



"Our approach to sustainability of human beings and the environment"

Icos Capital
www.icoscapital.com

Content

| Icos Accelerating Sustainability | 1 |
|----------------------------------|-------|
| Sustainability Report Approach | 2 |
| Climate Tech Areas | 3 |
| Deep Dive - Food Systems | 4 |
| Deep Dive - Circular Economy | 5 |
| Deep Dive - Sustainable Industry | 6 |
| Deep Dive - Carbon Economy | 7 |
| ICF III Impact Recap | 8 |
| Icos Diversity | 9 |
| ICF III Portfolio Recap | 10 |
| Investment overview | 11-19 |
| Previous Investments | 20-2 |
| Icos team | 22 |

cos

Accelerating Sustainability

Since 2006, Icos Capital is investing in game changing startups that seek to disrupt climate change and drive sustainability of human beings and the environment.

We can imagine a world that considers sustainability at every level. By considering financial, social and environmental returns equally, we're working towards just that.

When Icos started in 2006, issues of climate change were starting to become prominent. In that year, the term 'carbon neutral' was coined as word of the year by New Oxford American Dictionary. As one of the first in the sustainable venture capital space, we noticed some movement around us towards Climate Tech investments, but still a long way to go. It was then that we started with the premise that our biggest industries have the most potential to change.

Now, 16 years later, the climate crisis stands before us as the most pressing and urgent challenge that humanity has faced. The Paris Agreement has helped to unite us and pave the way for action through net zero targets. These targets are crucial, and time is absolutely of the essence, meaning solutions need to be scaled now, and at speed. Furthermore, the most polluting industries and processes need to be rethought and innovated immediately. That's where we feel that we, as Icos, can have the most impact. In scaling ambitious startups that can redesign systems and change the root causes of the climate crisis.

In the past year, together with our portfolio companies, we've taken many impactful steps. It's with pleasure that we share some of those financial, social and environmental successes, alongside our ambitions to improve and grow in the 2022 Impact Report. We hope you can share in our celebration of our 2021, and even more importantly can contribute feedback to make it an even better 2022.



Nityen Lal





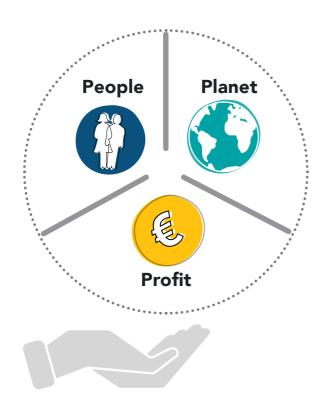
Peter van Gelderen



Sustainability

Report Approach

HOW WE DEFINE IMPACT/SUSTAINABILITY



Within our new approach and matrix, we've seen some great sustainability wins in 2021:



People: Innovopro is leading the way with gender diversity in management, with their management team composed of >50% women



Planet: Carbon Clean celebrated that their technology removed 1 million metric tonnes of CO₂ since their inception



Profit: Holiferm successfully raised \$11 M to build its first commercial production plant for biosurfactants

The sustainability challenge has been defined by Icos in many ways. We have held a strong focus on solutions that help transition to low-carbon and circular economic models without losing sight on fund returns.

While low-carbon solutions are absolutely imperative, they're also only one aspect of larger challenges within our systems. We've broadened our matrix to include measures such as waste, water and pollutants in our Planet analysis. We've also stretched our People metrics beyond just an analysis of women in the team, and have for the first time included metrics such as background, board composition and CEO pay ratio. The Profit metrics have also been re-examined, and now include costs saved by client companies and funds raised.

From 2021, we've decided to reframe our sustainability report to an impact report, a better fitting name to our analysis of People, Planet and Profit metrics for the year previous. We have also decided to look at the Stockholm Resilience Center's Planetary Boundaries as an additional tool, alongside the United Nations' Sustainable Development Goals (SDGs), to define key areas of impact. We are, to our knowledge, one of the first companies and the first venture capital fund to include such a framework, and hope that our careful and methodological approach will not only be appreciated, but set the standard for others to broaden their scopes of impact.

