

LanzaTech

Transforming Carbon. Making Products.

Where does your carbon come from?

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Additional risks related to LanzaTech's business include, but are not limited to: the Company has not yet deployed its technology at scale in commercial deployments; the long bidding and sales cycle in the industry; the success of the project incorporating the Company's systems, governmental regulation; environmental regulation; most of the Company's sales pipeline is not in the form of definitive agreements; the Company's ability to negotiate and enter into definitive agreements on favorable terms, if at all; construction delays; potential defects in the Company's systems; whether in the design, manufacturing or assembly or otherwise; the impact of competing technologies; intellectual property-related claims; ability to expand operations internationally; ability to attract and retain qualified personnel; ability to continue to source materials and components locally; ability of the Company's systems to provide favorable economic benefits to customers as compared to competing technologies; and the continued demand for renewable energy.

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LanzaTech Captures Carbon and Transforms it into Sustainable Products



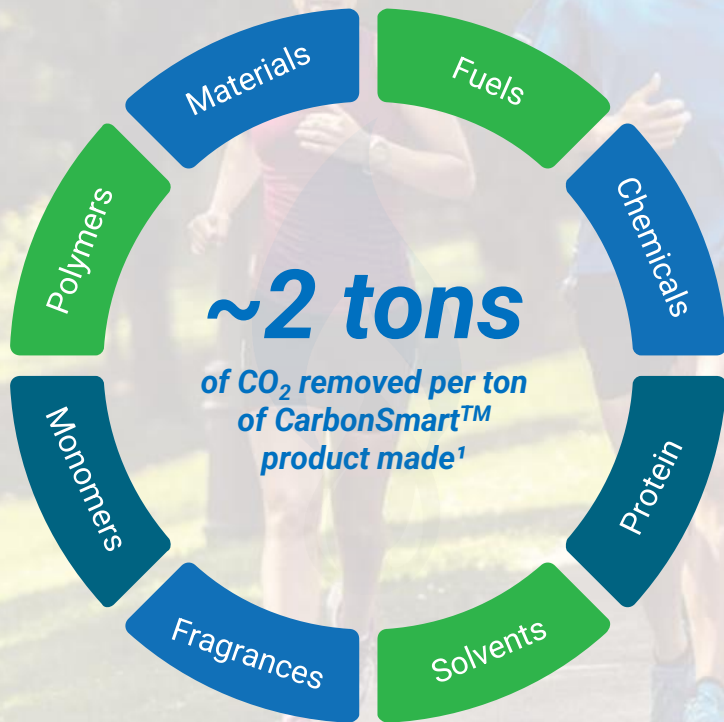
From waste . . .





... to products

Being CarbonSmart™



In a CarbonSmart™ world, carbon waste is transformed to nearly everything we use in our daily lives

LanzaTech generates profitable ROIs for partners, accelerating adoption of CarbonSmart™

Products with CarbonSmart™

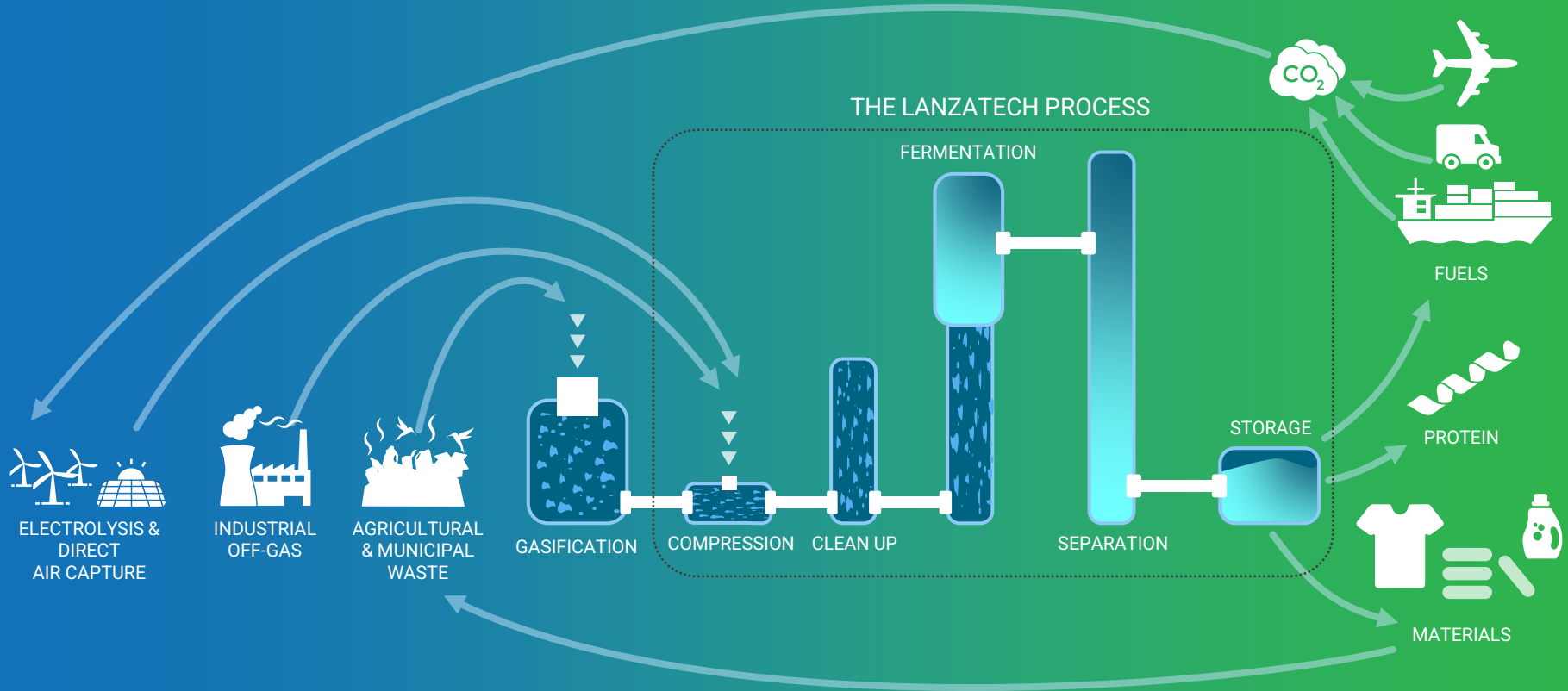


\$1T Addressable Market²

Potential for **>1 billion** tons/year of product from waste feedstocks

¹ LanzaTech management; ² Per Grand View Research (2019), Allied Market Research (2018), The Business Research Company (2019), Technavio (2019), Fortune Business Insights (2019) and Knowledge Sourcing Intelligence (2020).

