

MUBADALA
CAPITAL

The path to
decarbonizing
aviation



acelen
renewables

Brazil is an agricultural powerhouse, with a unique competitive advantage for feedstock production



1

Land

140 million hectares of degraded land

2

Water

High precipitation levels
Extensive aquifers, including world's two largest

3

Solar Incidence

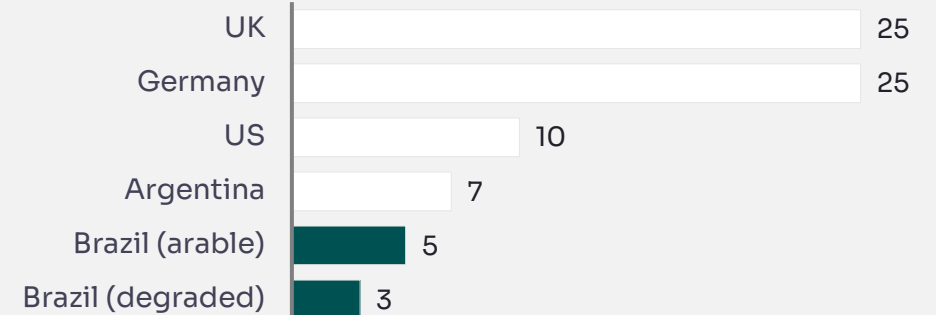
Balanced solar incidence and low-variance temperature

4

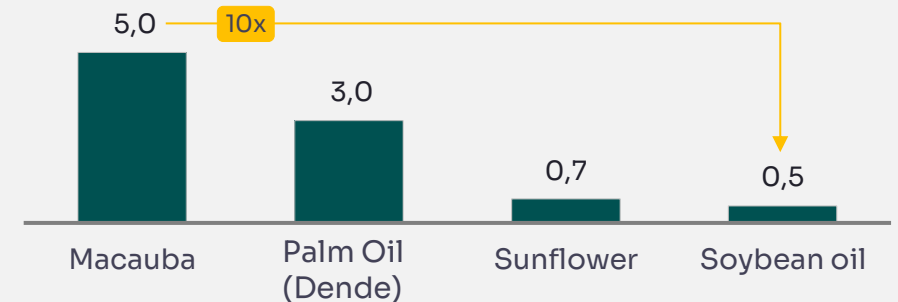
Availability of native high yielding crops

Native Macaúba is 10x more productive than soybean

LAND PRICES (\$K/HECTARE)



YIELD PER CROP (TONS OF OIL PER HECTARE)



The world's 1st fully integrated solution from Macauba seed to SAF

+US\$
3B For the 1st
integrated unit

Genetic material



Macauba, a Brazilian
native high-yielding
species

Farming



100% Degraded land
Northeast of Brazil

Crushing



No waste fruit and kernel
to be crushed to extract
vegetable oil

Hydrotreating



Vegetable oil to be
processed in HEFA¹ and
converted into SAF

SAF Distribution



US and EU

SAF PRODUCED (BPD)

1ST UNIT

20k

5 UNITS
(SCALED PROJECT)

100k

PLANTED AREA (ha)

