



Annual Impact Report

Icos Capital Fund III 2019

For innovations that promote sustainability of human beings and their environment



Outline

- 1** Management letter
- 3** Fund Performance
- 19** Collaborative Venturing

Our approach to sustainability of human beings & their environment

Icos Capital, established in 2006, is amongst the earliest firms active in sustainability focused venture capital and since climate change became a prominent issue. When the world started to realize the limitations of our planet, the resolve to do something about it therefore became a moral and business imperative.

Sustainability lifecycle with venture capital returns

Unfortunately, scientific facts quickly became abundantly clear, (a) there is no magic bullet or even combination of technologies that can cure climate change issue anytime soon; (b) resolve has nothing to do with alignment of business and moral goals, i.e.; people and businesses are driven by returns on investment and not on sustainability living. Since then, sustainability innovation has embraced reality. The hype around cleantech and its dedicated debt and equity instruments, abundantly availability in 2006-2009, have dissipated. Nevertheless, momentum and resolve towards sustainability focused economy continues. There remains an attractive niche to invest in market attractive sustainability innovations.

Commitment

Icos Capital is committed on delivering profitability as a top tier fund manager as its primary goal. Icos Capital is also determined and passionate to realize its mission to bring new innovations to the market that address sustainability of human beings & their environment. Over the course of our involvement in sustainability venture capital, for over 14 years, we have gained extensive business experience in targeted markets and successfully identified strategies to realize sustainability goals without compromising top tier financial returns.

Focus on People, planet and profit (3Ps)

Our portfolio, especially in Icos fund III, has strong focus on people, planet and profitability. We are consistently able to identify fast growth companies that deliver environmental and people benefits without compromising on sustainability.

The report attached presents data from Icos fund III portfolio's profile w.r.t. people, planet and profit (3Ps). For Icos Capital, ESG is best represented by focusing on 3Ps.

We hope you find out progress impressive and look forward to feedback on how we can make this even better next year.



Peter van Gelderen

A handwritten signature in black ink, appearing to read 'Peter van Gelderen'.



Nityen Lal

A handwritten signature in black ink, appearing to read 'Nityen Lal'.

ICOS

CAPITAL

Investment Focus

Icos Capital Management, established in 2006, is venture capital fund manager registered at Dutch Authority of Financial Markets with EuVECA passport for international investors.

Icos capital is primarily focused an early stage investor in sustainability of human beings & their environment.

Each fund is a Collaborative venturing platform with leading sector specialist corporations for deal sourcing, selection and portfolio growth and strong returns.

Icos team, extending to 8 investment professionals with active European presence, has over 75 years cumulative experience at top tier corporations, consulting and investment firms. The team has €150M invested in 61 investments with value realization exceeding 2x invested capital.

Icos Capital Fund III is €50 M, collaborative venturing fund with Bühler, Nouryon and Cosun as corporate partners and focus regions of Benelux, DACH and Poland. In Poland, Icos Capital has collaborative partnership with PFR Ventures, a development capital fund with strong network to support startup.

Our Business Ethics

- Highest quality in research, due diligence by technologists, sector experts and collaborative partners
- Investing in the best people driven to make their venture the best in business
- Work hard with portfolio companies, corporate partners and our network to make each venture financially and sustainability wise successful
- Sustainable profitability in line with expectations from top tier venture capital funds
- Determined and passionate about its mission to bring new solutions for sustainability of human beings & their environment.



Icos Capital Fund III Performance

Fund KPI dashboard

Profit Perspective

FUND	Target Commitment	Actual Commitment	Limited Partners
TOTAL	€ 50 M	€ 46.2 M	    
DEALFLOW	Dealflow	Incoming	Proactive
2019	1438	461	997
COLLABORATION	Follow up	Quickscan	Under Review
2019	133	34	6
REALIZATION	Capital Committed	Investments	LP Collaborations
TOTAL	€ 8.5 M	4	7

Sustainability Challenge

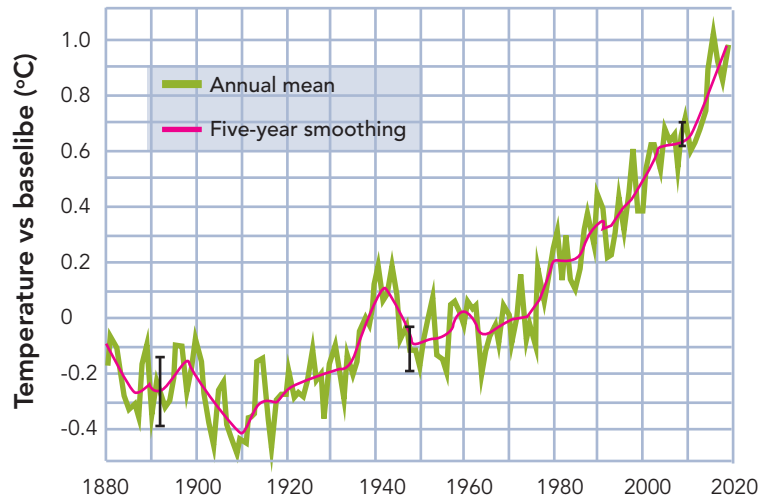
Targeted by Icos

CO₂ emissions are the leading cause for global climate change. New technologies to capture, store, reduce and reuse can positively impact address this problem.

