ENILIVE
Market Presentation

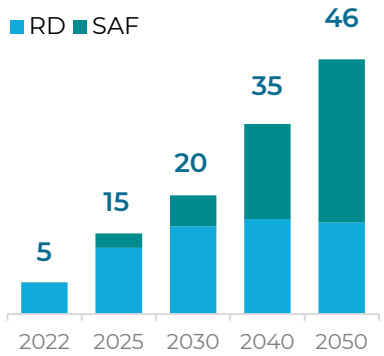
MAY 2024

A ROBUST MACRO FOR RD/SAF MARKET

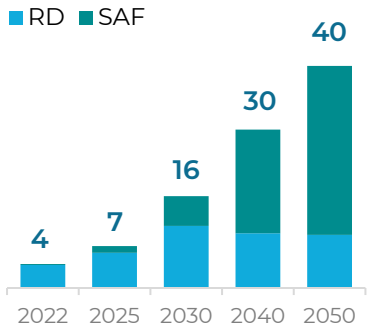
LONG-TERM PERSPECTIVES DRIVEN BY HARD-TO-ABATE SECTOR DECARBONISATION

WORLD RENEWABLE DIESEL/SAF DEMAND | Mton/y

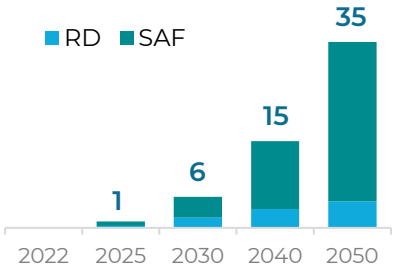
N. AMERICA



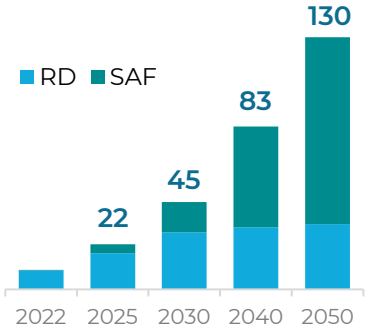
EUROPE



ASIA PACIFIC



WORLD



CAGR 2022-2050

+25% SAF

AVIATION

SAF the leading pathway and «the biggest contributor to aviation decarbonisation» IATA Chief

+5% RENEWABLE DIESEL

FREIGHT, MARINE, RAIL, HEATING, OTHERS

HARD TO ABATE SECTORS

ENILIVE TARGET MARKETS

~90%

of 2022-2050 additional biofuel demand

TRANSPORTATION ACCOUNTING FOR ~1/4 OF GLOBAL CO_2 EMISSIONS

RD & SAF CAN DECARBONISE TRANSPORTATION WITHIN CURRENT INFRASTRUCTURE

TECHNOLOGIES OTHER THAN HVO/HEFA (e.g. E-FUEL) POSSIBLY COST COMPETITIVE ONLY FROM 2040 ON IN CASE OF SIGNIFICANT COST DECREASES

Source: Eni elaborations on data from third parties

POLICY SUPPORT CUSTOMERS' DEMAND

FRAMEWORK FURTHER UNDERPINNED BY VOLUNTARY DEMAND

PROPOSED

UK - Jet Zero Strategy
10% SAF 2030, 22% 2040

US - SAF Grand Challenge
3 bn gal 2030, 100% 2050

Brazil – Future Fuel
SAF Mandate: -10% GHG emission by 2037
RD: blending to be defined

N. Zealand - SAF mandate
7.5% SAF 2030, 50% 2050

India - SAF Mandate
1% SAF 2025 domestic airlines

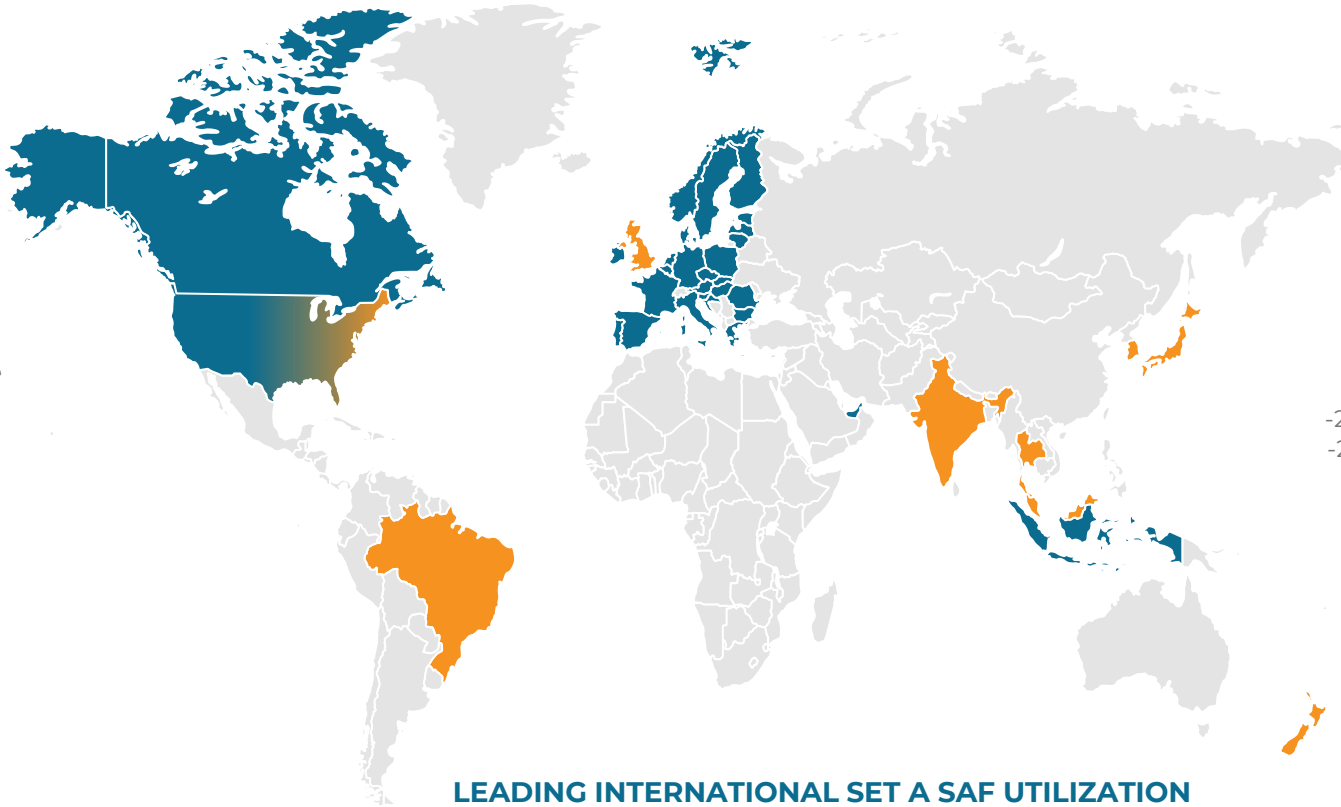
Eco-Friendly Biofuel Measures
8% biodiesel/HVO road 2030
SAF targets from 2026

