

HydrogenOne Capital Growth plc FY22 Annual Results presentation



Investing in clean hydrogen for a climate-positive impact

4 April 2023

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2022 highlights







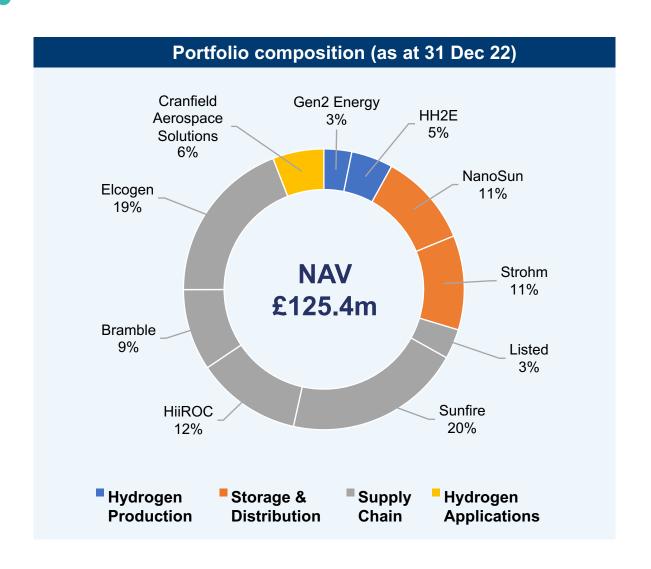
- >£100m
 Deployed in low carbon growth
- 6 New assets

- Article 9
 SFDR
- 42,716 tCO₂e GHGs avoided

- NAV increased by 22% from £102.8m to £125.4m from the end of 2021 to 2022, with NAV per share of 97.3p at the end of 2022
- Portfolio of companies are performing well against the backdrop of improving industry fundamentals. Private companies, which account for 97% of our portfolio, delivered £33m in revenue in 2022, an increase of 110% from 2021
- Despite challenging market conditions in 2022 and so far in 2023, the Company has raised net £21m in fresh capital over the last year, and retains a cash position of £18m at end-2022
- Invested £54m in 6 private companies in 2022, and with a further investment early in 2023. The 10 private investments offer diversified exposure to the entire clean hydrogen value chain
- Consistent approach to portfolio valuation, centred on discounted cash flows, using IPEV guidelines. The resulting private valuation has an implied forward revenue multiple of 6X (2024E), which is some 40% lower than listed multiples
- Implementation of SFDR Article 9 and PRI signature underpin our ESG policy. Sector specialism and capital discipline remain key competitive advantages for the Company

HydrogenOne has a unique and diversified portfolio, invested across the hydrogen value chain





Where we invest

- Revenue-generating equipment businesses
- Hydrogen production projects
- Co-investing with industrial strategics and institutions
- Diversified portfolio and geography
- Clear strategies to exit via IPO or trade sale

Financial and operational highlights 2022



	31 Dec 2022	31 Dec 2021	% change ^{1,2.3}
NAV per Ordinary Share	97.31p	95.75p	1.6%
NAV	£125.4m	£102.8m	21.9%
Ordinary Share price	79.4p	119.5p	-33.6%
Market cap	£102.2m	£128.3m	-20.4%
Share price premium/ (discount) to NAV ²	(18.5)%	24.8%	-43.3%
Ongoing Charges	2.51%	2.06%	26.7%
Cumulative capital deployed in low-carbon growth (since inception)	£102.9m	£48.6m	111.7%
GHG emissions avoided	42,716 tCO2e	N/A	N/A

- Diversified portfolio of hydrogen assets, delivering growth for investors across the portfolio
- The NAV increase was driven primarily by valuation uplifts to the Company's portfolio of private investments, positively contributing 3.93 pence (+4.1%) per share to the NAV movement, partly offset by fund costs
- SFDR Article 9 classification and signatory of UN PRI. £102.9m capital deployed in low carbon growth has resulted in 42,716 tonnes of CO2 equivalent of avoided GHG emissions
- Positive outlook underpinned by macro tailwinds and supportive regulatory regimes in the USA and Europe

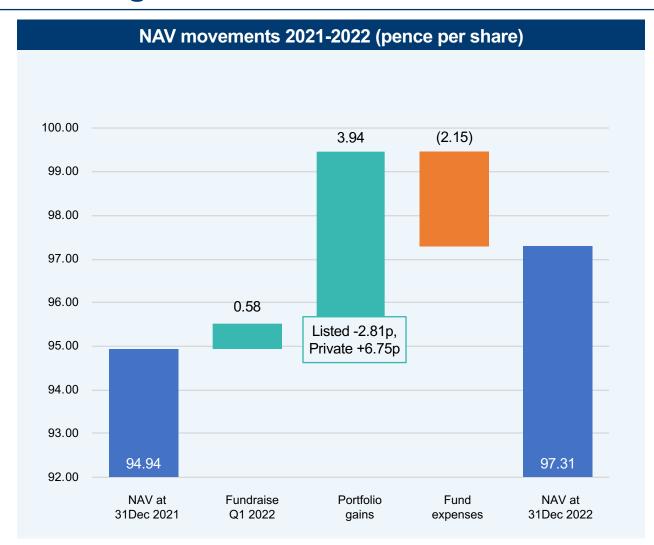
¹ Alternative Performance Measures ("APMs")

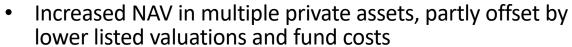
² Total returns in sterling for the 12 months to 31 December 2022

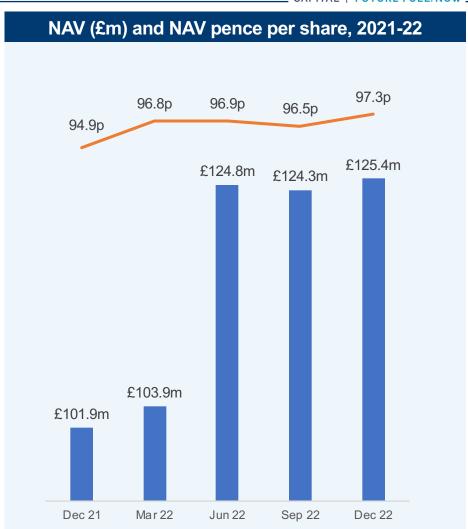
³ Includes April 2022 fundraise proceeds of £20.9 million net of costs