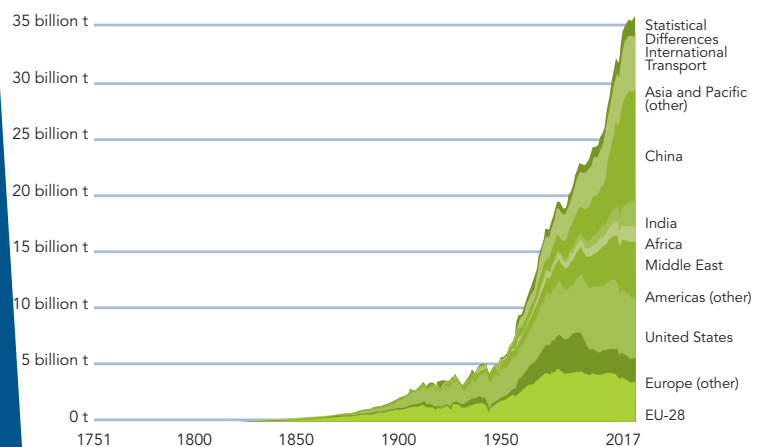
Global warming is responsible for 150,000 deaths every year. Climate change is expected to push 100 million more people towards poverty¹. In 2018 industry accounted for 32% of global CO₂ emissions².

Global emissions increased from 2 billion tonnes of carbon dioxide in 1900 to over 36 billion tonnes 115 years later³.

The average global temperature on Earth has increased by a little more than 1° Celsius (2° Fahrenheit) since 1880.



Annual total CO₂ emissions, by world region (1751- 2017)



Source: <https://ourworldindata.org>

Icos Capital addresses this problem by actively looking for investment opportunities in the areas such as:

- Energy efficiency in industry
- Raw materials efficiency in industry
- Value chain transparency
- AI Platforms for industry
- Predictive maintenance & analytics
- Industry IoT Innovation

So far, Icos capital has invested in Reliasol and Squirro that are AI platforms for industry and business.

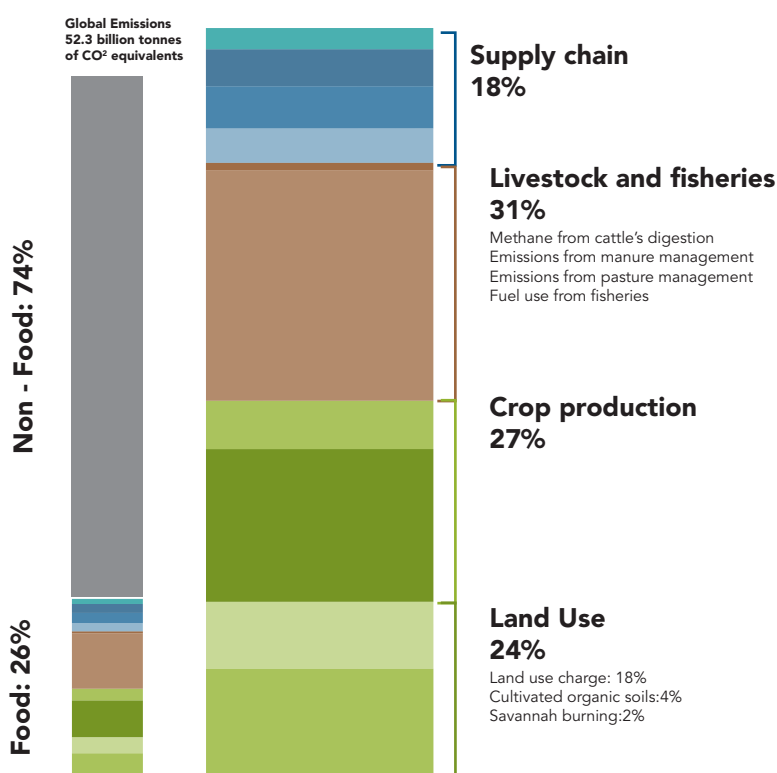
Footnotes

- 1 <https://www.gfdrr.org/en/feature-story/managing-impacts-climate-change-poverty>
- 2 <https://architecture2030.org>
- 3 <https://ourworldindata.org>
- 4 <https://data.giss.nasa.gov/gistemp>

Sustainability Challenge

Targeted by Icos

Plant based food innovations such as natural sweeteners and plant based proteins can contribute to healthy diets and reduce environmental impact. Precision agriculture will not only positive impact CO₂ emissions but also improve global food challenge expected by 2050.



Source: ourworldindata.org

Global food system, which encompasses production, and post-farm process such as processing, and distribution is a key contributor to greenhouse gas emissions.

Food production is responsible for one-quarter of the world's greenhouse gas emissions.

Half of the world's habitable (ice- and desert-free) land is used for agriculture.

70% of global freshwater withdrawals are used for agriculture¹.

Icos Capital looks for projects in such areas as:

- Gut health,
- Natural sweeteners,
- Production industry innovation to address food production problems.

Icos invested in Gamaya which addresses energy efficiency and climate change through precision agriculture.

Footnotes

1 <https://ourworldindata.org>

Sustainability Challenge

Targeted by Icos

Plastic production, from chemical sector alone, is expected to be 15% of global annual CO₂ emission by 2050. Chemical industry a major CO₂ emission contributor, is committed to embrace sustainability.

Icos Capital is interested in projects in areas such as:

- Bio-based chemicals
- Bio-based packaging
- Carbon capture & conversion
- E-batteries

So far, Icos has invested in Holi-form that addresses the challenge of bio-based chemicals production.

Chemical industry is responsible for the production of new plastic materials that alone accounted for around 400 million tonnes of GHG emissions in 2012. If the current growth of production continues, plastics (not including other chemicals) will make up 15% of the global annual carbon emissions in 2050.

8 statistics on plastic pollution



13 million tons plastic leak into our ocean annually.



500 billion disposable bags are used worldwide each year.



50 percent of consumer plastic are single use.



83 percent of tap water has been found to contain plastic particles.



