When green Energy is not fully available yet, what is the Logistics contribution of OEM/Tier-1/n's towards net Carbon zero?

Munich, 04.05.2022

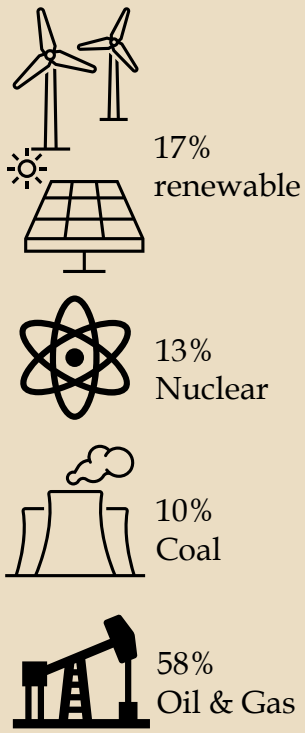
DURING E-FUEL PRODUCTION, SIGNIFICANT ENERGY LOSS IS GIVEN

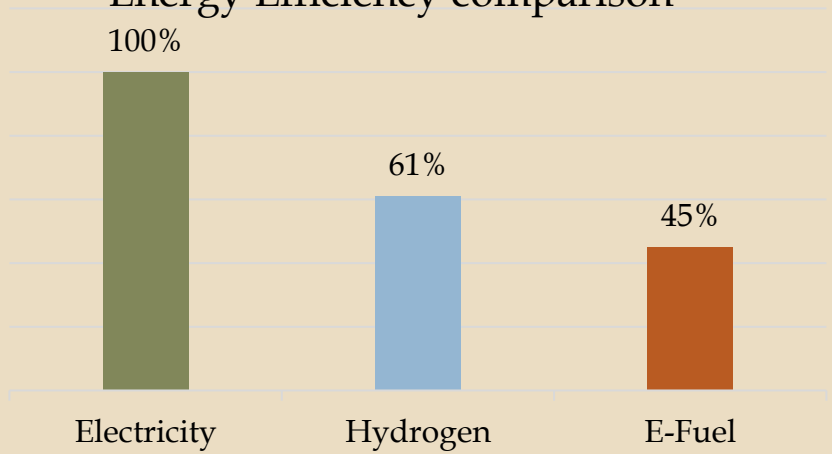
Significant infrastructure for importing, producing and providing green energy will not be ready before 2030 – and a battle of sectors will start

Also, to avoid:

1) using fossil energy to produce emission-free fuel or Hydrogen
2) produce green e-fuels, but using grey energy for households, agriculture, EV's and industry instead

EU27 Energy mix 2020 to provide electricity**





Used for:
Households
EV
Industry
….

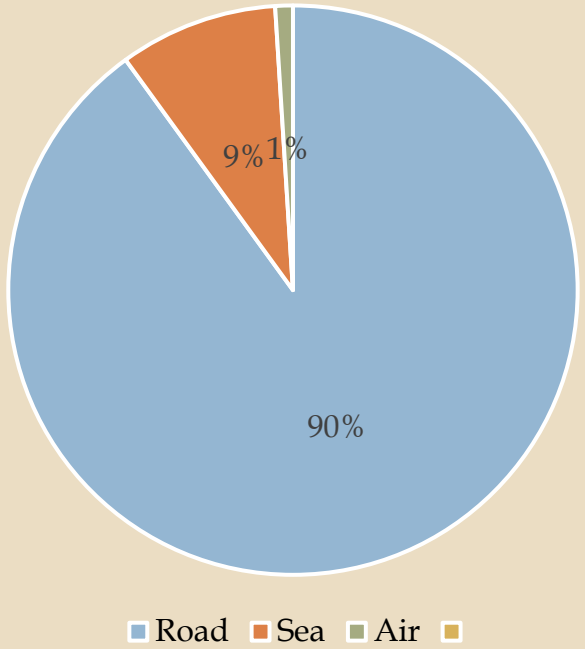
Used for:
Agriculture
Energy Storage
Steel Industry (pot.)
Heavy transportation
…