Growing our NAV and NAV/share in 2022





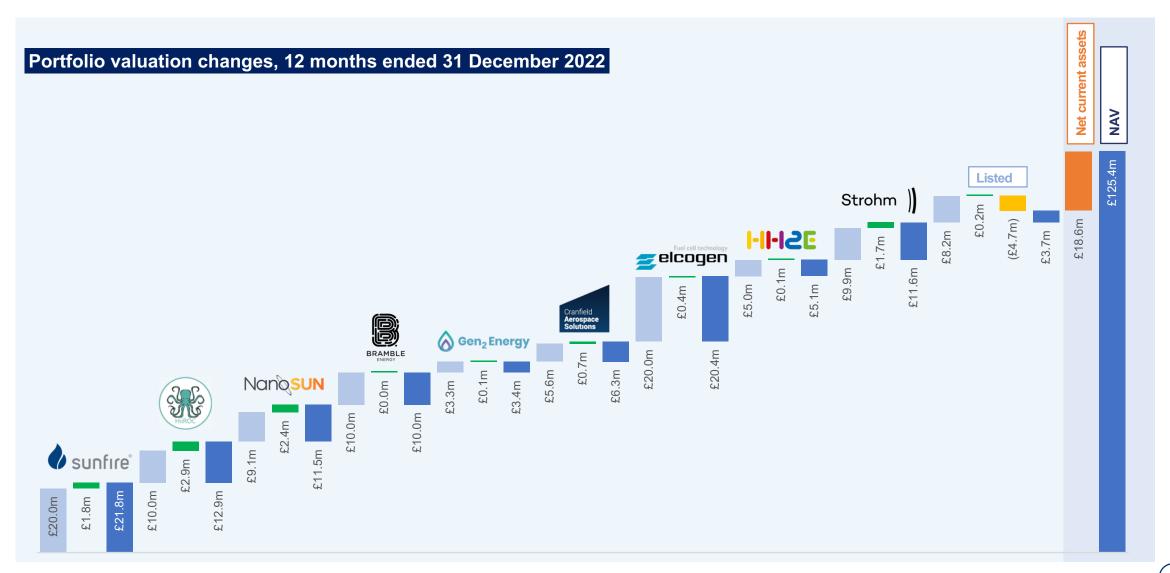




Steady progression in NAV/share

Portfolio valuation changes 2021-22





Well established investment process and access to deal flow





1. Specialist insights into deal flow

- Investment Adviser networks and track record
- Building out opportunities via our investments
- First mover... "see everything"
- Investing alongside industrials, ESG funds and VC

2. Investment Policy

- Hydrogen and related growth assets
- OECD mandate
- Fossil fuels production excluded

3. ESG Policy

- Investing in low-carbon growth and avoided GHG emissions
- ESG policy integrated in investment decisions and asset monitoring
- Robust ESG screening and due diligence, including EU taxonomy assessment

4. Transaction

- Autonomy in investment selection and allocation
- Detailed DD including Advisory Board, Arup and other 3rd parties
- · Board / AIFM review ahead of completion

Six new private investments into leading clean hydrogen companies in 2022













Strohm



£10m

Pioneer in revolutionary fuel cell design and manufacturing techniques, scaling up power output of units to 100kw

£13m

Large scale Norwegian green hydrogen project developer, up to 700MW green hydrogen projects, first project expected to launch in 2023

£7m

Developing hydrogenpowered emissions-free turboprop passenger flight, test flight aimed for 2024. Existing customer orderbook purchasing modification kits to convert Britten-Norman Islanders to hydrogen

£20m

Industry-leading innovator and supplier of solid oxide cells and stacks, generating revenues from over 60 customers worldwide. Orderbook continued to increase, with multiple agreements signed during the year

£5_m

A prominent German project developer, secured attractive brownfield sites close to hydrogen offtake with grid connections capable of 1GW capacity, provides HGEN with project co-investment

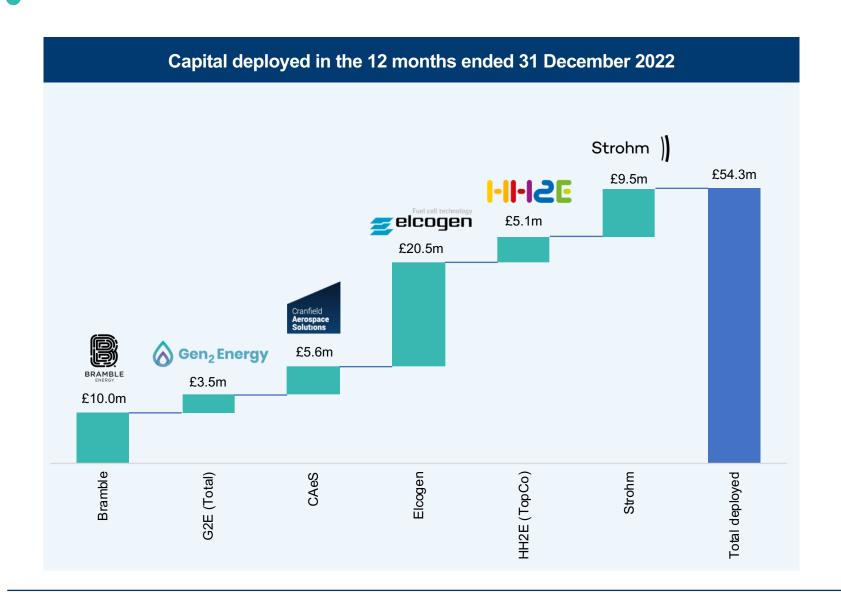
£10m

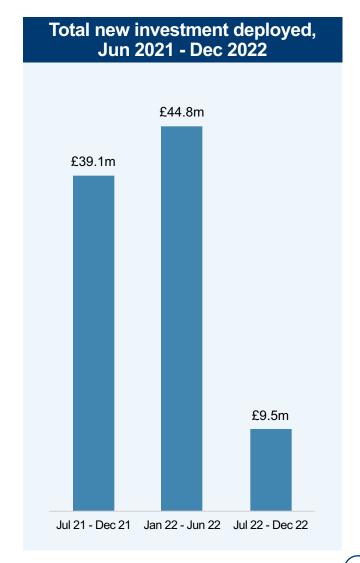
Leader in offshore hydrogen pipelines, backed by supermajors. Aiming to grow revenues from energy transition including hydrogen to over 50% by 2025