100,000 marine animals are killed by plastic each year.



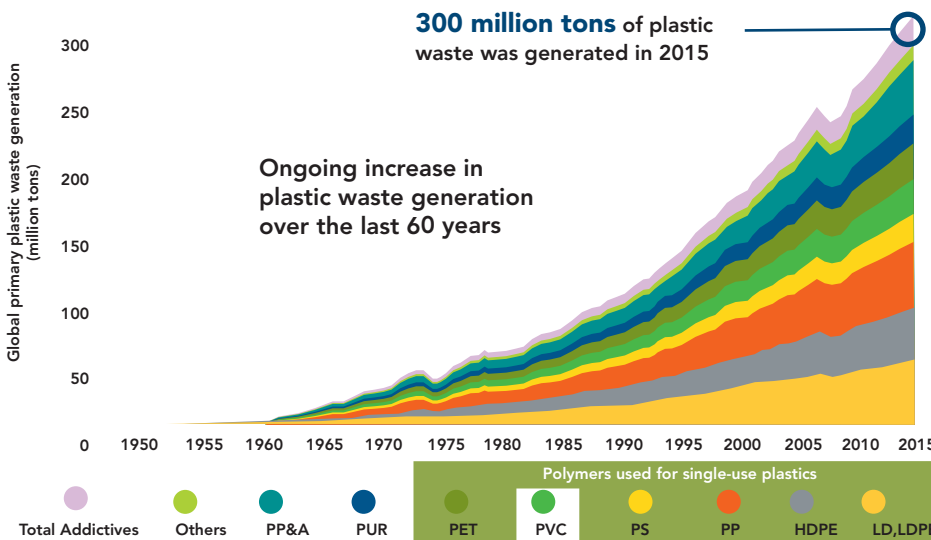
1,000,000 / 1M plastic bottles are purchased every minute.



100 years is how long it takes for plastic to degrade in the environment.



17,000,000 / 17M barrels of oil are used on plastic production annually.



Footnotes
 1 <http://www.fao.org/3/a-i3437e.pdf>
 2 Oxford University

Sustainability Impact

Sustainability impact of Icos is measured by the cumulative impact of portfolio companies. We have developed metrics for each company to track its progress in carbon footprint reduction over time. Detailed methodologies are described later in this report for each of the companies separately.



Our Approach

Icos Capital Management

With focus on building funds that promote sustainability of human beings & the environments, Icos Capital has adopted 3P (people, planet and profit) approach to benchmark our accomplishments w.r.t. environmental, social and governance investment (ESG).

Our innovative investments are fast growth companies with ambitious plans to solve some of the biggest problems related to human beings and their environment. We measure this impact through our proprietary methodological approach adapted by leveraging parameters recognized globally as being important and also available from startups.



People

Social Responsibility

- Number of jobs created
- Number of women in the team

Planet

Contribute to SDG Goals

- Number of Goals supported
- Carbon footprint reduction (tonnes)

Profit

- Number of patents/trade secrets created
- Number of products created
- Amount of money raised



Investment overview

ICF III investment (2017):

Lausanne, Switzerland

Business:

Predictive modeling of crop behavior to improve farm yield from ground, drone and satellite data. The company uses hyperspectral imaging to predict crop behavior otherwise difficult to detect.

Deal origination:

Introduction by corporate partner

Investment date:

Sep 2017 - Target exit: 2023

Equity investment:

CHF 3.1 M in series B round with Mahindra India, Sackler, VI Partner. Valuation increase realized in the last round from conversion of convertible loan to equity of ~24%.

Icos equity ownership:

5-10%

Stage:

Go to market phase, Products for sugarcane are introduced in Brazil.

Corporate Partnerships:

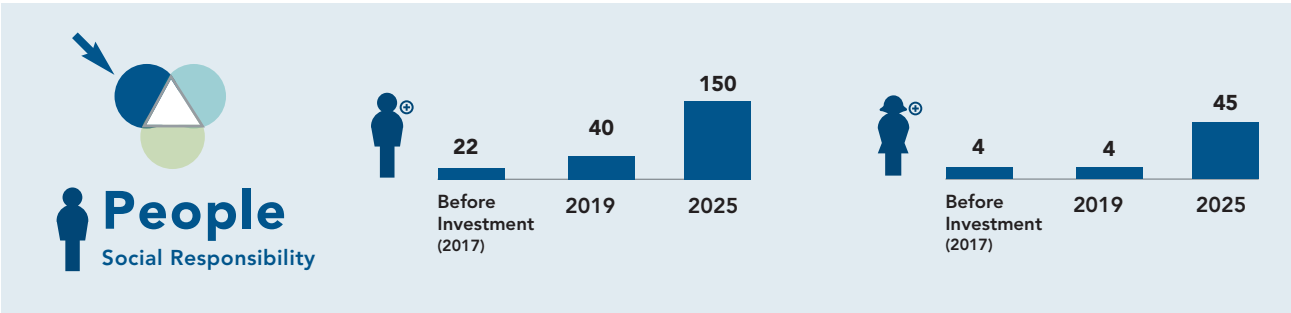
Syngenta, Mahindra India, and Client base in Brazil.

Unique selling proposition:

Hyperspectral technology based solution to address problems not detectable by other technologies in agriculture from air (airplane, drones, satellites).

Market traction:

Clear leadership with respect to technology, current focus on building solutions in sugarcane market where clients are engaged.



Planet Deliver SDG Goals

2 ZERO HUNGER
End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
 Gamaya solution equips agricultural businesses with a complete situational awareness about what's going with their fields on a large scale to grow the food smarter. These industrial growers can substantially increase their production efficiency and profit margin, by reducing disease and weed-related losses, decreasing usage of fertilizers and chemicals, and improving the quality of produce.

