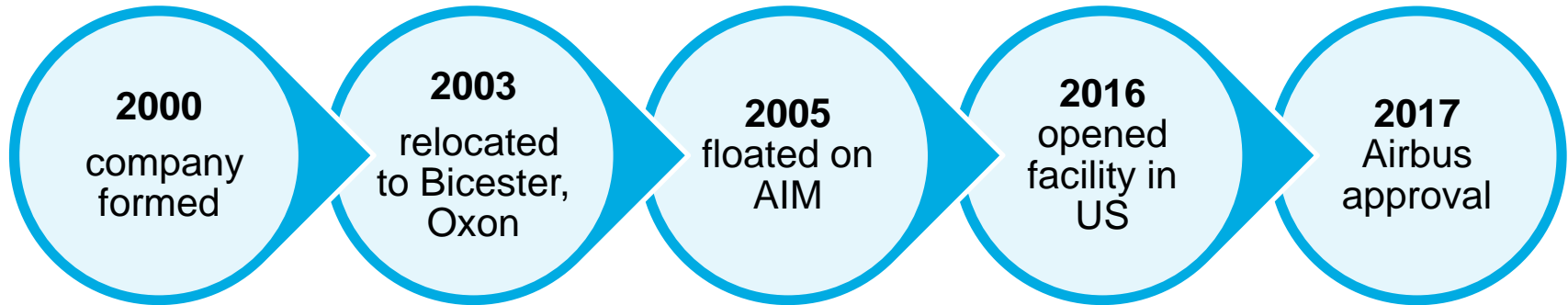




Growth & Innovation Forum 2019  
29 January 2019

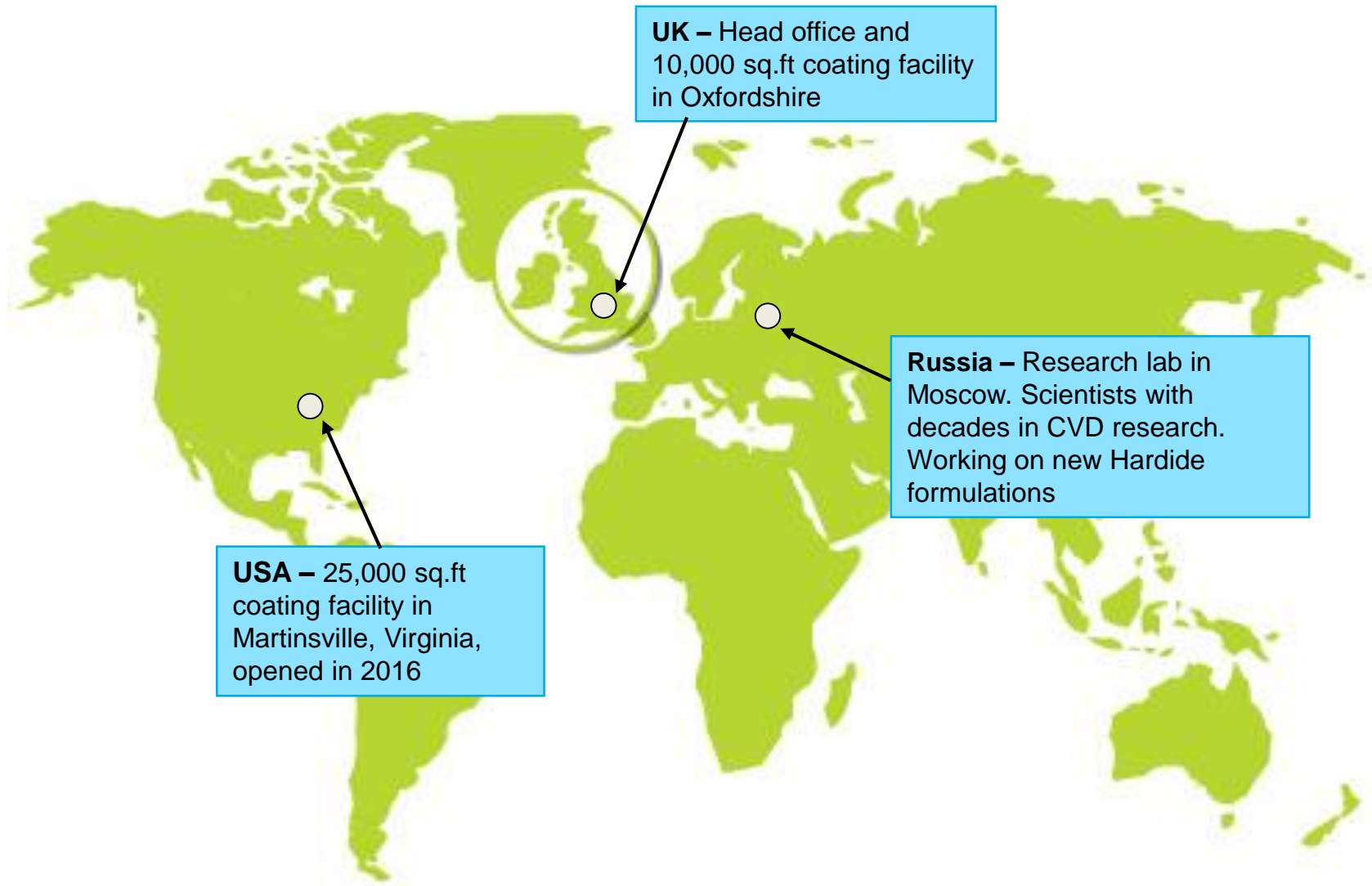
Philip Kirkham, CEO

# History of Hardide

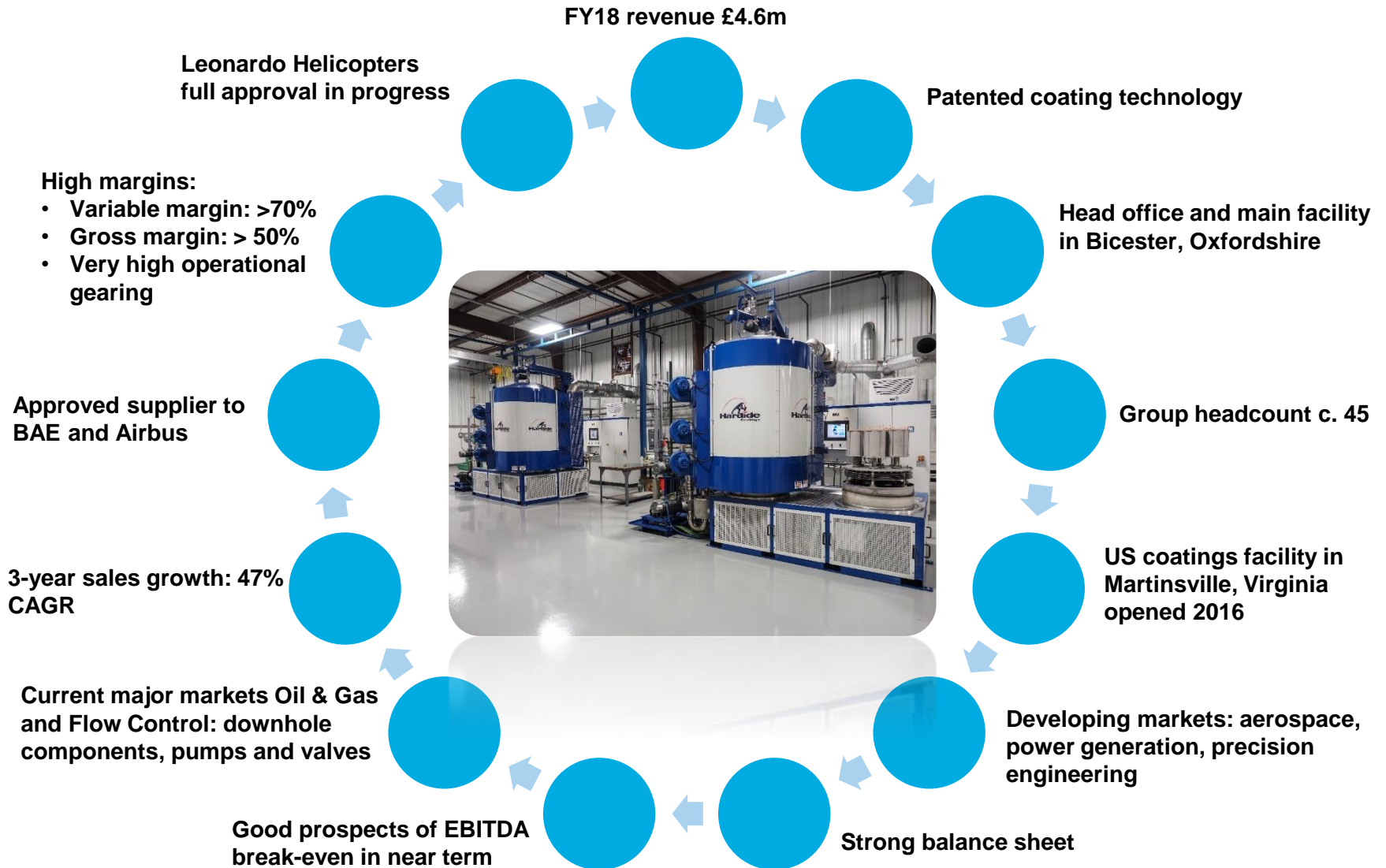


- Leading global innovator and developer of advanced Tungsten Carbide based metal coatings
- Strong IP portfolio: 5 patents registered since incorporation with a new and important patent pending for turbine blades

# Hardide group facilities



# Key facts



# Key markets



## Oil & Gas

⑩ Used by leading oil & gas service providers – downhole, well stimulation and subsea applications

## Flow Control

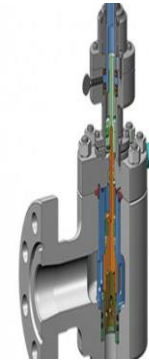
⑩ Severe service pumps & valves for demanding environments

## Precision Engineering

⑩ Power generation, plastics extrusion, baggage X-ray machines, silicon wafer production

## Aerospace

⑩ BAE and Airbus approved, Leonardo approval in progress, multiple applications with other global aero players



**Nano-structured tungsten carbide, metallurgical coatings that significantly extend the life of critical parts and tools. A CVD (Chemical Vapour Deposition) process creates an extremely hard, tough and thin layer with a number of advantages over competitor processes.**

## Superior wear & erosion resistance

Outperforms hard chrome by factor of 12 and cemented tungsten carbide by factor of 3

## Chemical Resistance

Virtually pore-free structure provides very high protection against a range of corrosive and aggressive chemicals

## Tailored Hardness

Gas phase of process allows precise control over hardness. Micro hardness of up to 4000HV can be achieved



## Ease of Finishing

Only polishing required in contrast to expensive grinding with other technologies - especially with complex shapes

## Internal Surfaces and Complex Shapes

Gas-phase deposition process allows uniform coating to form on internal surfaces and complex designs. This is not possible for HVOF, Plasma Spray, D-Gun or PVD Coating technologies

