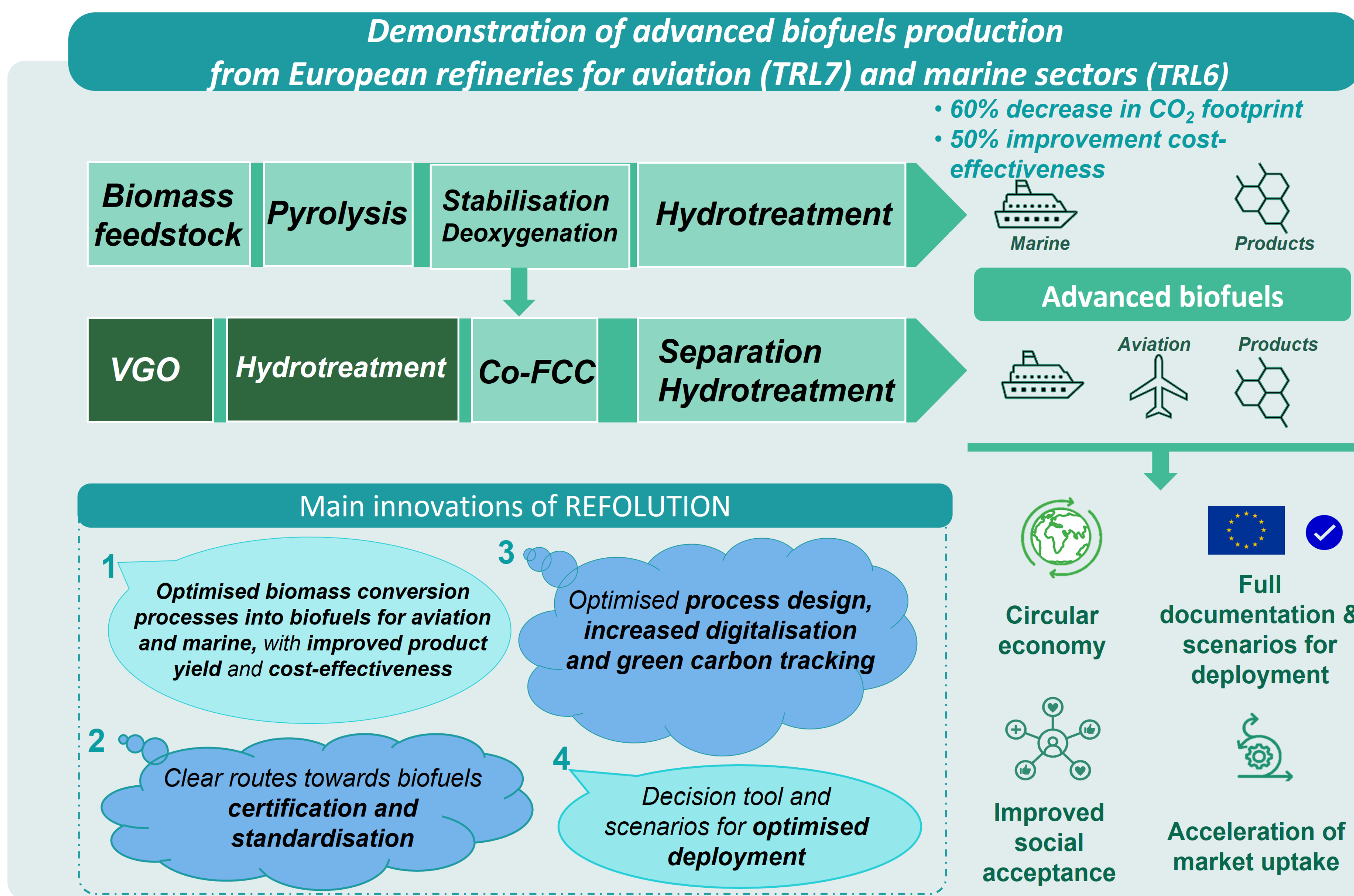


# Refinery integration, scale-up and certification for aviation and marine biofuels production

## Unlocking the Potential of Biofuels



REFOLUTION – Refinery integration, scale-up and certification for aviation and marine biofuels production is a Horizon Europe project aiming to deliver a cost-effective production of advanced biofuels for the aviation and marine sectors via a process that can be implemented in existing European refineries.

The project consortium will deploy risk mitigation pathways for successful implementation into existing refineries, delivering a comprehensive toolbox of models, standards and exploitation pathways for interfacing with existing refinery models and available documentation for further replication in other existing refineries.