Japan SAF mandate
10% SAF 2030

Thailand SAF mandate
1% SAF 2026

Malaysia SAF mandate
SAF 1% 2026, 47% 2050

Singapore SAF mandate
SAF 1% 2026, 3-5% 2030



LEADING INTERNATIONAL SET A SAF UTILIZATION TARGET AT 10% VS 6% OF REFUELEU

World ICAO Corsia SAF program
2024-2026 1° Phase (voluntary)
2027-2035 2° Phase (binding)
Carbon neutral growth (2019 level)

80+ airlines offtake deals signed

UNITED · DELTA · oneworld · Lufthansa · AIRFRANCE · JAPAN AIRLINES · CATHAY PACIFIC

IN PLACE

Clean Fuel Regulations
-15% Fuel Carbon intensity 2030
B.C. LCFS
-30% Fuel Carbon intensity 2030

Renewable Fuel Standard (RFS2)
Annual volume obligations and D4 RINs
Blender Tax Credit (BTC)
1 $/gal RD / 1.25-1.75 $/gal SAF
Clean Fuel Production Credit (CFPC)
(from 2025) up to 1 $/gal RD / 1.75 $/gal SAF
Low Carbon Fuel Standards (LCFS)
-20% Fuel Carbon intensity 2030 California
-20% Fuel Carbon intensity 2030 Oregon
-20% Fuel Carbon intensity 2034 Washington
-20% Fuel Carbon intensity 2030 New Mexico

UAE
National Biofuel Policy (waiting for details)

Indonesia
5% SAF 2025 (dom. airlines)
35% biodiesel from 2023

Norway
17% biofuels 2023, 30% SAF 2030

Italy - Pure biofuels mandate
300 kton 2023, 1 Mton 2030

RED III directive
29% renewable fuels in transport 2030
Refuel EU aviation
SAF 2% 2025, 6% 2030, 70% 2050
Fuel UE Maritime
-6% Carbon Intesity 2030
-80% Carbon Intesity GHG 2050

+ single countries regulations

ENILIVE DISTINCTIVE ELEMENTS

INVESTING IN OUR STRENGTHS TO DRIVE BUSINESS AND EARNINGS GROWTH

SIGNIFICANT GROWTH IN EBITDA GENERATION

FIRST MOVER INTO BIOREFINERY CONVERSION

3rd largest HVO/SAF operator in the world, 2nd in Europe and 1st among energy majors
Almost 10 years of successful biorefining operations and conversion track record

STRONG TECHNOLOGY INNOVATION CAPABILITIES

Co-developer for innovative Ecofining™ process
Continous improvement through ongoing joint collaboration with UOP.
SAF production boost. Supply flexibility (pre-treatment enhancements)

GLOBAL FOOTPRINT ON BIOFUEL MARKET

Global presence with distinctive supply, extensive trading and commercial capabilities as opposite to a more localised traditional R&M business

AGRI-HUBS VERTICAL INTEGRATION

Upstream vertical integration with equity feedstock through Agri-hubs providing higher control vs market through direct access to derisked, traceable feedstock

VERTICAL INTEGRATION WITH DOWNSTREAM

Downstream vertical integration leveraging on:
- wholesale/retail (5.300 stations) and chemicals (Versalis) as captive outlets for bioproducts, stabilizing margins
- globalisation of the bioproducts market, thanks to the expansion of the biorefining system (North America, Asia)

BEING PART OF "ENI WORLD"

Eni global energy player with diversified geographic scope (60+ countries), **diversified presence in the energy value chain** (e.g. chemicals, CCUS, e-mobility, H2). Significant R&D and strategic agreements in place

SIGNIFICANT BIOREFINING GROWTH

MAINTAINING WORLD-CLASS LEADERSHIP IN BIOREFINING

EXPANDING CAPACITY

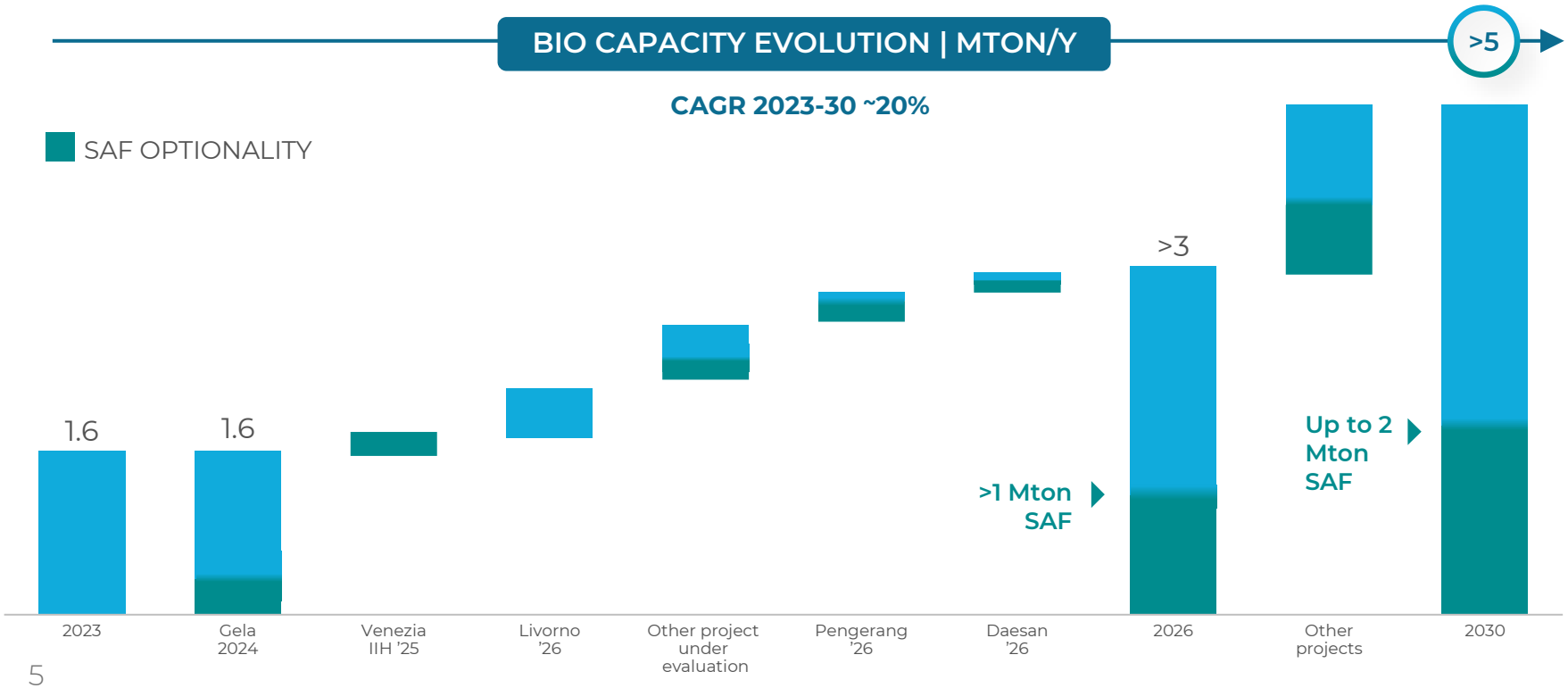
Strengthening Europe
Expanding Far East
New developments in N. America

