IMPACT REPORT 2023

FUTURE PLANET CAPITAL

CONTENT

THOUGHTS AND REFLECTIONS

From the Author

In today's world, where uncertainty and complexity abound, the role of purpose-driven businesses has never been more vital. At Future Planet Capital, we look to back visionary entrepreneurs, driven by a deep-seated commitment to making a meaningful difference in the world.

I invite you to join us in celebrating the profound impact of such trailblazing companies and the passionate individuals behind them. Explore the stories of companies transforming lives, restoring ecosystems, and empowering communities.

These are building blocks for a future where prosperity, planetary health, and social well-being thrive together. We're just getting started. This report is a declaration of our unwavering commitment to push boundaries and support the next batch of changemakers.

Alexander Shadbolt
Investment Associate and Impact Lead

THOUGHTS AND REFLECTIONS

From the Chairman

It gives me great pleasure to welcome Future Planet Capital's third Impact Report. In a world facing unprecedented challenges, Future Planet Capital believes financial returns and positive impact can coexist. Following two *Wei Reports* focussed on impact and policy, this report celebrates our mission-driven portfolio companies tackling climate change, resource scarcity, and social inequities.

Meet the founders behind clean energy solutions, sustainable agriculture initiatives, life-saving vaccines, and more – each embodying our ethos. We enable these visionary innovators with capital and connect them to impact-conscious investors, recognising that true change requires both.

Together, let us continue to champion mission-driven innovation and, in so doing, forge a brighter and more sustainable future for generations to come.

Douglas Hansen-Luke
Executive Chairman

A NOTE FROM LORD FOSTER

The technologies that academics and entrepreneurs are creating today will help define how billions of people live around the world in the future. Their work, much of it nurtured in universities and high-growth private companies, offers solutions to the challenges faced by our planet, its cities and their inhabitants.

The potential for research and development is boundless. Addressing the scale of change necessitated by population growth, climate change, and geopolitics requires unwavering commitment and access to capital. Investors, like Future Planet Capital (FPC), play a pivotal role in this endeavour, recognising that without funding, even the most brilliant projects remain mere concepts.

The Norman Foster Foundation and Future Planet Capital stand ready to take action. As a longstanding investor in FPC, I've witnessed first-hand how its data-driven approach to impact-focused venture capital accelerates scientific and technological progress. Leveraging a track record of success and established relationships with institutional funders, FPC swiftly supports ground-breaking founders and their innovations, as detailed in this report.

Our task is to make sure that we can continue to realise the potential, and the returns, offered by our next generation of creators, innovators and visionaries.

Lord Norman Foster, of Thames Bank, OM
Advisory Board Chair

AN INTRODUCTION TO FUTURE PLANET CAPITAL

Connecting the biggest investors with the brightest minds

Founded in the UK with a global outlook and reach, Future Planet Capital is an impact-led venture capital firm built to back innovative companies from the world's top universities and research ecosystems.

With 140 portfolio companies across geographies and stages, our mission is to invest in high-growth companies solving global challenges - profitably. Mapped against the UN Sustainable Development Goals, these include climate change, education, health, security, and sustainable growth.

Profit for purpose

We manage over $400m of assets for public and private investors and have deployed more than $200m through co-investment initiatives.[1] We have a long track record of managing venture capital funds on behalf of the UK government, The British Business Bank, sovereign wealth funds and local government pension funds.

Impact-led

We invest in outstanding companies targeting the global challenges of the UN Sustainable Development Goals. These include climate change, education, health, security, and sustainable growth.

Proprietary Data

Our unique algorithm tracks over 500,000 inputs to identify and score innovative companies, undertaking careful data-leveraged analysis to select the most promising investment opportunities from a database of 8,000 companies.[2]

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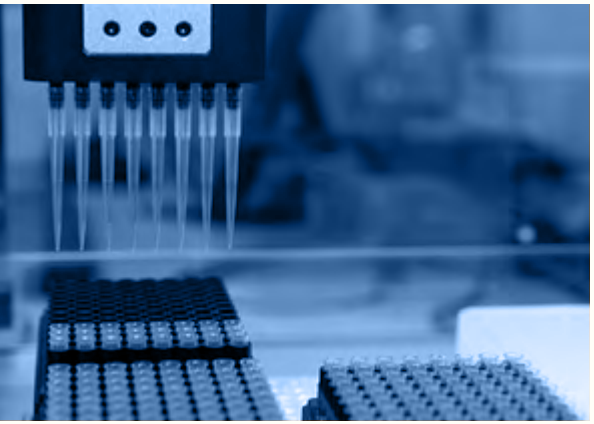
1 AUM is an approximation as of Q4 2023 dated 30/12/2023.
2 Company Information as of 22/11/2023.


SubSLAM X2

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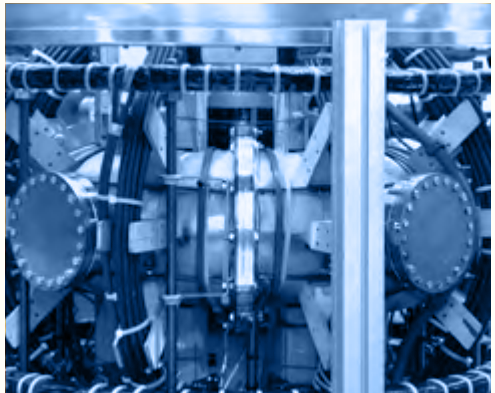
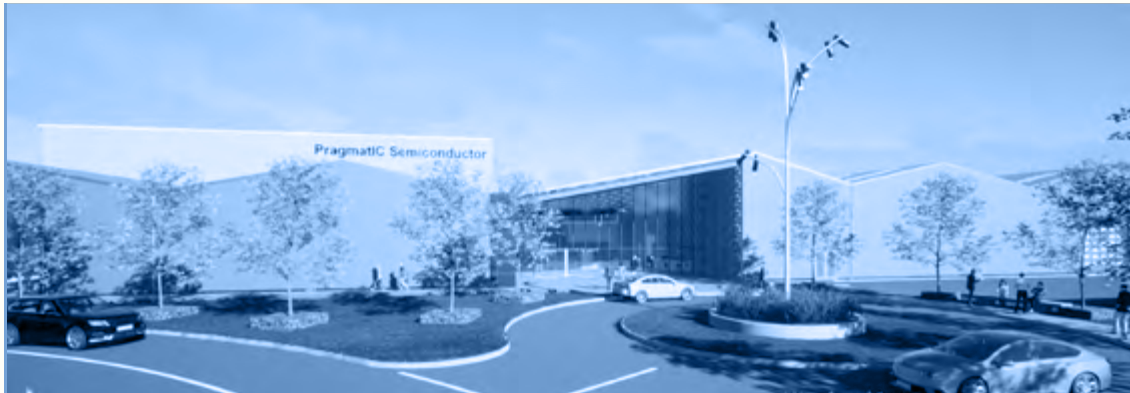



PragmatIC Semiconductor

FPC AT A GLANCE

Global – we manage global funds and mandates to back impactful growth-level companies from the world's leading universities and centres of innovation.

National – using sovereign and local government capital to invest in the UK's university and publicly funded science and knowledge base. Our proprietary data models help drive investments in globally competitive companies.

Regional – benchmarking globally, we invest in local businesses in the West Midlands with high-growth potential internationally.

c.$400m
Assets Under Management[3]

8 Unicorns
as Founding Investor[4]

60+
Profitable Exits[4]

35
Full-Time Employees

c.150
Active Investments

c.50
Expert Advisors

300+
Team Investments[4]

20+
Years Investing[5]

15
Venture Funds
as Founding Investor[4]

3 AUM is an approximation as of Q4 2023 dated 30/12/2023.
4 Through FPC, Advisors or our Investment Governance Board Members.
5 FPC was founded in 2015 and acquired Midven in 2021 which has been investing since 1991.


bvca
Debevoise & Plimpton
PER
SWEEP
KEY ESG
40 YEARS
barbican


The West Midlands
Co-Investment Fund

2023
IN NUMBERS

4
profitable exits[6]

74
investments into new and existing companies

2
new funds

500+
investors met[7]

8
new faces

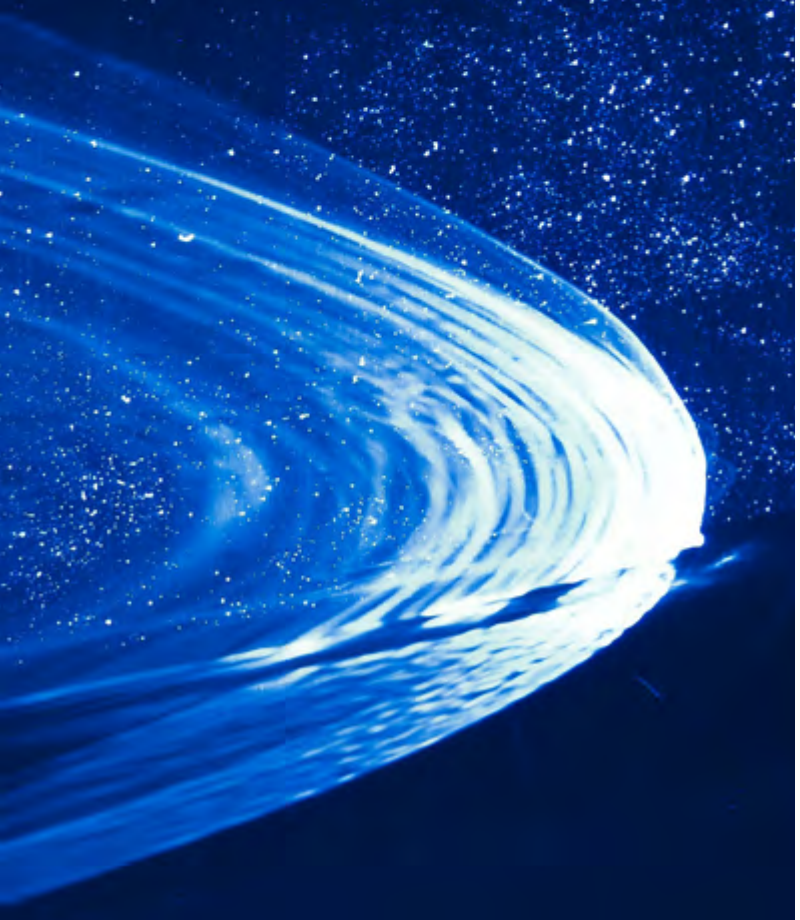
16
of the 17 SDGs have been invested in

2000+
founders met[7]

6 During the period – 12/22 – 12/23
7 Tracked internally by our CRM system (virtual and in-person) – 01/01/23-31/12/23

IMPACT AT OUR CORE

Each of our portfolio companies embarks on our Impact Investment Cycle, which incorporates all stages of investment: from deal sourcing to exit. Throughout, we look to evidence how our investments add impact value.



FPC Investment Score

To ensure our efforts are best targeted at the pre-investment stage, we have developed the “FPC Investment Score”. This process screens all companies in our pipeline based on their relevance to FPC’s Impact Focus Areas — climate change, education, health, security, and sustainable growth — before providing a score according to their alignment with the UN’s 17 SDGs and our 100 greatest challenges database. Over the past 12 months, 870 companies have been scored.

FPC Impact Value Gap

Similarly, to determine the positive impact potential of a company’s solution, we have developed the “Impact Value Gap” (IVG). This provides, in dollar terms, the potential societal benefit or cost reduction of a company’s solution to an unaddressed challenge, guiding FPC towards the most transformative investments. Built on industry best-practice, research, and expertise, the IVG offers a unique externalities measurement framework that keeps us on track to deliver meaningful impact. Over the past 12 months, 102 companies have undergone this process.

Due Diligence

Once companies have been qualified using these impact tools, FPC’s due diligence framework, provides an in-depth impact interrogation. The impact cases for each potential investment are presented in Investment Overviews and put forward to an independent Investment Governance Board to ensure each investment meets our impact mandate. This analysis is developed in Investment Memos, where companies are examined according to the five dimensions of impact. In completing impact diligence, FPC ensures every investment has impact at its core.

The societal impacts of our funds are tangible. Our UKI2S Fund backs companies determined to enhance the health,security and sustainability of society, whilst delivering economic gains. The Fund has created over 1,100 high-quality jobs. Similarly, value has been created by the Midlands Engine Investment Fund, £55m of which is managed by Midven. With a focus on innovation, 71% of backed firms have recorded increased sales, pushing a regional economy boost of nearly £200m and creating over 2,300 jobs.

WHAT DOES THIS ALL LOOK LIKE?

Impact at every level

Investing for impact requires that we deploy capital in a concentrated and concerted strategy, grounded in impact and evidenced by key indicators.

Roughly one third of companies have the primary mission of working towards SDG 3: Improving Health and Wellbeing (34.2%), following strong health-focused investment themes within FPF I, CR I and UKI2S.

