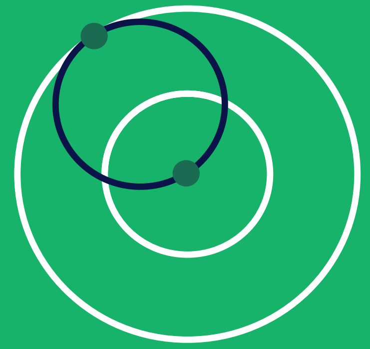
2021

# Annual Report



LanzaTech

# Contents


| | |
|---|---|
| 2021 in Brief | 3 |
| Letter From the CEO | 4 |
| Safety | 8 |
| Key Events in 2021 | 9 |
| Strategy | 14 |
| Innovation | 16 |
| Businesses | 18 |
| CarbonSmart Products | 21 |
| Sustainable Aviation | 23 |
| Sustainability | 24 |
| Diversity, Equity & Inclusion | 26 |
| Board of Directors | 28 |
| Scientific Advisory Board | 30 |
| LanzaTech Leadership | 31 |
| Financial Performance | 33 |
| Financial Outlook | 34 |

This annual report contains forward-looking statements. All statements, other than statements of historical fact, included in this annual report are forward-looking statements reflecting management's current beliefs and expectations. In some cases, you can identify forward-looking statements by terminology such as "will," "anticipate," "expect," "believe," "intend" and "should" or the negative of these terms or other comparable terminology. Forward-looking statements in this annual report include, but are not limited to, statements about the initiation, timing, progress and results of our construction projects; the anticipated benefits of our biocatalysts relative to existing alternatives; the commercialization of our technology; the implementation of our business model, strategic plans for our business; the scope of protection we are able to establish and maintain for intellectual property rights covering our technology; our estimated available market opportunity; our ability to maintain and establish collaborations; our financial performance; developments relating to our competitors and our industry; and statements regarding our markets, including the estimated size and anticipated growth in those markets. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Except as required by law, we assume no obligation to update these forward-looking statements, even if new information becomes available in the future.

# 2021
## In Brief

LanzaTech sees a future in which our everyday products are made from recycled carbon.

**This year, our vision became a reality.**

Launched CarbonSmart podcast

1,000 Patents Granted

Started-up our second commercial facility

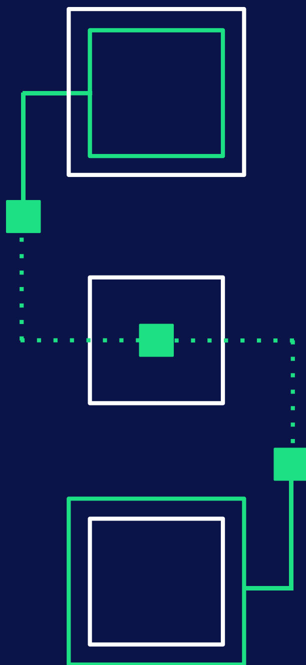
5 CarbonSmart™ products in stores globally

2021

# A Transformative Year

*A letter from our CEO, Jennifer Holmgren*

Looking back, 2021 was a transformative year for both LanzaTech and our global partners. It was a year in which we acknowledged and started to get comfortable with our new normal. We learned to be intentional with our time – both personally and professionally. We came together as a community – albeit while staying apart – to address the urgent challenges brought on by the global pandemic and our changing climate.



As I write this letter, we as a society are preparing to enter the third year of the global pandemic. Around the globe, we see companies reengaging with consumers with a new sense of purpose. Recovery, resilience, and a belief that humans must be the catalyst for change, are helping create a new carbon paradigm – enabled by companies like LanzaTech.

We have a simple goal: to challenge and change the way the world uses carbon, to enable a new circular carbon economy where carbon is reused rather than wasted, where skies and oceans are kept clean, and where pollution becomes a thing of the past. The result will be a post pollution future.

## A Post Pollution Future

Transforming our carbon economy requires a paradigm shift. By working with partners, LanzaTech has developed a multifaceted waste conversion technology that can take any source of waste carbon and turn it into ethanol. We think of ethanol as a building block to make everything we use in our daily lives; things that today are made from virgin fossil inputs. Because of this, the new products we helped launch in 2021 not only demonstrate a pathway to reducing greenhouse gas emissions, but also a path to creating supply chains where fossil resources can stay in the ground.

## Be Safe

Safety is our top priority and is integral to all aspects of our business. In 2021, we continued to implement additional COVID-19 safety protocols in alignment with regional and national guidelines that allowed us to keep operating "business-as-usual" in all of LanzaTech's locations. Our commitment to safety is apparent in our 2021 data - we reported zero COVID-19 workplace transmissions, zero injury-related downtime, and continued incident-free facility shut-downs and start-ups. We are also proud of our teammates' commitment to taking care of each other: we recorded a 93% COVID-19 vaccination rate amongst global LanzaTech employees.

## Second Commercial Plant

Our second commercial facility, in partnership with Beijing Shougang LanzaTech New Energy Technology Co., Ltd., began operating in China's Ningxia Province in April of this year. This facility converts ferroalloy emissions to ethanol, and abated around 13,000 MT of $CO_2$ throughout the course of 2021. I am proud of our team and global partners for accomplishing this feat despite the challenging logistics.

## Living Our Values

Our employee-led initiatives continued to grow in 2021. Blend, LanzaTech's Diversity, Equity, and Inclusion (DEI) group, hosted several virtual events throughout the year, including panel discussions and fundraisers along with awareness campaigns throughout our global operations. We achieved gender parity in 3 of our science teams, and continue efforts to promote equity throughout all of our teams.

Our Green Group, a sub-committee of the Environmental, Health & Safety (EH&S) Committee, published LanzaTech's first sustainability report, which took an in-depth look at the environmental footprint of our own operations.

## CarbonSmart Podcast

CarbonSmart, LanzaTech's flagship podcast, welcomed a range of guests and thought leaders from around the world to discuss the state of our planet, innovation, social justice, and how policy and industry can bend the carbon curve. The unique format – in which guests ask the questions – has been extremely well received since it first came on the air in March 2021.

CarbonSmart is a provocative daisy-chain conversation where the guests ask the questions.

## Sustainable Fashion

In 2021, we debuted CarbonSmart™ apparel with partners Lululemon and Zara.

Zara's limited edition Capsule Collection made from carbon emissions was sold online globally, just in time for the winter holidays. To produce this clothing, ethanol from steel mill emissions was converted to monoethylene glycol (MEG) by India Glycols Limited (IGL) and then converted to PET and polyester yarn by Far Eastern New Century (FENC).

We also announced a partnership with On and Borealis, to make EVA foam from carbon emissions for On's CleanCloud™ running shoes. On is a Swiss sporting goods company that delivers industry-disrupting innovation in premium footwear, apparel, and accessories. Borealis is one of the world's leading providers of advanced and circular polyolefin solutions and a European market leader in base chemicals and the mechanical recycling of plastics.

## Sustainable Fragrances

This year, we announced a partnership with Coty to create an entire fragrance line formulated from sustainable CarbonSmart ethanol made from carbon emissions. We also worked with BASF to produce n-octanol at laboratory scale; n-octanol can be used as a base in food flavoring and other fragrances and is an important raw material in the manufacturing of many consumer products.

## Sustainable Packaging

In 2021, we saw how we could not only make the products found inside a bottle, but also use our technology to produce the bottle itself.

We worked with Mibelle and Migros to create the world's first PET bottle from captured carbon emissions that would otherwise have been released into the atmosphere as greenhouse gases.

In 2020, Mibelle launched a number of liquid cleaning products in the Migros supermarket chain containing LanzaTech CarbonSmart ethanol. In 2021, Mibelle then introduced carbon recycled bottles for a number of their products, including cleaners and cosmetics. These bottles contain up to 30% PET produced from $CO_2$ (with Mass Balance), replacing virgin PET typically obtained from fossil inputs. We think about it as CarbonSmart inside and out!

# Welcome to the Post Pollution Future

## Milestones Reached

Innovation lies at the core of sustainable economic growth, job creation, and is key to solving some of our world's most significant challenges. Patents are designed to encourage this ongoing discovery and innovation. In 2021, we secured our 1,000th patent.

For a company that was established just over a decade ago, securing 1,000 patents is a notable achievement and speaks to the disruptive nature of our technology. Each patent contributes to a platform enabling the use of feedstocks, including local waste resources, to produce a large variety of sustainable fuels, chemicals, and products. This is a critical consideration as countries begin their own energy transitions. This achievement highlights the ingenuity of our team in tackling the problem of how to bend the carbon curve.

## Sustainable Aviation

The aviation industry faces incredible challenges in producing the volumes of sustainable aviation fuel (SAF) needed to satisfy government mandates. In 2021, together with LanzaJet, a company which we founded and spun out in 2020, we advanced several projects designed to support meeting the industry's 10% SAF target by 2030. With our inherent feedstock flexibility that includes the potential to use carbon dioxide and fossil-free power, we have an opportunity to help the aviation industry meet its commitment to Net Zero.

At the invitation of The White House, we participated in the Biden Administration's Climate Change Summit on sustainable aviation fuel, and were appointed to the U.K. Government's Jet Zero Council and Jet Zero Council working groups. We continue to support His Royal Highness, The Prince of Wales' Sustainable Market Initiative, and were proud to be featured in a documentary on his new channel, RE: TV.

We know we need to rapidly expand production capacity to help the aviation industry meet its carbon neutral goals – LanzaJet has publicly announced its ambition to produce 1 billion gallons of SAF by the end of the decade. With the partnerships announced in 2021, we are confident that they will get it done.

## Medical Devices

In 2021, we announced our partnership with carbon transformation company, Twelve, to investigate pathways to transform carbon dioxide into polypropylene. To pursue this partnership, Twelve and LanzaTech received a grant from Impact Squared, a $1.1 million fund that was designed and launched by Barclays and Unreasonable, a catalytic platform for entrepreneurs tackling some of the world's most pressing challenges. The potential of replacing all the world's fossil polypropylene with $CO_2$-derived polypropylene could reduce carbon emissions by an estimated 700 million metric tons per year.[1] Together we will help the health care industry eliminate emissions by finding novel ways to produce a wide range of commonly used medical devices and products including syringes and IV bags.

[1] https://cen.acs.org/environment/greenhouse-gases/LanzaTech-Twelve- make-polypropylene/99/i33

## On the Road to Awesome

In our company, we have many unsung heroes. Every single team member is valued and works with a strong sense of purpose.

It is affirming and appreciated when others recognize the work we are doing together, and this past year we were fortunate enough to be on the receiving end of much recognition, including:

- Overall Winner, Independent Commodity Intelligence Services (ICIS)
- Best Process Innovation Winner, ICIS
- Edison Award - Science Game Changer
- Innovation Award for Renewable Material of the Year, Renewable Materials Conference
- The FIRE Award, ChicagoINNO
- Most Innovative CEO, IL Bioeconomista
- Prix Voltaire International
- AWIS Chicago Scientist of the Month awarded to Shivani Garg
- AWIS Chicago Innovator Award awarded to Mary Pavan

## If you want us to do something, just tell us we can't.

There is no doubt 2021 was full of challenges for many, both personally and professionally. Yet throughout, the LanzaTech team proved its resiliency by staying focused and working collaboratively to fulfill our mission.

I am proud to lead a team that continues to be driven by the passionate determination to create a post pollution future.

Today, our team works with greater urgency, because time is no longer a luxury in the race to help companies find climate solutions. For the past several years, I have told our team that I believe the day will come where everything we use will come from recycled carbon. This year, we showed the world what is possible — that waste carbon can be converted into the products we wear, the products we use to clean our clothes and our homes, the fuel for our planes, and other products commonly used throughout our daily lives!

2021 was a transformational year and we look forward to the next phase of the journey on the Road to Awesome.

**Welcome to the Post Pollution Future.**

**Jennifer Holmgren**
*Chief Executive Officer*

@LanzaTech @TodaDogs

# Health and Safety

Health and Safety is our top priority globally. We are committed to protecting not only our own employees, but also looking out for our partners and the communities in which they operate. Doing our part to protect people and the environment is core to our mission. Ensuring that our technology is safely deployed and operated is crucial.

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|---|---|---|
| Recordable injuries | Lost time injuries | Confirmed workplace COVID-19 transmissions |

## 2021 Safety Performance

While we continued to keep the COVID-19 pandemic a high priority for employee health and safety, we renewed focus on improving our existing systems and tools to address the risks and hazards we face across the business. Globally, we completed our third consecutive year without a lost time injury, and had no recordable injuries at LanzaTech in 2021.

Our no-blame safety culture continues to result in strong employee engagement, and we once again achieved year-over-year improvement in employee participation as measured by employee submission of Environment, Health & Safety (EH&S) reports.

As COVID-19 vaccinations became available throughout the world in the first half of the year, our Team rolled up their sleeves. Without implementing a vaccination mandate, LanzaTech achieved an employee vaccination rate above 93%.

# Key Events in 2021

### Carbon is the New Black

Sustainability is in fashion, and LanzaTech was in vogue when Zara launched a limited line of black dresses in different styles made from carbon emissions that are part of a Capsule Collection. The dresses are the first pieces of clothing produced with LanzaTech's technology to hit the market.

### Carbon Emissions Inside and Out

Migros, Switzerland's largest retail company, and its subsidiary, Mibelle Group, produced the world's first PET bottle made from recycled carbon in partnership with LanzaTech. This follows the launch of a range of cleaning products containing LanzaTech ethanol. These products are on sale in Migros supermarkets in Switzerland.

### Creating FDA Approved Medical Devices

LanzaTech is working with Twelve to create a thermoplastic that can be used to make everything from medical devices to food containers. Twelve will transform carbon dioxide to carbon monoxide and LanzaTech will convert that carbon monoxide to isopropyl alcohol.

# Key Events in 2021

### Secured 1,000 Patents

Innovation is key to LanzaTech's progress and success in creating our post pollution future. In 2021, we received our 1000th patent on our journey to bending the carbon curve.

Led by the Intellectual Property (IP) Team, volunteers across the company created a celebratory beer in collaboration with local brewery, Sketchbook in Skokie , IL. The name of the brew? IPAwesome.

### Secretary of Energy Tours LanzaTech's Freedom Pines Biorefinery

U.S. Secretary of Energy Jennifer Granholm and U.S. Senator Jon Ossoff visit the LanzaTech Innovation Hub in Georgia and site of the world's first LanzaJet sustainable fuels plant.

### Commercial Plants

Our second commercial plant with Shougang in China began operations in early 2021. Construction continued for commercial plants with Indian Oil Corporation and ArcelorMittal, in India and Belgium, respectively, and for demonstration facilities in Canada with Suncor Energy and in Japan with Sekisui.

# Key Events in 2021

## Coty Partnership

Coty, one of the world's largest beauty companies, announced a partnership with LanzaTech to become the first company in the fragrance industry to introduce sustainable ethanol in its fragrances.

## Gender Parity

In 2021, LanzaTech reached an important milestone in workplace diversity: three science teams achieved gender parity. Though we already have a diverse leadership team and staff, our goal is to continue to hire qualified women and individuals from diverse backgrounds as part of our growing team.

## Running On Clouds

Swiss sporting goods company, On, leads supply chain coalition to reshape carbon waste into running shoes by announcing CleanCloud™ a sustainability initiative using carbon emissions to create foam for running shoes. On is the first company in the footwear industry to explore carbon emissions as a primary raw material for a shoe bottom unit.

# Key Events in 2021

### World-First Laundry Capsule in Market Made From Industrial Carbon Emissions

Unilever partnered with LanzaTech and India Glycols Limited in a pilot program to demonstrate production of a surfactant made from industrial carbon emissions instead of from fossil-fuels. This marks the first time that a cleaning product with a surfactant using captured carbon emissions came to market. The surfactant used in an OMO (Persil) laundry capsule launched in China on April 22nd, Earth Day.

### Notable Awards

From the Prix Voltaire International to the Edison Award, with additional recognition from the Independent Commodity Intelligence Services, Renewables Materials Conference, IL Bioeconomista, ChicagoINNO and others, LanzaTech's team was recognized for their global achievements.