We are seeing now, more than ever, the interconnectedness of environmental sustainability, care of people and financial success. It's something our partners are also benefiting from in their own financial benefits, employee engagement, access to growth and innovation mindset and technological opportunities.

Climate Tech

Areas

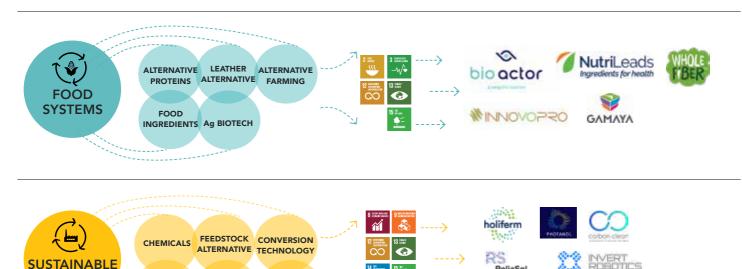
INDUSTRY

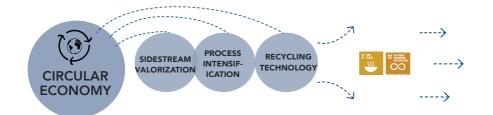
INDUSTRY

DIGITIZATION

ClimateTech involves many sectors, but these 4 fall under the Icos focus and all encompass high potential opportunity.

A year ago, we decided to split carbon technology as its own theme, separate to sustainable industry. This reflects the growth in awareness in emission reductions, largely driven by the Paris Agreement and IPCC reports, but also in the upcoming potential for both CCUS and carbon accounting technology.



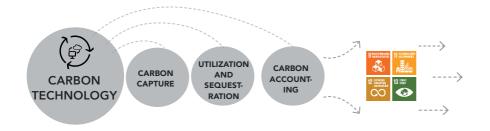


SUSTAINABLE

ROBOTICS



√ squirro





RAINMAKER





Icos Target Areas:













Icos Capital looks for projects in such areas as:

ALTERNATIVE PROTEINS

HEALTH-PROMOTING FOOD & FOOD INGREDIENTS

INGREDIENTS IMPROVING GUT HEALTH

INGREDIENTS IMPROVING IMMUNITY

SUGAR ALTERNATIVES

FAT ALTERNATIVES

AG BIOTECH

PRECISION AGRICULTURE

SDG: Sustainable Developmental Goals









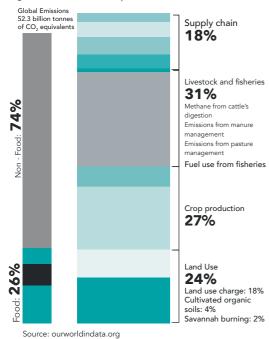


Portfolio Companies active in Food Systems:



Global Greenhouse

gas emissions from food production



- ¹ https://economictimes.indiatimes.com
- ² https://architecture2030.org
- ³ https://ourworldindata.org 4https://data.giss.nasa.gov/gistemp

Global food systems contribute to roughly one quarter of all GHG emissions. Food systems are the sum of the actors and interactions along the value chain – from raw material and the production of crops, livestock, fish and other agricultural commodities to the transportation, processing, wholesaling, retailing, preparation and consumption of foods to disposal. Sustainable food systems should be able to deliver affordable, nutritious, environmentally sustainable food.

Currently, half of the world's habitable land (ice and desert-free) and 70% of global freshwater is used for agriculture*. This is even more difficult to comprehend when we consider that a doubling of food production may be needed by 2050 to cater for increased population and growing wealth.

Within food systems, innovations have significant potential to scale. We look forward to furthering the potential of technology within some high potential areas of food systems. Firstly alternative proteins where fermentation is of particular interest. Secondly health promoting food ingredients such sugar and fat alternatives and those that improve immunity and gut health. Alongside that ag biotech including seed breeding and biofertilisers are of interest. Lastly precision agriculture where we have a particular interest in soil monitoring, irrigation systems and ag-robotics.



