



PLUM ALLEY INVESTMENTS

INTENTIONAL INVESTING REPORT



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INTENTIONAL INVESTING

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Special recognition to Plum Alley Venture Fellow Julie Tzeng for her support in writing this report.

LETTER FROM FOUNDERS

Plum Alley Investments

This last year came with great optimism for forging a future with technologies that are thoughtful, human-centered and necessary for the health of our planet and ecosystems. Despite the current realities of supply chain challenges, market fluctuations, global unrest, and an unstable national political atmosphere, our portfolio companies inspire us as we strive to invest in and build a better future.

It is our privilege to support diverse founders at the intersection of disruptive innovation in technology and medical breakthroughs. Plum Alley applies a thesis-driven mindset investing across sectors including environment, advanced systems, human health and inclusive growth. For us, tech advancement, a good product, and eventual profit is inextricably linked to driving positive outcomes. The best companies have a vision for a more equitable future with a product that is important and indispensable to the market.

Diversity has always been central to Plum Alley’s values from the beginning, and we are proud to continue championing technologists with lived experiences that have informed their discoveries and vision for the future.

Last year alone, Pitchbook reported that \$56B of venture funding was allocated to companies with at least one woman founder. Plum Alley

has an uncommon ability to identify extraordinary talent that unites diverse perspectives with technical and commercial experiences. In order to build a more inclusive society, disruptive technologies require the inclusion of women and diverse founders. We also believe that great founders who set intentional visions on how to achieve outsized growth and impact will attract top talent - a key to long term success.

This year's report highlights the development of our firm and our portfolio companies as their innovations scale, and they future-proof their industries for the better. The data shared was collected directly from our companies and from publicly available information.

We hope you are inspired by these visionaries, as well as the exponential impact we look for when identifying standout performers. Our team also wants to express gratitude to our member investors and LPs, who continue to back our mission and founders in both big ways and small. There is nothing better than growing our relationships and supporting our founders to achieve new milestones and a greater global impact.

Deborah Jackson

Deborah Jackson

Founder, CEO
and General Partner

Andrea Turner Moffitt

Andrea Turner Moffitt

Co-Founder, President
and General Partner

Q & A

Who is Plum Alley Investments?

Plum Alley Investments was founded with a deep commitment to invest in early stage companies using advanced technologies and medical breakthroughs to transform the world. Equally central was a vision to increase access to venture investing and advance diversity in the tech ecosystem, particularly for women and minority founders and investors.

As of June 2022, we've backed nearly 30 companies with \$70M of total capital committed between SPVs and Plum Alley's Venture Fund I.

What is Plum Alley's investment thesis?

From the early days, Plum Alley Investments specifically focused on companies with innovations that "needed to exist in the world." Our investment thesis is underpinned by a fundamental belief that commercializing transformative technologies and medical breakthroughs will achieve outsized returns and drive positive outcomes.

With a focus on disruptive innovation, Plum Alley invests in companies creating generational impact spanning major sectors including: Environment, Advanced Systems, Human Health and Inclusive Growth. We specifically invest in companies bringing advanced technologies and medical breakthroughs to high value markets where they have a clear competitive advantage.

What is intentional investing to Plum Alley?

Venture capital brings a massive opportunity to transform life, the planet, and sustainable industry for the better. It is the ambitions of technologists and scientists, and the ability to see the future that will create scalable solutions and more equitable economies. Early stage companies with innovation, society and diversity at the core of their foundation will have a market advantage and attract better talent. At scale, our startups will not only drive affordable and unprecedented access, but have the potential to solve fundamental global problems. We provide further details on our framework on pages 11-12.

How has your investment thesis evolved in the current market?

In the last few years, we have seen a rapid convergence of technologies and accelerated market adoption. For example, the swift adoption of the mRNA vaccine is proof that venture-backed tech can impact millions of lives. Beyond vaccines, the advancement of sensors, IoT and data analytics have played a material role in public health and safety. We see tremendous opportunities in how these technologies can impact areas like air quality, water, sewage, body chemistry and cleaner processes in the coming decades.

Beyond data, new technologies like robotics, AI/ML and computer vision are making strides

in how we build smart cities, smart hospitals and modernize industries. Further, we are excited about the advancements in bioprocessing and new materials, as we consider advancements in manufacturing.

In healthcare, we see potential in computational biology and its implications for curing diseases, reducing costs and accelerating timeline to market. AR/VR and LiDAR neural diagnostic tools add more transparency for brain activity, and the body as a whole - leading to greater detection and diagnosis for a range of health challenges, from strokes to cancers, Alzheimer's disease to mood disorders.

The inclusive growth of our economy, employment and education systems remains a focus of ours. We are committed to nurturing companies expanding access to education, work and financial wellbeing. We also believe that founders with diverse backgrounds build differently, incorporating their lived experience into leadership and culture, as well as the products they offer, and markets they serve.

How do you evaluate companies and what do you look for in a founding team?

We source deals from both a bottom-up and top-down approach, and observe breakthrough technologies while considering how they apply to global issues and their markets. When we observe an emerging trend, we identify how it impacts the rest of our areas of interest.

Many technological breakthroughs are interconnected, and several of our portfolio companies benefit from synergies across sectors.

For founders, we look for passion and relentless drive. We seek out founders with a unique combination of technical and commercial experience and a solid relationship between co-founders. Beyond the intangibles, we look for disruptive potential in large markets, demonstrated customer traction and indications of market readiness for adoption.

How does Plum Alley add value to founders?

Plum Alley's intrinsic differentiation is our ability to connect with founders on a totally different level than traditional VCs. Founders are drawn to our diverse backgrounds as founders, operators and capital raising experts with the ability to build trust as women investors with decades of experience through various market cycles.

We also tap the expertise and relationships of our vast Plum Alley investor community in our endless commitment to support founders scale their teams, secure key customers and partners, and expand their visibility in the media. We have helped our portfolio companies secure nearly \$100M of follow-on funding with numerous introductions to early and late stage investors.

