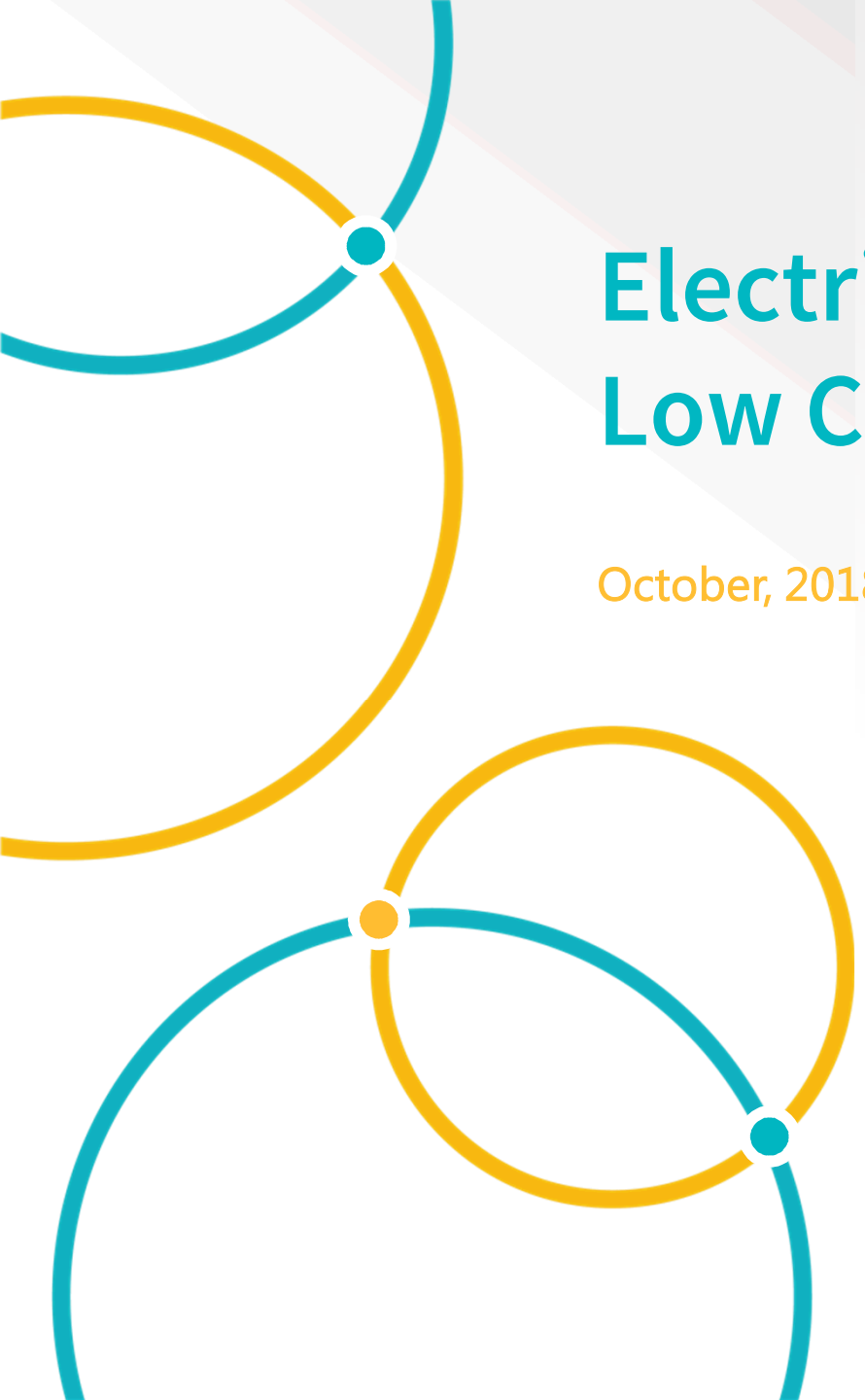
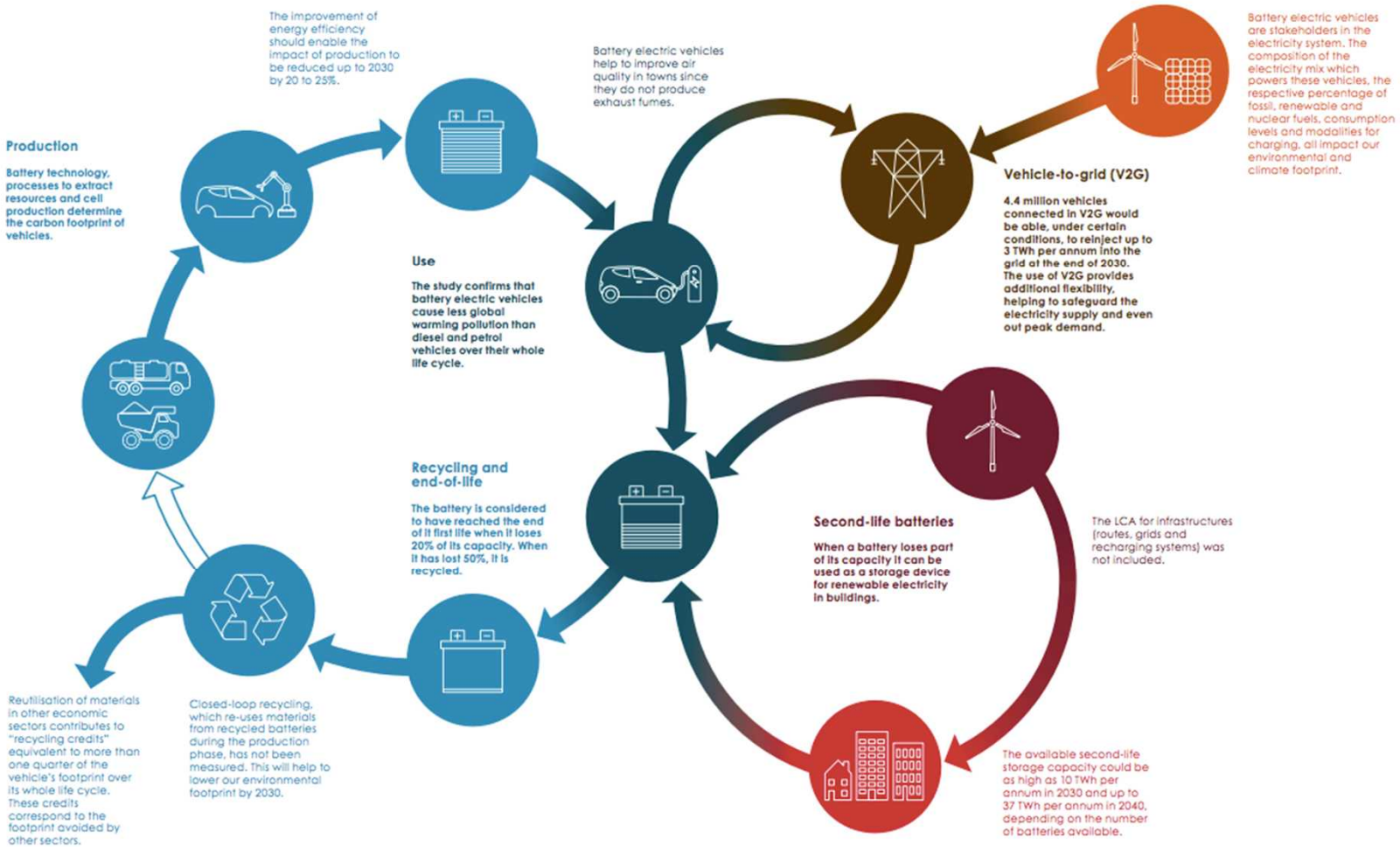
Electric Cars and the Low Carbon Transition