LanzaTech's Unique Transformation Process



1

Market Opportunity



Proven Technology at the Nexus of Two Mandated Markets

LanzaTech



mitsubishi & co.



IndianOil



SHOUGANG



SUNCOR
ENERGY



ArcelorMittal



L'ORÉAL
Paris



COTY

Givaudan



lululemon



ZARA



Beiersdorf



mibelle



DANONE
ONE PLANET. ONE HEALTH.



virgin atlantic



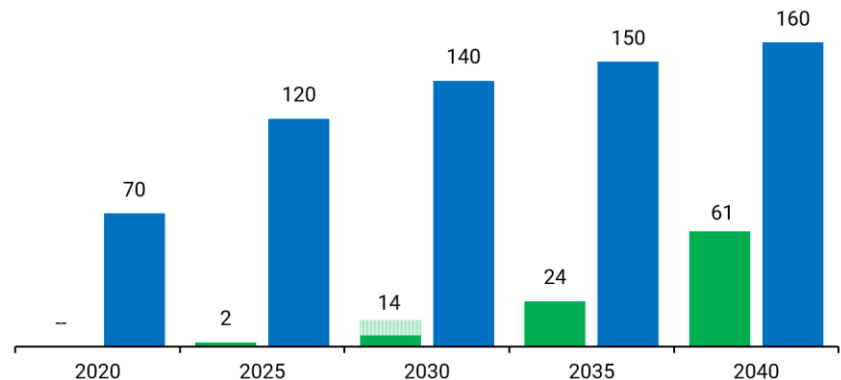
ANA

¹ Climate Watch, The World Resources Institute, Global Change Data Lab; data as of 2016. ² Per Grand View Research (2019), Allied Market Research (2018), The Business Research Company (2019), Technavio (2019), Fortune Business Insights (2019) and Knowledge Sourcing Intelligence (2020).

Sustainable Aviation Fuels Market Opportunity

"SAFs are the only viable near-term option to decrease emissions in the aviation sector, as they are compatible with current aircraft engines and fueling infrastructure and can power flights with no distance limits" (McKinsey & Company)¹

Mandated Global Jet Fuel Demand (billion gallons per year)



■ Expected SAF Mandate² ■ Expected Additional SAF Demand³ ■ Jet Fuel Demand⁴

In order to reach expected 2030 SAF demand, global SAF capacity must achieve an 87% CAGR

SAF Market Demand Drivers

Coalition



Notable Companies Represented



Select SAF Corporate Commitments

SAF Target

10% by 2030

30% by 2030

30% by 2035

Companies Committed



¹ McKinsey & Company, Critical insights on the path to a net-zero aviation sector. ² 2020 and 2025 numbers from the International Air Transport Association. 2030, 2035 and 2040 numbers are assumed as 10%, 20% and 30% of global jet fuel demand, respectively. ³ World Economic Forum, Clean Skies for Tomorrow 2030 Ambition Statement ⁴ World Economic Forum, Clean Skies for Tomorrow Insight Report

LanzaTech Provides a Profitable Pathway to Solving Heavy Industries' Carbon Problem

Addressing industrial carbon emissions while preserving trillions of dollars of existing infrastructure

~25% global greenhouse gas emissions are from heavy industries¹

Among CCT solutions, LanzaTech is ready now and cost effective

	Profitable to CO ₂ Emitter	Ability to Use Existing Infrastructure	Carbon Captured / Avoided	Commercially Available
LanzaTech	✓✓✓	✓✓✓	✓✓✓	✓✓✓
Purchase Offsets	×	✓✓✓	×	✓✓✓
Pay Penalties	×	✓✓✓	×	✓✓✓
Sequester	×	✓✓	✓✓✓	✓
Future Technologies	?	?	✓✓✓	×

Source: LanzaTech management, ¹Climate Watch, The World Resource Institute, Global Change Data Lab; data as of 2016

Global Fortune 500 Partners Deploying LanzaTech's Technology

Key Partners

~\$850mm invested by world class partners into plants deploying LanzaTech's technology, resulting in expected product capacity of ~700,000 mtpa (230 million gallons/year)



LT



Construction on 1st project in Belgium near complete; Plans for deployment of LanzaTech technology globally



3 commercially operating plants; Additional plants under construction



LT



Commercial project investor, including in SGLT plants, and offtaker

BASF

LT

Strategic partner for new LanzaTech chemicals

SEKISUI

LT



Building LanzaTech's first commercial MSW conversion facility, currently in plant startup commissioning; plans for deployment across Japan



LT



Active technology and project development partner



LT



Building first refinery off-gas plant; plans for broad deployment



LT



Partner for chemicals commercialization and deployment



LanzaTech Investor



LanzaJet Investor



Commercial Plant Partner

Source: LanzaTech management

LanzaTech's Network of Trusted Investors and Partners Range from Industrial Emitters to Aviation Companies and Consumer Brands

Over \$500M Raised from World Class Investors



"We have worked with LanzaTech for several years, know their leadership team well and understand the potential of their technology and the role it can play in not only helping us to decarbonize, but also in producing valuable products from our carbon bearing gases which can help the decarbonization of other sectors. Extending our relationship through this investment was therefore a natural next step and we are very pleased to now have an excellent CCU technology company within our XCarb™ innovation fund portfolio."

Pinakin Chaubal, **ArcelorMittal**
Chief Technology Officer


ArcelorMittal

"The integration of LanzaTech's gas fermentation technology into BASF's Verbund enables us to take an important step towards a carbon-neutral circular economy."

Dr. Detlef Kratz, **BASF**
President R&D at BASF


BASF

"The LanzaTech process is important because this fuel takes waste, carbon-rich gases from industrial factories and gives them a second life – so that new fossil fuels don't have to be taken out of the ground. This flight is a huge step forward in making this new technology a mainstream reality."

Sir Richard Branson, **Virgin Atlantic**
Founder of Virgin Group, following the first commercial flight using SAF from steel mill emissions


virgin atlantic

"We are capturing emissions before they pollute our atmosphere and are at the same time moving away from fossil-based materials."