PLUM ALLEY INVESTMENTS

At a Glance

INVESTMENTS

AS OF JUNE 2022

\$70M

DOLLARS COMMITTED

SPVs & Fund

27

PORTFOLIO

COMPANIES

\$5B

MARKET

VALUATION

IMPACT

TODAY

133M

PEOPLE IMPACTED

TO DATE

7441

JOB

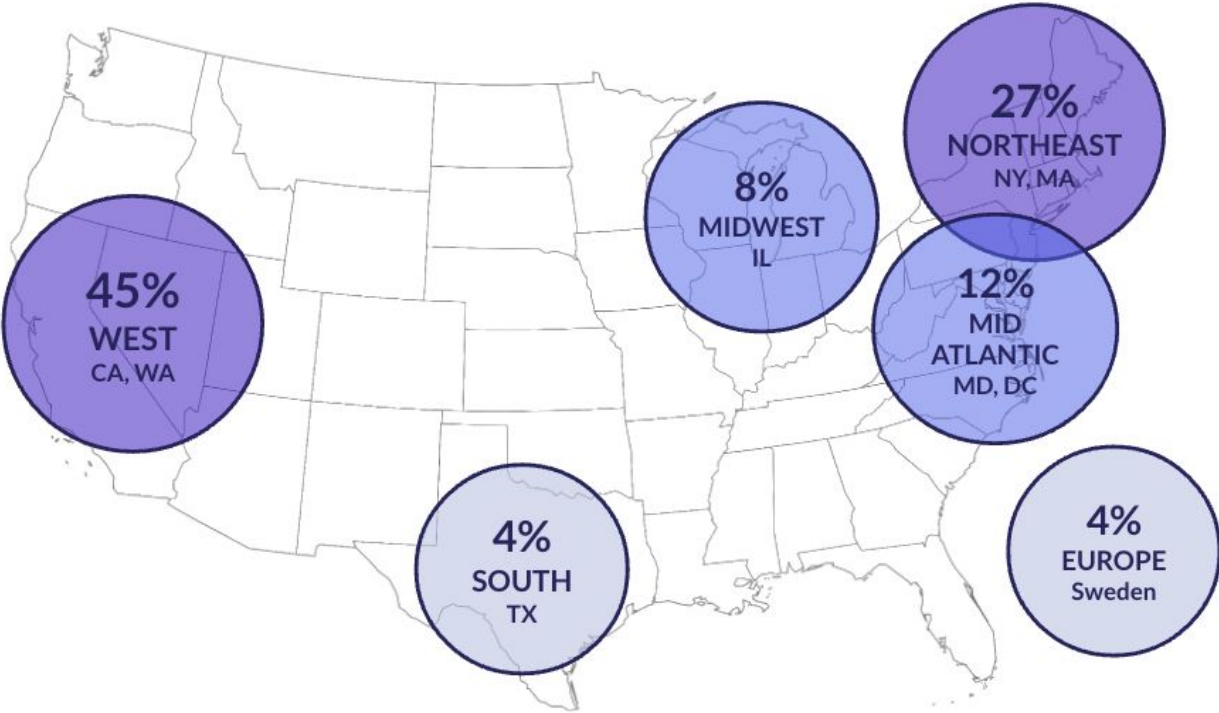
CREATED

100%

GENDER DIVERSE

FOUNDING TEAMS

WHERE WE'VE INVESTED



OUR ALIGNMENT WITH THE UN SDG'S

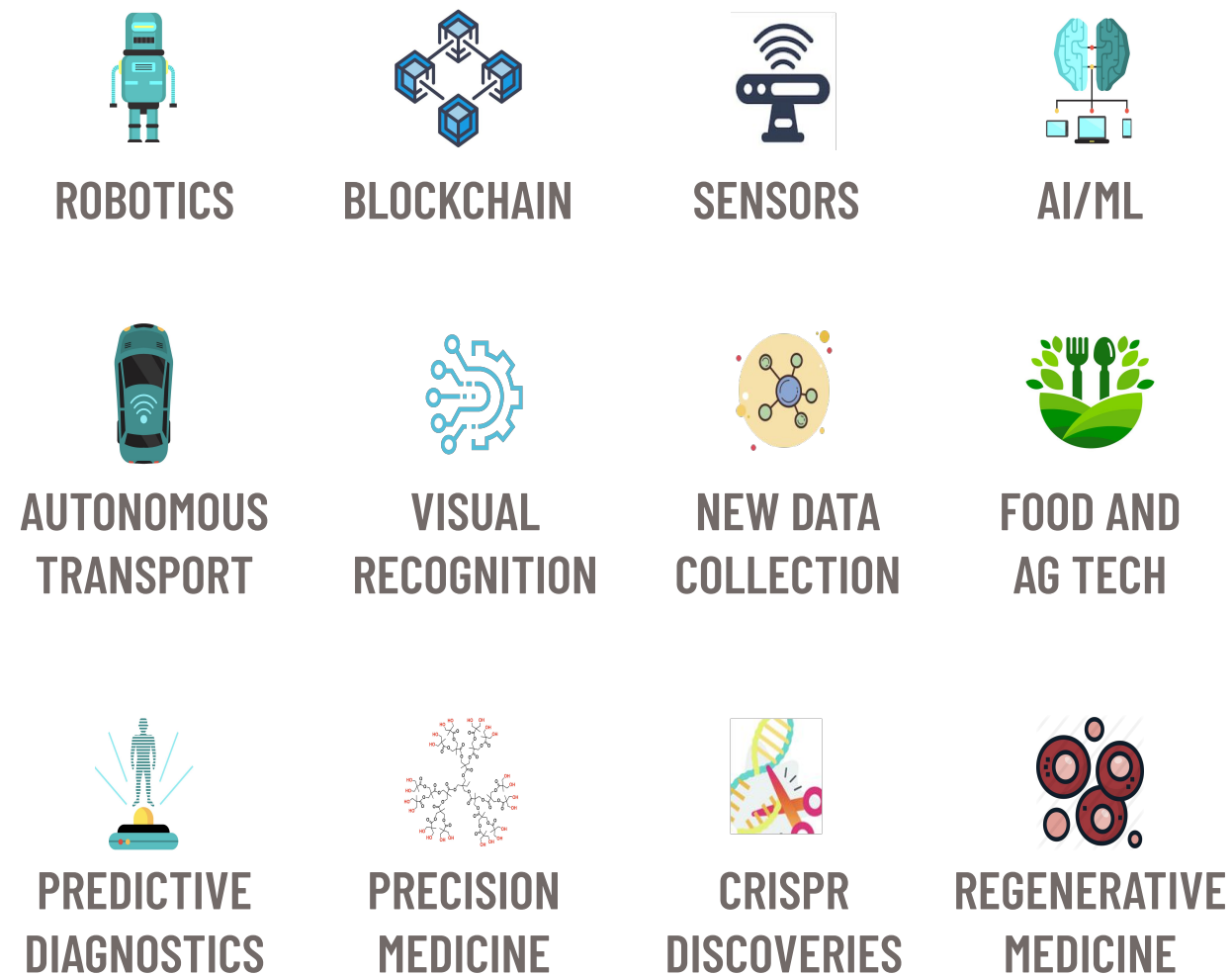


All of our portfolio companies have at least one woman founder



Our investments in advanced technologies and medical breakthroughs across Environment, Human Health, Advanced Systems, and Inclusive Growth align most closely with these SDG's

WE INVEST AT THE INTERSECTION OF Advanced Technologies & Medical Breakthroughs



Thesis Breakdown

68% TECHNOLOGY

27% Environment

23% Advanced Systems

14% Inclusive Growth

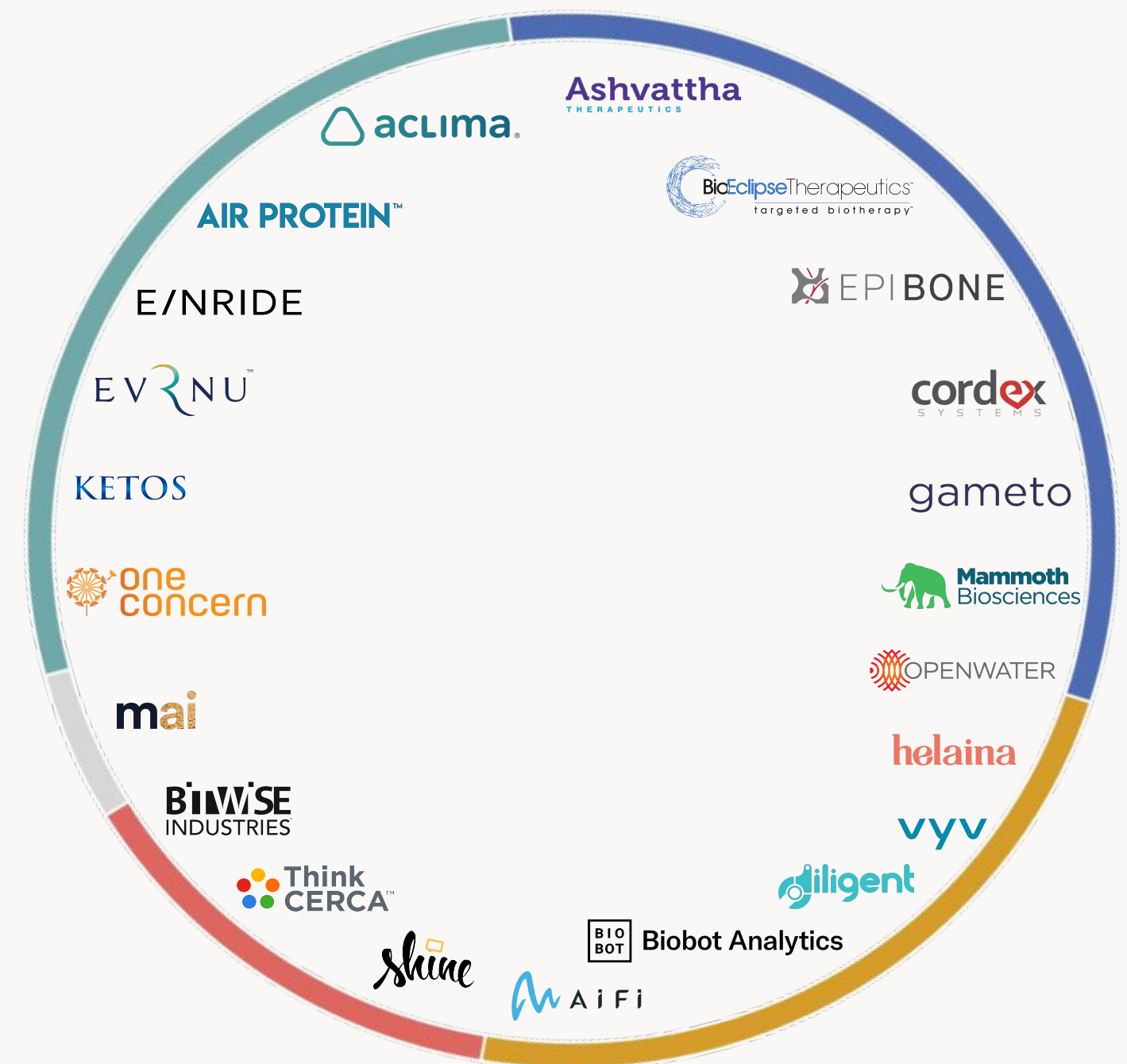
4% Other Technology

32% HEALTH

Precision Medicine

Longevity and Regenerative

Bio IT

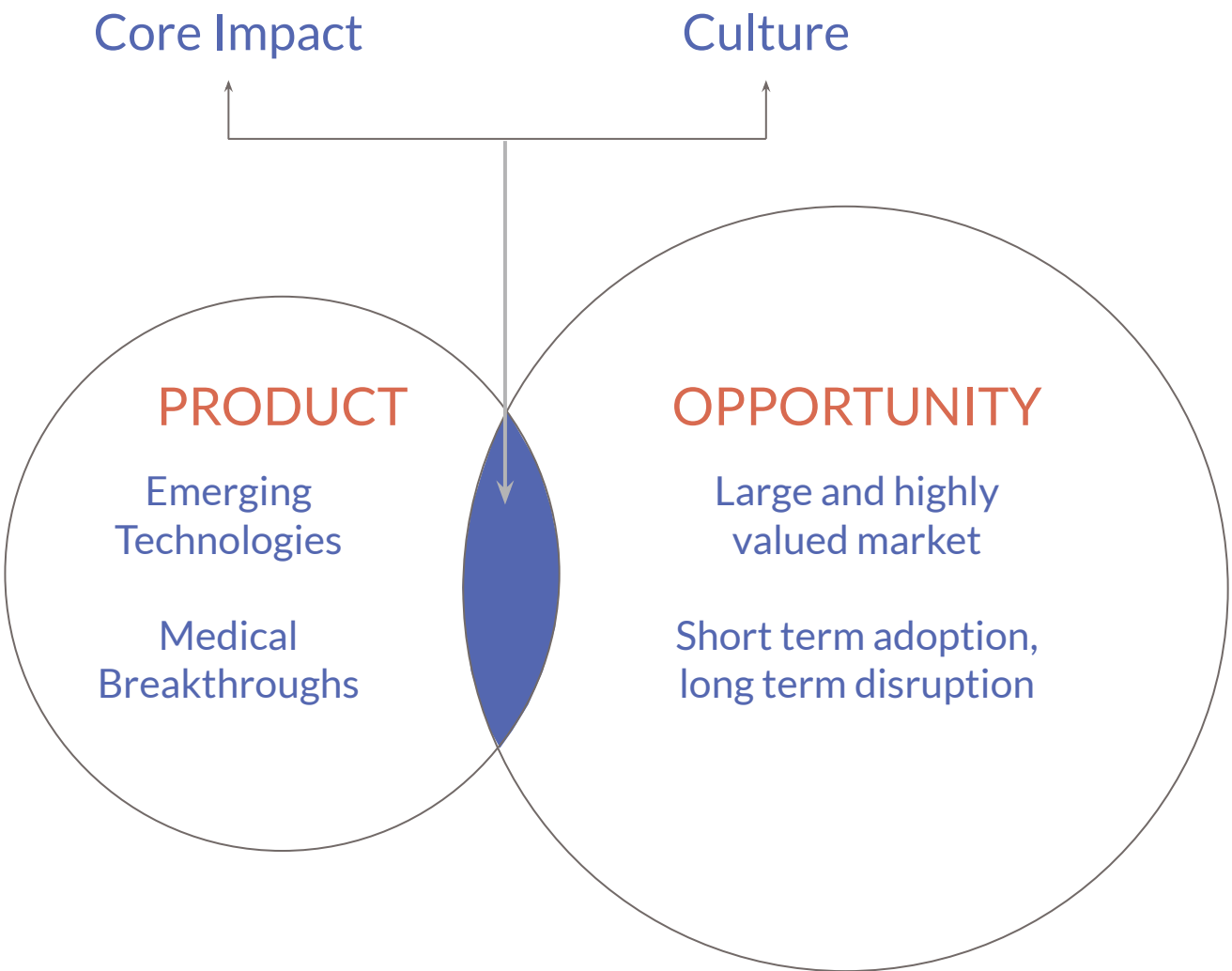


OUR FRAMEWORK

Investing in Innovation and Generational Change

Our sweet spot is investing in scientifically sound and defensible technology combined with a large market opportunity. The way we evaluate impact is on how much a startup will be able to shift the current landscape by bringing a new disruptive solution to the table. At scale, our startups will not only drive affordable and unprecedented access, but have the potential to solve fundamental global problems.