180k

~1.0m

JOBS CREATED

90k

450k

CAPEX

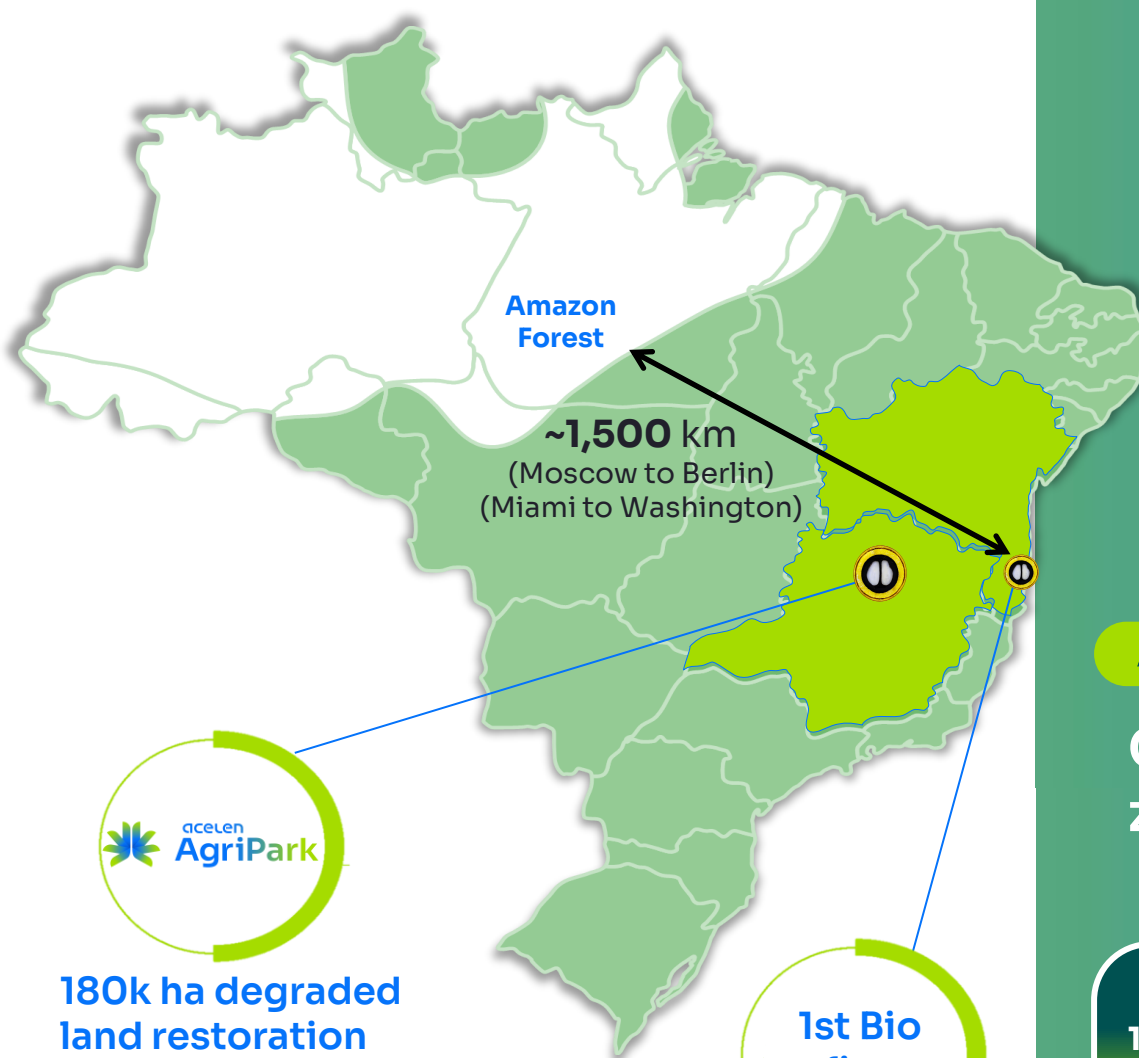
\$3.0bn

\$15.0bn²

¹ HEFA unit hydrotreatment is a process that uses hydrogen to refine vegetable oils, fats, or waste oils into sustainable aviation fuel (SAF)

² To be potentially reduced with gains of scale

Potential to yield carbon negative SAF...



180k ha degraded land restoration divided into 5 hubs

1st Bio refinery

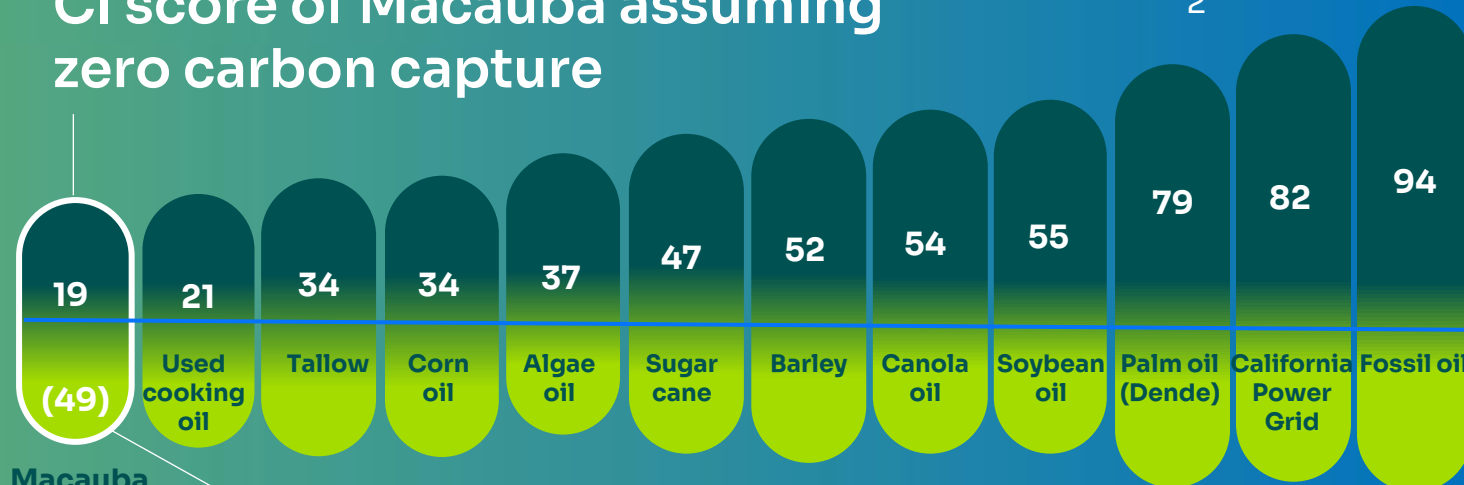
1B liters
Annual production of renewable fuels

Farm areas in the states of Bahia and Minas Gerais

Average CI score per crop for SAF/HVO production²

CI score of Macauba assuming zero carbon capture

(gCO₂ eq/MJ)



Macauba on degraded land³

CI score of Macauba considering carbon capture for a period of 20 years

... and be the lowest cost producer...