October, 2018

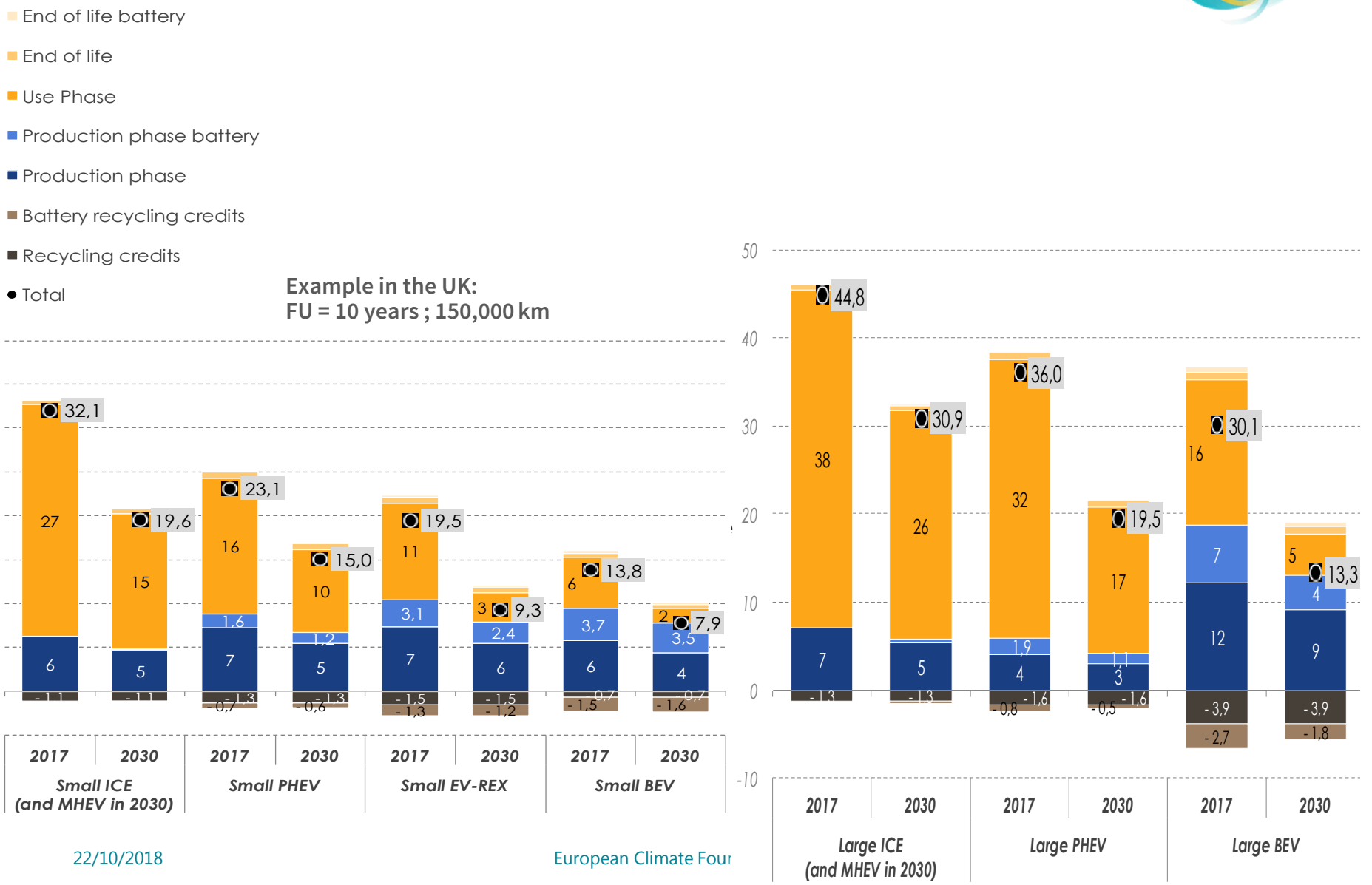


European Climate Foundation

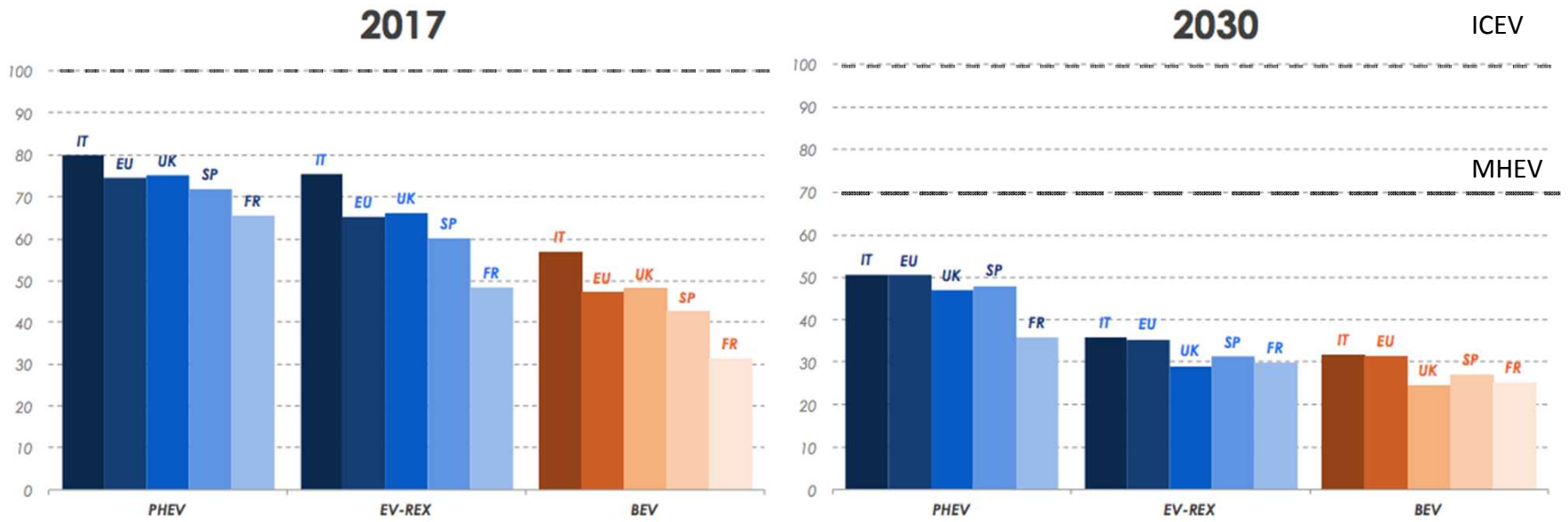
Can EVs play a role in a low-carbon economy?