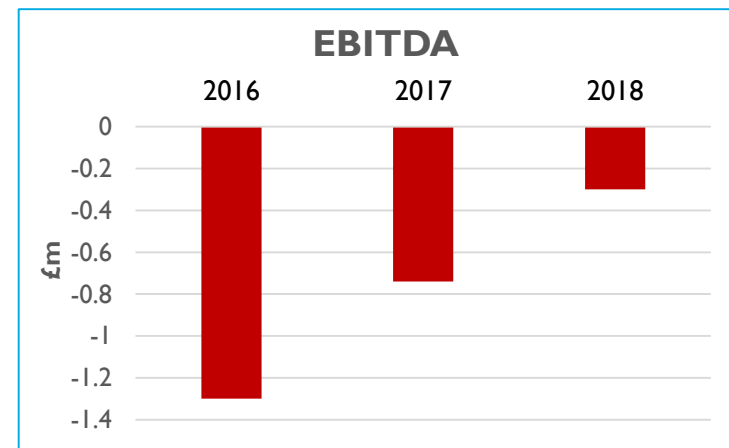
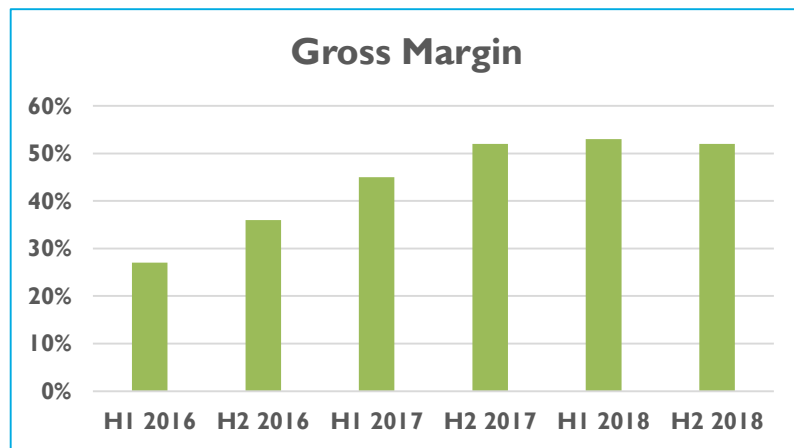
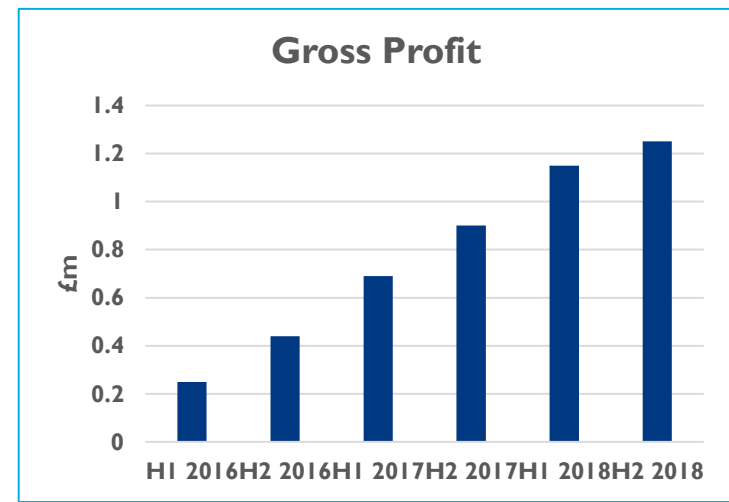
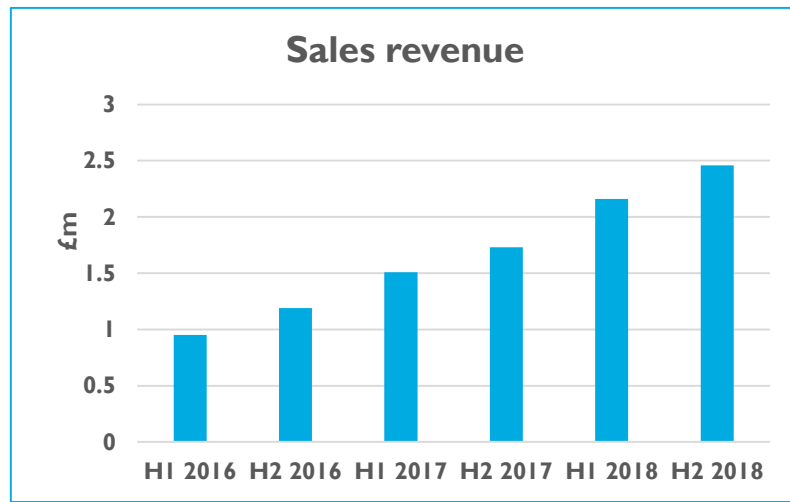
## Toughness and Flexibility

Follows contours of substrate and has high flexibility – substantially reducing the risk of cracking under deformation

## Coating Thinness

CVD process requires no binder, creating a less bulky structure than alternative technologies

# Financial trends



# Year on Year comparison

Sales grew strongly over the past three years (47% per year) but gross profit grew nearly twice as fast (87% per year) and fixed costs (production overheads + admin costs) grew at only 16% per year.

£m	2015/16	2016/17	2017/18	CAGR
Sales	2.14	3.24	4.61	47%
Variable Gross Margin %	67%	75%	73%	
Fixed costs of sales	0.75	0.85	0.97	14%
Gross Profit	0.69	1.58	2.41	87%
Gross Profit %	32%	49%	52%	
Overheads	1.99	2.33	2.71	17%
EBITDA	(1.31)	(0.74)	(0.30)	
'Fixed' costs	(2.74)	(3.18)	(3.68)	16%



## Airbus

- ⑩ Positive progress. Multiple components at final stage before production

## Leonardo Helicopters

- ⑩ Positive progress. Final stages before part approval on transmission system

## Other Aerospace

- ⑩ New interest from US aerospace companies - trials with Triumph Aerospace and others

## Oil & Gas

- ⑩ Two new major supply contracts in place
- ⑩ Three new major customer applications

## Flow Control

- ⑩ Additional high volume components from the major pump customer

## Precision Engineering

- ⑩ Continuing demand for x-ray baggage screening machine parts
- ⑩ Power generation turbine blade opportunities

## North America

- ⑩ Additional business development manager appointed
- ⑩ Now 61% of Group turnover

- ❖ **A unique coating technology that fills a major gap in the range of competitors' coatings:-**
  - coats uniformly where others cannot:
    - complex shapes
    - internal as well as external surfaces
  - Coating facilities in UK and USA
- Strong revenue growth
- Large market size
- Solid position in oil & gas sector
- Verge of breaking into aerospace markets with Airbus, Leonardo Helicopters and others
- Power generation turbine blade market opportunities are huge

