

The Joint Research Centre

- The **Joint Research Centre** (JRC) is the Commission's science and knowledge service, and our group is based in Ispra, northern Italy.
- Our group into **Unit C.2.** provides **scientific policy support** to Commission policy DG's; ENER, CLIMA, MOVE, etc.
- Our work provides bioenergy, biofuels and alternative fuels assessments, including **energy balance and GHG emission accounting**
- We are also collaborating with International agencies and initiatives.

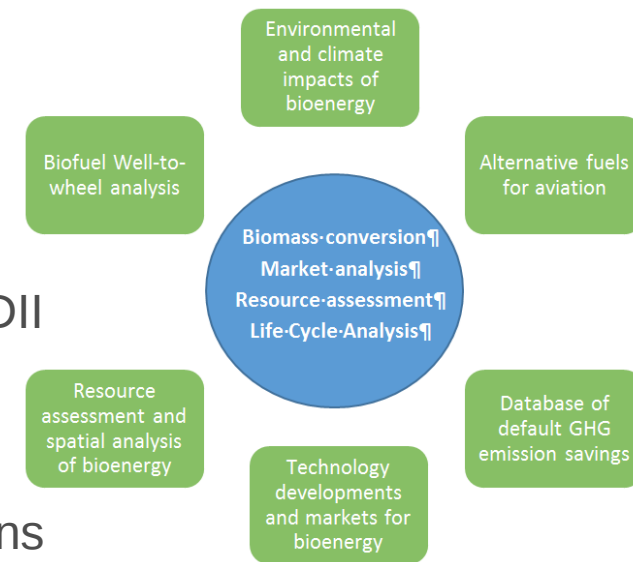


Current policy context

- **European Green Deal:** carbon neutral Europe by 2050
- Revision of **Renewable Energy Directive II:** 45% RES by 2030 (up from 40%), 13% GHG emission reduction in transport
- **RePowerEU:** reduce of the dependence on fossil fuel import and increase energy diversification and energy security - biomethane 35 bcm by 2030
- **EU Methane Strategy:** Monitoring and identifying biomethane fugitive emissions
- **Renewable Hydrogen:** Support to EC for “A hydrogen strategy for a climate-neutral Europe”; participation to IPHE, CertifHy and other initiatives
- **ReFuel EU** and **FuelEU Maritime:** **advanced biofuels** and **RFNBOs**
- **Innovation Fund:** Development of the methodology to account the GHG emissions calculations