13 CLIMATE ACTION
Take urgent action to combat climate change and its impacts.
 Food production threatens to be the greatest casualty of climate change, but sustainable agriculture can be part of the solution.

Each ton of sugarcane processed comes with 26.5 kg of CO₂ emissions. Gamaya solution targets at least 10% reduction in fertilizer and fossil fuel combustion
 With global sugarcane at 170 M tons Gamaya solution can deliver 17M tons of CO₂ emission reduction.

Carbon footprint reduction (tonnes)

Year	Carbon Footprint (tonnes)
2019	306
2025	45,000
Worldwide Potential	450,000

Agriculture accounts for around 6B t of GHG emission¹.

*Foot note:
 The carbon footprint reduction of Gamaya is counted based on the following assumptions:*

- processing 1t of crop (e.g. sugarcane) comes with 26.5kg of CO₂ emission;
- 1 hectare produces 76 tons of crop; CO₂ emission per hectare is 2014 kg;
- Gamaya targets 10% of efficiency improvements from existing process is 201.4 kg per hectare;
- worldwide production of sugarcane is 170 M tons that equals CO₂ emission is 4505 M kg;
- Gamaya has a potential to reduce it by 10% which is up to 450.5 M kg;

The company plans to focus on many similar crops and we project this number to be 10 in foreseeable future which will expand its worldwide impact potential.

Profit

Money Raised (M €)

Year	Money Raised (M €)
Before Investment (2017)	3
2019	14,5
2025	30

Number of patents/trade secrets created

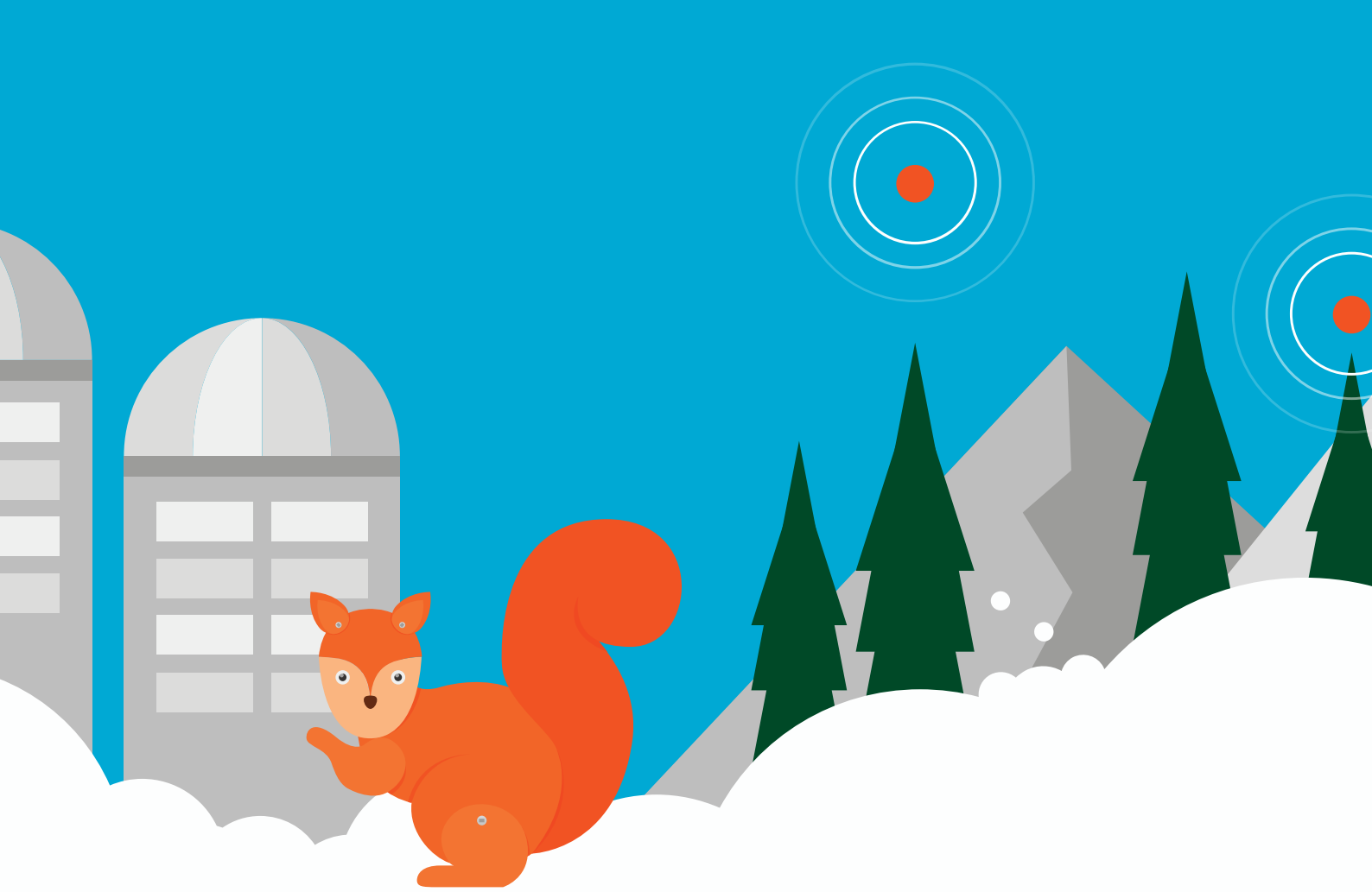
Year	Number of patents/trade secrets created
Before Investment (2017)	2
2019	5
2025	25

Collaborations with large corporations

Year	Collaborations with large corporations
Before Investment (2017)	2
2019	3
2025	25

Number of Products created

Year	Number of Products created
Before Investment (2017)	1
2019	2
2025	10



Investment overview

ICF III investment (2018):

Zurich, Switzerland

Business:

Data driven intelligence from unstructured and structured data across corporate IT and internet.

