

# British Innovation Fund

For discussion purposes with Professional Investors only





1Q 2020

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• Seeking investment for the British Innovation Fund

- Looking for investments of £5m-£25m ability to shape individual portfolio at the higher end
- Opportunity to invest in cutting edge spin-outs emanating from leading UK university research
- Spin-out companies already incubated British Innovation Fund acts as an accelerator

## Current investor universe UK pension schemes HNW individuals

#### **Target investor universe**

UK pension schemes Sovereign wealth funds Family offices HNW individuals





#### **EXECUTIVE SUMMARY** Milltrust International

# Milltrust International Group ("Milltrust"):

- Leading UK and Singapore-based investment group
- Founded in 2010 by experienced team of institutional investors
- Focussed on sustainable investing











Provider and investment manager for a range of sustainable investment solutions centred around:

- Global Emerging Markets;
- Agriculture farmland;
- Science, technology & innovation; and
- Sustainable impact investments



Note: <sup>1</sup>Morningstar, the FT and Bloomberg since strategy inception in July 2012 Credit: Icons made by Freepik, monkik and mavadee from www.flaticon.com





#### **EXECUTIVE SUMMARY** MAI overview



Milltrust Agricultural Investments ("MAI") is the advisor to Milltrust International Managed Investments ICAV Australia and New Zealand Buy & Lease Farmland Funds; and the British Innovation Fund





The farmland funds are focussed on **agricultural investments in the southern hemisphere**. The approach capitalises on the changing demographics of the developing world, aiming to provide investors with an **income generating**, **inflation adjusted**, **long duration investment** that is **lowly correlated with other asset classes**  The investment universe for the British Innovation Fund ("BIF") is **university commercialisation companies** and **spin-out companies** emanating from UK **universities**. The fund has specific expertise within the areas of **agricultural technologies, biotechnology, deep tech** and **life sciences** 





The investment team has an average of **20 years' investment management experience** and consists of **knowledgeable investment specialists** and **agricultural** and **scientific experts**, comprising an executive management team as well as a panel of advisors



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#### **EXECUTIVE SUMMARY** History of MAI and the BIF

Milltrust mandated for capital raising and agricultural acquisition advice between 2011-2015

MAI founded in 2015, followed by Australia and New Zealand farmland funds

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Led to greater focus on Agriscience within Milltrust and MAI Creation of BIF in 2017; and founding investor in Roslin Technologies

Recognition of wider opportunity to invest in science and technology – British Innovation Fund created to pursue these opportunities





#### **EXECUTIVE SUMMARY** BIF to date

# Areas of speciality

Agricultural **Biotechnology Technologies Life Sciences Deep tech** 

### **Key strengths**

Distinct investment universe identified, supporting **healthcare** and **technology** focussed spin-outs

Extensive relationships built with the following across the UK:

- University research centres;
- University commercialisation companies and incubators;
- University spin-out networks;
- Angel investor groups; and
- Venture capital investors.

Invested in Roslin and OSI alongside the likes of Lansdowne Partners; Blue Pool; IP Group; JB Equity; Temasek; and Wellcome Trust

The spin-out space is receiving serious investment – since 2015 Milltrust has built a unique position to maximise the significant opportunities on offer through the BIF

Credit: Icons made by smalllikart, Eucalyp and Freepik from www.flaticon.com





#### **EXECUTIVE SUMMARY** Core team



Griff Williams, CFA CEO & CIO, Milltrust Agricultural Investments

- Primarily responsible for advising Milltrust International, the investment manager, on the British Innovation Fund and the MAI Buy & Lease Funds
- Previously Head of Europe and interim CEO at Itau Asset Management in London



Simon Hopkins CEO & Founder, Milltrust International Group

- Senior figure in the investment management industry for more than three decades
- Founded Fortune Group, a multi asset class advisory firm which was sold to Close Brothers Group plc in 2006, following senior roles at UBS, HSBC and Nomura



Guy Pengelley Investment Director, British Innovation Fund

- Primarily responsible for developing the British Innovation Fund
- Previously worked in corporate finance at Peel Hunt, having completed the ACA qualification at Deloitte within Financial Advisory





#### **EXECUTIVE SUMMARY** Core team



Alexander Kalis Managing Partner, Milltrust International Group

- Head of Investments and Senior Portfolio Manager for the MAI Buy & Lease Funds and the British Innovation Fund
- Nearly two decades of experience at top-tier asset management firms including Edmond de Rothschild Asset Management and Santander Asset Management