BEVs Life-cycle CO2 emissions are 2 to 3 times less of ICEs



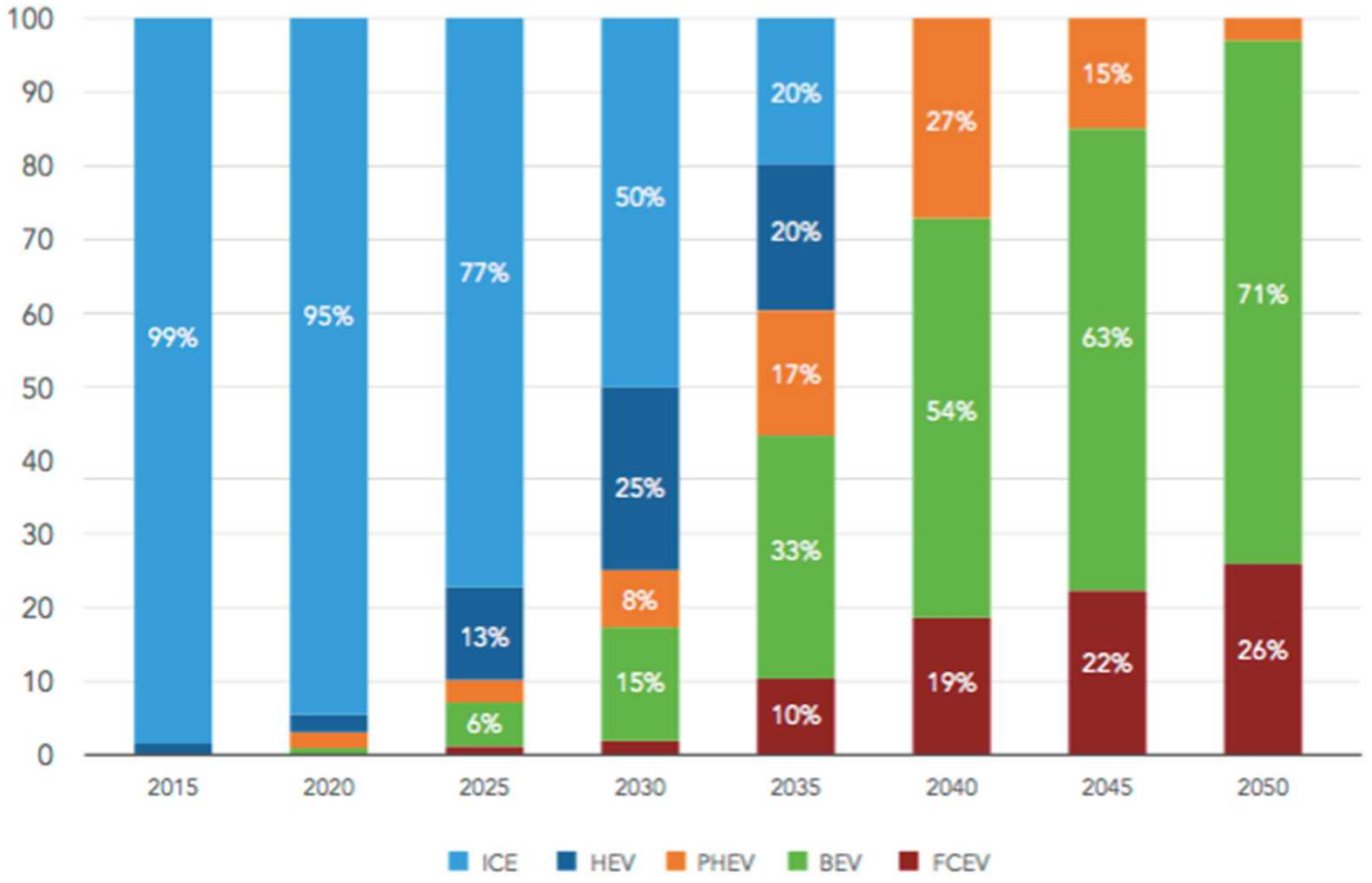
By 2030, cradle-to-grave emissions are <50%



** baseline 100 compared to an ICEV in 2017 / carbon footprint with recycling credits*

*** baseline 70 compared to a MHEV in 2030 / carbon footprint with recycling credits*

Substantial co-benefit is achieved by reducing vehicles' emissions



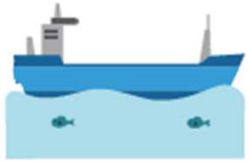
But what about the economic trade-off?

Mobility is powered by domestically-produced electricity and H2. This creates value for EU energy producers.

Household spending on vehicles is increased. This value is mostly captured by EU companies and recirculated to the economy, although uncertainties remain about the location of battery cell manufacturing.

