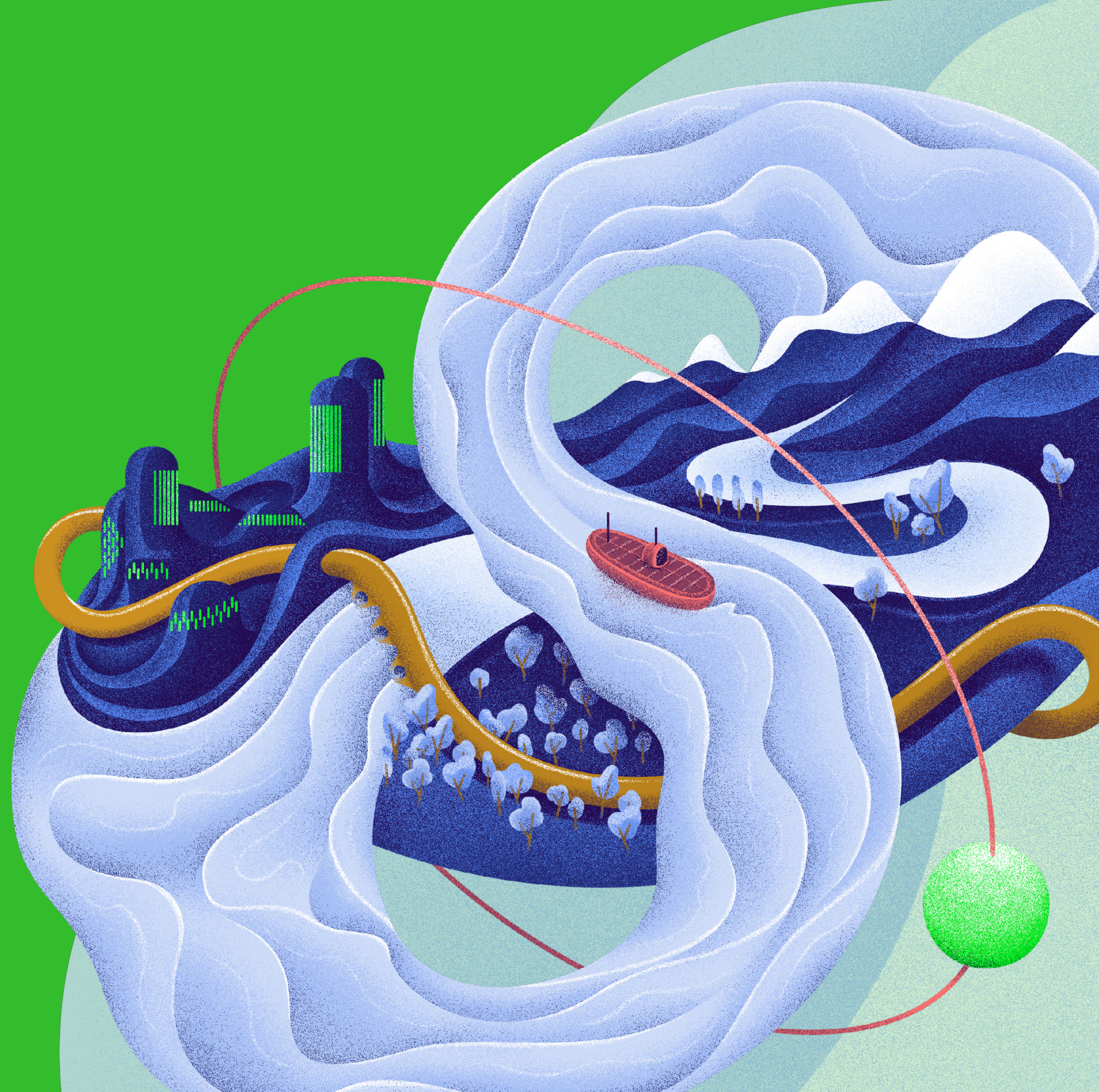

PLUGANDPLAY

PORTFOLIO IMPACT REPORT

2020

[PNPTC.COM/SUSTAINABILITY](https://pnptc.com/sustainability)



CEO Foreword



Saeed Amidi
CEO & Founder

"I believe when we **bring together all the stakeholders**—large corporations, entrepreneurs, startups, and universities—you can **create real change**. By devoting resources and attention to this global issue of plastic waste, we can make a difference in the environment. Through this platform, **I commit to** spend more of my time on **sustainability-focused initiatives** and will invest in 20 startups in this space per year."

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DATA SOURCES

The "Portfolio Impact Report 2020" is the results of a qualitative survey conducted among our portfolio startups by our sustainability ventures team. The 20 respondents provided the data and insights reported. Additional data and pictures were retrieved from startups' websites. Fundraising data are polled from [crunchbase.com](https://www.crunchbase.com)



Logos, descriptions, locations and industry data are collected from Playbook, Plug and Play's proprietary software, to discover, meet, and partner with the best startups in your industry. Visit playbook.vc to know more about our open innovation software.

INTRODUCING PLUG AND PLAY

THE ULTIMATE OPEN INNOVATION PLATFORM

Introducing Plug and Play

VENTURE CAPITAL

We invest in **over 200** companies worldwide every year and co-invest with **180 VCs**

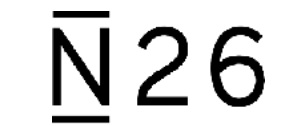
CORPORATE INNOVATION

We supercharge the innovation of **over 400** major corporations from every continent

ACCELERATOR PROGRAMS

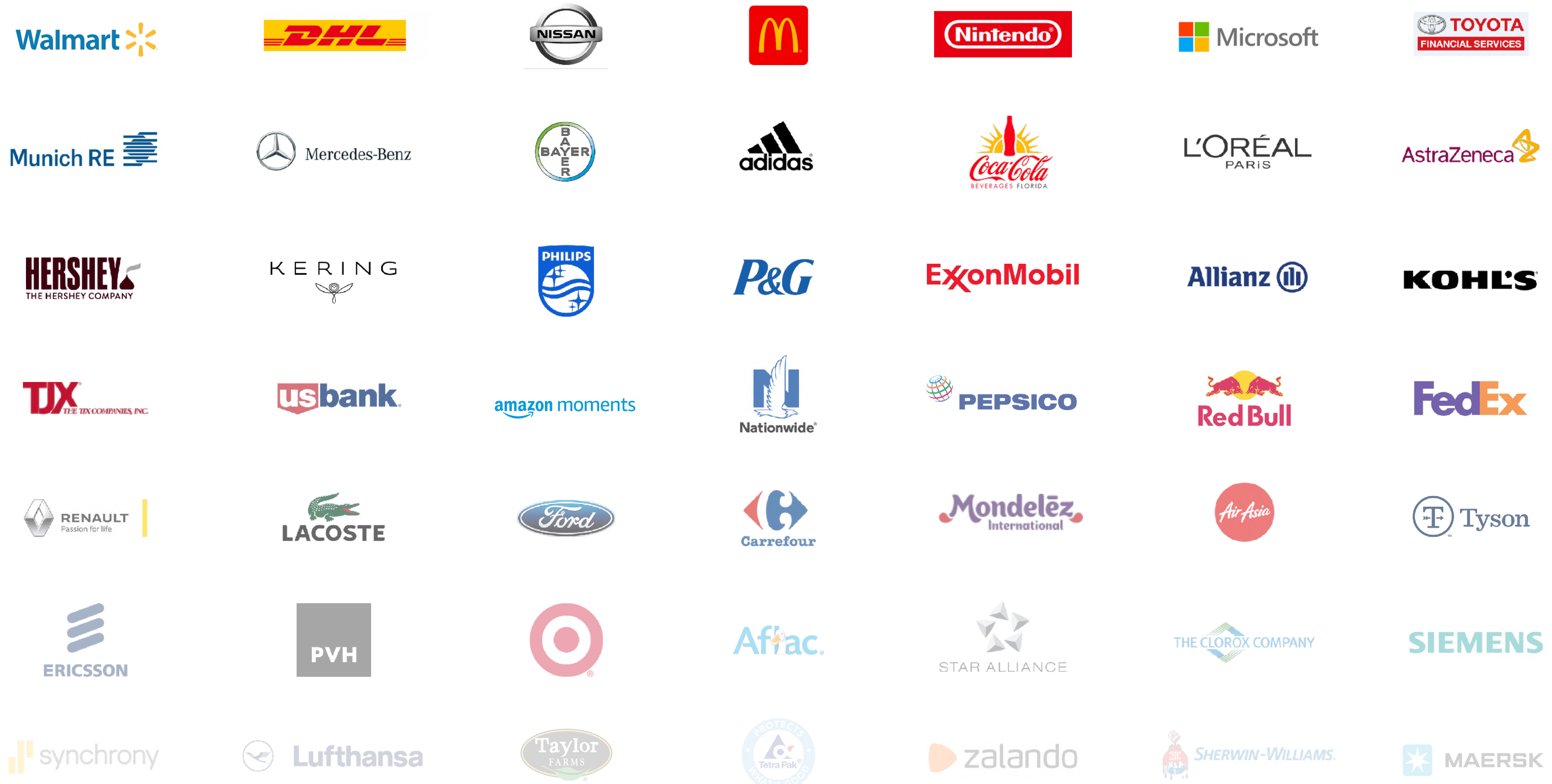
We run **over 60** accelerator programs a year in most major industries and cities