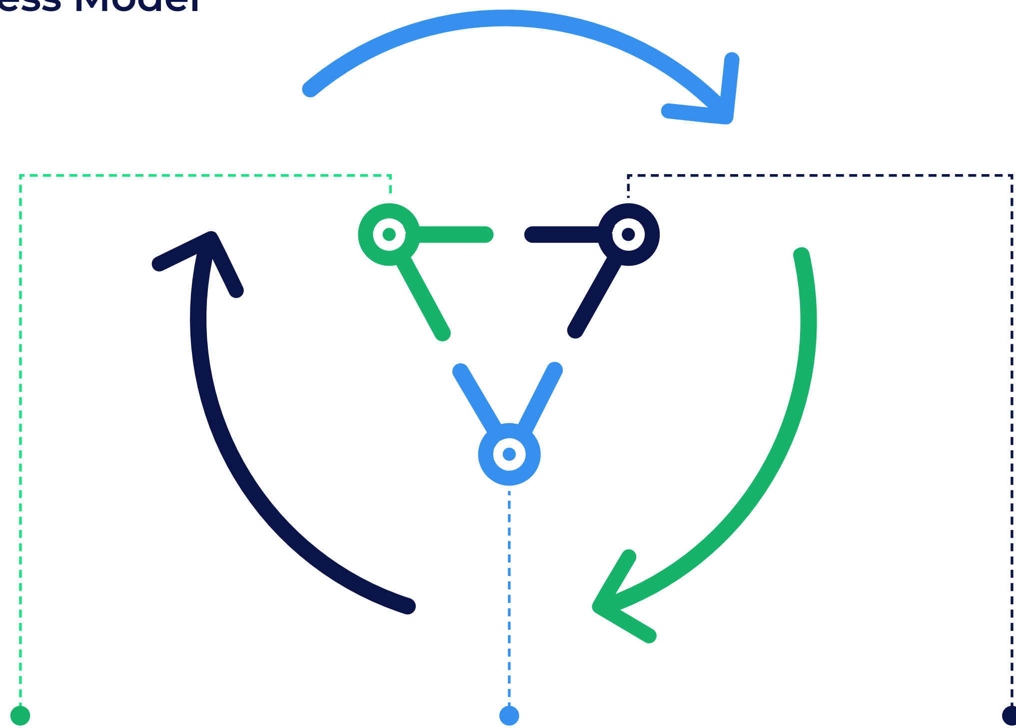
### Hiring Practices

We continued to implement inclusive hiring practices to increase the diversity of our candidate pool with positive results. In 2021, we grew by 45%, including new team members from underrepresented groups.

# Integration is at the Core of What We Do.

Our business model stands strong on the back of three complementary offerings.

## Our Business Model



### Joint Development & Contract Research

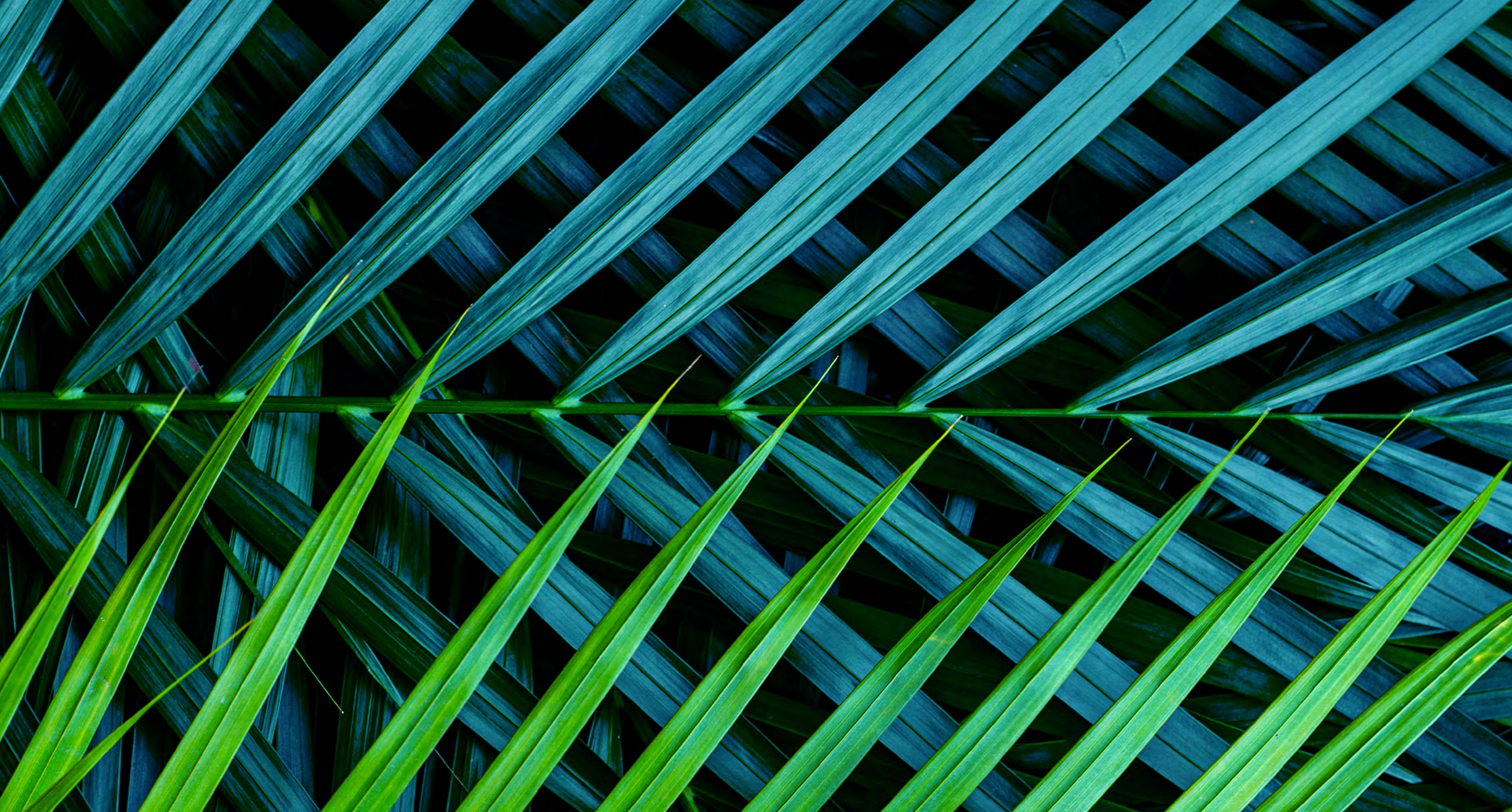
Leveraging our synthetic biology, AI, and machine learning expertise, LanzaTech is able to develop new products, expand addressable product markets, and drive demand for carbon capture and transformation (CCT) facilities.

### Licensing of Technology

Our core business combines one-time revenues (equipment, engineering, startup services) and recurring revenues (royalties, microbes, media sales, software licensing) to deploy LanzaTech CCT plants.

### CarbonSmart Marketing

Working with conversion partners, we upgrade the offtake from CCT plants and provide our CarbonSmart™ brand partners with sustainable polymers, materials and fuels.



# Strategy

A world leader in gas fermentation, we are building a robust form of carbon capture and transformation that enhances the value of waste streams, reduces environmental pollution, and lays the foundation for a circular carbon economy.

# Strategy

## Capital-Light Business Model

LanzaTech's capital-light, licensing business model enables us to significantly accelerate the deployment of our technology around the globe, creating decarbonization opportunities for customers. Through technology licensing, we are able to rapidly scale and reach a broad range of customers, providing them with a profitable means to reach their sustainability goals. This is evidenced by our robust project pipeline. The licensing model is expected to generate high-margin recurring revenues from licensing royalties, microbe and media sales, monitoring & software services, and CarbonSmart™ related marketing fees over the life of the project, while also providing for upfront, one-time revenues from equipment sales and services during the development and construction phases of these projects.

**Drivers:** Accelerate technology deployment through repeatable customer base

## Commercializing CarbonSmart

Demand is rapidly growing from leading consumer brands for LanzaTech's CarbonSmart chemicals, with 5 new products launched this year alone. With our second commercial plant operational, 7 additional plants under construction, and additional plants in development, we estimate roughly 600k MT (200M gallons) of future ethanol supply coming on-line in the near term. These quantities will allow us to provide much-needed volume to meet the massive and immediate demand from our partners.

**Drivers:** Increased consumer demand

## Expanded Feedstocks

We expanded our commercial portfolio this year with the start-up of a ferroalloy off-gas facility. Coupled with steel mill off-gas facilities and our broader project pipeline, our feedstock portfolio has expanded to include multiple gaseous and solid feedstocks (industrial and refinery off-gases, municipal solid waste (MSW), and biomass/agricultural residues). These feedstocks demonstrate the broad application of our technology and reinforce our core belief that a low carbon future can be unlocked using available above ground waste carbon.

**Drivers:** Grow customer mix

## Scale Up for Growth

Each member of the team brings new capabilities, talents, and knowledge to support our continued growth and accelerate the deployment of the LanzaTech platform. Our work in the lab – starting with our synthetic biology team – coupled with our engineering capabilities, provides the foundation necessary to accelerate growth. This year saw the start of our 2nd commercial facility and a record number of engineering and construction starts on multiple feedstocks around the globe. Every day we strive to improve our processes through automation, standardization, and modularization across all areas of the business.

**Drivers:** Expand capabilities and process efficiencies to drive growth and quickly scale

# Innovation

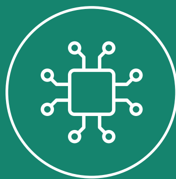
Innovation and technology are the heart of our company. We work tirelessly to develop and improve sustainable and circular solutions, with over 60% of our personnel dedicated to innovative research, modeling, process development, and engineering.

## Key innovations in 2021

131 granted patents received and 160 new patent applications, including first grants in patent families for microorganisms producing biodegradable plastic and the integration of electrolysis or gasification with gas fermentation.

Delivered our next-generation bioreactor, and kicked off a second project to scale-up further; all to demonstrate increased efficiency in our process and lower production costs.

Provided high-purity fermentation products (ethanol, IPA, and acetone) and upgraded products (e.g. PET) to over 20 customers, as well as produced our first ethanol sample derived directly from $CO_2$.



Built new infrastructure and uploaded over two million hours of fermentation data to train machine learning models for process improvement.

# Spotlight on Synthetic Biology

Synthetic biology allows us to re-program our biocatalyst for the synthesis of new and increasingly complex molecules, expanding the range of products that can be made through the LanzaTech process while using the same feedstocks and infrastructure.

Over the past decade, LanzaTech has developed a unique Synthetic Biology platform. 15 years ago, gas fermenting microbes such as LanzaTech's proprietary biocatalyst were considered genetically inaccessible. We can now modify them at an unprecedented pace and in an automated fashion using our biofoundry. We have also developed a range of computational models and AI algorithms to guide product discovery and development.

Through 2021, we have designed and modeled over 500 pathways and were able to demonstrate direct synthesis of over 100 new molecules from gas via engineered variants of our flagship biocatalyst in the lab. This includes molecules that typically are not produced by microbes in nature. For example, in a research breakthrough with our partners from BASF, we were able to demonstrate for the first time, direct production of n-octanol from gas at laboratory scale using an engineered version of our biocatalyst.[2]

The first wave of our directly-synthesized new products, acetone and isopropanol, has already been optimized to the target performance level and scaled up to pilot scale at our Freedom Pines site. In 2021, we made significant progress optimizing performance of several other molecules in our pipeline through joint development projects with strategic customers. In parallel, we established new genome engineering tools and workflows[3] to enable the development of optimized chassis strains with higher flux to new products or carbon-optimized conversion, for which we are partnering with ARPA-E.[4]

With a broad portfolio of new products in the pipeline, we envision a world where customers use the same production facilities, same feedstock, and same process to produce a variety of different products based on market demand and value.

[2] www.basf.com/global/en/media/news-releases/2021/05/p-21-206

[3] www.coesb.com.au/using-genes-to-improve-conversion-of-greenhouse-gases

[4] www.biomassmagazine.com/articles/18020/lanzatech-awarded-4-1-million-from-arpa-e

# Businesses in 2021

## Biorefining Platform

The primary driver of our business model is the licensing of our biorefining platform enabling carbon capture and transformation. Our licensing model generates revenues from engineering and other services, equipment sales, as well as long term recurring revenues in the form of licensing and royalty fees associated with the access to our technology, while our partners own and operate the gas fermentation plants. This capital-light model enables us to concurrently partner with numerous customers across geographies and feedstocks to build customer-owned gas fermentation facilities, accelerating the spread of our technology platform.

In select circumstances, we leverage our relationships and project development expertise to develop, or sponsor select projects with partners where we believe our participation in the ownership, operation, and off take of the gas fermentation plant can create additional value. We believe this model has the potential to accelerate the development of new feedstocks and product markets, while also allowing us to capture additional economic upside.

## Contract Research & Joint Development

LanzaTech leverages our computational and synthetic biology capabilities to develop new biocatalysts able to produce a diverse range of products in collaboration with our partners. These collaborations expand our addressable product markets, while concurrently generating demand for additional biorefineries and commercial-scale biorefinery production.

## CarbonSmart

LanzaTech and its partners produce and market CarbonSmart™ products, helping major brands reach their sustainability goals and driving the circular economy by providing them with drop in, recycled carbon alternatives to key products in their supply chains. CarbonSmart materials are produced by purifying or converting the ethanol (or other chemicals) produced by the LanzaTech process into other products. In this space, LanzaTech partners with various downstream conversion companies and consumer goods companies to bring these products to market at commercial volumes.

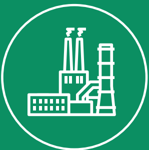
## Multiple Plants, Feedstocks and Products

**2** Commercial Plants **Operating**

**7** Commercial Plants in **Construction** (to be completed in 2022)

**7** Commercial Plants in **Engineering**

### Feedstocks Represented



Steel & Ferroalloy Gas

MSW

Refinery Gas

Biomass

Biogas

### Regions Represented

Australia
Canada
China
Europe
India
Japan
South Africa
United States

Partner Investment

**$800M**

Estimated Total Installed Capacity[5]

**~600,000** MTPA

**(200M GPY)**

Anticipated Carbon Captured Annually[5]

**~1,000,000** MT

[5] Represents capacity and carbon captured by all plants above

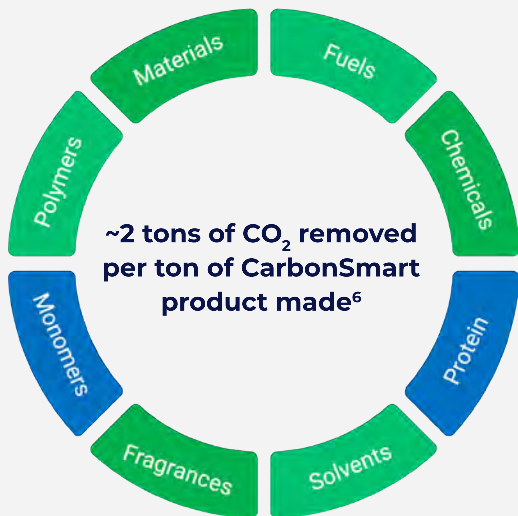
LanzaTech

Waste carbon pollution is humanity's greatest threat. LanzaTech has invented a technology significant enough to meet the challenge.

Human-induced climate change is impacting every habitable region of the planet with climate extremes, droughts, wildfires, and tropical storms. Minority, low-income, and tribal peoples are disproportionately impacted by climate change and environmental pollution. We acknowledge this disparity and provide a solution that goes beyond $CO_2$.

Fossil carbon is in everything we use in our daily lives: fuels and power, our clothes, cosmetics, toys, and home goods. These products originate in refineries fed by petroleum and natural gas. We envision vast, global waste resources from industry, society, and agriculture displacing virgin fossil resources as the basis for the materials, chemicals, and fuels upon which society relies.

# Being CarbonSmart




In a CarbonSmart™ world, carbon waste is transformed to produce nearly everything we use in our daily lives. LanzaTech generates strong ROIs for partners, accelerating their decarbonization and defossilization efforts.

[6] LanzaTech management

# Products with CarbonSmart

## $1 Trillion Addressable Market[7]

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

[7] 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).

# Where Does Your Carbon Come From?

LanzaTech's proven technology enables a closed loop, circular carbon economy where carbon is reused rather than wasted. Through technology designed to touch all points of the carbon supply chain, we offer a profitable solution to decarbonize carbon intensive businesses, while providing sustainable raw materials to make the things we use in our daily lives.

In 2021, LanzaTech launched five new campaigns with major brands that partnered with us to demonstrate and bring to the market products made from the carbon oxides in industrial emissions. Our ethanol has been the feedstock for a diverse array of consumer products, most available on shelves today.

Every waste resource — including $CO_2$ — can become the things we use in our daily lives

ZARA

Taking Flight

# Rethinking Carbon

**10%**

The aviation industry has a goal to use 10% Sustainable Aviation Fuel (SAF) by 2030. This translates to around 10B gallons of production. We are working with LanzaJet, a company we founded and spun out in 2020, to help achieve this goal.