Icos Target Areas:













Icos Capital looks for projects in such areas as:

SUSTAINABLE CHEMICALS **FEEDSTOCK ALTERNATIVES CONVERSION TECHNOLOGIES INDUSTRY DIGITIZATION**

SDG: Sustainable Developmental Goals















Portfolio Companies active in Sustainable Industry

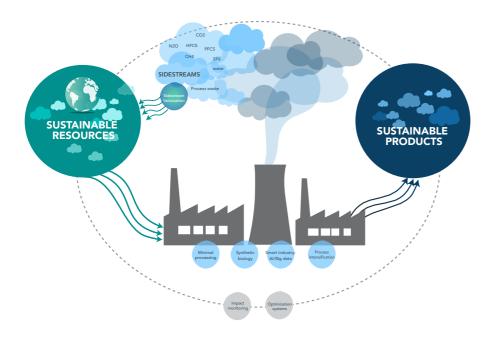


Sustainable industry growth refers to the development of industrial processes without negatively impacting the people, planet and profit. A growing number of manufacturing industries are searching for more eco-friendly solutions, starting with the replacement of traditional raw materials with bio-based feedstock alternatives and finishing with the implementation of green sources of energy. These trends are clearly visible in (petro)chemical and process industries, where fossil-based chemicals and fuels are slowly substituted with renewable resources [1]. Industrial eco-efficiency is also boosted by conversion

technology which tries to redesign and mimic systems already found in nature by applying synthetic/computational biology.

In parallel, sustainable growth of industrial manufacturing and services is pushed by industry digitalization which makes the whole industrial value chain shorter and more integrated [2]. The industrial ecosystem is supported by advanced computing, data analytics, new levels of connectivity and IT applications over the Internet.

Icos Fund III has been actively supporting all these areas to accelerate progress towards realizing sustainable development goals.



- 1. 5 challenges to scaling the circular economy | Greenbiz
- 2. www.circular.academy
- 3. Plastic Waste: Environmental Effects of Plastic Pollution I Earth Eclipse



Icos Target Areas:







Icos Capital looks for projects in such areas as:

SIDESTREAM VALORIZATION
PROCESS INTENSIFICATION
RECYCLING TECHNOLOGIES

SDG: Sustainable Developmental Goals













Portfolio Companies active in Circular Economy:



The circular economy aims to replace the linear "take-make-dispose" system and redesign the production and consumption model [1]. The circular approach focuses on solutions that: (i) reduce the need for raw materials during production through process intensification, (ii) recycle products at the end of the life cycle by applying recycling technologies and (iii) manage residuals to provides manufacturer's material streams with recycled goods through sidestream valorisation.

PARTICIPATION OF STEEDSTOCK

RECENTERATION

RECENTERATION

RECTCLE:

RECORDING ALL

PROPERTY REAL PARTICIPATION

RECTCLE:

REC

Apart from enhanced consumer awareness and well-defined policies [2], the transition toward a circular economy requires enhanced efforts on technology sites. Technology development is required to provide high added value recycled products at a reasonable price to avoid a counterproductive business model.

With this in mind, our investment focus moves towards side/waste stream valorization coming from food and biomass to provide cheap and abundant feed-stocks for the food and chemical market. At the same time, the ICF III fund searches for more efficient recycling solutions for disposable plastics, and textiles, trying to face pressing environmental issues.

Footnotes:

[1]Renewable chemicals building the biobased economy - Bio Based Press

[2] Digitalisation of industry | BusinessEurope



The extended carbon dioxide (CO₂) emissions from energy use in transportation, electricity and industry (73.2%) greatly contributes to global climate change [1]. The carbon-neutral strategy is then the first important step on the net-zero path, which aims to limit the rise in global temperatures below 1.5°C, by reducing CO₂ from the atmosphere. Technological solutions in the current market are by now able tackle this problem from different angles [2].