Deploying £54m in low-carbon growth in 2022

Capital deployment has slowed in H2 2022 in response to market conditions



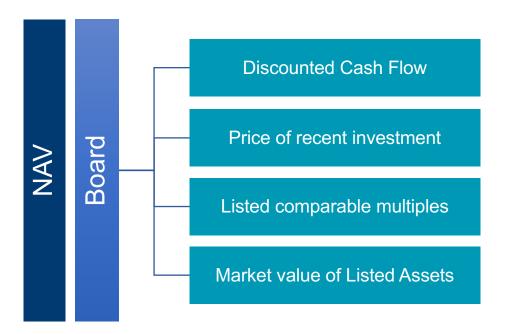




HGEN valuation methodology



Valuations using IPEV guidelines

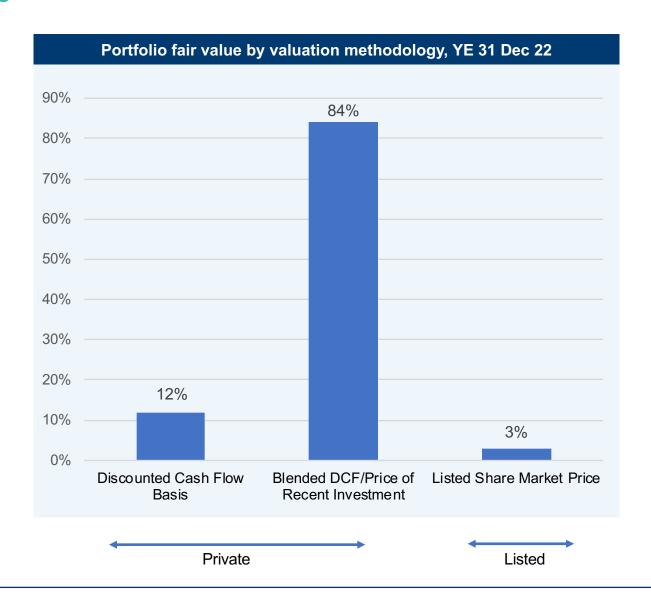


Consistent approach to valuation

- Valuations updated for the entire private portfolio on a quarterly basis, reviewed and approved by the AIFM and Board
- The private portfolio is principally valued using either the DCF method, or a combination of the DCF method and the price of recent investment. The DCF valuations are also benchmarked against listed peer group valuations
- Discount rates are calculated using market parameters for each investment domicile. The portfolio average discount rate for December 2022 was 12.9%, compared to 12.5% in 2021
- HGEN's valuation is audited annually by KPMG

Applying a rigorous valuation method and embed downside protections in investments





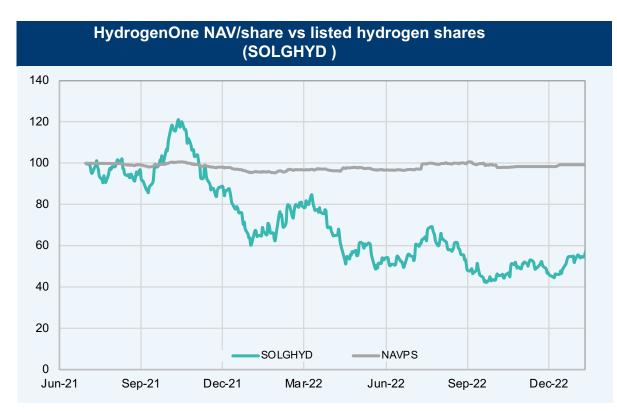
Governance and downside protection

- 100% of the private portfolio has downside protections such as anti-dilution and liquidation preferences
- 66% of the private portfolio was invested against delivery milestones
- HGEN is represented on 100% of private portfolio boards with 100% attendance record

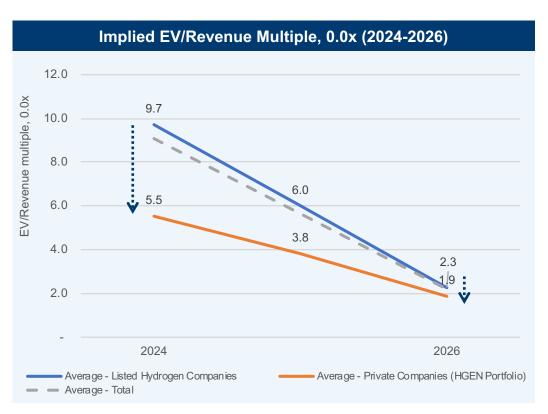
Valuation evolution – listed vs. private companies



The Company's approach to valuation remains consistent while market has seen strong rise and correction



 Listed hydrogen company valuations have decreased in 2022, whereas HGEN NAV has been steady, reflecting our consistent valuation methodology



- HGEN private valuation >40% lower than implied listed companies in 2024, and c. 20% lower in 2026
- Should the listed hydrogen market recover, this gap should widen further

ESG integrated in investment decisions and asset monitoring



Our impact

£103 million deployed in low-carbon growth

89% EU taxonomy-aligned portfolio **42,716 tCO₂e** emissions avoided in 2022. Carbon neutral

Aligned to:

50,579 tCO₂e emissions avoided since IPO

201,000 MWh potential clean energy capacity in 2022

Our credentials



Principles for Responsible Investment

Signatory of:

SUSTAINABLE GALS

Aligned to:

GREENHOUSE
GAS PROTOCOL

Our reporting standards

Article 9 - SFDR framework

ISSB framework
(draft standards)

Greenhouse Gas Protocol

Our SDG mapping

Sustainable development goals

SDG Target



Our ESG principles



Low-carbon Growth Screening and Due Diligence

Effective Board

Sustainable Business Practices ESG at HGEN

ESG KPIs and delivery in 2022



	-
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Capital invested in low-carbon growth:

✓ £102.9m since IPO to 31 Dec 2022

EU taxonomy alignment in private portfolio:

✓ 89% at of 31 Dec 2022

GHG emissions avoided:

√ 42,716 tCO2e in FY2022 and 50,579 tCO2e since IPO

GHG emissions on a look-through basis (aggregate scope 1 and 2 of portfolio companies):

√ 76 tCO2e (scope 1 - 48 tCO2e and scope 2 - 28 tCO2e) during FY2022

Potential lifetime clean energy capacity:

√ 201,000 MWh in FY2022 and 226,000 MWh since IPO

HGEN's share of MW capacity sold in fuel cells and electrolysers:

√ 3.4 MW of units sold (fuel cells and electrolysers) in FY2022 and 3.8 MW since IPO

S

Jobs supported:

√ 1,135 full-time staff employed by private portfolio

Board Independence and Diversity:

HGEN:

✓ HGEN's Board independence and 50% diversity (female directors)

Private portfolio:

- √ 78% with at least one independent Board member, 56% with female representation
- ✓ Women account for 17% of senior roles (excludes directorships)

G

Positive and proactive engagement with private portfolio to deliver effective boards:

- √ 100% representation on Boards
- √ 100% voting and board attendance

Encourage sustainable business practices and ethics:

✓ A review covering supply chain due diligence, waste management and circular economy completed for all companies

Oversight and stewardship within private portfolio:

- ✓ Site visits to 89% of invested positions (28 site visits) were made during the year
- ✓ Engagement to begin reporting on PAIs and key metrics to support HGEN's climate change mitigation investment objective
- ✓ Review of the governance structures and policy recommendations made to strengthen safeguards, including anti-bribery/corruption, human rights and tax risk

(as at 31 Dec 22)

ESG case study – Sunfire



- Sunfire's innovative and proven solutions are addressing a key challenge of today's energy system: providing renewable hydrogen and syngas as substitutes for fossil energy sources
- Their electrolysers enable the transformation of energy-intensive sectors such as the chemical, fuel and steel industries
- Sunfire employs more than 500 people in Germany and Switzerland

Avoided emissions for Sunfire's 10 MW Alkaline electrolyser:

Net production rate:	195kg/h
Lifetime:	90,000 hours
Grid emission factor:	313 gCO2/kWh
Lifetime avoided emissions:	184,570 tCO2e



^{*}During 2022 Sunfire sold 80MW, giving a total lifetime avoided emissions of 732,383 tCO2e.
The electrolysers were sold to different locations with different grid emission factors.
The example above is a unit sold to Germany with a grid emission factor of 313 gCO2/kWh but other units were sold to Finland/Sweden with grid emission factors of 114 gCO2/kWh and 25 gCO2/kWh, respectively).