**€20M**

Grant funding from the EU's Horizon 2020 program for the FLITE consortium led by SkyNRG. FLITE will convert waste-based ethanol to SAF at a scale of over 30,000 tons/year and is a major milestone on the path to net zero emissions for the aviation industry.

LanzaTech has over a decade of experience scaling up, validating and qualifying the LanzaJet™ alcohol-to-jet (ATJ) technology. The core technology development was completed by LanzaTech in conjunction with Pacific Northwest National Lab (PNNL) with support from the U.S. Department of Energy (DOE). LanzaTech spun-out LanzaJet in 2020 into an independent entity to accelerate the commercialization of the ATJ technology.

LanzaTech UK, among other companies, was selected for funding through The UK Department for Transport's Green Fuels, Green Skies (GSGF) competition to advance the production of Sustainable Aviation Fuel (SAF). We were awarded two projects supported by British Airways and Virgin Atlantic:

**Project DRAGON** (Decarbonizing and Reimagining Aviation for the Goal Of Netzero) will undertake the Front-End Engineering Design (FEED) of a facility in Port Talbot, South Wales, that will produce more than 30M gallons/year of ATJ Synthetic Paraffinic Kerosene (ATJ-SPK).

**Project AtmosFUEL** feasiblity study with cleantech company, Carbon Engineering, to create sustainable aviation fuel (SAF) out of atmospheric carbon dioxide ($CO_2$).

In the United States, we are working with the DOE and SkyNRG Americas on **Project LOTUS** (Landfill Off-gas To Ultra-low carbon intensity SAF) to design, build, operate, and maintain a production facility that will convert raw landfill biogas (LFG) into sustainable aviation fuel.

In addition, we are working with the DOE's Argonne National Laboratory (ANL) to build and operate a pre-pilot facility to produce SAF made from biogenic waste $CO_2$ and renewable hydrogen ($H_2$) at our Freedom Pines facility in Georgia.

In Europe, we announced a unique partnership with Vattenfall, SAS, and Shell to explore synthetic sustainable aviation fuel production from $CO_2$ in Sweden.

# Clean Air, Decent Work, and Justice for ALL

LanzaTech's products reduce our reliance on virgin petroleum products and reduce lifecycle GHG emissions. Volumes of water are saved as our protein co-product can displace water-intensive animal feed ingredients. When our ethanol is fixed into products or durable goods, this carbon is sequestered away for generations.

Our process takes on human health inequalities by reducing criteria pollutants from waste gasses including sulfur dioxide ($SO_2$), nitrogen oxides ($NO_x$), and particulate matter that are byproducts of fossil fuel combustion.

Distributed manufacturing with gas fermentation can provide employment opportunities near feedstocks: agricultural biomass, urban and rural municipal solid waste, industrial factories, and rural corn ethanol facilities.

## $CO_2$ abated

Total

**>150,000** MT

## Sustainable ethanol produced

Total

**>30M** Gallons

## Jobs created

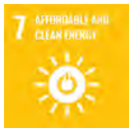
Total

**>200**

# Supporting the United Nations Sustainable Development Goals

We are committed to supporting the UN Sustainable Development Goals (SDGs) and understand their importance in creating the framework for sustainable and equitable business practices.

## LanzaTech Mission




We provide an affordable, sustainably produced fuel to decrease reliance on fossil fuel for transportation. Our technology utilizes $CO_2$ and $H_2$ as a feedstock generating demand for renewable energy at a large scale.

The core of our business is enabling the circular carbon economy. Through our process, we are able to recycle and valorize carbon-rich/hard-to-abate emissions and waste into sustainably produced fuels and chemicals — the building blocks of CarbonSmart™ products, which will provide end consumers with alternative products that have a lower carbon footprint.

Our sustainably-produced, low-carbon fuels and chemicals offer an overall carbon savings compared to fossil-derived products. Besides GHG emissions, our technology also has a positive impact on water and land use, fertilizer/runoff, and waste disposal.

## Feedstock

Our process creates economic drivers for capturing waste gases and valorizing them instead of emitting them into the atmosphere. We are able to reduce GHG emissions, particulate matter, and carcinogens produced from the burning of agricultural waste and incineration of MSW.

## Process

Through growth in our synthetic biology platform and capabilities, we are improving the performance of our ethanol producing biocatalyst, as well as developing 2nd generation products to further reduce our carbon footprint and overall operating costs. In addition, we have developed a next generation bioreactor which is more efficient.

From an LCA perspective, our technology produces products that have a competitive sustainability profile regarding land use, terrestrial toxicity and eutrophication, as well as overall biodiversity loss.

## Products

Unlike traditional biofuels which rely heavily on farmland, our ethanol production does not require arable land nor does it compete with food production. An additional co-product of our process is protein which can displace water-intensive ingredients used for animal feed.

## Internal

Safety is our top priority. We are committed to fostering a safe, inclusive, and decent workplace for our employees to reach their full potential. Employee well-being is paramount which is reflected through our safety program, benefits package and community outreach efforts.

# Diversity, Equity & Inclusion

In 2021, LanzaTech produced its first Diversity, Equity & Inclusion (DEI) plan to communicate how our ideals rooted in DEI resonate throughout our company and the work we do. LanzaTech aims to empower individuals from all groups and identities to become engaged in projects and succeed through initiatives and outreach, policies, training, and recruitment practices.

### Women at Work

LanzaTech is a women-led organization headed by CEO Dr. Jennifer Holmgren, an immigrant from Colombia. 38% of the leadership team is female. Women Vice Presidents lead our Engineering, Science, Chemicals and Hydrocarbon Fuels Technology, Government Relations, and Europe activities. Three science teams have reached gender parity.

### Initiatives and Outreach

LanzaTech's DEI group, Blend, engaged We All Code, a local nonprofit working to promote diversity in STEM. Blend also launched LanzaTech's first mentoring program, and organized awareness campaigns on racial and gender diversity within the company. We recycled aluminum cans at Freedom Pines Biorefinery, donating proceeds to the local Shriners Club and Shriners Hospitals for Children. Our Green Group organized a volunteer day for employees to restore a local forest preserve.

### DEI Goals

LanzaTech will encourage qualified underrepresented STEM groups to be project leads, develop relationships with STEM groups at local junior high and high schools, increase diversity in our candidate pool by recruiting from organizations and consortiums focused on women, minorities and other underrepresented groups.

### 9 Group Discussions

Black Lives Matter, National Disability Awareness Month, building trans-affirming workplaces, women in the workplace

### 15 Company-wide Communications

Celebratory events included: Women's Equality Day, Indigenous Peoples' Day, Veterans Day, Martin Luther King Jr. Day

### 3 Newsletters

Celebrating Black History Month, International Women's Day, and AAPI Heritage Month

### 2 Virtual Panel Discussions

Regarding Women in the Workplace, and examining the Intersection of Sustainability & Equity (with Green Group)

### 2 Fundraisers

For Black Lives Matter and AIDS Run & Walk Chicago

### Education

2020 election information, DEI calendar, and encouraging use of personal pronouns to promote inclusivity and allyship

# Board of Directors

### Dr. Mahpuzah Abai

**CEO, PETRONAS Technology Ventures Sdn Bhd; Head of Technology Management & Commercialisation, PETRONAS**

Dr. Abai has 25 years experience in the Oil & Gas industry, managing & leading technology and commercialization projects. She has pioneered the development and commercialization of new chemistries for PETRONAS applications. She previously led the Fluid Technology Solutions team which provides world-class fluids for PETRONAS lubricants, fuels, and motorsports.

### Nigel Gormly

**Director, Waihou Capital, Rep. NZ Super Fund**

Nigel Gormly brings a wealth of investment experience focused on climate solutions and large scale growth companies, including from the New Zealand Super Fund where he previously led the International Direct Investment team. He has broad governance experience across a range of sectors and stages of development and currently serves as a director for View, Inc. and CTF Pledge Pioneers. Nigel has served as a Director for LanzaTech since 2014 and has chaired the Audit Committee since 2015.

### Dr. Jennifer Holmgren

**CEO, LanzaTech**

Prior to LanzaTech, Jennifer founded and led, as VP/GM, UOP's (Honeywell) Renewable Energy and Chemicals Division. She has over 30 years of commercialization experience.

### Jim Messina

**CEO, The Messina Group**

Jim Messina is the CEO of the Messina Group, which provides strategic consulting to political campaigns, advocacy organizations and businesses. He was also Campaign Manager of Barack Obama's 2012 re-election campaign and Deputy Chief of Staff to President Obama.

### Dr. SSV Ramakumar

**Director R&D, Indian Oil Corporation**

Dr. Ramakumar has three decades of R&D experience in the downstream hydrocarbon sector specifically in the areas of lubricant technology and refinery process research, including catalyst development and alternative sources of energy. He successfully spearheaded many "concept to commercialization" projects and is overseeing the establishment of one of the world's largest renewable energy research campuses. He has to his credit 50 granted patents and around 150 research publications in peer reviewed journals.

### Bo Ren

**Managing Director, Sinopec Capital**

Bo Ren is managing director of Industrial Investment Department at Sinopec Capital, with extensive experience in renewable energy, green chemicals, bio-materials, advanced manufacturing investment business.

Prior to joining Sinopec Capital, he worked at CITIC SECURITIES as director of Investment Banking Committee after graduating from Tianjin University.

# Board of Directors

## Gary Rieschel

**Founder and Managing Partner, Qiming**

Gary founded several venture capital firms including SoftBank Venture Capital, SAIF Partners, and Qiming Venture Partners. Qiming now has $7b under management.

## Dr. Sean Simpson

**Founder and CSO, LanzaTech**

Sean held research scientist roles at AgriGenesis (NZ) and Japan International Research Centre for Agricultural Sciences (Tsukuba, Japan), prior to founding LanzaTech in 2005.

## Dr. Anders Spohr

**Senior Partner, Principal Investments, Novo Holdings**

Anders is responsible for bio-industrial investments at Novo Holdings. Prior to joining Novo Holdings, he previously held executive positions at Leo-Pharma and Novozymes.

## Yasuhiro Uchida

**General Manager, Mitsui**

Yasuhiro is the general manager of Mitsui's NexGen Energy Division. He has had extensive industry experience in the Energy business, especially in the oil & gas investment business, such as E&P and LNG. He began his career in Mitsui & Co., Ltd. in 1994 shortly after graduating from Tokyo University (Mineral Development Engineering).

## Dr. Roger Wyse

**Managing Partner, Spruce Capital**

Dr. Wyse is Co-Founder & Managing Partner at Spruce Capital Partners, a venture management company with $320 million in AUM investing in companies with disruptive solutions to improve sustainability, enable the bioeconomy and mitigate climate change. Previously, he was President and COO Biogreentech at Burrill & Company. Before his venture career he was a renowned scientist and academic administrator serving as Dean, College of Agriculture & Life Sciences, UW Madison.

# Scientific Advisory Board

### Prof. Dr. Michael Jewett

Dr. Jewett is the Charles Deering McCormick Professor of Teaching Excellence, Walter P. Murphy Professor of Chemical and Biological Engineering, and director of the Center for Synthetic Biology at Northwestern University. He is also an Institute Fellow at the Northwestern Argonne Institute for Science & Engineering. Dr. Jewett's lab seeks to re-conceptualize the way we engineer complex biological systems for compelling applications in medicine, materials, and energy by transforming biochemical engineering with synthetic biology.

### Prof. Dr. Ramon Gonzalez

Dr. Gonzalez is a Professor and Florida World Class Scholar in the Department of Chemical, Biological and Materials Engineering at the University of South Florida (USF) where he leads the laboratory for Metabolic Engineering and Biomanufacturing. He is also the Editor-in-Chief of the Journal of Industrial Microbiology and Biotechnology (JIMB). Before joining USF, Dr. Gonzalez was a Professor in the Departments of Chemical & Biomolecular Engineering and Bioengineering at Rice University and the Founding Director of Rice's Advanced Biomanufacturing Initiative, and from 2012 to 2015 served as Program Director with the Advanced Research Projects Agency-Energy (ARPA-E) of the U.S. Department of Energy.

### Prof. Dr. Huimin Zhao

Dr. Zhao is the Steven L. Miller Chair Professor of chemical and biomolecular engineering, and professor of chemistry, biochemistry, biophysics, and bioengineering at the University of Illinois at Urbana-Champaign (UIUC). He received his B.S. degree in Biology from the University of Science and Technology of China in 1992 and his Ph.D. degree in Chemistry from the California Institute of Technology in 1998 under the guidance of Nobel Laureate Dr. Frances Arnold. Prior to joining UIUC in 2000, he was a project leader at the Industrial Biotechnology Laboratory of the Dow Chemical Company. He was promoted to full professor in 2008. Dr. Zhao has authored and co-authored over 340 research articles and over 30 issued and pending patent applications with several being licensed by industry.

### Prof. Dr. Rolf Thauer

Dr. Thauer is the Emeritus group leader at the Max Planck Institute for Terrestrial Microbiology for which he was one of the founding directors in 1991. Author of over 400 publications and the recipient of numerous awards, including the Gottfried Wilhelm Leibniz Prize by the Deutsche Forschungsgemeinschaft in 1987. He holds a Ph.D. degree in biochemistry from the University of Freiburg, Germany. He has more than 50 years of research experience in biochemistry, physiology and ecology of anaerobic bacteria and archaea with a focus on the enzymes and coenzymes involved in the energy metabolism of Clostridia.

### Prof. Dr.-Ing. Ralf Takors

Dr. Takors is heading the Institute of Biochemical Engineering (IBVT) at the University of Stuttgart. Main research interests are systems metabolic engineering, synthetic biology and biochemical engineering to develop novel bioprocesses from lab to productions cale. Wet-lab activities are supported by intensive modelling activities comprising genome scale stochiometric modelling, metabolic flux analysis, gene regulatory networks, and bioreactor modelling using compartmented approaches and computational fluid dynamics.

# LanzaTech Leadership Team

## Executive Leadership

**Dr. Jennifer Holmgren**

CEO

**Geoff Trukenbrod**

CFO

**Freya Burton**

Chief Sustainability Officer

**Mark Burton**

General Counsel

## Research and Engineering

**Dr. Sean Simpson**

Founder and CSO

**Dr. Zara Summers**

VP Science

**Dr. Michael Köpke**

VP Synthetic Biology

## Research and Engineering

**Dr. Johanna Haggstrom**

VP Chemicals and Hydrocarbon Fuels Tech

**Julie Zarraga**

VP Engineering

**Dr. Robert Conrado**

VP Eng., Design, and Development

# LanzaTech Leadership Team

## Business Development

**Babette Pettersen**

VP Europe

**Xu Li**

Managing Director Asia Pacific

**Jim Woodger**

Managing Director UK

**Sangeet Jain**

Director/Country Head India

## Finance

**George Dimitrov**

VP Finance

## Government Relations

**Dr. Laurel Harmon**

VP Government Relations

**Tom Dower**

VP Public Policy

**Dr. John Holladay**

VP Government Programs

## People & Infrastructure

**Nilesh Kumar**

Chief Information Security Officer

**Carl Wolf**

VP Operations

**Ellie Wood**

Chief of Staff to the CEO

2021

# Financial Performance

2021 was a year filled with commercial advancements and operational milestones, including growth across all three areas of our business model – Licensing of our Carbon Capture and Transformation Technology, CarbonSmart™ Product Marketing, and Joint Development and Contract Research.

## Continued Revenue Growth

LanzaTech's total revenue grew approximately 40% from 2020, to $26.2 million. In comparison, our operating expenses increased at a slower rate of approximately 32%, to $61 million, as we continued to expand our headcount and technological capabilities.

This revenue growth was driven by a 56% increase in revenue associated with Contract Research and Joint Development Agreements to $13.9 million, and a 25% increase in carbon capture and transportation revenue, within which, licensing revenue grew 71% to $2.7 million and engineering and other services grew 16% to $9.6 million. LanzaTech's gross profit increased to $10.9 million, with a higher gross margin of 42% in comparison to 2020. Overall, our net loss increased from $36.9 million to $45.8 million as we continued to invest in expanding our team, capabilities, and global reach.

## Strong Balance Sheet

We completed two significant capital raises in 2021, including our Series F, in early 2021, which brought our Series E/E-1/F raise to $201.6 million in total. Subsequently, we issued a Simple Agreement for Future Equity (SAFE) contract in December 2021 with proceeds of $30 million to the Company. We ended 2021 with no debt on the balance sheet, having pursued and received forgiveness of the Company's Paycheck Protection Program loan received under the CARES Act. LanzaTech's expansion of general research, demonstration, synthetic biology, and operations facilities incurred nearly $5.8 million in capital expenditures in 2021.

