

We strive for a world without landfill, where
waste is transformed into a resource

We care

**For your business.
For your brand.
And for the future.**

PyroCore transforms waste into recovered energy & by-products for a decarbonised and circular economy.

We design, produce, install, and maintain modular, skid mounted, units.

Waste Transformed.

Why PyroCore?



Duty of Care

We care for your **waste** and for **you**.



Reliable

Proven **technology**.
Technical **support** during lifetime & availability of a **waste performance trail unit**.
Strong **financial backing**.



Local

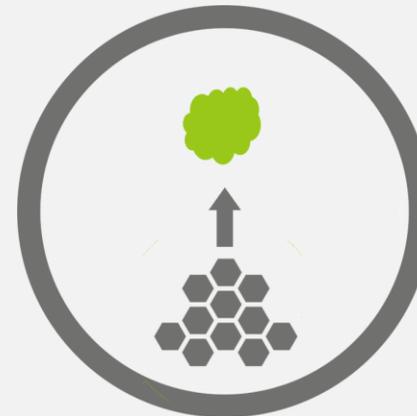
At your site, **de-centralized** solutions with a **maintenance** program.
Partnership with the **community**.

Focus
Today we master **4** different **waste streams**, this to be **the reference** for these 4



Solid to Syngas

Ensures **feedstock flexibility** as we convert into thermal energy.
(Feedstock composition can vary without detrimental effect)



Why The Phoenix?

Waste Reduction

Up to **95% reduction in mass**. Lower waste management costs.



Cost Savings

No more **gate fees**
Frozen - **fixed energy cost (self-sustaining)**



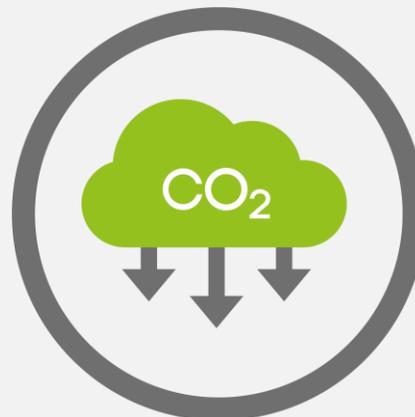
Product Recovery

Recover **by-products** for reuse.
Actively contributing to a **circular economy**.



Carbon Capture

Reduced waste miles and **energy offset**. Helps fulfil **Net Zero** carbon commitments.



Control

Of your waste streams, ensuring its **disposal method & cost**.



Corporate Social Responsibility

Protect your brand. Exceed your customers' expectations and deliver on both your **circularity and Net Zero commitments**.



Why the Phoenix ?



Modular

Futureproof: extra modules can be added in the future



Skid Mounted

Is **easy to transport** and enables a **quick assembly** by a local team



Phoenix Overview



IED emissions compliance, dry gas cleaning based on sodium bi-carbonate dosing and ceramic candles.

5

Self-sustaining operation is achieved by diverting hot gas over the **CarboCore®**

Thermal energy recovered for heating, drying or electricity.

4

Waste is **shredded** and / or dewatered (typ 25% MC) to ensure maximum efficiency.

Pre processing can be integrated with your existing **waste handling systems**.

1

2

3

Char is typically **55 % -10%** of original waste volume, depending on the key drivers of the project.

Metals, glass and other raw materials are recovered for recycling, meeting the needs of a **circular economy**.

Biogenic material char can be repurposed as **biochar**.

The **CarboCore®** operates in an oxygen free environment between **600-900°C**, depending on waste type and the application.

Waste is reduced to a **thermally decomposed** solid char and raw syngas.



Inputs

Our carbonisation technology is inherently versatile. It transforms a wide range of problematic and non-recyclable wastes, including blends, into recovered energy and by-products.



Plastics



Clinical



Biomass



GRP

Outputs

Decarbonised Energy

Energy recovered is **up to 2MWth**
which can be used for

 Heating  Drying  Electricity

500kg/hr system saves 1,900 TCO₂e
when offset against natural gas (fossil
fuel)