A fifth of our holdings[8] primary impact can be attributed to Midven's socio-economic targets, with 20.5% of companies looking to achieve SDG 8: Decent Work and Economic Growth.

Our focus on nurturing early-stage Deep Tech companies is evident, with 16% of our portfolio aligned to SDG 9: Industry, Innovation and Infrastructure.

A recent trend towards climate change innovation, as a result of Blue Ocean and CR2 deployments, can be seen with 16.4% of holdings addressing a climate related goal (SDGs 7, 11, 12, 13, 14, 15).

The remainder of our portfolio addresses other key targets, from SDG 1: No Poverty and SDG 2: Zero Hunger, to SDG 4: Quality Education and SDG 10: Reduced Inequalities. Almost all our investments address multiple SDGs. Whilst we use the broad UN SDGs as our impact North Star, we also look to report on more granular impacts and targets.

8 By company count

IMPACT AT EVERY LEVEL

Global

We invest in frontier technologies applied to critical challenges for humanity and our planet. We take a top-down, bottom-up approach, diving deep into the largest opportunities, where the densest, highest-quality innovation is happening. To structure this, a global taxonomy is an essential part of identifying where the largest external value could be created. Along with many other investors, we align our investments to the UN SDGs, targets and indicators. Our five impact areas map to the 16 investable UN SDGs, contributing to SDG 17: Partnership for the Goals.

What does that mean in practice?

When looking to invest in health, through our Future Planet Fund I and Challenge Response I Basket, we adopted the lens of UN SDG 3: Good Health and Wellbeing. At the height of the COVID-19 pandemic, UN SDG Target 3.8 sharpened investment focus towards ensuring access to safe, effective, quality and affordable essential medicines and vaccines for all.

This culminated in our investment into Barinthus Biotherapeutics (formerly Vaccitech) in 2020. We invested one of the largest cheques we've ever written, before helping the company raise $43m in convertible notes and then a further $168m in the Series B and IPO. The impact was profound: Barinthus's technology delivered over 3 billion vaccines across more than 180 countries, saving 6.3 million lives in the first year of roll out during the pandemic.[9]

Ed Phillips
Global Head

9 University of Oxford, 15 July 2022

Our Impact Area

Climate Change

Education

Health

Security

Sustainable Growth

National

The UKI2S Fund, launched in 2003 with £4m government funding, backs early-stage technology firms nationwide. Led by UKRI and Dstl, the UKI2S Fund, now over £130m, targets the 'Valley of Death' financing gap for start-ups. We support Deep Technology companies, offering vital 'ultra-patient' capital into sectors from fusion to engineering biology.

What does this mean in practice?

In supporting the 'hard-to-do' at the earliest stage, over 75% of companies that might not exist without our investment have come through the 'Valley of Death.' These firms attract substantial co-investment, totalling over £800m.* UKI2S prioritise R&D investment, creating skilled jobs and yielding a strong return on investment.

Andy Muir
National Head

For every £1 of fund investment:

£30

of Private Investment[10]

£7

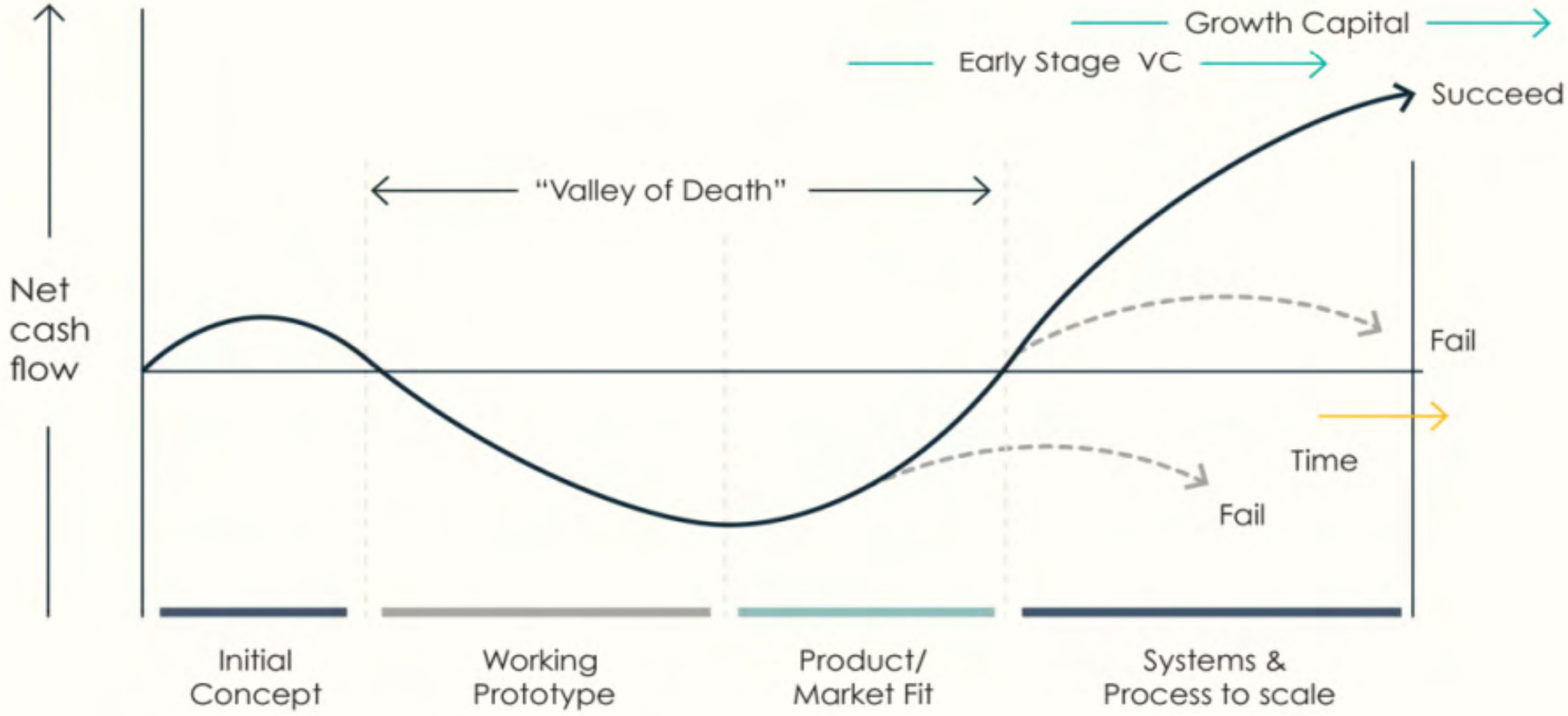
of GVA[8]

£6

of R&D[8]

UKI2S has helped Tokamak raise £117m in investment and employ 80 full time staff. UKI2S, following its initial £25,000 pathfinder investment, invested a further £1.4 million, attracting co-investment and public funding. Tokamak has since developed world-beating tech to harness nuclear fusion.

10 'Assessment of the economic and wider benefits of the UK Innovation and Science Seed Fund' - 2020



* 'Assessment of the economic and wider benefits of the UK Innovation and Science Seed Fund' - 2020

Regional

For over 30 years, Midven has invested over £100m into early-stage businesses, catalysing growth in the West Midlands. The Midlands Engine Investment Fund (MEIF), a collaboration between the British Business Bank, government and ten Midlands LEPs, offers over £250m in funding for historically underserved and underfunded start-ups and scale-ups in the region. Midven manages the £55m West Midlands equity portion, supporting businesses with up to £2m in equity to boost future industries. In March 2023, we launched the £25m West Midlands Co-Investment Fund, targeting SMEs across sectors like green tech, manufacturing, life sciences, and digital industry.

Surjit Kooner
Regional Head

Number of investments

49

Jobs created

432[11]

New enterprises supported

18

Private sector investment match

£22.4m

New companies receiving non-financial support

76

Number of new products to investee company

26

New products to market

7

11 All figures as of 31.12.23

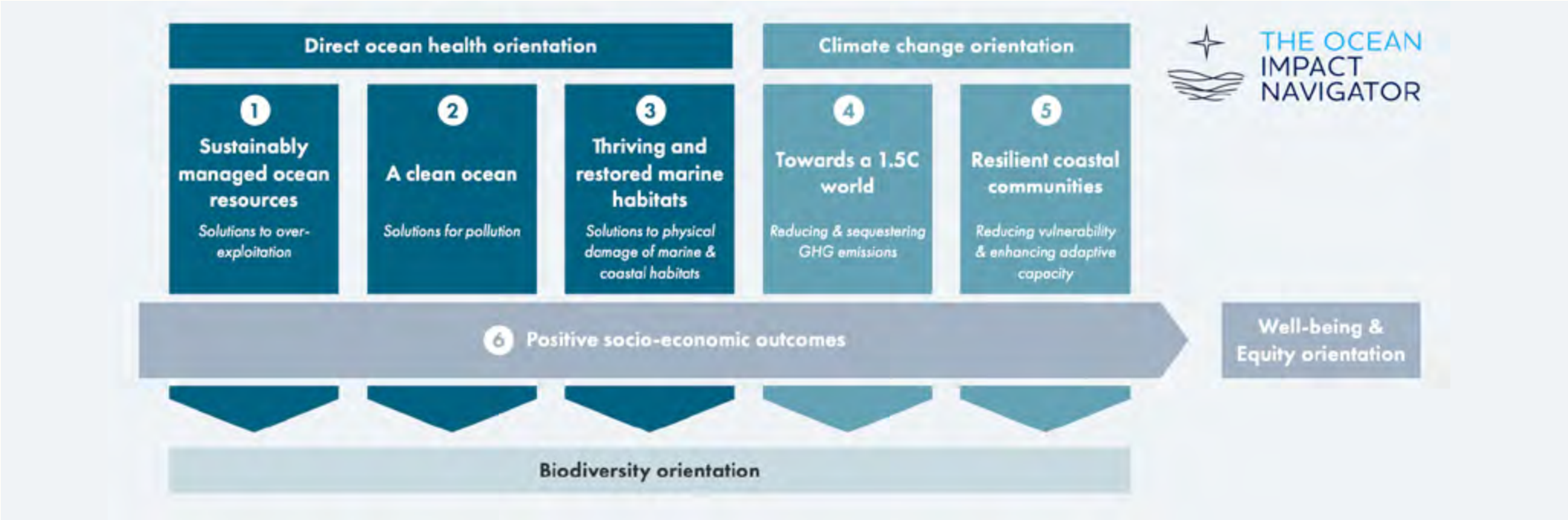
Building Community: New frameworks and communities

The Ocean Impact Navigator

As a member of 1000 Ocean Startups, the largest coalition of ocean impact entrepreneur-supporting organisations, FPC recently adopted the Ocean Impact Navigator for our $23m Blue Ocean Fund. It features 30 prioritised KPIs across six impact areas to measure innovators' contributions to ocean health, climate change, and human well-being. It aids investors in identifying impactful interventions, fosters harmonised measurement for aggregated data, and simplifies impact measurement for start-ups, thus supporting progress towards a sustainable ocean economy.

> The Ocean Impact Navigator aims to simplify and harmonize impact reporting for the ocean investment ecosystem. By adopting the Navigator framework and encouraging innovators to measure and report their impact, venture capital funds like Future Planet Capital are leading a collective effort to make the effects of ocean investments tangible. In doing so, the members of 1000 Ocean Startups will not only demonstrate the ocean impact achieved to date, but also identify areas in need of further investment and communicate the ocean's vast potential to address some of the great challenges of our time.

Sam Zack,
Lighthouse Coordinator,
1000 Ocean Startups



* 'The Ocean Impact Navigator: A new impact measurement framework for the ocean innovation ecosystem' – 1000 Ocean Startups

Place Based Impact Investing

Midven recently adopted the Impact Investing Institute's Place Based Impact Investing taxonomy. The local and regional financing of SMEs is essential for inclusive prosperity and levelling up. This is especially true for investing in growth sectors which provide quality jobs and aid in a 'just transition'.

> "Place-based impact investing (PBII) aims to create positive impact within a specific geography, alongside delivering financial risk-adjusted returns for investors. A key element of PBII is investing in SMEs to drive innovation and inclusive growth, increasing employment and economic prosperity across the UK. Whether it's in green technology, life sciences or advanced manufacturing – regionally focussed and experienced venture capital firms have an important role to play in investing in the UKs industries of the future.
>
> **Mark Hall**
> Programme Manager,
> Impact Investing Institute

FPC Impact Theory of Change – Midven's Place-Based Impact Investing

Adapted from Impact Investing Institute and Good Economy's "White Paper: Scaling up institutional investment for place-based impact"

Fund Manager (Midven)

Activity	Outputs	Outcomes	Impacts
Identify SME investment opportunities.	**Bespoke outputs for fund model:**	**Bespoke outcomes for fund model:**	Contribution to solving global challenges, as outlined by the wider 17 UN SDGs.
Design funds focusing on specific geographical areas and sectors.	**Align to 5 FPC Impact Areas (i.e. QALYs, CO2e, YoLL, Productivity)**	**FPC's Impact Value Gap Analysis**	
Provide equity investment	**SME growth**	**Increase in the number of quality jobs (direct and indirect)**	Contribution to local inclusive and sustainable development.
Provide debt investment			
Support management	**Increased number of SMEs**	**Increase in start-ups and survival of SMEs**	

LET'S TALK DATA

In conversation with our resident data expert and Head of Origination, Dr. Peter Mitchell.