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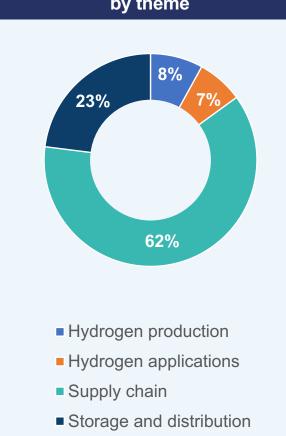


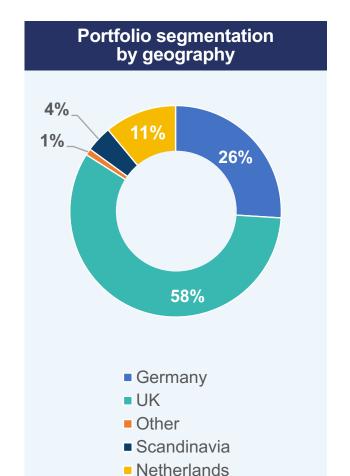
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Distinctive and unique hydrogen portfolio



Portfolio segmentation by theme



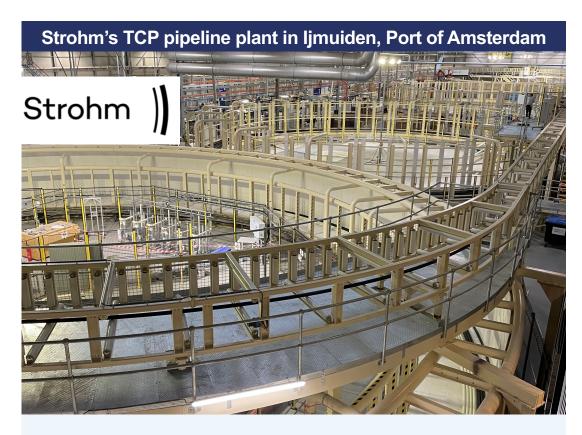


Fund holdings (as at 31 Dec 22)

Private portfolio	NAV £m	NAV %
Sunfire GmbH	22	17%
Elcogen Plc	20	16%
HiiROC Ltd	13	10%
Strohm Holding B.V	12	9%
NanoSUN Limited	11	9%
Bramble Energy Limited	10	8%
Cranfield Aerospace Solutions	6	5%
HH2E AG	5	4%
Gen2 Energy	3	3%
Listed portfolio	4	3%
Total investments	107	85%
Net current assets (Inc cash)	18	15%
Net Asset Value	125	100%

Invested in significant manufacturing capacity and scale





- New expanded facility launched in 2023
- Tripled production capacity to 140km of pipe per annum
- Largest backlog in the company's history EUR60m

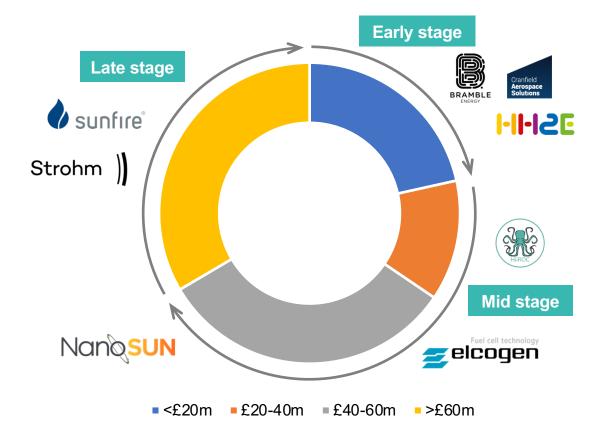


- Newly expanded plant in 2023 following EUR30m investment
- Serial production of electrolyzers
- 500 MW/a capacity in 2023, to be expanded to 1GW

Growing value for investors



Annual revenue of portfolio companies



Segments on NAV basis, HGEN invested stake in portfolio as of Dec 2022. 2024E revenues

10-15% average NAV growth target¹

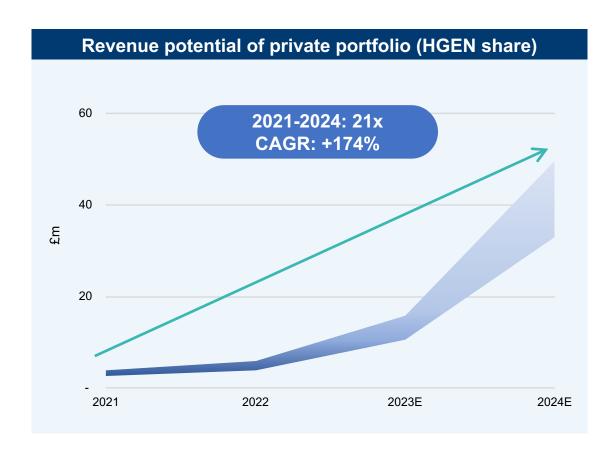
- Growth delivery in invested companies
- Follow-on investment at higher valuation
- Exit via IPO or trade sale

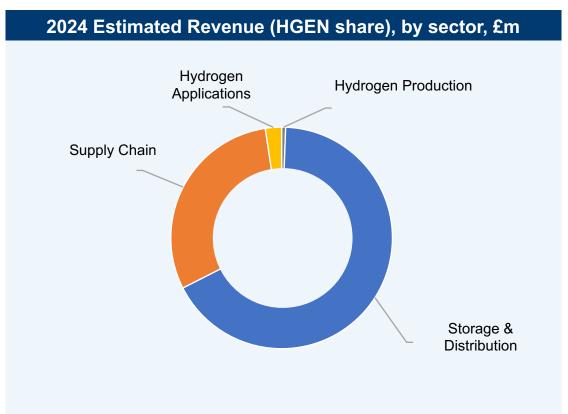
	% of portfolio (31.12.22)	2021-22 revenue growth (%)	Target holding period (years)
Early stage	22%	n/a	>5
Mid stage	45%	+364%	3-5
Late stage	33%	+77%	<3
		2022: £33m (+110% vs 2021)	