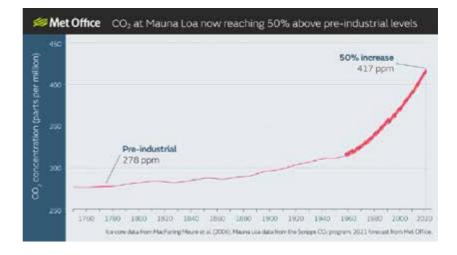
Captured carbon dioxide can be permanently stored to contain carbon underground, through soil sequestration or ocean minerals following carbon sequestration solutions. At the same time, carbon management can be supported by carbon accounting technologies providing software solutions designed to streamline, digitize, and automate carbon accounting processes.

Following current trends in the decarbonisation sector, the ICF III fund targets solutions that allows unblocking implementation of above mentioned carbon technologies on the industrial scale. Implementation which might be blocked due to high investment, long time horizons, greater permanence risk, and complexity [3].

Carbon dioxide can be pulled out directly from the air (direct air capture) or production site (point-source capture) applying carbon capture technologies. Carbon capture might be followed by carbon utilization technologies, where CO₂ is used as a feedstock for building materials (e.g., concrete), chemicals (e.g., fuels, monomers), and proteins.

Footnotes:

- 1. Sector by sector: where do global greenhouse gas emissions come from?
- Our World in Data
- 2. The Paris Agreement I UNFCCC
- 3.Net-zero carbon versus carbon neutral what is your ambition? I ICF



ICF III Impact

Recap





DIVERSITY & INCLUSION

36%

Average women in management teams

Our portfolio is great example of founding teams led by women or people, with migrant or minority led team, i.e.; 54%. This number, however, is much higher than averages identified in Europe or globally. We believe that diversity is a matter of mindset. Women account for only 13%, 10% and 6% of decision-makers in British, US and Dutch VC firms respectively. Icos Capital is one of the few **European VC firms with diverse** team and this has translated into active promotion of diversity in the team. Now, we're a team of 9 with 5 women. That's something that really has given us an advantage in the venture capital impact space.

54%

Companies led by by women, minority,

The challenges proposed to us as humanity at this time are not simple. We're looking at urgent, complex and multi-faceted problems that won't be solved with simple linear solutions by typical 'white male autocratic' leadership. What's required to overcome these challenges is out of the box thinking, by people and blended teams with experience and creativity beyond what the archetypical founder or leader possesses. That in practice means that Icos needs to be backing people from all genders, races, sexual orientations, abilities and backgrounds. In our current portfolio 60% of companies are led by women, minority of migrant origin leaders and Icos team itself is composed of more than 50% women and minority including partners.

1.7

Average CEO pay ratio

For our 2021 report, we looked at not only the usual ESG data required by reporting standards, but extended it even further to discover other areas of diversity, in teams but also at the board level, pay scale difference, CEO pay ratio being difference between CEO and median employee, and environmental issues beyond CO2.

For us, it is important to look at sustainability holistically and also align it with EU legislation such as SFDR and taxonomy.

The pay ratio of about 1.7 is also impressive and far below 670 to 1 global average as reported The Guardian in June 2022.

We now have a better insight into which teams might be missing more unique perspectives and look forward to bringing these discussions into our portfolio.

ICF III Portfolio

Recap



Fund size: €50 M (approx.)

Managing Partners: Nityen Lal, Peter Van Gelderen

Investments made: 9

Exits/new financing rounds: 1







Women in the startup teams: out of 251 employees (35% of the total headcount)





Tonnes of CO₂ removed or avoided by portfolio companies of the Fund

1.9 M t CO2e

Companies utilizing sidestream as feedstock: 2

Companies with at least a 1.5x weighted average carbon intensity improvement to alternatives (average WACI improvement where weighted average carbon intensity is relevant):

Number of planetary boundaries addressed in portfolio: 6

Number of SDGs addressed in portfolio: 10



53%

Average portfolio company revenue growth (%).