UNIQUE ADVANTAGED FEEDSTOCK STRATEGY

Secure agri-feedstock access
Pre-treatment flexibility

PRODUCT DIVERSIFICATION

Accelerating SAF optionality



OPTIMISED CAPEX & SCHEDULE FOR CAPACITY AND SAF OPTIONALITY GROWTH

AGRIFEEDSTOCK

700 KTON/Y BY 2027
SECURING >35% ITALIAN THROUGHPUTS

SAF OPTIONALITY

>1 MTON MOVED FORWARD TO 2026 (VS PREVIOUS 2030)

DOUBLING BY 2030

ECOFINING: ENABLER OF TRANSFORMATION

KEY PROPRIETARY TECHNOLOGY AT THE HEART OF OUR BIOREFINING

FLEXIBLE PROCESS – MULTIPLE FEEDSTOCKS – QUALITY ENSURED

- Ecofining, thanks to hydrogen, completely removes oxygen from organic feedstocks to obtain HVO*
- HVO is a high-quality biofuel with high conversion yields
- No blending walls required, allowing higher energy content and better performance than FAME

STAGE 1 Hydrogeoxygenation
Oxygen is removed from the biomasses.

STAGE 2 Isomerization
From linear to branched HC chains to improve HVO cold properties

STAGE 3 Fractionation
The HVO is split into various products (Diesel, Jet, Naphta, ...)

A COMMERCIALY PROVEN, RELIABLE TECHNOLOGY

enilive Honeywell UOP

2006
Cooperation agreement signed with Honeywell UOP

2007
Licensing started to develop Ecofining at Eni Research Centre

2014
Venice conversion: the first in the world to be converted into a biorefinery

2019
Gela conversion: an example of continuously evolving industrial site

2023
Chalmette commencing operations deploying Ecofining technology

2024-26
Building new plants in Livorno and evaluating projects in Pengerang and Daesan

MAKES ENILIVE "PARTNER OF CHOICE"
OFFERING OPPORTUNITIES FOR JV/PARTNERSHIPS WITH OTHER PLAYERS

~30% MARKET SHARE IN HVO/HEFA GLOBAL CAPACITY
OFFERS INTELLIGENCE ON NEW MARKET PROJECTS

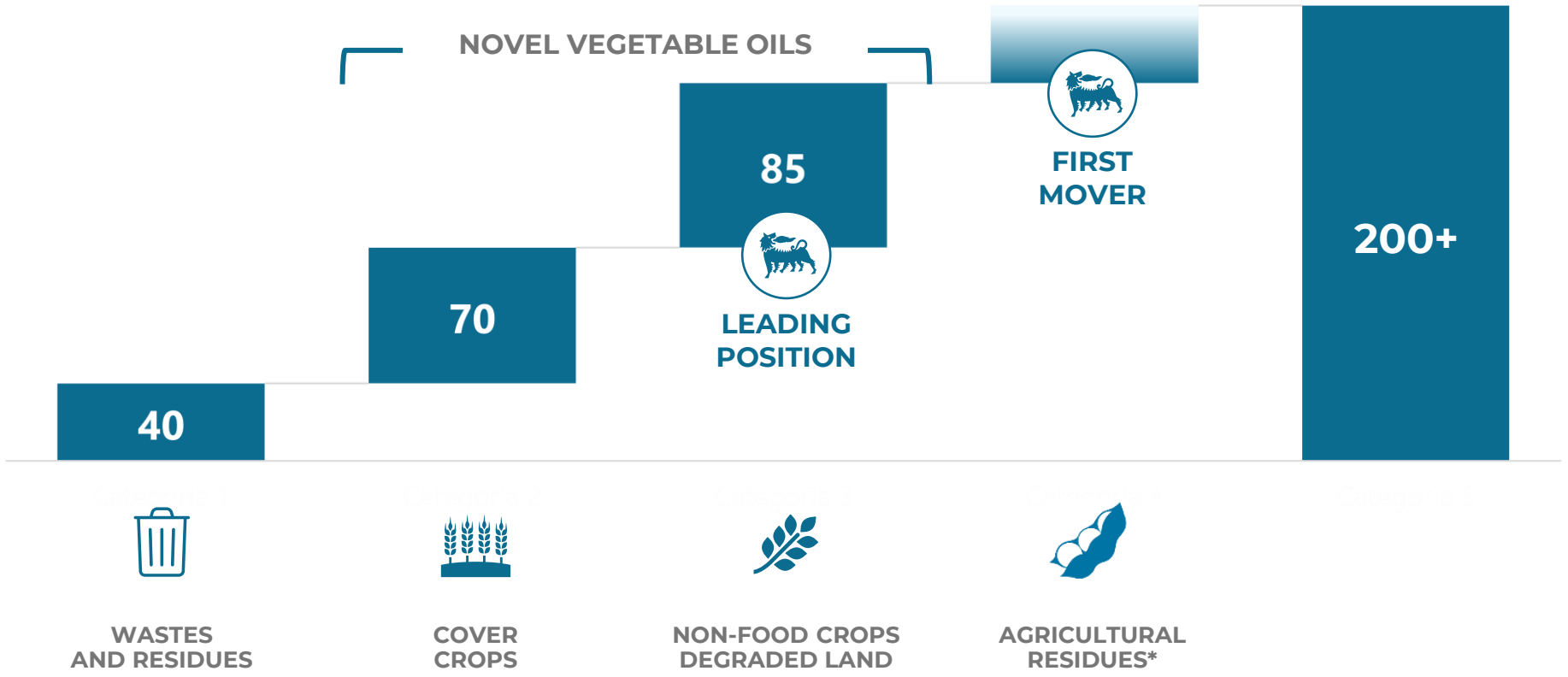
CONTINUOUS IMPROVEMENT
ONGOING R&D AND ENHANCEMENT TO THE TECHNOLOGY

*Hydrogenated Vegetable Oil

HVO/HEFA SUSTAINABLE FEEDSTOCK AVAILABILITY

NOVEL VEGETABLE OILS SUPPORT THE RISING BIOFUELS DEMAND

POTENTIAL HVO/HEFA SUSTAINABLE FEEDSTOCK AVAILABILITY 2050 | MTON/Y



(*) = Amount of agricultural residue usable for the production of HEFA, with a potential upside of up to 660 Mton/y through the use of other technologies