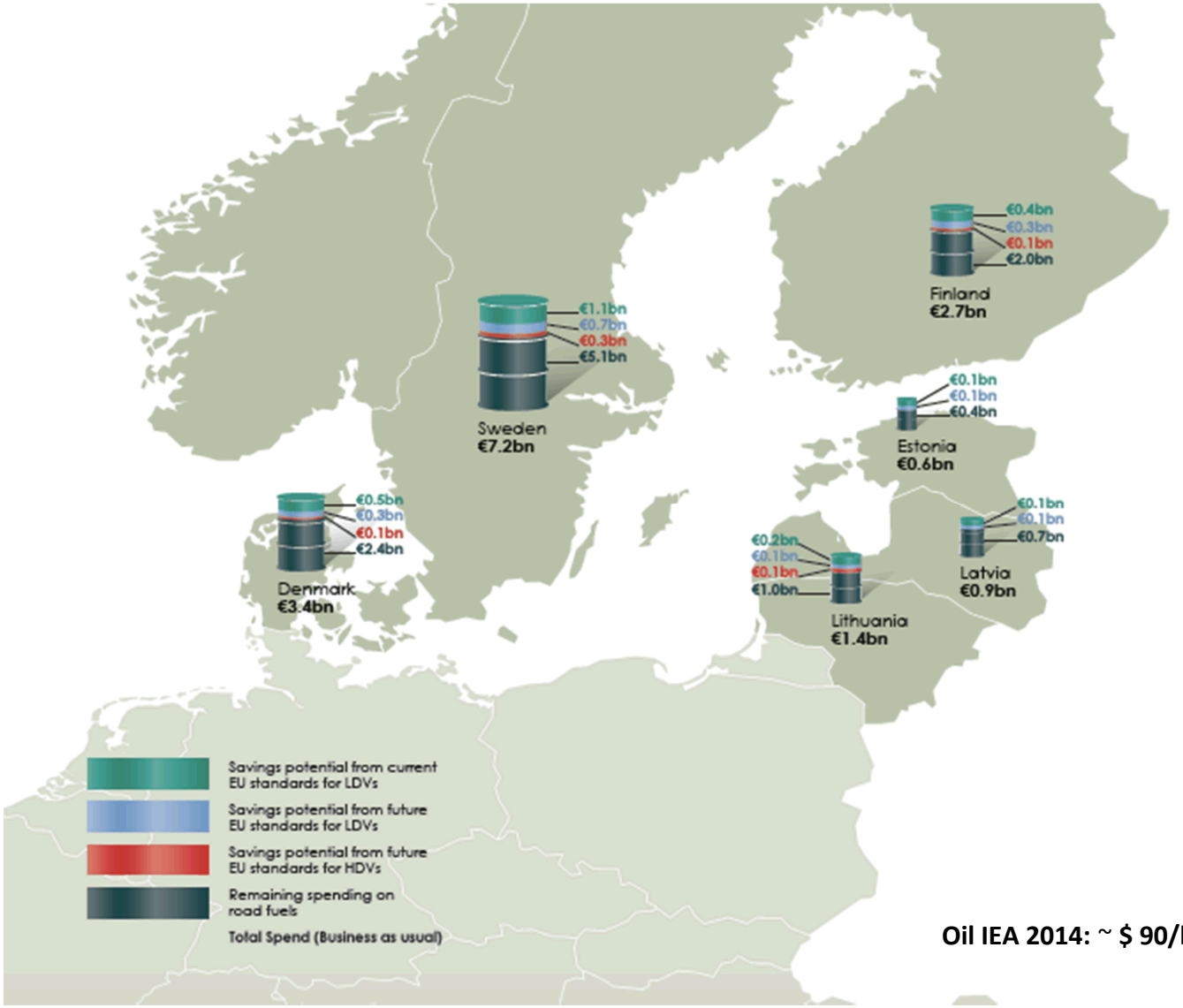
Less diesel and gasoline is used, so the value captured by the EU fuels sector is reduced.

Low-carbon technologies are more efficient, so household spending on energy for mobility is reduced.