€142

Capital raised by portfolio companies

Expected money multiple on invested capital

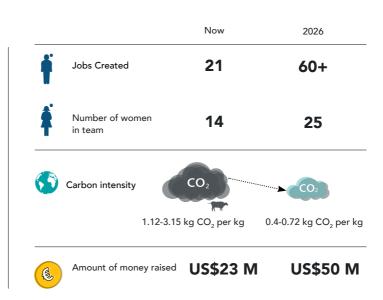
currently 2.4x projected 5x



Innovopro is producing, plantbased protein ingredients from chickpeas.

Due to the unique functionality of chickpeas and a proprietary protein extraction process, Innovopro is able to produce nutritious, tasty and sustainable products. Innovopro's products, such as CP-Pro 70, are high in protein (70%), and suitable for a range of applications including vegan mayonnaise, dairy-free yogurt, ice cream, veggie burgers and energy bars.

Date invested: September 2020



IMPACT GOALS

Unique Metrics

CP-Pro70 produced (Metric tonnes) Goals:

230

CP-Pro70 produced (in Products in the market) Goals:

20







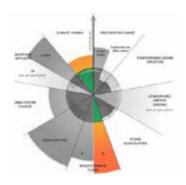


- 3: Innovopro products contain no additives or preservatives.
- 12: Producing a socially and environmentally conscious product.
- 13: Chickpeas require less land, water and have a lower CO2 output that animalbased alternatives.
- 15: Chickpeas do not require nitrogen fertilizer, protecting the balance of local ecosystems.

Planetary Boundary

Climate Change: With CO₂ passing and crossing several Earth system thresholds, low carbon intensity is of high importance. By using a chickpea product instead of meat alternatives, the carbon intensity of products is lowered significantly.

Biogeochemical flows (N): A boundary of 25% of the current value of nitrogen has been set to prevent accumulation in waterways, coastal zones and the terrestrial biosphere. Chickpeas do not require nitrogen fertilizer and actually restore nitrogen to the soil.

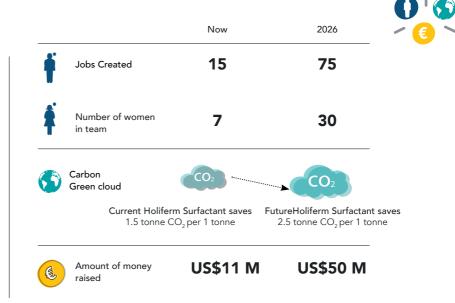




Holiferm produces biodegradable surfactants through fermentation.

Holiferm uses proprietary technology to produce economically competitive biosurfactants. They use 50% less energy and 1.5 tonnes less of CO₂ per ton of producing their sophorolipids. Holiferm has a continuous manufacturing process, to produce biosurfactants for home, cleaning and personal care applications.

Date invested: 2019



IMPACT GOALS

Unique Metrics

Kilo Tons of Holiferm biosurfactants on the market

2021:

Goals -2026: **40kta**

Carbon intensity compared to petrochemical surfactants

2021: **1.5** tonnes saved per kton (1 tonne used compared to 2.5 tonnes per tonne) Goal 2026: **2.5**

Carbon intensity compared to petrochemical surfactants

Goal 2026: **2.5**









12: Holiferm is providing a fossil free alternative that is completely biodegradable.

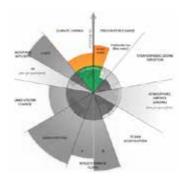
14 & 15: Traditional surfactants can cause bio toxicity in oceans and land environments. With a biodegradable alternative, ocean and land ecosystems are better protected.

13: Holiferm aims to have a low carbon footprint and move towards net zero. The weighted carbon intensity of Holiferms biosurfactants is of key importance and ambitions are to improve even further.

Planetary Boundary

Novel Entities: The bioaccumulation of chemical pollutants including synthetic organic pollutants and heavy metal compounds pose a great risk to human and ecosystem health. Biosurfactants reduce this risk.

Climate Change: With CO, passing and crossing several Earth system thresholds, low carbon intensity is of high importance. With a product free from fossil fuels and utilizing side stream waste too, Holiferm achieves an impressive weighted carbon intensity to traditional products.