Source: Eni elaborations and Mckinsey Clean skies for tomorrow

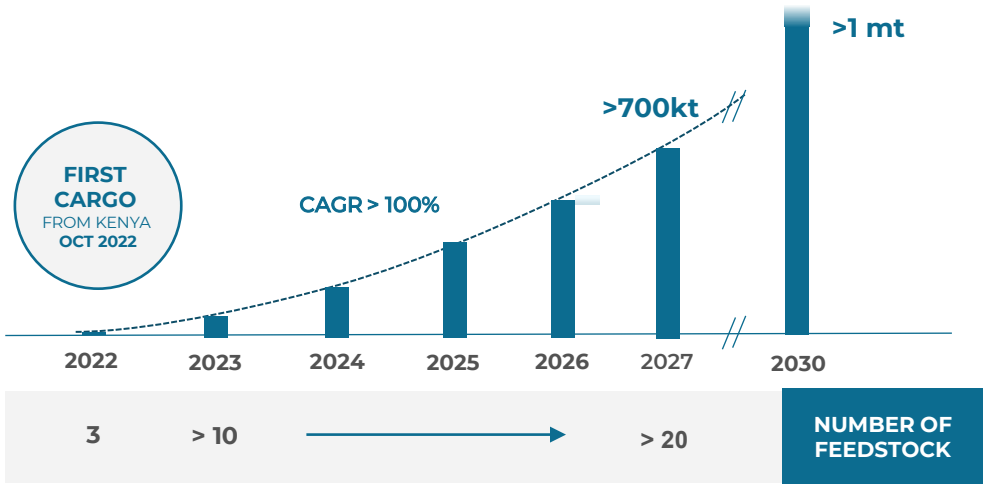
AGRI FEEDSTOCK VERTICAL INTEGRATION

DISTINGUISHING MODEL BASED ON AGRICULTURE AND RESIDUES VALORIZATION WITH WIDE AND DIVERSIFIED PORTFOLIO OF COUNTRIES AND FEEDSTOCK

KEY FEATURES

SECURITY OF SUPPLY	700kt+ in 2027, >1Mt in 2030
COMPETITIVE COST	20-30% saving vs market benchmark cost of feedstock in 2027
LOW CARBON FOOPRINT	Feedstock with low GHG profile, with target of carbon neutral/carbon negative
QUALITY	> 85% of total feedstock eligible for SAF production (EU RED III)

AGRI-FEEDSTOCK PRODUCTION



2027

PRODUCTION
> 1 million tons animal feed and fertilizers

FARMERS
~ 700 thousand families of farmers involved with opportunity for long term, stable additional revenues

CULTIVATED LAND
~ 1 million hectares regenerated and valorized

EU RED III
ANNEX IX REVISION UPSIDE

NEW

NON FOOD CROPS ON SEVERLY DEGRADED LANDS

NEW

INTERMEDIATE CROPS

EFFECTIVE CAPEX DISCIPLINE LEVERAGING ON MODEL FLEXIBILITY (AGRI HUB vs TOLLING)

AGRI-HUB UNIT DEVELOPMENT CAPITAL COST ~1 $M/kton (as of 2030)

-20-30% vs UCO/FEEDSTOCK FOR SAF ENCHMARK BY 2027

SAF OPTIONALITY: ACCELERATED TARGET

FOCUS ON HIGH-VALUE ADDED PRODUCTS OPTIONALITY IN A FLEXIBLE PRODUCTION SYSTEM

HVO DIESEL

HVOlution

Arctic diesel from 2024

Pure HVO already available in 640+ retail stations

Invested to improve cold properties to target other markets (e.g. Northern Europe)

Partnerships to target new or niche markets (e.g. ships, rail, diesel power gens, data centers)

TRENITALIA · ADR · FERCAM · arriva · AZIMUT BENETTI GROUP

HVO NAPHTHA

Integration with Versalis crackers and JV with international chemical partners

Gasoline blending optionality

Auto consumption optionality to improve product GHG saving

HVO-LPG

Gasoline blending optionality

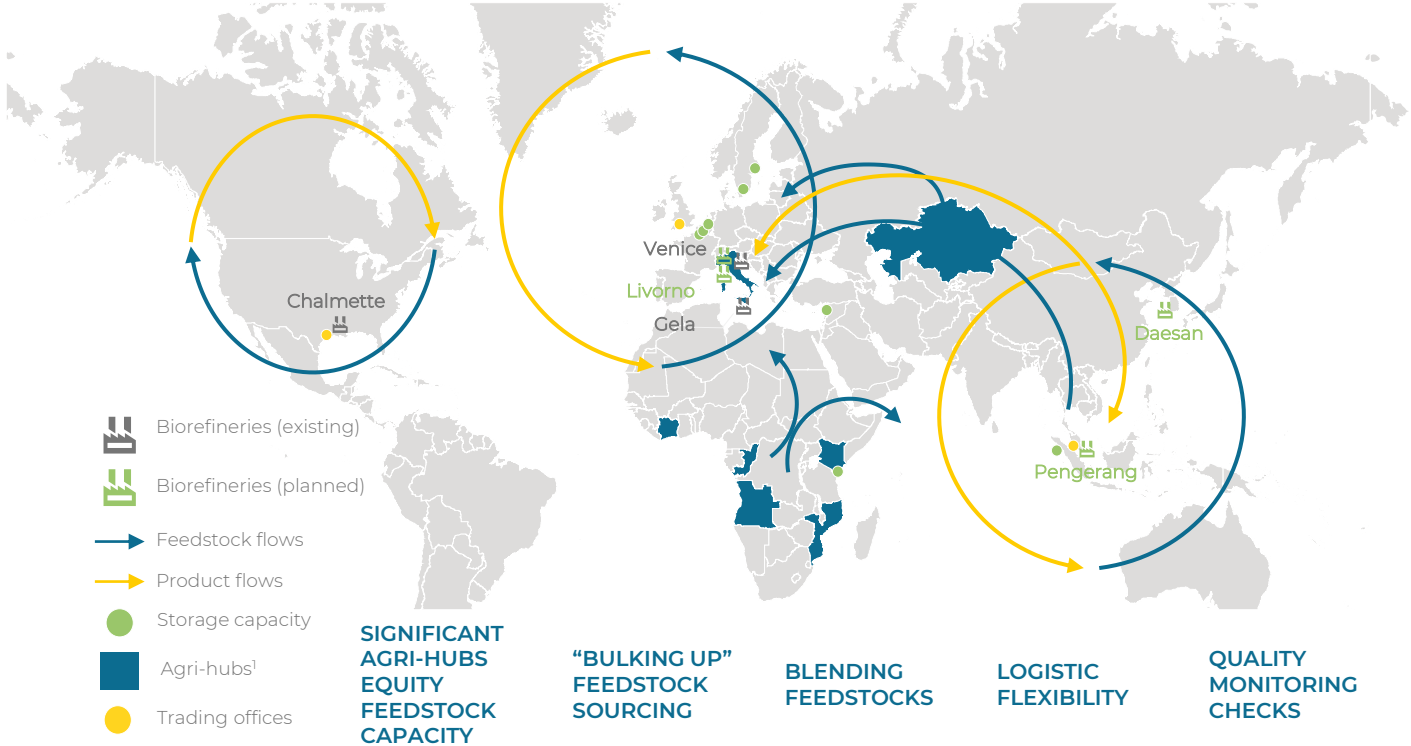
Auto consumption optionality to improve product GHG saving