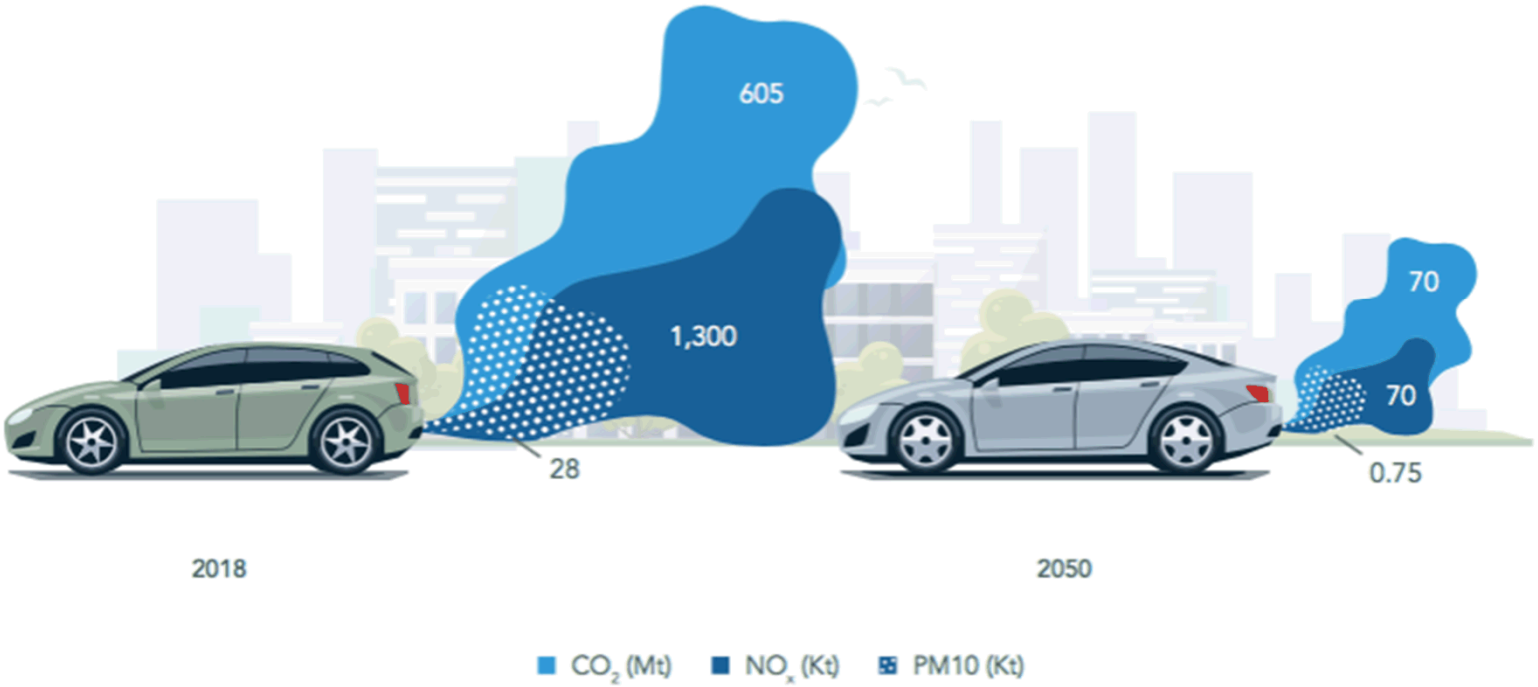
Less diesel and gasoline is used, so the amount of capital leaving the EU economy for oil is reduced.