A Selection of Our Prior Investments



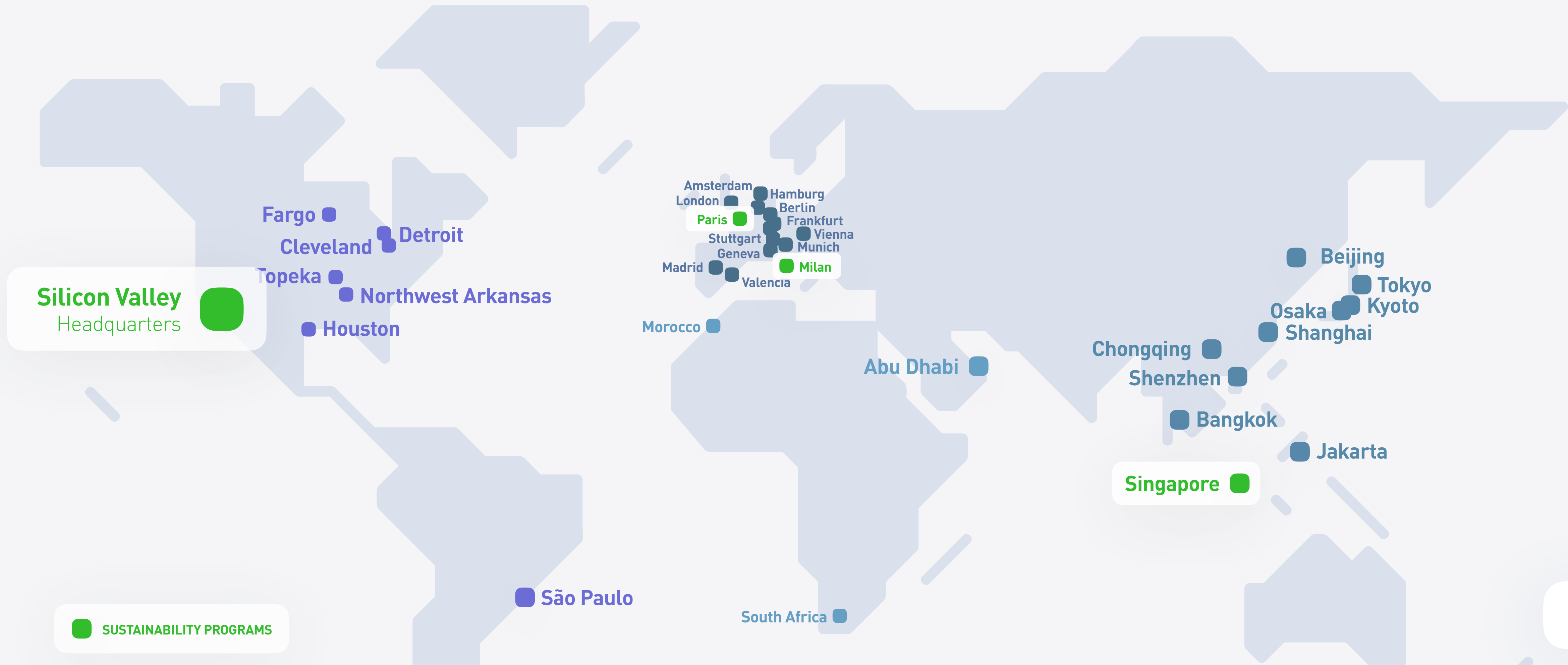
A Selection of Our Corporate Innovation Partners

400+ Corporate Partners



Our Accelerator Programs

30+ Locations, 60+ Programs



PORTFOLIO IMPACT SUMMARY

A BREAKDOWN OF THE STARTUPS FEATURED

Portfolio Startups Featured

For more info p.58



EDUCATION



HEALTHCARE



FOOD & AGRICULTURE



MOBILITY



HEALTHCARE



FOOD & AGRICULTURE



HEALTHCARE



ENERGY



NEW MATERIALS



MOBILITY



ENTERPRISE TECH



WATER TECH



SECURITY



HEALTHCARE



HEALTHCARE



FOOD & AGRICULTURE



HEALTHCARE



ENERGY



HEALTHCARE



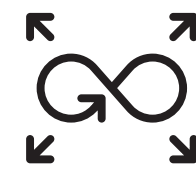
FOOD & AGRICULTURE

Impact Snapshot



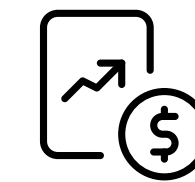
#20

**OUR IMPACT
INVESTMENTS
TO DATE**



\$4.5M

**IN CAPITAL INVESTED
ACROSS THESE
COMPANIES**



\$400M

**RAISED BY
COMPANIES IN OUR
IMPACT PORTFOLIO**

Impact Startups Grouped by SASB Area



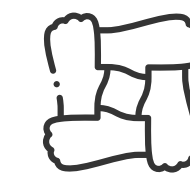
BASED ON
SASB AREAS



ENVIRONMENT



SOCIAL CAPITAL



HUMAN CAPITAL



Our Portfolio Touches Each of the UN's SDGs



UN's SDGs Touched by Each Startup

	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS
Applyboard	✓			✓				✓		✓							
Basepaws			✓									✓					
Beehero		✓											✓		✓		
Bluespace.ai				✓	✓				✓	✓	✓	✓	✓				✓
Bold Health			✓		✓												
Breezometer			✓				✓				✓		✓				
Carbon Analytics									✓			✓	✓				✓
Bond Pet Food									✓			✓	✓		✓		
Checkerspot									✓			✓	✓				
Ducktrain									✓		✓	✓					
Headstart					✓			✓		✓							
Ketos			✓			✓			✓		✓		✓	✓			
Knightscope											✓					✓	
Limbix			✓														
Miraculex			✓														
Meru Health			✓														
Owkin			✓														
Sapient Industries							✓				✓	✓	✓				
Second Nature			✓														
Telesense		✓	✓										✓		✓		

STARTUPS SPOTLIGHT

A 2-PAGER PER EACH COMPANY
TACKLING A WORLD WIDE ISSUE

ApplyBoard



ApplyBoard is a SaaS-enabled marketplace uniquely designed for international students to apply to study at the best institutions of higher education globally. Created in 2015, the company revolutionizes the way students experience the application process. Based in Canada's tech hub, Waterloo region, and with offices across various countries including

China, Nepal, Vietnam, and India, the platform also acts as a secure space for students to keep the required documents to make the process as seamless as possible. ApplyBoard is a powerful solution for the industry and provides students with everything they need to successfully study abroad.

KEY IMPACT METRICS

→ [APPLYBOARD.COM](https://www.applyboard.com)

1M
STUDENTS
SUPPORTED

4,000
PARTNER
INSTITUTIONS

110+
SOURCING
COUNTRIES



ApplyBoard



SOURCE OF INSPIRATION

ApplyBoard was founded in 2015 by Martin, Meti, and Massi Basiri. The brothers came to Canada as Iranian international students, and experienced first-hand exactly how difficult it is to navigate the traditional study abroad search and application process. With the belief that education is a right and not a privilege, the brothers founded ApplyBoard to empower people around the world to access the best educational opportunities available.



CUSTOMER HIGHLIGHT

In 2020, ApplyBoard hit an exciting milestone - it helped 100,000+ students along their journey to study abroad. With ApplyBoard celebrating its 5-year anniversary in May 2020, it is starting to see the first batch of ApplyBoard students graduate from post-secondary institutions in Canada and the United States. A video highlighting the success story of one of ApplyBoard's many international students is [available here](#).



LOOKING AHEAD TO 2021

COVID-19 is having an incredibly large impact on education. ApplyBoard is looking forward to being the solution that enables students to continue their study abroad journey. Its online platform enables students to continue their research on institutions and programs from their homes, and when ready, submit their application to study abroad. It anticipates that digital recruiting and support will become even more important in 2021, even becoming the new normal for study abroad.

Basepaws



Basepaws is a pet genetics platform designed to provide consumer genetic tests for cats. The company has developed the first commercial genetic test for cats, and focuses on using DNA information to create

personalized pet products & services. Basepaws has created a direct-to-consumer feline DNA test, focusing on delivering breed and trait information and actionable health insights.

KEY IMPACT METRICS

→ BASEPAWS.COM

BOND

BOND HUMAN
AND ANIMAL

WIN

ERADICATE
GENETIC DISEASE

ADOPTION

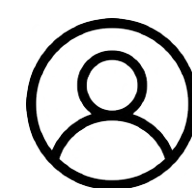
GET ANIMALS
ADOPTED

Basepaws



SOURCE OF INSPIRATION

The founder's cat got sick and wanted to learn more about how genetics can help deal with chronic issues.