Deal origination:

Introduction by corporate partner

Investment date:

April 2018 - Target exit: 2022

Equity investment:

CHF 2.8 M series B round with serial entrepreneurs, team, Salesforce.com, Finch Capital. Valuation increase realized in the last round from conversion of convertible loan to equity of ~8%.

ICOS Ownership:

5-10%

Corporate Partnerships:

Salesforce, Accenture, Bühler, Thomson Reuters (now refinitiv), Wipro, blue chip client base across Europe, Asia and USA.

Unique selling proposition:

Market tailored solutions focused on providing data insight from internal and external sources for complex decision making business processes.

Market traction:

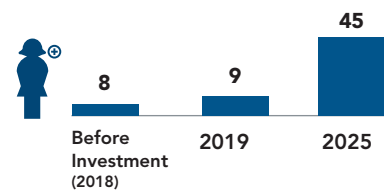
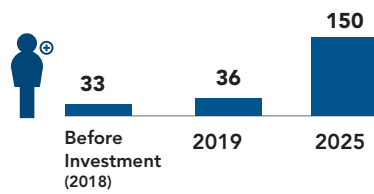
One of the leaders in the market with several multi-million \$ customers.





People

Social Responsibility





Planet

Deliver SDG Goals



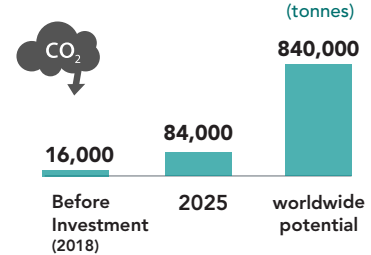
Squirro is already working with Bühler Group to improve food safety. This is just one of the many projects close to sustainability that will benefit from state of the art technology at Squirro.

“The potential for AI to boost productivity and economic growth is large — as large as, if not larger than, that of previous general-purpose technologies.

On average, our simulation indicates that AI could boost world output by \$13 trillion by 2030, lifting GDP by 1.2 percent a year.

Handled well, AI could lead to a virtuous cycle of higher productivity, income growth, and demand that can create more jobs and prosperity.”*

Carbon footprint reduction



Globally 35B t of GHG are emitted annually³.

Footnote:

The carbon footprint reduction of Squirro is counted based on the following assumptions:

- 40% increase in productivity of human beings by use of AI¹;
- average foot print per person is 7 tons²;
- increase in 40% efficiency means 2.8 tons per user of benefit realized;
- Squirro currently has 40 clients (6000 users), which is approx. 150 users/client;

¹ <https://www.accenture.com/sk-en/insight-artificial-intelligence-future-growth>

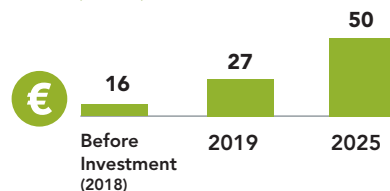
² <https://ec.europa.eu/eurostat/statisticsexplained/pdfscache/10389.pdf>

³ <https://ourworldindata.org>

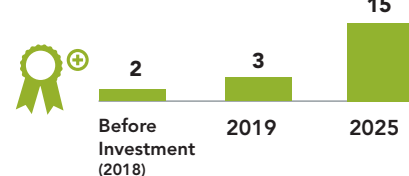



Profit

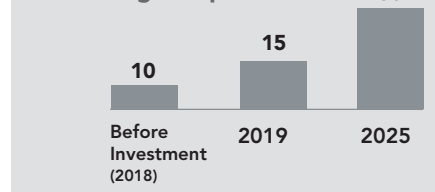
Money Raised (M €)



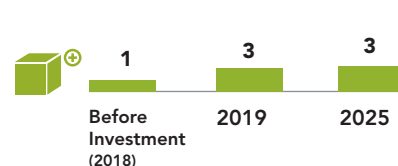
Number of patent/ trade secrets created



Collaborations with large corporations



Number of Products created





Investment overview

ICF III investment (2019):
Krakow, Poland

Business: Analytics software to predict failures (< 2 hours, 99.95% accuracy) and optimize industrial production.

Deal origination:
Proprietary relationships

Investment date:
July, 2019- Target exit: 2025

Equity investment:
€1,5M (series A), in two tranches with EEC Ventures, Giza Polish Ventures and PIBiR.

Icos equity ownership:
10-15%

Corporate Partnerships:
GE Digital (predix), Tauron, Orlen and several customers mainly in Poland.

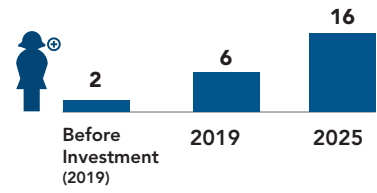
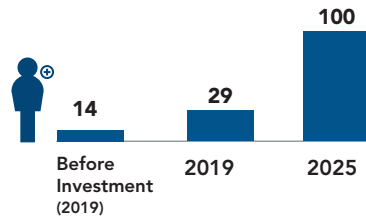
Unique selling proposition:
Deep learning based solution productized for specific systems in the market such as crane, pumps and turbines.

Market traction:
Early stages of market traction and mainly in Poland. Company is on track to realize international expansion in 2020.



