



**WASE**

**unlocking the power of waste**

**Investment Pitch Deck**

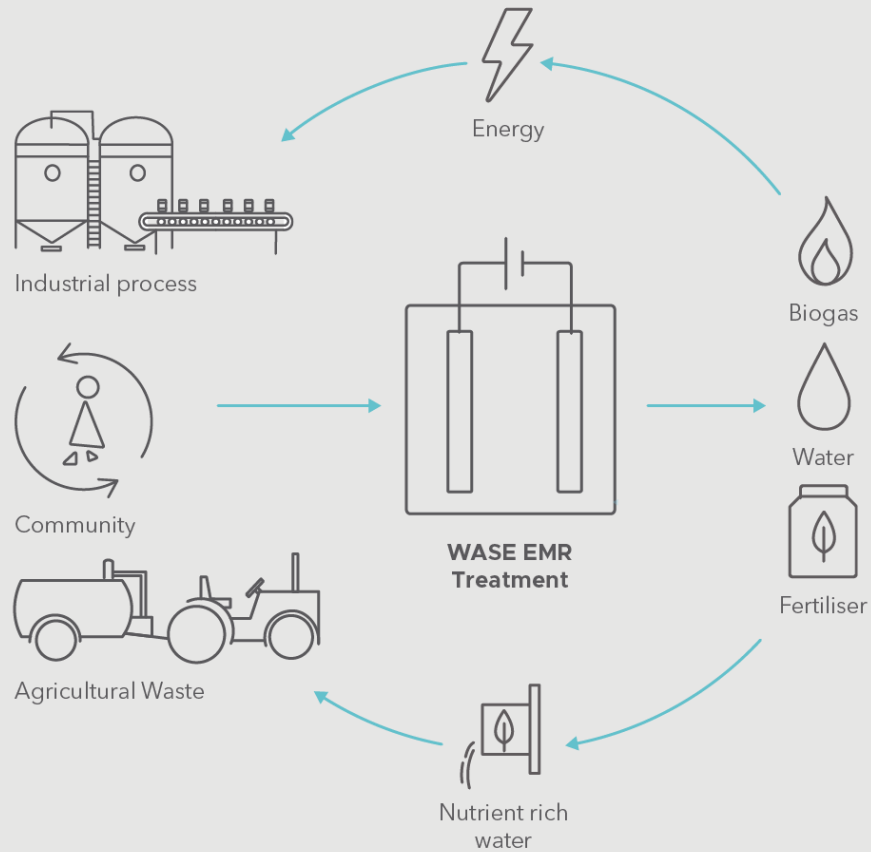
# The Problem

Global issues put pressure on industrial manufacturers. There are increasingly **stricter regulations** on wastewater disposal causing rapidly increasing wastewater tankering costs for effluent with high organic content. Combined with energy price hikes, they face **increasing operational costs**.



1. UN Water (2017); Wastewater; An Untapped Resource; [https://unece.org/fileadmin/DAM/trade/agr/meetings/wp.07/2018/Food\\_loss\\_BAskelsdottir.pdf](https://unece.org/fileadmin/DAM/trade/agr/meetings/wp.07/2018/Food_loss_BAskelsdottir.pdf)  
2. Interviews with wastewater tankering suppliers  
3. Customer interviews

# Our Value Proposition



## Water And Sustainable Energy as a Service

1. Meet wastewater discharge regulations
2. Reduces energy & water rates by 10-20%.
3. Fixed energy prices
4. no CAPEX
5. Guaranteed sustainable supply of water and energy
6. Capital sales offer a ROI <5yrs

## Our Technology

Our Electro-Methanogenic Reactors provide **Modular Plug and Play solutions** to treat waste onsite that wasn't previously treatable in an economically viable way.



**3 - 10x** faster than AD

**>20%** energy increase



**95%** waste/organics removal

**70%** smaller than AD

**<30C** low temperature



Intelligent Biosensing Operation



# The Team - Our team delivers award-winning scientific expertise and proven experience growing waste/energy businesses.



**Dr Thomas Fudge**  
**CEO & Founder**



- Award-winning Environmental Engineer with almost a decade of experience in sustainability sector



**Dr Saro Rengaraj**  
**Head of Science**

- 10+ yrs. industry experience developing biosensors & bioprocessing systems



**Llŷr Anwyl**  
**COO & Founder**

- 10 yrs. in wastewater and agricultural sector implementing sustainable solutions.