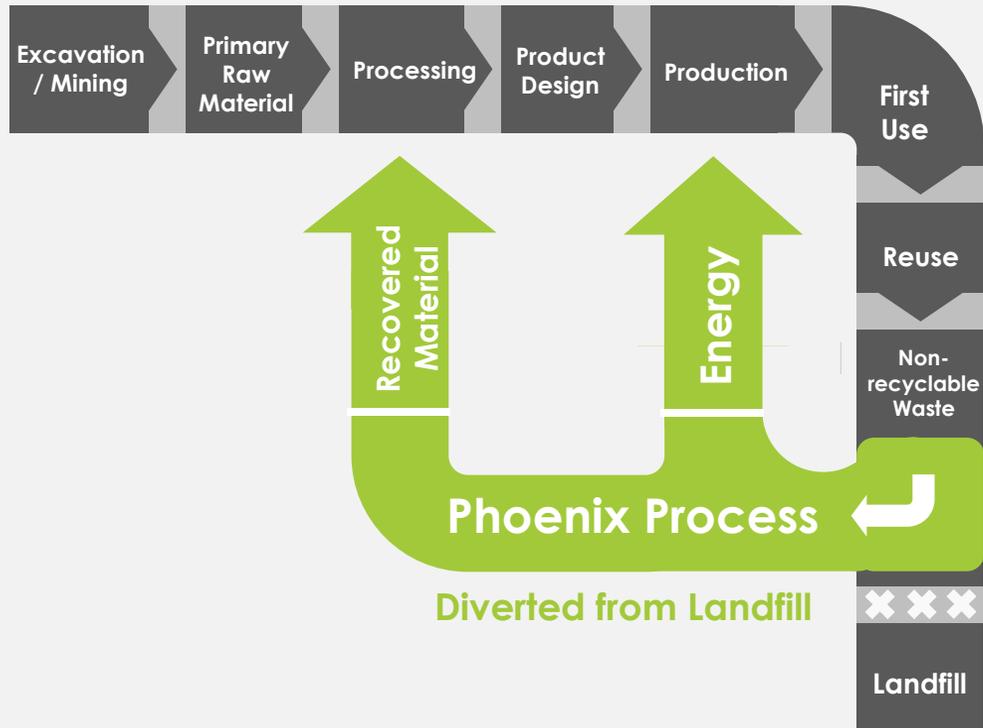
Carbon

Outputs

Circular Recovery

- Waste is reduced to char (45 - 90% by volume)
- Recoverable by-products include biochar, metals, glass and compounds

Contributing to a circular economy



Metal Recovery



Biochar

Demonstration & Research Facility

- ⦿ Can conduct **detailed trials of your waste**, demonstrate processing similar wastes, and conduct research
- ⦿ **Confirm materials recovery** to meet your circular economy requirements
- ⦿ **Validate business cases** based on numerous operating parameters
- ⦿ Support **3rd party detailed waste analysis**
- ⦿ **Calculate energy generation** for your specific waste
- ⦿ Provide a **comprehensive report** on the process and specific results
- ⦿ **Continuous improvement** in technology and operational efficiency



Case study

Recycling Rejects

- ⦿ Gate fee of 100€ / ton
- ⦿ Gas cost of 30€ / MWth
- ⦿ Yearly throughput up to **3780 kg/ year**
- ⦿ **2 MW** thermal energy production
- ⦿ Up to 90% mass reduction of the recycling rejects
- ⦿ Char is captured (carbon) in long life material (construction)

- ⦿ PyroCore gives you:
 - ⦿ a net **fixed** cost (incl OPEX – excl. subventions) of your recycling rejects of ~ **33 € / ton**
 - ⦿ **De-carbonized energy**
 - ⦿ **Circular Solution**
 - ⦿ **Control & flexibility of your waste**
 - ⦿ **Reduction in CO2 emission : on-site natural gas usage & eliminate CO2 emission transport related**

Case study

DASRI



- ⦿ Gate fee of 350€ / ton
- ⦿ Gas cost of 30€ / MWth
- ⦿ Yearly throughput up to **3780 kg/ year**
- ⦿ **2 MW** thermal energy production
- ⦿ Up to 90% mass reduction of the recycling rejects
- ⦿ Char is used to upgrade the CSR or captured (carbon) in long life material (construction)

- ⦿ PyroCore gives you:
 - ⦿ a net **fixed** cost (incl OPEX – excl. subventions) of your DASRI
 - ⦿ of ~ **78 € / ton** (when heat is used on-site)
 - ⦿ of ~ **197 € / ton** (when no heat is used on site)
 - ⦿ **De-carbonized energy**
 - ⦿ **Control & flexibility of your waste**
 - ⦿ **Circular Solution**
 - ⦿ **Reduction in CO2 emission : on-site natural gas usage & eliminate CO2 emission transport related**

Case study

GRP

- ⦿ Gate fee of 100 € / ton
- ⦿ Gas cost of 30€ / MWth
- ⦿ Yearly throughput up to **3780 kg/ year**
- ⦿ **0.5 MW** thermal energy production
- ⦿ Up to 45 % mass reduction of the recycling rejects
- ⦿ Glass Fibre is recovered in the char to re-use, value taken into account **300€ / ton**

- ⦿ PyroCore gives you:
 - ⦿ a net **fixed** cost (incl OPEX – excl. subventions) of your GRP of ~ **20 € / ton** (when heat is used on-site)
 - ⦿ **De-carbonized energy**
 - ⦿ **Control & flexibility of your waste**
 - ⦿ **Circular Solution** = > **re-use of the re-covered glass fiber**
 - ⦿ **Reduction in CO2 emission : on-site natural gas usage & eliminate CO2 emission transport related**

Waste

Transformed

Energy

Decarbonised energy recovery for your business, organisation, or community

By-Product

The Phoenix process liberates by-products for recovery and re-use

To Resource

Delivering cost savings and improving your brand values

PyroCore's highly experienced team will support you throughout your journey.

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