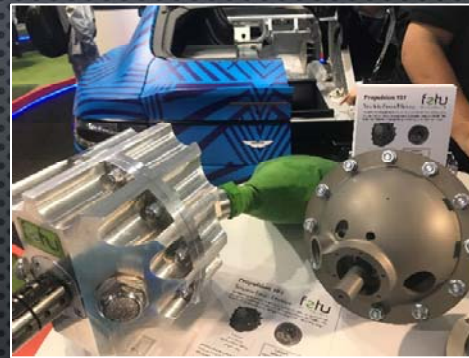
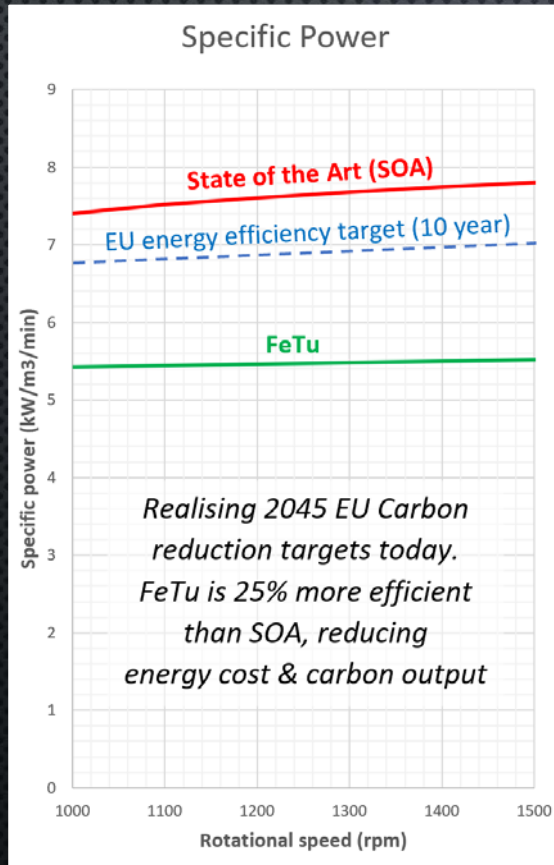


Energy Utopia

fetu
ROTICULATE



Jonathan
Fenton
CEO, Founder

2020

info@fetu.co.uk

The
Fenton
Turbine

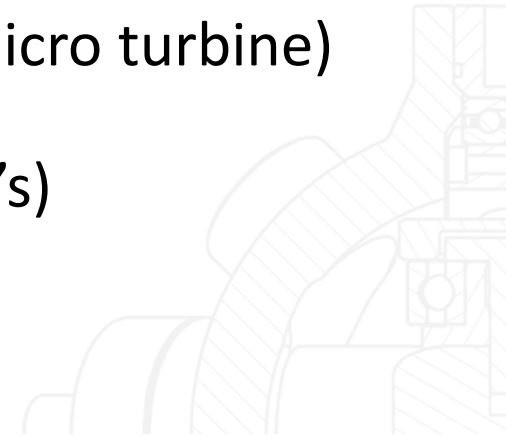
The Problem

- Humanity faces a endemic climate catastrophe
- Scientific evidence implicates excess CO₂ creating a 'greenhouse effect'
- Fossil fuels and energy inefficiency (generation & use) are implicated
- Time is of the essence, natural energy & waste heat are abundant
- The power generation and energy system is only 30% efficient
- Innovation has yet to accelerate beyond the problem



The FeTu Answer

- ✓ Improved efficiency in energy hungry machines (compressors, pumps)
- ✓ Improved efficiency in Power Generation (turbines, heat recovery)
- ✓ More access to Waste, Solar, & Geothermal, HEAT (efficient heat engine)
- ✓ Highly effective electric heating & cooling systems (efficient heat pump)
- ✓ 'Lighter' portable power solutions than Li ion batteries (micro turbine)
- ✓ Zero ODP, zero GWP and low risk (Not Hydrogen, Not CFC's)