**William Gambier**  
**Head of Automation & Founder**

- 5 yrs. experience designing and building a decentralised wastewater treatment system



**Manshu Agarwal**  
**Commercial Sales Director**

- 20+ yrs. leading and advising global technology-based companies, with expertise in the industrial wastewater and food and drink sector.



**Richard Guetterbock**  
**NED**

- AD sector expert, advising industry and Government
- Previous EXIT in AD sector - Clearfleau



**James Keeling**  
**Interim CFO**

- 20+ yrs. as start-up CFO and Head of Commercial Finance at BT and GSK



**Jonathan Pollock**  
**Investor Director**

- CEO Elbow Beach
- Previous Commercial Director, BT & EE

## Future Hires

- Sales Manager
- Head of Customer Success - Identified
- Field Engineer
- Executive Assistant / Office Manager



# Market



**TAM - £147 Bn**

Global wastewater and waste-to-energy markets<sup>1,2</sup>

**SOM - £35.5 Bn - CAGR 6 - 10%**

AD Upgrading  
Global Food and Beverage wastewater market<sup>1</sup>  
Global Dairy farmer's market

**SAM - £5Bn over 5 years<sup>3,4</sup>**

UK food and drink manufacturers  
Targeting 30% of market - 4600 customers  
Drinks, meat, dairy and cooked foods



**We have solutions for global market needs**



**3% penetration = £172 Mn<sup>4</sup>**

Customer Lifetime Value:

**£1.3 - 10+ Mn**

1. Frost & Sullivan (2019); Outlook of the Global Water and Wastewater Market, 2019
2. Global Market Insights (2019) [Biological waste to energy treatment technologies](#)
3. Global News Wire (2022) [Water and Wastewater Treatment Market for Food Industry](#)
4. Bottom-up calculation carried out with Carbon Trust and re-evaluated on WASEaaS business model, value over 20 yrs.

# Business Model

## £9.2 million pipeline

**Capital Sales** - £5.2 Mn pipeline giving customers an ROI <5 yrs. Profits will drive the service model growth, reducing debt reliance.

**WASE as a Service** - is our pay-per-unit volume of wastewater treated and energy produced with upside potential. Our service model will be the priority for high growth and market penetration, where we can increase ARR and maximise gross margins.



### industriWASE 80

Total COGs ≈ £590k

OPEX: £35k /yr.

**15% Cost Reduction by 2024**

### Capital Sales

£880k

£40k /yr.

Equipment

Remote monitoring & maintenance

### WASE as a Service

£135k /yr.

£42k /yr.

**£20-27k /yr.**

Wastewater treatment

Energy<sup>3</sup>

Water, Fertiliser & Carbon- Emissions trading scheme

Equipment: **£880k**  
 ARR: **£40k /yr.**  
 CLTV (profit) **£0.6 Mn**  
 Gross Margin: **28%**

ARR: **£177 - 207k /yr.**  
 CLTV (profit) **£4 - 5 Mn**  
 Gross Margin: **65%**