SAF

MARKETING & TRADING

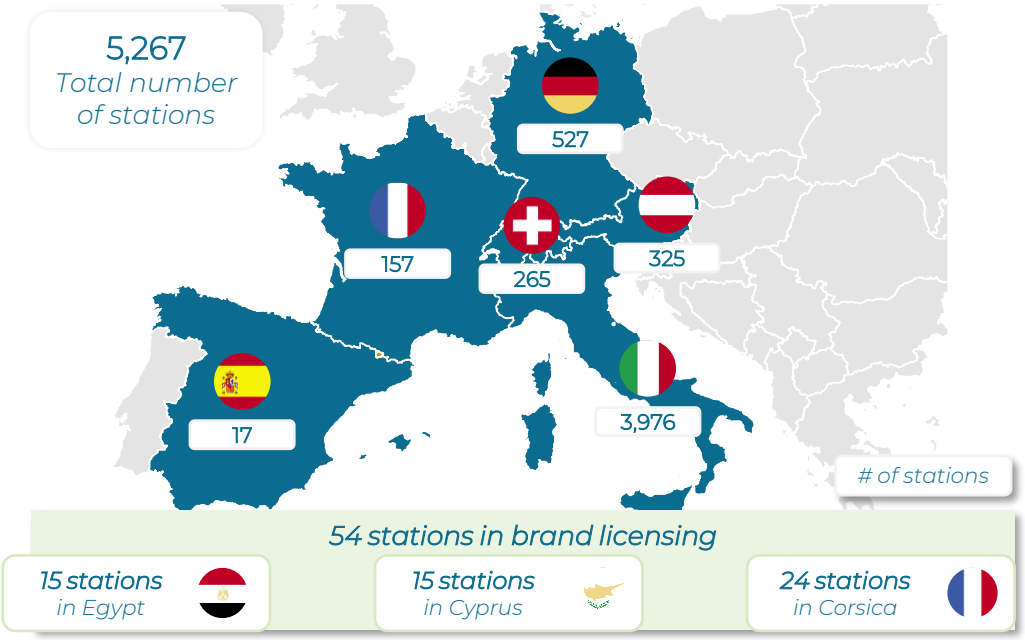
DOWNSTREAM INTEGRATION AND TRADING TO SUPPORT BIOFUELS

GLOBAL FOOTPRINT IN FEEDSTOCK SOURCING



SIGNIFICANT AGRI-HUBS EQUITY FEEDSTOCK CAPACITY	"BULKING UP" FEEDSTOCK SOURCING	BLENDING FEEDSTOCKS	LOGISTIC FLEXIBILITY	QUALITY MONITORING CHECKS
of 0.7mmt/y+ by 2026 and 1mmt/y+ by 2030	250+ suppliers with a total capacity beyond 7.0mmt/y+	of different qualities in tanks to optimize flows	achieved through tanks of different sizes and types	on feedstocks to support blending opportunities

ENILIVE STATION AS A GROWING HVO OUTLET*



PRODUCT	# OF STATIONS 2023	# OF STATIONS 2024	GEOGRAPHICAL PRESENCE
HVO	641	>1.000	

* Service stations figure as of year end 2023.

MARKETING STRATEGIC DRIVERS

FROM SERVICE STATIONS TO MOBILITY PLATFORMS

NETWORK EXPANSION & HIGH-GRADING

PREMIUM NETWORK +300 owned stations in Italy & abroad in 4YP

COMMERCIAL PARTNERSHIPS beyond EU to support biofuels offtake

REBRANDING

ALTERNATIVE ENERGY CARRIERS

HYDROGENATED VEGETABLE OIL (HVO) 100% PURE in >1.000 stations in 2024 (nearly doubled vs 2023)