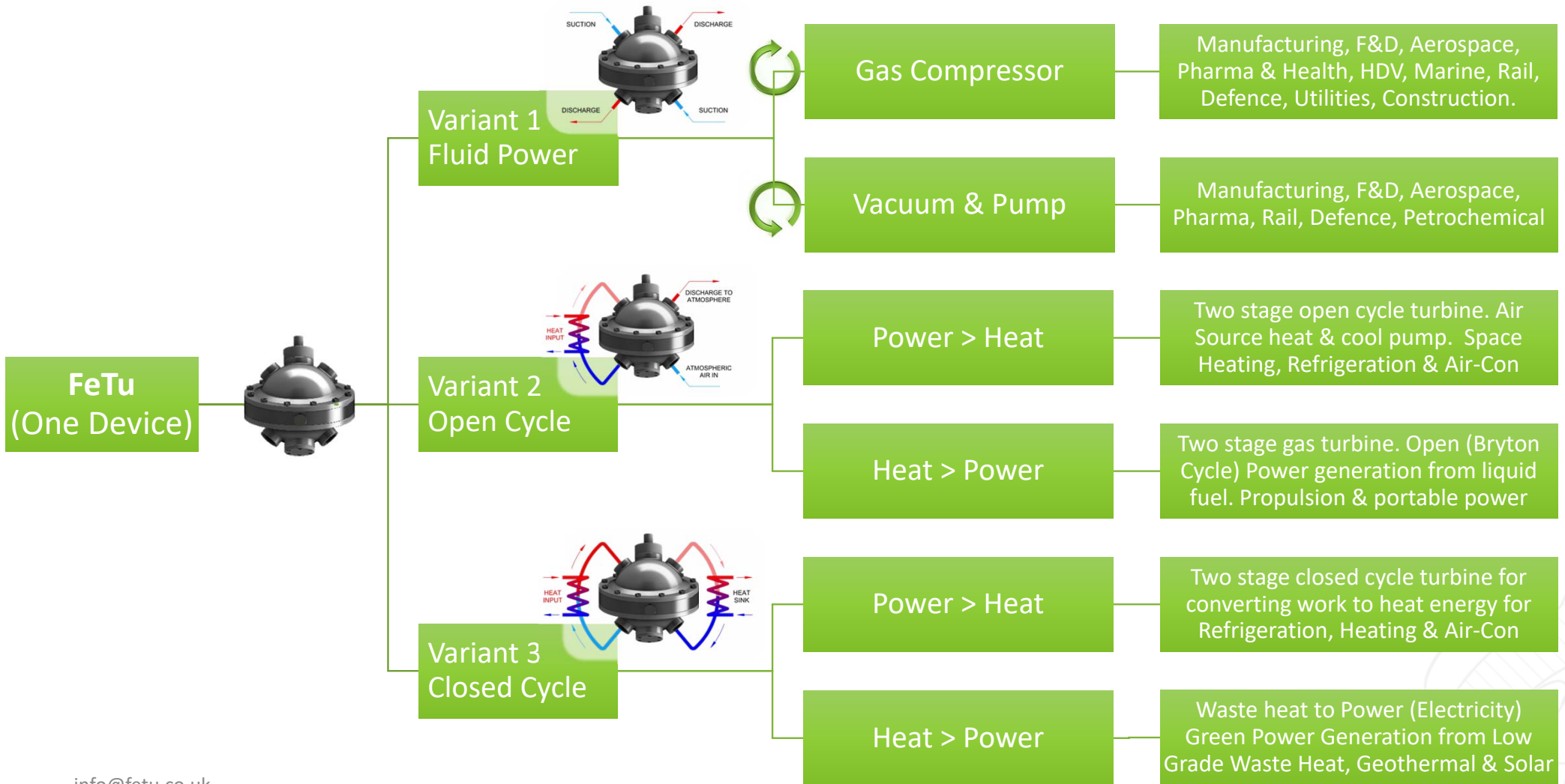


How does FeTu differ? *...Why have I have not seen it?*

- A unique & innovative mechanical technology; enabling new possibilities
- Offers the most pure & efficient symbiosis of heat & power
- Independent of Market or application, diminutive size, weight and ROI
- **One global problem, one simple device**
- FeTu has hidden for 3 years protecting & proving the technology
- IP is granted in the global top 20 manufacturing economies