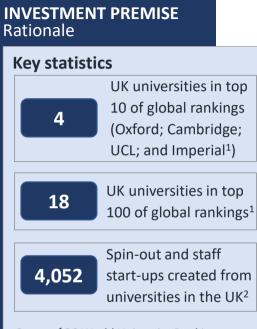


Gary Thornton Head of Finance and Operations, Milltrust International Group

- Accounting and finance professional with over two decades of experience
- Previously Head of Finance and Operations within the institutional team at Close Asset Management having been Finance Director at Fortune







Source: <sup>1</sup>QS World University Rankings 2020; and Higher Education Business; <sup>2</sup>Community Interaction (HEBCI) surveys 2002/03 - 2017/18

# British Innovation Fund ("BIF") rationale

UK universities struggling to raise capital to commercialise world class research

BIF provides capital to support early stage spin-out companies through investment via:

- University commercialisation companies and university incubators; or
- Directly into spin-outs.

Spin-outs must have a viable commercial business and generate revenue

Advanced ideas reside in academia – incubators search these out and come to us for acceleration funding once proven





#### **INVESTMENT PREMISE** Rationale

#### Five year survival rates:

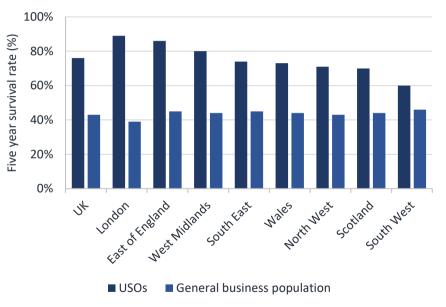
43% for general population of new enterprises in the UK versus 76% for university spin-outs<sup>1</sup>

USO<sup>2</sup> survival rate data differs<sup>3</sup>, but remains ahead of the ONS survival rate for the general business population:

- Spinouts UK 60%
- USO database 61%
- Gateway to Research 75%
- Beauhurst 88%

Note: <sup>1</sup>Office for National Statistics; <sup>2</sup>USO = University spin-out ; and <sup>3</sup>Overall survival rates for USOs, incorporated up to 2015.

# Spin-outs outperform the broader start up universe



Source: 'Developing University Spinouts in the UK': Technical Note for Research England, July 2019 Note: USOs incorporated in 2014, General business population incorporated in 2012





#### **INVESTMENT PREMISE** Origination

# Incubators and University Commercialisation Companies ("UCCs")

- University bring IP / commercial ideas to the UCC and incubators
- Experienced teams at the UCC and incubators invest into most promising and share with the BIF
- BIF team and advisory committee assess recommendations before deploying capital
- Additionally, UCCs and incubators provide mentorship to spin-outs

# University investment network

- University networks host monthly investment and networking events
- Correspondence showcasing promising companies outside of these events
- Access to online platform with all spin-out investment opportunities

# Investor network of angels and VCs

- Frequent communication with other investment professionals, sharing ideas and opportunities
- BIF able to participate in both initial and subsequent rounds
- Key relationships:







#### **INVESTMENT PREMISE** Investment universe

- Scottish Universities
- N8 Research Partnership
- Midlands Innovation
- SETsquared Partnership
- 🔺 Golden Triangle

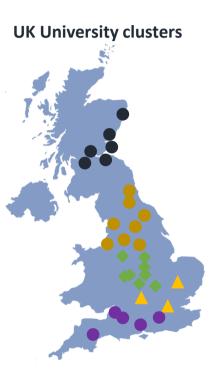
Membership of key networks:

Minerva

MICRA

**Cambridge Capital Group** 

London Technology Club



Aberdeen, Dundee, Edinburgh, Glasgow, St Andrews & Stirling

Durham, Lancaster, Leeds, Liverpool, Manchester, Newcastle, Sheffield and York

Aston, Birmingham, Cranfield, Keele, Leicester, Loughborough, Nottingham and Warwick

Bath, Bristol, Exeter, Southampton and Surrey

Universities located in the cities of Cambridge, London and Oxford





#### **INVESTMENT PREMISE** Portfolio structure

# Top 10 holdings

- #1 Attomarker
- #2 Pragmatic Printing
- **#3** Evox Therapeutics<sup>2</sup>
- #4 Osler Diagnostics<sup>2</sup>
- **#5** Oxford Nanoimaging<sup>2</sup>
- **#6** Vaccitech<sup>2</sup>
- **#7** Diffblue<sup>2</sup>
- **#8** Ultromics<sup>2</sup>
- **#9** YASA Motors<sup>2</sup>