CUSTOMER HIGHLIGHT

Basepaws launched a tele-coaching service that helped pet owners connect and solve for pet behavior issues. Now this is a part of its brand and Basepaws helps newly-adopted pets stay healthy and well behaved, and stay out of shelters.



LOOKING AHEAD TO 2021

Basepaws is excited to bring more value to pet parents and create a better world for pets with science at the core. The company plans to make Coach My Cat a standard in cat behavior and coaching.

BeeHero



BeeHero is maximizing crop yields through pollination. The company's technology combines sophisticated machine learning algorithms with low-cost sensors to stimulate full output potential during peak pollination cycles. By tracking and optimizing pollination in real-time, BeeHero ensures hyper-efficient

pollinators that can increase crop yields by 30% on average. Beehero's platform already enables commercial growers to optimize crop-yield for 70% of major commercial crops. Based in California and operating globally, BeeHero manages the largest database of bees & pollination.

KEY IMPACT METRICS

→ BEEHERO.IO

-20%

BEE MORTALITY RATE

+30%

CROP YIELDS ON AVERAGE

100M

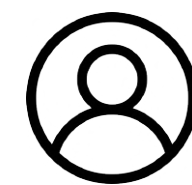
HIVES WORLDWIDE

BeeHero



SOURCE OF INSPIRATION

It's a combination of a broken market with a real need, with a significant input for our planet. BeeHero utilizes technology to increase yields by optimizing pollination cycles, while taking care of the bees' welfare.



CUSTOMER HIGHLIGHT

A beekeeper was notified to visit a bee-yard during a pollination season in almonds to treat queen failure, and managed to save 20% of the hives in the yard.



LOOKING AHEAD TO 2021

Scaling the amount of acres BeeHero services in almonds. It is looking to pollinate 18K acres in 2021, and is excited to build yield assessments models based on pollination activity.

BlueSpace.ai



BlueSpace provides accessible and sustainable urban mass transit by fostering a faster and safer path to driverless with next-gen AV.

BlueSpace 4D perception gives guaranteed motion bounds, the vehicles can brake gradually.

Unlike other solutions, BlueSpace's approach knows for certain if the pedestrian is moving toward the vehicle. Direct doppler measurement is a constraint on possible pedestrian velocity.

KEY IMPACT METRICS (PRE-MARKET COMPANY)

→ [BLUESPACE.AI](https://bluespace.ai)

TIME
SAVED

FUEL
EFFICIENCY

SAVINGS
ON
INFRASTRUCTURE

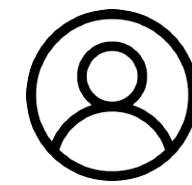


BlueSpace.ai



SOURCE OF INSPIRATION

BlueSpace strongly believes that physical mobility enables social and economic mobility. Autonomous vehicles can democratize access to quality education, jobs and healthcare.



CUSTOMER HIGHLIGHT

The company does not have products out on the market currently.



LOOKING AHEAD TO 2021

BlueSpace is looking forward to making AV buses available to the public.

Bold Health



Bold Health is a digital therapeutic platform that leverages evidence-based cognitive behavioral and stress reduction therapies to help patients with chronic digestive conditions to better manage and treat their physical and mental health. The company's first product is called Zemedly, the world's first integrative digital therapeutic

app for Irritable Bowel Syndrome (IBS), based on a proven CBT protocol. Zemedly is being validated in a clinical trial with UPenn and other studies with Stanford and University College London Hospital, receiving rave reviews in its public beta testing, and has generated revenues from a pharma pilot.

KEY IMPACT METRICS

→ [BOLD.HEALTH](https://bold.health)

-72%
OF GUT
SYMPTOMS

-60%
PAIN

+30/50%
MENTAL HEALTH
MARKERS

+30%
QUALITY
OF LIFE

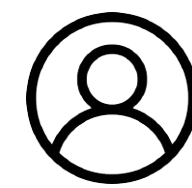
BoldHealth
DIGITAL THERAPEUTICS FOR DIGESTIVE HEALTH

Bold Health



SOURCE OF INSPIRATION

The CEO suffered with several digestive conditions growing up, and after getting rid of her problems, she realized how prevalent this problem is: 74% of population experience at least one digestive symptom every week, and 25% suffer with a chronic GI condition. Bold Health can change this with digital solutions by providing effective, accessible and effective digital therapies.



CUSTOMER HIGHLIGHT

One of Bold Health's users who has had to quit jobs because of the suffering caused by her IBS shared how she is finally finding relief: "This app has made a significant effect on my IBS. It is the first time I have been supported with my symptoms, but also with the psychological effect of having IBS. I see it as a friend who supports me both emotionally and physically!"



LOOKING AHEAD TO 2021

Growth in the US market with employers and health plans!

Bond Pet Foods



Dogs and cats thrive on meat-based diets, but the team at Bond is not fans of how meat is sourced and made (animal welfare, pathogen contamination, sustainability). Bond Pet Foods is reinventing pet nutrition, making dog and cat foods sourced from real protein, without the animal. Using some of the

same principles and processes that are employed in craft brewing and cheese (rennet) manufacture, the company grows high-quality animal proteins through fermentation, harvests them to better meet the nutrition requirements of companion animals, and uses the ingredients as the foundation of its complete recipes.

KEY IMPACT METRICS (PRE-MARKET COMPANY)

→ [BONDPETS.COM](https://bondpets.com)

0%
**ANIMAL
MEAT**

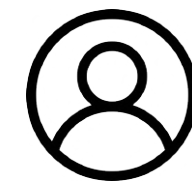


Bond Pet Foods



SOURCE OF INSPIRATION

Working on the Burger King advertising account opened the CEO's eyes to the challenges attached to conventional meat production.



CUSTOMER HIGHLIGHT

The company does not have products out on the market currently.



LOOKING AHEAD TO 2021

Scale up of Bond's cultured chicken protein. Introduction of additional SKUS in the first generation product portfolio (dog treats).

BreezoMeter



BreezoMeter provides an air-quality analytics platform intended to offer real-time, dynamic and location-based outdoor air quality data. The company's platform uses proprietary algorithms to manage monitoring stations, readings as well as traffic patterns, wind and weather characteristic, etc., derived from

governmental sensors, satellites, weather patterns, transportation dynamics and other sources. The solution enables businesses to add depth and value to their products or services with detailed, hyper local air quality information.

KEY IMPACT METRICS

→ [BREEZOMETER.COM](https://www.breezometer.com)

5 METERS
RESOLUTION
OF AIR QUALITY

HOURLY
UPDATED

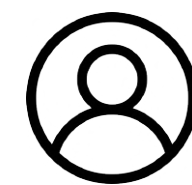
99%
REAL-TIME
ACCURACY

BreezoMeter



SOURCE OF INSPIRATION

Each day, 90% of people inhale microscopic pollutants in the air they breathe. The WHO considers air pollution to be the world's biggest environmental risk to human health. BreezoMeter was born from a real-world need to understand and respond to the quality of the air in real-time. Our mission now is to help improve the health and quality of life for billions of people worldwide.



CUSTOMER HIGHLIGHT

UK based digital health company MyHealth integrated BreezoMeter data to better assist chronic disease sufferers with managing their symptoms. Neutrogena leveraged BreezoMeter hyper-local data to deliver exceptionally targeted messaging to promote their anti-pollution urban skincare range. More case studies available [here](#).



LOOKING AHEAD TO 2021

COVID-19 has shone a spotlight on the air we breathe. As more studies expose the link between air pollution and COVID-19 mortality, BreezoMeter predicts a surge of awareness around air pollution exposure over the coming months and years. BreezoMeter is ready to answer the increased demand for hyper-local, personalized and real-time environmental data.