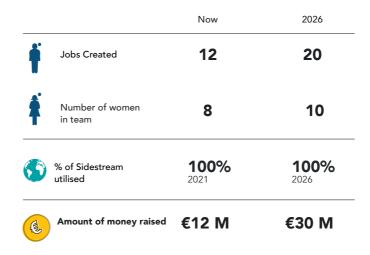




Innovative natural food ingredients with clinically proven health benefits

Nutrileads is developing a range of sustainable and natural ingredients to strengthen human health through nutrition. Their first product, BeniCarosTM, is made from upcycled carrot pomace and having been through rigorous clinical trials, has an immune structure/function claim.

Date invested: July 2020



IMPACT GOALS

Unique Metrics

Number of products on the market containing BeniCaros 2021:

1

Kg of BeniCaros produced

2021: 50kgs Goal 2026: 95tonnes





- 2: Nutrileads are producing products that support human health. Benicaros is proven in clinical trials to significantly boost human immunity.
- 12: Nutrileads is producing with responsible and sustainable practices by reusing sidestreams from juice production otherwise regarded as waste product.



Dried chicory root, naturally rich in prebiotic fiber, for a healthy gut flora.

Whole fiber contains no less than 85% prebiotic fiber, promoting the growth of good bacteria in the gut. Their product, produced from Dutch chicory root and minimally processed, has a positive effect on the gut microbiome, digestion and overall health.

Date invested: 2020

Invested by ICF III Feeder facility for pre-A investments.

| | | Now | 2026 |
|--|-------------------------|------|-------|
| Ť | Jobs Created | 4 | 10 |
| † | Number of women in team | 2 | 4 |
| To be calculated more thoroughly. Initial estimates show a 30% lower carbon intensity than inulin technology | | | |
| | Amount of money raised | €2 M | €17 M |

IMPACT GOALS

Unique Metrics

Tons produced:

2026: 2021: 25 **7500**

Health improvement proven in clinical trials:

2021: 2026:

Proven in trials

Number of products on the market containing wholefiber:

2021: 2026: 10 1





2: Prebiotic fiber is a key to a healthy gut microbiome which benefits general health and wellbeing.

12: Wholefiber is producing with responsible and sustainable practices. Wholefiber uses entire chicory root thereby reducing sidestreams.





Precision agriculture companies accelerate sustainability by helping farmers to reduce not only their costs, but also environmental impact. These techniques allow for more effective use of land, water, and fertilizers. Some of the startups in this space now go into the area of utilizing their technologies for the purposes of carbon accounting or soil carbon sequestration. This would further allow industries to control and offset their CO2 emissions.

Date invested: 2017

| | | Now | 2026 |
|---|-------------------------|---------|---------|
| Ť | Jobs Created | 13 | 26+ |
| Ť | Number of women in team | 2 | 8 |
| The company uses mixed energy sources (renewable and non-renewable). The goal is to use the majority of energy from gree sources in the future. | | | |
| | Amount of money raised | CHE16 M | CHE25 M |

IMPACT GOALS

Unique Metrics

Area under monitoring [ha]

800 000

Number of clients

15





- 2. Gamaya improves the efficiency and sustainability of crop production, therefore contributing to increase in yield.
- 13. Gamaya develops its solution for the purpose of carbon accounting. This will allow farmers to better estimate how much CO₂ their farms are absorbing and to which extent they contribute to mitigating climate changes.

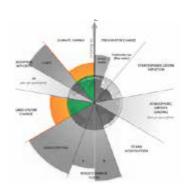
Planetary Boundary

Land system change

Gamaya allows farmers to use fertilizers in a more sustainable way, ensuring better attention to preserving natural biodiversity in the field. It has an impact on water flows and on the proper balance of important elements such as carbon, nitrogen or phosphorus.

Climate change

Gamaya's carbon accounting solution contributes to having better control and monitoring over the climates changes.



Investment overview





ReliaSol provides Al-based solutions for predictive and prescriptive maintenance.

