



Día del
Medio ambiente
5 de junio 2026

Autosuficiencia
energética
en puertos



DÍA MUNDIAL DEL
MEDIOAMBIENTE
APV



valenciaport
Autoridad Portuaria de Valencia



ECOport
Autoridad Portuaria de Valencia



FUNDACIÓN
VALENCIAPORT

Tergy Sagava - Producción local de combustibles bajos en carbono
DANIEL SOARES PICHLER

Project Manager de SEAFAIRER, una *Innovation Action* co-financiada por la Unión Europea bajo el programa Horizon Europe de investigación y desarrollo y cofundador de Sagava, empresa dedicada al desarrollo de biocombustibles *drop-in* para descarbonizar la industria marítima.

Amplia experiencia en proyectos Horizon Europe y Horizon 2020, apoyando la innovación, la constitución de consorcios y la gestión de proyectos. Daniel es licenciado en Administración de Empresas por la Universidad de Mannheim y posee un posgrado en Gestión y Seguridad de la Información por NOVA IMS,





Sovereign Production of Maritime Bio-Oil and **Green Power** from Waste Biomass.



Daniel Pichler
Co-Founder & CCO

Company overview

Traction/secured:

- ✓ Scale-up to commercial FOAK = Done (SEAFIRER)
- ✓ First commercial biofuel sale and In-service trials with lead offtakers in Q3 2026
- ✓ Initiated fundraising & 1 follower fund secured
- ✓ Team expansion and new Advisory Board
- ✓ Feedstock supplier for 1st SPV deployment in 2027

What's next:

- ➔ Deployment of 1st SPV
- ➔ Securing additional feedstock sites & growing Project Implementation Pipeline (PIP)
- ➔ Finalising product certifications

Achievements & Awards



Co-funded by
the European Union

BI BioInnovation
Institute

/nnovation Fund Denmark

DEN DANSKE
**MARITIME
FOND**

VISNING FONDEN

Σ eureka
eurostars

+1M EUR
secured in funding & awards to date

FOAK scale-up funded via
€10 mio. EU Project

TER-SA Unit,

From any biomass to Bio-Oil & Green Power

1. Waste biomass input



Feedstock flexible

2. TER-SA Unit



3. Output



Syngas



Bio-oil



Biochar

Carbon removal credits



✓ 90+ biogenic residues and industrial wastes tested with consistent output

✓ 1500+ hrs of operation. Continuous and energy self-sufficient process

✓ Exclusivity on patented thermochemical process via our Fraunhofer collaboration

Full feedstock flexibility – turning Waste2Value

90+ waste biomasses already tested

Our technology unlocks the untapped potential of biogenic feedstock sources worldwide.

Key use cases under Horizon Europe 'SEAFARER Project'



Biowaste



Biogas (AD) digestate



Bagasse



Whisky spent grains



Agricultural residue



Wood & Forestry



Straw



Bark residue



Saw dust



Leaves

Key industrial interest use cases

How we source supply

- ✓ Biogenic residues with no ILUC issues nor 'food vs feed' dilemma
- ✓ All feedstocks for advanced biofuel in line with Annex IX RED III
- ✓ Waste biomass sources from standardised industrial processes
- ✓ Long-term biomass offtake agreements
- ✓ Integration of feedstock supplier as equity partner in our SPV model



Made in Europe

Sagava

Existing Pilot Unit to Full Commercial Scale



This is how we get there

€10 million grant from the EU

[Innovation Action (IA) under Horizon Europe]

Key Outputs

- ✓ Unit scale-up to commercial scale
- ➔ Full validation of 5-7 use cases based on different feedstocks



No biomass pelletising required for FOAK.

✓ Fully funded by 10M EU Project



Cold and Hot Commissioning completed. Now: Ramp-up. Next: Continuous productions.

Pilot Unit specs overview

700 tonnes

Biomass processing /year

200 tonnes

Blended fuel /year

5 metres

Height x 60cm diameter

Commercial Unit specs overview

3500 tonnes

Biomass processing/year

1000 tonnes

Blended fuel /unit/year

6 metres

Height x 120cm diameter

Two Commercial Pathways for our Bio-Oil

TER-SA Bio-oil

A thermally stable bio-crude. With fossil-level energy.