Private company revenues, pro-forma. 100%. Source: Investment Adviser

Growth delivery and outlook



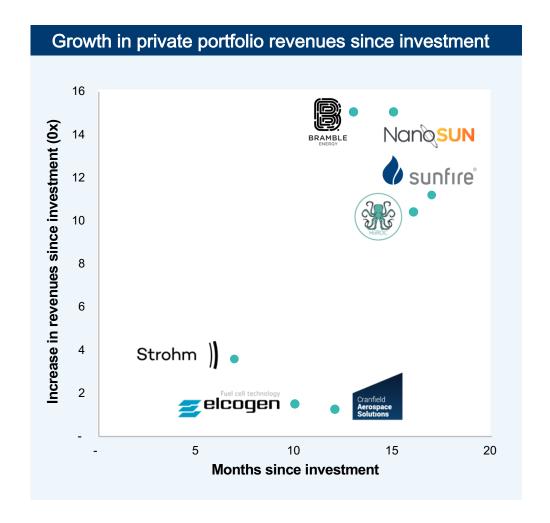




• Significant financial growth potential from portfolio companies. This is driven by expansion of production volumes in supply chains such as electrolysers, fuel cells and transportation equipment

The portfolio is revenue generating and has produced consistent growth



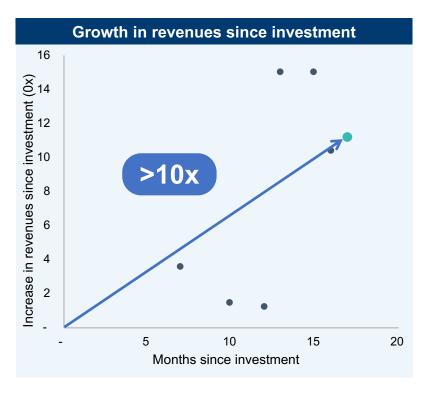


- Seven of the private investments, representing 89% the invested portfolio by value, are revenue-generating
- The aggregate revenue from these investments was c. £33m for 2022, an increase of 110% from 2021 on a pro-forma basis
- A further two private hydrogen production companies, Gen2 Energy and HH2E, representing 8% of the invested portfolio, located in Norway and Germany, are forecast to generate material cash flow from the middle of the decade as projects come on line
- Additional investment in strategic, global listed hydrogen equities representing 3% of the invested portfolio, in revenue generating businesses

Sunfire GmbH investment (Supply chain)



Description	
sunfire	German industrial electrolyzer producer, of pressure alkaline (AEL) and solid oxide electrolizers (SOEC)
www.sunfire.de	
Investment size / date / % of NAV	• £20m / October 21 / 17% of NAV
Co-investors	 Planet First Partners, Lightrock, SMS, Neste, CIP, Carbon Direct Capital Management, Blue Earth Capital, Amazon
	Industry-leading electrolyser manufacturer
	Revenues from a growing global customer base
Why we invested	 Strong product credentials with top in-house engineering and product design
	 500MW / annum electrolyzer production at three sites in EU
Total Addressable Market	• >£40bn (by 2030)
	 Delivered a 250kw solid oxide electrolyser to RWE – world's largest to date
Recent developments	Manufacturing JV agreed with Vitesco
	 Launched a new factory in Solingen – 500MW capacity
	Building up alkaline capacity to >GW scale to match order book
Key milestones	 Conversion of strong revenue growth to EBITDA to underpin exit for investors



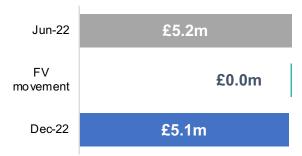


HH2E & Thierbach investments (Hydrogen Production)



Description	German green hydrogen project developer with a focus on industrial customers. Operator of the Thierbach green hydrogen development project, in which HGEN has a direct investment.
Investment size / date / % of NAV	 HH2E: £5m / May 22 / 4% of NAV Thierbach project: £2m / Jan 23
Co-investors	Foresight Group LLP
Why invested	 A prominent leader in Germany focused on green hydrogen and battery storage project development Assessing 5 new projects for Final Investment Decision ("FID") Provides HGEN with investment rights in multiple large-scale industrial decarbonization projects, with first project investment completed (Thierbach)
Total Addressable Market	 >£100bn (based on German government forecasts for green hydrogen demand by 2045)
Recent developments	 EUR 13m spend on Front End Engineering and Design (FEED), land purchase, key equipment (Thierbach)
Key milestones	 FID – 2023 (Thierbach and Lubmin), subject to funding Phase 1 (100MW): c.6,000Htpa ~ 60,000tpa avoided GHGs (Thierbach)





Exclusivity on 12 green hydrogen projects

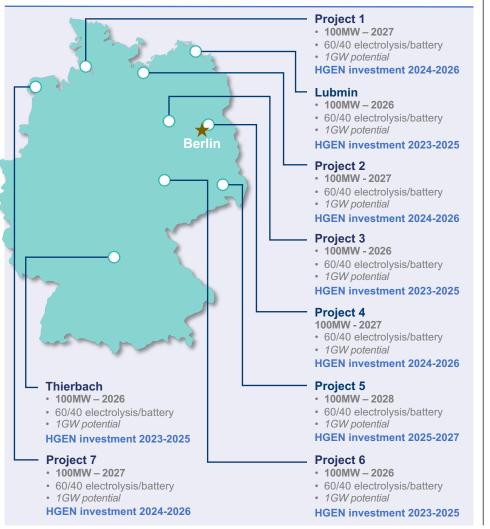


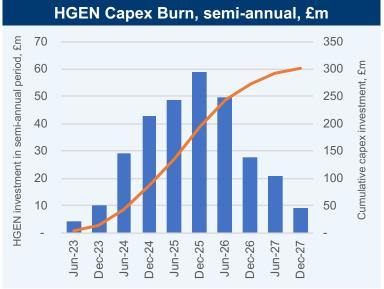




HGEN investment potential 2023-2027: >£300 million

Germany -II-I2E

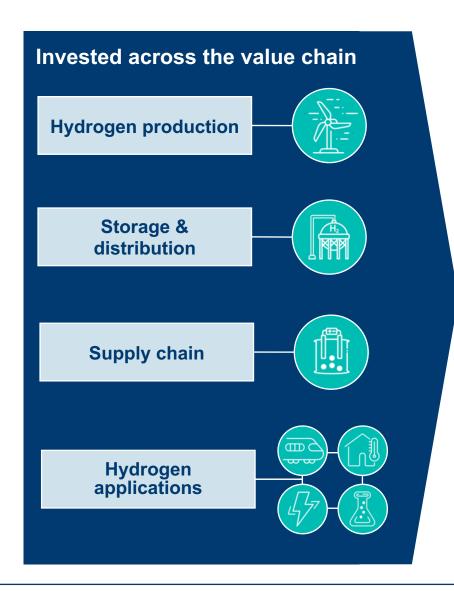






Investment pipeline

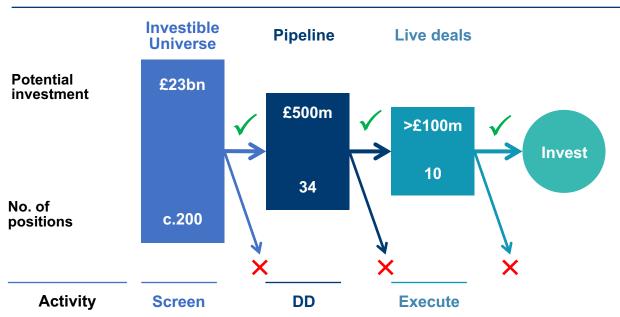




>£20bn private Investible Universe ➤ £500m private Pipeline

- Diversified portfolio across multiple asset classes
- Clean hydrogen supply projects
- Supply chain and developer companies
- <10% allocation to strategic listed companies in £42bn sector