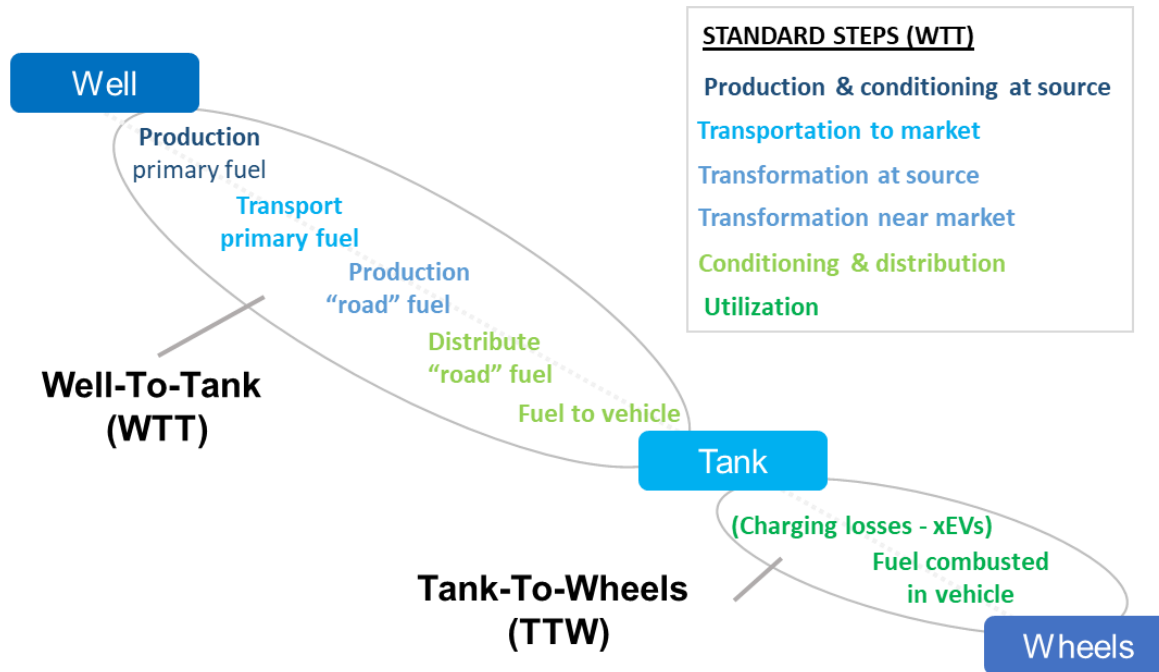
Our main activities

- Support to the **implementation** of the **Renewable Energy Directive** (RED) and **RED Recast 2030** (Directive EU 2018/2001):
 - **GHG accounting methodology**, default values for biofuel and bioenergy pathways,, methodology for GHG emissions of **renewable fuels of non-biological origin and recycled carbon fuels**
 - **Methodology definition** to determine and account for the renewable component of **fuels co-processed** in conventional oil refineries
 - **Methodology for accounting for GHG fugitive emissions** from biogas/biomethane
 - Update of **GHG emissions from bioenergy/biofuels** – Annex V and VI of REDII
- Support to the implementation of the **ReFuelEU Aviation** and **FuelEU Maritime: advanced biofuels** and **RFNBOs**
- **Innovation Fund**: Development of the methodology to account the GHG emissions calculations
- Analysis of technology developments and markets for bioenergy: **Clean Energy Technology Observatory (CETO)**



Well-to-Wheel study

- JRC-Eucar-Concawe Well-to-Wheel study version 5



Establish

in a **transparent** and **objective** manner
a consensual **Well-to-Wheels assessment** of:

- energy use
- and
- GHG emissions

for a **wide range of automotive fuels** and **powertrains**, relevant to Europe in 2025+

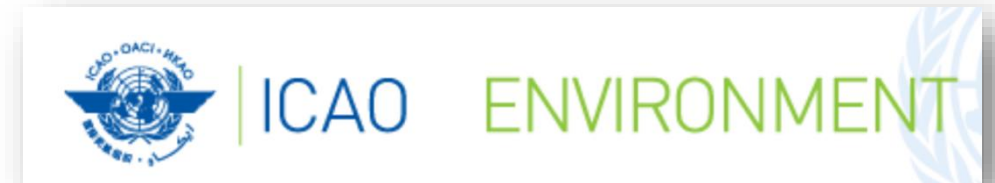
Analysis updated as technologies evolve
Common methodology **and** data-set