Pathway 1

Drop-in

Direct integration with existing vessels & marine infrastructure

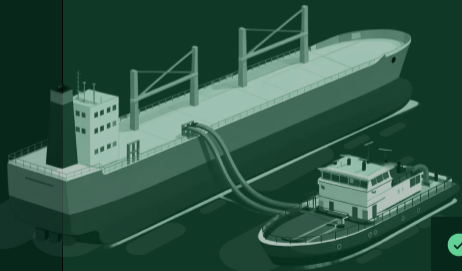


TER-SA Bio-oil



Direct marine use

96% GHG savings at
3,7 gCO₂-eq/MJ
versus fossil baseline



No engine retrofiting



No fuel upgrading

Pathway 2

Co-Processing

Integration in existing refinery infrastructure

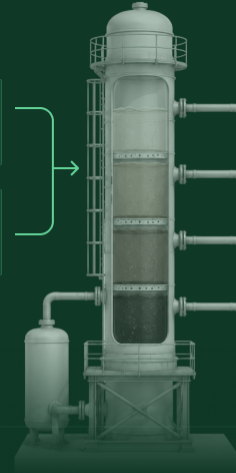
Validation partner



TER-SA Bio-oil



Fossil feedstock



Benzene

Naphtha

Kerosene

Diesel

Validation progress

Hydroprocessing unit

Completed

Hydrocracking testing

Completed

FCC

Next

Biofuel logistics

Bunkering & supply to customers

1. Bio-Oil Production & storage on site (3 ISO Tanks)

Sagava



2. Pick-Up & transportation by truck from production site to Port of Hamburg

Frontier Fuels



3. Bio-oil delivery to ISO-Tanks storage inside port

Frontier Fuels



4. Bio-Oil blending on barge with fossil component & bunkering from barge to ocean going vessel.

Vessel sails EU-Waters.

Frontier Fuels



Our unique value proposition for the EU shipping market

We deliver the lowest compliance cost

FuelEU compliance cost (EUR/tCO₂-eq);
Basis EUA price: 90 EUR



Fuel comparison:

