



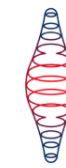
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Swan Centre
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Plastic packaging from waste

A new chemical process to produce plastic and makes the circular economy a carbon sink

Elevator pitch



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Perception of the PET plastic market is changing.

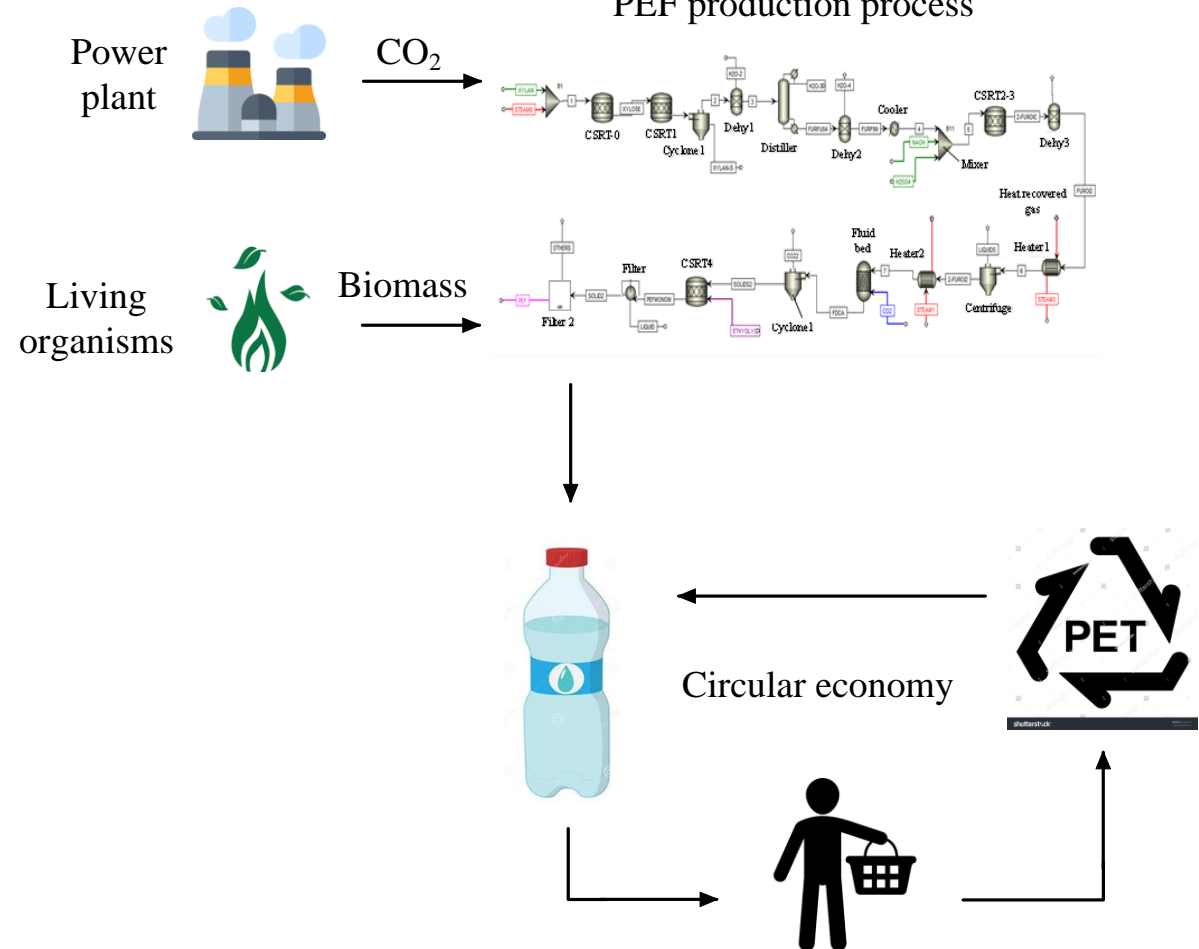
We have developed a more ethical and cost-competitive PET-alternative.

It unlocks the opportunity to use an existing circular economy as a carbon dioxide sink.

In combination, these offer any products a USP.

We are to:

- Conduct a design study of a PEF pilot plant
- Establish a spin-out
- Engage with an engineering partners



What we did

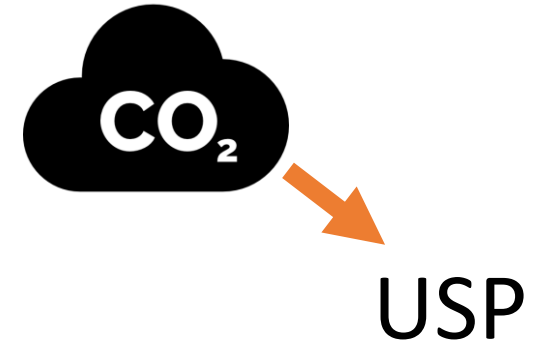


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We have a £2.5m project on industrial carbon capture and storage

- 1) Identified key industrial sectors that can be decarbonized through carbon capture
- 2) Looking at replacing common consumer products with cheap low-carbon alternatives.
- 3) Targeting product lines where low-carbon can offer a USP.



Spring water sold in PET plastic bottle was our chosen product

We developed a PEF (polyethylenefuranoate) manufacturing process which:

- 1) Is cost effective.
- 2) Uses CO₂ and low-value bio-derived waste streams.
- 3) PEF replaces the function & properties of PET.
- 4) Potentially carbon negative.
- 5) Can be recycled without issue into the PET circular economy.

What's next



0. On-going activities

- Reducing cost
- Optimizing the design for energy use, CO₂ mitigation
- IPR protection
- Target products & customer focus groups

1. Process plant design study

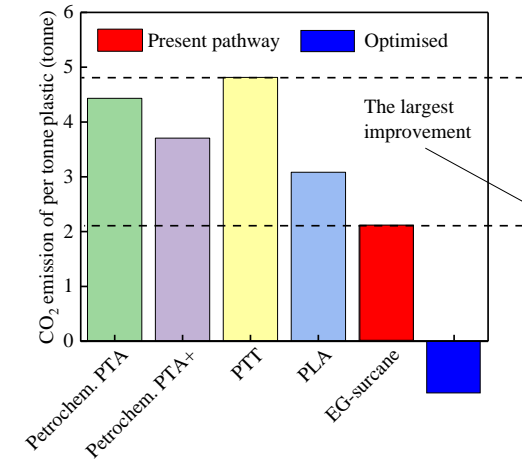
- Size, scope and detail a lab-scale pilot
- Size and scope a pilot-plant
- Engage with engineering & manufacturing partners

2. Apply for Innovate-UK/BEIS feasibility co-funding

- Build and operate a lab-pilot plant
- Design a 1/10th scale pilot plant

3. Deploy and test a pilot plant

4. Full-scale plant design and deployment



Thank you



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Come and see us at our stand!