Alternative Fuels for Aviation
Results

1.- PRODUCTION

Feedstock

4 camelina plantations in Spain + 1 in Romania
• Selected and new camelina varieties adapted for Europe and with increased oil content
• Optimized camelina growing protocols
new techniques for pre-processing UCO → pyrolysis study

Conversion technology

• Improved refining facilities (better adapted to biojet requirements)
• adapted protocol for in house quality testing.
4. Results

2.- LOGISTICS and LARGE SCALE USE:

Logistics

- Fuel infrastructure: (ref-FF, FF & FF-AC) different systems, ownership and operators. Biofuels storage, blending & delivery: location for blending
- 1\textsuperscript{st} worldwide use of biojet on OSL hydrant system. Normal use.
- Blending accountability: to be tracked based on chain of custody documentation on mass-balance basis
4. Results

2. LOGISTICS and LARGE SCALE USE:

Engine and fuel systems testing

- **18 flights** AMS-AUA-BON [A330-200]: no detrimental effects on operation, similar or slightly better fuel consumption

- APU tests for **pollutant emissions**: reduction in fuel flow, reduction in the SAE smoke number and possible reduction in PMs. No changes NOx or UHC.

- Up to **80 flights** OSL-AMS [E190] with biojet: flight series has just started, results to came soon
4. Results

3. - SUSTAINABILITY ASSESSMENT:

- **GHG savings** estimated to achieve 60%, RSB certification for the CCE camelina oil plantations
- **Low ILUC risk assessment framework**: fallow land rotation, no demand of additional land or substitution of crops
- Several **sustainability checks**

4. - OUTREACH:

ITAKA works to build-up a strong partnership to **contribute to a worldwide effort**.

*Detailed project results are available at [www.itaka-project.eu](http://www.itaka-project.eu)*
## Partners

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✓ demonstrate the readiness of SPK large-scale production & use
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