UCOME

HHV: 37 MJ/kg

GHG savings: 87,5%

Price **B100 FoB ARA**: 1250 EUR/tonne

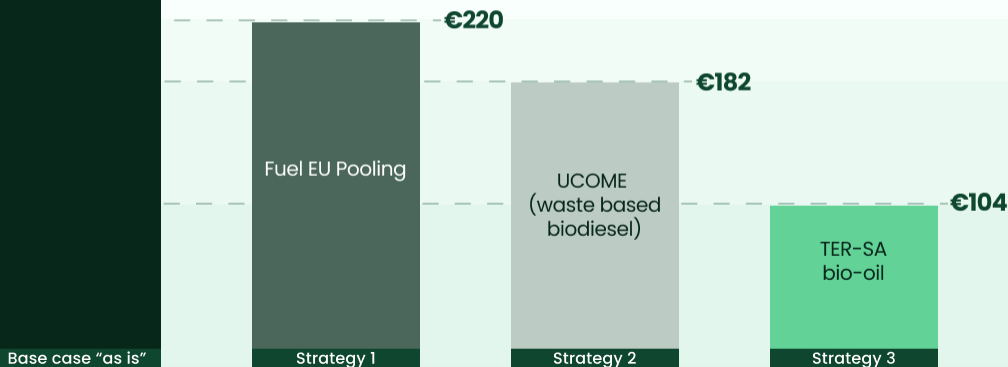
TER-SA

HHV: 37 MJ/kg

GHG savings: 96%

TER-SA Bio-oil: 1100 EUR/tonne

Penalties for continued use of MGO



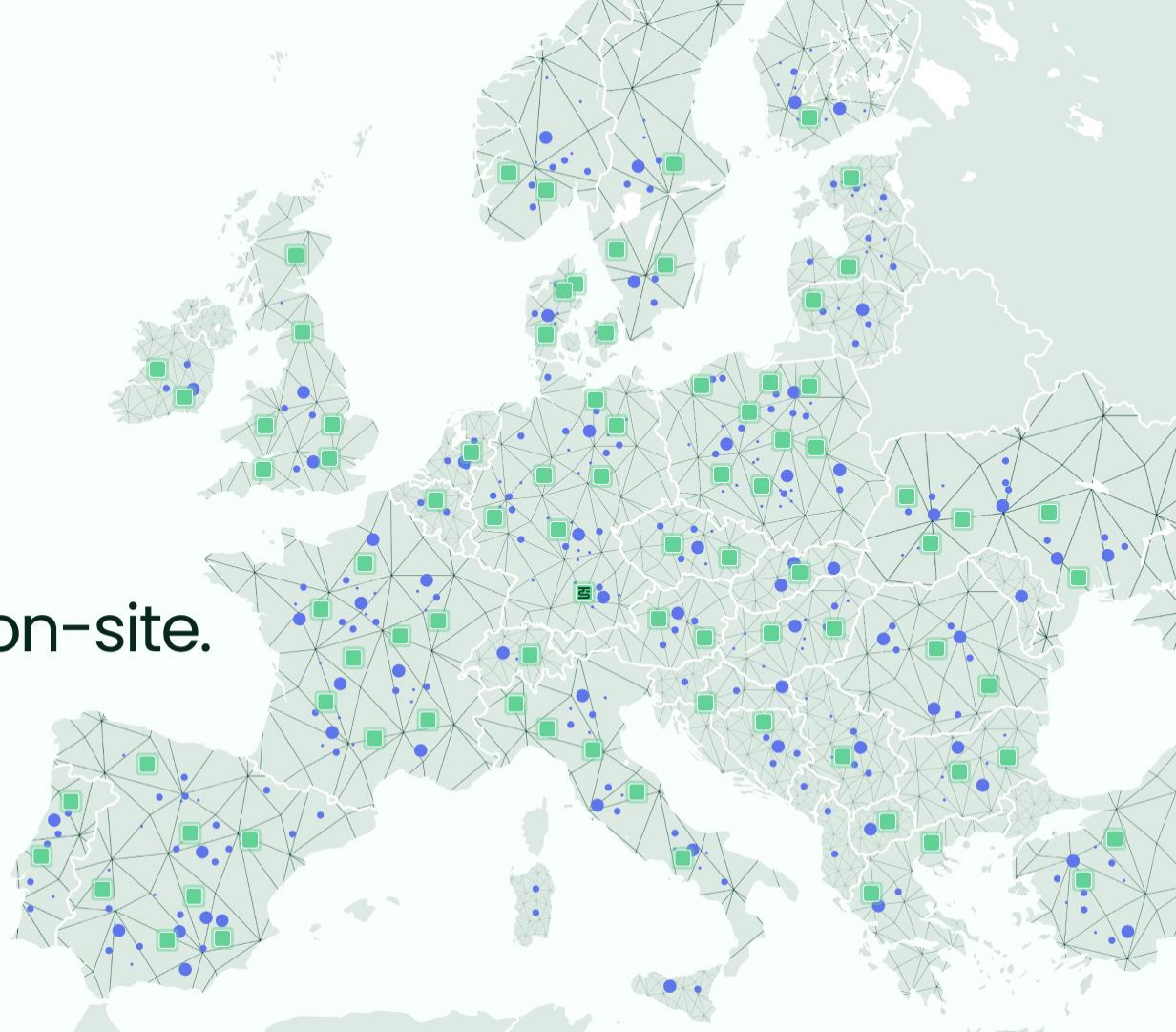
TER-SA bio-oil outperforms the market

Full feedstock flexibility.

Unlocking the power of
local biomass – anywhere.