Caspar Coppetti, **On**
Co-Founder and Executive Co-Chairman


on

Source: Bloomberg, company filings

2

Company and Technology Overview



LanzaTech Leadership

Who We Are



Jennifer Holmgren
CEO & Director



Geoff Trukenbrod
CFO



Joseph Blasko
General Counsel



Steven Stanley
Chief Commercial Officer



Julie Zarraga
EVP, Engineering



Carl Wolf
Chief Operating Officer



Freya Burton
Chief Sustainability Officer



Zara Summers
VP, Science



Michael Koepke
VP, Synthetic Biology



Johanna Haggstrom
VP, Chemicals & HydrocarbonTech



Rob Conrado
VP, Engineering Design and Development



Jimmy Samartzis
CEO, LanzaJet

Our DNA



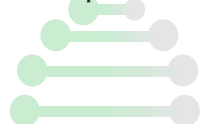
Process Integration & Commercialization



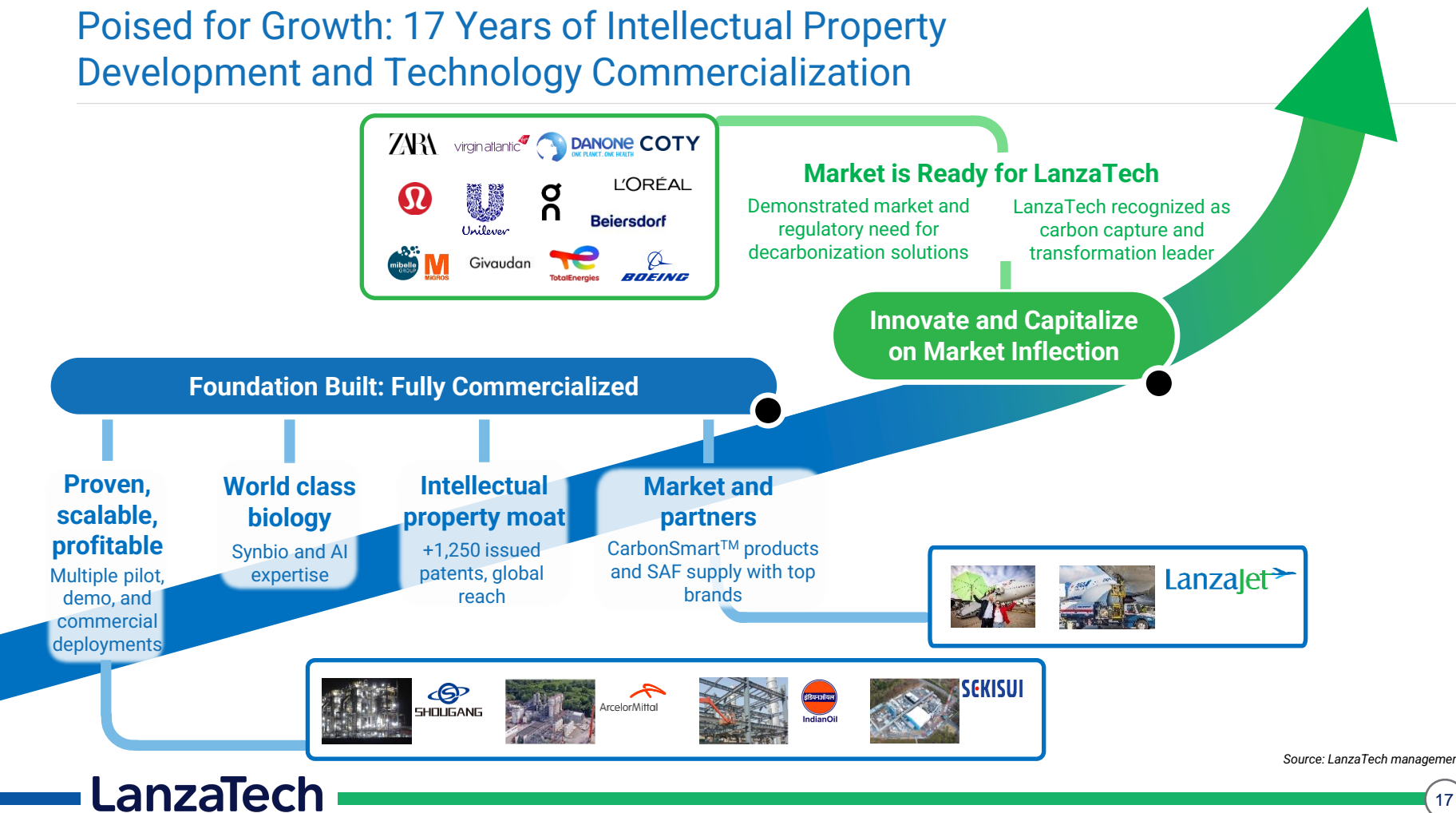
Refining, Aviation & Biotech



150+ years Management Experience

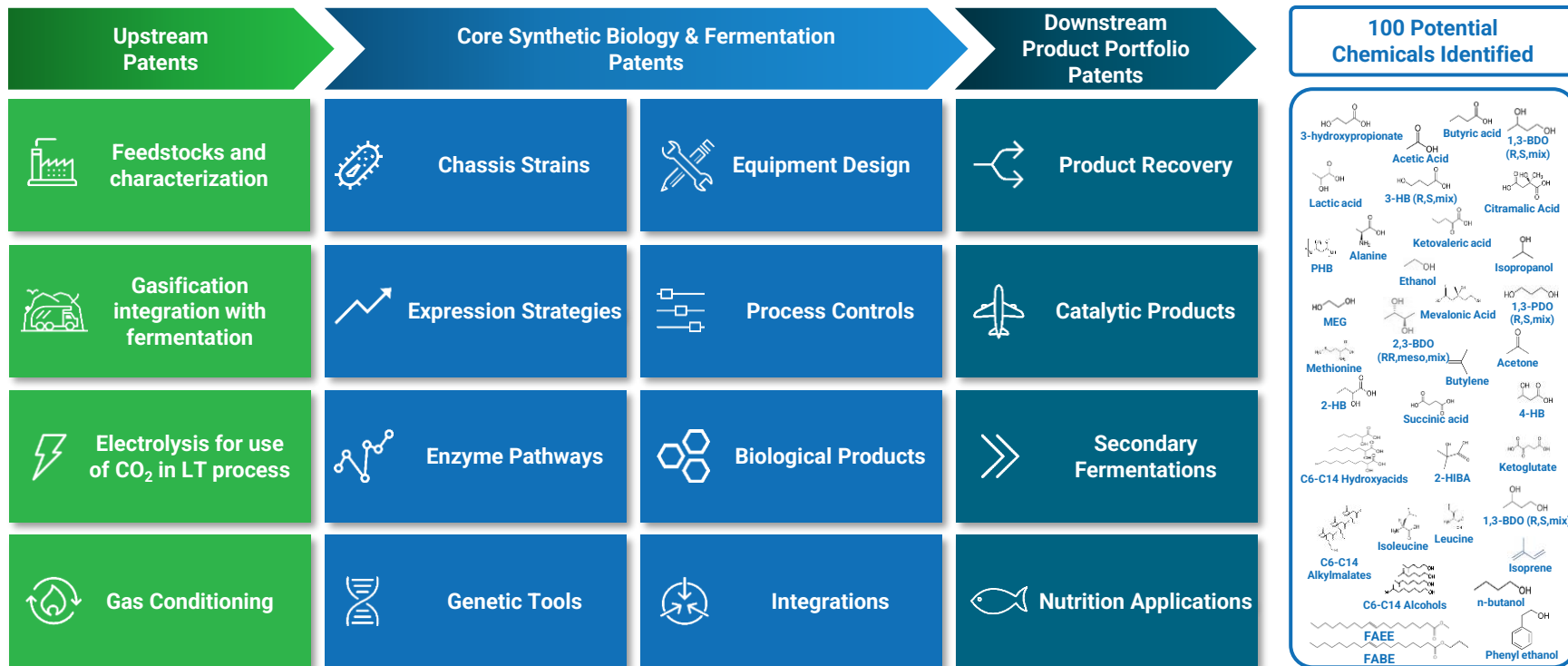


Poised for Growth: 17 Years of Intellectual Property Development and Technology Commercialization



Source: LanzaTech management