Our cash and cash equivalent position at the end of 2021 was $128.3 million, compared to $60.5 million at the end of 2020, which provides sufficient liquidity to fund LanzaTech's operations.

# 2022 Outlook

**We anticipate continued acceleration of our commercialization activities and deployment of our technology across new feedstocks, geographies, and integrations. Additionally, we anticipate continuing to develop relationships with new commercial partners, expanding opportunities with existing commercial relationships, developing new product offerings, and driving innovation across all our process technologies.**

We have incurred operating losses since inception and expect to continue to incur losses and negative cash flows from operations at least through 2022. While we expect meaningful revenue growth in 2022, we also expect our expenses to rise in tandem. In March of 2022, we announced our intent to enter into a definitive merger agreement with AMCI Acquisition Corp. II (Nasdaq: AMCI), a Special Purpose Acquisition Corporation (or SPAC); upon completion of the transaction, the combined company is expected to trade on Nasdaq under the ticker symbol "LNZA". We expect that the transaction will allow us to raise additional capital and enter the public markets. Proceeds from the transaction are expected to fund acceleration in our commercial operations, capital requirements associated with development projects in which we have chosen to participate with partners, and continued technological innovation.

# LANZATECH NZ, INC.

**(formerly LanzaTech New Zealand Limited)**

December 31, 2021 and 2020

**LANZATECH NZ, INC.**
**INDEX**


| | | PAGE NO. |
|---|---|---|
| PART I. | FINANCIAL INFORMATION | |
| Item 1. | Report of Independent Registered Public Accounting Firm | 3 |
| | Financial Statements | |
| | Consolidated Balance Sheets | 4 |
| | Consolidated Statements of Operations and Comprehensive Loss | 5 |
| | Consolidated Statements of Cash Flows | 6 |
| | Consolidated Statements of Changes in Redeemable Convertible Preferred Stock and Shareholders' Equity (Deficit) | 7 |
| | Notes to Consolidated Financial Statements | 8 |

Deloitte.

**Deloitte & Touche LLP**
111 S Wacker Drive
Chicago, IL 60606
USA

Tel: +1 312 486 1000

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of LanzaTech NZ, Inc.

### Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of LanzaTech NZ, Inc. and subsidiaries (the "Company") as of December 31, 2021 and 2020, and the related consolidated statements of operations and comprehensive loss, consolidated statements of cash flows, and consolidated statements of changes in redeemable convertible preferred stock and shareholders' equity (deficit) for each of the two years in the period ended December 31, 2021, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

### Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Chicago, IL
May 9, 2022

We have served as the Company's auditor since 2021.

**LANZATECH NZ, INC.**
**CONSOLIDATED BALANCE SHEETS**
(In thousands, except share and per share data)

| | As of | |
|---|---|---|
| | **December 31, 2021** | **December 31, 2020** |
| **Assets** | | |
| Current assets: | | |
| Cash and cash equivalents | $ 128,318 | $ 60,495 |
| Trade and other receivables, net of allowance | 2,878 | 5,521 |
| Contract assets | 11,700 | 6,064 |
| Other current assets | 5,779 | 4,387 |
| Total current assets | 148,675 | 76,467 |
| Property, plant and equipment, net | 14,148 | 11,609 |
| Right of use assets | 4,686 | 6,365 |
| Equity method investments | 26,479 | 24,023 |
| Other non-current assets | 750 | 1,200 |
| Total assets | $ 194,738 | $ 119,664 |
| **Liabilities, Contingently Redeemable Preferred Stock, and Shareholders' Deficit** | | |
| Current liabilities: | | |
| Accounts payable | $ 2,444 | $ 1,147 |
| Other accrued liabilities | 7,059 | 2,775 |
| SAFE liability | 28,271 | — |
| SAFE warrant | 1,729 | — |
| Contract liabilities | 3,476 | 5,480 |
| Accrued salaries and wages | 4,261 | 3,492 |
| Current lease liabilities | 2,050 | 1,618 |
| Current portion of long-term debt | — | 570 |
| Total current liabilities | 49,290 | 15,082 |
| Non-current lease liabilities | 3,283 | 5,334 |
| Non-current contract liabilities | 13,901 | 11,291 |
| Long-term debt | — | 3,065 |
| Other long-term liabilities | 823 | 894 |
| Total liabilities | 67,297 | 35,666 |
| **Commitments and Contingencies (see note 18)** | | |
| **Contingently Redeemable Preferred Stock** | | |
| Redeemable convertible preferred stock, $0.0001 par value; 29,747,033 and 26,112,823 shares authorized, 29,521,810 and 25,729,542 shares issued and outstanding as of December 31, 2021 and 2020, respectively | 480,631 | 394,408 |
| **Shareholders' Deficit** | | |
| Common stock, $0.0001 par value; 36,326,815 shares authorized, 2,106,934 and 1,656,415 shares issued and outstanding as December 31, 2021 and 2020, respectively | — | — |
| Additional paid-in capital | 21,711 | 18,818 |
| Accumulated other comprehensive income | 3,261 | 3,166 |
| Accumulated deficit | (378,162) | (332,394) |
| Total shareholders' deficit | $ (353,190) | $ (310,410) |
| Total liabilities, contingently redeemable preferred stock, and shareholders' deficit | $ 194,738 | $ 119,664 |

*See the accompanying Notes to the Consolidated Financial Statements.*

**LANZATECH NZ, INC.**
**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**
(In thousands, except share and per share data)

| | Year Ended December 31, | |
|---|---|---|
| | 2021 | 2020 |
| Revenue: | | |
| Revenue from contracts with customers | $ 18,993 | $ 12,865 |
| Revenue from collaborative arrangements | 3,337 | 1,163 |
| Revenue from related party transactions | 3,915 | 4,752 |
| Total revenue | 26,245 | 18,780 |
| | | |
| Cost and operating expenses: | | |
| Cost of revenue from contracts with customers (exclusive of depreciation shown below) | (13,289) | (8,063) |
| Cost of revenue from collaborative arrangements (exclusive of depreciation shown below) | (1,254) | (743) |
| Cost of revenue from related party transactions (exclusive of depreciation shown below) | (808) | (2,664) |
| Research and development expense | (44,229) | (34,454) |
| Depreciation expense | (3,806) | (2,979) |
| Selling, general and administrative expense | (13,216) | (9,029) |
| Total cost and operating expenses | (76,602) | (57,932) |
| Loss from operations | (50,357) | (39,152) |
| Other income (expense): | | |
| Interest expense, net | (7) | (351) |
| Gain on extinguishment of debt | 3,065 | — |
| Other (expense) income, net | (673) | 172 |
| Total other income (expense), net | 2,385 | (179) |
| Loss before income taxes | (47,972) | (39,331) |
| Income tax benefit | — | — |
| Gain from equity method investees, net | 2,204 | 2,424 |
| Net loss | $ (45,768) | $ (36,907) |
| | | |
| Unpaid cumulative dividends on preferred stock | (36,758) | (31,291) |
| Net loss allocated to common shareholders | $ (82,526) | $ (68,198) |
| | | |
| Other comprehensive loss: | | |
| Foreign currency translation adjustments | 95 | 625 |
| Comprehensive loss | $ (45,673) | $ (36,282) |
| | | |
| Net loss per common share - basic and diluted | $ (42.12) | $ (41.84) |
| Weighted-average number of common shares outstanding - basic and diluted | 1,959,165 | 1,629,821 |

*See the accompanying Notes to the Consolidated Financial Statements.*

**LANZATECH NZ, INC.**
**CONSOLIDATED STATEMENTS OF CASH FLOWS**
(In thousands)

| | Year Ended December 31, | |
|---|---|---|
| | 2021 | 2020 |
| **Cash Flows From Operating Activities:** | | |
| Net loss | $ (45,768) | $ (36,907) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Stock-based compensation expense | 2,531 | 2,392 |
| Loss/(gain) on change in fair value of warrant liabilities | 563 | (105) |
| Bad debt expense and recoveries | (27) | 877 |
| Depreciation of property, plant and equipment | 3,806 | 2,979 |
| Non-cash lease expense | 1,679 | 1,565 |
| Non-cash recognition of licensing revenue | (2,684) | (1,567) |
| PPP loan forgiveness | (3,065) | — |
| Gain from equity method investees, net | (2,204) | (2,424) |
| Net foreign exchange gain | 55 | — |
| Changes in operating assets and liabilities: | | |
| Accounts receivable, net | 2,670 | (4,470) |
| Contract assets | (5,636) | (5,483) |
| Other assets | (941) | (364) |
| Accounts payable and accrued salaries and wages | 1,378 | 568 |
| Contract liabilities | 5,762 | 3,167 |
| Operating lease liabilities | (1,618) | (1,204) |
| Other liabilities | 908 | 1,705 |
| Net cash used in operating activities | $ (42,591) | $ (39,271) |
| **Cash Flows From Investing Activities:** | | |
| Purchase of property, plant and equipment | (5,752) | (7,110) |
| Proceeds from disposal of property, plant and equipment | 5 | 4 |
| Proceeds from disposal of investment property | — | 513 |
| Net cash used in investing activities | $ (5,747) | $ (6,593) |
| **Cash Flows From Financing Activities:** | | |
| Proceeds from issue of equity instruments of the Company | 83,831 | 46,572 |
| Proceeds from exercise of a warrant | 3,150 | — |
| Proceeds from issue of SAFE and warrant instruments | 30,000 | — |
| Payment for share issue costs | — | (30) |
| Proceeds from borrowings | — | 3,065 |
| Repurchase of equity instruments of the Company | (396) | — |
| Repayment of borrowings | (570) | (4,880) |
| Net cash provided by financing activities | $ 116,015 | $ 44,727 |
| Net increase (decrease) in cash, cash equivalents and restricted cash | 67,677 | (1,137) |
| Cash, cash equivalents and restricted cash at beginning of period | 60,909 | 62,117 |
| Effects of currency translation on cash, cash equivalents and restricted cash | 146 | (71) |
| Cash, cash equivalents and restricted cash at end of period | $ 128,732 | $ 60,909 |
| **Supplemental disclosure of cash flow information:** | | |
| Cash paid for interest | $ 13 | $ 356 |
| Cash paid for income taxes | $ — | $ — |
| **Supplemental disclosure of non-cash investing activities:** | | |
| Acquisition of equity method investment in LanzaJet through contribution of license | $ — | $ 15,000 |
| Acquisition of property, plant and equipment under accounts payable | $ 708 | $ 20 |
| **Supplemental disclosure of non-cash financing activities:** | | |
| PPP loan forgiveness | $ 3,065 | $ — |
| Receipt of common shares as payment for option exercises | $ 938 | $ — |

*See the accompanying Notes to the Consolidated Financial Statements.*

**LANZATECH NZ, INC.**
**CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND SHAREHOLDERS' EQUITY (DEFICIT)**
**(all amounts in thousands, except share data)**

| | Redeemable Convertible Preferred Stock | | Common Stock Outstanding | | Additional Paid-in Capital | Accumulated Deficit | Accumulated Other Comprehensive Income | Total Shareholders' Equity (Deficit) |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | | | | |
| **Balance at January 1, 2020** | 23,695,330 | $347,938 | 1,622,886 | $ — | $ 16,354 | $ (295,487) | $ 2,541 | $ (276,592) |
| Issuance of Series E Preferred Stock, net of issuance cost of $30 | 2,034,212 | 46,470 | — | — | — | — | — | — |
| Stock-based compensation expense | — | — | — | — | 2,392 | — | — | 2,392 |
| Net loss | — | — | — | — | — | (36,907) | — | (36,907) |
| Issuance of common stock upon exercise of options | — | — | 33,529 | — | 72 | — | — | 72 |
| Foreign currency translation | — | — | — | — | — | — | 625 | 625 |
| **Balance at December 31, 2020** | 25,729,542 | $394,408 | 1,656,415 | $ — | $ 18,818 | $ (332,394) | $ 3,166 | $ (310,410) |
| Issuance of Series F Preferred Stock, net of issuance cost of $0 | 3,634,210 | 83,073 | — | — | — | — | — | — |
| Exercise of a warrant, Series D Preferred Stock | 158,058 | 3,150 | — | — | — | — | — | — |
| Stock-based compensation expense | — | — | — | — | 2,531 | — | — | 2,531 |
| Repurchase of equity instruments | — | — | — | — | (396) | — | — | (396) |
| Net loss | — | — | — | — | — | (45,768) | — | (45,768) |
| Issuance of common stock upon exercise of options | — | — | 450,519 | — | 758 | — | — | 758 |
| Foreign currency translation | — | — | — | — | — | — | 95 | 95 |
| **Balance at December 31, 2021** | 29,521,810 | $480,631 | 2,106,934 | $ — | $ 21,711 | $ (378,162) | $ 3,261 | $ (353,190) |

*The accompanying notes are an integral part of the consolidated financial statements.*

## Note 1 — Description of the Business

The reporting entity is LanzaTech NZ, Inc. (formerly known as LanzaTech New Zealand Limited) and its subsidiaries (collectively, "the Company"). LanzaTech NZ, Inc. is a profit-oriented entity previously incorporated in New Zealand. Effective October 28, 2021, LanzaTech New Zealand Limited filed a Certificate of Incorporation to migrate its country of domicile from New Zealand to Delaware, in the United States, and change its corporate name to "LanzaTech NZ, Inc." The amendment was approved by the Board of Directors of LanzaTech and was effected by the filing of a Certificate of Incorporation with the Delaware Secretary of State. All necessary adjustments have been recorded to present fairly the Company's financial position as of December 31, 2021 and 2020 and the results of operations and cash flows for the years then ended. The registered office location is c/o The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware, 19801. The Company licenses its technology to customers, performs research and development in biotechnology, and provides engineering and other related services for commercial and government customers. Using the Company's proprietary fermentation technology, the Company's customers can convert certain carbon-rich waste gases into fuels and chemicals. The Company employs a licensing business model whereby its customers build, own and operate facilities that use the Company's technology, and in return, the Company is paid royalties based on the revenue generated from the use its technology. In 2018, the Company, through its equity method investee, launched the world's first commercial waste gas to ethanol plant in China, followed by a second one in 2021, also in China, with others currently in development in various countries around the world.

## Note 2 — Summary of Significant Accounting Policies

### *Basis of Presentation and Principles of Consolidation*

The consolidated financial statements were prepared in accordance with accounting principles generally accepted in the United States of America ("US GAAP"). The consolidated financial statements include the accounts of LanzaTech NZ, Inc. and its wholly-owned consolidated subsidiaries. All significant intercompany transactions and balances have been eliminated in consolidation.

As part of its evaluation, the Company makes judgments in determining whether an entity is a variable interest entity ("VIE") and, if so, whether it is the primary beneficiary of the VIE and is thus required to consolidate the entity. A VIE is a legal entity that has a total equity investment that is insufficient to finance its activities without additional subordinated financial support or whose equity investors lack the characteristics of a controlling financial interest. Our variable interest arises from contractual, ownership or other monetary interests in the entity, which change with fluctuations in the fair value of the entity's net assets. A VIE is consolidated by its primary beneficiary, the party that has both the power to direct the activities that most significantly impact the VIE's economic performance, and the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. We consolidate a VIE when we are deemed to be the primary beneficiary. We assess whether or not we are the primary beneficiary of a VIE on an ongoing basis. If we are not deemed to be the primary beneficiary in a VIE, we account for the investment or other variable interests in a VIE in accordance with applicable US GAAP.

The Company holds interests in certain VIEs for which it has been determined the Company is not the primary beneficiary. The Company's variable interests primarily relate to entities in which the Company has a non-controlling equity interest. Although these financial arrangements resulted in holding variable interests in these entities, they did not empower the Company to direct the activities of the VIEs that most significantly impact the VIEs' economic performance. The Company's interests in the VIEs are, therefore, accounted for under the equity method of accounting. Refer to Note 5, *Investments*, for further information. The Company's maximum exposure to loss in connection with its interest in VIEs is its equity method investment and any amounts receivable from the VIE, less amounts payable. Refer to Note 14, *Related Party Transactions*, for further details on the transactions with VIEs.

### *Segment Information*

The Company operates as one operating segment. Operating segments are defined as components of an enterprise for which separate financial information is evaluated regularly by the chief operating decision maker ("CODM"), in deciding how to allocate resources and assess performance.

While the Company offers a variety of services and operates in multiple countries, the Company's business operates in one operating segment because most of the Company's service offerings are delivered and supported on a global basis, most of

the Company's service offerings are deployed in a nearly identical way, and the Company's CODM evaluates the Company's financial information and resources and assesses the performance of these resources on a consolidated basis. There are no segment managers who are held accountable by the CODM, or anyone else, for operations, operating results, and planning for components below the consolidated level. Accordingly, the Company has determined that it has a single reportable and operating segment. See Note 4, *Revenues*, for disaggregation of the Company's revenues by customer location.