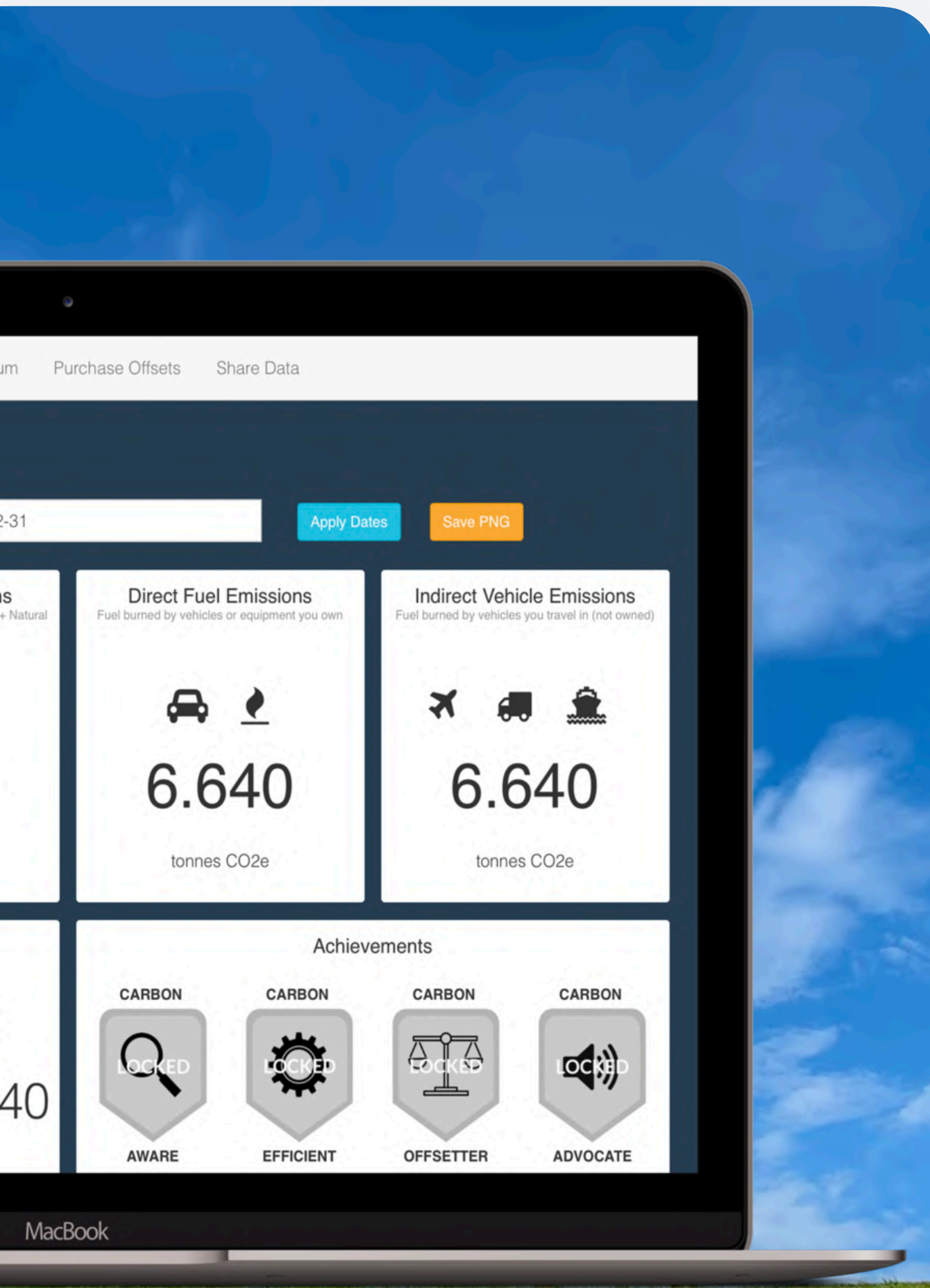
Carbon Analytics



Carbon Analytics transforms a company's accounting data into a highly visual, actionable carbon footprint analysis.

Carbon Analytics is the data startup behind Insight, a SaaS platform built to be the Mint.com for businesses' environmental

management. The platform automatically parses a company's purchases to produce sustainability data on their company and supply chain, quickly and affordably, allowing companies of all sizes to assess, report and take actions to improve impact.



KEY IMPACT METRICS

→ CO2ANALYTICS.COM

1,000
COMPANIES
SERVED

100/DAY
GLOBAL CARBON
CALCULATIONS

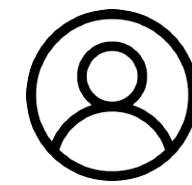
NET ZERO
CARBON CERTIFIED
COMPANY

Carbon Analytics



SOURCE OF INSPIRATION

A lifelong desire to improve our planet and society for a more enjoyable, healthy planet for all - and specifically in this company, a belief that our economy can't fully transform to where it needs to be without an upgrade to the underlying data infrastructure to include externalities like climate change, toxicity, land use and water use.



CUSTOMER HIGHLIGHT

Rebel Kitchen LTD, an alternative milk company in the UK, measured their complete footprint with the Carbon Analytics platform and with its support, offset their carbon footprint including their entire supply chain - and then recruited 3 of their sister food companies to do the same. They generated positive press for doing this and became Carbon Neutral years ahead of when they expected to.



LOOKING AHEAD TO 2021

Huge growth! Carbon Analytics has several fantastic integrations and launches coming up later this year that will grow the user base and impact by orders of magnitude. The team is hard at work to secure capital and resources to help complete this successfully.

Checkerspot



Checkerspot is a materials company. Its innovation platform enables the design - at a molecular level - of new high performance materials, starting with next-gen polyurethanes and textile coatings/finishes utilizing

building blocks (such as triglycerides and fatty acids) never available before at scale that can impart unique high value physical properties for materials. The approach is also more sustainable than relying on petrochemical inputs.

KEY IMPACT METRICS

[→ CHECKERSPOT.COM](https://CHECKERSPOT.COM)

42%

BIO-BASED CONTENT REACHED IN A SKI

B

CERTIFIED CORPORATION

219 KG

HDPE/ABS RECYCLED IN SALT LAKE CITY

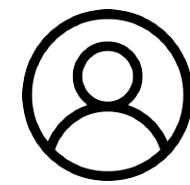


Checkerspot



SOURCE OF INSPIRATION

Checkerspot exists because the world needs new materials designed to perform better but that are also less toxic and safer for the environment, and can be biomanufactured at scale. Checkerspot's technology unlocks this potential by accessing novel DNA sequences encoding the pathways responsible for the synthesis of these building blocks and deploying it in a scalable microbial expression system (fermentation).



CUSTOMER HIGHLIGHT

An [example](#) of Checkerspot's ever deepening relationship with its partner Beyond Surface Technology (BST), this last February, Checkerspot's algae oil was used by BST in their MiDori Biowicking application to coat performance wear that was sold in all stores of the German Coffee Shop and Lifestyle Brand, Tchibo. The products ranged from men's jackets to shorts and women's t-shirts to running pants.



LOOKING AHEAD TO 2021

The devastating pandemic has offered up an opportunity for a global reset that is drawing even more attention to the importance of the role of science and the fragility of global supply chains. Checkerspot's vision in 2021 is to continue to grow its community, to work with partners and innovators to further bring to life what is possible with biomanufactured performance materials and to help address global challenges together.

Ducktrain



Ducktrain is a short-range, low-footprint electric autonomous vehicles for a variety of use cases in dense city and industrial environments, specifically last mile delivery use cases, industrial areas and buildings. Urban - Using follow-me technology, Ducktrain will receive a series-vehicle certification to drive on public road in 2021. The vehicles can be

combined in platoons of up to five and follow diverse lead vehicles or pedestrians. Industrial - Ducktrain is designed to operate in a myriad of environments (outdoor, indoor). In an industrial context the vehicles can be deployed like AGVs and do not require a leading person or vehicle. Popular use cases include warehouse, factory floor, and air-side cargo.

KEY IMPACT METRICS

→ [DUCKTRAIN.IO](https://ducktrain.io)

INFRASTRUCTURE
WEAR PER
MATERIAL
TRANSPORTED

PARCELMAN
TIME
PER MATERIAL
TRANSPORTED

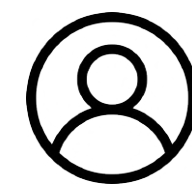
CO2
PER MATERIAL
TRANSPORTED

Ducktrain



SOURCE OF INSPIRATION

Inefficient city logistics.



CUSTOMER HIGHLIGHT

Ducktrain's customer highlights include signing a MoU with relevant European customers, and having great private demos with relevant European and international customers.



LOOKING AHEAD TO 2021

Ducktrain is excited to obtain road certification for its Gen1 vehicle, and to rollout the solution in multiple cities with customers.

Headstart

headstart

Diversity in big companies is more than a nice idea. Yet, diverse candidates are often systematically excluded when it comes to campus recruiting and high-volume hiring. Break the cycle of exclusion with Headstart, diversity recruiting software that levels the playing field for all candidates by removing bias from recruiting processes. With machine

learning and data insights, Headstart complements your existing talent acquisition system by identifying qualified candidates based on predicted success within your unique environment, instead of the traditional qualifiers that frequently result in discrimination. That's why, when it comes to diversity, Headstart is all-in.