Alex: **"What does a data led approach look like for a VC?"**

Peter: "Data plays an important part in our investment making process. Our platform tracks over 1900 companies, using more than 500,000 data points, to evaluate emerging investment opportunities from leading research and innovation ecosystems. This enables our investment teams to prioritise promising companies in breakthrough sectors, from RNA vaccines to nuclear fusion reactors, irrespective of originating university."

Alex: **"Why use a data led approach?"**

Peter: "We embrace this data led approach because we appreciate how hard making good investment decisions within VC is. Decision theory suggests that the most accurate predictions arise from ample, high-quality information, short feedback loops, and established methodologies."

Alex: **"Can you give us an example?"**

Peter: "Sure. In a hospital setting, nurses experience conditions ideal for effective decision-making. Through continuous cycles of assessing patient symptoms, applying treatments based on training, and observing outcomes, nurses rapidly accumulate a database of experiences to refine their understanding of effective treatments. This iterative process allows them to improve patient outcomes over time, leveraging past experiences to inform future decisions.
In contrast, venture capital operates with sparse, often unreliable data, limited consensus on decision-making processes, and extended feedback cycles exceeding 10 years! This complexity is compounded by human biases. While there are many great venture capitalists, including at Future Planet Capital, we remain humble within this empirical reality, and are committed to utilising all the insights we can glean. Data offers an invaluable tool in this regard."

Alex: **"So, enlighten us. How does the system work?"**

Peter: "Each pipeline company is assigned a score based on the 30+ features we evaluate. These consider the track record of a company, the scale of the commercial opportunity, the strength of their links to our university ecosystems and the scale of positive impact they aim to create. These four components are combined to create an overarching Future Planet Investment Score, from 0-100 to reflect their percentile within our pipeline. Underpinning this approach is an extensive review of academic literature to identify characteristics that have had a strong empirical link to success in the past. This allowed us to distinguish between signals that have repeatedly indicated success rate across various investment cycles, against features that are commonly exposed by the industry but lack an empirical basis."

Alex: **"Where do you get this data?"**

Peter: "We continually work to identify data sources to inform this system. Currently we ingest multiple public and private datasets, along with manually collected data. As data providers in this space continue to innovate, we predict a permanent, ever-growing role for quantitative analysis in decision making within venture capital, much like in public markets today. As innovators in this space, we aim to be at the forefront of this trend."

Alex: **"How is all of this incorporated into the investment process?"**

Peter: "All investment opportunities are scored before being evaluated by the team, with a strong focus on the highest scoring opportunities. The system is integrated within our CRM and can also be accessed by a custom-built in-house dashboard. This information provides a useful starting point for the traditional due diligence process. It also is helpful for our Internal Governance Board, who offer advice and support for our investment teams."

THE IMPACT VALUE GAP

At FPC, we believe that with the right business model, positive impacts on people and planet drive outsized returns; if innovative companies can solve pressing issues, they will be rewarded, as will their investors. We invest where there is alignment between shareholders, people and planet.

What?

FPC's Impact Potential Framework and Impact Value Gap (IVG) helps frame how large a solution's potential added benefit, or reduction of cost, could be in dollar terms. It is built following industry best-practice, academic research and internal expertise.

Why?

Our tool helps us gauge the size of the potential impact, as we aim to invest in solutions that have the broadest or deepest impacts. It gives us a rough idea of how big an impact a solution could have in dollar terms, making it easier to understand how scalable and globally applicable it is. Additionally, it shows us the value of addressing key challenges and lets us compare it with financial valuations to see if societal value is integrated into business models. It's important for keeping us accountable for investing in the most impactful companies while helping us focus our investment team's efforts. The IVG allows for comparison across different investment options, making decision-making clearer for our Investment Committees.

How?

The Impact Framework operates on same premise as Fermi Estimates – logical deductive scaling. We start with a global challenge, estimate the value in solving for it and then deduce the scale of impact a company could have. The Impact Framework is based on estimates and grounded in assumptions. As such, the final dollar value is less important, but rather it is the scale and the narrative of how a company can have impact which takes precedence. Whilst negative externalities are important considerations and are recognised elsewhere in our investment decisions, this Framework identifies and sizes positive impact potential.

Let's do it...[12]

Queen of Raw (QoR) provides a no-code software platform to intelligently resell, recycle or reuse the $120 billion worth of excess fabrics and finished garments that are typically disposed of each year.[13]

Step 1

We identify Impact Pathways. Finding a figure for the benefit or cost of the problem a company is trying to solve. This is linked to anchor studies, pilot reports, primary research, independent and accredited third-party bodies or peer reviewed journals. The IVG is per annum - a one-time figure for a one-time stage investment.

Pathway 1:

The global textiles industry is responsible for 3.3gT of Carbon Emissions p.a.[14] 15% of textiles end up on the cutting room floor as waste.[15] 3.3gT x 0.15 = 495mT CO2e apportioned to waste in the textile industry. IMF price of CO2 per tonne required by 2030 = $75.[16]

$75 x 495mT = $37.125bn

Pathway 2:

Global textiles industry = 20% of clean water pollution. Clean water pollution[17] reduces GDP of developing countries by 0.82%.[18] GDP of all developing countries = $42tn.[19] 15% of textiles end up on the cutting room floor as waste.[15]

$42000bn x 0.0082 x 0.2 x 0.15 = $10.33bn

Step 2

Determine the increase or reduction in the benefit or cost of a company's solution, given efficacy rates. This is on an assumption that the company will scale and successfully get to market.

When investing we were operating on the assumption that Queen of Raw's MateriaMX can reduce this waste by up to 50%.

With the most recent pilots with Ralph Lauren showing 92% landfill waste reduction, our assumption was conservative!

Step 3

This determines the IVG figure. We can then take this figure and apply three variables to get a more tailored figure given the stage or maturity of a company - the time to impact, an internal discount and the likelihood of success. These are all based on industry analysis and corroborated by our own pipeline.

Emissions Pathway 1: $37.16bn x 0.5 = $18.58bn
Water Pollution Pathway 2: $10.33bn x 0.5 = $5.17bn
Total IVG - Pathway 1 + Pathway 2: $23.75bn

12 The following example is Future Planet Capital's own internal methodology, as outlined above, and does not represent information substantiated or provided by Queen of Raw.
13 UNEP, 2018
14 Quantis, 2018
15 Rissanen, 2020
16 International Monetary Fund, 2022
17 European Parliament, 29 December 2020
18 Bloomberg, 20 August 2019
19 Statista / O'Neill, 1 December 2023

PRESSING CHALLENGES

The year 2023 painted a stark and ever clearer image of a planet and its people straining under the weight of a myriad complex issues.

There were constant reminders of the urgency of climate action on land and at sea. Extreme weather events, including the unprecedented heat waves in Europe and devastating floods in Pakistan highlight the need for increased energy resilience and restorative climate technologies.

Supply chains have never been more at risk of disruption or dislocation. Geopolitical instability threatens critical trade, rising populations need reliable food sources and the planet requires us to find sustainable consumption patterns.

Global productivity growth has been witnessing a sluggish trend. Innovation emerges as a crucial driver for revitalising existing systems, generating new methods and enhancing workforce efficiency.

As a global population, we are living longer. With the World Health Organisation projecting that by 2030, one in six people worldwide will be aged 60 years or over, it is crucial that we enable individuals to lead fulfilling lives unencumbered by disease. Investing in healthcare systems, preventive medicine, and innovative technologies aimed at enhancing quality of life for all is essential.

Deep Tech start-ups, at the forefront of innovation, play a pivotal role in shaping the trajectory of technological development. It is imperative for these start-ups to prioritise responsible creation, considering the implications of their products and services. By adhering to principles of transparency, fairness, and accountability, Deep Tech start-ups can help mitigate potential risks and ensure that advanced technologies contribute positively to the well-being of individuals, local and global communities and our planet.

Future Planet Capital's proprietary list of '100 Greatest Challenges' looks to provide a foundation against which we can target these issues and source companies solving for them. Over 35 of the challenges, from decarbonising road transport to chronic obstructive pulmonary disease, are $100bn+ problems facing society. We have built these into our scoring system to link business models to these challenges and identify the next wave of companies that are working to solve these. It is our view that with the right business model, companies solving the world's biggest challenges will provide the highest returns.

BREAKTHROUGH INNOVATIONS

2023 also provided us with unbounded levels of innovation and inspired people solving for these challenges. This transition won't happen overnight, but with every VC-backed innovator crafting solutions, we inch closer to a future where prosperity and planetary health coexist.

Tokamak: 100 million degrees Celsius achieved in ST40 spherical tokamak.

Oxford Flow: Potential to save 3.6 trillion cubic feet of methane.

Captura: Collected 4,000 hours of Direct Ocean Carbon Capture data.

REGENT: First vehicle to successfully combine wave tolerance of a foil with speed of a wing.

Queen of Raw: Recorded over a billion gallons of polluted water saved from the textiles industry.

Nutri-San: Employing over 10,000 seaweed harvesters in the worlds most marginalised coastal communities.

Rovco: ROVs with the potential to eliminate lifetime emissions of over 20 MegaTons of CO2 by 2026.

Honuworx: Saving CO2 outputs equivalent to 4,000 family cars per year per vessel.

twig bio: Generating data from hundreds of thousands of tests, letting AI models reprogram microbes for sustainable production based.

Solasta Bio: Bringing bio-safe and bio-sustainable pest control agents to market in half the time traditionally taken by synthetic pest control.

Roslin Technologies: The first company globally to develop pluripotent stem cells from animal livestock breeds suitable for cultivated meat production.

Learning Labs: Improving students' English skills 3x faster.

Learnerbly: Access 250+ curated learning providers in one place.

Reelyze: Providing access to learning and development to the 90% of deskless workers.

Guideline: Facilitated over $12Bn saved for retirement, for hundreds of thousands of savers.

Strolll: Using VR to improve the lives of Parkinson's patients in a matter of weeks.

MitoRx: Developing a pipeline of first-in-class first-in-target small molecules for diseases involving mitochondrial dysfunction.

Barinthus Biotherapeutics: Helped save 6.3 million lives in the first year of the pandemic.

Nuclera: Shortening months long protein discovery exercises to 48 hours.

Attomarker: Among the top five companies globally for fighting Anti-Microbial Resistance (AMR), as voted by the WHO.

Laverock: Unique Gene Editing induced Gene Silencing (GEiGS®) to target genes for Type 1 diabetes and solid tumours.

Pragmatic: Ultra-thin, flexible, and shock-resistant semiconductors, produced in fabs emitting 100x less CO2.

Productive Machines: Achieving up to 25% lower energy costs for chatter-less machining.

Halo Xray: Reducing false alarm rates by a factor of 4 for airport security.

ONI: The Nanoimager, the world's first desktop-sized super-resolution microscope.

OSS: Five successful antenna deployments in space in the last two years.

Silicon Microgravity: Enabling the recording of gravitational acceleration at one part per billion of the nominal value of Earth's gravity.

CLIMATE CHANGE AND ENERGY SECURITY

Fusion and flows

Tokamak Energy is revolutionising the world's energy supply, aiming to develop commercial fusion energy in the next decade. In harnessing fusion, the same process that powers stars, Tokamak Energy could provide abundant, carbon-free power without harming the planet, contributing significantly to critical clean energy goals.

2023 was a banner year for Tokamak. The Company achieved milestones including surpassing the 100 million degrees Celsius plasma ion temperature in their ST40 spherical tokamak, exceeding the threshold for commercial fusion, and developing a world-first set of high-temperature superconducting magnets for their Demo4 facility. These accomplishments cement Tokamak Energy's leadership in delivering clean, boundless energy worldwide.