SAF PRODUCTION COST FOR PROJECTS ACROSS THE GLOBE (100 BASIS)

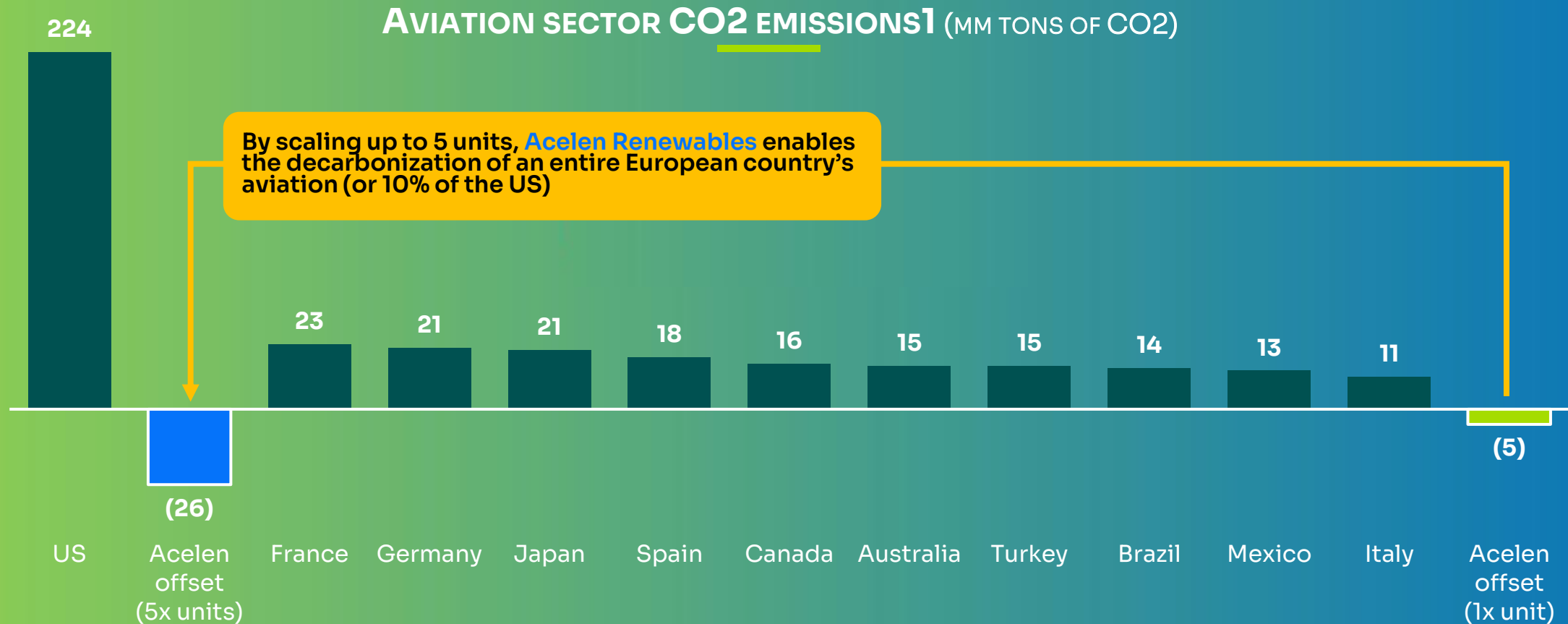
Acelen Renewables non-integrated
(1st year using only soybean oil)



Note: SAF projects as of 2022.

...with a big difference in climate change

Macauba is not only viable, but scalable, allowing our project to actually make a difference in the fight against climate change



Source: OECD, 2022 data

¹ Emissions are calculated on a territorial basis (UNFCCC guidelines), that is, for international flights only departures are considered

Acelen Renewables **progressing rapidly in all fronts**



Completion the basic engineering of the biorefinery and **negotiating packages and contracts**



Advanced construction of the Acelen Renewables R&D Seedling and Genetic improvement facility: **agro-industrial technological center** in Montes Claros/MG – **AgriPark, to be inaugurated in Jul/25**



The nursery was installed in Mucugê/BA to **cultivate seedlings from the initial plantations**



Planting of Macauba in degraded land, in the first farm acquired, in Cachoeira /BA



Structuring and launching of the **family farming program** – **Acelen Valoriza**



Significative advances in R&D partnerships and **innovation**



Macauba **pathway petition submitted to EPA**



Ongoing engagements to **ensure Macauba acceptance** as a **promissing feedstock** and **secure certification elegibility**

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With Support from:



In sum, **Acelen Renewables'** project is:



The **recovery** of Brazil's degraded land



By **transparently and responsibly**
domesticating a **highly-productive** native
species



From which the fruits are **processed** in the **proven HEFA
technology** to make net-negative **drop-in SAF**



Securing **unique traceability seed-to-fuel**



At the **lowest cash cost** in the **world**



2028 – HEFA plant start-up with 3rd party feedstocks
2029 – First Macauba oil

The new era of
renewable fuels

STARTS NOW

acelen
renewables
Fueling the Future

 @acelenrenovaveis

 Acelen_Renovaveis

