

“ENABLE A MASSIVE AND VIABLE CIRCULAR ECONOMY OF TYRES”

BlackCycle has successfully transformed End of life Tyres (ELTs) into 100% valorized high quality secondary materials mainly in tyres and rubber goods

HOW? Thanks to 5 mature innovations



NEW TYRES



ELTS



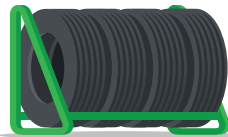
PRODUCTION OF SECONDARY RAW MATERIALS



From the 2 fractions of refined pyrolytic oil of ELTs

4 Plasticizing **resins** for new tyres using as feedstock the Resin Tyre Tar (RTT).

5 **Carbon Black** produced on a furnace process using the Heavy Tyre Tar (HTT). This sustainable Carbon Black is a drop-in alternative of fossil Carbon Black. **Ready to be deployed**



DECONSTRUCTION MACHINES



1

Innovative machines to selectively **deconstruct** parts of ELTs, allowing the production of high quality micronized rubber powder or stripes and high quality rubber. **Ready to be deployed**



PYROLYSIS & REFINING PROCESS



2

Pyrolysis process of the ELTs using an Auger reactor or a Moving bed reactor for the production of an optimized pyrolytic oil and improved recovered Carbon Black. **Ready to be deployed**

3

Refining process of pyrolytic oil aimed to optimize Heavy Tyre Tar (HTT) and Resin Tyre Tar (RTT) to produce S Carbon Black and S plasticising resins. **Ready to be deployed**



Why is BlackCycle a revolution?

- **BlackCycle is a unique and innovative project** bringing differentiating solutions to the market
- BlackCycle produces **high-quality raw materials** for new tyres.

Deploying BlackCycle would make it possible to recycle **1.5 million tons** of end-of-life tyres exported today outside Europe each year, mostly valorised in energy.

BlackCycle reduces CO2 emissions by **70%** compared with energy recovery from end-of-life tyres.

Up to **20%** of a tyre fossil materials can be replaced by these raw materials without any impact on the tyre performance.



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How to make this value chain massively deployed in Europe?

The success of this innovative value chain depends on a coordinated effort involving:

- European industries adopting and implementing the BlackCycle solution in the market.
- Investors providing funding for the necessary equipment.
- The Society embracing and advocating for this industrial and ecological transition.
- The European Commission facilitating the process through incentives and regulatory support.

To actively support this collective effort, the BlackCycle consortium has sent a policy brief to European Commission policymakers making recommendations to bolster the deployment of the circular economy of tyres (critical needs of new regulations particularly around the end-of-waste status).

Move to the green tyre revolution !

If you want to know more, go on our website:
blackcycle-project.eu

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