***Coronavirus (COVID-19)***

In March 2020, the World Health Organization declared the viral strain of coronavirus ("COVID-19") a global pandemic and recommended containment and mitigation measures worldwide. The spread of COVID-19 and the resulting economic contraction has resulted in increased business uncertainty. The consequences of a prolonged economic decline could include, but are not limited to, reduced revenues, increased instances of uncollectible customer receivables, and increased asset impairments in future periods. Accordingly, the Company cannot reasonably estimate the length or severity of this pandemic, or the extent to which the disruption may materially impact its consolidated balance sheets, consolidated statements of operations and comprehensive loss or statements of cash flows for future periods.

***Going Concern***

The accompanying consolidated financial statements of the Company have been prepared assuming the Company will continue as a going concern and in accordance with US GAAP. The going concern basis of presentation assumes that the Company will continue in operation one year after the date these financial statements are issued and will be able to realize its assets and discharge its liabilities and commitments in the normal course of business. The Company had cash and cash equivalents of $128,318 and an accumulated deficit of $378,162 at December 31, 2021 and cash outflows from operations of $42,591 and a net loss of $45,768 for the year ended December 31, 2021.

The Company has historically funded its operations through debt financing and issuance of equity securities. Based on the Company's financial position as of the date these consolidated financial statements were issued, the Company projects that it will be able to cover its liquidity needs for the next twelve months with cash on hand. Accordingly, the Company's consolidated financial statements have been prepared on the basis that it will continue as a going concern.

***Use of Estimates***

The preparation of financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Significant estimates include fair value of equity awards granted to both employees and non-employees.

Changes in facts and circumstances or additional information may result in revised estimates, and actual results may differ from these estimates.

***Foreign Currencies***

The Company's reporting currency is the U.S. Dollar. The Company has certain foreign subsidiaries where the functional currency is the local currency. All of the assets and liabilities of these subsidiaries are converted to U.S. dollars at the exchange rate in effect at the balance sheet date, income and expense accounts are translated at average rates for the period, and shareholder's equity accounts are translated at historical rates. The effects of translating financial statements of foreign operations into our reporting currency are recognized as an adjustment in accumulated other comprehensive income (loss).

The Company also has foreign subsidiaries that have a functional currency of the U.S. dollar. Purchases and sales of assets and income and expense items denominated in foreign currencies are remeasured into U.S. dollar amounts on the respective dates of such transactions. Net realized foreign currency gains or losses relating to the differences between these recorded amounts and the U.S. dollar equivalent actually received or paid are included within Other income, net in the consolidated statements of operations and comprehensive loss.

***Cash, Cash Equivalents, and Restricted Cash***

The Company considers all highly liquid investments with an original maturity of three months or less at the time of purchase to be cash equivalents. As of December 31, 2021 and 2020, the Company had $128,318 and $60,495 of cash and cash equivalents, respectively.

The Company is required to maintain a cash deposit with a bank which consists of collateral on a travel and expense program maintained by the bank. The following represents a reconciliation of cash and cash equivalents in the consolidated balance sheets to total cash, cash equivalents and restricted cash in the consolidated statement of cash flows as of December 31, 2021 and December 31, 2020.

| | Year Ended December 31, | |
|---|---|---|
| | 2021 | 2020 |
| Cash and cash equivalents | $ 128,318 | $ 60,495 |
| Restricted cash (presented within Other current assets) | 414 | 414 |
| Cash, cash equivalents and restricted cash | $ 128,732 | $ 60,909 |

***Trade and Other Receivables***

Receivables are reported net of allowances for doubtful accounts. The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of customers to make required payments. The Company estimates the allowance for doubtful accounts based on a variety of factors including the length of time receivables are past due, the financial health of customers, unusual macroeconomic conditions, and historical experience. As of December 31, 2021 and 2020, the Company recognized an allowance for doubtful accounts of $1,235 and $1,325, respectively.

***Other Current Assets***

Other current assets consist of prepaid expenses, materials and supplies, and other assets. Material and supplies consist of spare parts and consumables used for research and research equipment and is stated at the weighted average cost.

***Property, Plant and Equipment, net***

Property and equipment are stated at cost and include improvements that significantly increase capacities or extend the useful lives of existing plant and equipment. Depreciation is calculated using the straight-line method over the estimated useful life of the assets. Useful lives range from three to five years for instruments and equipment, three to five years for office equipment and furniture and software, five years for vehicles and, for leasehold improvements, the shorter of the life of the improvement or the remaining term of the lease.

The Company reviews the remaining useful life of its assets on a regular basis to determine whether changes have taken place that would suggest that a change to depreciation policies is warranted.

Upon retirement or disposal of property, plant and equipment, the cost and related accumulated depreciation are removed from the account, and the resulting gains or losses, if any, are recorded in the consolidated statements of operations and comprehensive loss. Net gains or losses related to asset dispositions are recognized in earnings in the period in which dispositions occur. Routine maintenance, repairs and replacements are expensed as incurred.

***Leases***

The Company determines if an arrangement is a lease at inception. Lease agreements are evaluated to classify the lease as a finance or operating lease. Operating lease assets and liabilities are recognized at the commencement date of the lease based on the present value of lease payments over the lease term. Lease assets represent the Company’s right to use an underlying asset for the lease term and lease liabilities represent the Company’s obligation to make lease payments arising from the lease. As most leases do not provide an implicit interest rate, the Company uses its incremental borrowing rate based on the information available at the lease commencement date in determining the present value of lease payments. Leases with an initial term of 12 months or less are not recorded on the Company’s consolidated balance sheets. The Company recognizes lease expense for these leases on a straight-line basis over the lease term. The Company accounts for lease components and non-lease components as a single lease component.

***Impairment of Long-Lived Assets***

The Company performs a recoverability assessment of each of its long-lived assets whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Indicators may include, but are not limited to, adverse changes in the regulatory environment in a jurisdiction where the Company operates, a decision to discontinue the development of a long-lived asset, early termination of a significant customer contract, or the introduction of newer technology.

When performing a recoverability assessment, the Company measures whether the estimated future undiscounted net cash flows expected to be generated by the asset exceeds its carrying value. In the event that an asset does not meet the recoverability test, the carrying value of the asset will be adjusted to fair value resulting in an impairment charge.

Management develops the assumptions used in the recoverability assessment based on active contracts as well as information received from third-party industry sources. The Company did not record an impairment during the years ended December 31, 2021 and 2020.

***Equity Method Investments***

Investments in entities over which the Company has significant influence, but not control, are accounted for using the equity method of accounting. Gain from equity method investees, net represents the Company's proportionate share of net income or loss of its equity method investees and any gains or losses from the dilution of such investments.

Equity method investments are assessed for impairment whenever changes in the facts and circumstances indicate a loss in value may have occurred. When a loss is deemed to have occurred and is other than temporary, the carrying value of the equity method investment is written down to fair value. In evaluating whether a loss is other than temporary, the Company considers the length of time for which the conditions have existed and its intent and ability to hold the investment.

***Simple Agreement for Future Equity (SAFE)***

In December 2021, the Company issued a SAFE that allowed an investor to participate in future equity financings through a share-settled redemption of the amount invested (such notional being the "invested amount"). The Company determined that the SAFE was not legal form debt (i.e., no creditors' rights). The SAFE includes a provision allowing for cash redemption upon the occurrence of a change of control, the occurrence of which is outside the control of the Company. Therefore, the SAFE is classified as mark-to-market liability pursuant to Accounting Standards Codification ("ASC") 480, *Distinguishing Liability from Equity*.

***Warrants***

The Company has warrants to purchase preferred shares outstanding as of December 31, 2021 and 2020 representing 225,223 and 383,281 preferred shares, respectively, which warrants expire at various dates through December 31, 2027. The exercise prices of the warrants range from $14.69 to $19.93 as of each of December 31, 2021 and 2020. The Company accounts for its warrants as liabilities based upon the characteristics and provisions of each instrument. The liabilities are included in other accrued liabilities on the Company's consolidated balance sheets at their fair value on the date of issuance and are revalued in each subsequent reporting period until such instruments are exercised or expire. The change in fair value between reporting periods is included in other (expense) income, net in the consolidated statements of operations and comprehensive loss.

Further the warrant related to the SAFE of $1,729 is accounted for as a liability. This liability is recorded in current liabilities on the Company's consolidated balance sheets at fair value on the date of issuance and will be revalued each subsequent reporting period until such instrument is exercised or expire. The change in fair value between reporting periods is included in other (expense) income, net in the consolidated statements of operations and comprehensive loss.

***Long-Term Debt and Debt Issuance Costs***

The Company's debt consists of credit facilities with financial institutions. Costs directly related to the issuance of debt are reported on the consolidated balance sheets as a reduction from the carrying amount of the recognized debt liability and amortized over the term of the debt using the effective interest method.

***Legal and Contingencies***

The Company may be involved in legal actions in the ordinary course of business, inquiries and proceedings concerning employment, labor, environmental, and other claims. The Company will recognize a loss contingency in the consolidated financial statements when it is probable a liability has been incurred and the amount of the loss can be reasonably estimated. The Company will disclose any loss contingencies that do not meet both conditions if there is a reasonable possibility that a loss may have been incurred. Gain contingencies are not recorded until realized.

***Revenue Recognition***

The Company recognizes revenue in accordance with ASC 606, *Revenue from Contracts with Customers*. The Company primarily earns revenue from services related to feasibility studies and basic engineering design of commercial

plants, licensing of technologies, joint development and contract research activities to develop novel biocatalysts and related technologies.

Revenue is measured based on the consideration specified in a contract with a customer. The Company records taxes collected from customers and remitted to governmental authorities on a net basis. The Company's payment terms are between 30-60 days and can vary by customer type and products offered. We have evaluated the terms of our arrangements and determined that they do not contain significant financing components.

*Carbon Capture and Transformation*

The Company provides feasibility studies and basic design and engineering services used for detailed design, procurement, and construction of commercial plants that utilize the Company's technologies, along with the sale of equipment and microbes. The services provided are recognized as a performance obligation satisfied over time. Revenue is recognized using the output method based on milestone completion, the cost-to-cost input method for certain engineering services, or the percentage of completion method when certain revenue recognition requirements are met. Management has determined that the milestone completion and the associated contractual payment amounts are an appropriate measure of progress towards complete satisfaction of the performance obligations under ASC 606.

The Company licenses intellectual property to generate recurring revenue when its customers deploy carbon capture and transformation plants. When licenses are considered to be distinct performance obligations, the recognition of revenue is dependent on the terms of the contract, which may include fixed consideration or royalties based on sales or usage, in which case, the revenue is recognized when the subsequent sale or usage occurs or when the performance obligation to which some or all of the sales or usage-based royalty is allocated has been satisfied, whichever is later.

*Research and Development Services*

The Company performs research and development ("R&D") services related to novel technologies and development of biocatalysts for commercial applications, mainly to produce fuels and chemicals. The Company engages in two main types of R&D services – joint development agreements, and other contract research, including projects with the U.S. Department of Energy. Such services are recognized as a performance obligation satisfied over time. Revenue is recognized based on milestone completion, when such milestones are contractually defined, or based on stage of contract completion when not defined. For the latter, management has determined that the cost incurred, input method, is an appropriate measure of progress towards complete satisfaction of the performance obligations under ASC 606, *Revenue from Contracts with Customers,* and estimates its variable consideration under the expected value method. Accordingly, the Company records a liability based on milestones achieved and the expected repayment of the development costs.

The Company's joint development agreements may utilize the cost-to-cost method of revenue recognition or may include well defined payment milestones, dependent on the contract, both of which the Company evaluates against work completed prior to revenue recognition. For other contract research, the Company utilizes the cost-to-cost method of revenue recognition. These contracts have a fixed dollar amount which is based on the Company's estimate of total costs to be incurred over the life of each contract.

Revenue is not recognized in advance of customer acceptance of a milestone, when such acceptance is contractually required. Payments for R&D services with no contractual payments are not due from customers until a technical report is submitted; therefore, a contract asset is recognized at milestone completion but prior to the submission of a technical report. The contract asset represents the Company's right to consideration for the services performed at milestone completion. Occasionally, customers provide payments in advance of the Company providing services which creates a contract liability for the Company. The contract liability represents the Company's obligation to provide services to a customer.

***Collaboration Arrangements***

The Company has certain partnership agreements that are within the scope of ASC 808, *Collaborative Arrangements*, which provides guidance on the presentation and disclosure of collaborative arrangements. Generally, the classification of the transactions under the collaborative arrangements is determined based on the nature of the contractual terms of the arrangement, along with the nature of the operations of the participants. The Company's collaborative agreements generally include a provision of R&D services related to novel technologies and biocatalysts. Amounts received for these services are classified as Revenue from collaborative arrangements in the consolidated statements of operations and comprehensive loss. The Company's R&D services are a major part of the Company's ongoing operations and therefore ASC 606 is applied to recognize revenue.

***Cost of Revenues***

The Company's R&D, engineering, and other direct costs of services related to revenue agreements with customers, related parties, and collaborative partners represent cost of revenue. Costs include both internal and third-party fixed and variable costs and include materials, supplies, labor, and fringe benefits.

***Research and Development***

We incur research and development costs associated with various R&D activities and expense these costs as incurred.

***Stock-Based Compensation***

The Company accounts for equity-based compensation in accordance with ASC 718, *Compensation – Stock Compensation*. Accordingly, in exchange for employee and director services, compensation is given in the form of equity awards. The equity awards are recorded based on the grant date fair value and expensed over the requisite service period for the respective award.

The Company's equity-based awards include stock option awards and restricted stock issued by the Company, which vest based on either time or the achievement of certain performance conditions. The Company records forfeitures as they occur. Compensation expense resulting from time-vesting-based awards is recognized in the Company's consolidated statements of operations and comprehensive loss, primarily within research and development expenses, at the grant date fair value over the requisite service period. Compensation expense resulting from performance awards recognized over the requisite service period when it is probable that the performance condition will be met. The calculated compensation expense for performance awards is adjusted based on an estimate of awards ultimately expected to vest. The Company estimates grant date fair value using a Black-Scholes option pricing model that uses assumptions including expected volatility, expected term, and the expected risk-free rate of return. The Company has determined that the Black-Scholes option pricing model, as well as the underlying assumptions used in its application, is appropriate in estimating the fair value of its award grants.

***Income Taxes***

The Company follows the asset and liability method of accounting for income taxes under ASC 740, Income Taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to temporary differences between the financial statements carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that included the enactment date. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized.

Deferred income tax assets are evaluated to determine if valuation allowances are required or should be adjusted. Valuation allowances are established based on a more likely than not standard. The ability to realize deferred tax assets depends on the Company's ability to generate sufficient taxable income within the carryback or carryforward periods provided for in the tax law for each tax jurisdiction. The Company considers the various possible sources of taxable income when assessing the realization of its deferred tax assets. The valuation allowances recorded against deferred tax assets generated by taxable losses in certain jurisdictions will affect the provision for income taxes until the valuation allowances are released. The Company's provision for income taxes will include no tax benefit for losses incurred and no tax expense with respect to income generated in these jurisdictions until the respective valuation allowance is eliminated.

The Company records uncertain tax positions on the basis of a two-step process whereby it is determined whether it is more likely than not that the tax positions will be sustained based on the technical merits of the position, and for those tax positions that meet the more likely than not criteria, the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority is recognized. The Company recognizes accrued interest and penalties related to unrecognized tax benefits in income tax expense.

***Related Party Transactions***

The Company follows ASC 850-10, *Related Party Transactions*, for the identification of related parties and disclosure of related party transactions.

Pursuant to ASC 850-10-20, related parties include: a) affiliates of the Company; b) entities for which investments in their equity securities would be required, absent the election of the fair value option under the Fair Value Option Subsection of Section 825-10-15, to be accounted for by the equity method by the investing entity; c) trusts for the benefit of employees, such as pension and profit-sharing trusts that are managed by or under the trusteeship of management; d) principal owners of the

Company; e) management of the Company; f) other parties with which the Company may deal if one party controls or can significantly influence the management or operating policies of the other to an extent that one of the transacting parties might be prevented from fully pursuing its own separate interests; and g) other parties that can significantly influence the management or operating policies of the transacting parties or that have an ownership interest in one of the transacting parties and can significantly influence the other to an extent that one or more of the transacting parties might be prevented from fully pursuing its own separate interests. Refer to Note 5, *Investments*, and Note 14, *Related Party Transactions*, for further information.