We invest in our portfolio companies because we believe they have the potential to affect millions of people and shape and future proof industries, while delivering outsized returns.



Core Impact, Culture & Related Benefits

Our Plum Alley framework considers three lenses as we evaluate companies and track progress over time. These lenses include: Core Impact & Company Purpose; Gender & Racial Diversity; and Related Benefits & Impact. Within these lenses, we assess various layers of impact: // Magnitude of Problem: The total size of the problem a company is working to solve. // Serviceable Addressable Market: Given a company’s go to market and product or service offering, the size of the target market. // Near Term Goals: Identifying a company’s impact goals within 3-5 years. // Current Measured Impact: Key business accomplishments achieved at the time of data collection, which we track over time.

IMPACT

Core Lens

- // Magnitude of problem
- // Investment buckets
- // Company purpose
- // Positive transformation for society
- // Disrupt and future proof industries
- // Science-based targets
- // Reviewing standards (SASB, GRI, etc)
- // Projected impact and business goals

Related Impact

- // UN Sustainable Development Goals
- // Other areas of impact
- // ESG Policies

CULTURE AND TEAM

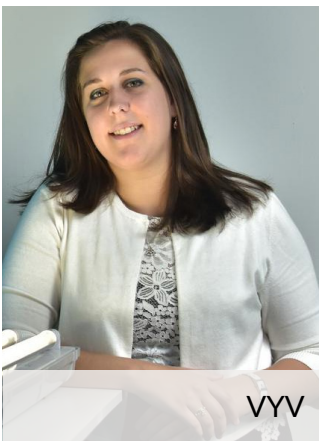
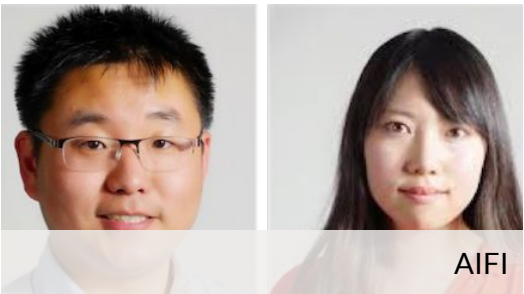
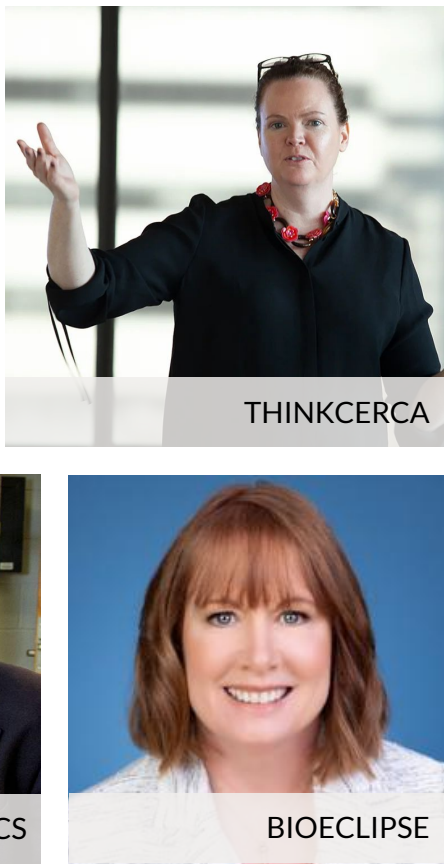
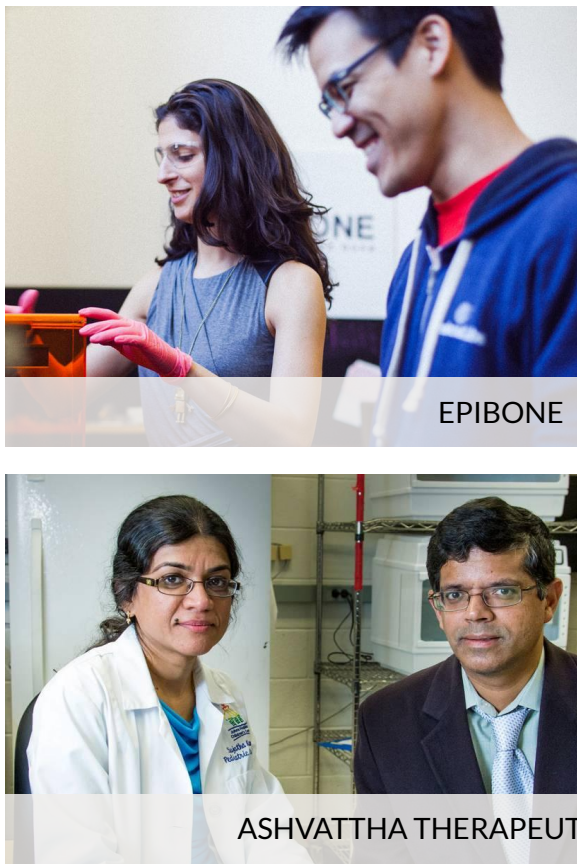
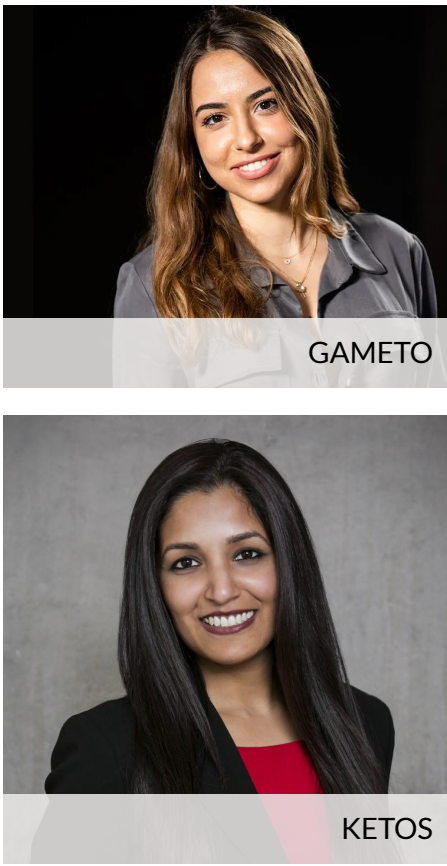
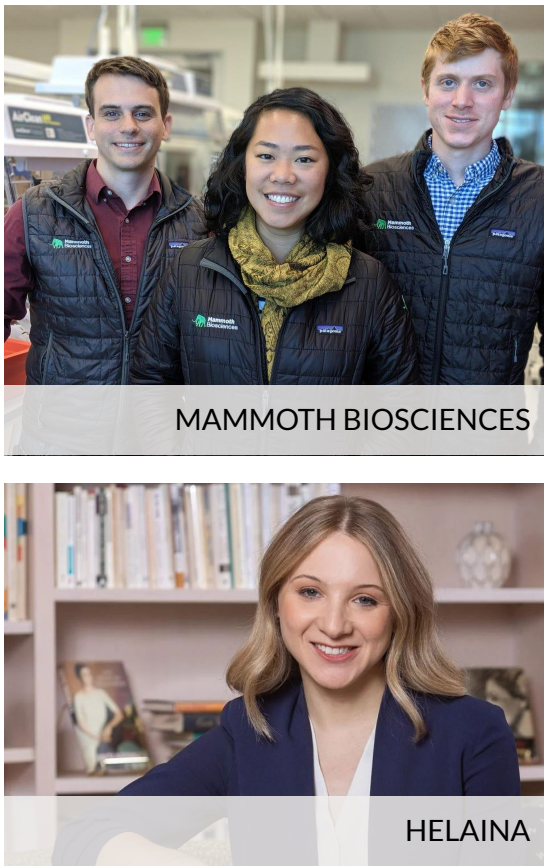
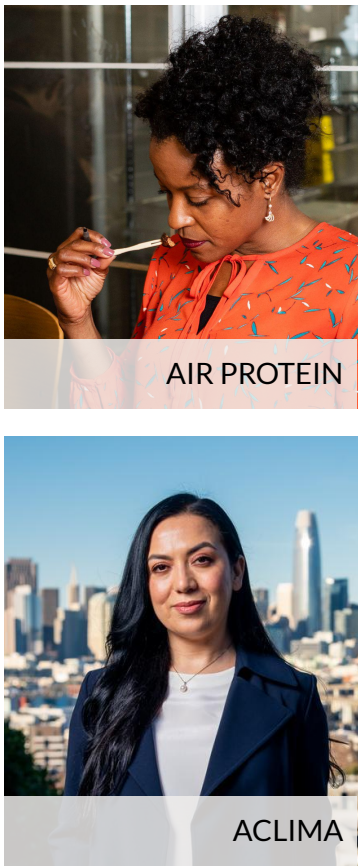
Gender & Racial Diversity

- // At least one diverse founder
- // Representation across leadership
- // Metrics on full time employees
- // DE&I policies

Team Background

- // PhDs and other advanced degrees
- // Professional backgrounds

Plum Alley Investments Portfolio Founders



Our World Class Founders

We are proud of the fact that 100% of our portfolio companies have at least one woman founder and 45% of founding teams are all women. Gender diversity is a priority within our investment thesis, but it is not the only metric we track.

Within our 43 founders, 48% of our founders are BIPOC and 30% of our companies are founded by at least one Black or LatinX founder. Our founders are also immigrants, veterans and disabled. This year, two of our rockstar portfolio founders were listed in “Fast Company’s 2020 Queer 50 list” - Irma Olguin Jr of Bitwise and Vivian Chu of Diligent Robotics. Our founders are not only diverse in background but have powerful educational and professional experiences with many considered pioneers and luminaries in their respective fields.