Lithuania could save € billions by reducing oil demand

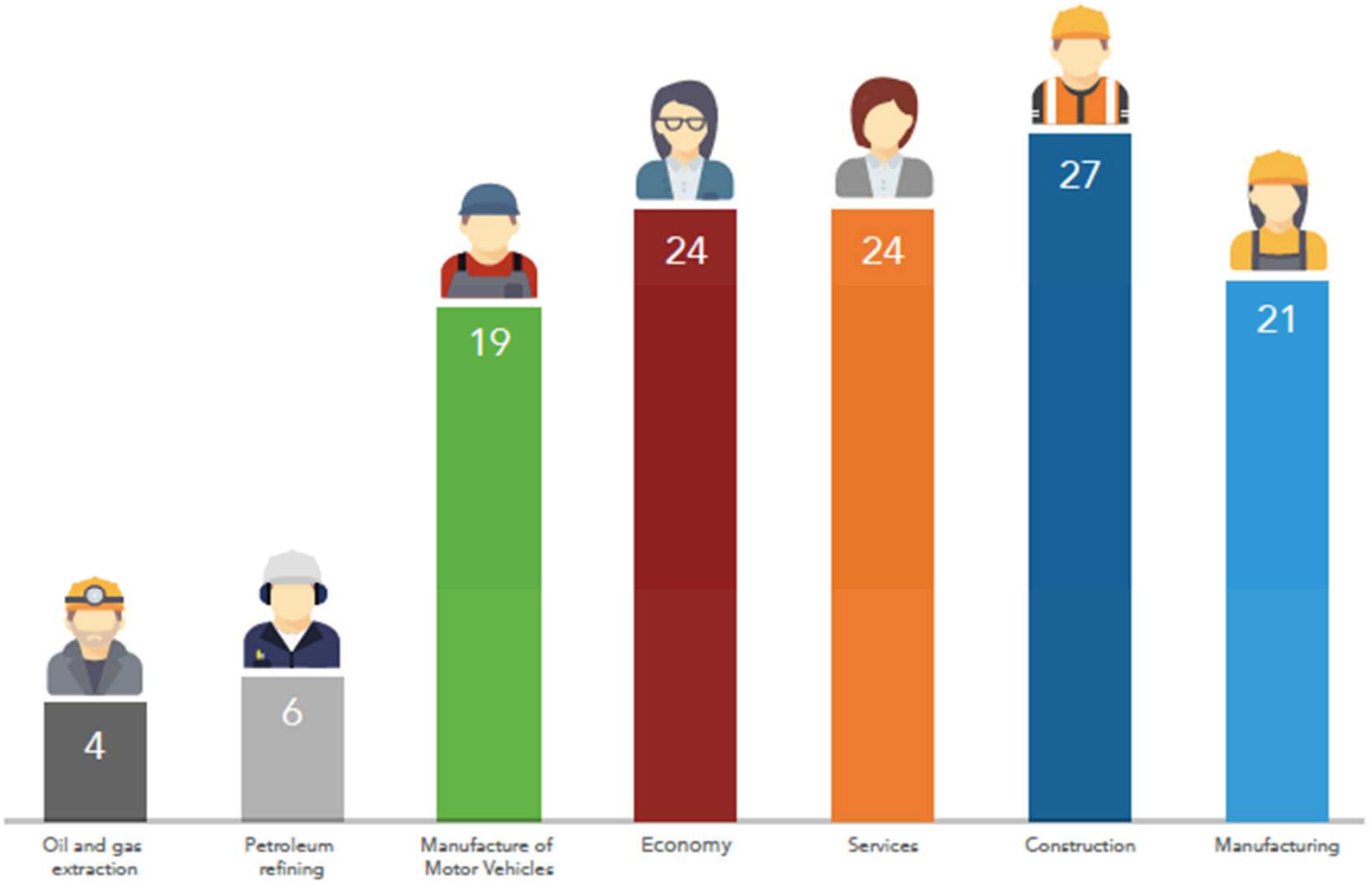