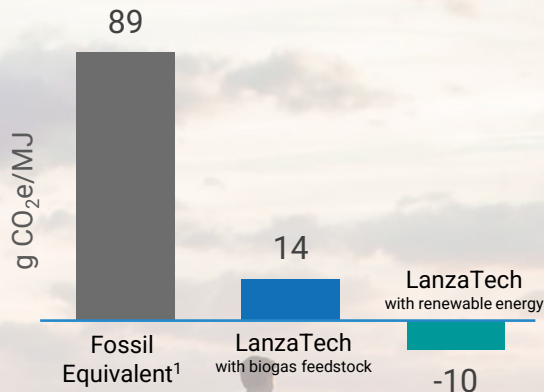
Broad Technology Platform with Patent Protection Forms Competitive Moat



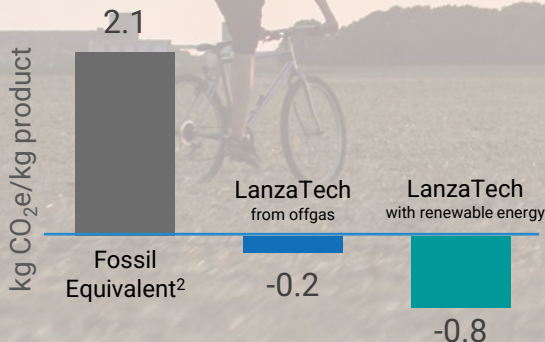
LanzaTech has over 1,250 patents granted worldwide with over 575 pending

LanzaTech Offers Carbon Negative Products Today With Inevitable Improvement Over Time

Sustainable Aviation Fuel With LanzaJet Process



Monoethylene glycol (MEG) As a chemical intermediate



Renewable Energy

Further reduces carbon intensity of LanzaTech process and products

Carbon Negative Feedstocks

Enable increasingly negative product carbon intensity

Net Zero Economy

Enabled by LanzaTech products

LanzaJet: The Leading SAF Platform

LanzaJet Overview



SAF from
Carbon
Emissions



Patented
Process and
ASTM
Approved



Complementary
Technology to
LanzaTech



LanzaTech
Ownership 25%,
Path to Majority
through IP
Contribution



U.S. DEPARTMENT OF
ENERGY

Office of ENERGY EFFICIENCY
& RENEWABLE ENERGY

BIOENERGY TECHNOLOGIES OFFICE

LanzaTech

Key Investors

BRITISH AIRWAYS 



MITSUI & CO.