100% OF COMPANIES HAVE 1+ WOMAN FOUNDERS

45% HAVE ALL WOMEN FOUNDERS

32% HAVE 1+ BLACK OR LATINX FOUNDERS

47%
PHDS

81%
ADVANCED DEGREES

30%
WITH IMMIGRANT BACKGROUNDS

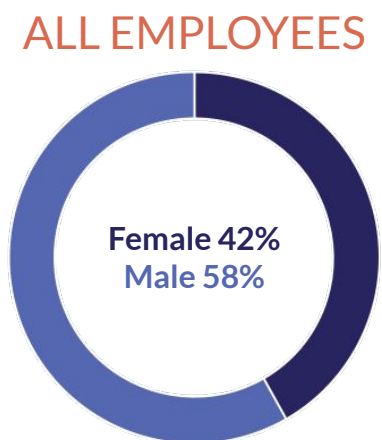
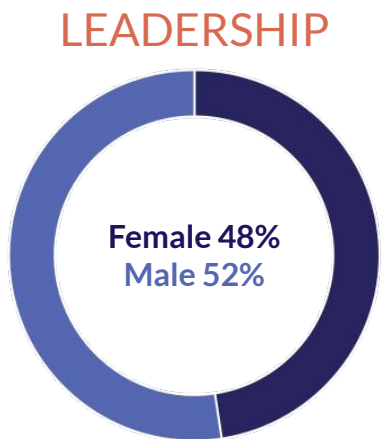
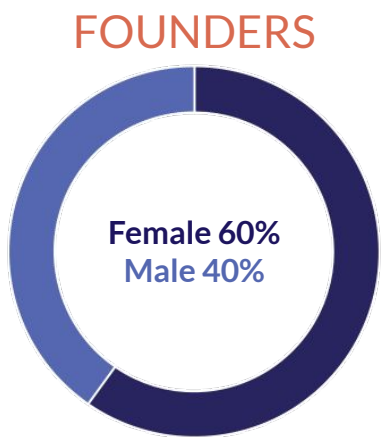
7%
LGBTQ+

16%
REPEAT FOUNDERS

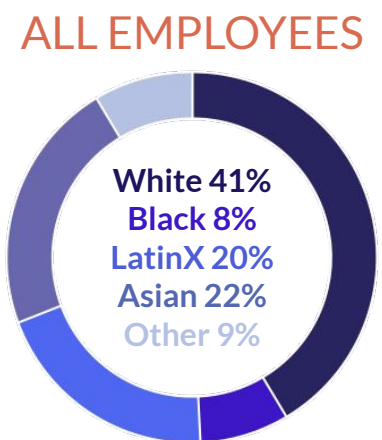
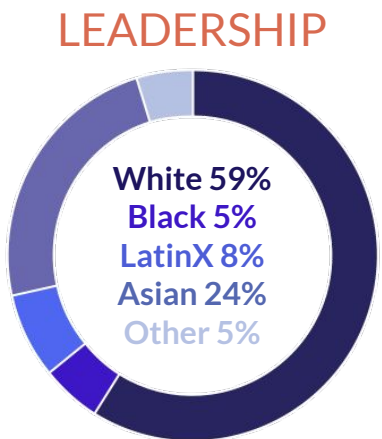
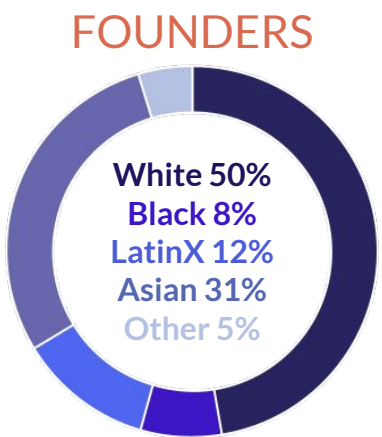
Investing in Diversity

To capture a more holistic view of DE&I, we aggregated data from our portfolio companies on their teams (1,514 people) to calculate cumulative percentage of representation spanning gender and race across three levels of each organization: founders, leadership and all employees.

GENDER DIVERSITY



RACIAL DIVERSITY



Diverse Disruptor Founder Stories



Bitwise Industries

Working in tech changed Irma’s life. “If it can happen to me, a poor, queer Brown woman from nowhere, why can’t it happen to entire cities of people like me?” - Irma Olguin

From an immigrant family of farm laborers in Fresno, Irma Olguin recycled bottles and cans to afford a bus ticket when she got a scholarship to the University of Toledo. She couldn’t believe the financial freedom that accompanied her first tech job. She knew immediately that a more comprehensive model was necessary to bring more people like her into tech. Irma and Jake Soberal founded Bitwise Industries to increase opportunity in marginalized communities while building thriving tech hubs across underdog cities in the US.

The mission of Bitwise is to challenge the often gated path to tech employment by providing workforce training alongside their rapidly scaling tech consulting business. Applying their playbook from Fresno, Bitwise has expanded into 10 cities with a grow plan to reach 20 cities by 2023. Importantly, the team reflects their local demographics, with over 50% Black, Brown and Native, and over 50% women and LGBTQ+.

Irma’s lived experience has been integral to how Bitwise built a fully integrated and inclusive business. A vision that drives both outsized returns and societal impact.



“Who builds technology, and why they build it, matters” - Davida Herzl

Davida Herzl grew up near a large shipping port, and she witnessed her community suffer the effects of pollution. Davida founded Aclima to arm decision-makers with the necessary data to set reduction targets and invest in air quality in the areas that need it most.

In May 2022, Aclima revealed data showing communities of color were exposed to 55% more pollution. The data was collected in partnership with the Bay Area Air Quality Management District, putting a necessary lens of inequality at the most basic level.

Davida’s personal experience motivated her to build a tech solution with implications for communities across the world.

The Washington Post

Block-by-block data shows pollution’s stark toll on people of color



“If you believe that Black Lives Matter, I challenge you to fight for Black mental health.” - Marah Lidey

Marah Lidey and Naomi Hirabayashi founded Shine, a mental health app, to bring inclusion to the wellness industry. As a Black American and Japanese American, there wasn’t a space where they felt at home in the whitewash of health and wellness.

Black Americans are 20% more likely to have serious psychological distress and are at a disadvantage when it comes to access to treatment. Shine creates meditation sessions where 90% are made and voiced by Black women, and they tackle issues specific to Black, LGBTQ+, and women’s mental health. Given their personal perspectives, Marah and Naomi were highly differentiated in their ability to build tech tools designed for greater access in mental health and wellness.



2021 Impact Metrics Across Our Portfolio Companies

133M

PEOPLE IMPACTED TO DATE

Combining communities improved through data analytics, advanced mental health solutions, jobs created, students trained, and clinical trials underway



100M PEOPLE LIVING IN COMMUNITIES

Impacted by our companies' data analytics measuring air quality, improving water, and studying epidemiology and natural disasters



7441 JOBS CREATED

Including company employees and jobs created through products and training



26 COUNTRIES REPRESENTED

From pilot programs to large clients to impactful projects supporting millions. Does not include apps with global reach

Our Goal is to Improve the Lives of over 1 Billion People

Environment	Human Health	Advanced Systems	Inclusive Growth
GHG Reduction	Women's Health	Health & Safety	Improved Education
Air Quality	Advanced Diagnostics	Communities Impacted	Students Impacted
Clean Water	Improved Outcomes	Improved Labor Conditions	Jobs Placed
Risk Mitigation	Cost Reduction	Sustainable Infrastructure	Engaged Community
Waste Reduction	Increased Efficiency	Optimized Systems	DE & I

2030 impact potential across current portfolio companies

Looking at the trajectory of our current portfolio companies, we aggregated key areas of impact and the potential metrics that our companies can achieve collectively as they reach greater scale and commercialization over the course of the coming years

20K JOBS CREATED

20M TONS OF GHG EMISSIONS AVOIDED

Through electrifying the trucking and freight industry, alternative food and textile systems, and through a carbon positive and optimized approach to products from various companies

2M M³ OF WATER SAVED OR CLEANED

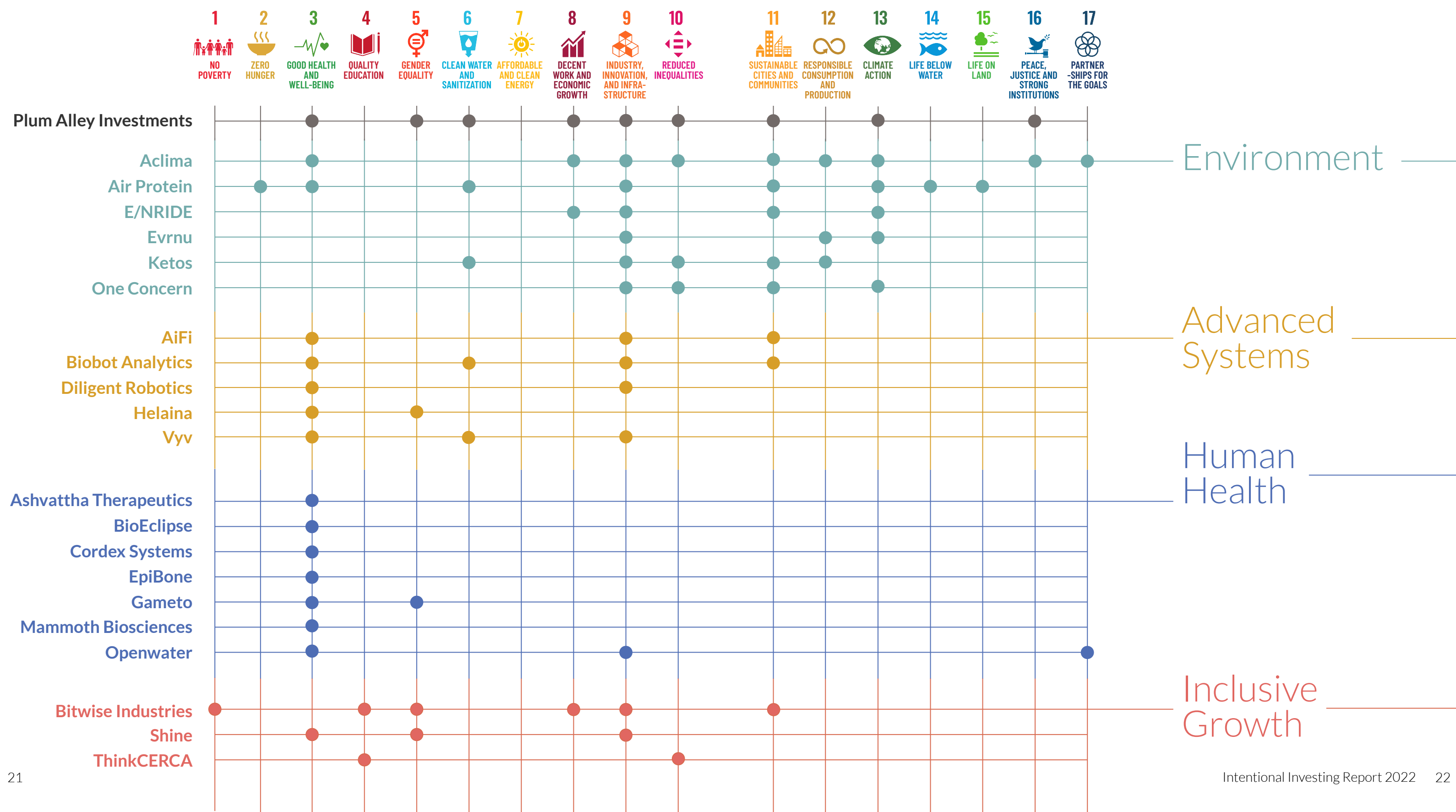
Through water monitoring and innovative and efficient food and textile production that reduce the amount of water required to produce equivalent amounts to today's standards

\$1B DOLLARS SAVED IN RISK MITIGATION

Through AI and data analytics used to monitor and detect potential crises before they happen

MAPPING PLUM ALLEY'S PORTFOLIO WITH UN Sustainable Development Goals

Our firm and investments contribute to the UN Sustainable Development Goals. By only investing in companies with at least one woman founder, we champion Goal 5. Goals 3, 8, 9, 11, and 13 are fundamental to our investment theses in Environment, Human Health, Advanced Systems, and Inclusive Growth. Through our portfolio companies and broader network, we impact all 17 SDGs.