Company:
Tokamak Energy

Total Raised:
$250m

Co-investors:
L&G, Winton Ventures

People:
David Kingham, Mikhail Gryaznevich

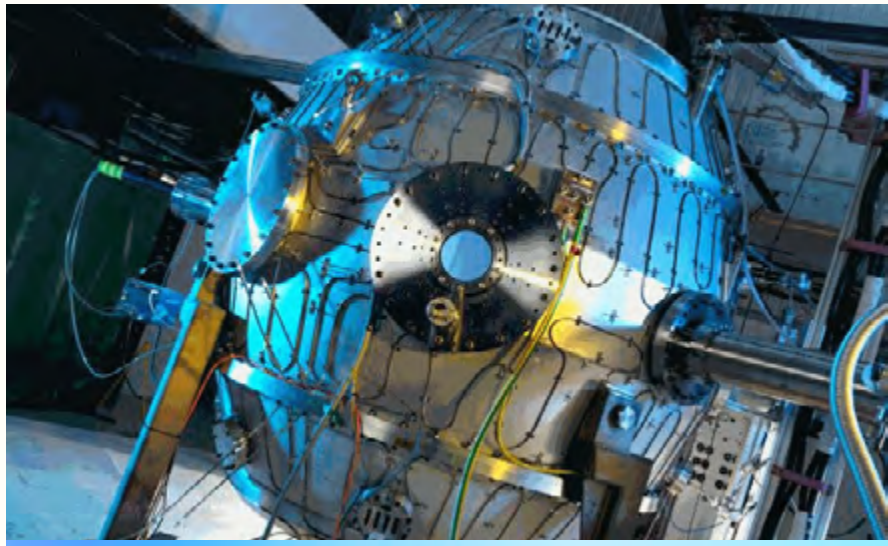
Last round:
Series B

Impact Value Gap:
$1.2tn

Founded:
2009, Oxford, UK.

FPC Team:
Mark White, UKI2S

UN SDGs:
7.1, 7.2, 7.3, 8.2, 8.3, 8.4, 8.5, 9.4, 9.5, Indicator 13.2.2



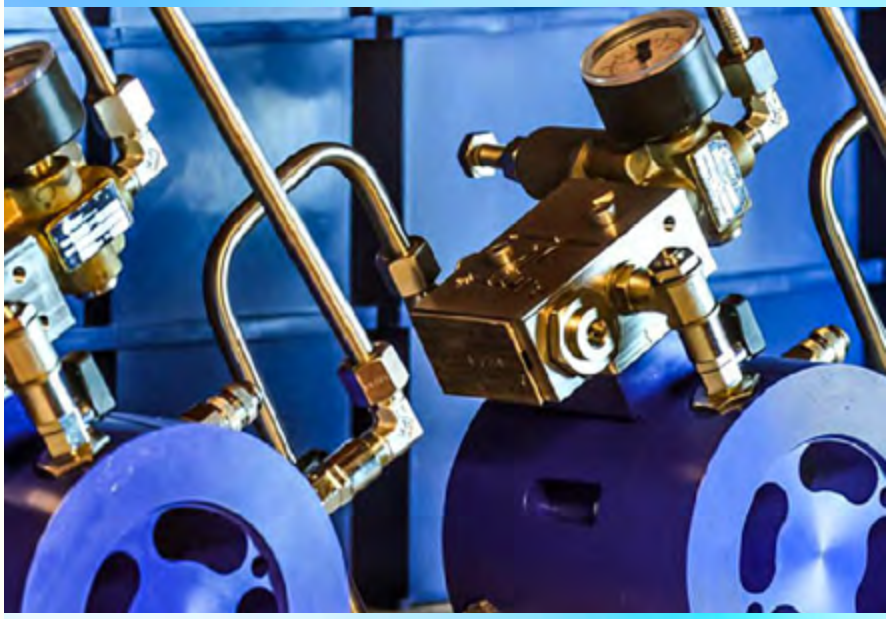
> "To reach net-zero emissions and tackle climate change effectively, we need to combine ground-breaking clean energy innovations with careful improvements to current systems.

Mark White

OXFORD FLOW

Oxford Flow produces cutting-edge industrial pressure regulators that are enhancing performance across natural gas, water, and industrial processes. Their stem-free valves combat fugitive methane leaks, a gas 28 times more potent than CO2, potentially preventing the release of 3.6 trillion cubic feet annually. These valves seamlessly integrate with biogas and hydrogen facilities, promoting clean fuel adoption and enabling renewable integration.

In 2023, the Company saw a doubling of operational activity, expanded globally, and increased its workforce by 10%. Notably, it made strides in the UK gas market with hydrogen readiness tests and received recognition for its stemless valve's role in reducing methane emissions at COP 28.



People:
Neil Poxon,
Matt Collins,
Tim Williams

Founded:
2015, Oxford, UK

Total Raised:
$17m

Last round:
Series B

FPC Lead:
Lyle Pentith, RT I

Co-investors:
OSE, Parkwalk, OUI

Impact Value Gap:
$75.6bn

UN SDGs:
6.1, 6.4, 8.2, 8.3, 8.4, 8.5, 9.4, 9.5, 11.6, 12.2, Indicator 13.2.2

Decarbonising the deep

captura

Captura offers an innovative climate change solution harnessing the ocean, the world's largest carbon removal device. Oceans naturally absorb 30% of global CO2 emissions. Powered by seawater and renewable electricity, Captura's systems enable the ocean to draw down additional CO2 without raising oceanic levels. Seawater is drawn in, CO2 extracted and securely stored or utilised for sustainable products. The process ensures net CO2 removal without harming the ocean or requiring additional resources.

Captura's scalable solution, 150 times more efficient than air, is piloted with systems operational in Los Angeles and plans for a 1000-ton-per-year system in Norway by 2024. Their published carbon removal pathway outlines safe marine ecosystem operations and carbon removal verification practices.

Company:
Captura

People:
CX Xiang,
Harry Atwater,
Steve Oldham

Founded:
2022,
Los Angeles, US

Total Raised:
$33.5m

Last round:
Series A

FPC Team:
Ed Phillips,
Blue Ocean,
CR II

Co-investors:
Equinor, Hitachi Ventures, Maersk, Aramco Ventures, Freeflow, ENI, EDP

Impact Value Gap:
$34bn

UN SDGs:
7.2, 8.2, 8.3, 8.4, 8.5, 9.4, 9.5, 12.2, 14.1, 14.3, Indicator 13.2.2

> Despite the fact that it sustains billions of people with food and work, carries 80% of the world's trade, and serves as the greatest single carbon and heat sink, the ocean in all its vastness has gone largely overlooked by both technologists and investors.

Ed Phillips

REGENT Craft pioneers all-electric, wing-in-ground-effect (WIG) vehicles for coastal routes, merging hydro-foiling watercraft and electric aviation technologies. REGENT's seagliders function as boats at docks, lift off from wave-tolerant hydrofoils, and fly close to the water's surface, reaching 180mph and traveling up to 180 miles per charge.

Beyond speed and cost benefits, REGENT eliminate emissions, reducing the maritime and aviation industries' carbon footprint. Using existing port infrastructure, REGENT will contribute to sustainable city initiatives. With $60m in new funding in 2023, REGENT advances its full-scale prototype programme, aiming to certify, manufacture, and deliver sea gliders by mid-decade, paving the way for a greener maritime future.

Company:
REGENT Craft

People:
Billy Thalheimer,
Mike Klinker

Founded:
2020, Rhode Island, US

Total Raised:
$87m

Last round:
Series A

FPC Team:
Alex Shadbolt,
Blue Ocean

Co-investors:
Founders Fund,
8090 Industries,
Lockheed Martin,
NEOM, Y Combinator

Impact Value Gap:
$21bn

UN SDGs:
8.2, 8.3, 8.4, 8.5, 8.9, 9.1, 9.4, 9.5, 11.2, 14.1, 14.2, 14.7

Consuming responsibly

QUEEN OF RAW

Excess inventory has long plagued industries, leading to warehouse congestion and environmental harm when discarded in landfills and incinerators. Queen of Raw addresses this with their Materia MX software, streamlining global excess inventory management and facilitating reselling and recycling processes while enhancing workflow and financial reporting.

Materia MX's impact is evident, with Ralph Lauren using it to divert 92% of waste from landfill and incineration. QoR's ESG reporting has saved over a billion gallons of polluted water, aiding in global safe drinking water initiatives. The platform also slashes goods costs, triples conversion rates, and boosts supply chain transparency, all while keeping excess inventory in circulation.

Company:
Queen of Raw

Total Raised:
$2.5m

Co-investors:
Techstars

People:
Stephanie Benedetto, Phil Deramso

Last round:
Series A

Impact Value Gap:
$34bn

Founded:
2014, New York, US

FPC Team:
Ed Phillips, Blue Ocean, CR II

UN SDGs:
6.1, 6.3, 6.4, 6.6, 8.2, 8.3, 8.4, 8.5, 9.4, 12.2, 12.4, 12.5, 12.6, 14.1, Indicator 13.2.2

> "Promoting sustainable management of natural resources is essential in the fight against climate change, addressing issues ranging from emissions from unsustainable agricultural practices to marine pollution due to chemical leaching. Sustainable consumption and production practices not only minimise adverse environmental impacts but also play a crucial role in reducing climate-change related threats to some of the most vulnerable populations.

Shruti Iyengar

nutri-san

Nutri-San pioneers natural seaweed technology, offering sustainable solutions for global animal feed industries. Their seaweed blend supplements combat antimicrobial resistance, reducing reliance on synthetic additives and antibiotics. Committed to climate impact, Nutri-San develops a formulation to reduce methane emissions from cattle. Trials show significant reductions in this potent greenhouse gas.

Nutri-San supports employment in marginalised coastal communities, involving over 10,000 harvesters in Zanzibar alone, with another 13,000 to be hired in 2024. They strive for environmental conservation, piloting projects to replace polypropylene lines with eco-friendly alternatives, reducing microplastic pollution. Nutri-San's holistic approach ensures both animal health and environmental sustainability in the global feed industry.

Company:
Nutri-San

People:
San Chau

Founded:
2017, Vietnam

Total Raised:
$3.6m

Last round:
Seed

FPC Team:
Douglas Hansen-Luke, Blue Ocean

Co-investors:
HNWI

Impact Value Gap:
$41bn

UN SDGs:
1.1, 1.2, 1.5, 2.3, 2.4, 8.2, 8.3, 8.4, 8.5, 9.4, 10.1, 10.2, 12.2, 12.4, 14.7, Indicator 13.2.2

Critical infrastructure

Rovco pioneers AI and autonomous tech in offshore wind, replacing traditional methods with AUVs and robots. This boosts efficiency, slashes costs, and minimises risks, elevating renewable energy production. Rovco's automation efforts could eliminate over 75 traditional asset monitoring vessels by 2026, each of which currently emit some 275,000 lifetime tonnes of CO2.

Rovco's environmental assessments and marine observations further highlight their commitment to sustainability. Their recent accomplishments, including survey work for the Cenos windfarm, earned them recognition in the Deloitte UK Technology Fast 50 2023 and the GOW Awards 2023. Rovco's strides in offshore energy underscore their role in advancing renewable solutions while mitigating environmental impact.

Company:
Rovco

People:
Brian Allen

Founded:
2016, Bristol, UK

Total Raised:
$33m

Last round:
Series B

FPC Team:
Ed Phillips, Blue Ocean

Co-investors:
Equinor, L&G, In-Q-Tel, SDF

Impact Value Gap:
$25bn

UN SDGs:
7.1, 7.2, 8.2, 8.3, 8.4, 8.5, 9.1, 9.4, 9.5 12.2, 12.4, 14.1

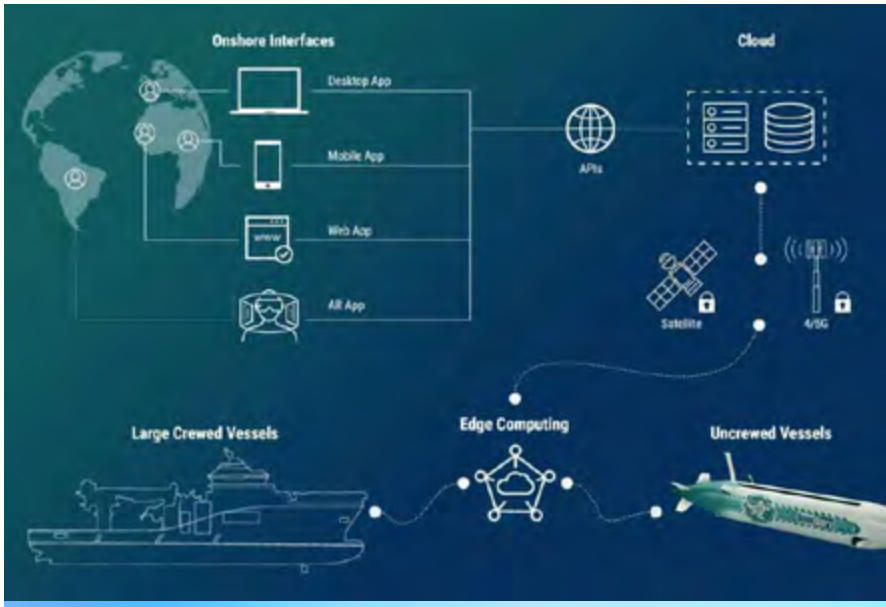
> Securing offshore renewable infrastructure isn't just about keeping the lights on. It's about crafting a future where climate change shrinks, economies bloom, and ocean life thrives.