WTT > 250 Resource to fuel pathways
TTW > 60 powertrains solutions

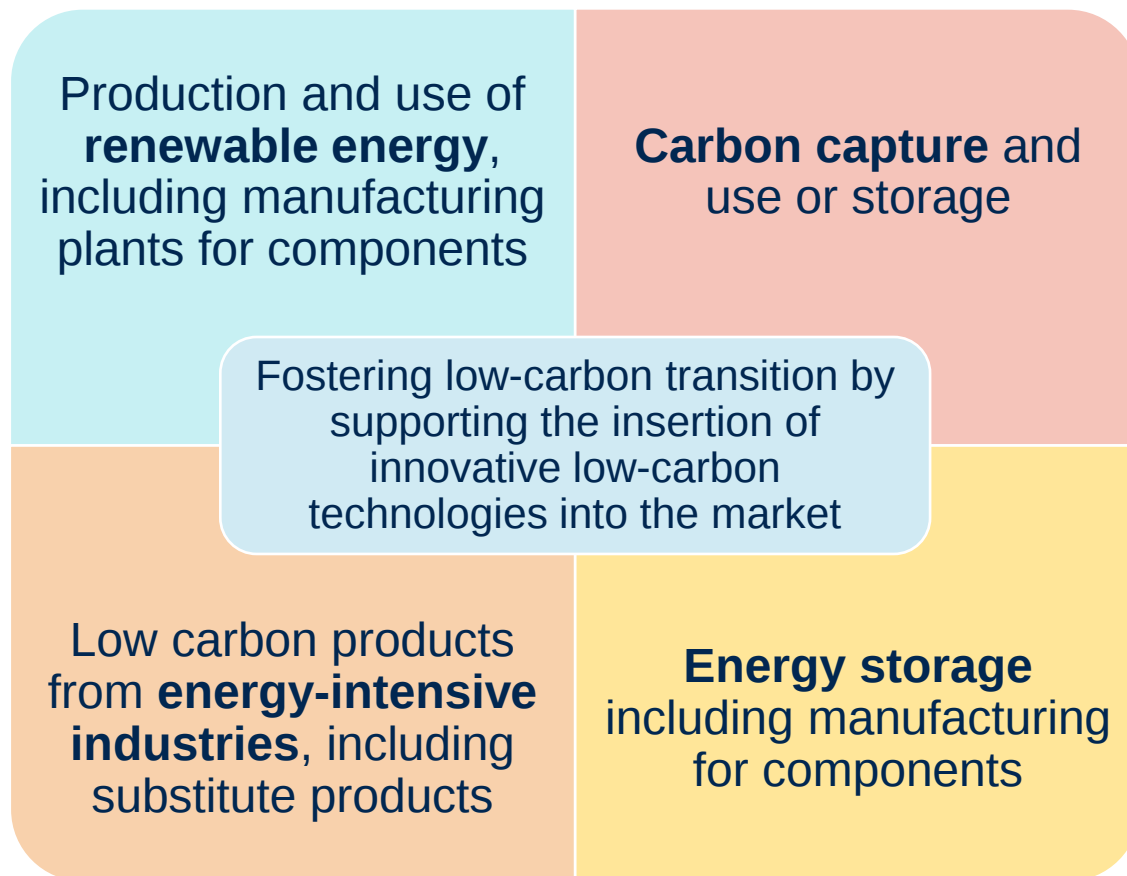
WTW > **1500** potential combinations!

Alternative Aviation Fuels

- **Scientific support** to DG-MOVE in **ICAO/CORSIA**.
- First **globally agreed** methodology for **GHG emissions** of alternative jet fuels.
- **Sustainability criteria** for **alternative fuels** under the **CORSIA** scheme.
- **Guidance** on **potential policies** and **approaches** towards a **greener European aviation**.



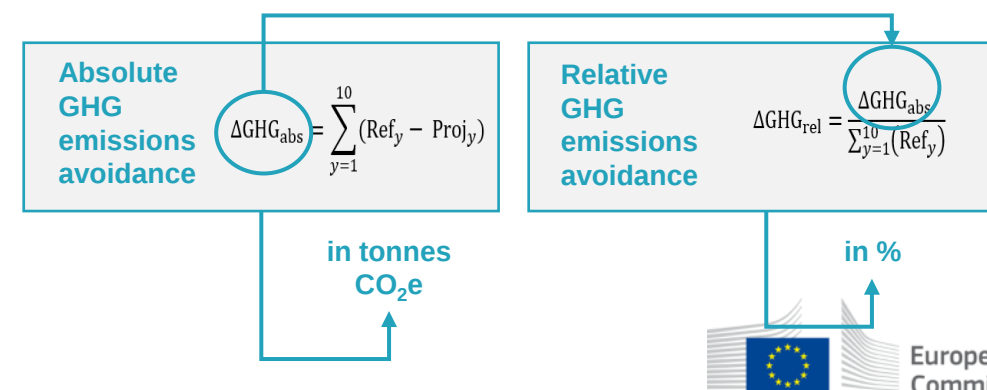
Innovation Fund



GHG emission avoidance :

- the **emissions that would occur in the absence of the project (*Ref*)**, and
- the **emissions from the project activity (*Proj*)**

Timescale: 10-years. Forecasting: emission factor will be fixed for the 10 years of calculation



Keep in touch



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