Environment

Portfolio

 **aclima**  **AIR PROTEIN™**

E/NRIDE  **EV3NU™**

KETOS  **one concern**

Investing in...

Solutions that reduce harm from current industries, build resilience towards future conditions affected by climate change, and leverage innovations that will make a global environmental impact in the coming decades. Looking at sustainable transportation, resilience and risk detection and mitigation, circular economy, new materials, and the future of food systems. Companies in this area are hyper aware of the big picture environment and are not just focused on the direct impact of their products.

Areas of Impact

7B People, about 92% of the world's population breathes toxic air

5B Metric tons of carbon emissions come from meat production

2.5B Metric tons of carbon emissions come from freight trucking

+50M Tons of textiles are wasted in landfill annually

218M People are affected by natural disasters per year

18M People were served by water systems with lead violations



CASE STUDIES



Measuring and analyzing air quality

Industry
CleanTech, Enterprise Software

Website
<https://www.aclima.io/>

Basic Information
San Francisco, CA. Founded in 2007

Mission
Aclima is a purpose-driven technology company catalyzing bold climate action that protects public health, reduces emissions, and delivers clean air for all.



Davida Herzi
Founder & CEO

MACRO PROBLEM

There is a lack of air pollution and greenhouse gas **measurement** at a **hyperlocal** level

The air quality market opportunity is over \$29 billion due to the fact that 92% of the world’s population breathes unhealthy air. Current air monitoring tactics are costly, lack depth, and are hard to scale, making it difficult to capture how communities are affected by local air quality.

KEY IMPACT

150+ CITIES IN 15+ COUNTRIES

Monitoring air quality for +10M people

20+ POLLUTANTS, GHGs AND TOXICS

Are currently measured by Aclima in real time

PARTNERS



ACCOLADES



A DEEPER DIVE

Aclima is a Public Benefit Corporation that has pioneered an entirely new way to measure and analyze air pollution and greenhouse gases, block by block and around the world. They are the largest mobile environmental sensor network in the world with billions of data points measured each week. Existing solutions are expensive and provide only a regional view. Aclima’s data quality, developed in partnership with the US EPA and collected by a network of roving and stationary sensors, measures air pollution and greenhouse gases at unprecedented scales. Aclima Pro, a professional analytics software, translates billions of scientific measurements into environmental intelligence for governments and companies. Aclima’s free app, air.health, maps address-level air and climate insights for various communities.

- Key Traction**
- Won a statewide contract with NY for its mobile air measurement initiative
 - Partnership with Google Street View for global deployment
 - Validated methane leak detection through customer trials, expanding industrial market opportunity

Primary UN SDG’s Impacted



Secondary UN SDG’s Impacted



CASE STUDIES

AIR PROTEIN™

The world's first air-based protein

Industry
Food & Agriculture, Precision Fermentation

Website
<https://www.airprotein.com/>

Basic Information
Pleasanton, CA. Founded in 2019

Mission
To become the #1 meat company in the world, turning meat production into a process that is carbon negative, scalable, and uses a fraction of the land and water used today.



Lisa Dyson
Co-Founder & CEO



John Reed
Co-Founder & Chief Scientific Advisor

MACRO PROBLEM

Air Protein is solving for the **environmental** and **ethical** impact and **health** concerns of the **meat industry**

The global meat industry is valued at \$1.4 trillion. Alternative meats currently represent a \$14 billion industry and could grow to \$400 billion by 2030.

KEY IMPACT

1 tn CO2 REDUCED FOR EVERY 1 TON OF PROTEIN PRODUCED

99%+ LESS LAND THAN SOY

88%+ LESS WATER THAN SOY

PARTNERS



ACCOLADES



A DEEPER DIVE

Air Protein is building the world's most sustainable and scalable protein. The company's groundbreaking process is carbon negative, requiring zero arable land and therefore does not perpetuate deforestation. The company uses research from NASA, exploring ways to feed astronauts on long space journeys by transforming elements in the air into protein. Air fermentation uses air, water, and unique cultures to produce protein within hours—a process similar to how yogurt, cheese, and wine are made. The protein is then harvested, purified, and dried to remove water. The result is a flour ready to be turned into any meat through culinary techniques to create textures and flavors mimicking chicken, beef, pork, and seafood. Air Protein contains no animals, soy, hormones, pesticides, herbicides, or GMOs.

- Key Traction**
- In the process of securing GRAS (Generally Recognized as Safe) approval from the US FDA
 - Currently scaling up production and demonstrating the versatility of Air Meat for a soft launch soon

Primary UN SDG's Impacted



Secondary UN SDG's Impacted



CASE STUDIES

E/NRIDE

Electric and autonomous freight transportation and logistics platform

Industry
Freighting and Logistics, EV, Transportation

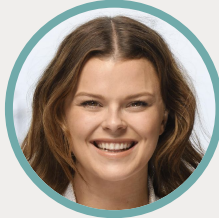
Website
<https://www.einride.tech/>

Basic Information
Gothenburg, Sweden. Founded in 2016

Mission
Use autonomy and electrification to create a more desirable version of the future, one that is aligned with human-centric values and the ecological necessities of the planet.



Robert Falck
Founder & CEO



Linnéa Kornehed
Co-Founder & CMO



Filip Lilja
Co-Founder & Special Projects

MACRO PROBLEM

Freight road transportation accounts for 7% of global carbon emissions and consumes over 5M barrels of oil a year

The \$2 trillion market has seen an increasing influx of goods, yet face growing driver shortages. Fortune 500 companies reach their net zero targets while continuing to drive profits by reducing the environmental impact of logistics.

KEY IMPACT

90% CO₂
Decrease in CO₂ emissions for partners

PARTNERS



ACCOLADES



A DEEPER DIVE

Einride is an industry-disrupting freight technology company providing end-to-end solutions for electric and autonomous shipping. The Autonomous Electric Transport (AET) and Saga, an intelligent Freight Mobility Platform, allow shippers and carriers to offer faster, greener, and cheaper freight. By substituting diesel with electricity, associated CO2 emissions can be reduced by up to 90%. Einride can also eliminate Nitrogen Oxides and other air pollutants that are harmful to public health, especially in condensed urban areas. When implemented and coordinated at scale by the platform, Einride’s electric transport results in an overall cost reduction.

- Key Traction**
- Secured largest electrification contract globally with Maersk
 - Helped GE Appliances create 2000 new jobs towards electrification readiness
 - Expanding from Europe in the the United States market in 2021

Primary UN SDG’s Impacted



CASE STUDIES

KETOS

Remote, real time water quality and quantity monitoring platform

Industry
Hardware, Data and Analytics, AI/ML, IoT

Website
<https://ketos.co/>

Basic Information
San Jose, CA. Founded in 2015

Mission
To create safer, smarter, and sustainable communities around the world where the availability of clean water is no longer a privilege.



Meena Sankaran
Founder & CEO

MACRO PROBLEM

Water quality is vital for consumer and industries but **testing is costly** and **too slow** to make informed decisions

The water monitoring market in the US was valued at \$80 billion driven by agricultural and industrial usage. With global lack of access to clean water, this market is ripe for disruption.

KEY IMPACT

13B GALLONS OF WATER
Monitored globally

106M+ WATER TESTS
Within the last 24 months. More than all US testing over the last 10 years

500X
Savings on testing costs

ACCOLADES



A DEEPER DIVE

Ketos is a vertically integrated water intelligence platform with intelligent hardware, bi-directional connectivity infrastructure, interactive software, and hassle-free services. Ketos is transforming how water operators measure, manage, and forecast water quality and efficiency in industrial, agricultural, and municipal applications. Current industry standards that requires water to be sent to testing sites has results coming in at least 7 days, while the Ketos platform provides immediate results that can be monitored from anywhere.