**#10** Oxmet Technologies<sup>2</sup> Note: <sup>1</sup>Ranked by value as at 31 December 2019; and <sup>2</sup>Indirect holding

### **Direct investments**

# UCCs and Incubators:



# **Tailored portfolios**

- Portfolio reflects current investor requirements
- £5m-£20m investment augments construction of targeted portfolio weighting of:
  - 65-75% spin-outs, spread across 10-20 investments; and
  - 25-35% UCCs and incubators.
- £20m+ investment can be structured as separate vehicle with bespoke portfolio

Source: OSI unaudited accounts as at 31 December 2019; and BIF unaudited NAV calculation as at 31 December 2019





# **INVESTMENT PREMISE** Targeted portfolio

Current portfolio					Targeted por	tfolio construction
Company	Cost	Current valuation	Movement	Exposure	Spin-outs 65-75%	Incubators and UCCs 25-35%
ROSLIN Technologies	£10.0m	£15.0m	+50%	5 business units		
OSI	£4.1m	£4.1m	-	78 spin- outs	Ticket size	
	62.0.4	62.0.4		-	Initial spin-out	£1.0m-£2.5m
<b>Λttomarker</b>	£3.0m	£3.0m	-		Follow-on	£2.5m-£4.0m
Des services to the	£2.0m	62.0.4	. 420/	2% –	UCCs	£2.0m
PragmatiC		£2.9m	+42%		Incubators	c.£2.0m per project

Source: BIF unaudited NAV calculation as at 31 December 2019





#### **INVESTMENT PIPELINE** Approach

#### Selection:

Rigorous selection criteria & due diligence process.

Final sign-off required by specialist experts on the Investment Advisory Committee

**Targeted investment rounds**: Seed; Series A; or Series B

**BIF funding post-initial investment**: Either supported by the BIF and / or marketed to our network of similar VC investors

# Sourcing of opportunities and target performance

- Network of universities, UCCs and VCs regularly sharing interesting investment prospects
- Opportunities analysed to ensure they fit to key themes: agriscience and sustainability, health improvement, clean energy
- Are companies aligned to universities with pioneering speciality?
  - Edinburgh agri-science
  - Oxford science and healthcare
  - Cambridge life sciences and technology
- Follow up meetings with most promising companies

**Target IRR of 20%**, including dividend payments from portfolio companies and significant capital appreciation

Exit strategy: longer term investors, plan to exit after 5-8 years via trade sale; sale to private equity; or IPO





#### **INVESTMENT PIPELINE** Live discussions

# Healthcare

- Surrey University spin-out
- Founder has 2017 Women-in-Innovation award
- Patented device accurately measures radiation levels inbody during radiation therapy, reducing patient damage
- Close to regulatory approval
- Due for commercialisation in late 2020 with **hospitals signed-up**
- Other uses beyond healthcare

# Agri-tech

- Oxford University spin-out
- Agriculture technology company working to revolutionise the market for animal feed protein
- Developing cutting-edge growing systems to grow a soybean meal replacement crop
- Technology builds upon recent progress in vertical farming and horticulture systems, allowing efficient, reliable production

# Agri-tech

- Newcastle University spin-out
- Exclusive license for world-class agri-tech and IP from Newcastle University
- Designs innovative agridiagnostic products for on-farm crop efficiency and animal health management
- Three projects with potential sales of c.£100m p.a. in 5-10 years

#### Selected opportunities from exciting pipeline of near-term investment prospects





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#### **INVESTMENT PIPELINE** Longer term opportunities

# **Bio-tech**

- Oxford University spin-out
- Proprietary protein superglue technology to **develop vaccines**
- Applicable to wide range of diseases
- Exclusive license from Oxford University and other patents filed
- Supported by OSI and Google Ventures

# Deep Tech

- Oxford University spin-out
- First and only player to aggregate genetic data on a global level
- Target customers are researchers, pharma and direct-to-consumer genetic testing companies
- Gifted team of scientists; a 2019 Forbes Asia 30-Under-30 winner; and a former Microsoft executive
- **Top 10** Innovative Blockchain Start-ups to watch in 2019

# Agri-tech

- Cambridge University spin-out
- Experienced team of scientists with **prior spin-out experience**
- Solution to plastic waste a natural alternative to plastic created from plant protein
- Patented products are entirely biodegradable
- High performance plant protein materials offer a potential revolution in packaging

Currently at seeding stage and / or pre-revenue – the BIF team maintains close contact to monitor progress





Opportunity to invest in a diversified portfolio of exciting, entrepreneurial businesses with huge growth potential