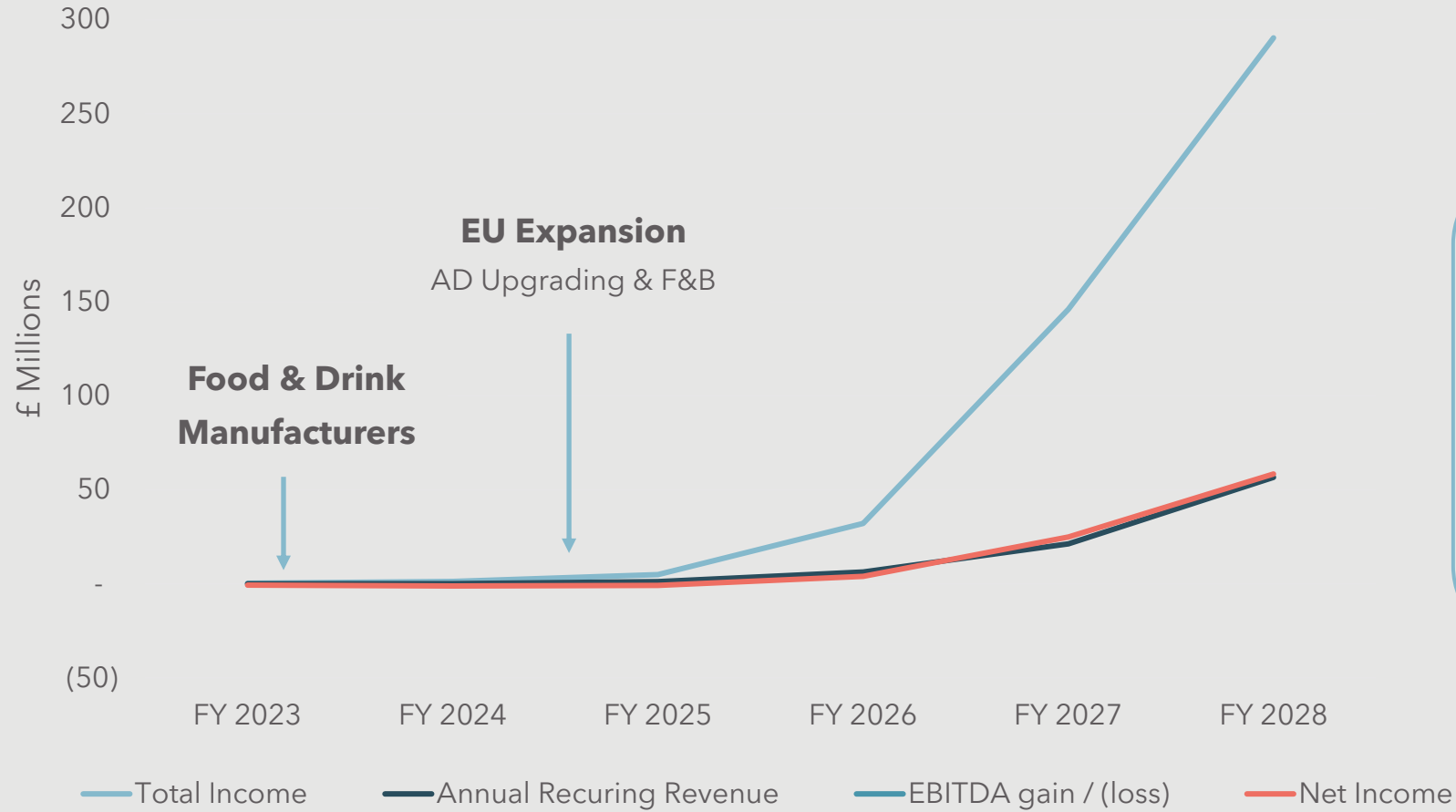
Ref Doc: Total-Cost-of-Ownership-Brewery-WW-industriWASE-80\_23\_02\_01

1. COGS include Combined Heat and Power System  
 2. Revenue is based on average brewery wastewater tinkering costs £13.50/m<sup>3</sup>.

3. Energy costs are based on 9p/kWh thermal and 31p/kWh Electricity  
 4. Revenue costs do not include inflation.  
 5. Water reuse, fertiliser and carbon savings are additional uplift opportunities.

# Financial Forecast

Secured 1 million in signed orders for 2023



- **£290 million revenue** - Mar-28
- **£56 million annual recurring revenue** - Mar-28
- **£97 million installed assets base** - Mar-28

- WASE Financial Year is April to March
- Sales forecast is on a 45:55 split for Service vs Capital Purchase.
- Sales will increasingly focus on sites requiring multiple units increasing customer value and high revenue growth.



# Route to Market

Providing a service removes CAPEX investment which is a major adoption barrier hardware companies face. We're developing a supply chain with manufacturing, maintenance and finance partners, enabling rapid growth.