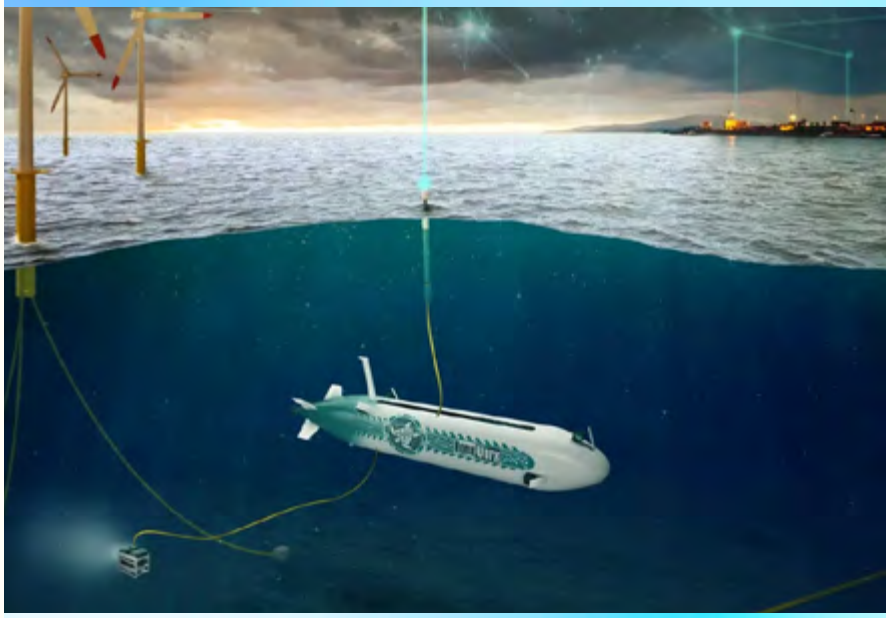
Alexander Shadbolt

HonuWorx

HonuWorx's zero-emissions marine technology replaces polluting support vessels for offshore operations, saving over 30 metric tonnes of carbon a day - the annual equivalent of 4000 family cars - and up to $70,000 in daily operational costs for each vessel being operated by a crew of up to 40 people who are at the mercy of the elements that can cause delays of over 2 weeks. By cutting emissions, protecting human lives, and expediting operations, it fosters sustainable growth in offshore wind energy. Honuworx's role in decommissioning legacy oil and gas infrastructure halves costs, allowing for more assets to be decommissioned and reducing environmental impact.

With increasing global energy security concerns, HonuWorx's technology enables underwater infrastructure safeguarding with minimal surface footprint, crucial for tactical advantage. In September, they reached a milestone with their move to W-Zero-1 in Aberdeen's Energy Transition Zone, supported by the UK and Scottish Governments.





Company:
HonuWorx

Total Raised:
£600,000

Co-investors:
Vala Capital

People:
Lee Wilson,
Lucas Wissman

Last round:
Pre-Seed

Impact Value Gap:
$4bn

Founded:
2020, Aberdeen, UK

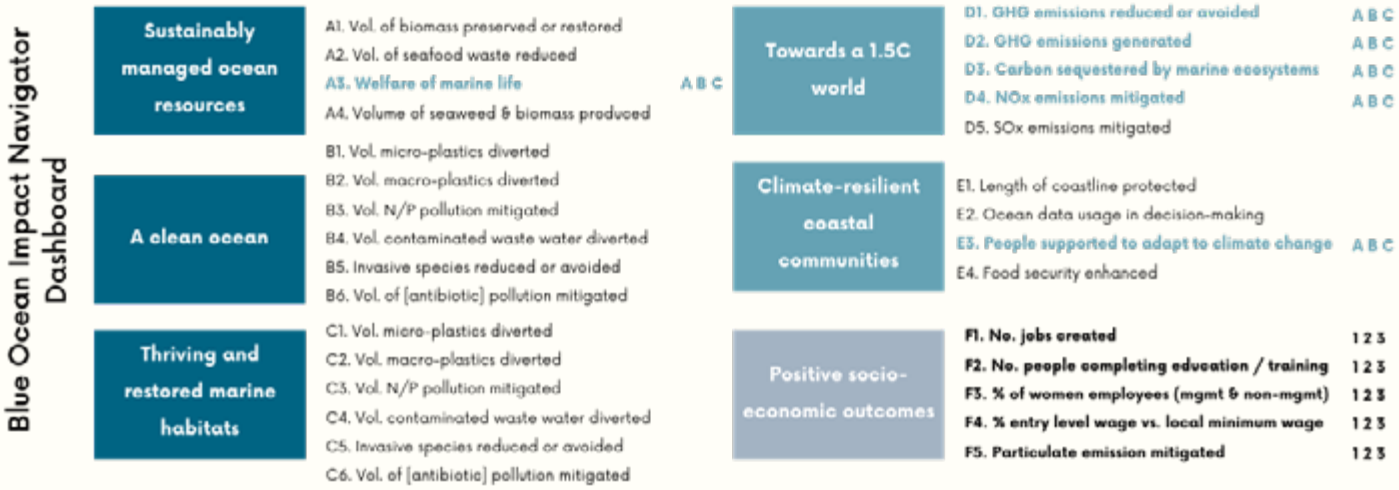
FPC Team:
Alex Leigh, UKI2S

UN SDGs:
7.1, 7.2, 8.2, 8.3, 8.4, 8.5, 9.1, 9.4, 9.5, 12.2, 12.4, 14.1

BLUE OCEAN IMPACT NAVIGATOR

Keep a look out for the Ocean Impact Navigator launch at ChageNOW 2024 in Paris!

captura



REGENT

Blue Ocean Impact Navigator Dashboard

Sustainably managed ocean resources	A1. Vol. of biomass preserved or restored		**Towards a 1.5C world**	D1. GHG emissions reduced or avoided	A B C
	A2. Vol. of seafood waste reduced			D2. GHG emissions generated	
	A3. Welfare of marine life	**1 2 3**		D3. Carbon sequestered by marine ecosystems	
	A4. Volume of seaweed & biomass produced			D4. NOx emissions mitigated	
A clean ocean	**B1. Vol. micro-plastics diverted**	**1 2 3**		D5. SOx emissions mitigated	
	B2. Vol. macro-plastics diverted		**Climate-resilient coastal communities**	E1. Length of coastline protected	
	B3. Vol. N/P pollution mitigated			E2. Ocean data usage in decision-making	
	B4. Vol. contaminated waste water diverted	**1 2 3**		E3. People supported to adapt to climate change	A B C
	B5. Invasive species reduced or avoided			E4. Food security enhanced	
	B6. Vol. of [antibiotic] pollution mitigated	A B C	**Positive socio-economic outcomes**	**F1. No. jobs created**	**1 2 3**
Thriving and restored marine habitats	C1. Vol. micro-plastics diverted			**F2. No. people completing education / training**	**1 2 3**
	C2. Vol. macro-plastics diverted			**F3. % of women employees (mgmt & non-mgmt)**	**1 2 3**
	C3. Vol. N/P pollution mitigated			**F4. % entry level wage vs. local minimum wage**	**1 2 3**
	C4. Vol. contaminated waste water diverted			**F5. Particulate emission mitigated**	**1 2 3**
	C5. Invasive species reduced or avoided				
	C6. Vol. of [antibiotic] pollution mitigated				

QUEEN OF RAW

Blue Ocean Impact Navigator Dashboard

Sustainably managed ocean resources	A1. Vol. of biomass preserved or restored		**Towards a 1.5C world**	**D1. GHG emissions reduced or avoided**	**1 2 3**
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	B4. Vol. contaminated waste water diverted	A B C		**E3. People supported to adapt to climate change**	**1 2 3**
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	C5. Invasive species reduced or avoided	A B C			
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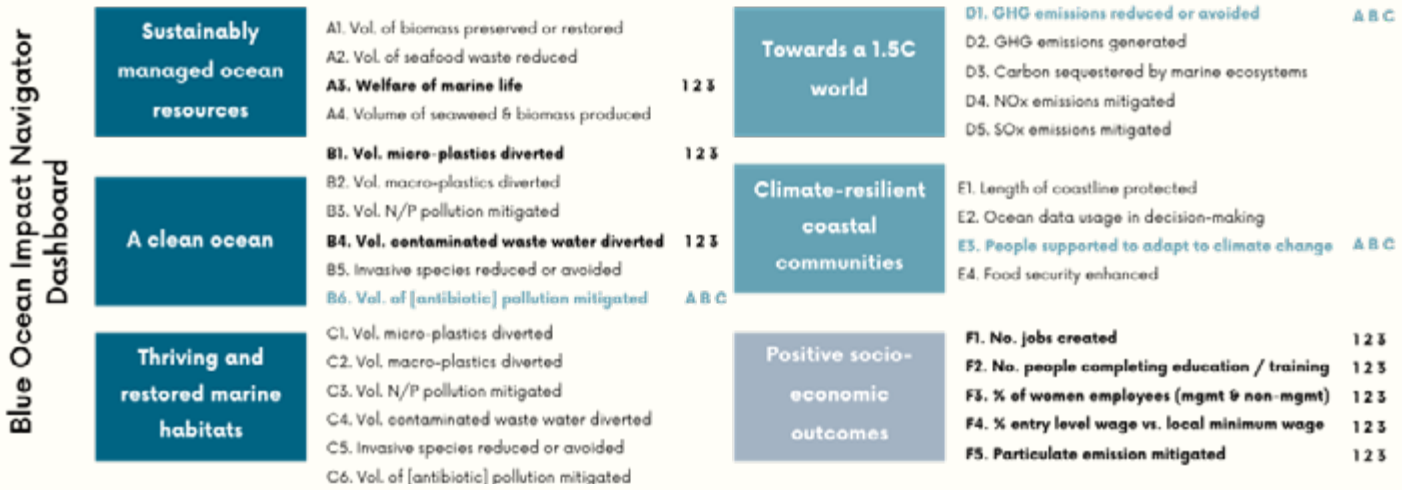
nutri-san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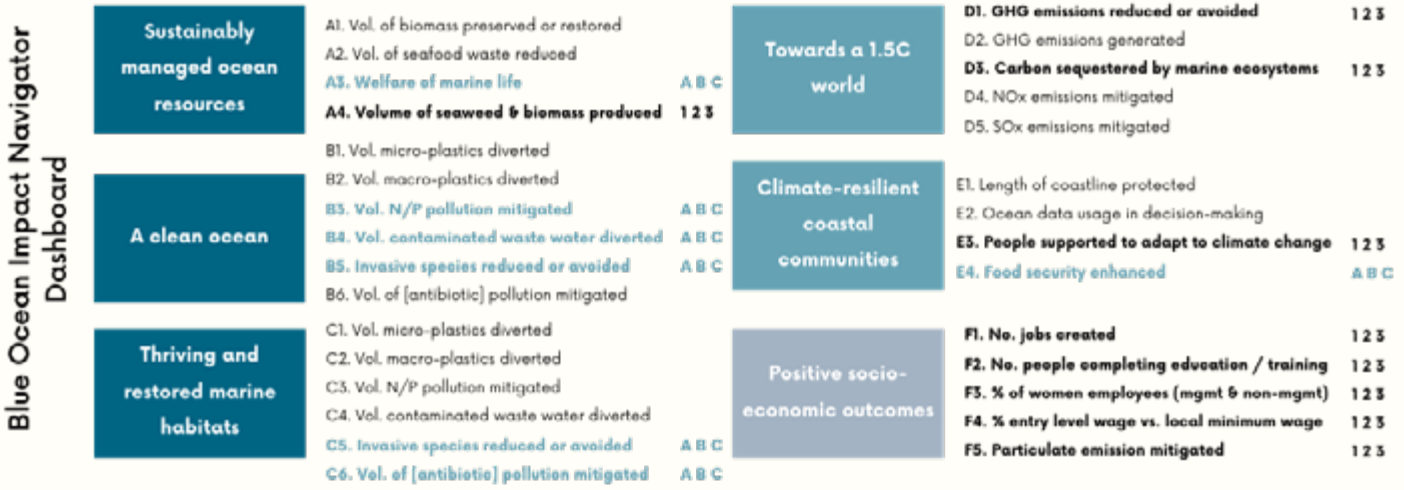
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D2. GHG emissions generated
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F5. Particulate emission mitigated 1 2 3

SUSTAINABLE AND RESILIENT SUPPLY CHAINS

Protecting our food

Twig creates sustainable and environmentally friendly ingredients using a bio-based manufacturing platform. Taking chemicals away from oil-based manufacture and reducing reliance on farming for feedstocks, Twig frees up resources that could be used for food production or returned to nature. With growing populations and consumption patterns wreaking havoc on the environment, engineering biology offers sustainable solutions. Reprogramming microbes allows for the production of everyday ingredients from food industry waste, reducing reliance on fossil fuels and intensive farming. This approach promotes supply chain security, requiring only renewable energy and water.