People

Social Responsibility



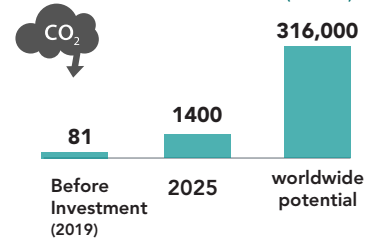

Planet

Deliver SDG Goals



Industry, innovation and infrastructure
ReliaSol 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.

Carbon footprint reduction (tonnes)



Ensure sustainable consumption and production patterns
ReliaSol 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 a corrective repairs and downstream failures and penalties connected with them.

Industry, manufacturing and construction accounts for around 7.7B t of GHG emission⁴.

1 <https://www.microsoft.com/fr-ch/microsoft-365/customer-stories/776768-sab-ab-inbev-consumer-goods-azure?returnurl=/fr-ch/sharepoint/customer-stories>
2 <https://www.accenture.com/sk-en/insight-artificial-intelligence-future-growth>
3 <https://ec.europa.eu/eurostat/statistics-explained/pdfscache/10389.pdf>
4 <https://ourworldindata.org/CO2-and-other-greenhouse-gas-emissions>

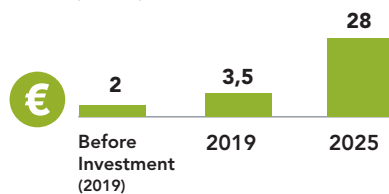
Footnote:

- The carbon footprint reduction of Reliability Solutions is counted based on the following assumptions:
- predictive maintenance allows remote functions monitoring and diagnosing maintenance needs before a technician is dispatched - this reduces the need for multiple trips (one to diagnose an issue, another to fix the issue), reducing company's carbon footprint;¹
 - 40% increase in productivity of human beings by use of AI;²
 - average footprint per person is 7 tons;³
 - increase in 40% efficiency means; 2.8 tons per user of benefit realized
 - ReliaSol has 29 clients;
 - the average project size per client is 25k EUR (based on case studies)
 - the market is worth EUR 2,83B globally.

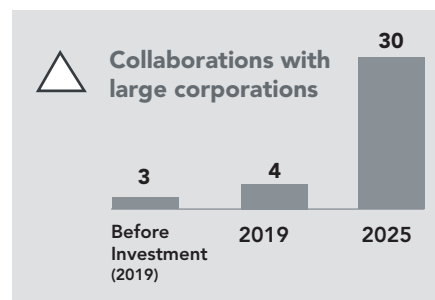


Profit

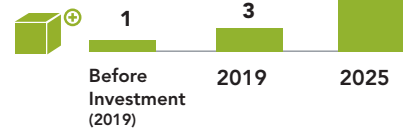
Money Raised (M €)



Number of patents/ trade secrets created



Number of Products created





Investment overview

ICF III investment (2019):
Manchester, UK

Business:

Optimization tool to massively improve (2-3 times) yield of bio-based chemical production, allowing much broader implementation of bio-based materials.

Deal origination:

Introduction by corporate partner

Equity investment:

€1 M with Manchester University and management

Icos equity ownership:

20-25%

Corporate Partnerships:

several in discussion

Unique selling proposition:

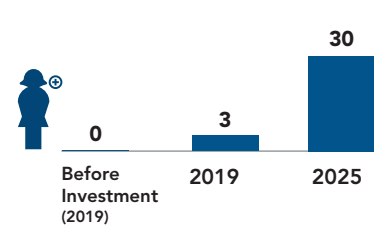
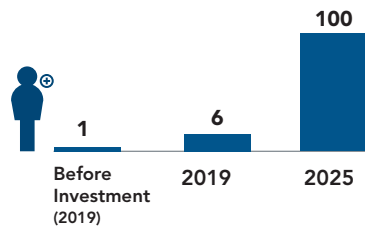
Simple and unique solution for substantially lower cost biosurfactants.

Market traction:

with blue chip chemical companies.



People
Social Responsibility




Planet
Deliver SDG Goals



Ensure sustainable consumption and production patterns.

Holiferm's solution will deliver up to 40% improvement in fermentation mainly by helping customers realize better reuse of side streams and thus creating higher yield.

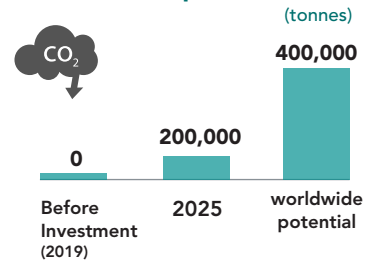


Industry, innovation and infrastructure

Holiferm brings to market an optimization tool to massively improve (2-3 times) yield of bio-based chemical production, allowing much broader implementation of bio-based materials.



Carbon footprint reduction



Chemical industry accounts for around 2.45B t of GHG emission¹.

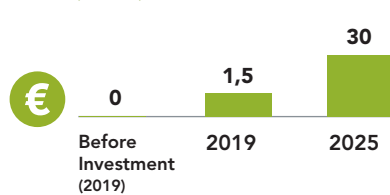
Footnote:
Holiferm's carbon footprint reduction is calculated based on the assumption that in 5 years the company will own a 20 000 tonnes/annum plant and then they can offset up to 200 000 tonnes of CO₂ per annum.

¹ <https://www.globalefficiencyintel.com/new-blog/2018/chemical-industrys-energy-use-emissions>.