Dynamic management of multiple private opportunities





Identifying the best investment opportunities

Strong management teams

Revenue-generating equipment suppliers

Distinctive project developers

Avoided GHG potential

10-15% target return¹



Specialist team

Active stewardship

Grow EBITDA and exit

>£500m pipeline

Clear strategy to grow NAV

(1) For an investor in HGEN at IPO, the total NAV return target is a target only and not a profit forecast. There can be no assurance that this target will be met, or that the Investment Trust will make any distributions or returns at all and it should not be taken as an indication of the Investment Trust's expected future results. The Investment Trust's actual returns will depend upon a number of factors, including but not limited to the size of the Investment Trust, currency exchange rates, the Investment Trust and should decide for themselves whether or not to place any reliance on this target in deciding whether or not to invest in the Investment Trust and should decide for themselves whether or not the target total NAV return is reasonable or achievable. The illustrative returns has been calculated on the basis of various assumptions and inputs. There can be no assurance that these assumptions and/or inputs will be correct or that the associated potential revenues and returns will be generated.

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Strong macro tailwinds underpin hydrogen investment case



Structural drivers of the hydrogen economy...



Energy Transition Hydrogen policies in 39 countries for Net Zero



Air Quality

Hydrogen fuel in heavy transport and power



Energy Security Distributed renewables and storage

...step change in policies

\$8bn



>300GW



'hydrogen hubs' + hydrogen tax credit in Inflation Reduction Act REPowerEU 2030 hydrogen target increased from 80GW

10GW

UK 2030 hydrogen

target doubled



— lanan

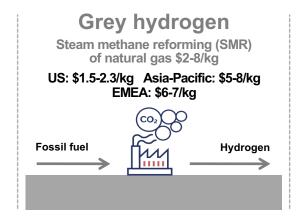


Japan 2030 hydrogen target

3mtpa

The colours of hydrogen







\$175 billion "grey" market today...

- Industrial gas: refining, steel, cement, ammonia
- Cleaning up 830mtpa GHG emissions

Blue **Turquoise Emerging** Green hydrogen hydrogen hydrogen technologies **SMR** with **Methane pyrolysis** e.g. Waste-to-H/ Water electrolysis **PEC cells** carbon capture Thermal plasma (AEM/PEM/SOEC) and storage electrolysis c.\$1-6/ka* \$2-4/kg (CCS) \$3-11/kg Hydrogen CH4+ + Solid electricity Hydrogen electricity Natural Hydrogen Water Oxygen

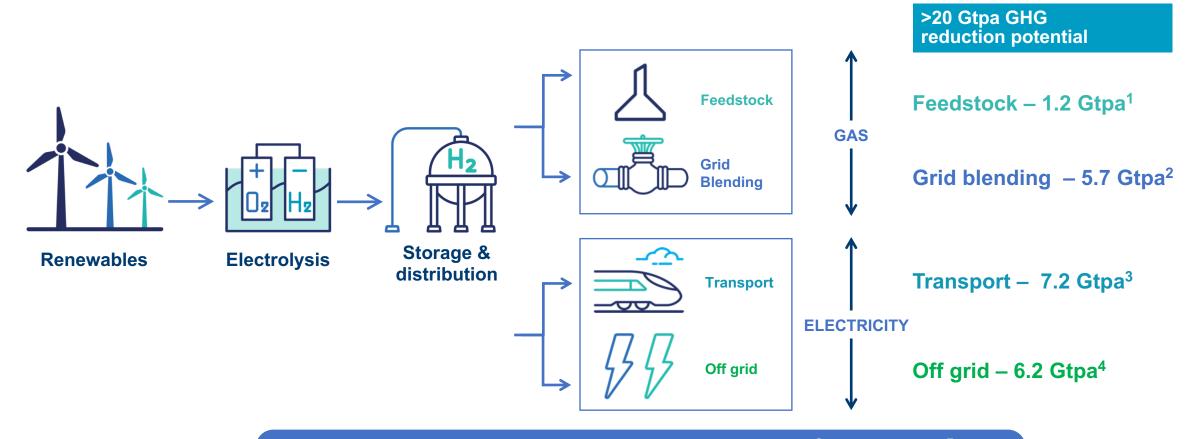
...and >\$2 trillion clean hydrogen growth

- Replacing oil: buses, trucks, ships, forklift, portable power
- Gas grid blending: eventual shift to 100% hydrogen
- Grid balancing via hydrogen storage

Total addressable market, \$b	2030	2050
Hydrogen Production	600	1,650
Storage & Distribution	20	75
Supply Chain	40	525
Hydrogen Applications	30	350
Total	690	2,600

Hydrogen's key role in avoiding GHG emissions





1GW green hydrogen: >1 Mtpa avoided CO² emissions⁵

³As at 2020. Of which - aviation 0.9 Gtpa, passenger vehicles 3.6 Gtpa,

¹²⁰²⁰ estimate. Source: https://www.pbl.nl/sites/default/files/downloads/pbl-2020-trends-in-global-co2-and-total-greenhouse-gas-emissions-2019-report_4068.pdf (4% of 2020 emissions)

²As at 2020. 20% reduction of industrial, commercial and residential. Source: https://www.iea.org/reports/global-energy-review-co2-emissions-in-2021-2