***Net Loss Per Share***

Basic net loss per share is computed by dividing net loss attributable to participating stock by the weighted average number of shares of participating stock outstanding during the period.

Diluted net loss per share reflects potential dilution and is computed by dividing net loss attributable to participating stock by the weighted average number of shares of participating stock outstanding during the period. The dilutive effect of outstanding awards, if any, is reflected in diluted earnings per share by application of the treasury stock method or if-converted method, as applicable. Refer to Note 3, *Net Loss Per Share*, for additional information.

***Fair Value of Financial Instruments***

Fair value is defined as the exchange price that would be received for an asset or an exit price paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy defines a three-level valuation hierarchy for disclosure of fair value measurements as follows:

**Level 1** — Valuations based on quoted prices in active markets for identical assets or liabilities that an entity has the ability to access;

**Level 2** — Valuations based on quoted prices for similar assets or liabilities, quoted prices for identical assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable data for substantially the full term of the assets or liabilities; and

**Level 3** — Valuations based on inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The categorization of a financial instrument within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The fair value of the Company's assets and liabilities, which qualify as financial instruments under ASC Topic 820, *Fair Value Measurement*, approximates the carrying amounts represented in the accompanying consolidated balance sheets, primarily due to their short-term nature, except for the warrant liability. Refer to Note 11, *Warrant Liabilities*, for more information.

***Concentration of Credit Risk and Other Risks and Uncertainties***

Revenue generated from the Company's customers outside of the United States for the years ended December 31, 2021 and 2020 was approximately 37% and 14%, respectively.

As of December 31, 2021 and 2020, approximately 35% and 27%, respectively, of trade accounts receivable and unbilled accounts receivable was due from customers located outside the United States. At December 31, 2021 and 2020, the value of property, plant, and equipment outside the United States was immaterial.

The Company's revenue by geographic region based on the customer's location is presented in Note 4, *Revenues*.

*Customers*

Customers representing 10% or greater of revenue were as follows for the years ended December 31, 2021 and 2020:

| | Year Ended December 31, | |
|---|---|---|
| | 2021 | 2020 |
| Customer A | 26 % | 27 % |
| Customer B | 16 % | 26 % |
| Customer C | 14 % | 24 % |

As of December 31, 2021, two of the Company's customers separately represented 49% (Customer B) and 15% (Customer D) of total accounts receivable and contract assets on the consolidated balance sheet.

***Reclassification***

Certain amounts in Note 12, *Income Taxes* and in the consolidated statement of operations and comprehensive loss, in the 2020 financial statements have been reclassified to conform to the 2021 financial statement presentation.

***Recently Adopted Accounting Pronouncements***

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-13, *Financial Instruments – Credit Losses (Topic 326): Disclosure Framework – Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"), which requires financial assets measured at amortized cost basis, including trade receivables, to be presented net of the amount expected to be collected. The measurement of all expected credit losses will be based on historical experience, current conditions, and reasonable and supportable forecasts. The Company adopted the new standard effective January 1, 2020, using a modified retrospective transition method, which requires a cumulative-effect adjustment, if any, to the opening balance of retained earnings to be recognized on the date of adoption with prior periods not restated. The adoption did not have a material impact on the Company's financial position or results of operations.

In August 2018, the FASB issued ASU 2018-15, *Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* ("ASU 2018-15"), which requires a customer in a cloud computing arrangement that is a service contract to follow the internal-use software guidance in ASC 350-40 to determine which implementation costs to capitalize as assets. A customer's accounting for the costs of the hosting component of the arrangement is not affected by the new guidance. The Company adopted ASU 2018-15 as of January 1, 2020 with no material impact on its consolidated financial statements.

In September 2018, the FASB issued ASU 2018-07, *Compensation - Stock Compensation Improvements to Non-employee Share-Based Payment Accounting* ("ASU 2018-07"), which simplifies the accounting for stock-based payments granted to non-employees for goods and services. Under ASU 2018-07, most of the guidance on such payments to non-employees will be aligned with the requirements for stock-based payments granted to employees. The Company early adopted ASU 2018-07 as of January 1, 2020 and its adoption did not have a material impact on the Company's consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"), as part of its simplification initiative to reduce the cost and complexity in accounting for income taxes. ASU 2019-12 removes certain exceptions related to the approach for intra-period tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. ASU 2019-12 also amends other aspects of the guidance to help simplify and promote consistent application of US GAAP. The Company adopted ASU 2019-12 as of January 1, 2021 with no material impact on its consolidated financial statements.

***Recently Announced Accounting Pronouncements***

In October 2020, the FASB issued ASU No. 2020-10, *Codification Improvements* ("ASU 2020-10"). The standard contains improvements to the FASB Accounting Standards Codification (the "Codification") by ensuring that all guidance that requires or provides an option for an entity to provide information in the notes to financial statements is codified in the disclosure section of the Codification. The standard also improves various topics in the Codification so that entities can apply guidance more consistently on codifications that are varied in nature where the original guidance may have been unclear. The amendments in ASU 2020-10 are effective for the Company for fiscal years beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022. Early adoption is permitted. The Company does not expect the adoption of ASU 2020-10 to have a material impact on its consolidated financial statements and related disclosures.

**Note 3 — Net Loss Per Share**

Basic net loss per share is computed by dividing net loss by the weighted-average number of shares of common stock of the Company outstanding during the period. Diluted net loss per share is computed by giving effect to all potential shares of common stock of the Company, including outstanding stock options, warrants, and contingently redeemable preferred stock, to the extent dilutive.

The following table presents the calculation of basic and diluted net loss per share for the Company's common stock (in thousands, except shares and per share amounts):

| | Year Ended December 31, | |
|---|---|---|
| | 2021 | 2020 |
| **Numerator:** | | |
| Net loss for basic and diluted earnings per common share | $ (45,768) | $ (36,907) |
| Unpaid cumulative dividends on preferred stock | (36,758) | (31,291) |
| Net loss allocated to common shareholders | $ (82,526) | $ (68,198) |
| | | |
| **Denominator:** | | |
| Weighted-average shares used in calculating net loss per share, basic and diluted | 1,959,165 | 1,629,821 |
| | | |
| Net loss per common share, basic and diluted[(1)] | $ (42.12) | $ (41.84) |

[(1)]In periods in which the Company reports a net loss, all stock-based compensation awards are excluded from the calculation of diluted weighted average shares outstanding because of their anti-dilutive effect on earnings (loss) per share.

As of December 31, 2021 and 2020, potential shares of common stock not included in the computation of earnings per share because their effect would be antidilutive include the following:

| | Year Ended December 31, | |
|---|---|---|
| | 2021 | 2020 |
| Redeemable convertible preferred stock (if converted) | 29,521,810 | 25,729,542 |
| Options | 3,848,420 | 4,283,200 |
| RSAs | 579,660 | 324,680 |
| Warrants | 225,223 | 383,281 |
| Total | 34,175,113 | 30,720,703 |

Under the organizational documents of the Company, the preferred shares will automatically convert into common shares upon either (i) the determination of the holders of certain requisite preferred shares of the Company (which determination will be submitted for approval by such stockholders in connection with the Merger described below in Note 20) or (ii) a firmly underwritten initial public offering of the Company's shares that satisfies certain requirements (but not, for the avoidance of doubt, upon a business combination with a special purpose acquisition company, such as the Merger, unless such conversion is otherwise effected pursuant to clause (i) above). Such conversion would be at a 1:1 ratio, adjusted for certain corporate events. The additional 29,521,810 and 25,729,542 of potential shares of common stock resulting from any such conversion are not included in the computation of diluted net loss per share in 2021 and 2020, respectively, because neither an initial public offering nor a stockholder determination of such conversion had occurred at the end of the period. In connection with the SAFE, see Note 10 - *Simple Agreement for Future Equity*, the Company could issue additional potential shares of common stock upon closing of the Merger. Further, under the SAFE warrant, see Note 6 – *Fair Value* and Note 11 – *Warrants Liability*, additional potential shares of common stock could be issued upon closing of the Merger and exercise of the warrant. These potential shares of common stock have not been issued as of December 31, 2021. The per share issuance price for the SAFE and SAFE warrant upon closing of the Merger is 100% of the liquidity price. If another qualified liquidity event occurs instead, the issuance price is 90% of the liquidity price.

## Note 4 — Revenues

### *Disaggregated Revenue*

The following table presents disaggregated revenue in the following categories (in thousands):

| | Year Ended December 31, | |
|---|---|---|
| | 2021 | 2020 |
| **Contract Types:** | | |
| Joint development agreements | $ 11,700 | $ 6,928 |
| Other contract research | 2,197 | 1,982 |
| Research and development revenue | 13,897 | 8,910 |
| | | |
| Licensing | 2,687 | 1,567 |
| Engineering and other services | 9,661 | 8,303 |
| Carbon capture and transformation revenue | 12,348 | 9,870 |
| | | |
| **Total Revenue** | $ 26,245 | $ 18,780 |

Revenue from collaborative partners is included in the table above within joint development agreements.

The following table presents disaggregation of the Company's revenues by customer location for the years ended December 31, 2021 and 2020 (in thousands):

| | Year Ended December 31, | |
|---|---|---|
| | 2021 | 2020 |
| North America | $ 16,609 | $ 16,159 |
| Europe | 7,522 | 2,117 |
| Asia | 1,477 | 504 |
| Australia | 637 | — |
| **Total Revenue** | $ 26,245 | $ 18,780 |

### *Contract balances*

The following table provides changes in contract assets and liabilities during the year ended December 31, 2021.

| | Current Contract Assets | Current Contract Liabilities | Non-current Contract Liabilities |
|---|---|---|---|
| Balance as of December 31, 2020 | $ 6,064 | $ 5,480 | $ 11,291 |
| Additions to unbilled accounts receivable | 8,638 | — | — |
| Increases due to cash received | — | 20 | 5,690 |
| Unbilled accounts receivable recognized in trade receivables | (3,002) | — | — |
| Reclassification from long-term to short-term | — | 3,080 | (3,080) |
| Reclassification to revenue as a result of performance obligations satisfied | — | (5,104) | — |
| Balance as of December 31, 2021 | $ 11,700 | $ 3,476 | $ 13,901 |

The increase in contract assets was mostly due to unbilled accounts receivables from contracts with customers where the Company performed engineering and other services, while the increase in contract liabilities was primarily due to advance payments received under engineering and other services. As of December 31, 2021 and 2020 the Company had $2,878 and $5,521, respectively, of billed accounts receivable.

The contract liability balance is comprised of unconditional payments received from the Company's customers prior to the satisfaction of the related performance obligations. Such amounts are anticipated to be recorded as revenues when services

are performed in subsequent periods. The Company expects to recognize the amounts classified as current contract liabilities, in revenue within one year or less and those classified as non-current within two and three years.

*Remaining performance obligations*

Transaction price allocated to the remaining performance obligation represents contracted revenue that has not yet been recognized, which includes unearned revenue that will be recognized as revenue in future periods. Transaction price allocated to remaining performance obligations is influenced by several factors, including the length of the contract term compared to the research term and the existence of customer specific acceptance rights.

Remaining performance obligations consisted of the following (in thousands):

| | 2021 | 2020 |
|---|---|---|
| Current | $ 3,476 | $ 5,480 |
| Non-current | 13,901 | 11,291 |
| **Total** | $ 17,377 | $ 16,771 |

**Note 5 — Investments**

The Company's investments consisted of the following (in thousands):

| Category | Balance Sheet Location | 2021 | 2020 |
|---|---|---|---|
| Equity method investments: | | | |
| Investment in LanzaJet | Equity method investments | $ 14,160 | $ 14,457 |
| Investment in SGLT | Equity method investments | 12,319 | 9,566 |
| **Total Investment** | | $ 26,479 | $ 24,023 |

**Equity Method Investments**

On May 13, 2020, the Company contributed $15,000 in intellectual property in exchange for a 37.5% interest ("Original Interest") of LanzaJet, Inc. ("LanzaJet") and the right to an increase in ownership in the future, if the intellectual property is used commercially in connection with an investment agreement ("Investment Agreement"). LanzaJet is a sustainable fuels technology company dedicated to expanding sustainable aviation fuels ("SAF") to reduce greenhouse gas emissions and the decarbonization of the aviation and transportation industries. LanzaJet's access to the license is in perpetuity if certain key performance indicators ("KPI's") are met in accordance with the Investment Agreement. If these KPI's are not met by December 31, 2025, the Company may terminate the license. Due to this conditional call option, LanzaJet does not obtain control until such time as the contingencies are resolved. Therefore, ASC 606 stipulates that such transaction is treated akin to an operating lease. Accordingly, the Company records revenue over the period beginning May 2020 through December 2025 on a straight-line basis. During the years ended December 31, 2021 and 2020, the Company has recognized revenue from this arrangement of $2,687 and $1,567 and has recorded deferred revenue of $10,746 and $13,433, respectively.

In addition to the Original Interest, the Investment Agreement requires the other investors party thereto to contribute additional funds if certain KPI's are met. At such point, the Company would receive an additional interest in LanzaJet of up to 45 million shares for no additional consideration at that time. There would be no additional LanzaJet Board of Director representation with the potential increased interest. The additional interests received, if any, are considered to be akin to variable lease consideration, and accordingly the Company has not recognized the additional interest in the consolidated financial statements.

On April 1, 2021, LanzaJet closed an additional round of investment which reduced the Company's Original Interest to 25%. As a result, the Company recognized a gain on dilution of $181. The Company retained its right to receive additional interest in LanzaJet of up to 45 million shares for no additional consideration.

On September 28, 2011, the Company contributed RMB 25,800 (approx. $4,000) in intellectual property in exchange for 30% of the registered capital of Beijing ShouGang LanzaTech Technology Co., LTD ("SGLT"). SGLT utilizes and develops technologies and know-how in connection with the production of anhydrous ethanol from steel mill waste gases. The contribution was recognized as revenue in 2011.

As of December 31, 2021 and 2020, as the result of the admittance of new investors, the Company's interest in SGLT's registered capital is approximately 10.01% and 11.14%, respectively. The Company recognized a gain from the dilution of $3,048 and $3,811 during the years ended December 31, 2021 and December 31, 2020, respectively. The Company has continued to apply the equity method of accounting to the investment as the Company maintains significant influence via representation on SGLT's Board of Directors and SGLT's significant dependency on the intellectual property the Company contributed.

The following table presents summarized aggregated financial information of the equity method investments:

| | Year Ended December 31, | |
|---|---|---|
| | 2021 | 2020 |
| Selected Statement of Operations Information: | | |
| Revenues | $ 42,605 | $ 26,120 |
| Gross profit | (7,743) | (5,510) |
| Net loss | (7,371) | (9,044) |
| Net loss attributable to the Company | (1,025) | (1,387) |

| | 2021 | 2020 |
|---|---|---|
| Selected Balance Sheet Information: | | |
| Current assets | $ 106,024 | $ 55,014 |
| Non-current assets | 255,967 | 119,733 |
| Current liabilities | 71,098 | 35,410 |
| Non-current liabilities | 92,766 | 13,353 |

As of December 31, 2021 and 2020, there were no impairments of equity method investees. During 2021 and 2020, the Company received no dividends from equity method investments. As of and for the years ended December 31, 2021 and December 31, 2020, sales, accounts receivable, and purchases and open accounts payable with equity method investees were as follows (in thousands):

| | December 31, | |
|---|---|---|
| | 2021 | 2020 |
| Sales | $ 3,915 | $ 4,752 |
| Accounts receivable | 1,071 | 3,257 |
| Purchases and open accounts payable | 2,575 | — |

**Note 6 — Fair Value**

The following table presents the Company's fair value hierarchy for its assets and liabilities measured at fair value as of December 31, 2021 and 2020 (in thousands):

| | Fair Value Measurement as of December 31, 2021 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| **Assets:** | | | | |
| Cash equivalents | $ 516 | $ — | $ — | $ 516 |
| **Liabilities:** | | | | |
| Warrants | $ — | $ — | $ 1,145 | $ 1,145 |
| SAFE warrant | — | — | 1,729 | 1,729 |
| SAFE liability | — | — | 28,271 | 28,271 |
| **Total liabilities** | $ — | $ — | $ 31,145 | $ 31,145 |

| | Fair Value Measurement as of December 31, 2020 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| **Assets:** | | | | |
| Cash equivalents | $ 516 | $ — | $ — | $ 516 |
| | | | | |
| **Liabilities:** | | | | |
| Warrants | $ — | $ — | $ 582 | $ 582 |

The warrants are accounted for as liabilities in accordance with ASC 480 and are presented within other accrued liabilities on the consolidated balance sheets. The warrant liabilities are measured at fair value at inception and on a recurring basis, with changes in fair value presented within the consolidated statements of operations and comprehensive loss.