CNG – LNG 185 sale points in 2027

EV CHARGING POINTS ~2.400 in 2027

SERVICES TO PEOPLE & MOBILITY

PEOPLE SERVICES: agreements with Amazon Lockers, Poste italiane and Telepass

MOBILITY: car sharing, Eni-Parking; Eni-Wash

DIRECT FOOD OFFER

ENICAFÈ 1.200 enhanced cafès by 2025

EMPORIUM ~200 additional shops in 4YP

ALT RESTAURANT 100 locations in 4YP

STRATEGIC INTEGRATION WITH MARKETING OFFERS BENEFITS AND CAPTIVE MARKET ALONG THE VALUE CHAIN

INCREASED OFFER OF SERVICES IN ENILIVE STATIONS TO SATISFY EVOLVING CUSTOMER NEEDS

NON-OIL EBIT ~ 40% OF TOTAL RETAIL BY 2027

BRINGING BRAND CLOSER TO CUSTOMERS

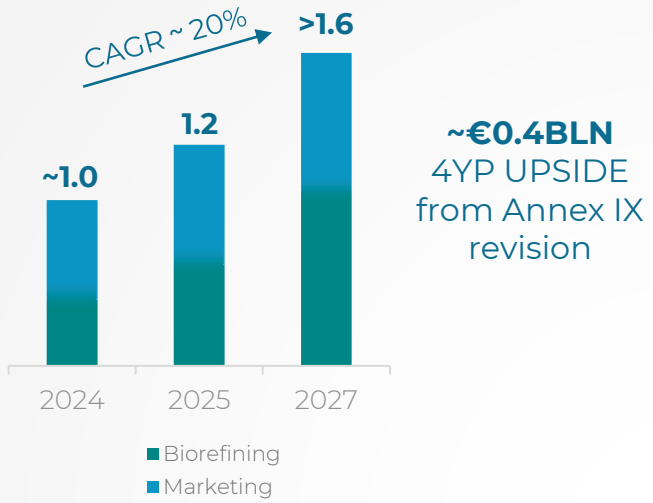
ROBUST MARKETING CASH FLOW FUNDS BIOCAPACITY GROWTH AND RETAIL DEVELOPMENTS

ENILIVE: FINANCIALS

ATTRACTIVE GROWTH WITH WELL-CONTROLLED COST PROFILE

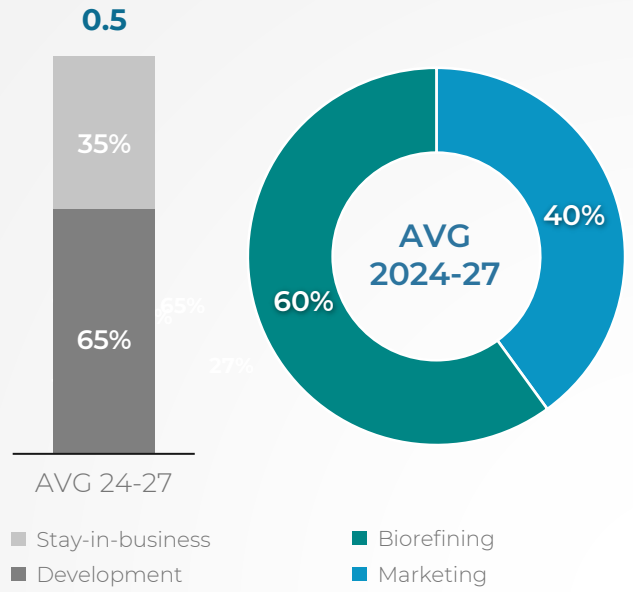
STRONG EBITDA INCREASE IN THE 4YP

PRO-FORMA EBITDA ADJ | BLN €



~€0.4BLN
4YP UPSIDE
from Annex IX
revision

ORGANIC CAPEX | BLN €



AVERAGE ROACE (2024-27) 15+%

MARKETING EBITDA
PROVIDING **STEADY CONTRIBUTION**

BIOREFINING EBITDA
UNDERPINNED BY CAPACITY GROWTH & THROUGHPUT INCREASE

CAPEX
TO BENEFIT FROM RETROFITTING, ECONOMY OF SCALE AND MATURING TECHNOLOGY

ORGANICALLY SELF-FUNDING
SELECTIVE M&A FITS WITHIN OVERALL GROWTH STRATEGY

ANNEX

BIOREFINERY PRODUCTS

A PREMIUM, SUSTAINABLE PORTFOLIO

BIOFUELS

HVO GPL
HVO NAPHTA
HVO DIESEL

BIOJET

HVOlution

HVOLUTION:
CHARACTERISTICS OF ENI'S HVO[1] MADE FROM OUR ECOFINING TECHNOLOGY

100% of renewable component

a mixture of stable non-hygroscopic paraffins & free of aromatics & polyaromatics (compounds with environmental impact)

Mixable with fossil diesel fuel in till 100%

Instead, max 7% allowed by EU standards for the traditional biodiesel (FAME[2])

Usable as a drop-in fuel

as it is compatible with existing engines & infrastructure (no extra investments required)

Excellent engine qualities of the product

due to the high cetane number & the absence of aromatics

BIOFUELS IN COMPARISON

HVO	FAME
High stability & total absence of deposits O_2 replaced by H_2	**High fouling power** formation of deposits due to presence of O_2
High energy content (+15% in terms of MJ/kg)	**Low energy content**
High cetane number & lower density	**Lower cetane number**
Usable in purity with no mixing limits	**Usable only if mixed** (7% blending wall)
Excellent cold weather performance (cloud point up to -30°C)	**Cold performance depending on raw materials used** (cloud point from -5 to +15°C)
Excellent oxidation stability	**Poor oxidation stability**
0% polyaromatics	
Sulphur ppm <1	

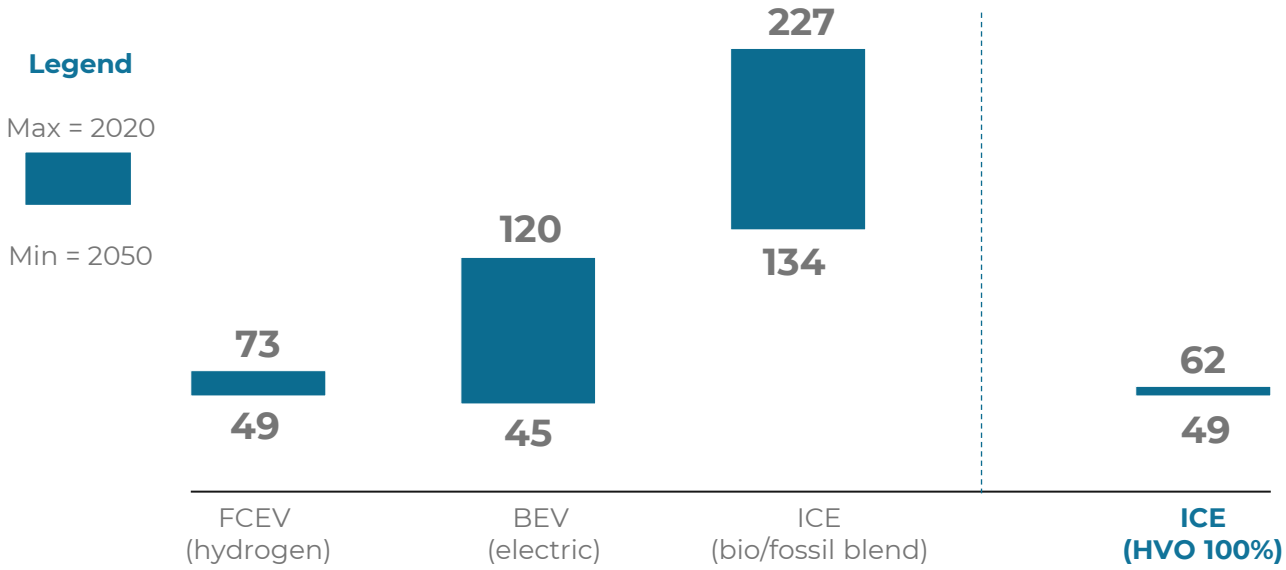
[1] Hydrotreated Vegetable Oil
[2] Fatty Acid Methyl Esters