SUNCOR
ENERGY 

Carbon Emissions to Sustainable Aviation Fuels

Abundant, Waste-based
Feedstock

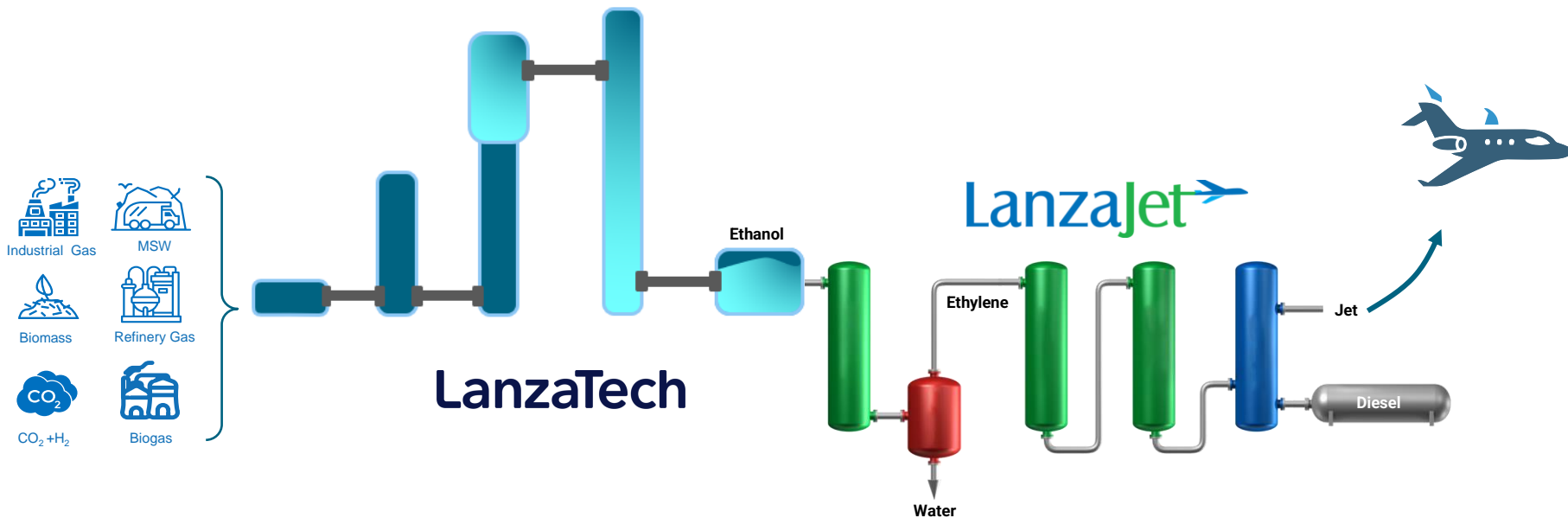


Low Cost Process



Competitive Waste-to-SAF Solution

With opportunity to utilize
existing ethanol supply today



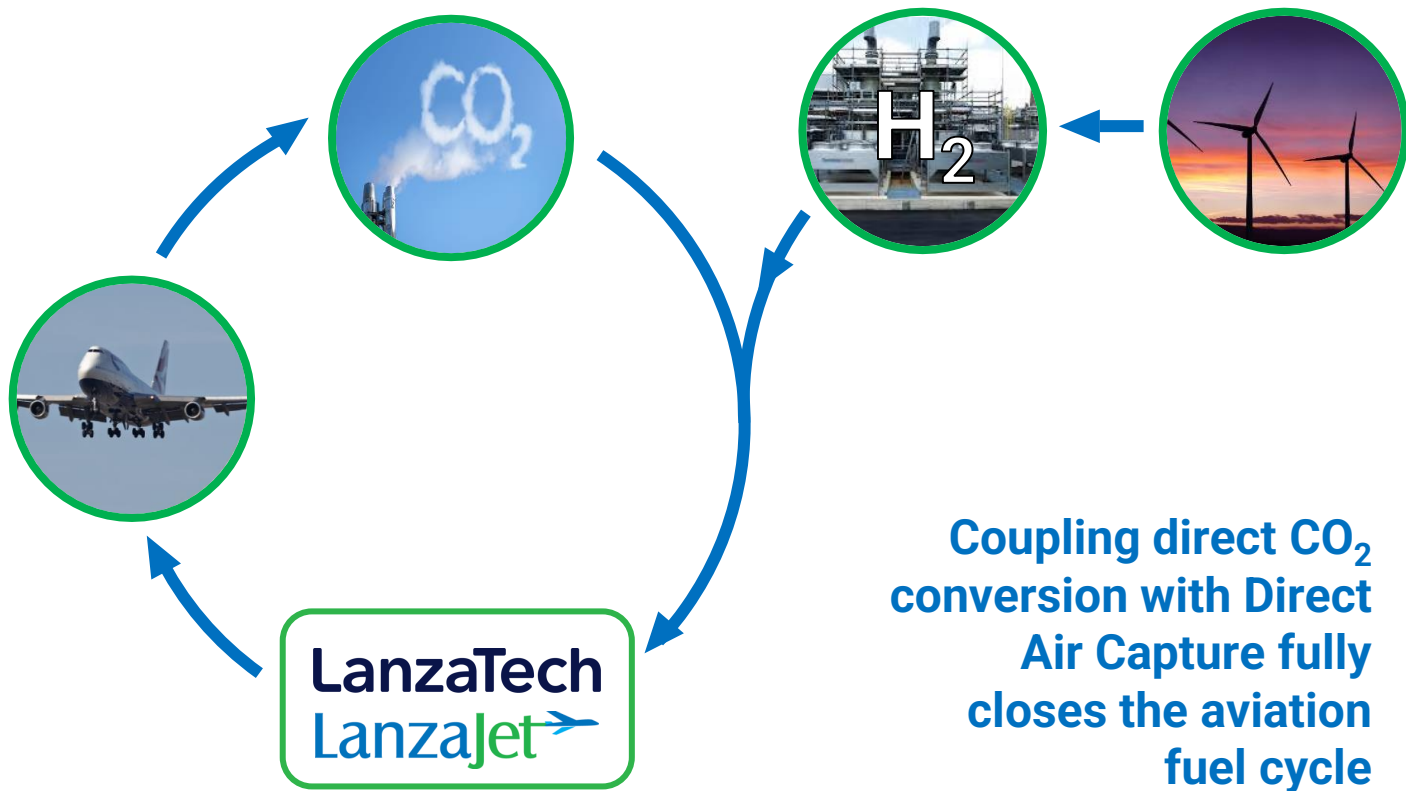
Source: LanzaTech management

Direct Conversion of CO₂

Net Zero Aviation

requires closing the emissions cycle

Direct conversion of CO₂ to SAF is possible today



SAF Competitive Landscape

SAF Key Competitors

NESTE

VELOCYS

Fulcrum
BIOENERGY

gevo

LanzaTech

+

LanzaJet

Significant competitive
advantages from joint process

Lowest Cost
Process¹

Direct CO₂
Feedstock Use

High Potential Jet
Yield (90%)²

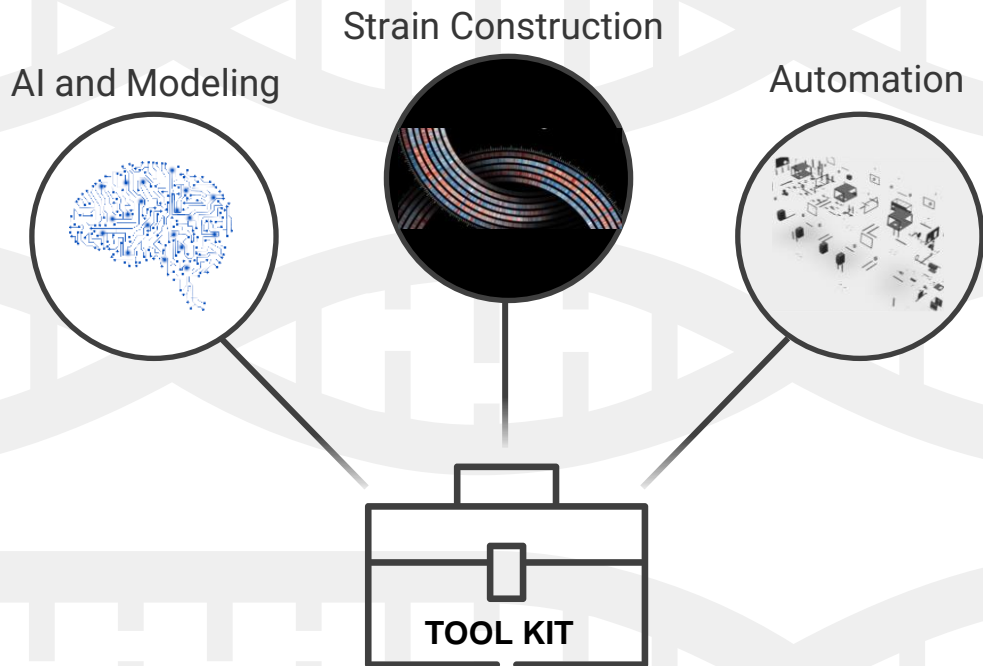
Abundant Low-
cost Feedstocks

Non-food Based

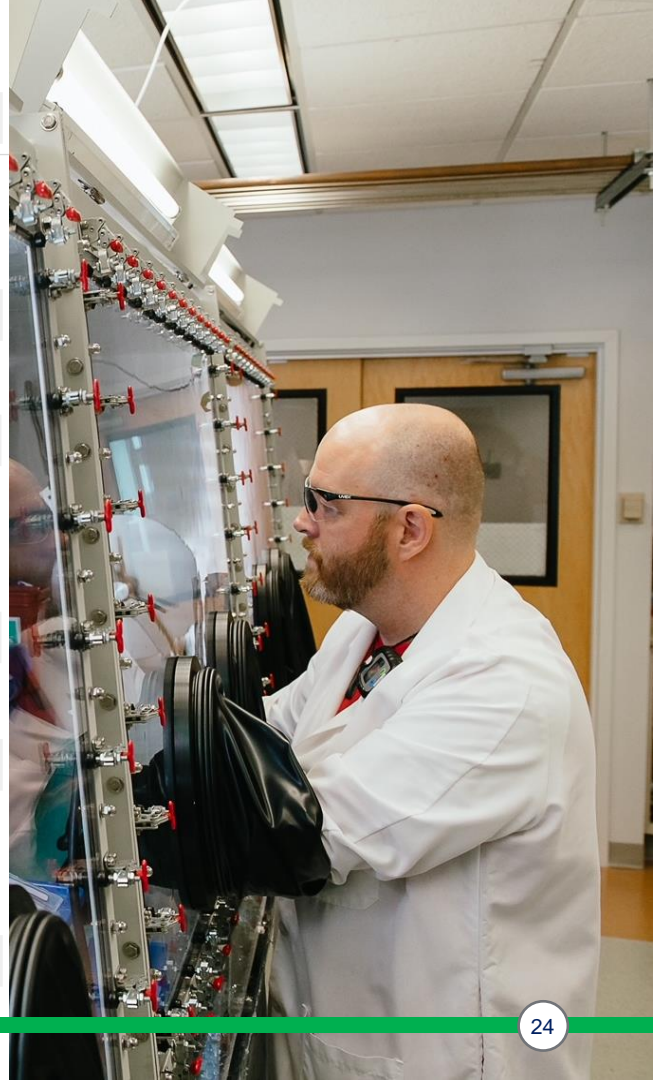
Multiple Global
Plants in
Development

