

EU 28 (EU27+UK) - energy in transport

- Biofuels are needed in all 2050
 EU scenarios
- First generation biofuels and HVO can not fulfill the need
- In CIRC and 1.5 LIFE ~ 50 Mtoe
- In P2X scenario ~ 30 Mtoe
- Present use in EU:
 - traffic biofuels ~17 Mtoe/a
 - total bioenergy ~ 100 Mtoe
- 150 MW gasification BTL plant
 - 1 plant: 60 ktoe
 - 200 plants: 12 Mtoe

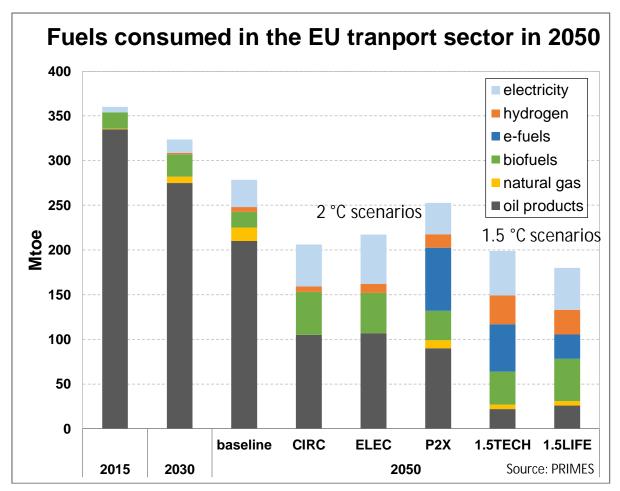


Figure made according to "EC 28.11.2018, In-depth analysis in support of the Commission Communication COM(2018) 773"



- looking for partners to realize technology demonstration



- residues
- Industrial and municipal wastes
- Integration to food, forest, chemical or metal industries

- Methanol
- Synthetic hydrocarbons
- Synthetic methane, bio-hydrogen

- Olefins for renewable packaging materials
- Basic chemicals, fertilisers. aromatics

PRIMARY CONVERSION

- Distributed production of FT sync rude at small-tomedium scale gasification/synthesis units located close to biomass resources
- Integrated to local district heating networks or heat-consuming industries (> 75-80 % overall eff.)

FINAL CONVERSION

- **Final refining** of FT products into drop-in transportation liquids takes place in existing oil refineries
- **Advantages:** benefits from economies of scale. product portfolio can be tailored according to market demand

