Bio-SAF Pilot – Infrastructure for SAF Process Development

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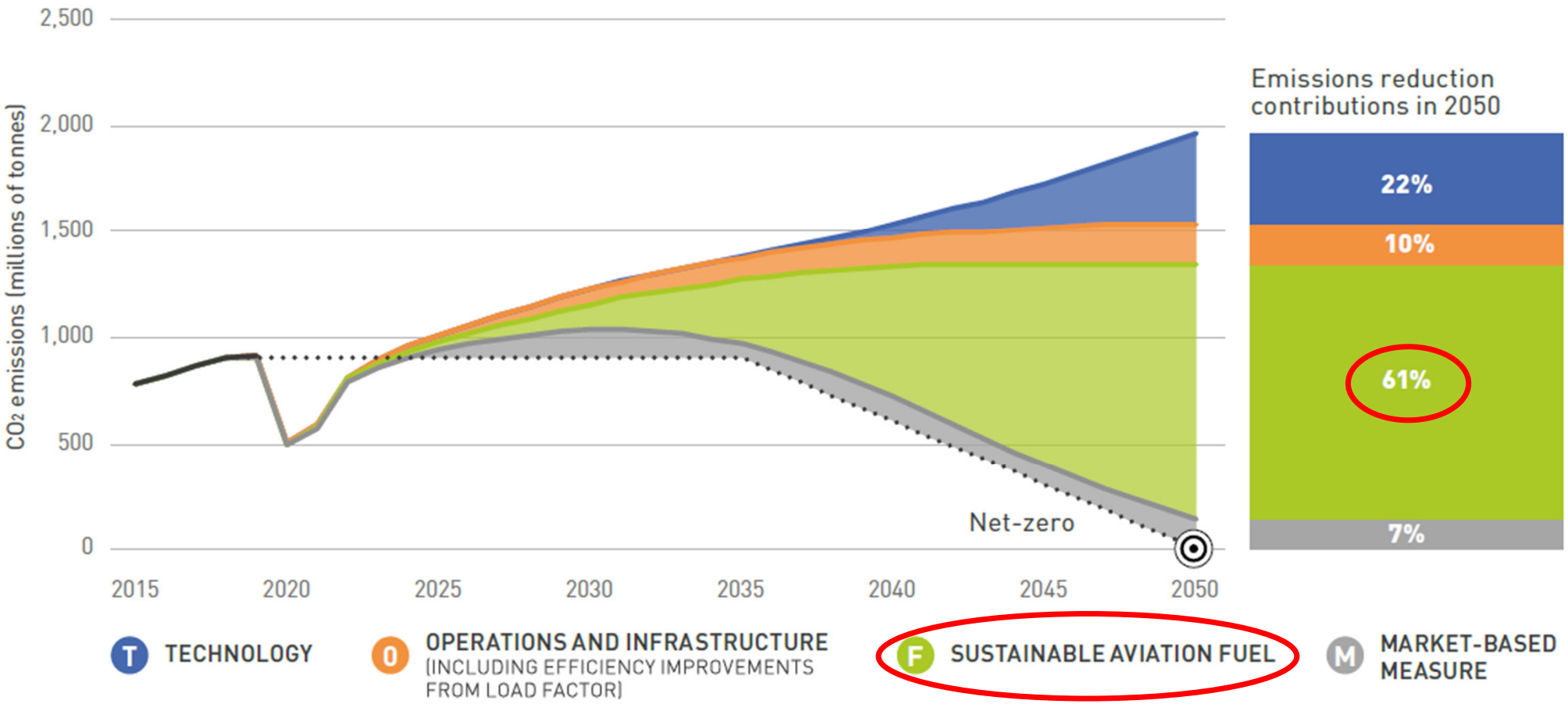
The “Bio-SAF Pilot” project is funded under the FTI program Take Off by the Federal Ministry for Innovation, Infrastructure and Mobility (BMIMI) and is managed by the Austrian Research Promotion Agency (FFG).