Industry is looking for new solutions to reduce its environmental impact. Predictive and prescriptive maintenance solutions help companies to take better care of their assets and extend their lifetime. It results in less frequent need for parts replacement and decreases waste coming from these activities. ReliaSol reduces failures by 80% and increases production down time and profitability by 25%.

Date invested: 2019

| | | Now | 2026 |
|--|-------------------------|------|---------------------------|
| Ť | Jobs Created | 26 | 40 |
| ‡ | Number of women in team | 5 | 10 |
| ReliaSol is implementing predictive maintenance in mission of energy and manufacturing companies to prevent downt use of existing machines and loss of productivity. | | | prevent downtime, improve |
| | Amount of money raised | €3 M | €13 M |

IMPACT GOALS

Unique Metrics

Emission reduced at Tauron **Energy Poland in emissions** (CO₂ in fumes) between normal operations of a unit and start-up [in mg/m3]

-138.04





- 9. Reliability Solutions uses already existing data for automated thus, fast, and low cost implementation of data-driven, extremely accurate analytical models dedicated for predictive maintenance of industrial machinery. Its clients benefit in the form of failures and downtime minimization and increased profits from production.
- 12. Reliability solutions helps its clients to use assets effectively and minimize the risk of making wrong maintenance decisions. They help to minimize the losses coming from interrupted production, costs of corrective repairs and downtime failures and penalties connected with them.





The category of solutions known as Al-based productivity software usually allow the industry to work more efficiently and avoid part of their emissions by implementing these innovative solutions. Squirro's Augmented Intelligence solutions are used by companies all over the world to get more value from their data.

Date invested: 2018

| | | Now | 2026 |
|----------|--|-----|------|
| Ť | Jobs Created | 59 | 120+ |
| Ť | Number of women in team | 18 | 36 |
| ⑤ | The company uses a green source of electricity in their office, being water-based electricity. The solution of the company is used by corporations to improve productivity, industrial efficiency and risk management. | | |

Amount of money raised

US\$21 M

US\$70 M

IMPACT GOALS

Unique Metrics

Payback period (approx.)

less than 1 year

Patents filed

2







- 8. Squirro improves efficiency of workers, in many cases reducing employee overtime and stress connected with that.
- 9. Squirro technology increase usage of existing resources and organizational growth through smart use of big data
- 16. Squirro technology is used by national banks such as Bank of England and European Central Bank to increase risk management and prevent fraud.



Invert Robotics makes industrial asset inspection safer, faster and cheaper.

Workplace safety is one of the biggest issues when it comes to inspections in industrial conditions. Due to internal company policies and external regulations, companies try to avoid situations in which the life of their employees are in danger. Therefore more and more of them look for robotics solutions that can replace humans in performing especially the riskiest jobs. This plays a big role in ensuring the sustainability of human beings and contributes to improvement of industry's metrics on the social factor of their ESG policies.

Date invested: 2021

| | | Now | 2026 |
|---|-------------------------|---------|-------|
| Ť | Jobs Created | 52 | 60+ |
| Ť | Number of women in team | 9 | 10 |
| The company performs safety inspection on critical manufactor by using robots thereby reducing potential downtime and in safety of employees. | | | |
| | Amount of money raised | €18.2 M | €25 M |

IMPACT GOALS

Unique Metrics

Number of inspections done annually

>200

Travel time/distance per inspection [km]

60 (target)





- 3. The company addresses the challenge of removing workers from unsafe working spaces.
- 8. Invert compare itself against the target of the SDG8 which is 'improve resource efficiency in consumption and production'. The company uses the metrics time per inspection for this purpose.



Technology to achieve net zero

Carbon Clean is a global leader in carbon capture solutions for hard-to-abate industries such as cement, steel, refineries and energy from waste. The company's patented technology helps companies decarbonise with minimal disruption, with a significantly lower price point than existing solutions.