Twig's AI-guided testing streamlines the process, ensuring efficient decision-making based on vast data sets that are tested simultaneously over countless microbe variations. In the past ten months, Twig has expanded, secured £800,000 in grants and won UK BAA Deep Tech Investment of the Year.

Company:
twig

People:
Russ Tucker, Satnam Surae, James Allen

Founded:
2022, London, UK

Total Raised:
£3m

Last round:
Seed

FPC Team:
Oliver Sexton, UKI2S

Co-investors:
Project A, Seedcamp, Creative Destruction Labs

Impact Value Gap:
$20bn

UN SDGs:
2.1, 2.4, 8.2, 8.3, 8.4, 8.5, 9.4, 12.2, 12.4, 12.5, 12.6, 14.1

> "Through the controlled improvements of food crops we can secure our food's future while preserving fertile land and promoting biodiversity. In developing pest-resistant crops that reduce reliance on harmful chemicals, and on making crops naturally drought resistant, we can nourish both people and planet.

Oliver Sexton

SOLASTA Bio

Nature Inspired

Traditional pesticides have very harmful environmental impacts, killing pollinators, contaminating water, and disrupting ecosystems. SOLASTA Bio offers a nature-inspired solution with neuropeptide-based insecticides that are highly targeted against the crop pest sparing beneficial organisms and ecosystems. Moreover, Solasta's products reduce greenhouse gas emissions due to their highly efficient manufacture.

2023 was a momentous year for SOLASTA Bio, with a successful £4m Pre-Series A raise enabling expansion, creation of 25 jobs and acceleration of technology development. With successful R&D trials, SOLASTA is poised to revolutionise pest control, bringing eco-friendly solutions to market by 2027 - half the time traditionally taken by synthetic pest control products.

Company:
SOLASTA Bio

People:
Shireen Davies, Julian Dow

Founded:
2020, Glasgow, UK

Total Raised:
£5.5m

Last round:
Seed

FPC Team:
Oliver Sexton, UKI2S

Co-investors:
SIS Ventures, SIB, Yield Lab, Scottish Enterprise

Impact Value Gap:
$9bn

UN SDGs:
2.1, 2.4, 8.2, 8.3, 8.4, 8.5, 9.4, 12.2, 12.4, 12.5, 12.6, 14.1

Growing our food

Roslin Technologies leads in supplying cell lines for cultivated protein, revolutionising food production. Cultivated protein offers a sustainable solution, reducing carbon footprint, land usage, and water consumption by over 90%. Roslin's high-quality cell lines are crucial for safe, affordable, and nutritious cultivated meat and seafood, driving a paradigm shift in agriculture and aquaculture.

Roslin Tech is the first company globally to develop pluripotent stem cells from animal livestock breeds that are highly suitable for cultivated meat production. Roslin's innovation garnered a £15m Series A, Scottish Life Sciences Award, and Deloitte 'Rising Star' Award, showcasing their global impact. In December, they joined Scotland's First Minister on a mission to COP28, highlighting their commitment to sustainable solutions.

Company:
Roslin Technologies

People:
Ernst van Orsouw

Founded:
2016, Edinburgh, UK

Total Raised:
£24m

Last round:
Series A

FPC Team:
Guy Pengelley, BIF, Blue Ocean

Co-investors:
Novo Holdings, Kickstart

Impact Value Gap:
$2.3bn

UN SDGs:
2.1, 2.4, 2.5, 8.2, 8.3, 8.4, 8.5, 12.2, 12.3

"Cutting-edge advancements in food production, including innovative techniques like genetic editing and novel protein sources, offer transformative possibilities for ensuring food security and sustainability in the years ahead

Andrew Muir

Tropic

Tropic Biosciences employs advanced gene editing, like CRISPR, to enhance crop resilience, nutrition, and disease resistance, offering sustainable solutions for modern agriculture. Unlike conventional GMOs, their method targets precise genetic changes within a crop's code, yielding natural enhancements with minimal environmental impact.

Focusing on staple crops such as bananas and rice, Tropic ensures food security for vulnerable populations while empowering tropical communities to combat climate change and food insecurity. Their partnerships in 2023, including with Corteva Agriscience, accelerated the development of their GEiGS® platform, combining gene editing and silencing to address agricultural challenges effectively.

Company:
Tropic Biosciences

People:
Shireen Davies,
Julian Dow

People:
Gilad Gershon

Founded:
2016, Norwich, UK

Total Raised:
$73.5m

Last round:
Series C

FPC Team:
Oliver Sexton, UKI2S

Co-investors:
Temasek, ADQ,
Five Seasons,
Blue Horizon

Impact Value Gap:
$34bn

UN SDGs:
2.1, 2.4, 2.5, 8.2, 8.3, 8.4, 8.5, 12.2, 12.3

FULFILLED AND PRODUCTIVE WORKFORCES

A learning journey

With over 100 million forcibly displaced people worldwide and 1.6 million English language learners in UK schools, educators face a unique challenge. Learning Labs addresses this by providing FlashAcademy®, an AI-powered platform assessing and teaching English from 48 languages, helping students excel academically.

FlashAcademy® also lightens teachers' administrative load, demonstrating a 3X faster improvement in English skills for students. Since its inception in 2016, FlashAcademy has secured licensing agreements with over 1,300 UK schools. Expanding internationally, Learning Labs collaborates with school groups in the Middle East, and partners with UK authorities to improve vocational English proficiency for adult learners.

Company:
Learning Labs

People:
Veejay Lingiah,
Richard Allen

Founded:
2007, Birmingham, UK

Total Raised:
£2.85m

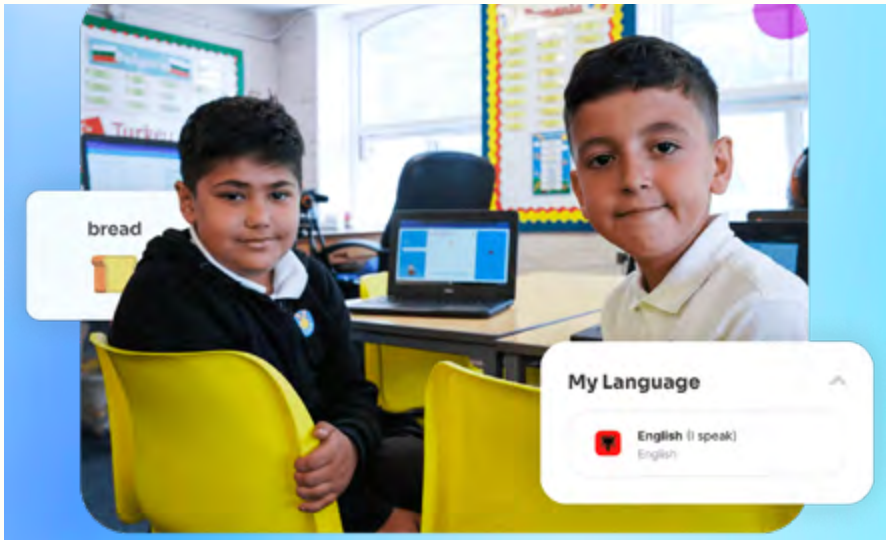
Last round:
Seed

FPC Team:
Andy Bard,
Huw Sparkes,
MEIF

Co-investors:
EALP, Ufi Ventures,
Finance Birmingham

Impact Value Gap:
$53bn

UN SDGs:
4.1, 4.3, 4.4, 4.5, 4.6, 8.2, 8.3, 8.4, 8.5, 10.1, 10.2



> By embracing technology-driven learning initiatives, we can break down barriers to education, promote diverse perspectives, and empower individuals of all ages to actively participate in societal progress.

Rupert Lyle

Learnerbly

Learnerbly revolutionises employee development through its learning marketplace, sourcing content from 250+ trusted providers including books, podcasts, e-learning, and coaching. They offer personalised learning paths, empowering individuals to drive their skill development in a changing world, fostering a culture of continuous learning.

Achieving 95%+ employee activation rates and impressive monthly engagement, Learnerbly counts industry giants like King.com and HelloFresh as clients, earning recognition in G2's 2023 Best Software Awards. Their AI-driven recommendations ensure relevant and engaging content discovery, democratising access to learning and fuelling organisational growth.

Company:
Learnerbly

People:
Rajeeb Day

Founded:
2009, London, UK

Total Raised:
£17.7m

Last round:
Series A

FPC Team:
Lyle Pentith,
Ed Phillips, FP I

Co-investors:
Beringea, London Co-Investment Fund, Playfair Capital, Ufi Ventures

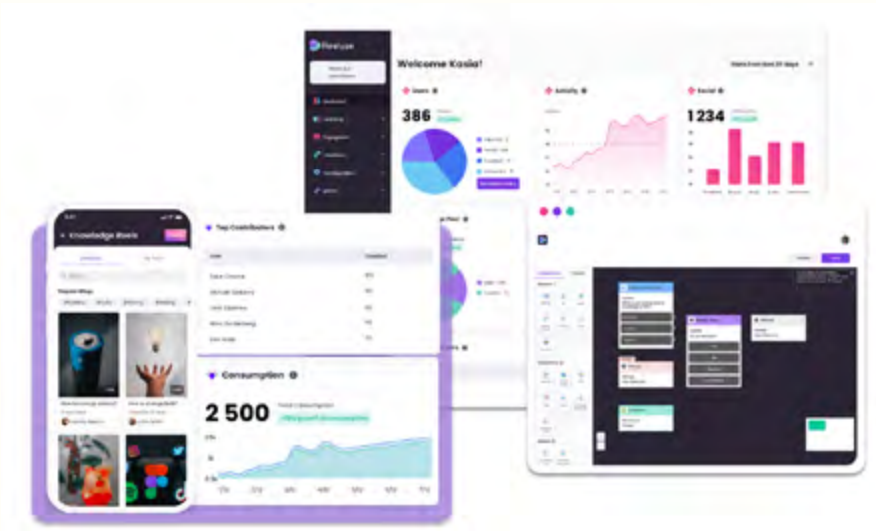
Impact Value Gap:
$36.3bn

UN SDGs:
4.3, 4.4, 4.7, 8.2, 8.3, 8.4, 8.5

Support for all

In response to the global productivity crisis, Reelyze offers a UK-based SaaS platform, providing on-the-go access to vital knowledge and training for the distributed workforce. Only 10% of the global workforce has regular access to a desk and computer, meaning 90% of workers are excluded from learning, development and instant access to critical information.

By digitising employee knowledge into bite-sized courses and using generative AI, Reelyze ensures accessible and engaging learning experiences via mobile-first design and conversational learning. With 65% monthly engagement and 84% learner preference for its approach, Reelyze has earned recognition as a top disruptor in the learning tech market, positioning itself as a leader in addressing the challenges of workforce development in an ever-changing business landscape.



Company:
Reelyze

People:
Paul Putman,
Ben Douglas-Moore,
Jim Chambers

Founded:
2020, Birmingham, UK

Total Raised:
£1.4m

Last round:
Seed

FPC Team:
Andy Bard,
Huw Sparkes,
MEIF

Co-investors:
Mercia

Impact Value Gap:
$20bn

UN SDGs:
4.3, 4.4, 8.2, 8.3, 8.4, 8.5, 10.1, 10.2

> Creating digital inclusivity in the workplace is crucial amidst disruptive industries and ageing populations. Ensuring accessibility and tailored learning opportunities for all backgrounds and ages fosters security and adaptability in evolving job markets, promoting lifelong learning and workforce resilience.

Huw Sparkes

guideline

Guideline simplifies retirement planning with affordable, automated 401(k) plans, eradicating hidden fees and paperwork. Their online platform democratises secure retirement access, especially for those previously hindered by high fees or complex options.

By enabling consistent saving and financial stability, Guideline empowers individuals and communities, facilitating sustainable long-term savings. By the end of 2023, Guideline's streamlined approach attracted over 47,000 businesses, solidifying their leadership in the affordable 401(k) market, with over $12 billion saved for retirement and significantly reduced fee costs.

Company:
Guideline

People:
Kevin Busque,
Mike Nelson,
Jeremy Caballero

Founded:
2015, Austin, US

Total Raised:
$300m+

Last round:
Series E

FPC Team:
Ed Phillips, FP I

Co-investors:
Xfund, Generation,
General Atlantic,
Tiger Global, NEA,
500 Global

Impact Value Gap:
$220bn

UN SDGs:
1.4, 8.2, 8.3, 8.4, 8.5,
10.1, 10.2

HEALTHY AGEING POPULATIONS

Defeating degenerative diseases

MitoRx Therapeutics leads in developing mitochondrial-modulating medicines for degenerative diseases, notably severe muscular dystrophy. It's breakthroughs target mitochondria directly, offering a transformative approach to halt muscle damage.