Civil Aviation: Net Zero Emission Target until 2050



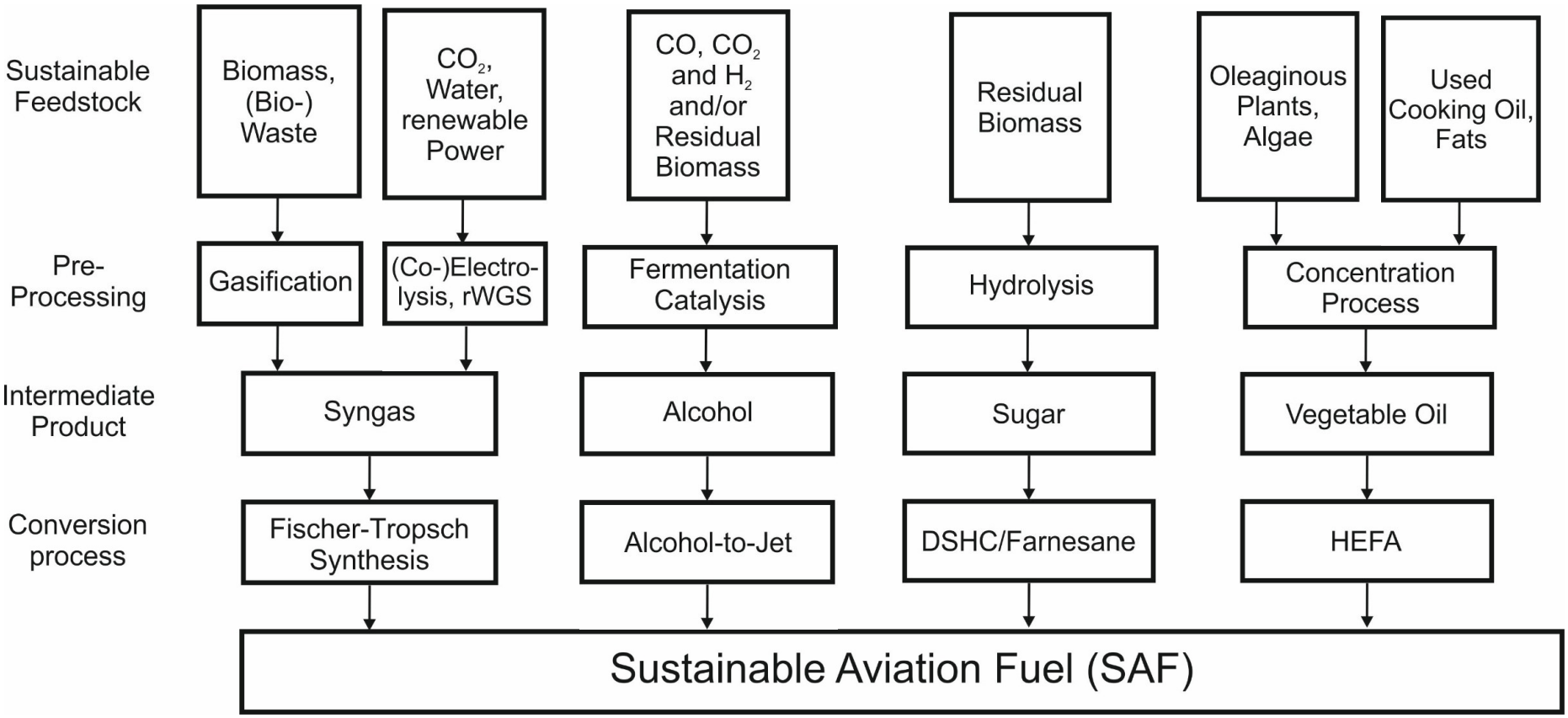
Report Waypoint 2050 – Air Transport Action Group: https://aviationbenefits.org/media/167418/w2050_v2021_27sept_summary.pdf

Challenges

- Growing SAF demand cannot be satisfied with existing production processes.
- A variety of feedstock options is available, however, most feedstocks are limited.
- The production costs for SAF are still high compared with fossil kerosine.

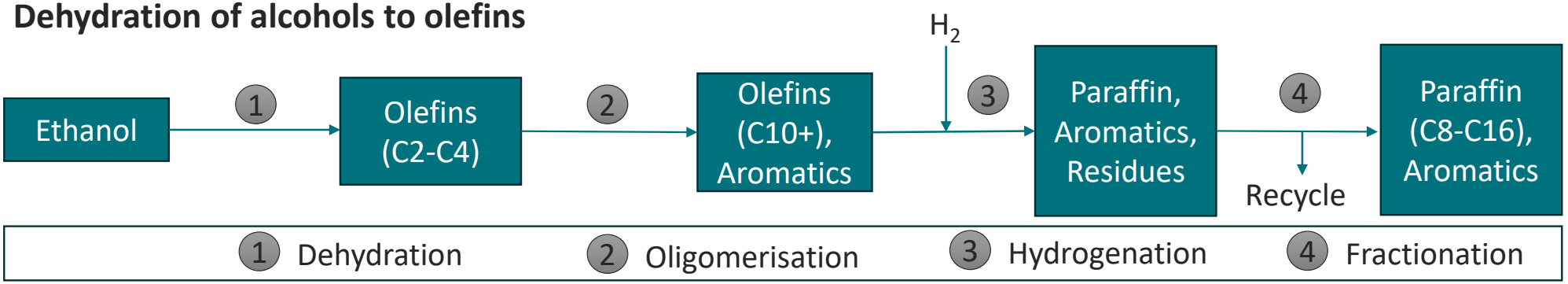
Consequently, the development of innovative and efficient SAF production process chains is key for satisfying the future SAF demand!