- Key Traction**
- Many enterprise customers under contract in industrial, agricultural, and municipal applications
 - In 2021, The US Department of Defense approved Ketos for global military base deployment

Primary UN SDG's Impacted



Secondary UN SDG's Impacted



Advanced Systems

Portfolio

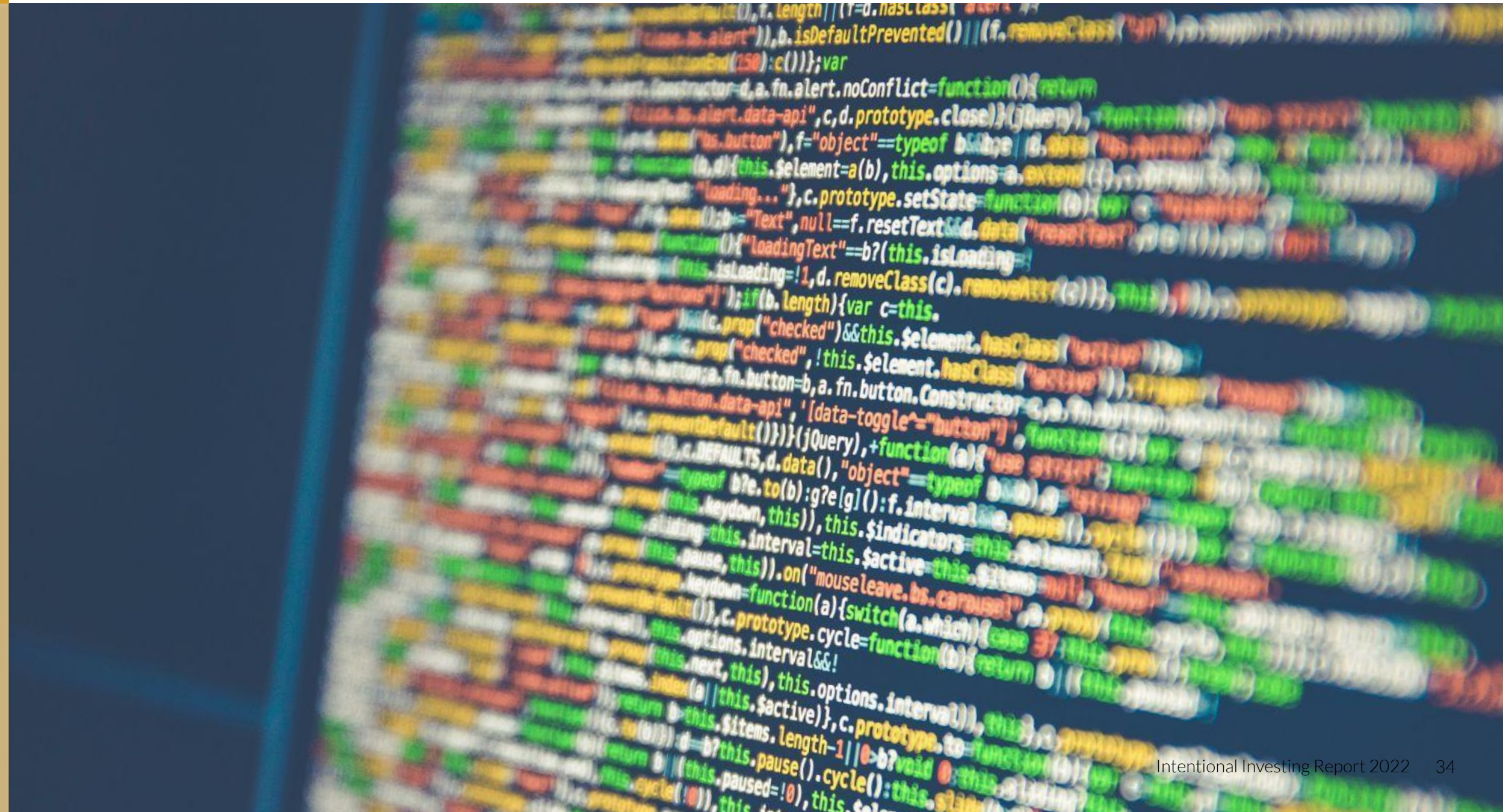


Investing in...

Companies that are future proofing industries by improving foundational systems and infrastructure through converging various deep technologies. External environmental factors such the pandemic and the changing workforce help shape some of these technologies. Looking at how health data analytics, AI/ML, robotics, sanitation, sensors, and IT can play a material role in health and safety, smart hospitals, and future of retail. By leveraging data, software, and hard technology, these companies provide an encompassing platform supporting many different use cases and industries at launch.

Areas of Impact

- \$9B+** Cost of nurses burning out for hospitals annually
- 2M** Illnesses and 23K deaths every year in the US are from resistant bacteria infections
- \$100B** Opportunity to use wastewater as an early warning system in potential surges in infection
- 30%+** Of a retailer's time is spent performing mundane tasks that could be automated
- 125M** Newborns every year have parents struggling to provide them breast milk



CASE STUDIES

BIOBOT

Biobot Analytics

Advanced Health analytics platform powered by wastewater

Industry
Environmental Services, Data and Analytics

Website
<https://biobot.io/>

Basic Information
Cambridge, MA. Founded in 2017

Mission
To transform wastewater infrastructure into public health observatories.



Mariana Matus
Co-Founder & CEO



Newsha Ghaeli
Co-Founder & President

MACRO PROBLEM

Wastewater is an overlooked opportunity to provide valuable information on the health of communities

There is not enough real time data to track the spread of diseases and other factors relating to health. The global wastewater epidemiology market is a \$100 billion dollar opportunity.

KEY IMPACT

700+ SAMPLING SITES
Across all 50 US states and several countries

100M PEOPLE REPRESENTED
Within the data generated from sites

ACCOLADES



A DEEPER DIVE

Inspired by the potential of wastewater epidemiology, Biobot is the first company in the world to commercialize data from sewage. Biobot develops cutting-edge technology to transform sewers into public health observatories. Wastewater contains valuable information about the health of communities detecting viruses, bacteria, and chemical metabolites excreted in urine and stool. Wastewater data is equitable, anonymized, cost-effective, comprehensive, and even predictive. When the COVID-19 pandemic emerged in early 2020, Biobot quickly created and validated a COVID-19 detection assay and provided leading indicators for virus levels in the US. Biobot has entrenched itself as the market-leading provider for wastewater testing data and now services hundreds of testing sites across the country.

- Key Traction**
- Quickly built a COVID-19 monitoring solution within weeks, generating nationwide demand
 - Partnership with CDC to monitor COVID-19 levels in 500 communities across the country
 - In Q4 2021, Biobot announced it can also detect the presence of influenza virus (flu) in wastewater

Primary UN SDG's Impacted



Secondary UN SDG's Impacted



CASE STUDIES



Intelligent robots for clinical staff

Industry
Robotics, AI/ML, HealthTech, Hardware

Website
www.diligentrobots.com

Basic Information
Austin, TX. Founded in 2017

Mission
To make technical advances towards robots and humans working together side by side, with an emphasis on human-centric design.



Andrea Thomaz
Co-Founder & CEO



Vivian Chu
Co-Founder & CTO

MACRO PROBLEM

Clinical Staff spend ~
30% of their **time** on
routine tasks instead
focusing on **patient
care**

The demand for nurses are surging but supply is not growing fast enough. Hospital service robotics is a market totalling over \$16 billion.

KEY IMPACT

**63K TASKS
COMPLETED**

Assisting hospital staff with various routine activities

**15-20 HOURS
PER DAY**

Per robot returned to the clinical team

PARTNERS



ACCOLADES



A DEEPER DIVE

Diligent Robotics is developing a suite of artificial intelligence that enables robots to collaborate with and adapt to humans in everyday environments. Key features include ever-evolving mobile manipulation, social intelligence, and human-guided learning capabilities. Moxi, their first robot, works in hospitals to help healthcare workers with routine non-patient-facing tasks so they can focus on patient care. Digital learnings connect over wifi and it is easy to customize tasks based on team needs in Moxi's software.

Key Traction
- Moxi, the robot, is actively working with large health systems across the US including Cedars-Sinai, Medical City Healthcare and Shannon Medical Center in TX, Mary Washington Hospital in VA

Primary UN SDG's Impacted



CASE STUDIES



Antimicrobial LED technology

Industry
Disinfection, Electrical, Health and Safety

Website
<https://vyv.tech>

Basic Information
Latham, New York. Founded in 2013

Mission
To create and deliver a distinctive new class of antimicrobial lighting solutions that are healthy for people and the planet in the most sustainable and simplest way - a smarter way to slow the spread of illness-causing microbes.



Colleen Costello
Founder & CEO

MACRO PROBLEM

The massive human and economic **costs** of the pandemic exposed the need for **24/7 disinfecting tech**, especially as **germ issues increase**

There is a \$58 billion market opportunity for antimicrobial and disinfection tools across consumer and industrial usages.

KEY IMPACT

150K+ HOMES USE VYV
Through lighting installation or home appliances

10M+ LIVES IMPACTED
Through households and 350+ commercial and public spaces

PARTNERS



ACCOLADES



A DEEPER DIVE

Vyv has a proprietary antimicrobial LED technology, BrightShield, which can be used for homes, public spaces, and across industries. It offers a high quality white light while creating an environment inhospitable to the growth of bacteria, fungi, yeast, mold, and mildew. It disinfects continuously, is not harmful for people or materials, and is relatively inexpensive. Current solutions include chemical solutions and wipes, vapors, and UV light- all which require human intervention, are applied intermittently, and can be harmful for human exposure. The technology is designed to work with traditional overhead LED light fixtures, making it easy to scale and extremely versatile.

- Key Traction**
- Delta invested in and partnered with Vyv starting in 2018 to disinfect high touch areas in airplanes
 - Home Depot incorporated Vyv's tech into its LED products in 2018 and now offers a wide variety
 - Middleby licensing partnership resulted in home appliances launched by U-Line, Marvel, and Follett

Primary UN SDG's Impacted



Human Health

Portfolio



Investing in...

Healthcare technology solutions focusing on medical breakthroughs that can drastically improve today's standards for treating and curing disease and aging in a highly individualized way. Leverages opportunities in advanced science and tech such as computational biology, AR/VR and LiDAR to solve for a range of health challenges, such as strokes, cancer, alzheimer's, clots, and mood disorders. Some solutions will focus on early detection and preventative care to mitigate severity of cases and even eradicate disease. All solutions are scalable in order to provide accessible and affordable health services.

Areas of Impact

- 1B** People today will suffer through a stroke
- 15M** Patients with cancer where immunology treatments can be effective
- 115M** People are affected by heart disease and conditions
- 10M** Bone and stem cell surgeries are done each year
- 100M** Cases of inflammatory diseases every year in the US
- 1B** Women globally are in menopause today



CASE STUDIES

gameto

Revolutionizing women’s healthcare

Industry
HealthTech, Biotech, Life sciences, Longevity

Website
<https://www.aclima.io/>

Basic Information
New York, NY. Founded in 2020

Mission
Solve the problem of accelerated ovarian decline to change the trajectory of women’s health and equality.



Dina Radenkovic
Co-Founder & CEO



Martin Varsavsky
Co-Founder & Chairman



Pranam Chatterjee
Co-Founder

MACRO PROBLEM

Historically, **Medicine** has not factored in **unique** aspects of the **female body** and **reproductive system- excluding half of the world’s population**

The fertility market is valued at \$33 billion and currently encompass 3 million IVF cycles. 1 billion women are currently in menopause, a market valued at \$14.6 billion. The female longevity market is valued at \$110 billion.