Compared to biologic based treatments MitoRx' small molecules have highly cost-efficient manufacturing and much simpler dosing, potentially improving patient compliance. Looking forward, MitoRx aims to address various muscle-related disorders and neurodegenerative diseases, including frailty-associated sarcopenia and brain-related conditions.

Company:
MitoRX

People:
Jon Rees,
Norman Law

Founded:
2021, Oxford, UK

Total Raised:
£4.3m

Last round:
Seed

FPC Team:
Oliver Sexton,
UKI2S

Co-investors:
Wren Capital,
Oxford Capital,
Fink Family Fund

Impact Value Gap:
$2bn

UN SDGs:
3.4, 3.8, 8.2, 8.3, 8.4, 8.5, 9.5

"From cutting-edge gene therapy to innovative physical therapy techniques, new technologies are unlocking the potential to combat degenerative diseases like muscular dystrophy and Parkinson's Disease, offering hope for improved treatments and better quality of life for patients.

Hassan Mahmudul

Strolll's Reality DTx software for augmented reality glasses transforms Parkinson's Disease rehabilitation, offering personalised sessions at home, easing strain on healthcare systems, and showing tangible improvements within weeks. Beyond physical therapy, the software encourages users to adopt more movement, promoting overall well-being and addressing Parkinson's, one of the fastest-growing neurological disorders globally.

With regulatory approvals in the UK, EU and US, and a clinical feasibility study in Amsterdam showcasing promising results for 24 patients, Strolll's innovative solution is being recognised for its game-changing potential in neurological rehabilitation and beyond.

Company:
Strolll

People:
Jorgen Ellis

Founded:
2019, Staffordshire, UK

Total Raised:
£7m

Last round:
Seed

FPC Team:
Huw Sparkes, MEIF

Co-investors:
Martlet Capital, SFC Capital

Impact Value Gap:
$3bn

UN SDGs:
3.4, 3.8, 8.2, 8.3, 8.4, 8.5, 9.5, 10.2

Novel therapeutics

Barinthus Biotherapeutics, formerly Vaccitech, made waves with its COVID-19 vaccine, saving 6.3 million lives in the first year of AstraZeneca's roll out during the pandemic. Now, its focus extends to combating chronic viral infections like MERS with innovative T cell immunotherapies. These treatments not only directly target viruses but also train the immune system for lasting protection, promising hope beyond the pandemic's shadow.

Barinthus Bio aims to create a future where communities are healthier and medical burdens reduced. Early trials of their MERS vaccine show huge promise, with CEPI and the University of Oxford accelerating the development of their MERS vaccine, VTP-500, from early stages to phase 2 clinical trials.

Company:
Barinthus Biotherapeutics (formerly Vaccitech)

People:
Adrian Hill, Sarah Gilbert

Founded:
2016, Oxford, UK

Total Raised:
$217m

Last round:
IPO (Public)

FPC Team:
Ed Phillips, Lyle Pentith, FP I, CR I

Co-investors:
M&G, OSI, Tencent, Gilead, Sequoia Capital, Google Ventures

Impact Value Gap:
$2.1tn

UN SDGs:
3.3, 3.8, 3.b, 8.2, 8.3, 8.4, 8.5, 9.5

"From vaccines to diabetes treatments, advanced therapeutics are reshaping healthcare, targeting both communicable and non-communicable diseases with precision and innovation, for better global health outcomes.

Lyle Pentith

Laverock Therapeutics

Laverock Therapeutics pioneers a gene silencing platform, GEiGS®, for advanced human therapeutics. Uniquely it can partially up or down regulate RNA signalling and allows the fine control of engineered cells for cancer and inflammatory disease applications.

In 2023, Laverock secured £13m funding, including an Innovate UK grant and investor partnership with UKI2S and backing from Eli Lilly. With this investment it will advance treatments for Type 1 Diabetes and solid tumours via immune-directed therapy, promising tailored and effective treatments.

Company:
Laverock

People:
David Venables

Founded:
2021, Stevenage, UK

Total Raised:
£13.5m

Last round:
Seed

FPC Team:
Oliver Sexton, UKI2S

Co-investors:
Calculus, Maven Capital Partners, Tekfen, Lilly, Mercia

Impact Value Gap:
$20bn

UN SDGs:
3.4, 3.8, 8.2, 8.3, 8.4, 8.5, 9.5

Engineering tomorrow's labs

Attomarker's nanotechnology, a patented biophotonic sensor array, revolutionises diagnostics by swiftly measuring multiple biomarkers from tiny samples. Their flagship product, the Liscar 6, offers rapid results within minutes, performing up to 20 tests in 7-10 minutes across various medical conditions.

Poised to transform healthcare, Attomarker has developed an Infection Chip for sepsis and antibiotic resistance, ranked among the top five global companies by the World Health Organisation. Addressing Long Covid, they offer a diagnostic-to-therapeutic pathway, including a Covid-19 Antibody Immunity Test, alongside advancements in Alzheimer's Disease and brain injury diagnostics. Attomarker's portable devices democratise access to accurate healthcare, enabling early intervention and enhancing population health, particularly in remote areas.

Company:
Attomarker

People:
Andrew Shaw

Founded:
2008, Exeter, UK

Total Raised:
£6m

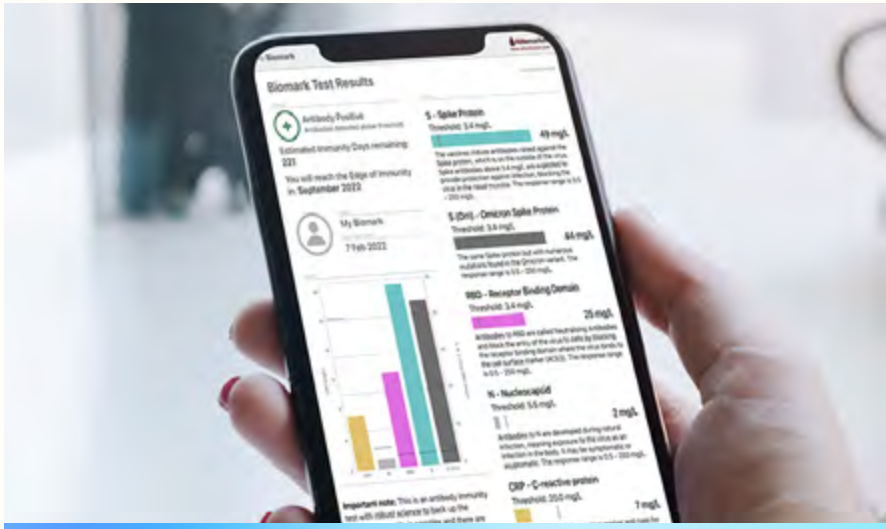
Last round:
Seed

FPC Team:
Guy Pengelley, BIF

Co-investors:
Innova Medical Group.
EIC Fund

Impact Value Gap:
$42.3bn

UN SDGs:
3.4, 3.8, 8.2, 8.3, 8.4, 8.5, 9.5



> "Developing next-generation lab tools, for drug discovery to diagnostics, holds the promise of revolutionising biomedical research, enhancing efficiency, accelerating therapeutic development, and improving patient outcomes through precision diagnostics and tailored treatments.

Phoebe Seltzer

nuclera

Nuclera's desktop bioprinting technology, eProtein Discovery™, revolutionises protein production, enabling rapid synthesis and purification of high-quality proteins on researchers' bench-tops. This innovation accelerates drug development by overcoming conventional method limitations, saving time and resources.

Shortening screenings to 48-hours, with 100% better success rates, Nuclera's technology opens doors to previously inaccessible proteins, promising breakthroughs in personalised medicine. With a successful Innovate UK Biomedical Catalyst grant secured in collaboration with DeepMirror, Nuclera is poised to dominate the market, reducing laboratory space requirements and waste while advancing AI-enabled drug discovery.

Company:
Nuclera

People:
Michael Chen, Jiahao Huang, Gordon McInroy

Founded:
2013

Total Raised:
$83m

Last round:
Series B

FPC Team:
Lyle Pentith, RT I & II

Co-investors:
Amadeus, M&G, G.K.Goh Holdings

Impact Value Gap:
$47bn

UN SDGs: 3.3, 2.8 8.2, 8.3, 8.4, 8.5, 9.5

ADVANCED TECHNOLOGIES

Enabling circular industry

Pragmatic

The semiconductor industry grapples with intricate challenges: global supply chain complexities, high emissions, and extended production cycles. Pragmatic's non-silicon chips offer an eco-friendly alternative, slashing production time to two weeks, emitting 100 times less CO2 and 100 times less water than traditional fabs. Prgamatic's open design toolkit and Fabs-as-a-Service model foster innovation and ensure just-in-time production, mitigating supply chain vulnerabilities.

With the largest European semiconductor funding round at $231m, Pragmatic is poised for continued growth in 2024, advancing their mission to revolutionise chip manufacturing.

Company:
Pragmatic Semiconductors

People:
David Moore, Scott White, Richard Price

Founded:
2010, Cambridge, UK

Total Raised:
£305m

Last round:
Series D

FPC Team:
Guy Pengelley, BIF, FP I

Co-investors:
M&G, UKIB, Northern Gritstone, BPC, Amcor, In-Q-Tel, CIC, Arm

Impact Value Gap:
$24bn

UN SDGs:
3.8, 8.2, 8.3, 8.4, 8.5, 9.4, 9.5, 12.4

> "Advances in technology are facilitating the development of next-generation circular industries, poised to revolutionise future sectors and manufacturing by optimising resource use and minimising waste.

Guy Pengelley

Productive Machines

Productive Machines, a University of Sheffield AMRC spin-off supported by the ATI Boeing accelerator, transforms machine tool efficiency. Their digital twin tech optimises manufacturing, eradicating chatter vibrations and the need for maintenance, ensuring top-notch part quality. Chatter, a persistent machining problem, disrupts operations, causing slower cycles, more waste, and surface flaws, with significant environmental and operational consequences.

With around four million CNC machines globally consuming substantial energy, efficiency is crucial. Productive Machines' solution, used by Renault and MASA Aerospace, enhances efficiency and sustainability resulting in a 110% productivity boost and up to 25% lower energy costs for Ficep UK. This innovation could cut carbon emissions by 2.5Gt by 2050, akin to six years of UK CO2 emissions.

Company:
Productive Machines

Total Raised:
£1.6m

Co-investors:
ACT, Fuel Ventures, Mercia

People:
Erdem Ozturk,
Huseyin Celikag

Last round:
Seed

Impact Value Gap:
$4bn

Founded:
2019, Sheffield, UK

FPC Team:
Alex Leigh, UKI2S

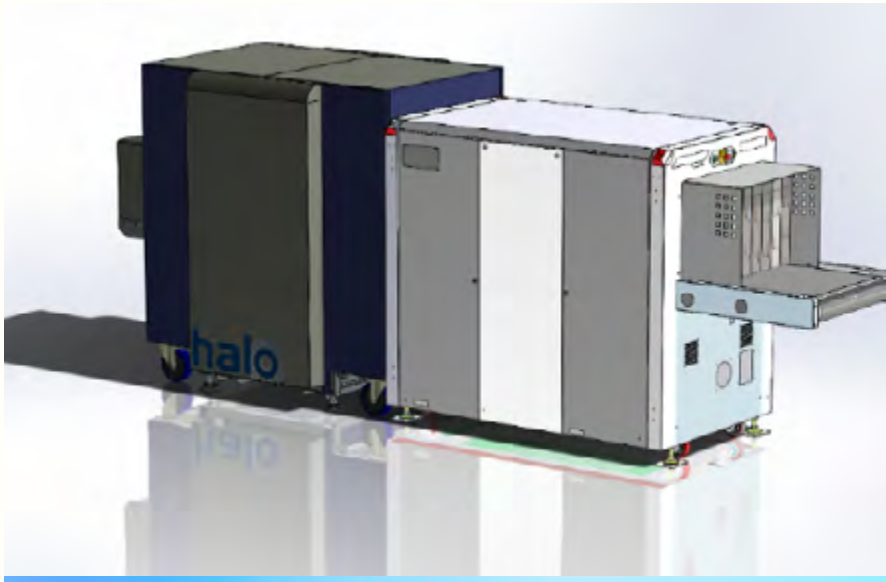
UN SDGs:
8.2, 8.3, 8.4, 8.5, 9.4, 9.5, 12.5, Indicator 13.2.2

Next-gen imaging

HALO, the sole provider of commercially viable XRD technology for aviation security, introduces non-destructive, through-barrier inspection.

This enhances passenger safety at critical checkpoints, with pilot lanes deployed at Copenhagen and Amsterdam airports. In partnership with Analogic, HALO's systems are undergoing European regulatory approval for global sales, addressing challenges such as the UK's £19.3bn annual cost of illicit drug use. HALO's technology, validated at Boston Logan Airport, drastically reduces false alarms, minimises staff needs, and fills capability gaps exploited by illicit trafficking.