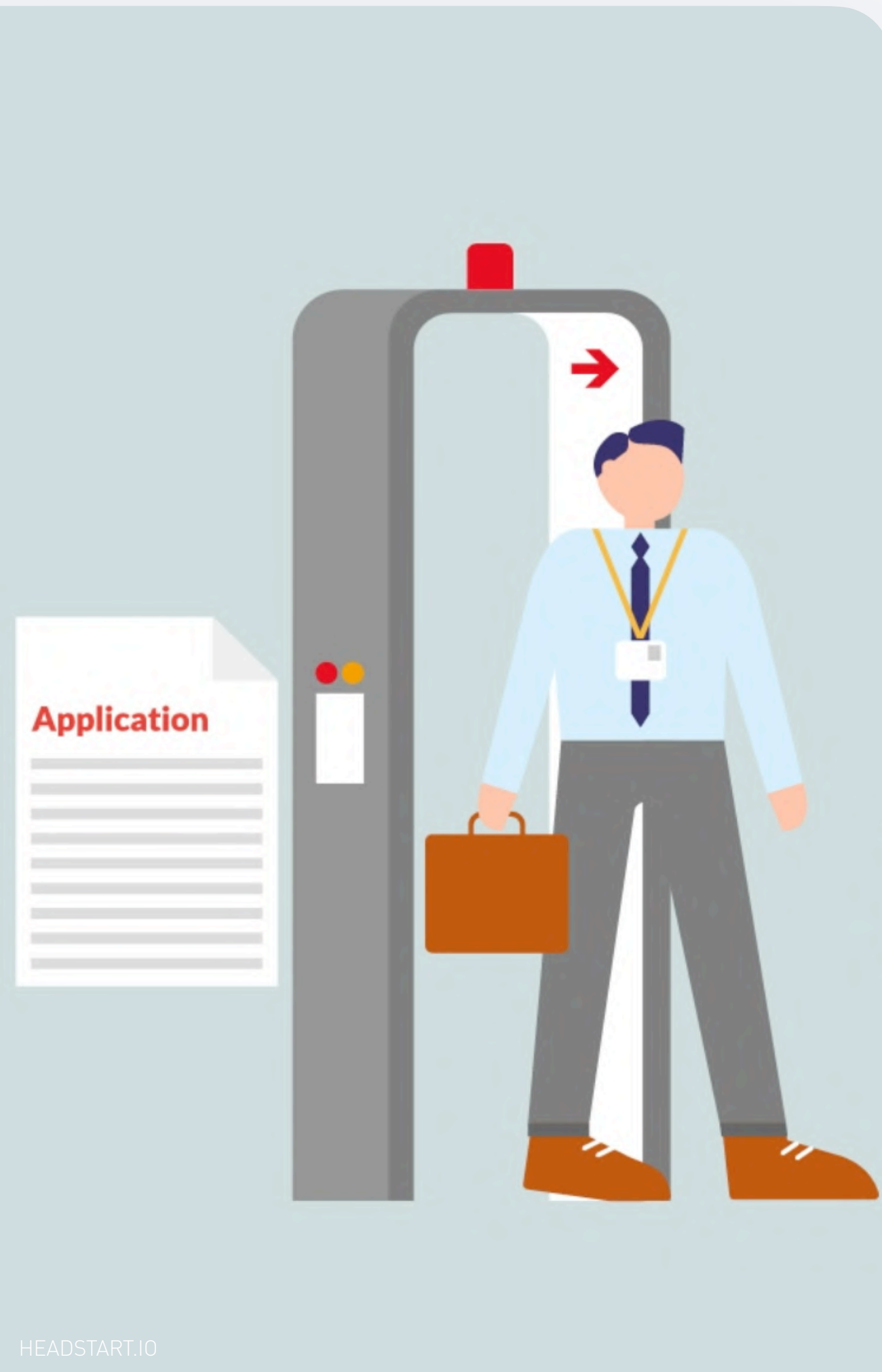
KEY IMPACT METRICS

+15%
CHANCES OF AFRICAN
CANDIDATES

+18%
CHANCES OF ASIAN
CANDIDATES

+100%
FEMALE ENTRY
HIRING

→ [HEADSTART.IO](https://headstart.io)



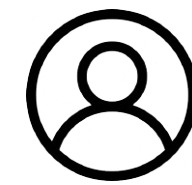
Headstart

headstart



SOURCE OF INSPIRATION

The world is fully aware that recruitment is broken and unfair. Everyone also knows the value of diversity and more inclusive teams and leadership, yet no one addresses the issue. Headstart does. Its mission is to change the face of future leadership, make organizations more inclusive, and in turn vastly improve business performance.



CUSTOMER HIGHLIGHT

One of Headstart's clients, a global consultancy, has now begun to resell Headstart to their own clients, resulting in a contract win - its largest to date - to run a pilot for the Ministry of Defense. This could lead to winning the overall contract which would give Headstart the opportunity to address inclusivity in the defense sector, a sector notorious for lack of diversity.



LOOKING AHEAD TO 2021

The return of business to not so normal. Coronavirus, whilst devastating, has forced us to reconsider our lives and the way we live and run organizations. Headstart is looking forward to companies finally embracing a new way of working and treating human beings.

KETOS



KETOS cares about delivering actionable data insights to help drive a global impact with water safety and availability.

The company focuses on providing its customers an end-to-end solution with innovative patent-pending hardware and software. KETOS brings a disruptive convergence of water, science, technology and data science.

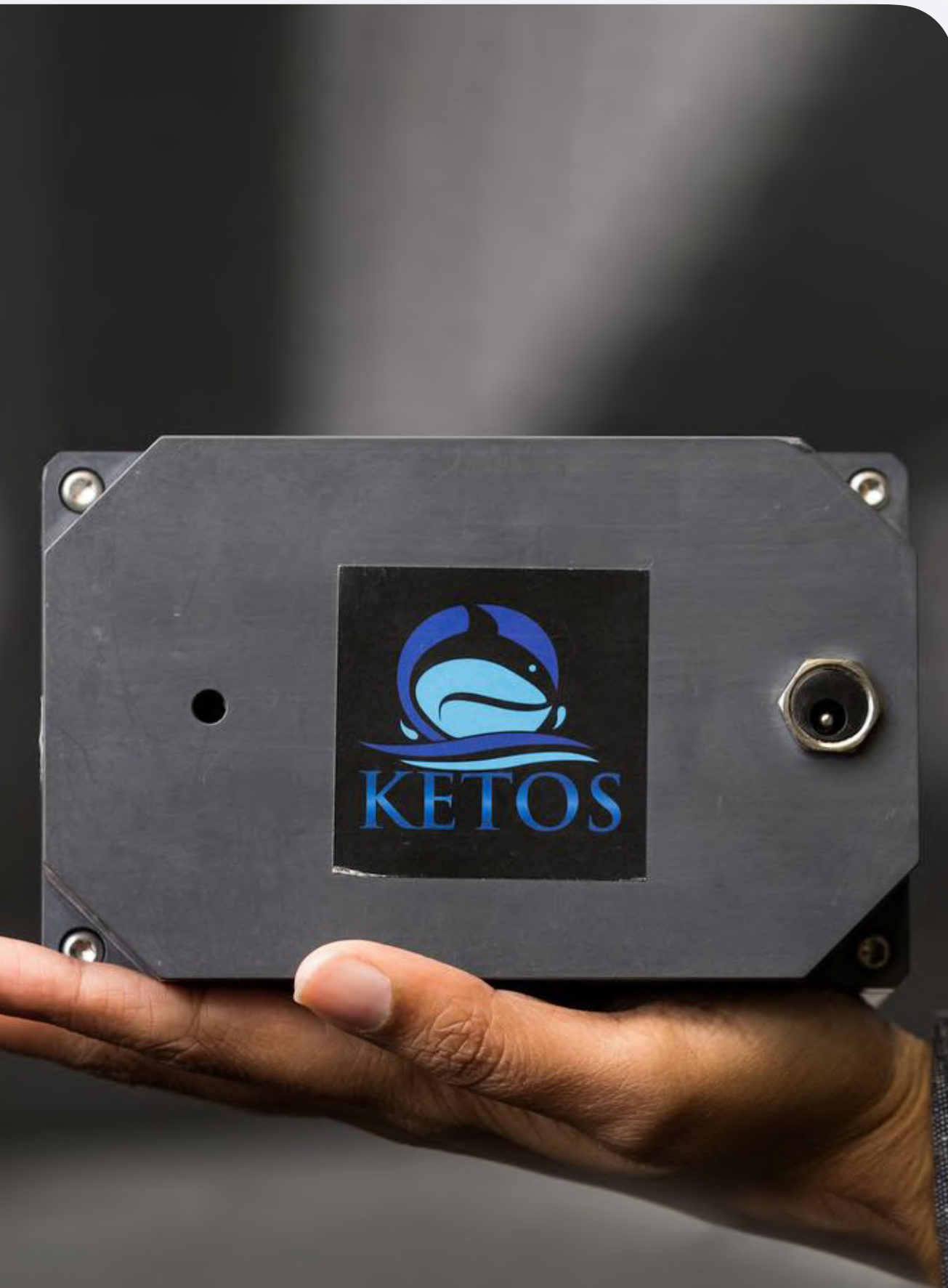
KEY IMPACT METRICS

→ KETOS.CO

5M/2YEARS
DATA POINTS ON
WATER QUALITY

2X DATA
BY ALL 50 STATES
OF US IN 18 YEARS

2M
PLASTIC WATER
BOTTLES SAVED

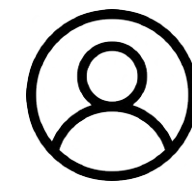


KETOS



SOURCE OF INSPIRATION

The need for clean water availability, with the necessary efficiency and quality controls to make it safer, sustainable and smarter for the planet.