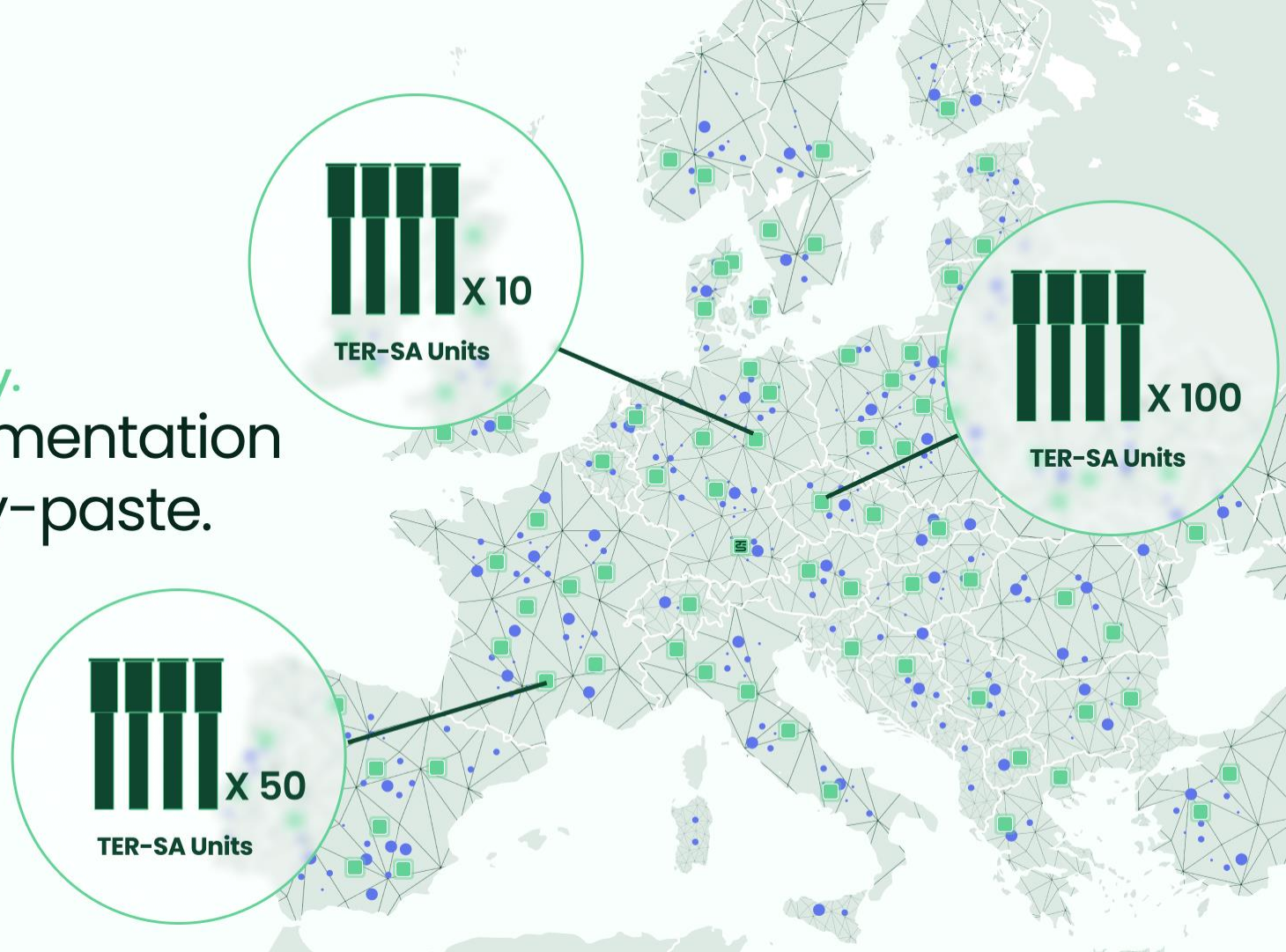


No biomass transportation.
No logistics costs.
We deploy directly on-site.