¹ As compared to Gasification + Fischer-Tropsch and hydro-processed esters and fatty acids (HEFA) ² Source: LanzaTech Management

Synthetic Biology: LanzaTech's Toolkit to Redefine the Chemicals Industry









LanzaTech is the first to unlock anaerobic microbes as chassis organisms and has a complete toolkit in house to engineer new products



Leading Synbio Company Transforming Waste to Products

LanzaTech's Differentiated Platform Allows it to Use Multiple Non-Food Feedstocks

	Product Identification	Microbe Design	Commercial Operations	Feedstock Capability
LanzaTech	✓	✓	✓	
novozymes 	✓	✓	✓	
amyris	✓	✓	✓	
 GINKGO BIOWORKS™ THE ORGANISM COMPANY	✓	✓	✓ ¹	



Why LanzaTech

1

Differentiated End-to-End Capability

2

Enables Expansion to Sustainable Materials Using Already-Sourced Carbon

3

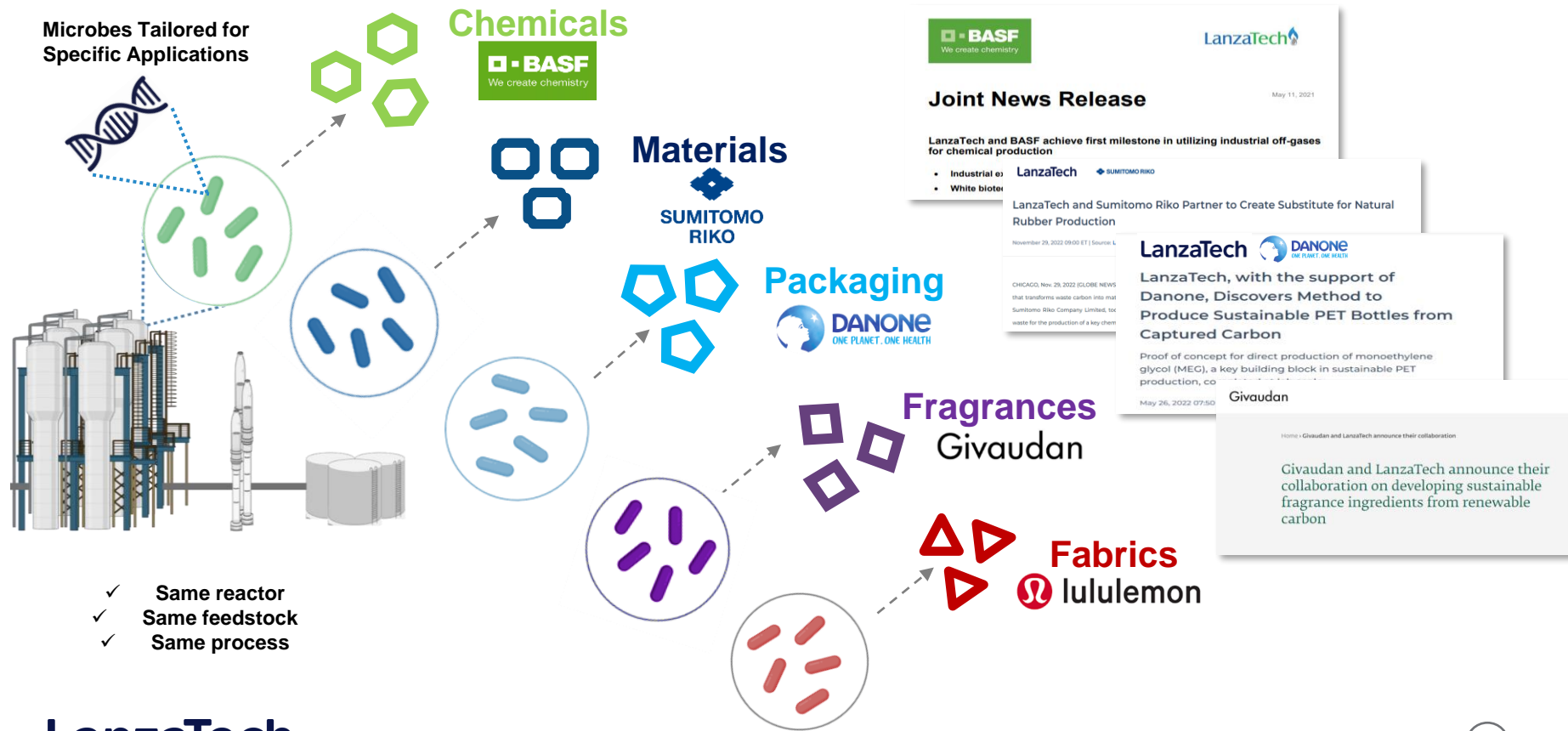
Compatible With Installed Commercial Gas Fermentation Infrastructure