CUSTOMER HIGHLIGHT

You can read a full case study [here](#).



LOOKING AHEAD TO 2021

KETOS has built its foundation for scale and with the fundraising of its Series B, looks forward to scaling the business.

Knightscope



Knightscope is an advanced physical security technology company based in Silicon Valley that designs, develops, builds and deploys fully autonomous security robots that are now patrolling both outdoor and indoor environments across the country operating 24/7/365. The company offers its technology on a Machine-as-a-Service business model at an effective price of \$6 - \$12 per hour running 24/7 on annual contracts providing security teams unprecedented 'smart eyes & ears' as well as a

persistent physical deterrence towards negative behavior. Knightscope presently holds contracts in 15 states across 4 time zones on corporate campuses, malls, logistics facilities, manufacturing plants, casinos, residential, commercial property - basically anywhere outdoors or indoors you might find a security guard. Its security robots are fully autonomous and have operated in excess of 700,000 hours in the field in real world conditions with real clients generating numerous crime fighting wins.

KEY IMPACT METRICS

→ [KNIGHTSCOPE.COM](https://www.knightscope.com)

-10%
IN CALLS
FOR SERVICE

-46%
IN CRIME
REPORTS

+27%
IN
ARRESTS

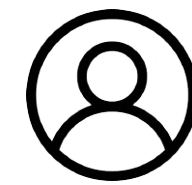
-68%
IN
CITATIONS

Knightscope



SOURCE OF INSPIRATION

After 9/11 the CEO decided to dedicate his life to better securing our country - and Knightscope is on a long-term mission to make the United States of America the safest country in the world.



CUSTOMER HIGHLIGHT

You can read a full case study [here](#).



LOOKING AHEAD TO 2021

Scaling Knightscope to profitability and preparing for a possibly public listing.

Limbox



Limbox Spark is the first prescription digital therapeutic designed to support adolescents with depression. Spark is a multi-week cognitive behavioral therapy-based program focused on the completion of value-based activities that spark feelings of pleasure or mastery. Limbox is actively creating prescription digital

therapeutics (PDTs) to enable doctors to prescribe digital, evidence-based, therapeutic interventions for adolescent mental health disorders. PDTs require strict compliance with FDA quality management standards and are validated through rigorous clinical trials. Upon FDA clearance, PDTs can be prescribed by a doctor to treat specific medical conditions.

KEY IMPACT METRICS

→ [LIMBIX.COM](https://limbix.com)

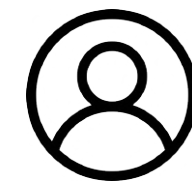
55% RATE
OF REMISSION
IN DEPRESSION





SOURCE OF INSPIRATION

Talking to pediatricians. They had so many patients with signs of depression but little they could do for them.



CUSTOMER HIGHLIGHT

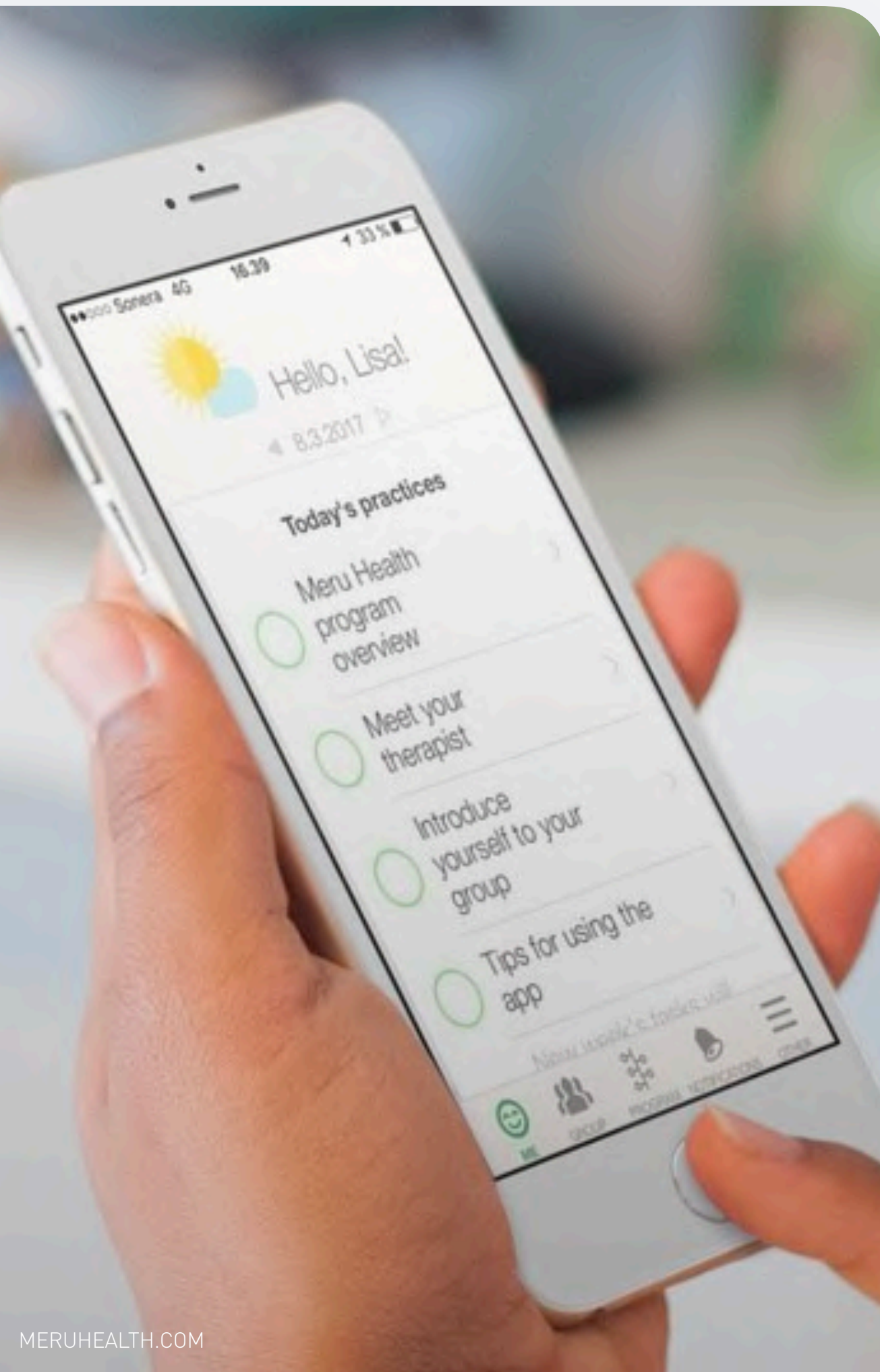
Limbox's first clinical trial showed a 55% remission rate in moderate to severe depression among adolescents.



LOOKING AHEAD TO 2021

Limbox's upcoming large randomized controlled trial. If it achieves good results the company can get FDA clearance and be a prescribed digital therapeutic.

Meru Health



Meru Health offers a digital program that helps improve the lives of people living with depression and saves on healthcare costs. Meru Health is a company of scientists, engineers and entrepreneurs with a big vision to

make mental healthcare accessible, engaging, and outcome driven. Its easy-to-access digital program helps improve the lives of people living with depression and saves on healthcare costs.

KEY IMPACT METRICS

→ MERUHEALTH.COM

700
DEPRESSED
PEOPLE TREATED

300
FULL REMISSION
OF SYMPTOMS

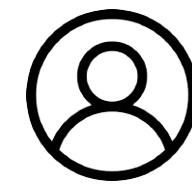
\$2.4M
HEALTHCARE
COST SAVINGS

Meru Health



SOURCE OF INSPIRATION

The CEO lost a brother to depression and has built several data driven healthcare businesses.



CUSTOMER HIGHLIGHT

Successful pilots with two Fortune 100 companies.



LOOKING AHEAD TO 2021

Growing from current 14 states to cover all states by the end of 2021.

Miraculex



MiraculeX, Inc. is redefining sweetness in food by producing plant protein-based sweeteners derived from exotic fruits. Rare protein sweeteners that are better tasting and healthier than sugars that are inducing an obesity epidemic.

Proteins are produced in a lettuce protein expression system for a cost effective, scalable process. These protein-sweeteners are the best tasting and healthiest of any other sweetener that exists.

KEY IMPACT METRICS

→ [MIRACULEX.COM](https://miraculex.com)

SUGAR
UNCONSUMED

AMOUNT
OF PRODUCTS
SWEETENED

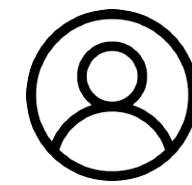
SPEED
OF MIRACULEX
CONSUMPTION

Miraculex



SOURCE OF INSPIRATION

Recognizing that diets play an oversized role in one's overall health.



CUSTOMER HIGHLIGHT

Engaging with numerous CPG brands actively interested in enabling consumers reduce their sugar consumption.