Oil IEA 2014: ~ $ 90/b

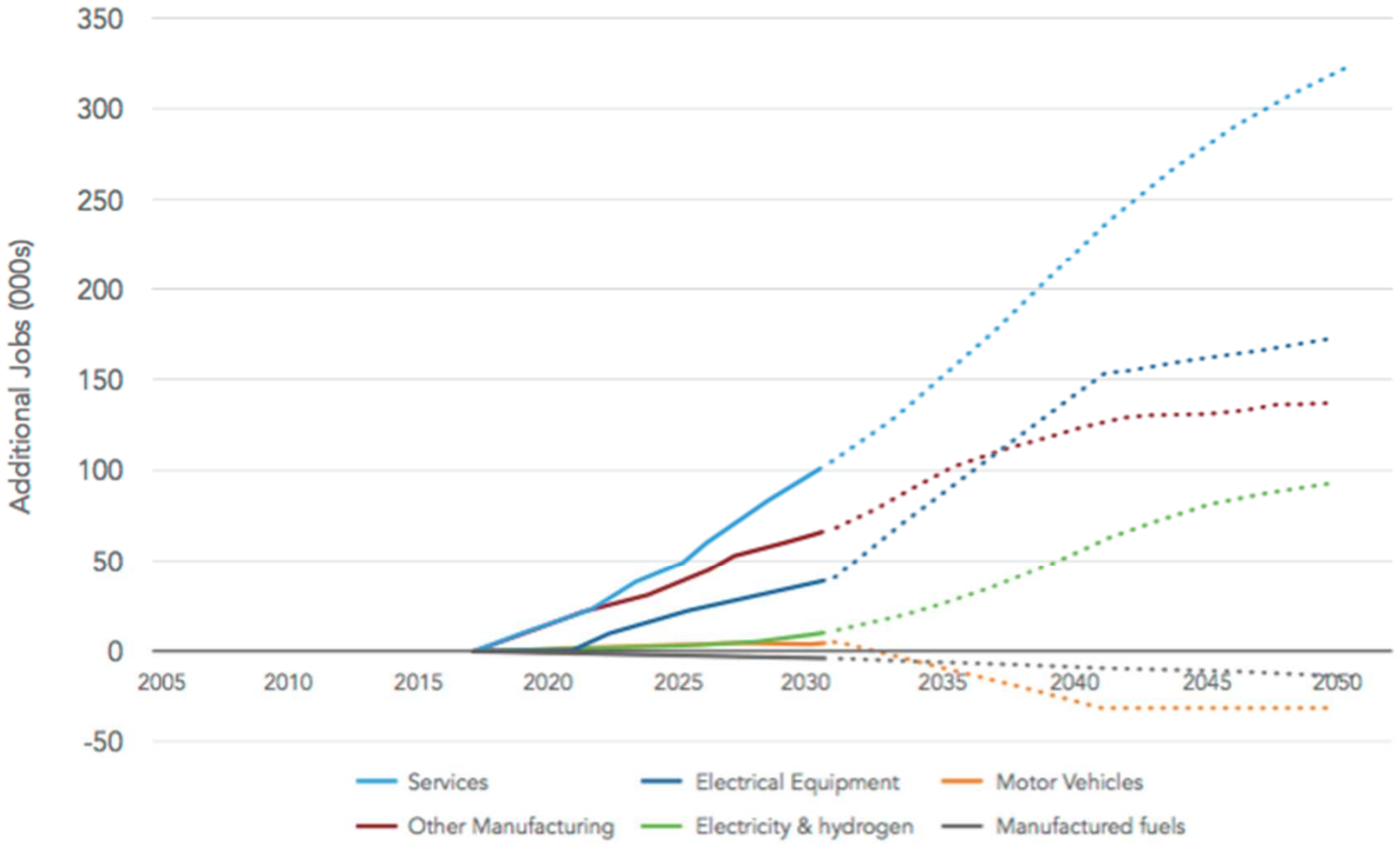
What about air quality?