4

Successful, At-Scale Piloting of First Key Molecules Complete with Hundreds Under Development

Source: LanzaTech management, Capital IQ, Bloomberg; ¹Via their ownership / relationship with Genomatica.

Providing SynBio Solutions To Industry Leaders Across Different Sectors



LanzaTech SynBio Platform at the Cutting Edge Across Multiple Capabilities & Processes

World's First Anaerobic Biofoundry

Fully Automated Engineering & Screening of Thousands of Anaerobic Gas Fermentation Strains



Advanced AI & Modeling

Fully-Integrated Predictive Metabolic & Process Models



Rapid In Vitro Prototyping Platform

Predictive & Low-Cost, Cell-Free Prototyping of Enzymes & Pathway Designs



World-Class Partnerships

Partnerships with Leading Synthetic Biology Institutions Across Globe



3

Growth Opportunity



LanzaTech CCT Plant Deployment Status

3 Commercial Plants Operating, 6 Plants Scheduled to Complete Construction or Commissioning in 2023, and 8 Additional Plants in Engineering

Operating



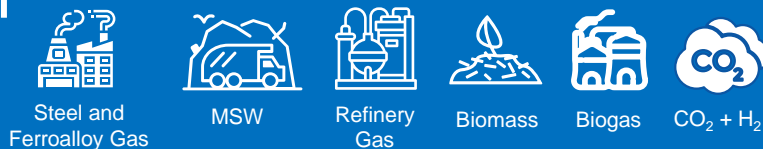
Construction



Engineering



Feedstocks Represented



Regions Represented



Partner Investment

~\$850 million

Estimated Total Installed Capacity¹

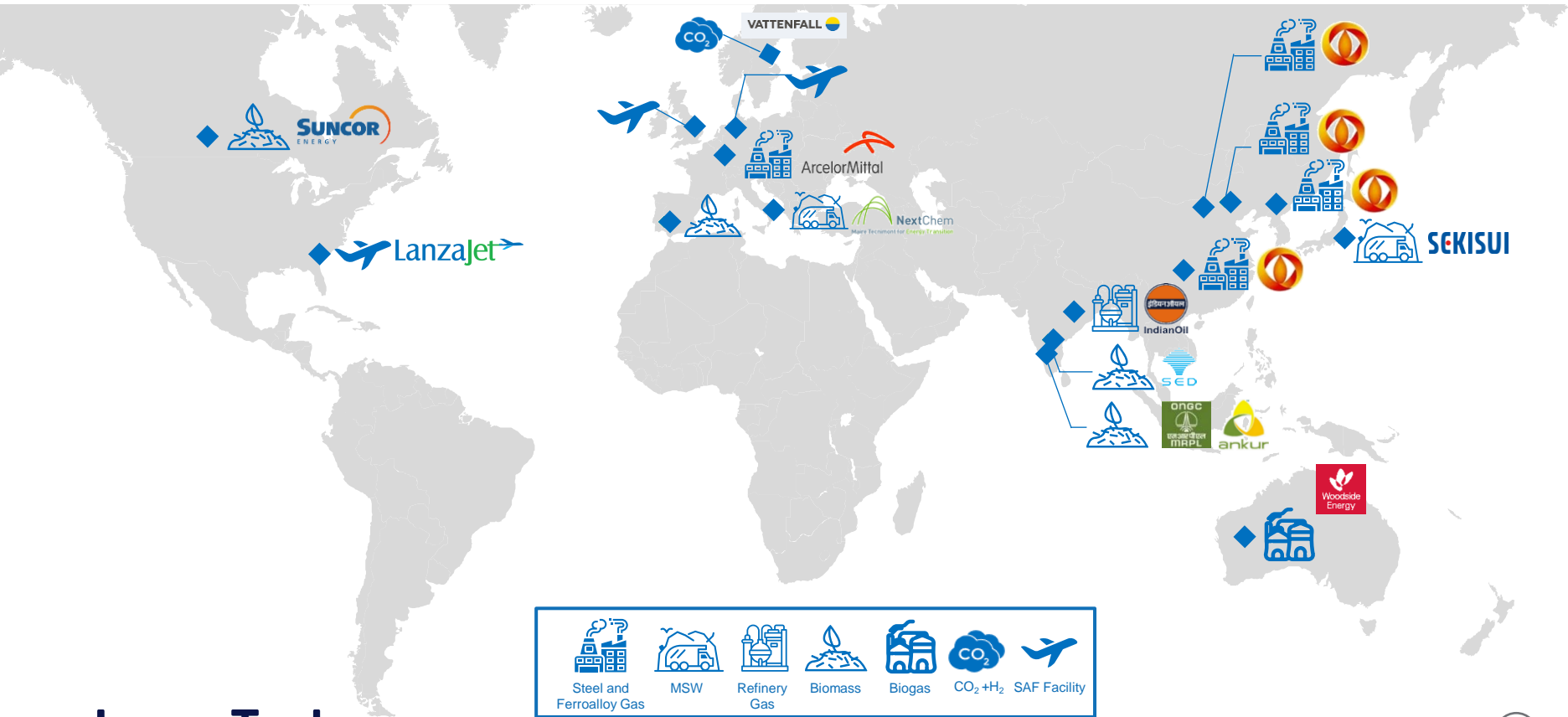
~700,000 mtpa (230 million gpy)

Anticipated Carbon Captured Annually¹

~1,000,000 tonnes

Source: LanzaTech management. ¹ Represents capacity and carbon captured by all plants above.