The fair value of the warrants was calculated using the Black-Scholes Option Pricing Model. For the years ended December 31, 2021 and 2020, the Company recognized a change in the fair value of liabilities of approximately $(563) and $105, respectively, on the statements of operations and comprehensive loss within other income (expense), net.

The estimated fair value of the warrants is determined using Level 3 inputs. Inherent in the Black-Scholes Option Pricing Model are assumptions related to expected stock-price volatility, expected life, risk-free interest rate and dividend yield. The Company estimates the volatility of its warrants based on implied volatility from the Company's warrants and from historical volatility of select peer companies that match the expected remaining life of the warrants. The risk-free interest rate is based on the U.S. Treasury zero-coupon yield curve on the grant date for a maturity similar to the expected remaining life of the warrants. The expected life of the warrants is assumed to be equivalent to their remaining contractual term. The dividend rate is based on the historical rate, which the Company anticipates remaining at zero.

The following table represents the weighted average inputs used in calculating the fair value of the preferred share warrants outstanding as of December 31, 2021 and 2020:

| | 2021 | 2020 |
|---|---|---|
| Stock price | $ 13.77 | $ 4.68 |
| Weighted average exercise price | 17.32 | 18.39 |
| Term (in years) | 2.8 | 2.8 |
| Expected volatility | 70.6% | 88.9% |
| Risk-free interest rate | 0.8% | 0.4% |
| Expected dividend yield | —% | —% |

The Company's SAFE liability and SAFE warrant are mark-to-market liabilities pursuant to ASC 480 and are classified within Level 3 of the fair value hierarchy as the Company is using a scenario-based approach which allowed the Company to estimate the implied value of the business based on the terms of the SAFE. Significant unobservable inputs included probability and expected term. Probability is based upon the likelihood of the Company closing a transaction with a special purpose acquisition company. The expected term was based on the anticipated time until the SAFE investments would have a conversion event.

Significant inputs for Level 3 SAFE liability fair value measurement at December 31, 2021 are as follows:

| | Near Term | Long-Term |
|---|---|---|
| Key assumptions: | | |
| Probability weighting | 25 % | 75 % |
| Time to conversion (in years) | 0.5 | 1.0 |
| Liquidity price | 100 % | 90 % |
| Discount rate | 17.1 % | 17.1 % |

Significant inputs for Level 3 SAFE warrant fair value measurement at December 31, 2021 are as follows:

| | Near Term | Long-Term |
|---|---|---|
| Key assumptions: | | |
| Probability weighting | 25 % | 75 % |
| Remaining life (in years) | 5.0 | 5.0 |
| Volatility | 60 % | 60 % |
| Interest rate | 1.26 % | 1.26 % |
| Time to conversion (in years) | 0.5 | 1.0 |
| Risk-free interest rate | 0.19 % | 0.39 % |
| Dividend yield | — % | — % |

The following table represents a reconciliation of the contingent shares issuance liabilities fair value measurements using the significant unobservable inputs (Level 3) (in thousands):

| | Warrants | SAFE liability | SAFE warrant |
|---|---|---|---|
| **Balance as of January 1, 2020** | $ 687 | $ — | $ — |
| Gain recognized in statement of operations and comprehensive loss | (105) | — | — |
| **Balance as of December 31, 2020** | $ 582 | $ — | $ — |
| Issuance of SAFE liability and warrant | | 28,271 | 1,729 |
| Loss recognized in statement of operations and comprehensive loss | 563 | — | — |
| **Balance as of December 31, 2021** | $ 1,145 | $ 28,271 | $ 1,729 |

In March 2021, a warrant was exercised for a total issuance of 158,058 Series D preferred shares. The fair value of this warrant was $107 as of January 1, 2020 and was remeasured to zero as of December 31, 2020. As a result, the exercise had no impact on the consolidated statement of operations and comprehensive loss as of and for the year ended December 31, 2021.

## Note 7 — Other Current Assets

As of December 31, 2021 and 2020 other current assets consisted of the following (in thousands):

| | 2021 | 2020 |
|---|---|---|
| Materials and supplies | $ 2,900 | $ 1,952 |
| Prepaid assets | 1,503 | 1,419 |
| Other | 1,376 | 1,016 |
| | $ 5,779 | $ 4,387 |

**Note 8 — Property, Plant and Equipment**

As of December 31, 2021 and 2020, the Company's property, plant and equipment, net consisted of the following (in thousands):

| | 2021 | 2020 |
|---|---|---|
| Land | $ 64 | $ 64 |
| Leasehold improvements | 4,113 | 4,187 |
| Instruments and equipment | 26,627 | 21,735 |
| Vehicles | 71 | 58 |
| Office Equipment and furniture | 1,590 | 1,347 |
| Other | 728 | 544 |
| Construction in progress | 3,328 | 2,363 |
| | $ 36,521 | $ 30,298 |
| | | |
| Less accumulated depreciation | $ 22,373 | $ 18,689 |
| | | |
| Total property, plant and equipment, net | $ 14,148 | $ 11,609 |

Depreciation for the years ended December 31, 2021 and 2020 totaled $3,806 and $2,979, respectively.

**Note 9 — Debt**

As of December 31, 2021 and 2020, the Company's debt consisted of the following (in thousands):

| | 2021 | 2020 |
|---|---|---|
| 2016 WTI Loan | $ — | $ 570 |
| PPP Loan | — | 3,065 |
| Total debt, net | — | 3,635 |
| Less amount due within one year | — | 570 |
| Debt due after one year, net | $ — | $ 3,065 |

In 2016, a loan facility was entered into with Venture Lending and Leasing VII, Inc. and Venture Lending and Leasing VIII, Inc. (the "2016 WTI Loan") for a total of $17,500 available in three tranches, all of which have been drawn. Tranches one and two were fully repaid as of December 31, 2020. The coupon interest rate for each tranche is the WSJ prime rate, at the time of each drawdown, plus 9.0%, but not less than 12.5%. The term of each drawdown is 39 months, including nine months of interest-only payments. The loan facility was secured by all of the Company's assets. In March 2021, the Company repaid $570 on outstanding amounts owed on the 2016 WTI loan facility. As of December 31, 2021, tranche three was fully repaid and the Company has no outstanding debt under this facility.

The Company was required to meet certain non-financial covenants in its loan facility agreement. In 2021 and 2020, the Company was in compliance with all non-financial covenants.

*Paycheck Protection Program Loan*

In April 2020, the Company was granted a loan in the amount of $3,065 pursuant to the Paycheck Protection Program (the "PPP Loan") under the Coronavirus Aid, Relief and Economic Security Act. The PPP Loan has a two-year term and bears interest at a rate of 0.98% per annum. Monthly principal and interest payments are deferred for six months after the date of disbursement. The PPP Loan may be prepaid at any time prior to maturity with no prepayment penalties. The PPP Loan contains events of default and other provisions customary for a loan of this type. The PPP Loan may be forgiven if used under program parameters for payroll, mortgage interest, and rent expenses. During 2021 and 2020, the Company was in compliance with the terms of the PPP Loan.

On September 28, 2021, the Company received notice that the obligation of $3,065 had been forgiven, and the Company has no outstanding debt under this program. The Company recorded the gain on extinguishment in the 2021 consolidated statement of operations and comprehensive loss.

**Note 10 — SAFE**

In December 2021, the Company issued a SAFE that allows an investor to participate in future equity financings through a share-settled redemption of the amount invested (such notional being the “invested amount”). Upon the occurrence of a change of control, the investor has the right to receive the greater of (i) a cash payment equal to the invested amount under such SAFE, or (ii) the consideration payable in such change of control in respect of the number of common shares equal to the invested amount divided by the liquidity price set forth in the applicable SAFE. Upon an initial public offering or a business combination with a special purpose acquisition company, the investor has the right to receive a number of common shares equal to the invested amount divided by the liquidity price set forth in the applicable SAFE, except that if a business combination with a special purpose acquisition company involves a private placement of newly issued shares, the invested amount will be treated as participating in such private placement and exchanged for a number of common shares equal to the invested amount divided by the price per share applicable in such private placement (subject to a discount upon certain circumstances).

The SAFE also contains change of control and initial public offering settlement alternatives described above, that settle differently upon a next round financing such that it allows the investor to participate in future equity financings through a share-settled redemption at a discounted price to the price paid by other investors. That is, upon a future equity financing involving preferred shares, the SAFE would be settled into a number of preferred shares equal to the invested amount of the SAFE divided by a percentage of the discounted price investors paid to purchase preferred shares in the financing, with such discounted price calculated as a percentage of the price investors paid to purchase preferred shares in the financing.

The SAFE had not yet converted to equity as a qualifying financing event had not occurred as of December 31, 2021. At December 31, 2021, the SAFE had a fair value of $28,271 and was recorded within current liabilities on the consolidated balance sheet.

**Note 11 — Warrant Liabilities**

In connection with certain loan borrowing agreements and equity raises, the Company issues warrants to purchase preferred shares. The Company evaluated the accounting treatment for the preferred share warrants issued and concluded pursuant to its evaluation of ASC 480, *Distinguishing Liabilities From Equity*, and determined that there is an obligation to issue a variable number of shares and as such, were considered a liability in the consolidated balance sheets. The warrant liability requires the Company to remeasure the value of the underlying warrants and report the effect of the changes on the Company’s operations until the warrants are exercised or expired. The primary underlying risk exposure pertaining to the warrants is the change in fair value of the underlying preferred shares for each reporting period.

**Note 12 — Income Taxes**

The components of (loss) income before income taxes and gain from equity method investees, net are as follows (in thousands):

| | December 31, | |
|---|---|---|
| | **2021** | **2020** |
| United States | $ (38,939) | $ 912 |
| New Zealand | (7,551) | (40,651) |
| Foreign | 722 | 2,832 |
| Total | $ (45,768) | $ (36,907) |

The components of income tax expense were as follows (in thousands):

| | December 31, | |
|---|---|---|
| | 2021 | 2020 |
| Current: | | |
| United States | $ — | $ — |
| New Zealand | — | — |
| Foreign | — | — |
| Total | $ — | $ — |
| Deferred: | | |
| United States | — | — |
| New Zealand | — | — |
| Foreign | — | — |
| Total | $ — | $ — |

The following table is a reconciliation of income taxes computed at the statutory federal income tax rate (21.0% federal income tax rate in the United States for 2021 and 28.0% federal income tax rate in the New Zealand for 2020, respectively) to the income tax expense (benefit) reflected in the consolidated statement of operations and comprehensive loss (in thousands, except percentages):

| | Year Ended December 31, | | | |
|---|---|---|---|---|
| | 2021 | | 2020 | |
| Income tax (benefit) at the statutory federal income tax rate | $ (9,611) | 21.0% | $ (10,334) | 28.0% |
| Foreign tax rate differential | (605) | 1.3% | 1,180 | (3.2)% |
| State and local taxes | (3,980) | 8.7% | (2,352) | 6.4% |
| Effects of impairment | — | —% | 10,281 | (27.9)% |
| Foreign exchange differences | (143) | 0.3% | (5,892) | 16.0% |
| Stock-based compensation | 501 | (1.1)% | 670 | (1.8)% |
| Interest income on receivable | 882 | (1.9)% | 2,120 | (5.7)% |
| Equity method investment | (443) | 1.0% | (679) | 1.8% |
| Non-deductible legal costs | 1,291 | (2.8)% | — | —% |
| Gain from redomiciliation of intellectual property | 4,890 | (10.7)% | — | —% |
| Valuation allowance | 7,677 | (16.8)% | 5,202 | (14.1)% |
| PPP loan forgiveness | (644) | 1.4% | $ — | —% |
| Other | 185 | (0.4)% | (196) | 0.5% |
| Total income tax benefit | $ — | —% | $ — | —% |

*Deferred Taxes*

Significant components of deferred tax assets and liabilities as of December 31, 2021 and 2020, were as follows (in thousands):

| **Deferred tax assets:** | **December 31,** | |
|---|---|---|
| | **2021** | **2020** |
| Net operating loss and credit carryforwards | $ 107,609 | $ 104,798 |
| Operating lease liability | 1,878 | 2,394 |
| Accrued bonus | 981 | 850 |
| Accrued expenses | 1,566 | 429 |
| Deferred revenue | 309 | 1,018 |
| Equity method investment | 943 | 852 |
| Other | 925 | 394 |
| | $ 114,211 | $ 110,735 |
| Valuation allowance | (112,606) | (108,618) |
| Net deferred tax asset | $ 1,605 | $ 2,117 |
| **Deferred tax liabilities:** | | |
| Operating lease asset | (1,429) | (1,941) |
| Other | (176) | (176) |
| Total deferred tax liabilities | $ (1,605) | $ (2,117) |
| | | |
| **Net deferred income tax assets and liabilities:** | $ — | $ — |

At December 31, 2021 and 2020, the Company had $297,868 and $273,194, respectively, of tax losses and credits carried forward subject to shareholder continuity and acceptance in the countries where the Company has tax losses carried forward. R&D tax credits included within these amounts are $35,147 and $40,556, respectively, which may be available to offset future income tax liabilities. At December 31, 2021 and 2020, the net operating loss and credit carryforwards are comprised of $236,275 and $198,096 in the United States, $21,888 and $18,254 in state and local, $35,116 and $54,334 in New Zealand, and $4,589 and $2,510 in other foreign jurisdictions, respectively. At December 31, 2021 and 2020, the Company had net operating loss carryforwards of approximately $136,339 and $132,523, respectively, that expire in various years from 2022 through 2037, plus $126,382 and $100,116, respectively, for which there is no expiration date.

Section 382 of the Internal Revenue Code imposes an annual limitation on the utilization of net operating loss carryforwards based on a statutory rate of return and the value of the corporation at the time of a "change of ownership" as defined by Section 382. The Company had a change in ownership in November 2014. Therefore, the Company's ability to utilize its net operating loss carryforwards incurred prior to the 2014 ownership change, will be subject in future periods to annual limitations.

In assessing the realizability of deferred tax assets, the Company assesses whether it is more-likely-than-not that a portion or all of the deferred tax assets will not be realized. The Company considers the scheduled reversal of deferred tax liabilities, tax planning strategies and projected future taxable income in making this assessment. At December 31, 2021 and 2020, a valuation allowance of $112,606 and $108,618, respectively, was recorded against certain deferred tax assets based on this assessment. The Company believes it is more-likely-than-not that the tax benefit of the remaining net deferred tax assets will be realized. The amount of net deferred tax assets considered realizable could be increased or reduced in the future if the Company's assessment of future taxable income or tax planning strategies changes.

The Company and its foreign subsidiaries have historically been loss generating entities that have resulted in no excess earnings to consider for repatriation and accordingly there are no deferred income taxes recognized as of December 31, 2021 and 2020.

At December 31, 2021 and 2020, the Company had no tax liability or benefit related to uncertain tax positions. No interest or penalties related to uncertain taxes have been recognized on the accompanying consolidated statements of operations. Management does not expect a significant change in uncertain tax positions during the twelve months subsequent to December 31, 2021.

The Company conducts business in multiple jurisdictions within and outside the United States. Consequently, the Company is subject to periodic income tax examinations by domestic and foreign income tax authorities. During December 2021, the Internal Revenue Service completed an income tax examination of the Company's U.S. federal income tax return for the year ended December 31, 2016, which resulted in no impact to the Company's consolidated financial statements. The Company has no other ongoing tax examinations with domestic or foreign taxing authorities.

During 2021, the Company migrated its country of domicile from New Zealand to Delaware in the United States. On migration, the Company was deemed to have disposed of all its assets and liabilities to a third-party at market value which resulted in taxable income to the Company for New Zealand income tax purposes. The migration to Delaware is classified as a tax-free reorganization for U.S. federal income tax purposes.

## Note 13 — Stock-Based Compensation

The Company offers share option plans to employees, directors, and others providing consulting services, which meet the definition of an equity-settled stock-based payment.

*Stock Options*

The Company has five ownership-based participation rights schemes for employees, directors, and certain third-party providers. In accordance with the provisions of the schemes, as approved by the directors and shareholders, grantees have been granted options to purchase common shares at an exercise price based on the fair value price of the Company's common shares on the date of grant as approved by the directors. The stock options generally have a service condition of two to five years and vest over time as the service condition is being satisfied. In November 2020, the Company granted 151,068 options which have a performance condition that accelerates vesting on liquidity event. All stock options have a term of 10 years from the date of grant. Upon termination of employment, unvested stock options are evaluated for forfeiture or modifications, subject to the terms of the awards and Company's policies.