SAF Production Options

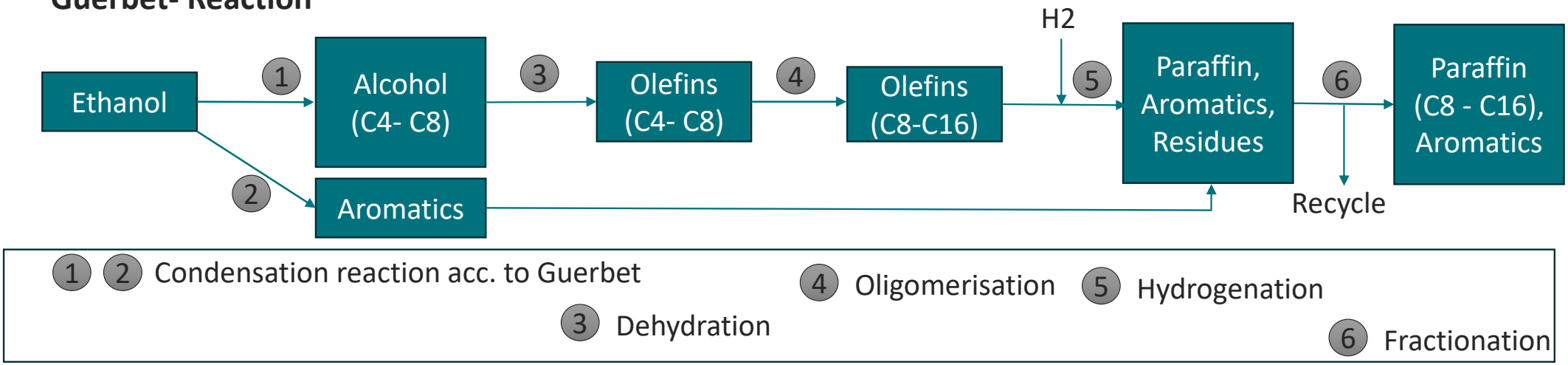


Alcohol-to-Jet Process Chains

Dehydration of alcohols to olefins



Guerbet- Reaction



SAF Multi-Purpose Plant @ Montanuniversität

Key Facts

- Fixed-bed reactors in series
- Heated/cooled reactors
- Modular design allows investigation of entire process routes with several reactions in series
- Product separation possible
- Product analysis via online and offline gas-chromatography

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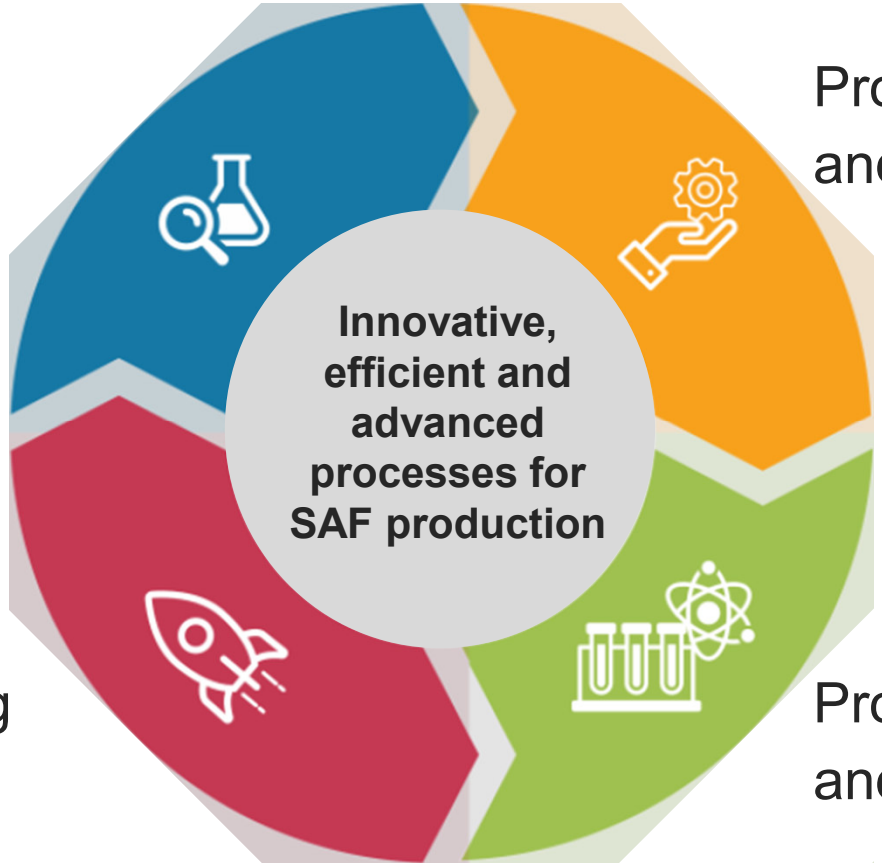
Applied Research Methods

Catalyst Testing

Process Development and Optimization



Machine Learning and Digital Twins

Process Simulation and Reactor Modelling

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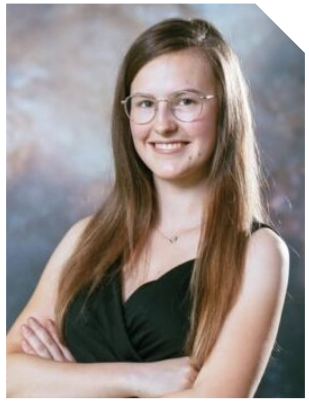

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Montanuniversität Leoben

Thank you for your attention!

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Versetz' Berge