EMISSIVITY

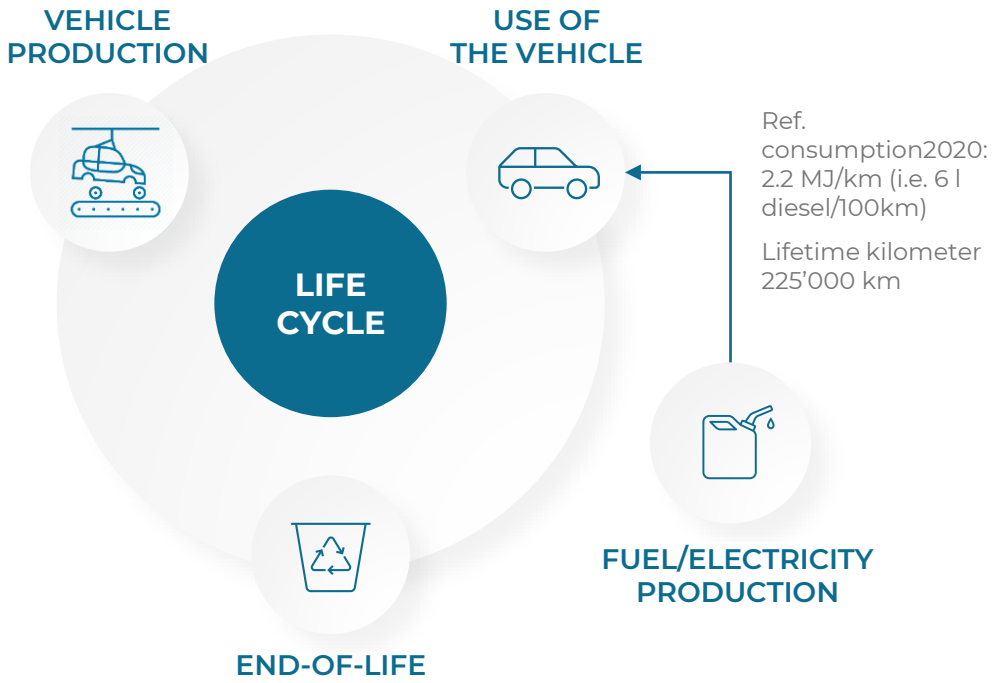
LIFE CYCLE ASSESSMENT (LCA)

The calculation of emissions over the entire life cycle shows that even in the long term, a 100% HVO vehicle is comparable to an electric or hydrogen car.

EMISSIONS
gCO_2e/km



MAIN EMISSION SOURCES IN LCA PERSPECTIVE



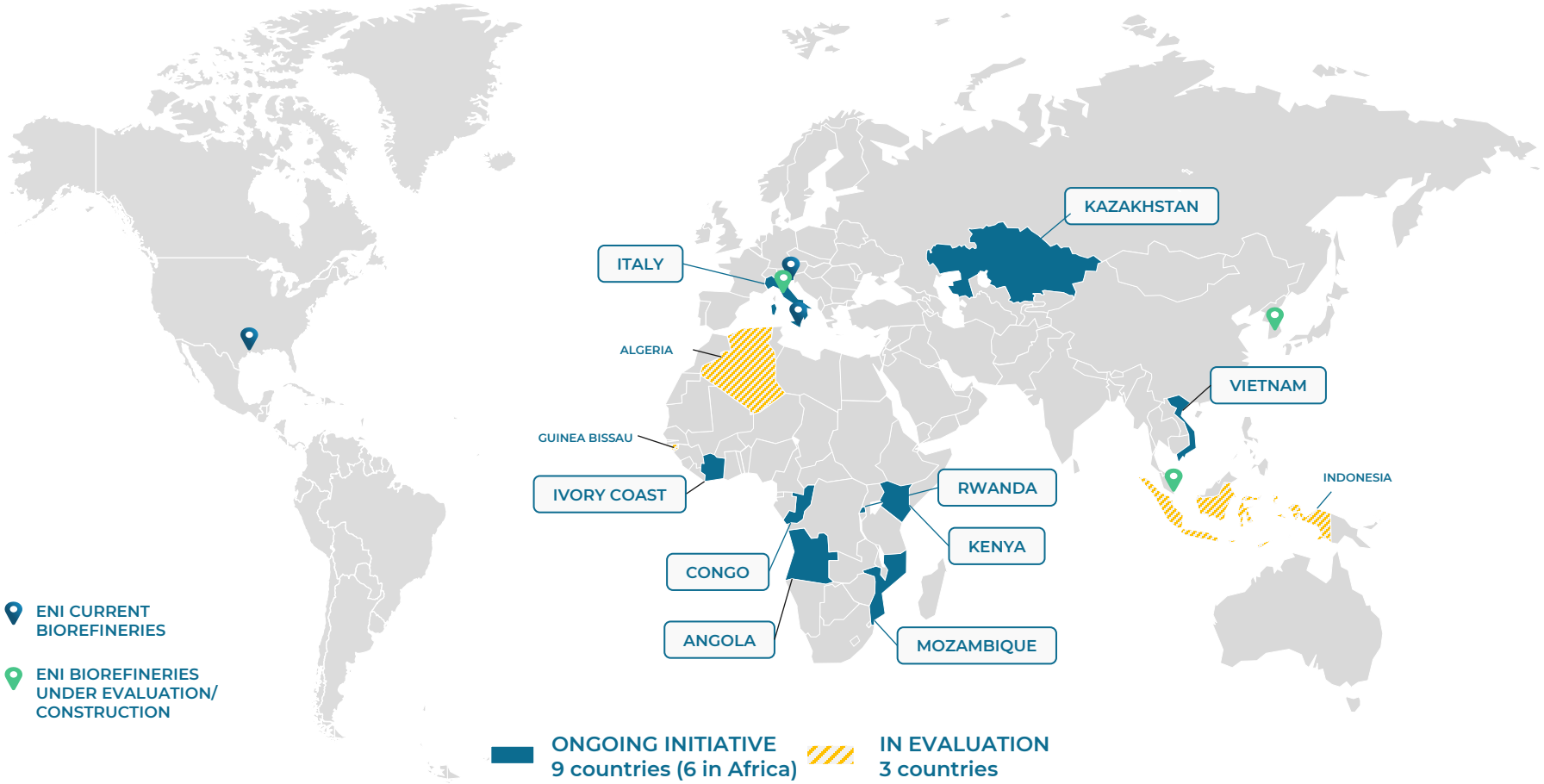
On the basis of the Ricardo study, the Commission stated that the ICE engine is more polluting than the BEV/FCEV engines; this evaluation assumes the use of a blend of fossil diesel and alternative fuels with low 'GHG savings'

Using the same evaluation framework as Ricardo, but considering an ICE car powered by 100% HVO the emissivity values would be in line§ with BEV / FCEV engines, both in the short and long term

SOURCE: Ricardo Energy&Environment, Determining the environmental impacts of conventional and alternatively fueled vehicles through LCA, Final Report for the European Commission, DG Climate Action (2020)
FCEV = Fuel Cell Engine Vehicle; BEV = Battery Electric Vehicle; ICE = Internal Combustion Engine.; LCA = Life Cycle Assessment; HVO estimate based on ENI's elaboration on Ricardo's data.