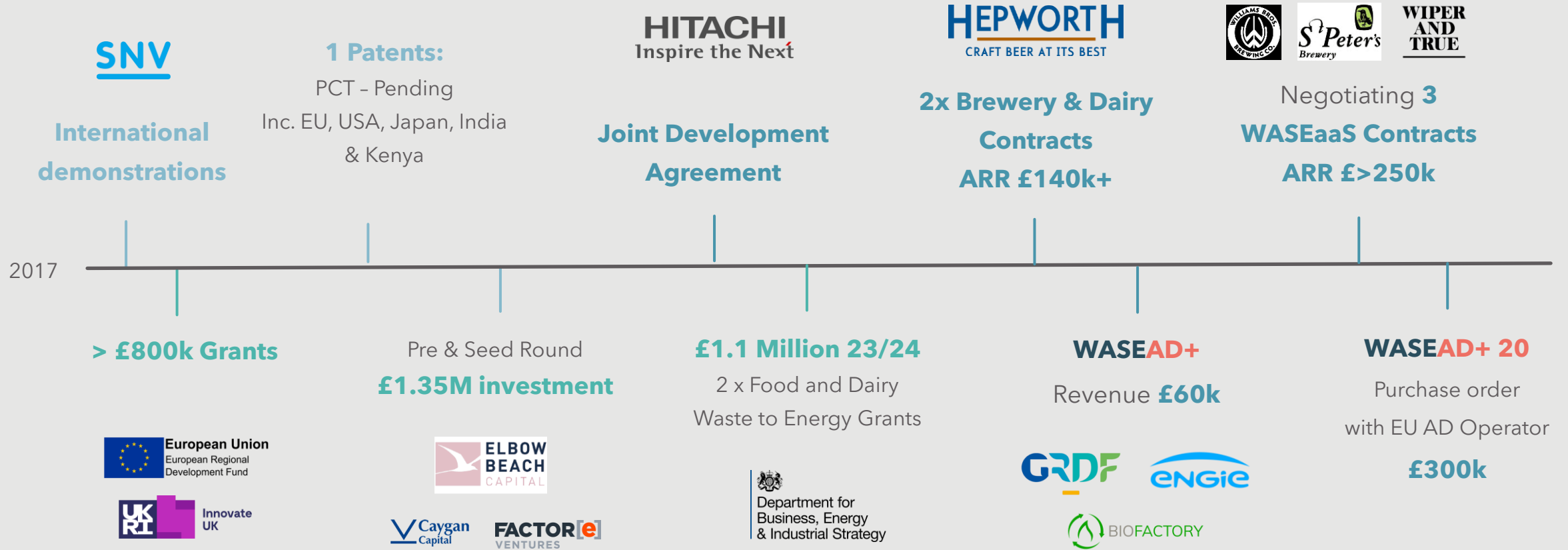


# Competitive Advantage

We give customers a full circular waste management solution

	Slurry Wastewater Treatment	Wastewater Treatment	Maximum Energy Recovery	Biosensing performance optimisation	Pay as you Go	Region	Funding Raised (£ Millions)
 <b>WASE</b> unlocking the power of waste						EU - 2017	2
 <b>CAMBRIAN</b> INNOVATION						USA - 2006	18
 <b>AQUACYCL</b>						USA - 2016	4.7
 <b>fluence</b>						USA - 2012	IPO 2018
 <b>QUBE</b> renewables						UK - 2013	Acquired 2021
 <b>antec</b>						EU - 2014	7

# Traction



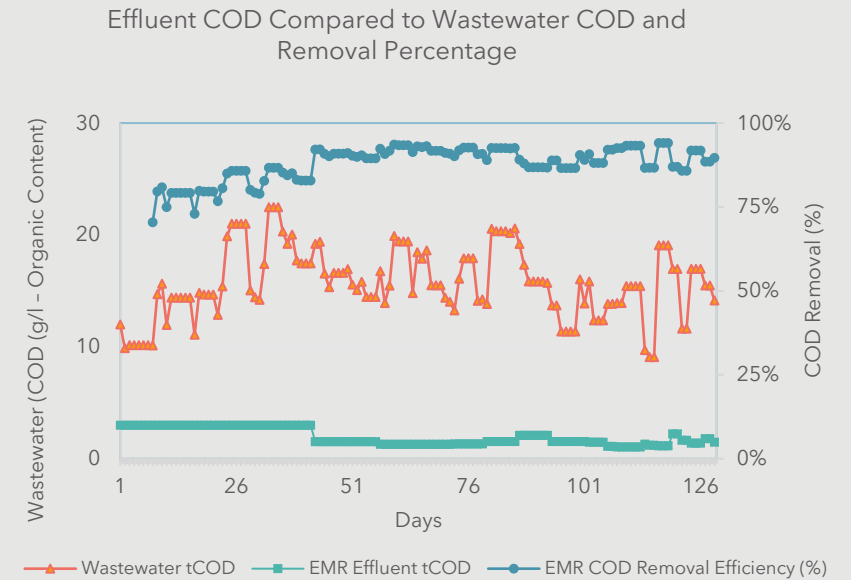
## Awards:



**WASE**

# Evidence of Execution

1. Business model revision, leading to £500k service contract, £300k booked revenue in AD upgrade + £750k contracts out for signing.
2. Removed technical risk with 8-month customer trail: TRL increased 5 to 7/8
3. Manufacturing supply chain confirmed - 6-month lead and 20-unit manufacturing capacity.
4. New £200,000 R&D facility was set up in Bristol - leading to £30k research contract with GRDF & Engie.