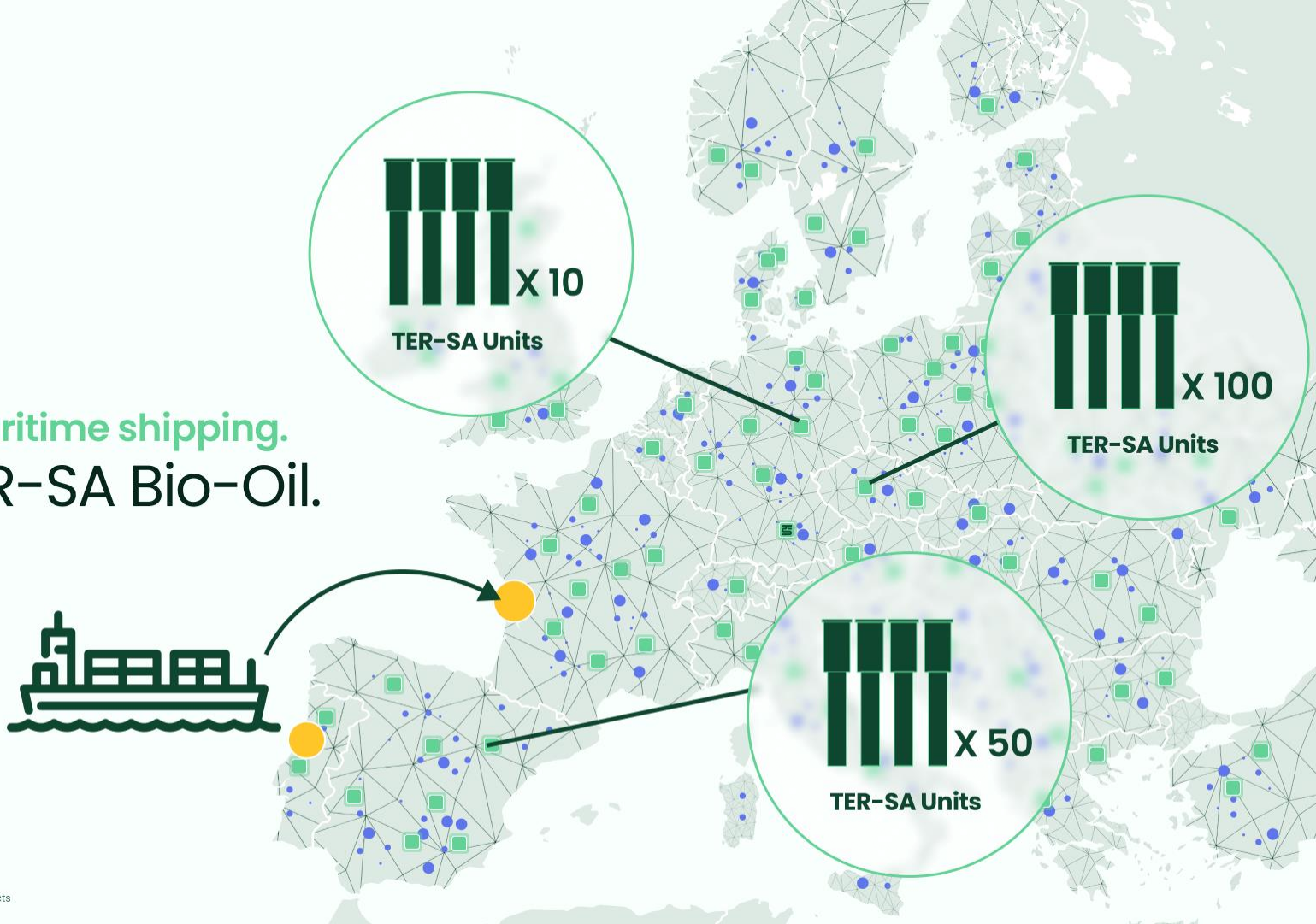


Modular scalability.

Rapid implementation
via unit copy-paste.

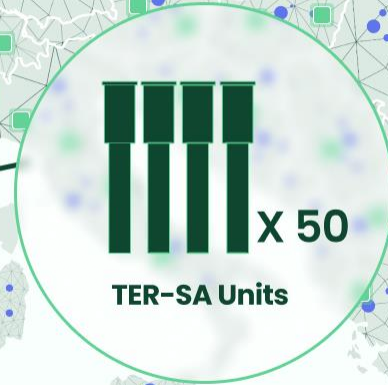


Supplying maritime shipping.
Use of TER-SA Bio-Oil.