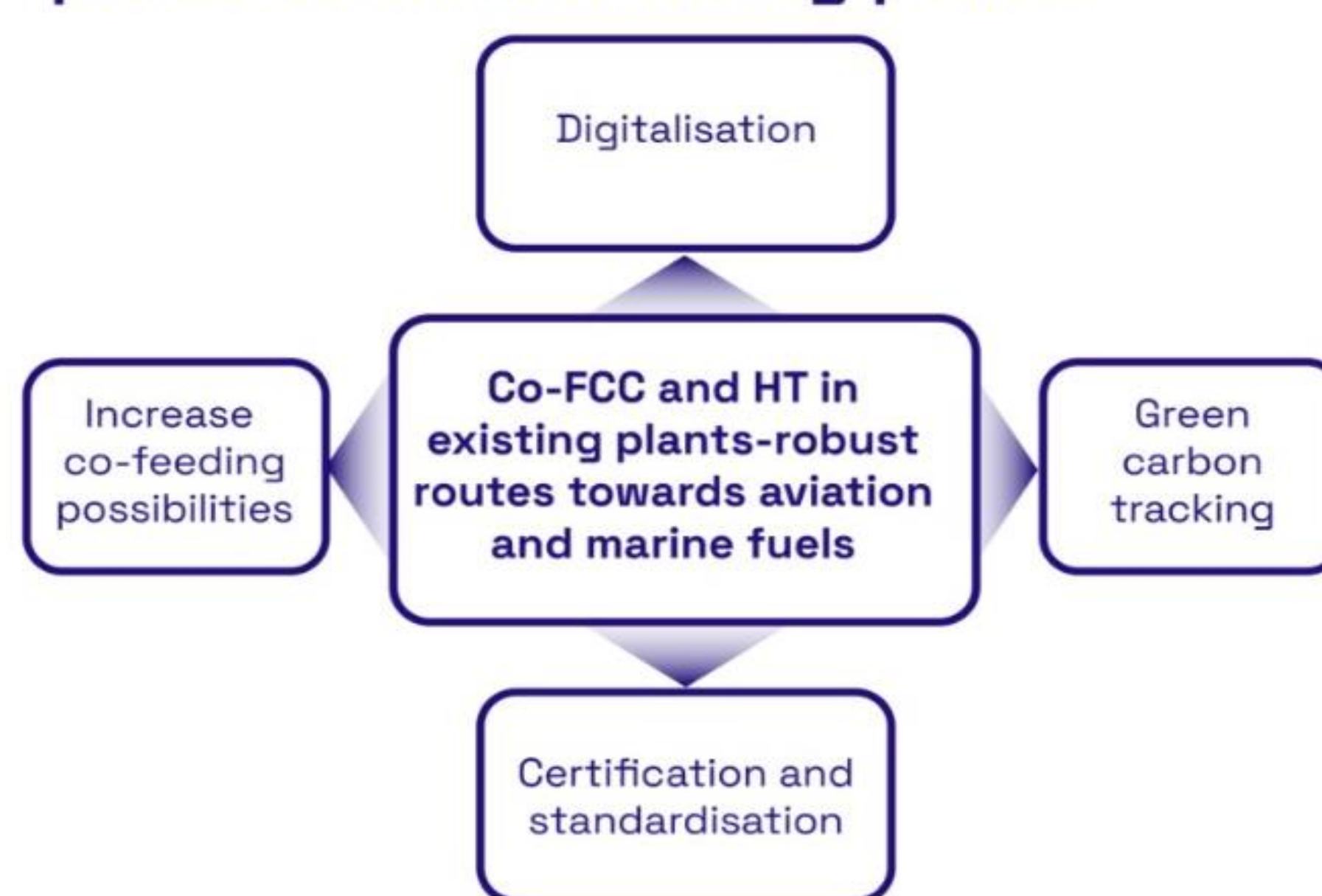
The project is designed to facilitate the market uptake of advanced biofuels in Europe by tackling the challenges limiting their full development.

The implementation of REFOLUTION technology is expected to reduce the production costs by:

50% capital expenditures


45% operative expenditures

Innovation to unlock the full potential of advanced biofuels production in existing plants



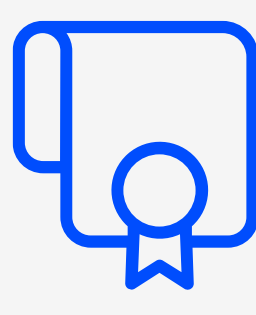
Strong benefits for different sectors and citizens

- Decarbonisation of transport (aviation, maritime, etc.)
- Providing flexibility and high value for existing refineries
- Increased social acceptance
- Pave the way to the transportation of the future through certification and standardisation



Novel technologies for production of biofuels for aviation and marine sectors

contributing to answer EU REFOLUTION climate challenges and meet market demand



Paving the way for standardization and certification

contributing to answer EU REFOLUTION climate challenges and meet market demand



Implementation in existing industry infrastructures, decreasing CAPEX and OPEX

contributing to answer EU REFOLUTION climate challenges and meet market demand



Bringing new knowledge de-risking the technology

contributing to answer EU REFOLUTION climate challenges and meet market demand

### Integration through co-processing and co-refinery

REFOLUTION will build the basis of the increased incorporation of advanced biofuels production in existing plants, enhancing the potential of Europe's 93 operating refineries in accelerating the transition to a greener economy and delivering up to 30% reduction in CO<sub>2</sub> emission from their core FCC units.

COORDINATOR



PARTNERS



Duncan Akporiaye  
Research Director  
Project Coordinator



Funded by the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement no. 101075503.

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.