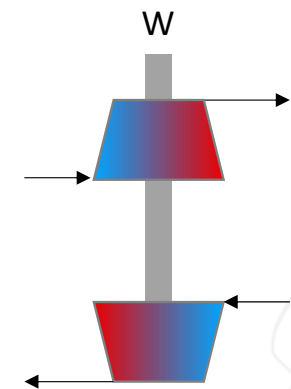
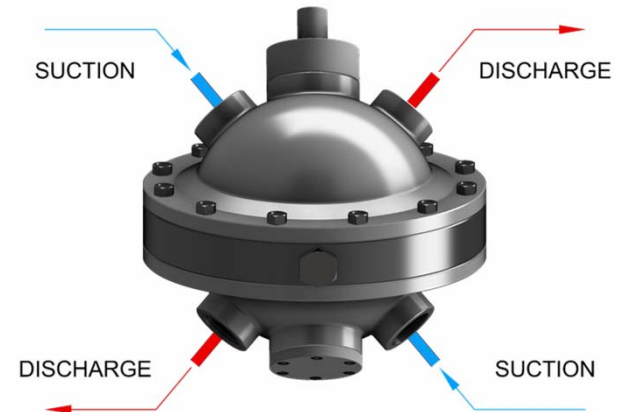


FeTu *One technology, 3 variants, many uses*



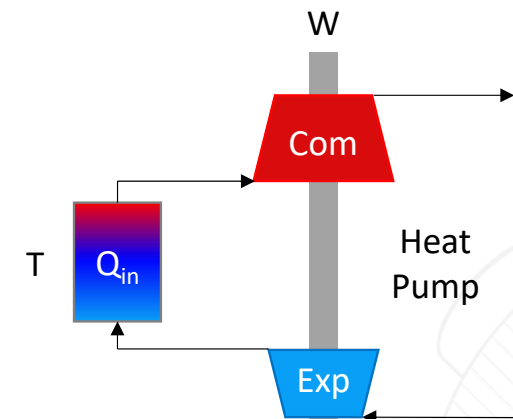
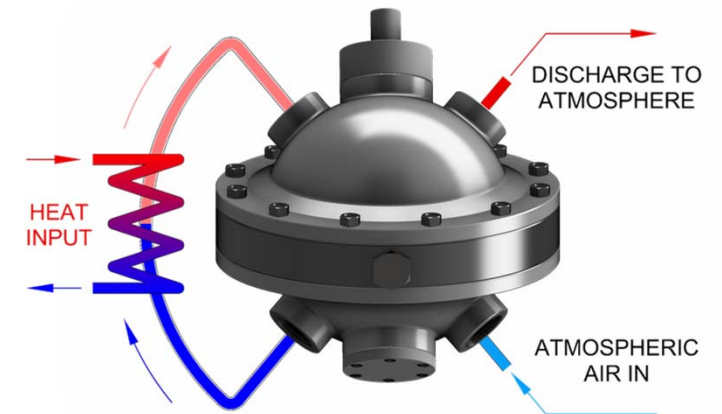
Variant 1 (compressor)

- Oil free compressor & vacuum pump
- OEM & End user trials to realise TRL7 in 2020
- £30bn Market, medical, food & drink, industrial
- Energy hungry machines 80% TCO is energy (10 year)
- FeTu proved highly efficient (tested Uni of Bath 2018)
- **25% increase in efficiency** over State-Of-the-Art



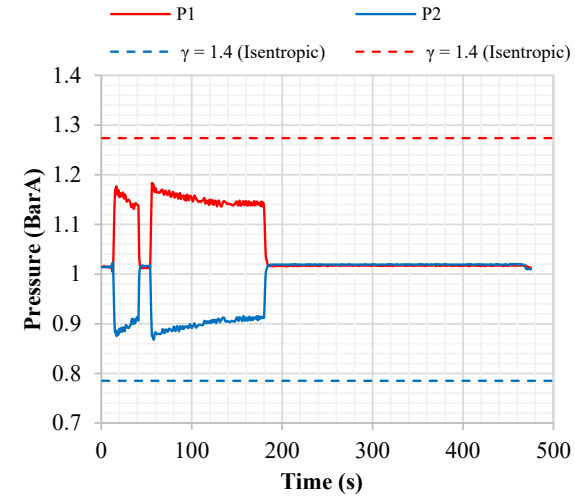
Variant 2 (open cycle 'componder')

- Heat Pump
 - Ideal for air to air (gas to gas) thermal *heat* transfer
 - Ideal for liquid to air (liquid to gas) thermal *heat* transfer
 - Boost or reduce the temperature of an air (gas) flow
- Heat Engine
 - Small scale gas turbine or cryogenic 'engine'
 - Clean and efficient fuel (heat) to power conversion
 - Used for propulsion or portable power generation

