Electric vehicles in EU CO$_2$ legislation beyond 2020

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Aim = reducing transport GHG emissions
In the current situation

- RED
- FQD
- Tank-to-wheel
- fuel
- vehicle
- Eurovignette?
- Tax directive?
- 443/2009
- 510/2011
- EV = ZE
- Super-credits
- NEDC
- Carbon leakage:
  - RDE
  - PHEV
Post 2020 legislation

- Fix carbon leakage by addressing (PH)EV’s, WLTP, RDE
- Attribute responsibility to right actor: fuel producer, car manufacturer, driver
- Address demand?
Fuel producers

- reduce CO₂ intensity of fuels, including upstream emissions of (PH)EV’s
- can be measured in gCO₂eq/MJ

Attention:
- How to account for electricity in transport sector?
Car manufacturers

-Increase energy efficiency of vehicles

Attention:
- EV’s do not emit CO$_2$, but use energy.
- PHEV emit CO$_2$, but current legislation over-appreciates electric range. Take into account in WLTP, RDE?
- rebound effect with respect to demand

Question:
- is CO$_2$ beyond 2020 the right standard?
Driver/demand

- At the moment little attention
- Measures at EU level difficult

Question:
- Should transport demand be addressed after 2020?
  If so, how, on what level?
Post 2020 situation

demand

- gCO$_2$eq/MJ
- MJ/Km ?

fuel

vehicle

€/Km ?
Thank you for your attention