Building EU production capacity. From waste to Bio-Oil.

1. Identification of feedstock sources
2. SPV project deployment at feedstock sites
3. Implementation of a number of units (copy-paste) depending on feedstock volumes
4. Biofuel distribution to port and vessels



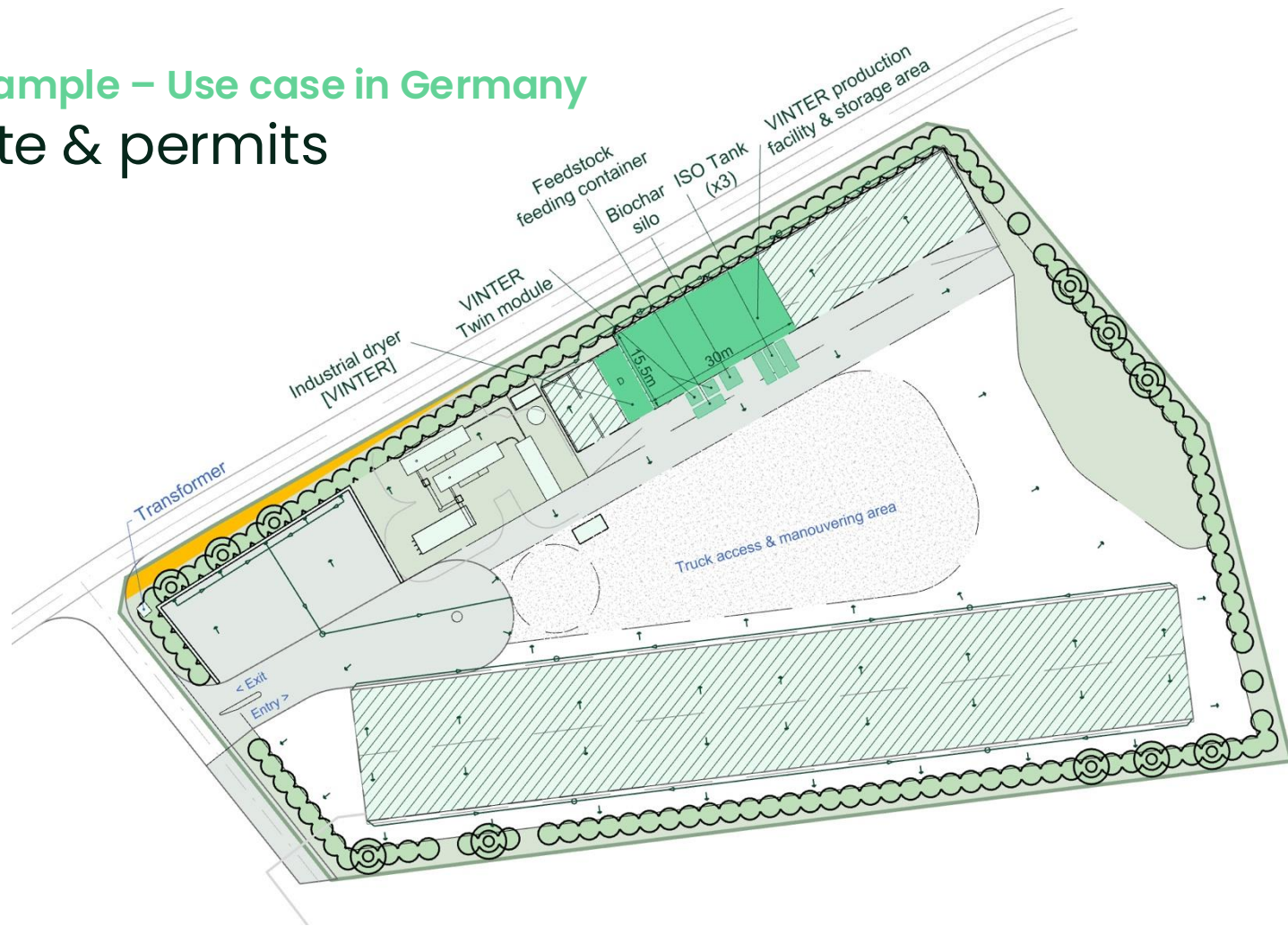
Example – Use case in Germany

Waste management facility

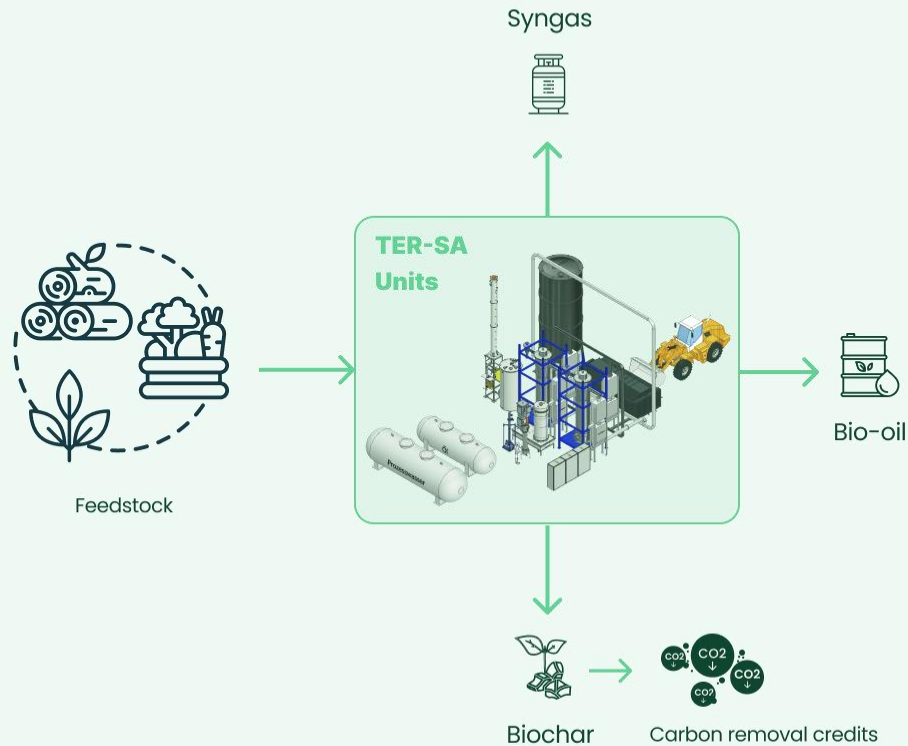


Example – Use case in Germany

Site & permits



From waste to green power.
Clean energy, drop-in
bio-oil and carbon
removal.