**We continue to re-invest in the business and production facilities as our strategy is to make the company an attractive acquisition target**

Thankyou for listening !  
Meet us at Stand 12

# Disclaimer



This presentation does not constitute or form part of, and should not be construed as, an offer, invitation or inducement to purchase or subscribe for any securities nor shall it or any part of it form the basis of, or be relied upon in connection with, any contract or commitment whatsoever. This document does not constitute either advice or a recommendation regarding any securities of the Company. Any person who is in any doubt about the subject matter of this document should consult an authorised person. The Company is not obliged to accept an offer to subscribe for shares from a recipient and shall not be obliged to disclose its reasons for any refusal. Each of the Company and its advisers reserve the right to negotiate with one or more prospective investors at any time and to enter into an agreement with any of them on any terms and without prior notice to the other prospective investors and to change, without notice, any procedure for the offer of shares or terminate negotiations at any time prior to the signing of any binding agreement in relation to the offer of shares.

The contents of this document are strictly private and confidential and, accordingly, the contents of this document must not be published, reproduced, copied or disclosed to any person other than the recipients' professional advisers and then only on the condition that such professional advisers maintain the confidentiality of this document. By accepting delivery hereof, the recipient agrees to return this document to the Company promptly on request, together with any other materials provided to it in connection herewith, without retaining any copies. Each recipient should make its own independent assessment of the merits or otherwise of acquiring the Shares and should take its own professional advice. This document does not purport to contain all the information that the recipient may want or require in investigating the Company. Any party must rely upon his own inquiries and investigations.

Unless specifically attributed to another source, any targets, forecasts, estimates and projections contained in this document have been prepared by the management of the Company and involve elements of subjective judgement and analysis which may or may not be correct. In addition, some statements contained in this document or in documents referred to in it are or may be forward-looking statements. Actual results may differ from those expressed in such statements, depending on a variety of factors. Any forward-looking information contained in this document has been prepared on the basis of a number of assumptions that may prove to be incorrect, and accordingly, actual results may vary. The information set out herein may be subject to updating, completion, revision, verification and amendment and such information may change materially.

Neither the Company nor its advisers nor any of their respective directors or employees or any other person make any representation or warranty, express or implied, as to the accuracy or completeness of the contents of this document or of any other document or information supplied at any time in connection with any proposed placing of shares. In particular, but without limitation, no representation or warranty is given as to the achievement or reasonableness of, and no reliance should be placed on, any assumptions, targets, forecasts, projections, estimates or prospects with regard to the anticipated future performance of the Company. No responsibility or liability is accepted by any such person for any errors, misstatements or omissions in this document or any other such document or information. The exclusions set out in this paragraph do not extend to an exclusion of liability for, or remedy in respect of, fraudulent misrepresentation. Neither the Company nor its respective advisers or any of their respective directors or employees or any other person shall be obliged to provide the recipient with any further information or to update this document or correct any inaccuracies that become apparent.

This document and the investment activity to which it relates may be communicated to, and is only directed at persons in the United Kingdom who are, (i) persons having professional experience in matters relating to investments, being investment professionals as defined in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended) ("**FPO**"), (ii) persons falling within Article 43 of the FPO (including existing members of the Company), (iii) persons falling within Article 49(2)(a) to (d) of the FPO (including high net worth companies and unincorporated associations), and / or (iv) persons to whom communication may otherwise be lawfully made, (together "**relevant persons**"). The document must not be acted on or relied upon by any persons who are not relevant persons. Any investment or investment activity to which the document relates is available only to relevant persons and will be engaged in only with relevant persons.

Any recipient of this document, to whom communication of it is not lawful, should return it to the Company immediately.

There shall be no sale of the shares in any state or jurisdiction in which such offer, solicitation or sale would be unlawful. Neither this document nor anything contained herein shall form the basis of, be relied on, or act as an inducement in connection with, any offer or commitment whatsoever. In particular, this document and the information contained herein are not an offer of securities for sale in the United States and are not for publication or distribution to persons in the United States (within the meaning of Regulation S under the U.S. Securities Act of 1933, as amended (the "**Securities Act**"). The securities proposed to be offered by the Company have not been and will not be registered under the Securities Act and may not be offered or sold in the United States except pursuant to an exemption from the registration requirements of the Securities Act. This document is to be read in conjunction with the presentation from Company management, is not to be copied or distributed further than the first recipient.