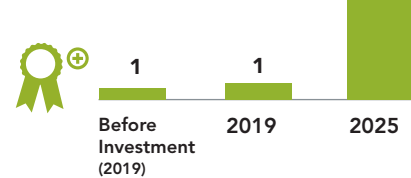


Profit

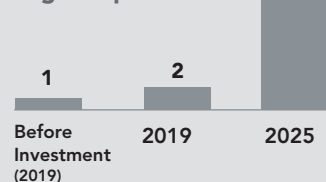
Money Raised (M €)



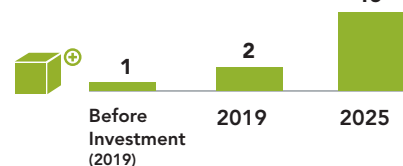
Number of patents/ trade secrets created

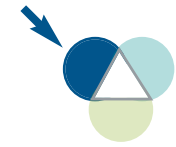


Collaborations with large corporations

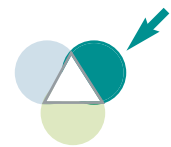


Number of Products created



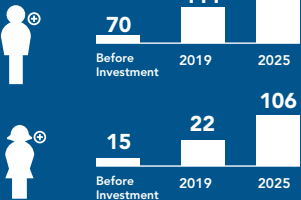


People
Social Responsibility

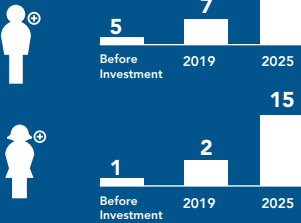


Planet
Deliver SDG Goals

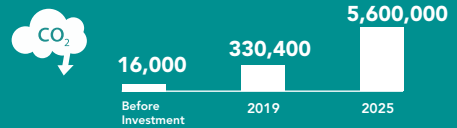
Portfolio Companies



Icos Capital



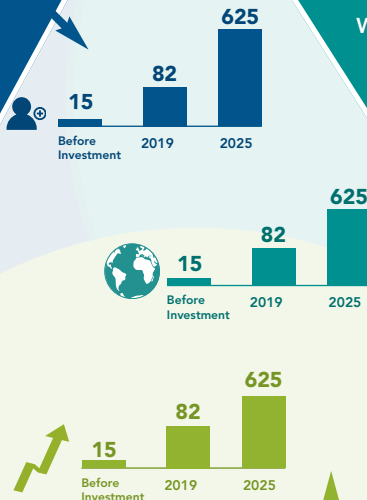
Globally 35B t of GHG are emitted annually.¹



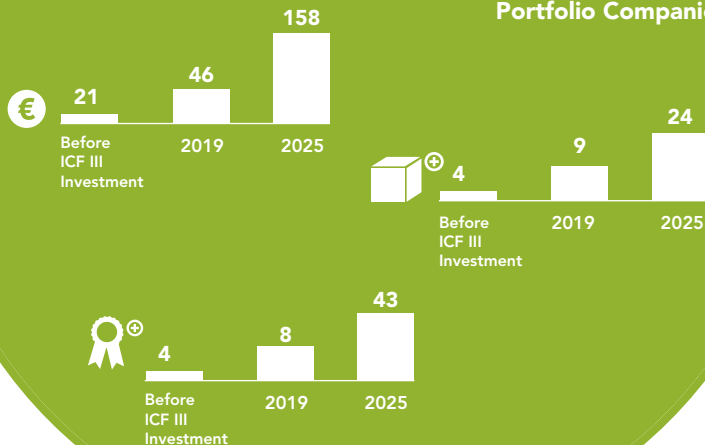
We see that sustainable approach is currently transforming entire industries. New technologies have become a major contributor to solving the problems that the world is facing today. Through its investments, Icos Capital contributes to the achievement of Sustainability Development Goals.



We support all SDG goals investing in companies that address the challenges in sectors such as foodtech, agritech, chemicals and industry.



Portfolio Companies



Profit

Collaborative Venturing



Unique collaborative

venturing & investing platform for sourcing, screening & partnering with the best fast growth scales-ups

The Icos Capital fund III is working closely with major global corporations with strong focus and thought leadership towards sustainability & innovation.

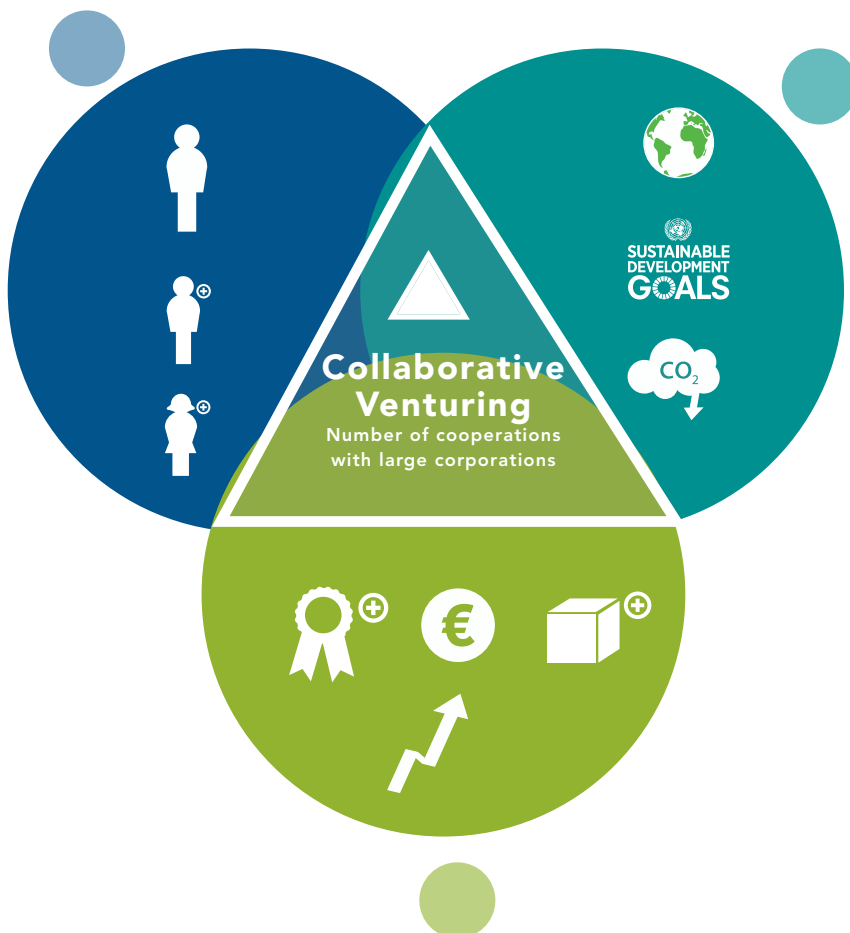
Collaborative venturing is a new approach to venture capital that is executed in partnership with a preselected group of large corporations with core competence in targeted sectors. These corporations have complementary, not competing, interest in innovations targeted by ICF III.