1. Top image: Customer visit to see EMR unit installed at Hepworth brewery.
2. Bottom Left Image: Commercial industriWASE EMR reactor off manufacturing line.
3. Graph showing commercial system removing 90% of COD pre-settlement 95% post-settlement while wastewater COD fluctuates from 10,000 - 24,000 mg/L COD. The treatment time has been continually reduced from 20 days during start-up to 4 days. We are planning to continue reducing treatment time to 2-3 days in the coming months. Our commercial industriWASE 20 (20ft container) will be able to process between 5 - 10 m3 wastewater/day.

# Raise

We are raising £1.35 million to execute £1 million of customer contracts and install 4 units in 2023.

1. Hepworth Brewery £106k ARR Booked install Q3 2023
2. Additional £150k ARR booked with St Peters & others install Q4 2023
3. £300k Capital Purchase booked for Q2 2023.

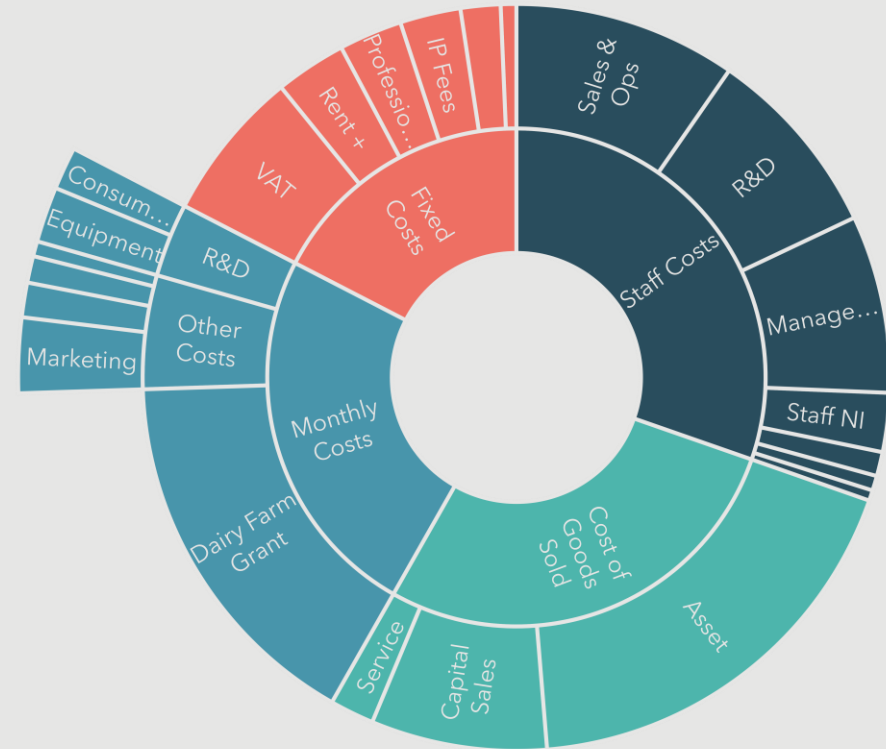
## Secured £1.1 million non-dilutive funding

- £500k BEIS Energy Entrepreneurs Fund grant confirmed
- £650k Co-Investment grant confirmed for 23/24

## Additional growth debt facility

- £1.3 million debt facility at 4% interest in due diligence

# Budget Breakdown



Segment Costs	Budget
<b>Fixed</b>	£308,000
<b>Staff</b>	£809,000
<b>Cost of Goods Sold</b>	£703,000
<b>Monthly</b>	£652,000
<b>Total</b>	£2,472,000





# WASE

**we unlock the power of waste, making  
it the fuel of the future.**

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**CEO and Co-Founder**