What about workers?



The transition to EVs can create 200,000 jobs in Europe



Thank you for your attention

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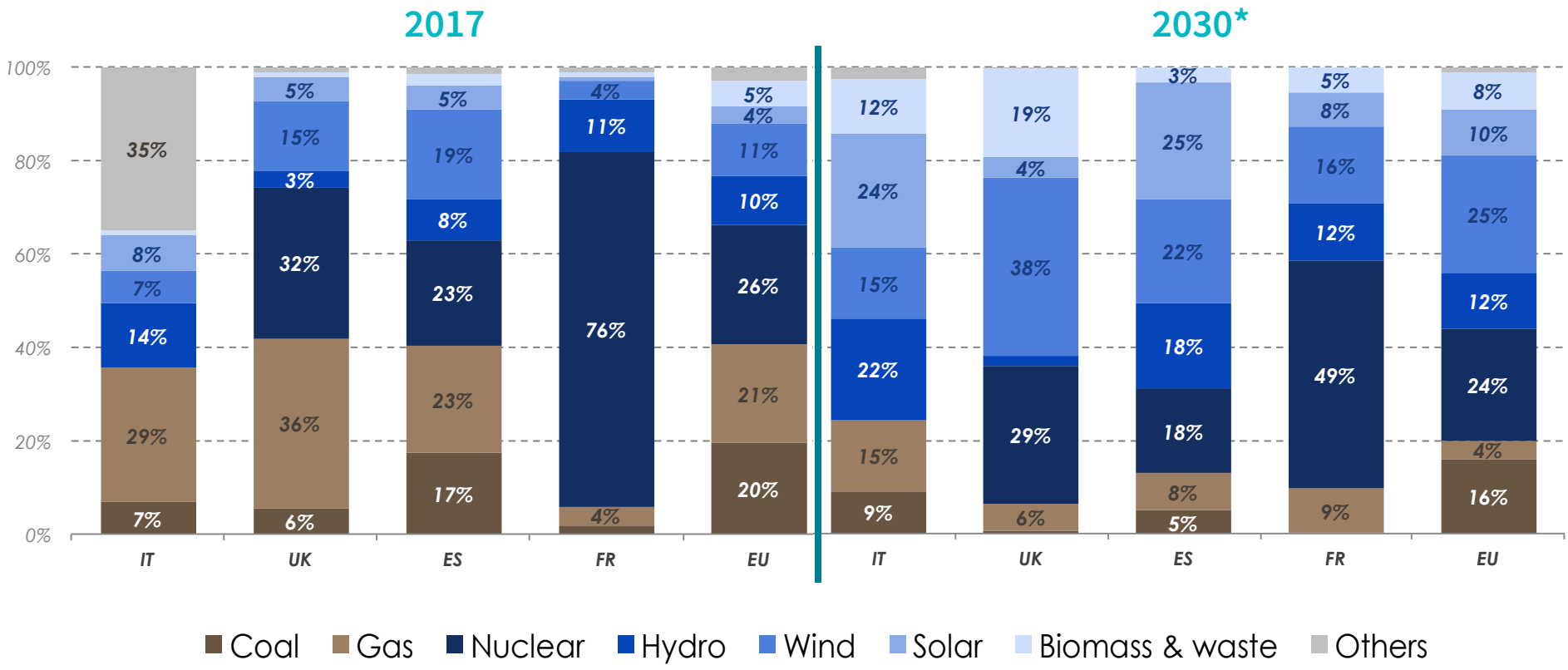
Back up slide
Electricity Grids in Europe are becoming cleaner



*The model used for the 2030 scenario is based on the Artelys Crystal Super Grid Software application which used EC IA for CEP EUCO2030 scenario.