Used for:
Combustion engines
Aviation
Vessels
Heavy machines
…

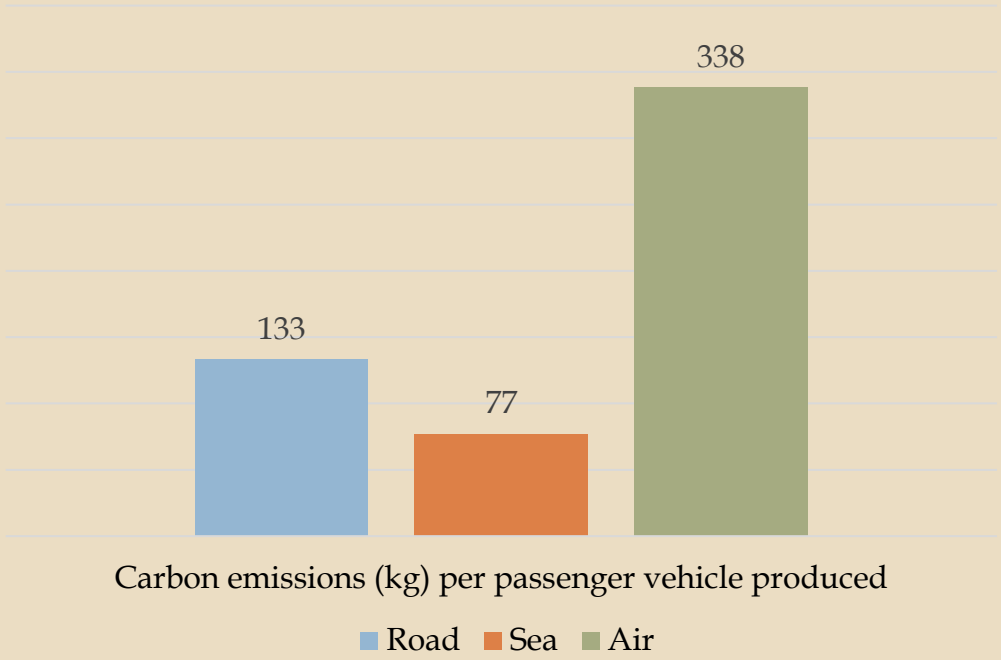
*source: oeko institut EV
**EUROSTAT

WITH ONLY 1% OF USAGE AIRFREIGHT IS THE MAIN CLIMATE KILLER WHEN USING FOSSIL FUELS

Exemplary passenger vehicle OEM inbound transport mode Mix



Carbon emissions in logistics per vehicle produced using fossil fuels



source: carboncare calculator, exemplary OEM

AVIATION INDUSTRY CONTRIBUTION TO REDUCE CO2 EMISSIONS

- **The aviation Industry aims to reduce carbon emissions by 50% until 2050 – compared to 2005**
- **Airbus wants to have first Hydrogen plane for short and medium distances by 2035 (Non-Drop-In fuel)**
- **Alternative Drop-In-Fuels can already be used today in a certain percentage**
- **Near-Drop-In-Fuels like 100% HEFA-SPK or FT-SPK (Synthetic Paraffin Kerosine) can also reduce emissions, but they are not released yet**

source: Airbus Summit 2021

MEASURES FOR AN OEM TO REDUCE CARBON EMISSIONS UNTIL E-FUEL OR H2 IS USED (I)

1) **Avoiding Airfreight generates the highest impact**
   - **Replace air by sea, air/sea or railway**
     - **Increase medium term planning stability (AI support, S&OP)**
     - **Usage of predictive and real time ETA**
   - **Reliable standard freight lanes and vessels**
   - **Risk management as strategic element in every SCM department**
   - **Localizing Supply Base**
   - **Insourcing, alternative sourcing**
   - **Engage in climate compensation**

MEASURES FOR AN OEM TO REDUCE CARBON EMISSIONS UNTIL E-FUEL OR H2 IS USED (II)

2) **Improve road freight**
   - **Increase fill rate in trucks e.g. with Planning tools or lower transport frequencies**
   - **Increase truck capacity**
   - **Intermodal or rail wherever possible**
   - **Higher usage of collapsible packaging**
   - **Increase milk run rate & strict TMS operations**
   - **Reducing supplier distances**
   - **Engage in climate compensation**
3) **Factor CO2 in sourcing decisions, part of SCM design**