Platform for ovarian therapeutics

- 1. Improving assisted fertility with the aim to eliminate infertility over time
- 2. Facilitating drug discovery and toxicity screening with a model of the female reproductive system
- 3. Make the burden of menopause optional

ACCOLADES



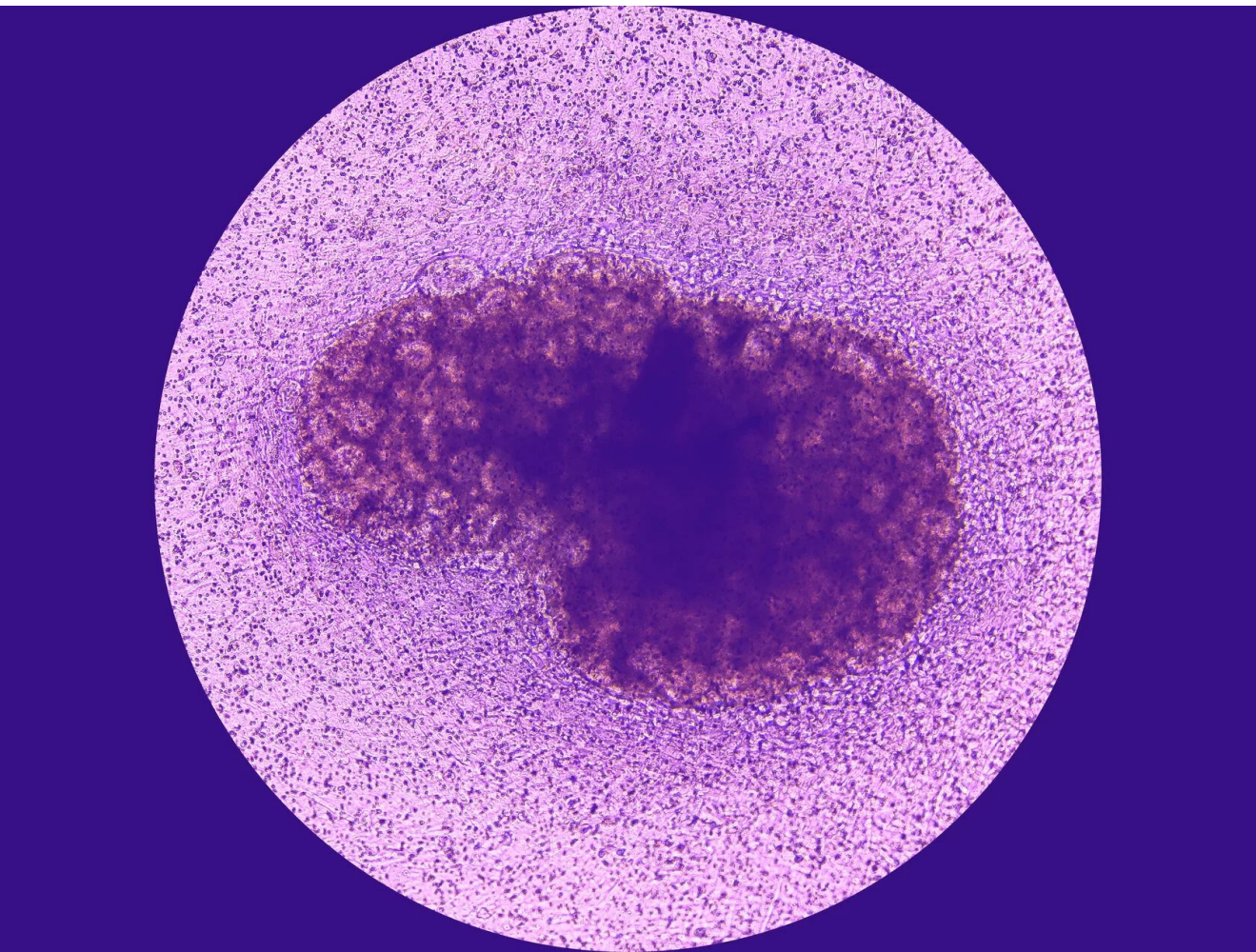
A DEEPER DIVE

Gameto is a biotechnology company revolutionizing women’s healthcare by focusing on women’s reproductive system. The company is dedicated to understanding and eliminating infertility and menopause, by leveraging a mix of computational processes and cellular reprogramming technology. While the lifespan of humans has nearly doubled, the lifespan of female ovarian health remained consistent. Menopause, which causes medical consequences associated with old age and frailty, is not an evolutionary necessity. Gameto aims to synchronize the pace of ovarian aging with the rate of aging in other organs. Applying the advances of cellular reprogramming, Gameto’s team created human re-engineered cells of the female reproductive system.

Key Traction

- Established science through a sponsored research agreement with George Church’s lab in Harvard.
- Currently still in stealth

Primary UN SDG’s Impacted



CASE STUDIES



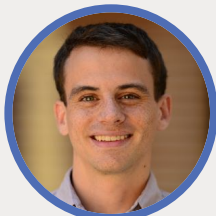
CRISPR-based platform for diagnostics and therapeutics

Industry
Biotech, Life sciences

Website
<https://mammoth.bio/>

Basic Information
Brisbane, CA. Founded in 2017

Mission
Power the next generation of CRISPR products and enabling the full potential of its platform to read and write the code of life.



Trevor Martin
Co-Founder & CEO



Janice Chen
Co-Founder & CTO



Lucas Harrington
Co-Founder & CSO



Jennifer Doudna
Co-Founder & Chair of Scientific Advisory board

MACRO PROBLEM

The power of **CRISPR** innovation to **drive access** to early disease **detection** and therapeutic **cures** while **reducing costs**

There is an over \$100 billion market opportunity across diagnostics and therapeutics. Patients suffering from rare genetic diseases are challenged with finding treatments for their ailments, which is just one use case that CRISPR products solve for.

Platform for CRISPR applications

- 1. Detectr is a molecular-based diagnostics that is fast, accurate, and programmable
- 2. Next generation CRISPR-Cas enzyme with precision editing
- 3. Protein discovery and R&D to enable future applications

PARTNERS



ACCOLADES



A DEEPER DIVE

Mammoth Biosciences is harnessing the diversity of nature to power the next generation of CRISPR technology. Through its discovery of novel CRISPR systems, the company is enabling the full potential of its platform to read and write the code of life. The platform will drive access to early disease detection and therapeutic cures, and reduce costs of care. In late 2021, Mammoth Biosciences announced partnerships with Bayer and Vertex Pharmaceuticals to develop in vivo gene-editing therapies for multiple diseases including liver-targeted diseases with Bayer. The company has also partnered with Hamilton Company and GlaxoSmithKline for diagnostic testing.

- Key Traction
- Partnership with GlaxoSmithKline for CRISPR Covid-19 test
 - \$735 million partnership with Vertex Pharmaceuticals for gene-editing therapies
 - \$1.1 billion partnership with Bayer

Primary UN SDG's Impacted



CASE STUDIES



LiDAR technology for body scanning

Industry
HealthTech, Diagnostic Tech

Website
<https://www.openwater.cc/>

Basic Information
San Francisco, CA. Founded in 2016

Mission
Creating the future of medical imaging and beyond.
Eliminate 90% of the death and disability from stroke.



Mary Lou Jepsen, Ph.D.
Founder & CEO

MACRO PROBLEM

1 Billion alive today will have a **stroke** and **severe cases** kill or permanently disable the majority

Stroke detection has a US market opportunity of \$10+ billion. New imaging technologies can help make it so that 90% of severe strokes have no neural deficit whatsoever.

Platform for LiDAR applications

- 1. Stroke detection
- 2. Brain health and disease detection such as scans for cancer and mental disorders

ACCOLADES



A DEEPER DIVE

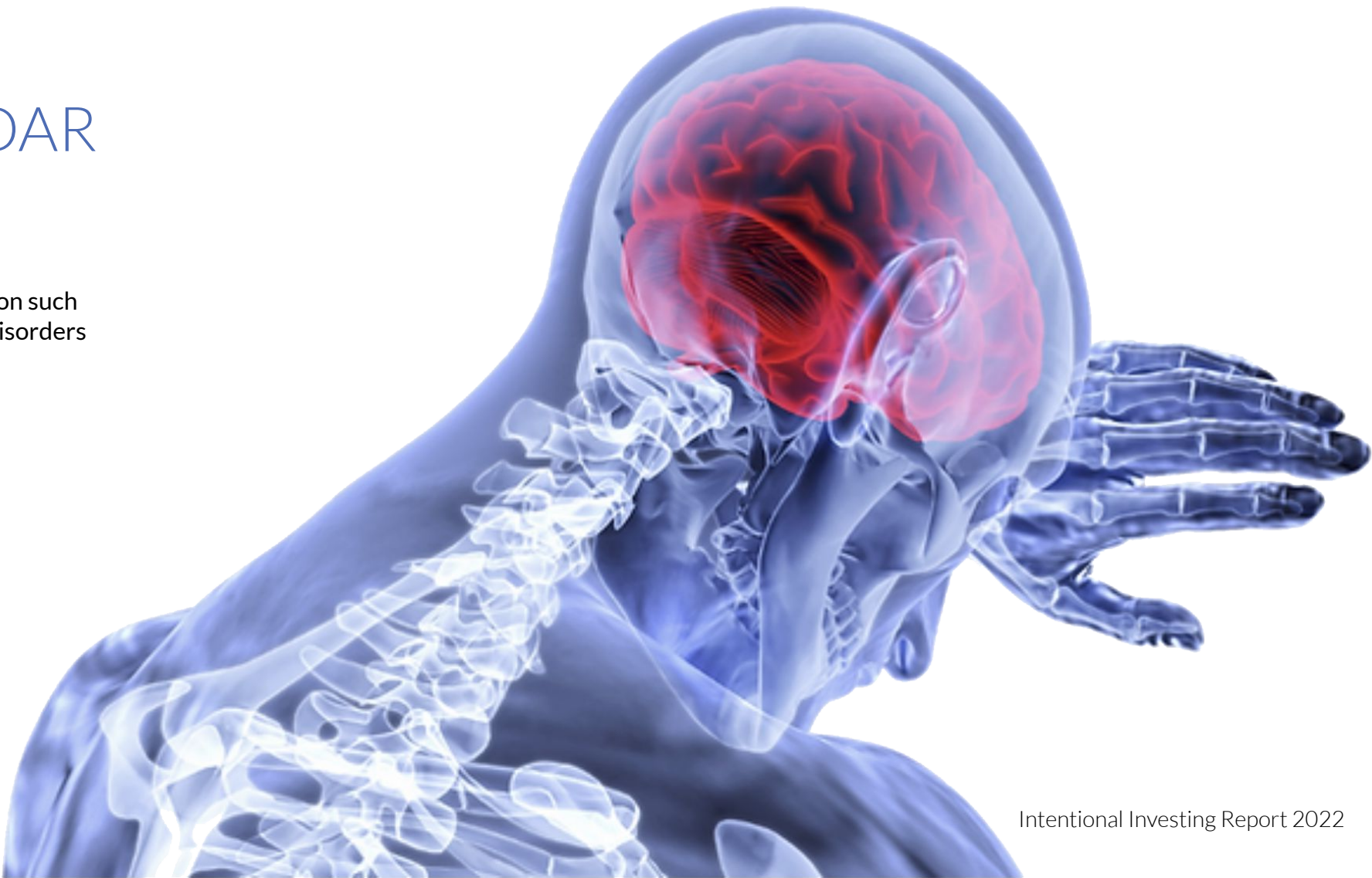
Openwater is a technology company that uses LiDAR technology (red and benign near-infrared light) to bring forward a more efficient and affordable solution to viewing into the body. Their revolutionary imaging technology has unprecedented resolution, enabling medical diagnoses and treatments and a new era of fluid brain-to-computer communications. These technologies will build better, faster and cheaper solutions in healthcare, disrupting the costly and space-consuming MRI and CT machines. For example, the mobility of Openwater’s hardware can be used in ambulances to diagnose on the spot and shorten time to treatment, thus saving lives. Its affordability could also drive unprecedented access to diagnoses globally. The first use case focuses on stroke detection but will be able to improve outcomes of cancer, diseases, mental disorders, all working non-invasively - without opening the body or brain.