Ability to support companies formed from world-class UK university research focussing on sustainability, agri-science, technology and health improvement

Strong pipeline of spin-outs currently looking for investment

Target IRR of 20% with 5-8 year exit strategy

Experienced investment team alongside highly knowledgeable, independent advisory committee





"Investor focus on **sustainable investment** and **ESG factors** has significantly increased recently. Large fund managers have publicly stated their aim to allocate a greater proportion of funds to sustainable strategies over the next decade<sup>1</sup> Milltrust's investment thesis, since establishment in 2010, has been built around **sustainable investment** and **safeguarding the environment**. Milltrust has **successfully delivered sustainable solutions** to clients for a **decade**; its investment professionals have developed considerable knowledge, expertise and experience to continue successfully supporting clients in a wholly sustainable manner."

Simon Hopkins, CEO & Founder, Milltrust International Group

(<sup>1</sup>Financial Times article 14 Jan-20)





#### APPENDICES British Innovation Fund

A1	Fund	inform	ation

- A2 Roslin Technologies
- A3 Oxford Sciences Innovation
- A4 Attomarker
- A5 PragmatIC Printing





#### **FUND INFORMATION** Structure and advisors

**Platform**: Milltrust International Managed Investments ICAV

Domicile: Dublin, Ireland

Regulatory regime: QIAIF

AIFM: KB Associates

Investment Manager: Milltrust International LLP

Investment Adviser: Milltrust Agricultural Investments Ltd

Administrator: MUFG Alternative Fund Services (Ireland) Ltd

**Custodian**: Mitsubishi UFJ Investor Services & Banking (Lux)

Auditor: KPMG

Legal: William Fry

#### **Fund terms**

Structure:	Open-ended Investment Company		
Inception date:	25 November 2016		
Currency:	GBP		
Management fee:	2%		
Performance fee:	20% over hurdle rate		
Hurdle rate:	8%		
Subscription terms:	10 years; and two trading days annually		
Investor types:	For Professional & Accredited investors only; Registered for distribution in UK & Ireland		
Reporting:	Bi-annual NAV calculation; quarterly portfolio commentary		





# FUND INFORMATION IAC members



#### Mark Ebert, CPA

- Senior figure in the investment world with over three decades' of experience managing investment banking, equity brokerage, private equity and asset management businesses
- Most recently Chairman of the Fortune Group in London and co-founder of Quadrum Partners in Zurich, focussed on advising investment managers



#### Dr Kenny Tang, CFA

- Founder and CEO of Oxbridge Climate Capital, an investment and advisory house and thought leader in the environmental, low carbon, clean tech and climate change spaces
- Lead author of "Taking Research to Market: How to Build and Invest in Successful University Spin-outs"
- Earned his doctorate at Cambridge Judge Business School, Cambridge University's business school

**Griff Williams** and **Simon Hopkins** are also IAC members Discussions are currently progressing in relation to the addition of further experts to the IAC





#### **ROSLIN OVERVIEW** Portfolio – Incubator

**Key shareholders** The University of Edinburgh British Innovation Fund JB Equity

# Funding rounds April 2017: £10 million Seed round May 2019: £10 million second tranche of Seed round



# **Roslin Technologies**

- World-leading Animal Bioscience Research company established as the commercialisation arm of the renowned Roslin Institute and University of Edinburgh's Royal (Dick) School of Veterinary Studies
- Exists to deliver breakthrough commercial solutions in the Animal Health, Breeding/Genetics and Animal Nutrition space
- Offers opportunities for investors looking to capitalise on the growing demand for food and agricultural products
- No spin-outs currently; once key projects are more progressed the intention is to spin these out as individual companies
- BIF instrumental in setting up Roslin Technologies both in advising on the project and investing as a founding shareholder

Now generating **revenues of >£1m** (FY19) across various projects, with significant growth forecast

Source: Roslin Technologies management information as at 31 December 2019





#### **ROSLIN PROJECTS** Portfolio – Incubator

**Early-stage projects** DestiNa JV Insect Project Shrimp Project Trout Project

New projects and opportunities are constantly assessed for viability – at present, there are almost 30 such prospects being looked at



#### **Overview of business units**

**Roslin Pigs:** Pathogen free facility to produce both Gene Edited and non-Gene Edited animals for animal modelling and for breeding

**Frozen Aviary:** Allows the extraction, cryopreservation and faithful recovery of male and female primordial cells for avian species

**Animal Cells:** Focussed on the development of induced pluripotent stem cells (iPSCs), which have numerous applications across medicine

