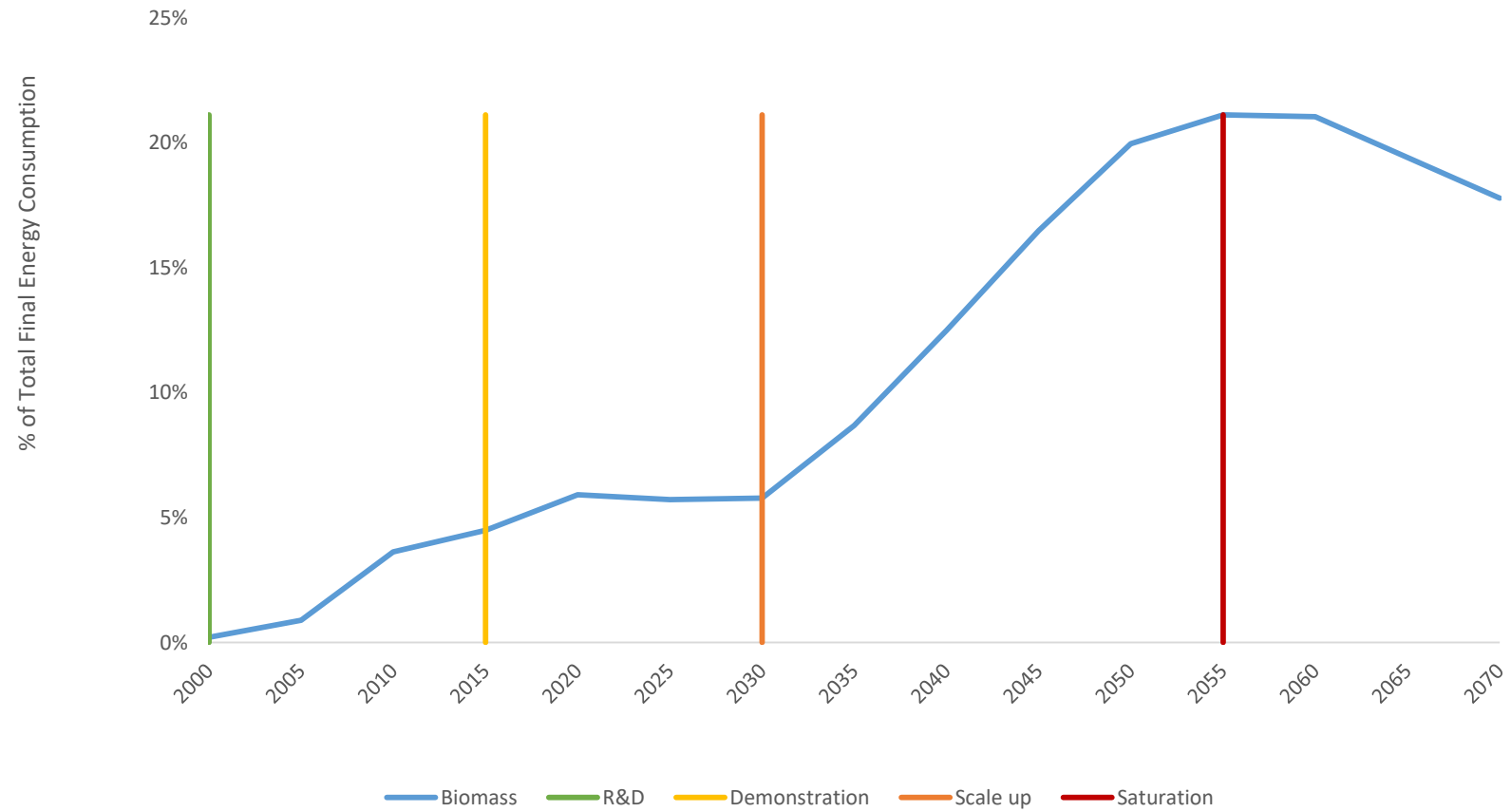
Transport sector



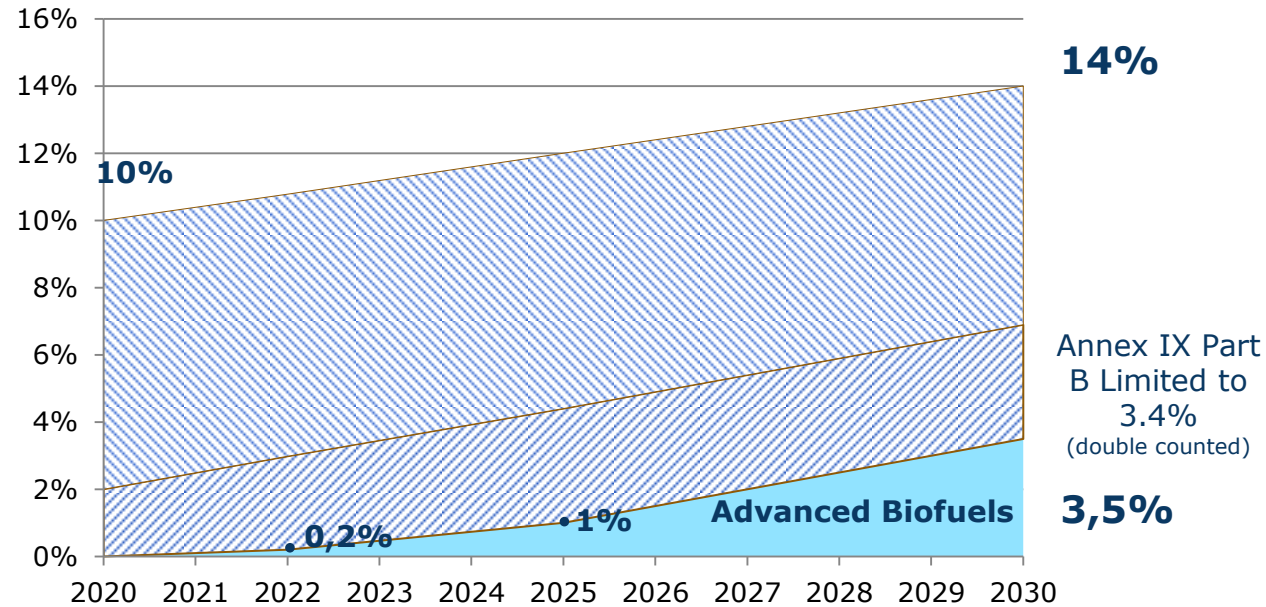
Electricity in Transport



Biomass in Transport

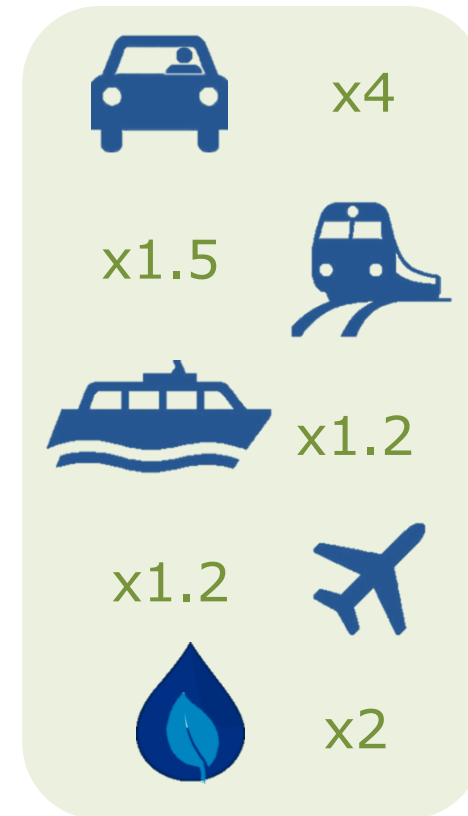


TARGETED POLICY ON PROMOTING RENEWABLES IN TRANSPORT



- Obligation of fuel suppliers achieving 14% target
- Indicative trajectory
- Scope: biofuels, res electricity, RFNBOs, recycled carbon fuels
- Contribution of conventional biofuels optional and limited.

Multipliers



Biokerosene Critical Issues: Cost

Sustainable Aviation Fuels depend on the cost of the raw material.

They will always remain more expensive than fossil kerosene unless carbon tax will be adopted by the EU.

The cost of kerosene is very critical in the operations of an airline, +/- 33%

Biokerosene Critical Issues: Sustainability

REDII proposes a CAP for High ILUC Risk based biofuels and their subsequently gradual elimination by 2030.

This includes palm oil Hydrotreated Vegetable Oil (HVO) which at present is the cheapest resource to produce bio-kerosene.

Compatibility between REDII and CORSIA.

Conclusion: Sustainable Aviation Fuels come at a premium and this has to be recognised by all stakeholders

Smart Airport H2020 Call

The Call aims to foster the utilisation of low carbon renewable fuels (in particular biokerosene) in the EU market.

Efforts with airlines or biokerosene producers have proven difficult to unlock the present stalemate.

Using airports seems a way to avoid the chicken-egg situation by placing the emphasis on the hen house.

Conclusions

- **The transport sector, and in particular aviation, is specifically challenging in terms of decarbonisation and the ambition of making the EU the first climate neutral continent by the middle of this century**
- **There are no single solution to decarbonising mobility: all options have to be explored and different modes of transport will – in all likelihood – require different technological solutions**
- **On renewables and biofuels, the current EU regulatory framework offers clear guidance on the way forward – but additional measures are needed if we are to deliver the Green Deal.**
- **The role of bioenergy and liquid biofuels will remain very strong for the next decades.**

Thank you for your attention!

More information:

<http://ec.europa.eu/energy/renewables/>