Key Traction
- Currently still in stealth

Primary UN SDG’s Impacted



Secondary UN SDG’s Impacted



Inclusive Growth

Portfolio

BIWISE
INDUSTRIES

shine

Think
CERCA™

Investing in...

Democratizing access to education, employment, financial well being and important support services unlock massive economic opportunities. Educational tools built for today's highly interactive environment and professional development in marginalized communities increase competitiveness and drive economies. High quality, accessible and affordable physical and mental health services with individualized care promotes a more sustainable and cost efficient system for all.

Areas of Impact

11.5M People are in need of retraining opportunities in the US

6.3M People are unemployed in the US as of December 2021

55M Students in the US projected to have decreased learning gains in math and reading

65M Americans experience mental health issues every year



CASE STUDIES



Technology training services

Industry
EdTech

Website
www.bitwiseindustries.com

Basic Information
Fresno, CA. Founded in 2013

Mission
By upskilling disenfranchised humans, Bitwise helps empower them to change their own lives, which ignites and transforms the economies of each city Bitwise serves.



Irma Olguin
Co-Founder & CEO



Jake Soberal
Co-Founder & CEO

MACRO PROBLEM

There is a disproportionate access to tech opportunities in marginalized communities

Over 40 million people live in poverty in the US and a lack of upskilling and job opportunities stagnates GDP growth.

KEY IMPACT

11.7K STUDENTS TRAINED

Across 10 different cities

4.7K JOBS CREATED

With an average starting salary of \$62K/year

ACCOLADES



A DEEPER DIVE

Bitwise Industries creates a bridge between humans from marginalized communities and stories of systemic poverty to skills and resources necessary to access opportunities in the tech industry. By leveraging public-private partnerships, Bitwise provides paid apprenticeships to students to learn tech skills, connects them to meaningful tech opportunities, and builds vibrant buildings in underestimated cities to house their work. By upskilling disenfranchised humans, it empowers them to change their own lives—which ignites and transforms the regional economies of the cities in which Bitwise serves.

Key Traction

- Rapid expansion to 10 different cities in 2021 with plan to reach 20 cities by 2024
- Launching the BW Capital Fund to invest in minority tech founders
- Serviced hundreds of local SMEs and national clients through Bitwise Technology Consulting

Primary UN SDG's Impacted



Secondary UN SDG's Impacted



CASE STUDIES



Mental wellness App

Industry
HealthTech, Digital health

Website
www.theshineapp.com

Basic Information
New York, NY. Founded in 2015

Mission
To make caring for mental and emotional health easier, more representative, and more inclusive.



Naomi Hirabayashi
Co-Founder & CEO



Marah Lidey
Co-Founder & CEO

MACRO PROBLEM

65 million Americans experience **mental health issues** each year. **Self-help tools** are **costly** and **not made for everyone**

In the US, mental health is the fastest-growing category in healthcare with a total addressable market of \$78 billion in behavioral health.

KEY IMPACT

35%
Reduction in anxiety and depression in a 2018 efficacy study

6M COMMUNITY SIZE
An increase from the 4M reach from 2020

160+ AVAILABLE COUNTRIES

ACCOLADES

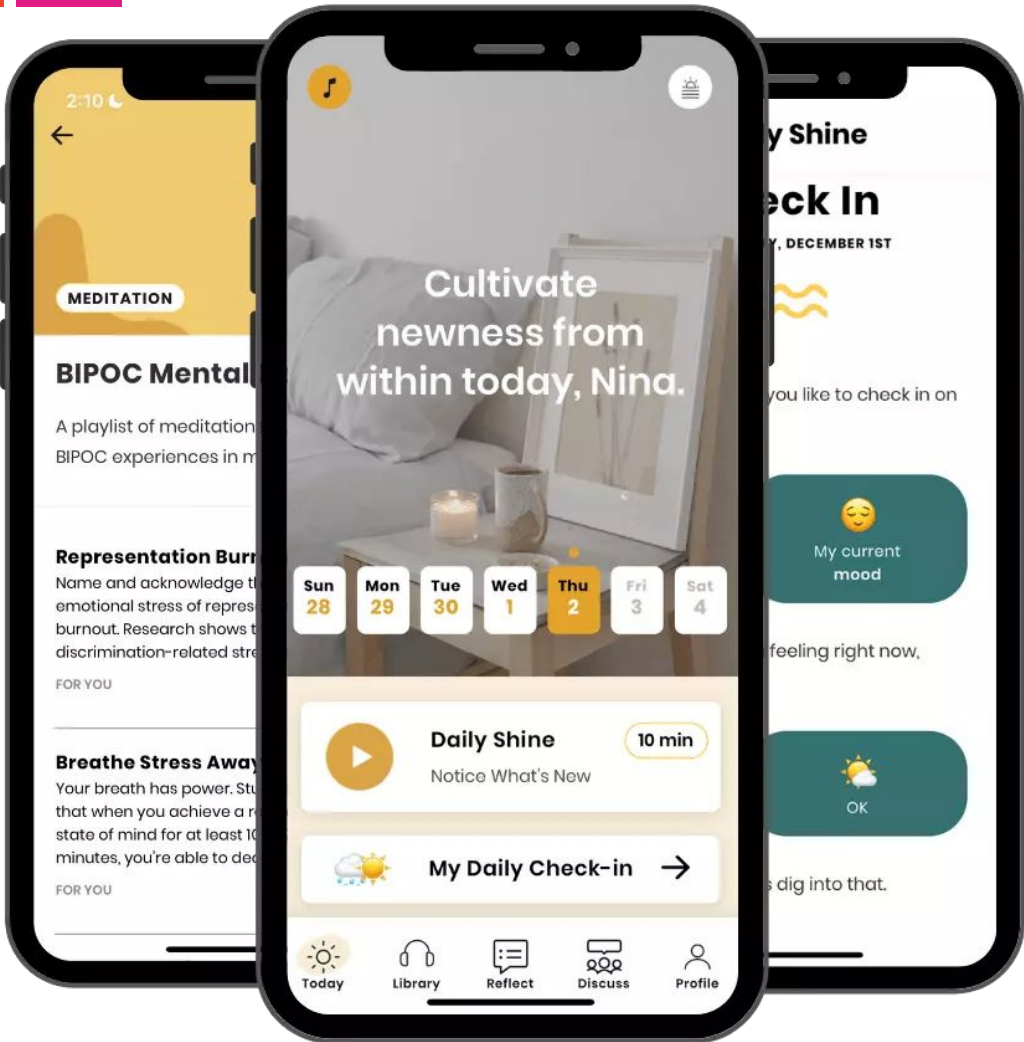


A DEEPER DIVE

Current self-help tools are expensive, not diverse, and one-dimensional. Shine is a digital wellness platform that uses a science-backed methodology called Acceptance Commitment Therapy (ACT) to redefine and drive access to care of mental and emotional health. Shine’s app allows users to navigate their mental health journeys through bite-sized, on-demand, personalized content. 96% of users say that Shine has helped them feel more resilient and capable of shifting their mindset after a difficult moment. The founders were inspired to develop Shine because they didn’t feel their experiences and backgrounds were well supported by the landscape. Aiding the mental health of marginalized groups is key to improving the global landscape of mental health. Shine is the #1 BIPOC-owned self-care app with the largest and most diverse group of people practicing daily self-care together.

- Key Traction**
- Established itself as the most well known and inclusive mental health app for BIPOC communities
 - Shine app recognized as Best of Apple Apps in 2020

Primary UN SDG’s Impacted



CASE STUDIES



Literacy platform tool for teachers

Industry

EdTech

Website

<https://www.thinkcerca.com/>

Basic Information

Chicago, IL. Founded in 2012

Mission

To provide schools and districts with the essentials to spark courageous thinking.



Eileen Murphy
Founder & CEO

MACRO PROBLEM

Teachers are under-resourced to serve the needs of diverse classrooms

Critical thinking is a required skill for the 21st century and should be better integrated into english language arts.

KEY IMPACT

150K

Students served across 36 different states

20% GROWTH IN WRITING

Per year on ThinkCERCA's platform

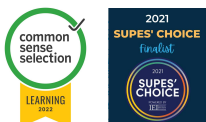
9.5 HOURS PER WEEK

Given back to the teacher

PARTNERS



ACCOLADES



A DEEPER DIVE

ThinkCERCA's personalized literacy platform helps educators teach critical thinking skills through argumentative writing. Through standards-aligned close reading and academic writing lessons for English language arts, science, social studies, and math, their schoolwide approach to literacy instruction prepares students in grades 4-12 for post-secondary life by building up their analytical skills in every subject. ThinkCERCA's expert-designed lessons walk students through the process of analyzing content-rich texts and multimedia to construct cohesive argumentative, informational, or narrative writings.

Key Traction

- ThinkCERCA wins \$250K in the Learning Engineering Tools Competition, a global edtech competition

Primary UN SDG's Impacted