LOOKING AHEAD TO 2021

Launching a consumer product and partnering with brands who can leverage MiraculeX's ingredient platform.

Owkin



Owkin combines life-science and machine learning expertise to make drug development and clinical trial design more targeted and more cost effective. Founded in 2016, Owkin combines life-science and machine learning expertise to make drug development and clinical trial design more targeted and more cost effective. Owkin's machine learning

algorithms create models that predict disease evolution and treatment outcomes. These predictive models are used for enhanced analysis, surrogate endpoints, patient stratification and selection, and subgroup identification. The impact of this research is faster discovery of better treatments at a lower cost.

KEY IMPACT METRICS

→ [OWKIN.COM](https://owkin.com)

100
**RESEARCH CENTERS
CONNECTED**

SPEED UP
**DRUG
DEVELOPMENT**

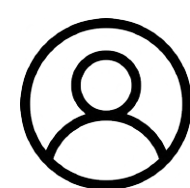
DISCOVER
**NOVEL
BIOMARKERS**





SOURCE OF INSPIRATION

Advance medical research.



CUSTOMER HIGHLIGHT

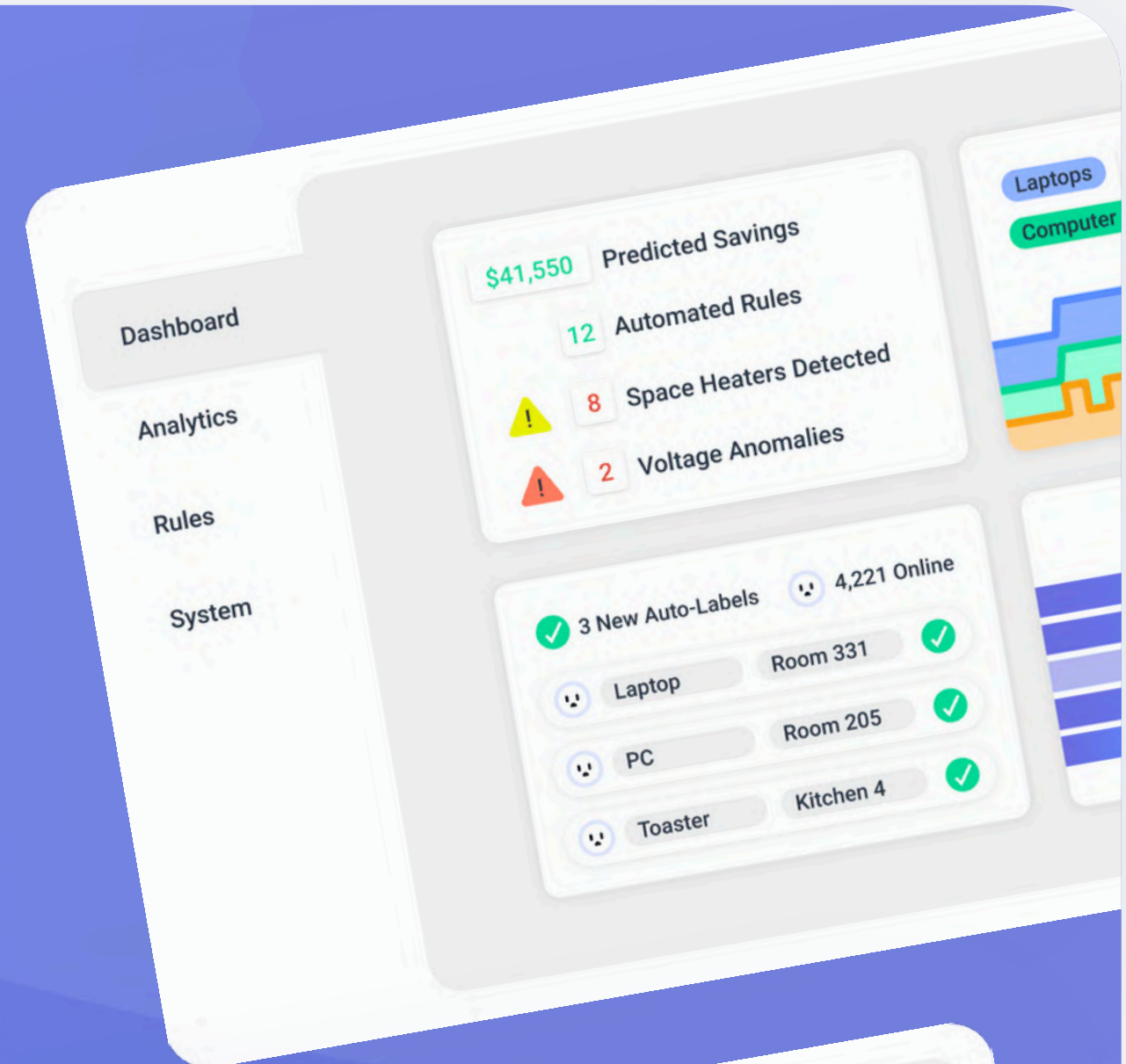
Owkin is currently working with ~15 medical health centers in Europe and the US, and several big pharmaceuticals.



LOOKING AHEAD TO 2021

New research projects on cutting-edge scientific questions: COVID-19, oncology, cardiovascular and autoimmune diseases.

Sapient Industries



Sapient is a comprehensive, hyper-intelligent plug load management and analytics system. Leveraging proprietary machine learning algorithms and a building-wide deployment of thousands of smart outlet devices, Sapient can detect the types of equipment plugged in, how it's being used, and even predict the use of that equipment into the future. In doing so, building

owners use Sapient to optimize floor space, identify unused equipment, automate efficient energy consumption, improve safety, and reduce environmental impact.

Sapient regularly reduces total building utility bills by 8 - 12% and achieves payback periods less than 1 year.

KEY IMPACT METRICS

→ SAPIENT.INDUSTRIES

-15%
ENERGY
CONSUMPTION

6 GWH
ENERGY REDUCTION
FOR 2020

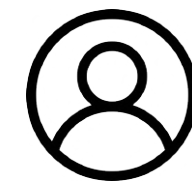
-5%
OF ELECTRONIC
WASTE IDENTIFIED

Sapient Industries



SOURCE OF INSPIRATION

The CEO was frustrated about the disconnect of cutting edge science and sustainable technology around managing electricity that humans consume in buildings with plugged-in equipment.



CUSTOMER HIGHLIGHT

Sapient was a driving factor in helping a customer become one of the top 50 most efficient buildings in the US.



LOOKING AHEAD TO 2021

Expanding to NZ, Australia, the UAE, and Europe.

Second Nature

SECOND NATURE

Second Nature is a smartphone application that coaches and motivates diabetes patients to live a healthier lifestyle.

Second Nature is a digital lifestyle change program that gives people the tools to change their habits for good.

Unlike traditional weight-loss programs, Second Nature uses behavioral science to actually make changes that last. It was the first program to be trusted and commissioned by the UK's NHS.