The focus of the fund is defined in discussion with corporate partners of Icos III that ensures that all investment activities can benefit from strong operational and business insight from corporate partners.

Corporate partners participate in due diligence and they also have preferred access to deal-flow in their areas of interest.

As companies develop further, they can an opportunity to build commercial relationships with corporate partners of Icos Capital as well.

This report summarizes some of the benefits realized by corporate partners in 2019.



Complementary collaborative corporate partners

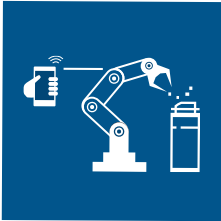

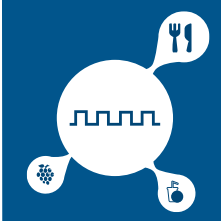



Collaborative performance 2019

DEALFLOW	Deal flow	Incoming	Proactive
2019	510	250	260

COLLABORATION	Follow up	Due diligence	New Investments
2019	57	26	1

Key themes of interest investigated in 2019




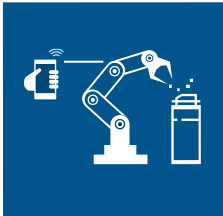
	Scale up phase Industry 4.0	Opportunities: 474 Due diligence: 1 Investments: 1
	Alternative Proteins	Opportunities: 130 Due diligence: 2 Investments: -
	PEF Technologies	Opportunities: 28 Due diligence: 1 Investments: -
	CO₂ Capture	Opportunities: 56 Due diligence: 1 Investments: 1

Collaborative performance 2019

DEALFLOW	Deal flow	Incoming	Proactive
2019	303	187	116

COLLABORATION	Follow up	Due diligence	New Investments
2019	38	13	1

Key themes of interest Investigated in 2019

	Bio-based Chemicals	Opportunities: 19 Due diligence: 1 Investments: 1
	Chloride Replacement	Opportunities: 17 Due diligence: 1 Investments: -
	CO₂ Capture	Opportunities: 56 Due diligence: 1 Investments: 1
	Scale up phase Industry 4.0	Opportunities: 474 Due diligence: 1 Investments: 1

Collaborative performance 2019

DEALFLOW	Deal flow	Incoming	Proactive
2019	559	242	317

COLLABORATION	Follow up	Due diligence	New Investments
2019	83	34	1

Key themes of interest Investigated in 2019

	Scale up phase Industry 4.0	Opportunities: 474 Due diligence: 1 Investments: 1
	Alternative Proteins	Opportunities: 130 Due diligence: 1 Investments: -
	PEF Technologies	Opportunities: 28 Due diligence: 1 Investments: 1
	CO₂ Capture	Opportunities: 56 Due diligence: 1 Investments: 1
	Predictive Yield Solution	Opportunities: 56 Due diligence: 1 Investments: 1

Collaborative activities in portfolio companies

6 Investment Advisory Board

to discuss collaboration with investments

21 Portfolio board meetings

- 6 Gamaya
- 6 Squirro
- 3 ReliaSol
- 6 Holiferm

2 Commercial assistance

Squirro:
Discussion with Bühler; follow-on financing (as lead)
Reliasol:
Dutch market entry, introduction to potential clients

3 Appointments & recruitments

Gamaya: New CEO
Reliasol: New CEO
Holiferm: New business development board member

5 Strategic customer relationship

Predictive maintenance: commercial discussion at Bühler Group, Cosun
Squirro discussions at Cosun, Nouryon
Surfactant technology at Nouryon



Icos innovation summit 2019

Icos innovation summit is an annual event focused on professional network between corporations and scaleups. This is one forum where corporations comes to engage in business with companies ready to engage with larger & more substantial partners.

Both corporations and startups are carefully selected by the Icos team and select number of them, i.e.; 20 corporations, 20 startups and 20 investors are invited to this close event.

2019 event highlights:

Key themes where digitization / industry 4.0, sustainable resources and sustainable industry processes

Total attendees: 100+

Total companies represented: 49

Scale up company presentations: 20

Meetings planned via App: 92





Team and Board

Core Team



Nityen Lal
General Partner



Peter van Gelderen
General Partner



John van Grootel
Chair Investment Com.



Rudi Dupper
CFO



Karolina Wojtas
Investment Associate



Sandro Fazio
Analyst



Marieke Plasmeijer
Coordination & logistics

Fund Advisory Board



Ian Roberts
CTO, Bühler Group
Fund advisory board



Marco Waas
Director RD&I, Nouryon
Fund advisory board



Albert Markusse
CEO, Royal Cosun
Fund advisory board

Investment advisory committee



Matthias Kaiserswerth
Innovation Board,
Bühler Group
Investment advisory
committee



Coert van Lare
Associate Director,
Nouryon
Investment advisory
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Frank van Noord
Director Innovation (CIO),
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