AGRI FEEDSTOCK INITIATIVES

GLOBAL PRESENCE WITH A DIVERSIFIED PORTFOLIO



SCOUTING
more than 10 geographies in Far East, East EU, Africa and Americas

AGRI FEEDSTOCK FIRST OIL

2022
Kenya

2023
Congo, Italy, Ivory Coast, Mozambique, Kazakhstan & Vietnam

MAIN SELECTION CRITERIAS

LEGACY COUNTRIES
Upstream presence

LAND AVAILABILITY
Degraded land, cover crops

AGRICULTURAL VOCATION
Agribusiness (large) and small farmers

AGRI RESIDUES AVAILABILITY
Agro-processing, forestry residues

BUSINESS ENVIRONMENT
Industrial fooprint and regulations

AGRI FEEDSTOCK UNIQUE MODEL

AGRICULTURAL PRODUCTION



SMALL FARMERS
Cultivation of non-food crops on degraded land (according to EU RED)

LARGE FARMERS
Cover and intermediate crops after cereal production

AGRO PROCESSING & AGRO-FORESTRY
Residues and food rejects

AGRICULTURAL SUPPLY CHAIN

Cultivation entrusted to farmers (access to land)

Cultivation without irrigation

Promotion of best agricultural practices and **carbon farming**

Access to market & socio-economic development in rural areas

Good agricultural practices and sustainable land management

AGRI HUB (OIL EXTRACTION PLANTS)

VEGETABLE OIL
Feedstock for bio refineries

BY PRODUCTS
Animal feed and fertilizers

INDUSTRIAL PLANTS

Industrial **flexibility**

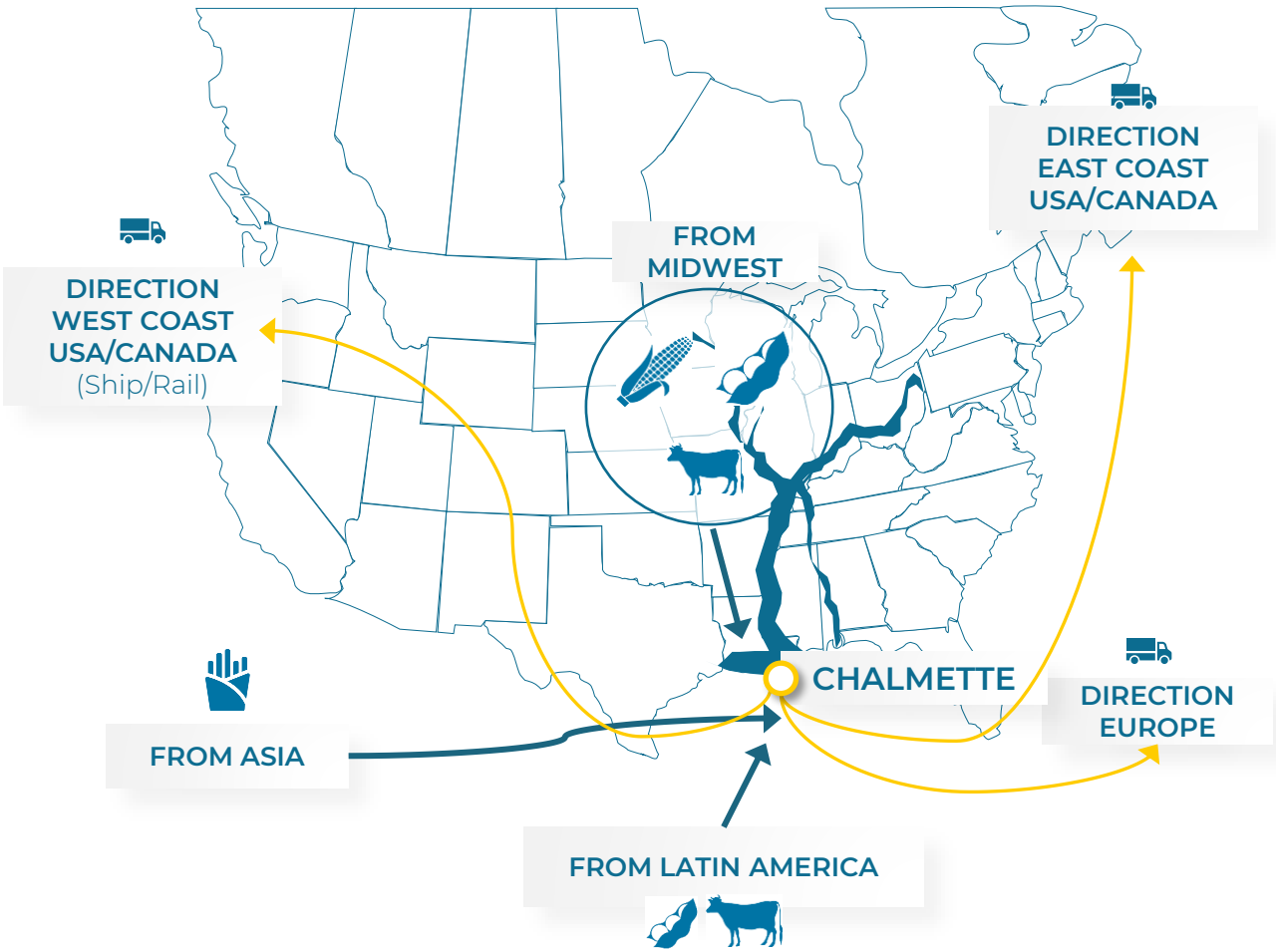
Food security with animal feed & fertilizer

Local content and transfer of **industrial know-how**

Capacity building targeting the best agricultural practice

THIRD PARTY EXTRACTION SERVICE (TOLLING)

CHALMETTE BIO-REFINERY



550 KTON/Y

Eni Capacity

RENEWABLE FUEL PRODUCTION & PRE-TREATMENT UNITS

Respectively based on Ecofining™ & Desmet-Ballestra technology

PRODUCTS

HVOs (Diesel, Naphtha, LPG)
SAF (under evaluation)

JV - WORKING INTEREST 50%

STRATEGIC HIGHLIGHTS

Strategically located on Mississippi river close to Gulf of Mexico

Wide range of optionality both for feedstock supply & products marketing

Strong partnership with PBF

Platform for possible future joint initiatives in North America