**Biopharming:** Producing transgenic hens which lay eggs rich in specifically targeted therapeutic proteins to treat various conditions

**E-Coli Vaccination:** Progressing the commercial development of an E. coli vaccination for cattle to prevent life-threatening illnesses

Source: Roslin Technologies management information as at 31 December 2019





#### **OSI OVERVIEW** Portfolio – UCC

Key shareholders Lansdowne Partners (UK) LLP IP Group plc Invesco Asset Management Braavos Capital OUEM University of Oxford The Wellcome Trust Sequoia Heritage Temasek The British Innovation Fund



- Commercialisation partner of Oxford University
- Significant stake in every qualifying spin-out company emanating from any of the university science departments
- Current portfolio has grown to almost 80 spin-out companies since operations began in 2015
- OSI has raised more than £600m from a diverse group brought together by a commitment to build thriving science and technology companies from Oxford

Portfolio developed from eight investments in 2015 to **78** at the **end of 2019** 

Source: OSI management information as at 31 December 2019





#### **OSI PORTFOLIO** Portfolio – UCC

Key investment segments Deep Tech Digital Health Life Sciences Software and Al





**Evox Therapeutics** Biotechnology company focussed on harnessing and engineering the natural delivery capabilities of exosomes to develop an entirely novel class of biotherapeutics

**Oxford Nanoimaging** Commercialising the Nanoimager, a portable super resolution microscope, ONI now has customers using its products in leading laboratories across the globe **Osler Diagnostics** Creator of a portable device which can test a range of disease biomarkers in 10-15 minutes as accurately as a laboratory test

#### Vaccitech

Breakthrough vaccine delivery platform has proven in patient results developed by the world's top vaccine specialists. Pipeline of vaccines include universal influenza and prostate cancer

Source: OSI management information as at 31 December 2019





#### **OSI PORTFOLIO** Portfolio – UCC

# Key investment segments Deep Tech Digital Health Life Sciences Software and Al





# Diffblue

Software creator using AI to write tests to catch errors and protect from regressions and bugs. Customers include Goldman Sachs and Amazon Web Services

#### **YASA Motors**

Supplies custom and off-theshelf e-motors and controllers to automotive customers based on a unique patented motor technology

# Ultromics

World's first outcomes-driven, Al-based ultrasonic diagnostic support solution for coronary artery disease. Partnerships with leading cardiology clinical centres in the US and the NHS

# **Oxmet Technologies**

Develops, licenses, and manufactures proprietary alloys, alloy powders and alloy components for the aerospace, automotive, industrial and biomedical markets

Source: OSI management information as at 31 December 2019





ATTOMARKER OVERVIEW Portfolio – spin-out

**Key shareholders** University of Exeter The British Innovation Fund Merlin Investors (Individuals)

Funding rounds June 2017: £0.5 million seeding October 2017: £2.5 million Series A



#### Attomarker

- A spin-out from the University of Exeter, Attomarker has developed a small, simple-to-use blood testing device able to perform blood tests from a single pin-prick of blood, with results in c.5 minutes
- Multi-patented technology collects the blood sample on a disposable credit-card sized chip which slots into a mobile device, docked to an iPhone. The iPhone camera visualises the blood tests which are then interpreted by the iPhone.
- The device represents a major advance in global healthcare management, delivering mobile, low cost, fast and accurate results
- Short-listed as one of the top four global contenders for the prestigious Longitude Prize

Currently undertaking a funding round, with significant interest from leading global healthcare organisations

Source: Attomarker management information as at 31 December 2019





**PRAGMATIC OVERVIEW** Portfolio – spin-out

#### **Key shareholders**

Cambridge Innovation Capital ARM Technology Investments Avery Dennison The British Innovation Fund

#### **Funding rounds**

January 2015: £5.4 million Venture round

October 2016: £18 million Venture round

January 2019: £13.2 million funding round

PragmatIC

# **Pragmatic Printing**

- A spin-out from the University of Cambridge, PragmatIC Printing provides a unique technology platform to create innovative, ultralow cost flexible integrated circuits ("FlexICs")
- Delivers FlexICs which are thinner than a human hair and can be easily embedded into everyday objects
- FlexICs enable the potential for trillions of smart objects that can engage with consumers and their environments
- PragmatIC's products are being adopted by a growing base of global companies across diverse markets, including the consumer goods; games; retail; pharmaceutical; and security sectors

Rights issue in January 2019 completed at a **42% premium** to the BIF's in-price

Source: Pragmatic management information as at 31 December 2019





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Milltrust International Group

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