With trials in the UK, EU Horizon 2021 program participation, and collaboration with the US Government, HALO promises a global impact.



Company:
Halo X-Ray

People:
Simon Godber,
Keith Rogers,
Paul Evans

Founded:
2012, Nottingham, UK

Total Raised:
£4m

Last round:
Series A

FPC Team:
Andy Muir, UKI2S;
Andy Bard, MEIF

Co-investors:
Agilent, White House

Impact Value Gap:
$1bn

UN SDGs:
8.2, 8.3, 8.4, 8.5, 9.5, 11.2, 16.1, 16.4

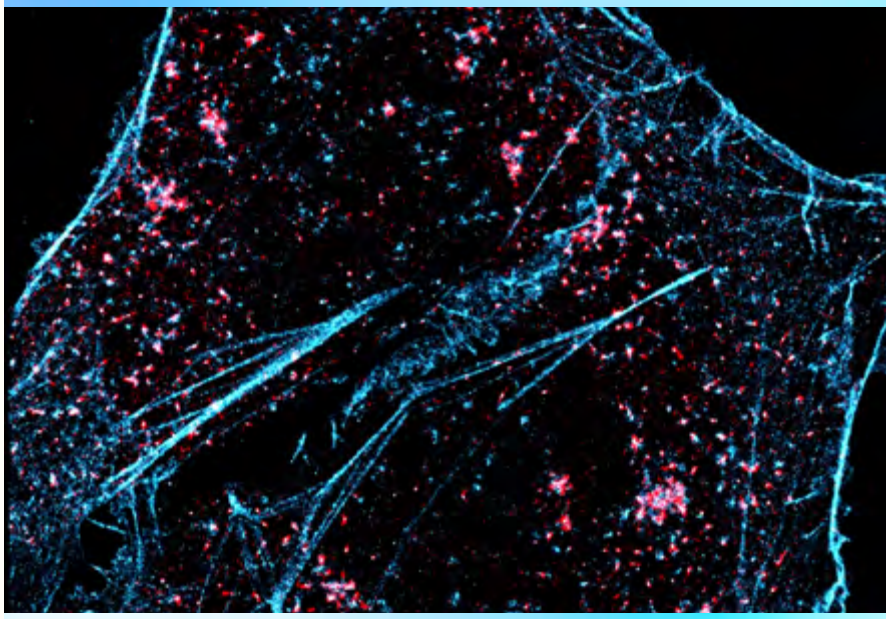
> "Enhanced imaging capabilities, ranging from X-ray to nanometre-level resolution, hold profound implications across diverse fields, be it stopping trafficking or identifying tumours.

Sakura Holloway

ONi

Recent 'super-resolution' microscopy advancements, like Oxford Nanoimaging's (ONI) Nanoimager, enable researchers to observe molecular interactions within living cells. The Nanoimager, the world's first desktop-sized super-resolution microscope, utilises lasers and fluorescence techniques to illuminate individual molecules with remarkable clarity, discerning objects just 20 nanometers apart. This technology facilitates real-time observation of cellular processes, including DNA processing, revolutionising drug discovery.

ONI's tools, including the ONI Discovery Kit™: dSTORM and ONI Training Kit™: dSTORM, democratise super-resolution microscopy, empowering researchers globally. With insight into cellular and molecular dynamics, ONI offers significant advancements in disease detection and treatment through improved drug screening and biosensor development.



Company:
Oxford Nano-Imaging

People:
Bo Jing,
Achilles Kapanidi

Founded:
2010, Oxford, UK

Total Raised:
£84m

Last round:
Series B

FPC Lead:
Lyle Pentith, RT I

Co-investors:
Arch Venture Partners, Casdin Capital, Artis Ventures, OSE, Axon

Impact Value Gap:
$46.4bn

UN SDGs:
3.4, 3.8, 8.2, 8.3, 8.4, 8.5, 9.5

Mammoth and minute scale

The UK's space industry drives economic growth, supporting various sectors and benefiting citizens, businesses, and public services. Satellite services alone contribute over £370 billion to the economy, around 18% of the GDP, and aid activities such as maximising crop yields and maritime navigation.

Oxford Space Systems (OSS) plays a vital role with compact, deployable antennae, made possible through innovative designs and agile development. These antennae enable smaller and more affordable satellites, promoting wider access to space for applications including environmental monitoring. OSS's new composite manufacturing facility in Oxfordshire further enhances their capabilities, while their commitment to gender equality is evident through their participation in the Women in Aviation & Aerospace Charter.

Company:
Oxford Space Systems

People:
Sean Sutcliffe,
Matthew Dreaper

Founded:
2013, Oxford, UK

Total Raised:
£16.5m

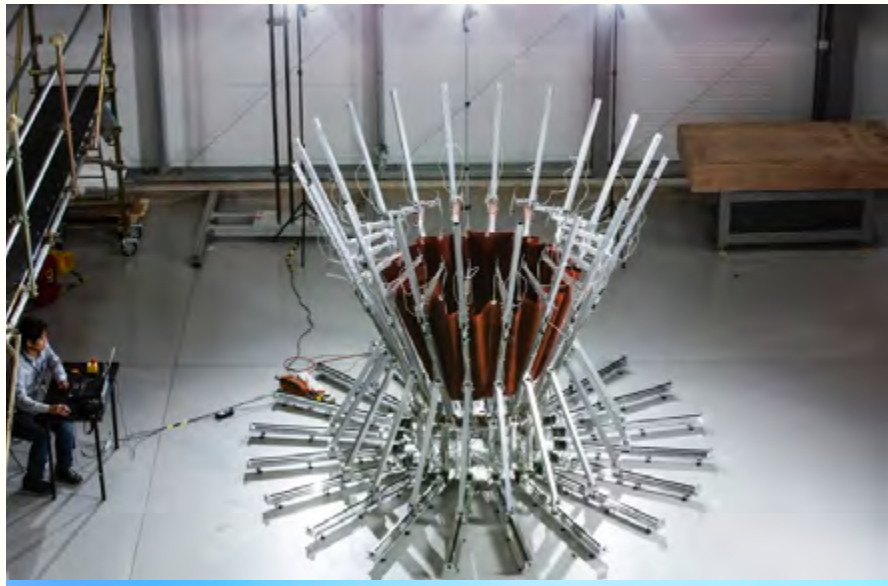
Last round:
Series A

FPC Team:
Alex Leigh, UKI2S

Co-investors:
Longwall Venture Partners, IQ Capital, Foresight Williams, Wren Capital

Impact Value Gap:
$38bn

UN SDGs:
8.2, 8.3, 8.4, 8.5, 9.4, 9.5, 16.10



"Innovative Deep Tech is propelling us into uncharted territories, offering deeper insights into our own planet and those around us, revolutionising our understanding of space and systems.

Alex Leigh

Silicon Microgravity (SMG) has pioneered resonant MEMS technology for motion and gravity markets globally, focusing on compact, high-performance accelerometers and gyroscopes. Their MEMS gravimeters record gravitational acceleration with microGal sensitivity (the order of one part per billion of the nominal value of Earth's gravity), enabling applications in defence, aerospace, and robotics. Integrating MEMS into inertial navigation systems offers tactical-grade solutions. SMG's technology finds diverse applications, from detecting subsurface tunnels to monitoring gravitational changes, with implications for protecting energy infrastructure and combating illegal activities.

Company:
Silicon Microgravity

People:
Francis Neill, Colin Baker, Ashwin Seshia

Founded:
2014, Oxford, UK

Total Raised:
£7.4m

Last round:
Series A

FPC Lead:
Alex Leigh, UKI2S

Co-investors:
Oxford Innovation Finance

Impact Value Gap:
$24bn

UN SDGs:
8.2, 8.3, 8.4, 8.5, 9.4, 9.5, 12.2, 13.2

FPC and ESG

ESG Steering Committee

In supporting the next generation of transformative companies that will impact countless lives, we understand the significance of establishing strong and reliable foundations. ESG factors lie at the core of impact investing, guaranteeing that our investments align with sustainable principles - always mindful of environmental, social and corporate governance parameters.

Understanding our own business

FPC has partnered with Plan A, a TÜV-certified ESG provider, to bolster our commitment to sustainability. This powerful collaboration allows FPC to conduct comprehensive Scope 1 - 3 emissions calculations for the FPC group, paving the way for informed and strategic decisions. By partnering with Diversity VC, and committing to the Diversity VC Standard, we aim to take significant steps to promote diversity and inclusion within the industry. As a signatory to the UN PRI and Investing in Women Code we reflect annually on how best to invest responsibly and equitably and we will be following closely the developments surrounding the Financial Conduct Authority's Sustainability Disclosure Requirements (SDR).

Empowering portfolio companies

FPC is deeply invested in empowering its portfolio companies. Through collaborative efforts with Plan A and Horizon 37, we have hosted value-add sessions focusing on emission management and governance. These sessions equip portfolio companies with knowledge and tools needed to tackle crucial challenges. We remain committed to enhancing our approach and will be issuing a new ESG and Impact Term Sheet Clause in 2024. This provides the framework to enable companies to think about, measure and manage impact and ESG factors across all funds and at every stage. FPC engages actively with the governance practices of its portfolio companies, holding 17 non-executive director (NED) seats. Historically, a further 24 NED seats, and over 120 observer roles, have been held with more than 50 NEDs and chairs introduced to portfolio companies. FPC's internship programme has provided work experience to 100+ students, generating a pipeline of talent for the impact and venture industries. 11% of interns that have since left university have taken up positions at impact VC firms, and 24% work at impactful start-ups.

Fostering a culture of responsibility

FPC's dedication to ESG is further evidenced by the establishment of our ESG Steering Committee, representing the entire FPC group. This committee ensures that ESG considerations are integrated into every aspect of the firm's operations. FPC has also made public commitments to ESG, responsible investment, net zero, diversity, inclusion, and equal opportunities, showcasing our unwavering dedication to societal and environmental progress. See details on our website.

1000 OCEAN STARTUPS

DIVERSITY VC

IMPACT VC

INVESTING IN WOMEN CODE

bvca Member Firm

Signatory of: PRI Principles for Responsible Investment

WORLD ECONOMIC FORUM

uplink

invest in women hub

SUPPORTER OF THE TERRA CARTA *For Nature, People & Planet*

SUSTAINABLE DEVELOPMENT GOALS

LOOKING FORWARD

With Lord Nat Wei, of Shoreditch

As an Advisory Board Member to Future Planet Capital, I am thrilled to welcome our 2023 Impact Report. This document is not just a testament to the financial success and value of FPC's portfolio companies; it is a celebration of the tangible and beneficial impacts these companies are having on some of the world's most pressing challenges.

From tackling MERS to absorbing carbon using the power of the ocean, this report documents the real-world progress in critical areas such as healthcare, education, financial security and climate change being made by hundreds of companies. Beyond mere greenwashing exercises that seek to present 'business as usual' in a positive light to attract investment, FPC investee companies are making genuine strides in saving lives, combating disease, enhancing educational outcomes, creating secure financial futures and actively fighting against climate change. Their innovations validate an approach that seeks to tackle problems head on, based on the thesis that solving complex challenges will attract paying customers who want to see those issues addressed in their lives, sectors, and nations - and creating value in the process.

Our previous 'Wei Forward' reports have underscored the growing recognition of impact-oriented ventures as an increasingly mainstream activity in the UK, US, and across the globe. This burgeoning sector, with support from governments and regulators, is increasingly seen as a legitimate category of alternative investment deserving of institutional and sovereign investor attention.

This year, as venture capital faces scrutiny over the financial value of its portfolios, impact VCs like FPC are under the microscope to demonstrate the tangible and positive changes created by their investments. The regulatory landscape is now driving impact VCs to prove the real-world efficacy of their companies. This is evident in the need to transition to a more impactful world without imposing greater financial pressure on people already facing the costs resulting from the Covid pandemic, war in Ukraine and Gaza, and inflation. FPC remains optimistic about the potential for demonstrating impact. New platforms for measuring impact in real-time are emerging. Innovations harnessing digital ledgers, technology integration and satellite monitoring, coupled with light-touch regulation, promise greater accountability and transparency. This paves the way for the creation of primary and secondary markets based on impact or outcomes, similar to the carbon market, but extending into other social and governance domains.

The Future Planet Capital Impact Report 2023 is not just a reflection of where we are today, but a beacon for what we can achieve tomorrow. It represents a commitment not only to financial excellence but to societal and environmental responsibility. As we navigate these challenging but exciting times, our focus remains steadfast on investing in and nurturing ventures that promise not just economic returns, but a better and more sustainable future for all.

CONTACT US

For any further information regarding Future Planet Capital, please contact **Jess (j.hill@futureplanetcapital.com)** and **Malika (m.arshad@futureplanetcapital.com).**

Jess Hill
Head of Investor Relations

Malika Arshad
Business Development Associate

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