Date invested: 10th June 2020

| | | Now | 2026 | |
|---|--|----------------------------------|----------------|--|
| Ť | Jobs Created | 50 | 300+ | |
| # | Number of women in team | 14 | 120 | |
| • | CO ₂ removed with technology (2021) | CO ₂ 1.3 million tons | 5 million tons | |
| | Amount of money raised | US\$36 M | US\$500 M | |

IMPACT GOALS

Unique Metrics

Mtons of carbon captured with their technology

2021: **1.3** million tons

2026: 4 million tons

Number of carbon capture facilities

2021: 44

2026: **90**



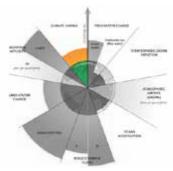


12: Enabling net zero production in heavy industry.

13: Carbon Cleans technology captures CO₂ at scale, minimizing the release GHGs in the atmospher.

Planetary Boundary

Climate Change: CO2 intensity in the atmosphere is higher than ever in human history and passed the threshold. With point-source carbon capture technology, Carbon Clean has a cost competitive solution to prevent CO₂ from being released into the atmosphere, supporting the net zero transition.



Previous

Investments

RAINMAKER

Rainmaker is providing communities with fresh drinking water worldwide.



Today, more than 800 million people live without access to a source of safe drinking water. As the world population continues to grow, millions more suffer from water scarcity. Rainmaker's mission is to produce safe drinking water in places where this is not available.

Date invested: 2007

Number of water systems deployed

12 (6 commercial and 6 pilots)



BioActor has a mission to bring health food ingredients backed up by real science to consumers, help them perform better and improve their health and well-being.



People are becoming more and more aware of the benefits that natural ingredients can offer to support their health and lifestyle. BioActor contributes to people's health by providing clinically proven nutraceutical ingredients that address specific areas of health.

Date invested: 2007

Number of products containing Bioactor ingredients on the market

8

Previous

Investments



Photanol turns CO, into renewable chemicals.



Petro-chemicals mean mining more fossil fuel, emitting more carbon. They're also resource, land and time thirsty the kind of industry that has led to a planet out of balance. Photanol helps reset that balance by providing a platform to produce chemicals from CO2 and sun light with the help of cyanobacteria.

Date invested: 2011

Unique Metrics

Renewable chemicals currently mainly use feedstocks such as sugar and corn. Photanol uses direct conversion of CO₂ by means of cyanobacteria.

This results in:

A land use that is 9x smaller than that of traditional PLA (through sugar or corn) and Photanol does not require arable land.

A reduction of over 1.000 kg CO_2 equivalent per ton of PLA produced compared to traditional PLA (through sugar or corn) A reduction of between 4.000 and 8.000 kg CO₂ equivalent per ton PLA compared to fossil-based plastics (e.g. polyethylene and polypropylene)

Team Icos



Nityen Lal Partner



Peter van Gelderen Partner



Veronique de Bruijn Operating Partner



John van Grootel Chair Investment Committee



Rudi Dupper CFO



Marieke Plasmeijer Coordination & Logistic



Sandro Fazio Analyst



Karolina Wojtas Investment Manager



Katarzyna Gil Analyst



Ewelina Kuna Analyst

Elissa Glorie



Manager, Sustainability & Collaborative Venturing





Thierry Duvanel Director of Collaborative Innovation, Bühler Group



Frank van Noord Director Innovation, Royal Cosun



Rolf Edvinsson Chief Scientist Performance Formulations, R&D, Nouryon



Hans Meeuwis CEO, Royal Cosun



Matthias Kaiserswerth Innovation Board UBIF



Norbert Danneberg Venture Partner



Wouter van Rooijen Venture Partner



Tadeusz Uhl Venture Partner



Roger Knubben Venture Partner



Marco Waas Venture Partner



Coert van Lare Venture Partner



Dimmes Doornhein Chairman Supervisory Board

Icos Capital

Rotterdam

CIC Stationsplein 45 3013 AK Rotterdam The Netherlands

Amsterdam

Johan Huizingalaan 400, 1066 JS Amsterdam The Netherlands

Warsaw, Poland

CIC Warsaw Chmielna 73 00-801 Warszawa Poland

Mail address:

PO Box 8171, 1180 LD Amstelveen The Netherlands

www.icoscapital.com