Global Impact



Brookfield Partnership to Drive CCT Scale-Up and Catalyze Project Deployment within LanzaTech Co-Development Strategy

- Brookfield Framework Agreement **unlocks sophisticated infrastructure capital** to invest in projects and **further validates the LanzaTech technology platform**
- **Capital-light solution** providing much-needed supply for the **massive, immediate, and rapidly growing demand** from CarbonSmart™ and SAF customers

1,500k MT

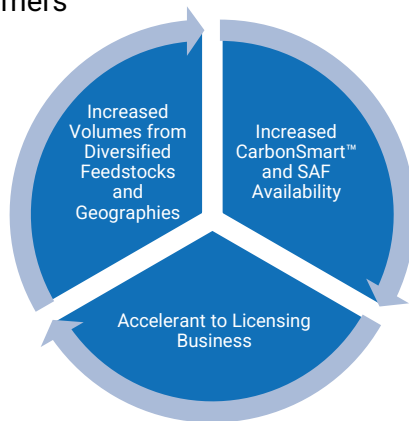
(~500 million gallons)

Potential supply for SAF and CarbonSmart™ materials from these projects¹

5,000k MT

(~1.8 billion gallons)

Massive Demand Opportunity from LanzaJet alone by 2030



- In select identified opportunities, LanzaTech plans to deploy capital directly into projects (~\$85mm total, **representing ~5% of total capital required for those projects**)

Brookfield Partnership Revolutionizes LanzaTech Co-Development Strategy

+\$500mm

Equity commitment to invest in CCT projects meeting pre-agreed milestones; LanzaTech participates in project upside

Drives Revenue

LanzaTech receives its one-time and recurring project-related revenue

Brookfield

Broad Scope

Global focus enables broad deployment of CCT technology

50% Offtake

LanzaTech eligible to take up to 50% of the offtake

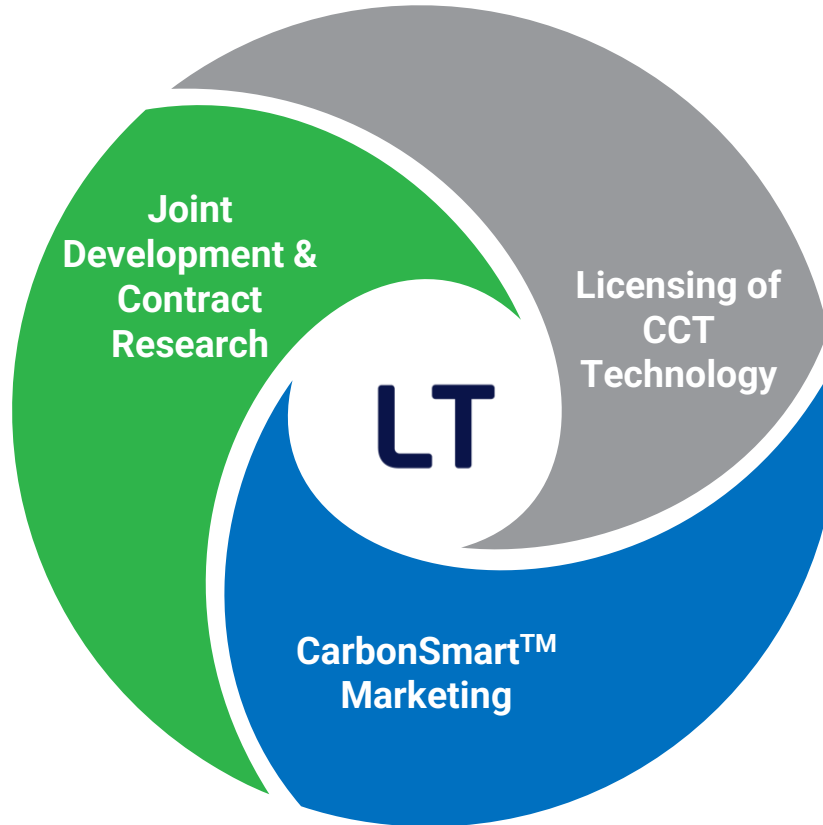
Source: LanzaTech management, ¹ Named and unnamed project opportunities across projects developed with Brookfield and sponsored projects

Business Model

Integrated and Complementary Business Model

Joint Development & Contract Research

- Leverages LanzaTech's synthetic biology, AI, and machine learning expertise to develop new products
- Expands addressable product markets and drives demand for CCT facilities
- Facilitates LanzaTech's continued investment in disruptive synthetic biology platform



Licensing of CCT Technology

- Combination of one-time and recurring revenues to deploy LanzaTech carbon capture and transformation (CCT) plants
 - One-time revenues - equipment, engineering and startup services
 - Recurring revenues - royalties, microbes and media sales, and software licensing

CarbonSmart™ Marketing

- Offtake from CCT plants to supply brands with sustainable products
- Upgrade products with conversion partners into a huge variety of drop in polymers, materials, and fuels

Key Operational Highlights



Clear track record

of successfully deploying patented carbon capture and transformation (CCT) technology driving revenue growth in a massive global TAM supported by macro tailwinds

CCT market leader

built on the foundation of a world class synthetic biology platform delivering value at each stage of technology deployment, and providing **recurring revenues**

Capital-light, licensing model

with potential to generate attractive returns

Profitable plant-level economics

expected to drive technology deployment and accelerate growth

Attractive entry valuation

enabling opportunity to invest in a first of a kind CarbonTech company with a goal to decarbonize heavy industry, aviation, and consumer supply chains





LanzaTech