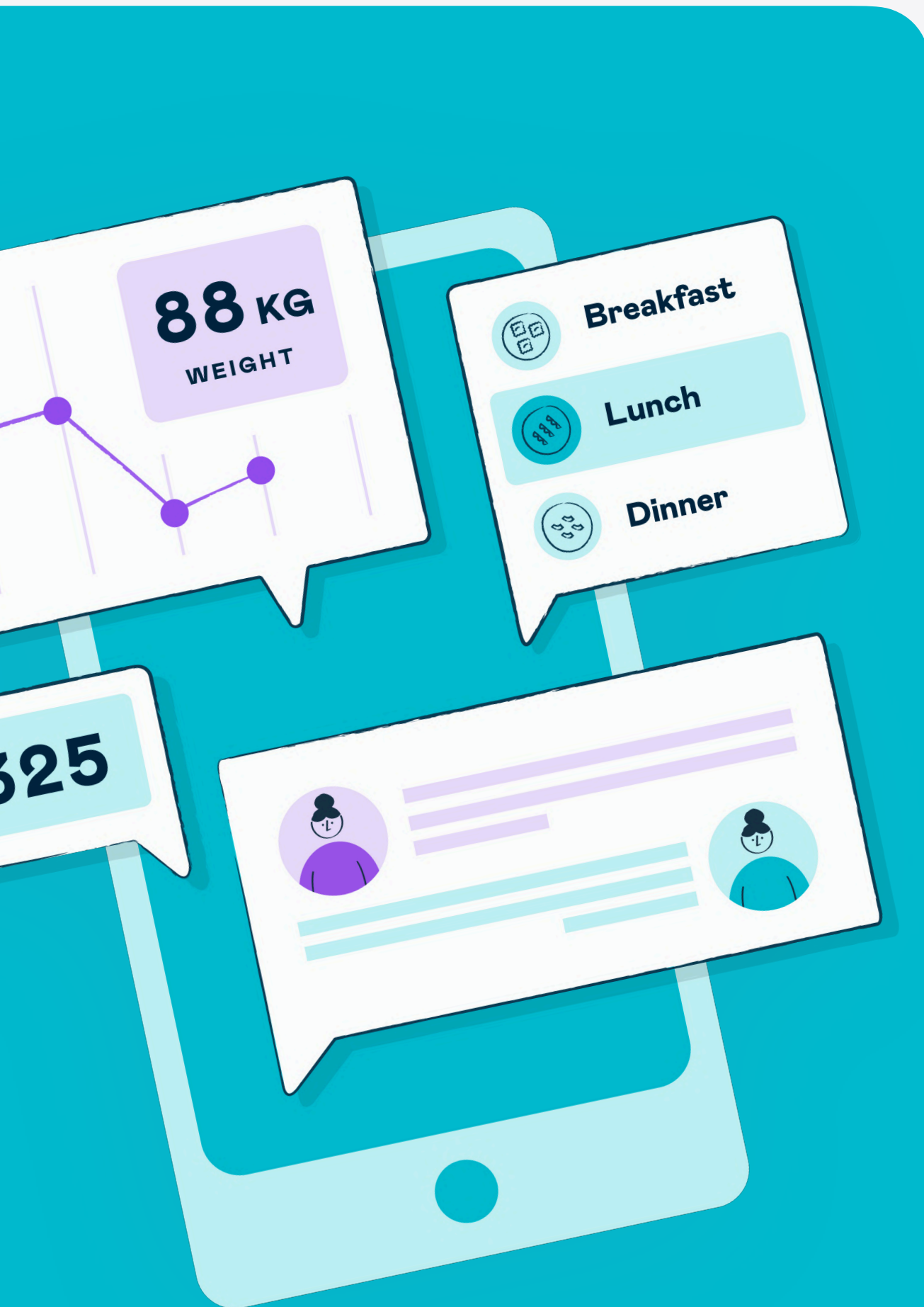
KEY IMPACT METRICS

WEIGHT LOSS

FEELING ABOUT YOURSELF AND FOOD

HBA1C LEVEL

→ [SECONDNATURE.IO](https://secondnature.io)



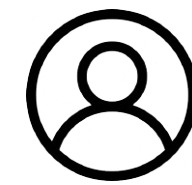
Second Nature

SECOND NATURE



SOURCE OF INSPIRATION

Exposure to healthcare companies in the founder's previous job, having a healthy lifestyle (without cutting all the good pleasures in life), and solving Type 2 Diabetes (whose impact is underestimated in all countries).



CUSTOMER HIGHLIGHT

It really depends on Second Nature's users. The company helps them to feel better about themselves. Check out further case studies [here](#).



LOOKING AHEAD TO 2021

Back to normal life (re coronavirus) but with people more aware of their impact and thinking more long-term.

TeleSense



TeleSense is leading the post-harvest data revolution. The company helps businesses and producers in the global agricultural commodity supply chain to monitor, assess and predict risk for their products in post-harvest storage and transport. With TeleSense's suite of advanced sensors and retrofitting kits it can collect data from any type

of storage facility- silos, warehouses, grain bins, ground piles, tarped bunkers, silo bags and more. TeleSense's software provides facility operators and management with hotspot detection and moisture level monitoring for grain and other commodities, with alerts for important events sent right to their smartphone or laptop through the TeleSense cloud-based app.

KEY IMPACT METRICS

-10%
GRAIN SPOILAGE

-5%
ENERGY FOR GRAIN DRYING

→ [TELESENSE.COM](https://www.telesense.com)

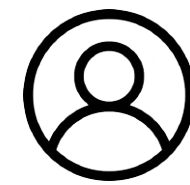


Telesense



SOURCE OF INSPIRATION

The founder wanted to create a triple bottom-line company that can have a broad impact for farmers and growers worldwide. As the world population grows the grain supply chain needs to reduce spoilage to feed the world since the land for farming is not growing,



CUSTOMER HIGHLIGHT

TeleSense was able to sense and detect hot spots in piles of stored grain that could have resulted in loss of millions of dollars and potentially create a fire danger as biological activity in grain can start to smolder. The customers initially did not believe our prediction but the data told another story. This data-driven approach to predicting spoilage is new in the industry and TeleSense is pioneering it.



LOOKING AHEAD TO 2021

2021 is TeleSense's expansion year. The company built the product and the core team in 2019 and 2020 is on building the channel and getting products into broad production.

TEAM AND APPENDIX

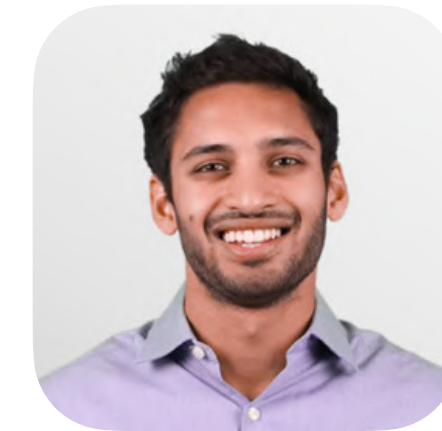
Our Sustainability Team for this Report



Matt Claxton
Global Director
of Sustainability



Omer Gozen
Senior VP
of Sustainability



Rohit Gupta
Venture Associate,
Silicon Valley



Nicolas Chow
Venture Associate,
Europe



Danaé Robert
Venture Analyst,
Silicon Valley



Riccardo Agosto
Global Visual
Designer, Marketing



Appendix: Startups Details

Company	One-Liner	Industry	Location	Amount Raised
ApplyBoard	is a SaaS-enabled marketplace making it easy for international students to find matched programs and apply to top universities.	Education	Waterloo, CA	\$172M
Basepaws	developes a pet genetics platform designed to provide consumer genetic tests for cats.	Healthcare	Redondo Beach, US	\$251K
BeeHero	is maximizing crop yields through pollination while managing the largest database of bees & pollination world-wide.	Food & Agriculture	Palo Alto, US	\$1M
Bluespace.ai	provides accessible and sustainable urban mass transit.	Mobility	Palo Alto, US	\$3.4M
Bold Health	develops digital therapeutics for the management of complex digestive chronic conditions, starting with IBS and IBD.	Healthcare	London, UK	\$800K
Bond Pet Foods	works with biotechnology to make pet food from animal protein like chicken, turkey and fish, without the animal.	Food & Agriculture	Boulder, US	\$1.2M
Breezometer	provides a real time air quality and health recommendation application for consumers and businesses.	Healthcare	Haifa, IS	\$12.6M
Carbon Analytics	transforms a company's accounting data into a highly visual, actionable carbon footprint analysis.	Energy	London, UK	\$106K
Checkerspot	designs high performance materials at a molecular level with technology at the nexus of biology and chemistry.	New Materials	Berkeley, US	\$18M
Ducktrain	redefines smart, clean and efficient urban transportation.	Mobility	Aachen, DE	\$250K
Headstart AI	develops a diversity recruiting software that breaks the cycle of exclusion and levels the playing field for all candidates by removing bias.	Enterprise Tech	London, UK	\$2.5M
KETOS	delivers an integrated, cloud-based, unmanned solution for actionable water intelligence.	Water Tech	San Jose, US	\$11.6M
Knightscope	designs, engineers, builds, and deploys fully autonomous security robots on a Machine-as-a-Service (MaaS) business model.	Security	Mountain View, US	\$46.6M
Limbix	is redefining virtual reality for patient care and mental health.	Healthcare	Palo Alto, US	\$16M
Meru Health	offers a digital program that helps improve the lives of people living with depression and saves on healthcare costs.	Healthcare	San Francisco, US	\$13.3M
Miraculex	is redefining sweetness in food by producing plant protein-based sweeteners derived from exot.	Food & Agriculture	Sunnyvale, US	N/A
Owkin	combines life-science and machine learning expertise to make drug development and clinical trial design more targeted and more cost effective.	Healthcare	New York, US	\$56.1M
Sapient Industries	designs a plug load management system that deploys smart outlets and uses machine learning to optimize buildings' electricity consumption.	Energy	Philadelphia, US	\$4M
Second Nature	is a smartphone application that coaches and motivates diabetes patients to live a healthier lifestyle.	Healthcare	London, UK	\$34.7M
TeleSense	supports the global agricultural commodity supply chain to monitor, assess and predict risk for their products in post-harvest storage and transport.	Food & Agriculture	Sunnyvale, US	\$6.5M

A Whole World of Resources



NEWS

Weekly updates on our sustainability LinkedIn page.

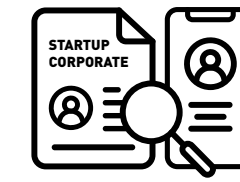
[STAY UP TO DATE](#)



EBOOKS

Our experts share the trends that are shaping each industry.

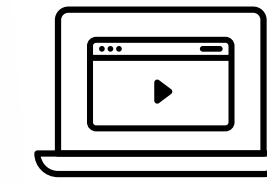
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PORTFOLIO IMPACT REPORT

2020

[PNPTC.COM/SUSTAINABILITY](https://pnptc.com/sustainability)