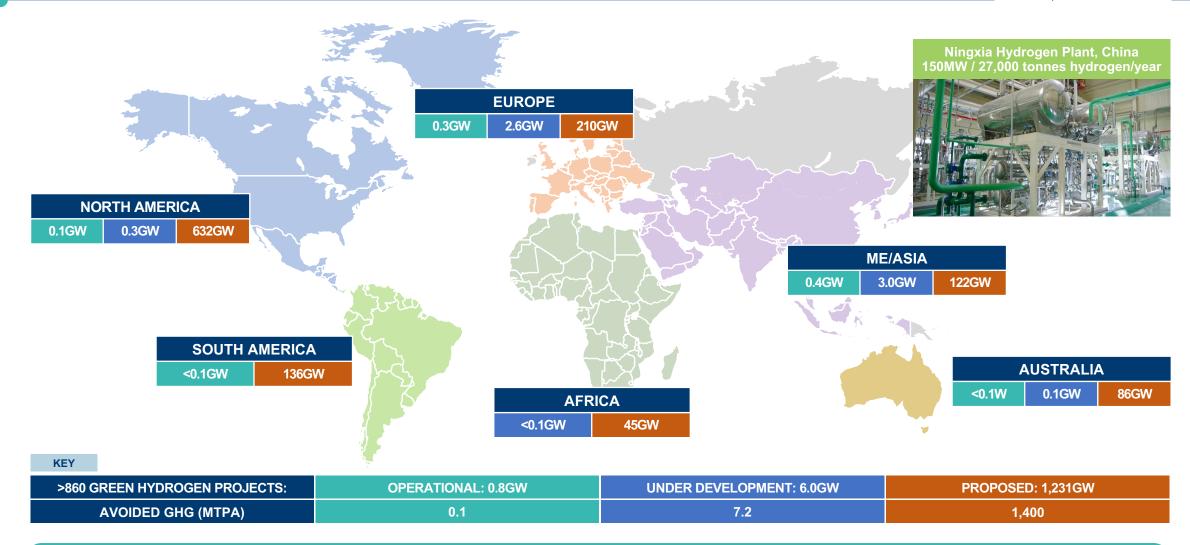
HGV 2.4 Gtpa, shipping 0.9 Gtpa. Source: https://www.iea.org/topics/transport

⁴Using proxy of total installed batteries in 2020 of 17 GW. Assuming 4hrs charge/day, gives 6.2 Gtpa (at 69.3kt/TJ CO2e rate for motor oil). Source: https://www.iea.org/reports/energy-storage

⁵ Using LHV 33.3kWh/kg. 1.26Mtpa avoided per 1GW

Large-scale clean hydrogen deployment is underway





HydrogenOne has investment rights on >7GW of green hydrogen projects in Germany and Norway

Contents



- Full year results for the year ending 31st December 2022
- Portfolio update
- Appendix: Market update
- Appendix: Invested companies update

Fund holdings

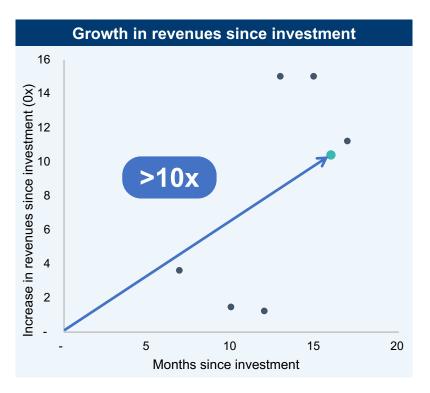


	As at 31 D	ec 2022	As at 31	Dec 2021
Private portfolio	NAV £m	NAV %	NAV £m	NAV %
Sunfire GmbH	22	17%	20	19%
Elcogen Plc	20	16%	-	-
HiiROC Ltd	13	10%	10	10%
Strohm Holding B.V.	12	9%	-	-
NanoSUN Limited	11	9%	9	9%
Bramble Energy Limited	10	8%	-	-
Cranfield Aerospace Solutions	7	5%	-	-
HH2E AG	5	4%	-	-
Gen2 Energy	3	3%	-	-
Listed portfolio	4	3%	8	8%
Total investments	107	85%	47	46%
Cash and other assets	18	15%	56	54%
Net Asset Value	125	100%	103	100%

HiiROC Limited investment (Storage & Distribution)



Company description www.hiiroc.com	UK-based thermal plasma electrolysis developer, with world-leading (IP-protected) technology for low-cost, zero-emission hydrogen, also enabling flare/waste gas mitigation and CO2 capture using biomethane
Investment size / date / % of NAV	• £10m / November 21 / 10% of NAV
Co-investors	 Melrose Industries, Centrica, Hyundai, Kia, Wintershall Dea, VNG, Cemex
Why invested	 Proprietary technology to convert natural gas, flare gas and biomethane into hydrogen and solid carbon black Industrial off-takers of the product such as Centrica, Hyundai and CEMEX also on the shareholder register Highly scalable modular solution, producing 100kg / day of hydrogen from a single unit through to large plants capable of 100's of tonnes / day of hydrogen, alongside carbon black
Total Addressable Market	• >£40bn (by 2030)
Recent developments	 Won the first UK project with Centrica to inject hydrogen at Brigg Gas Fired Power station, as part of the Net Zero Technology Centre's £8m Open Innovation Programme
Key milestones	 Demonstrator deployed in 2022. Pilot units contracted for deployment through 2023 across a range of hydrogen use cases

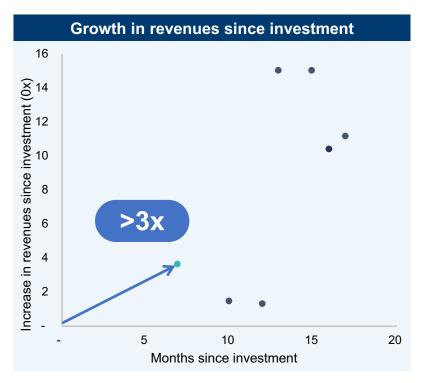




Strohm Holding B.V. investment (Storage & Distribution)



Company description	
Strohm)	Netherlands-based hydrogen pipeline company
www.strohm.eu	
Investment size / date / % of NAV	• £10m / Aug & Dec 22 / 9% of NAV
Co-investors	 Shell Ventures, Chevron Technology Ventures, Evonik Venture Capital, ING
	 Industry leaders in offshore hydrogen and CO2 pipelines, where HGEN sees significant market growth
Why invested	 Thermoplastic Composite Pipe ("TCP") has c.50% less greenhouse gas emissions than metal. Can transfer up to nine times the amount of hydrogen energy compared to a cable.
	 TCP's flexibility, lack of corrosion, fatigue and embrittlement make it the superior pipeline solution for offshore wind farms, generating hydrogen
Total Addressable Market	• c. £700m (2030) to >£1.7b (2040)
	 Completed a €29m investment round including ING
Recent developments	 ECOnnect contract for 11km of TCP for the TES Wilhelmshaven Green Gas Terminal in Germany
Key milestones	 Grow revenues from energy transition including hydrogen to over 50% by 2025