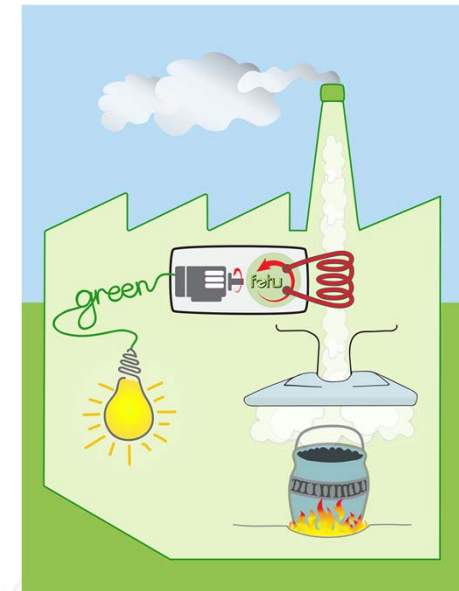


Variant 3 (closed cycle 'componder')

- Closed cycle (power to heat)
 - High efficiency organic refrigerator (air-con)
 - High efficiency organic heater (air-con)
 - Zero ODP, Zero GWP, variable capacity
- Closed cycle (heat to power)
 - Low Grade Waste Heat Regeneration
 - Solar power generation
 - Geothermal power generation



	Sterling	Fetu
Action	Single-acting	Quad-acting
BIVR	Low	High
Closed cycle	Yes	Yes
Compact	No	Yes
Contianment	Poor	Excellent
Continuous Comb.	Yes	Yes
High Volumetric Eff.	No	Yes
Light Weight	No	Yes
Low Temp diff.	Yes	Yes
Multi Fuel	Yes	Yes
Power Density	Low	High
Pressure Limit	Low	High
Quiet	Yes	Yes
Remote Heat Exchange	No	Yes
Reversible	Yes	Yes
Scaleable	No	Yes
Two descreet domains	No	Yes
Valveless	Yes	Yes