Sagava

We Power **Tomorrow**
with the waste of **Today**



Contact us

TERGY SAGAVA

info@tergy-sagava.com



Join our journey

...strengthening European energy resilience



Appendix



This is how we get there

€10 million grant from the European Commission for our SEAFAIRER project

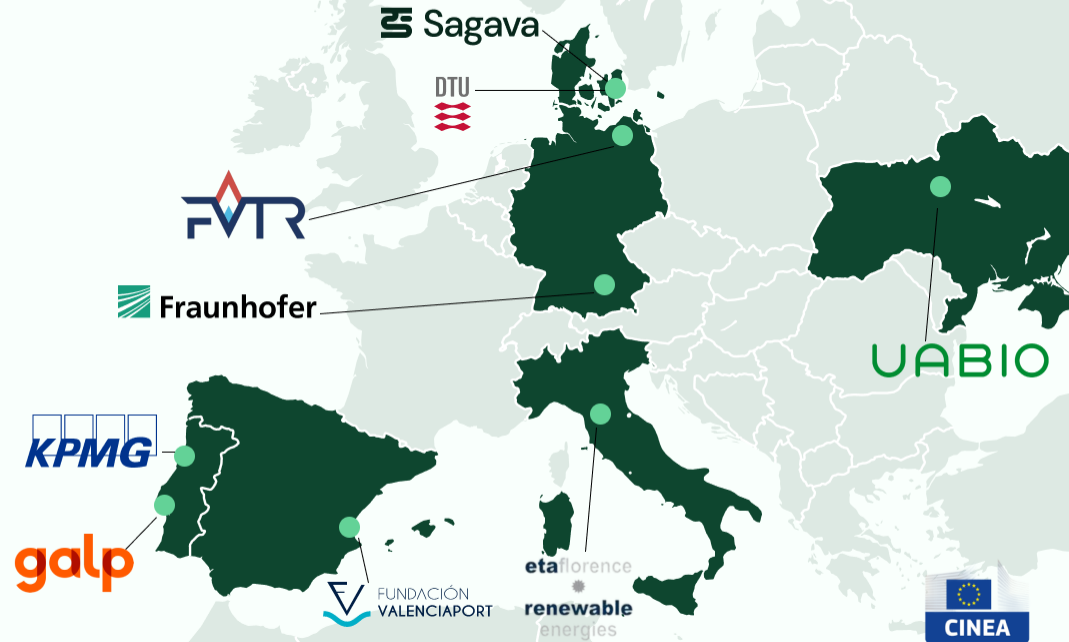
[Innovation Action (IA) under Horizon Europe]

Key Outputs

- ✔ Commercial scale unit in place
- Full validation of 5-7 EU use cases based on different feedstocks

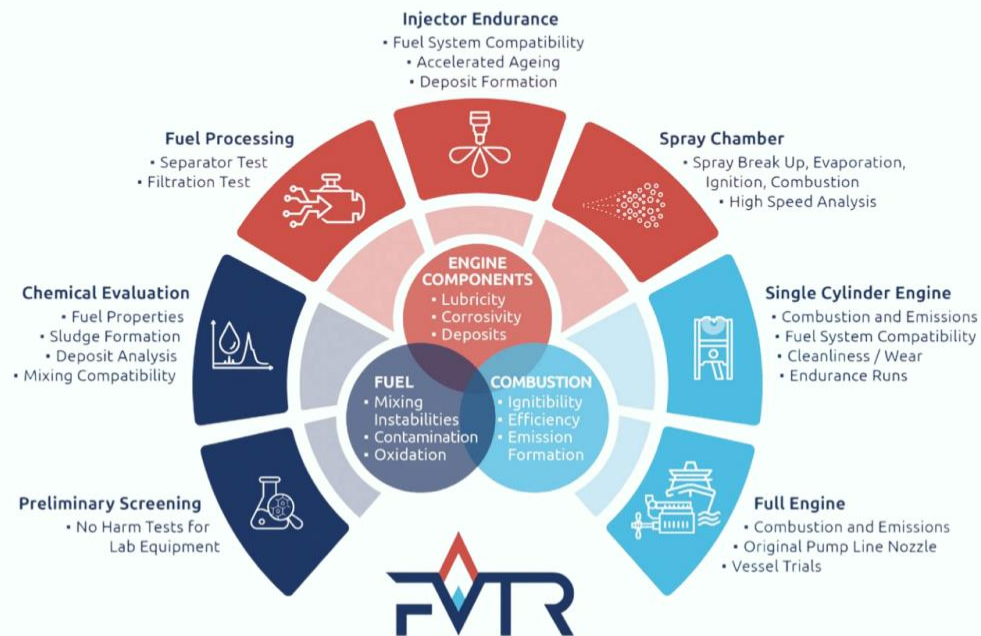
Fundraising for market entry

- Accelerating commercialisation of biofuel and scale-up



From lab to ocean

Biofuel testing and validation



Key milestones

- ✓ Marine engine validation of biofuel & blends at leading European facility **FVTR**
- ✓ Blend compliance with **ISO 8217:2024** for marine biofuels
- ✓ **ISCC EU** for Proof of Sustainability of the value chain and feedstock



ISO 8217:2024



ISCC EU



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