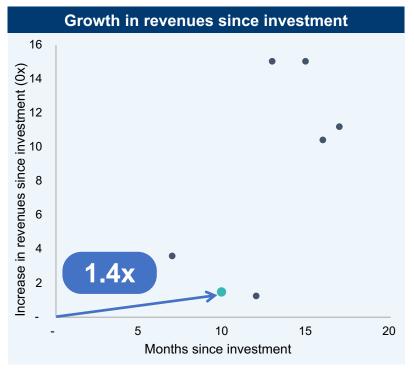




Elcogen Plc



Company description	
elcogen	Fuel cell and electrolyser manufacturer with presence in Estonia and Finland
www.elcogen.com	
Investment size / date / % of NAV	• £20m / May 22 / 16%
Co-investors	Biofuel OÜ, VNTM Powerfund II
Why invested	 Industry-leading innovator and supplier of solid oxide cells and stacks, with manufacturing facilities in Finland and Estonia, ready for expansion
	 Over 60 established industrial customers worldwide, and > 10 year track record
•	 High-end offering based on advanced solid oxide technology with low operating temperatures and superior economics
	 Developed a reversible ceramic technology that converts hydrogen into emission-free electricity and vice versa
Total addressable market	• >£40bn (by 2030)
Recent developments	Progressing with factory expansionStrengthened leadership team
Key milestones	 Expansion of manufacturing facilities from 100MW/year to 200MW/year

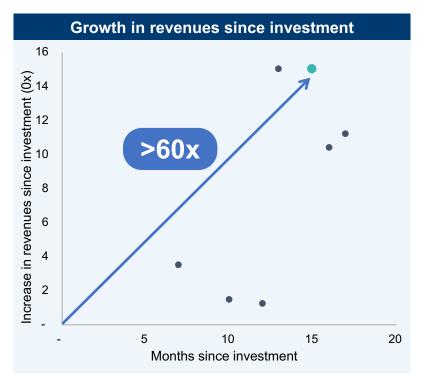


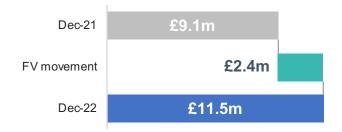


NanoSUN Limited



Company description	
Nanosun	UK-based developer of hydrogen distribution and mobile refueling equipment
www.nanosun.co.uk	
Investment size / date / % of NAV	• £9m / Dec 21 / 9%
Co-investors	Westfalen Group
Why invested	 Provides flexible and low-cost connection between hydrogen customers such as truck stops, and concentrated hydrogen supply sources
	 Flat-bed solution with 60% lower cost than alternative systems
	 Accelerating large-scale roll out of fleets of hydrogen buses, trucks, vans and forklifts
	 High quality order book with clients including Westfalen and Octopus Hydrogen
Total addressable market	• £800m (2025 UK/EU) to >£20bn (2030 globally)
Recent developments	 Completed the first serial production and delivery unit of its enhanced Pioneer Mobile Hydrogen Refuelling Stations
	 Signed an agreement with Hydrogen Systems to deliver hydrogen refuelling solutions to central Europe
Key milestones	 Continued roll out and delivery of Pioneer units to hydrogen refuelling customers, driving financial growth
	Germany distribution agreement pending

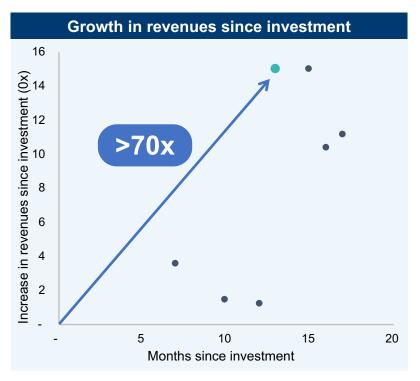




Bramble Energy Limited



Company description FRAMBLE ENERGY Company Compan	UK-based fuel cell and portable power solutions company
www.brambleenergy.com	
Investment size / date / % of NAV	• £10m / Feb 22 / 8%
Co-investors	IP Group, BGF, Parkwalk, UCL Technology Fund
Why invested	 Pioneering revolutionary fuel cell design and manufacturing techniques Novel printed circuit board design - low cost, scalable and recyclable Working with leading global automotive businesses to scale-up product offering Developing high-power density, mobility fuel cell systems
Total addressable market	• >£100bn (by 2030)
Recent developments	 Won second round of funding to design a hydrogen powered, zero emission Uncrewed Surface Vessel Working with consortium to deliver Zero Emission Hydrogen Powered Hovercraft
Key milestones	 Upgraded to a new facility as part of scaling up of units to 30kw-100kw Mobility technology development and testing of novel printed circuit board design by end users in automotive

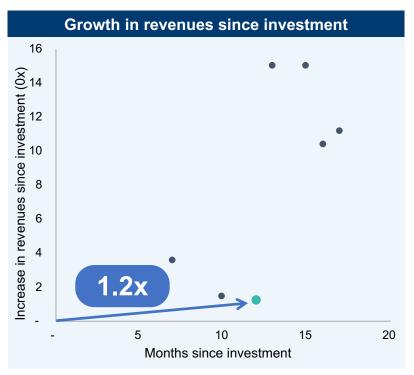


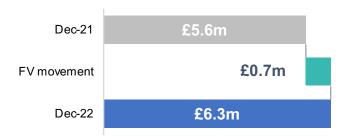


Cranfield Aerospace Solutions Ltd



Company description Cranfield Aerospace Solutions	UK-based passenger flight innovator, powering turboprop flight with hydrogen
www.cranfieldaerospace.com	
Investment size / date / % of NAV	• £7m / Mar 22 / 6%
Co-investors	 Safran Ventures, Tawazun Strategic Development Fund, Motus Ventures
Why invested	 Technology leader in delivering hydrogen powered turboprop flight Aerospace market leader in the design and manufacture of new aircraft design concepts, complex modifications to existing aircraft and integration of cutting-edge technologies Working on certification of the Britten-Norman Islander passenger aircraft using hydrogen
Total addressable market	• £1.4bn (by 2030)
Recent developments	 Selected as Hydrogen-aircraft partner by Air New Zeeland Secured order from EVIA AERO for 15 hydrogen modification kits and ten 19-seat aircraft Agreement with MONTE Aircraft Leasing to purchase 40 hydrogen modification kits
Key milestones	Test flight 2024Commercial certification 2026





Gen2 Energy



Company description	
⊘ Gen₂ Energy	Norwegian green hydrogen project developer
www.gen2energy.com	
Investment size / date / % of NAV	• £3m / Mar 22 / 3%
Co-investors	HyCap, Vitol, Hoegh LNG, Knutsen Group
Why invested	 Leading green hydrogen project developer, with solid plans to convert low-cost hydroelectric power to hydrogen for export
	 Up to 700MW green hydrogen projects in Norway, with expected production in 2025-2027
	 Co-invested with Norwegian LNG and ship operators that provide input to the Gen2 hydrogen export solution
	 HGEN has follow-on investment rights in multiple project SPVs
Total addressable market	• >£100bn
Recent developments	 Signed an agreement with Åfjord municipality for large-scale production and shipping of green hydrogen
	 Signed contract for development and purchase of containers for large scale transport of green hydrogen
Key milestones	First hydrogen project launch at Mosjøen in 2023





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