Stock option awards outstanding as of December 31, 2021 and changes during the year ended December 31, 2021 were as follows:

| | Shares under option (thousands) | Weighted average exercise price | Weighted average remaining contractual term (years) | Aggregate intrinsic value (thousands) |
|---|---|---|---|---|
| **Outstanding at January 1, 2021** | 4,283 | $ 5.12 | 5.09 | $ 2,582 |
| Vested and expecting to vest at January 1, 2021 | 4,283 | 5.12 | 5.09 | 2,582 |
| **Exercisable at January 1, 2021** | 2,915 | $ 5.02 | 3.47 | $ 2,582 |
| Granted | 620 | 9.33 | — | — |
| Exercised | (721) | 2.36 | — | 1,741 |
| Cancelled/forfeited/expired | (334) | 2.50 | — | 755 |
| **Outstanding at December 31, 2021** | 3,848 | $ 6.55 | 6.16 | $ 27,796 |
| Vested and expecting to vest at December 31, 2021 | 3,848 | 6.55 | 6.16 | 27,796 |
| **Exercisable at December 31, 2021** | 2,479 | $ 6.31 | 4.85 | $ 18,499 |

The Company recorded compensation expense of $2,531 and $2,392 for the years ended December 31, 2021 and 2020, respectively. Unrecognized compensation costs as of December 31, 2021 was $6,120 and will be recognized over a weighted average of 2.7 years.

The fair value of each stock option award was estimated on each grant date using the Black-Scholes option pricing model. The following assumptions were used and required significant judgment to determine:

- *Expected Term* — the Company used the "simplified method" for estimating the expected term of plain-vanilla options, whereby the expected term equals the arithmetic average of the vesting term and LanzaTech's contractual term of the option.
- *Risk-Free Interest Rate* — The risk-free interest rate is based on the U.S. Treasury zero-coupon instruments with maturities similar to the expected term of LanzaTech's stock options.

- *Expected Dividend* — the expected dividend yield is based on the Company's expectation of future dividend payouts to common stockholders.
- *Expected Volatility* — Due to the Company's limited historical data, a group of similar companies that are publicly traded was used to estimate the expected volatility. The historical volatility data was computed using the daily closing prices for the various companies' shares during the equivalent period of the calculated expected term of the stock-based awards.

The following table summarizes the weighted-average assumptions applied in the Black-Scholes valuation of options for awards subject to expense recognition for the first time in the period, for the years ended December 31, 2021 and 2020:

| | December 31, | |
|---|---|---|
| | **2021** | **2020** |
| Stock price | $ 9.33 | $ 4.68 |
| Exercise price | 9.33 | 4.68 |
| Expected term (years) | 6.1 | 6.4 |
| Expected volatility | 98.0 % | 100.6 % |
| Risk-free interest rate | 1.09 % | 0.56 % |
| Dividend yield | — % | — % |

The weighted-average grant date fair value of options granted during 2021 and 2020 was $6.29 and $3.99 per option, respectively.

*Restricted Stock Awards (“RSAs”)*

RSAs become eligible to vest upon the satisfaction of a time-based service condition. However, in order to vest, a liquidity event, defined as acquisition, asset transfer, or initial listing, must occur within 10 years from the grant date. Upon a liquidity event, if the participant’s service has not terminated, the entire RSA award vests in full, whether or not previously eligible for vesting. If the participant’s service has terminated and they have satisfied the time-based service condition, the RSAs that are outstanding and eligible for vesting shall immediately vest in full. The time-based service requirements of the RSAs have a maximum term of three years from the date of grant.

RSAs as of December 31, 2021 and changes during the year ended December 31, 2021 were as follows:

| | Nonvested Shares (thousands) | Weighted Average Fair Value |
|---|---|---|
| **Outstanding at January 1, 2021** | 325 | $ 4.68 |
| Granted | 281 | 4.76 |
| Forfeited | (26) | 4.68 |
| **Outstanding at December 31, 2021** | 580 | $ 4.72 |

As of December 31, 2021 and 2020, the Company concluded that the liquidity event performance condition described above for the RSAs was not probable of being satisfied at such time. As a result, the Company did not recognize any compensation cost during the years ended December 31, 2021 and 2020 for any RSAs granted.

**Note 14 — Related Party Transactions**

As of December 31, 2021 and 2020, the Company had an equity ownership in LanzaJet and SGLT with an aggregate carrying value of $26,479 and $24,023, respectively. Trade receivables and contract assets of $1,071 and $3,257, from these equity method investees are included in accounts receivable, respectively. The Company made purchases and had open accounts payable of $2,575 as of and for the year ended December 31, 2021. The accounts payable balance is for work that LanzaJet performed as a subcontractor to the Company. Refer to Note 5, *Equity Method Investment*s, for more information.

In connection with the formation of LanzaJet, the Company entered into a transition services agreement with LanzaJet. The transition services agreement generally sets out the respective rights, responsibilities and obligations of the Company and LanzaJet with respect to R&D services, business development and other administrative support services. The transition services agreement may be terminated by mutual consent of the Company and LanzaJet, by LanzaJet at any time, and by the Company upon breach or non-payment by LanzaJet. There are no substantive termination penalties in the event the Company terminates. During the years ended December 31, 2021 and 2020, the Company recognized revenue from related parties of approximately $495 and $285, respectively, under the transition services agreement. The Company provides certain engineering and other services related to a gas-to-jet demonstration plant currently in development by LanzaJet pursuant to the Investment Agreement described in Note 5, *Investments*. As a result, during the years ended December 31, 2021 and 2020, the Company recognized revenue from related parties of approximately $428 and $2,740, respectively.

In May 2020, the Company executed an agreement to lease certain land to a subsidiary of LanzaJet for a period of 10 years with an option to renew this lease for five additional periods of one year with minimum annual rent due to the Company of $24. The lease commenced upon execution of the lease agreement. Refer to Note 19, *Leases*, for more information.

The Company supplies SGLT with its biocatalyst, certain water-soluble organic compounds required in the Company's proprietary gas fermentation process, and small-size equipment. As a result, during 2021 and 2020 the Company recognized revenue from related parties of approximately $282 and $156, respectively.

**Note 15 — Shareholders' Equity**

The securities of the Company are represented by common shares, par value $0.0001 per share. Each common share is entitled to one vote. With respect to payment of dividends and distribution of assets upon liquidation, dissolution or winding up of the Company, whether voluntary or involuntary, all common shares shall participate pro rata in such payment whenever funds are legally available and when declared by the Board of Directors of the Company, subject to the prior rights of holders of all classes of stock outstanding.

**Note 16 — Redeemable, Convertible Preferred Stock**

The Company has six outstanding series of contingently redeemable convertible preferred stock. The authorized, issued and outstanding shares, issue price, and carrying value as of December 31, 2021 and 2020 are as follows (in thousands, except share and per share amounts):

| | December 31, 2021 | | | |
|---|---|---|---|---|
| | Shares Authorized | Shares Issued and Outstanding | Issue Price | Carrying Amount |
| Series A | 4,666,503 | 4,666,503 | $1.75 - 3.94 | $ 12,230 |
| Series B | 1,733,370 | 1,733,370 | 10.38 | 18,000 |
| Series C | 4,254,733 | 4,142,408 | 14.69 | 60,850 |
| Series D | 10,274,260 | 10,161,362 | 19.93 | 188,402 |
| Series E | 5,183,957 | 5,183,957 | 22.86 | 118,076 |
| Series F | 3,634,210 | 3,634,210 | 22.86 | 83,073 |
| | 29,747,033 | 29,521,810 | | $ 480,631 |

| | December 31, 2020 | | | |
|---|---|---|---|---|
| | Shares Authorized | Shares Issued and Outstanding | Issue Price | Carrying Amount |
| Series A | 4,666,503 | 4,666,503 | $1.75 - 3.94 | $ 12,230 |
| Series B | 1,733,370 | 1,733,370 | 10.38 | 18,000 |
| Series C | 4,254,733 | 4,142,408 | 14.69 | 60,850 |
| Series D | 10,274,260 | 10,003,304 | 19.93 | 185,252 |
| Series E | 5,183,957 | 5,183,957 | 22.86 | 118,076 |
| | 26,112,823 | 25,729,542 | | $ 394,408 |

Redeemable convertible preferred stock issued and outstanding as of December 31, 2021 and 2020, and changes during the years ended December 31, 2021 and 2020, were as follows:

| | Redeemable Convertible Preferred Stock | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Series A | | Series B | | Series C | | Series D | | Series E | | Series F | | Total | |
| | Shares | Amount | Shares | Amount | Shares | Amount | Shares | Amount | Shares | Amount | Shares | Amount | Shares | Amount |
| **Balance as of January 1, 2020** | 4,666,503 | $ 12,230 | 1,733,370 | $ 18,000 | 4,142,408 | $ 60,850 | 10,003,304 | $ 185,252 | 3,149,745 | $ 71,606 | $ — | $ — | 23,695,330 | $347,938 |
| Preferred stock issuance, net of costs | — | — | — | — | — | — | — | — | 2,034,212 | 46,470 | — | — | 2,034,212 | 46,470 |
| **Balance as of December 31, 2020** | 4,666,503 | 12,230 | 1,733,370 | 18,000 | 4,142,408 | 60,850 | 10,003,304 | 185,252 | 5,183,957 | 118,076 | — | — | 25,729,542 | 394,408 |
| Preferred stock issuance, net of costs | — | — | — | — | — | — | 158,058 | 3,150 | — | — | 3,634,210 | 83,073 | 3,792,268 | 86,223 |
| **Balance as of December 31, 2021** | 4,666,503 | $12,230 | 1,733,370 | $18,000 | 4,142,408 | $60,850 | 10,161,362 | $188,402 | 5,183,957 | $118,076 | 3,634,210 | $83,073 | 29,521,810 | $480,631 |

The Company records all preferred shares net of offering costs at their respective fair values on the dates of issuance. The preferred shares are classified outside of shareholders' (deficit) equity in the consolidated financial statements, as the preferred shares are redeemable under circumstances that qualify as a deemed liquidation event, which are outside the control of the Company. Upon the occurrence of a liquidation event, such as a voluntary or involuntary liquidation, dissolution or winding up of the Company, merger, consolidation, or change in control, the holders of Series E preferred stock are entitled, on a pari passu basis, to be paid out of the assets of the Company available for distribution before any payment is made to the holders of Series A, B, C, and D preferred shares and then to holders of common shares. In February 2020, the Company closed a Series E follow-on round with the issuance of 2,034,212 Series E preferred shares for net proceeds of $46,470 ($22.86 per share). In March 2021, a warrant was exercised for a total issuance of 158,058 Series D preferred shares and net proceeds of $3,150 ($19.93 per share). In April 2021, the Company closed a Series F round with the issuance of 3,634,210 Series F preferred shares for the net proceeds of $83,073 ($22.86 per share).

The holders of preferred shares are entitled to cast the number of votes equal to the number of whole common shares into which the preferred shares are convertible. The holders of preferred shares also have consent rights, including in a number of cases subject to a separate class vote and a supermajority requirement, over certain actions including, among others (i) alterations or changes to the terms of the preferred shares, (ii) the election of a certain number of directors, including the designation of directors by holders of a specified series of preferred shares or by certain specified individual stockholders, and (iii) repurchases of shares, the authorization or designation of more senior class or series of shares, or certain issuances of new shares.

Preferred shares are convertible at the holder's option into common shares generally on a share-for-share basis. Each preferred share will be automatically converted into common stock upon either (i) the determination of the holders of certain

requisite preferred shares or (ii) a firmly underwritten initial public offering of the Company's shares that satisfies certain requirements (but not, for the avoidance of doubt, upon a business combination with a special purpose acquisition company, unless such conversion is otherwise effected pursuant to clause (i) above).

The holders of preferred shares are entitled to receive dividends on an as converted to common shares basis as if all preferred shares had been converted into common shares on the date of such event. Dividends are cumulative and are payable in arrears at the rate of 8% of the original issue price. If dividends are payable on common shares, preferred shareholders also receive those dividends as if the preferred shares had been converted to common shares. Series D, E, and F preferred shareholders are entitled to be paid dividends prior to Series A, B, and C, on a pari passu basis.

Redemption features of preferred shares are not fixed and do not have a determinable price on fixed or determinable dates. As of December 31, 2021 and 2020, preferred shares are not currently redeemable, and it is not probable that preferred shares will become redeemable, since it is uncertain whether or when circumstances exist that would constitute a deemed liquidation event. Accordingly, the Company has not adjusted the carrying value of the preferred shares to their redemption values.

**Note 17 – Benefit Plans**

The Company sponsors a 401(k) defined contribution retirement plan for the benefit of its employees, substantially all of whom are eligible to participate after meeting minimum qualifying requirements. Contributions to the plan are at the discretion of the Company. For the years ended December 31, 2021 and 2020, the Company contributed $720 and $548, respectively, to the plan, which contributions are included within research and development expense in the consolidated statements of operations and comprehensive loss.

**Note 18 — Commitments and Contingencies**

***Litigation***

The Company may be involved in legal proceedings and exposed to potential claims in the normal course of business. As of December 31, 2021 and December 31, 2020, it is not probable that the Company has incurred any losses from such claims.

**Note 19 — Leases**

The Company leases certain office space and laboratory facilities. The Company's lease agreements typically do not contain any significant guarantees of asset values at the end of a lease, renewal options or restrictive covenants. Pursuant to the Company's adoption of ASC 842, Leases, all leases were classified as operating leases. During 2021 and 2020, the discount rate used in the calculation of lease liabilities was 7.5%, which is the estimate of the rate of interest that the Company would have to pay to borrow on a collateralized basis over a similar term.

Total operating lease costs and variable lease costs for the years ended December 31, 2021 and 2020 were $2,126 and $2,077 and $2,575 and $1,813, respectively. Cash paid for amounts included in the measurement of operating lease liabilities for the years ended December 31, 2021 and 2020 was $2,059 and $1,765, respectively.

As of December 31, 2021, lease payments for operating leases for the Company's office facility and laboratories are shown below (in thousands):

| **Year ending December 31,** | | |
|---|---|---|
| 2022 | $ | 2,366 |
| 2023 | | 2,413 |
| 2024 | | 1,039 |
| 2025 | | — |
| 2026 | | — |
| Thereafter | | — |
| Total lease payments | $ | 5,818 |
| Less: Imputed interest | | 485 |
| Total lease liabilities | $ | 5,333 |

The following is a summary of weighted average remaining lease term and discount rate for all of the Company's operating leases:

| | December 31, | |
|---|---|---|
| | 2021 | 2020 |
| Weighted average remaining lease term (years) | 2.4 | 3.4 |
| Weighted average discount rate | 7.5 % | 7.5 % |

*Lessor Accounting*

In May 2020, the Company executed an agreement to lease certain land to a subsidiary of LanzaJet for a period of 10 years with an option to renew this lease for five additional periods of one year with minimum annual rent due. This agreement is accounted for as an operating lease. We recognize lease revenue on a straight-line basis over the life of the lease agreement. The following future minimum lease payments due to us from the lease agreement at December 31, 2021, is as follows (in thousands):

| Year ending December 31, | | |
|---|---|---|
| 2022 | $ | 24 |
| 2023 | | 24 |
| 2024 | | 24 |
| 2025 | | 24 |
| 2026 | | 24 |
| Thereafter | | 168 |
| Total lease payments | $ | 288 |

Lease revenue totaled $24 and $14 for the years ended December 31, 2021 and 2020.

**Note 20 — Subsequent Events**

The Company has evaluated events occurring subsequent to December 31, 2021 through May 9, 2022, the date the consolidated financial statements were available to be issued.

***Proposed Merger***

On March 8, 2022, the Company entered into an Agreement and Plan of Merger (the "Merger Agreement") with AMCI Acquisition Corp. II, a Delaware corporation ("AMCI") and AMCI Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of AMCI ("Merger Sub"). Under the Merger Agreement, Merger Sub will merge with and into LanzaTech, with LanzaTech surviving the Merger as a wholly-owned subsidiary of AMCI ("the Merger"). In connection with the Merger, AMCI will be renamed LanzaTech Global, Inc ("New LanzaTech"). AMCI has agreed to acquire all of the outstanding equity interests of LanzaTech for consideration consisting of an equity interest of New LanzaTech valued at approximately $1.8 billion. Completion of the transaction is subject to certain customary regulatory consents and approval by stockholders of AMCI and the Company.

In connection with the Merger Agreement, on March 8, 2022, AMCI entered into subscription agreements with certain investors pursuant to which AMCI agreed to issue and sell a private placement to close immediately prior to the Merger.

LanzaTech