Market

*One Technology
Multi-application*

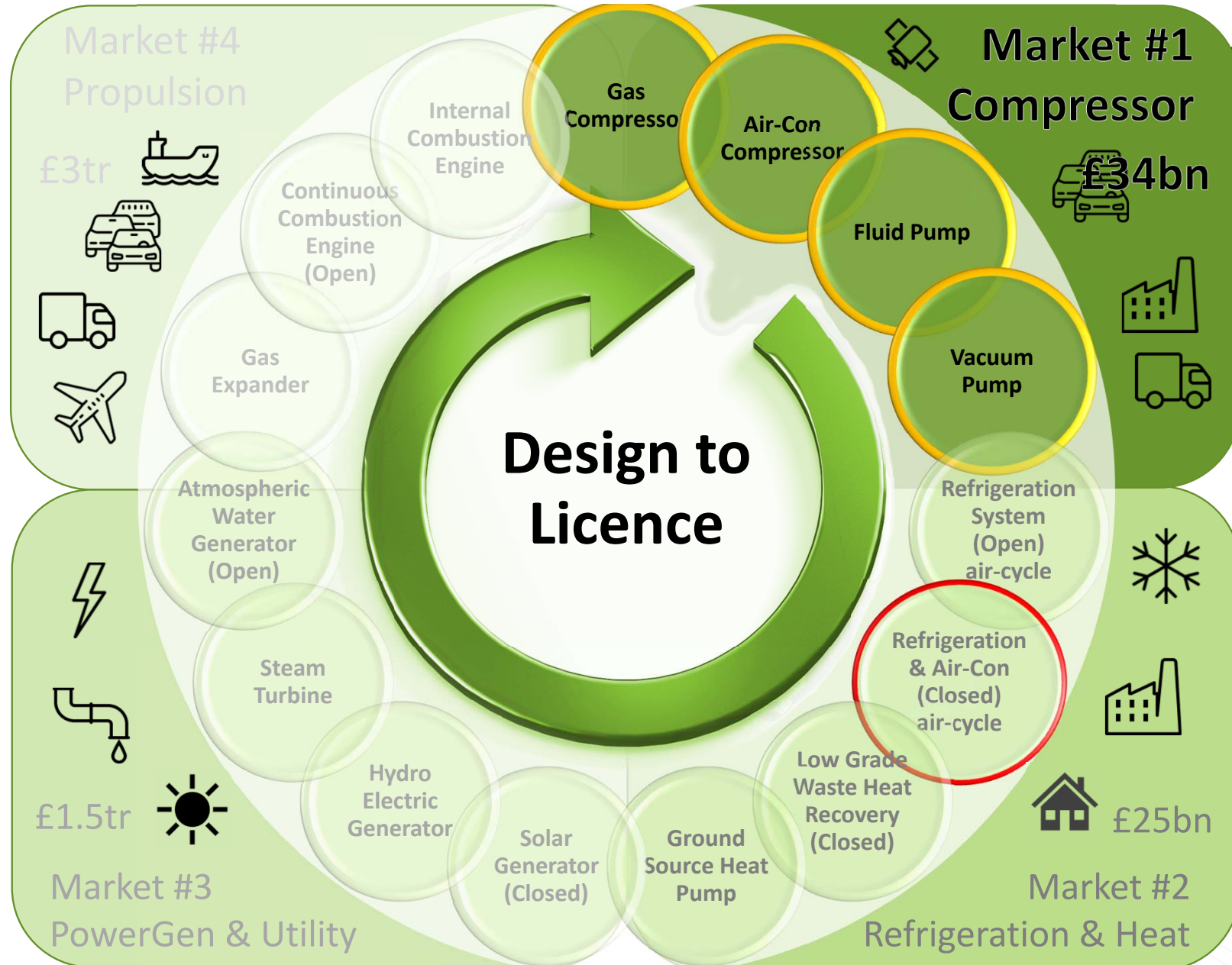
Beachhead

- Compressor Market
- £34bn pa (5% CAGR)
- 10% share through key OEM partner
- Licence & Royalty

Follow on

The characteristics FeTu offers is commonplace to all energy distribution and use. It's enabling closed-loop system disrupts many segments & unlocks renewables

On paid trail (£0.3m)



Get to know our key players

Jonathan Fenton

CEO, company founder and Inventor



A commercially astute mechanical design engineer, with 35 years experience in engineering, operations, and commercial, management, Jon has repeatedly demonstrated a natural gift for visualisation and innovative realisation of fresh approaches to ensure the success of not only companies but also individuals.

Jon's career has helped steer companies large and small, providing creative vision and client centric results. A gifted team builder and leader with a 'no task too great' attitude which is proven to create strong, loyal and creative teams that make a difference; delivering unsurpassed levels of profitability and customer satisfaction in multi-million pound projects the world over.

His adaptability and versatility has seen him natively manage upwards throughout his career, always a key advisor and confidante of senior management, repeatedly delivering enterprises into new markets and profitability on the back of outright effort, unrivalled vision, & strategic innuendo.

Jon's exceptional business acumen has already stimulated commercial interest in the technology, with interest & support from renown universities & academics. Himself, studying engineering at the University of Huddersfield.

The Manufacturer magazine running a piece on Jon & the FeTu journey titled "Closing in on the Holy Grail" [Nov 2018]. 'Insider' listed FeTu in the 'top 50 most existing companies to watch in 2019'. FeTu were runners up to Limejump in the Business Green technology awards, who have recently been acquired by Shell.

Eurling Prof Ian M. Arbon

CEng, Cenv, MSc, MBA, FIMechE, FASME, FEI, FInstR, FIES



Working in the global gas compressor manufacturing industry for over 50 years & in renewable energy applications for over 40 years; Ian is a Fellow of IMechE, ASME, EI, IoR & IESIS & also holds an MBA degree in addition to his technical qualifications; he is the author of two books on gas compression technology.

Ian worked as a design/applications/project engineer with major compressor manufacturers in the UK, the Netherlands, Germany, the USA and Canada before becoming, successively, Managing Director of Howden Compressors Ltd, Caledonian Compressors Ltd and Peter Brotherhood Ltd. In each of which he was responsible for ground-breaking development and innovation in gas compression technology, particularly in renewable/sustainable energy applications; exploiting these to the maximum of their commercial potential and returning all three businesses to significant profitability.

Ian has worked with numerous SMEs on a consultancy basis, in the UK and overseas, particularly in helping to bring innovative concepts successfully to commercialisation. He has been a Visiting Professor in Alternative Energy at Newcastle & Strathclyde Universities and is currently an Honorary Professor in Sustainable Energy at the University of Glasgow.

Ian is arguably one of the worlds foremost authorities on the compressor sector (market and technology) and alternative energy initiatives.

Ian was keynote speaker at the 11th International Compressor Conference.

Thank you for your time



Appleyard Lees[®]

Innovate UK



Innovate UK
Knowledge Transfer Network



SEDULO

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