

VOLVO

Circular Economy at Volvo Cars



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VOLVO CAR US OPERATIONS- RIDGEVILLE, SC

Manufacturing S60
SOP was Aug 2018
2022: XC90
~1,500 employees
Only factory in NA



Our Company Purpose

Cars used to be the symbol for personal freedom. Owning a car meant that you had the means to be independently mobile – you owned not just a vehicle, you also owned choice.

None of this has changed, but the world we live in has. The earth, our cities and our everyday lives are under increased pressure. In such an age, a car can feel more like an obstacle.

At Volvo, we've made it our mission to take back the feeling of freedom and let the car be the enabler of a richer life. We will do so by offering complete mobility, regardless of what that looks like or who wants to use it. We want to provide:

Freedom to move in a personal, **sustainable** and safe way

Personal

We commit to making life less complicated and to protect your freedom to spend time and energy on the things that matter most. Our products and services are personalised, familiar and luxurious.

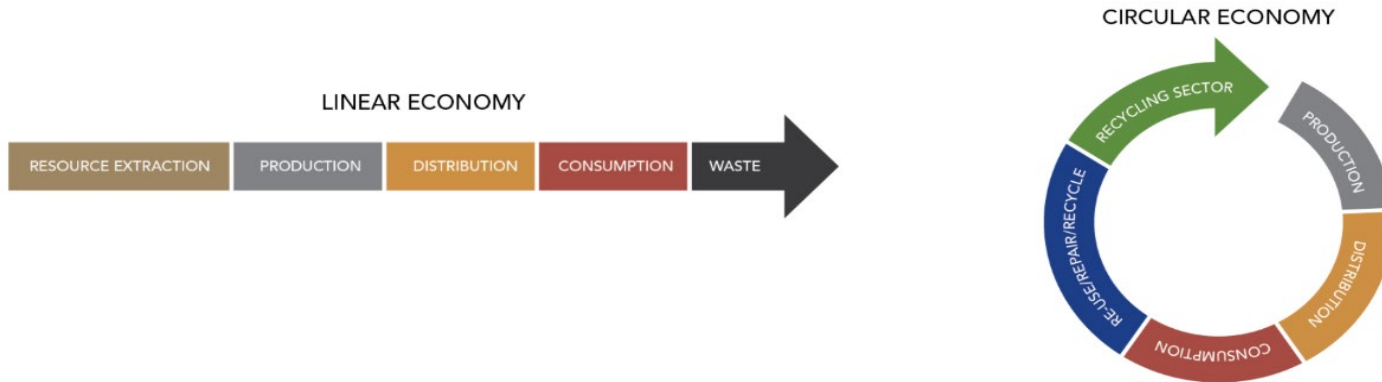
Sustainable

We commit to the highest standard of sustainability in mobility to protect the world we share. Our ethical values run through everything we do.

Safe

We commit to pioneering the safest, most intelligent technologies in mobility and everyday life to protect what is important to people.

A Linear vs a Circular Economy at Volvo Cars



- **Focus on decrease waste:** Raw material waste is thrown away
- **“Cradle-to-grave”:** Products and materials designed for one life – Significant quality downgrading
- Most material use is **virgin materials**
- Not concerned about the product post sale

- **Focus on eliminate waste “Closed-loop”:** Raw material waste is reused
- **“Cradle-to-cradle”:** Products and materials designed for many life-times – Design that avoids downgrading
- Most material use are **recycled materials**
- Product important after sales as it contains valuable materials & components

Use of environmental rubber increase at Volvo Cars

[Print version](#) [Release](#)

2017-04-13

For more than a year, Enviro has been supplying recycled carbon black to Volvo Cars via AnVa Polytech's environmental rubber compound. Since then, Volvo Cars has significantly increased its use of environmental rubber compound. Today, Enviro's carbon black is found in around twenty different types of components in every Volvo car.

"Today, components using Enviro's recycled carbon black are to be found in Volvo cars across the entire world, and the volumes are increasing. We welcome Volvo Car's sustainability work and ambition to implement AnVa's environmental rubber compound with our carbon black in even more components", says Thomas Sörensson, Enviro's CEO.



All chasis and body plugs of rubber in Volvo Cars' car models are currently manufactured from AnVa's environmental rubber compound. For Volvo Cars, it's an important area of investment to increase the use of sustainable materials.

"An important prerequisite for this transition is that the material meets all the requirements, and AnVas and Enviro's verified materials enables further application areas", says Thomas Sörensson.

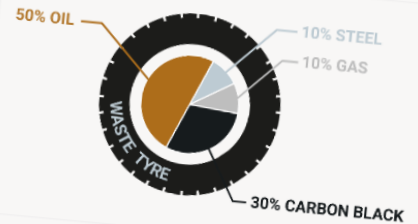
The Market for our Recovered Materials

Our technology and plants are able to produce products in a quality accepted and demanded by the market.

Steel is a commodity with a continuous global demand.

The recovered **oil** is able to limit the need of fossil fuel from other sources and is a globally demanded commodity.

Carbon Black is used in large varieties of markets such as, rubber, plastic and toner applications. The global market is growing and with our quality we aim at certain sections of the market where we can take a position by replacing virgin Carbon Black produced by virgin oil and limit the draining of our fossil resources.

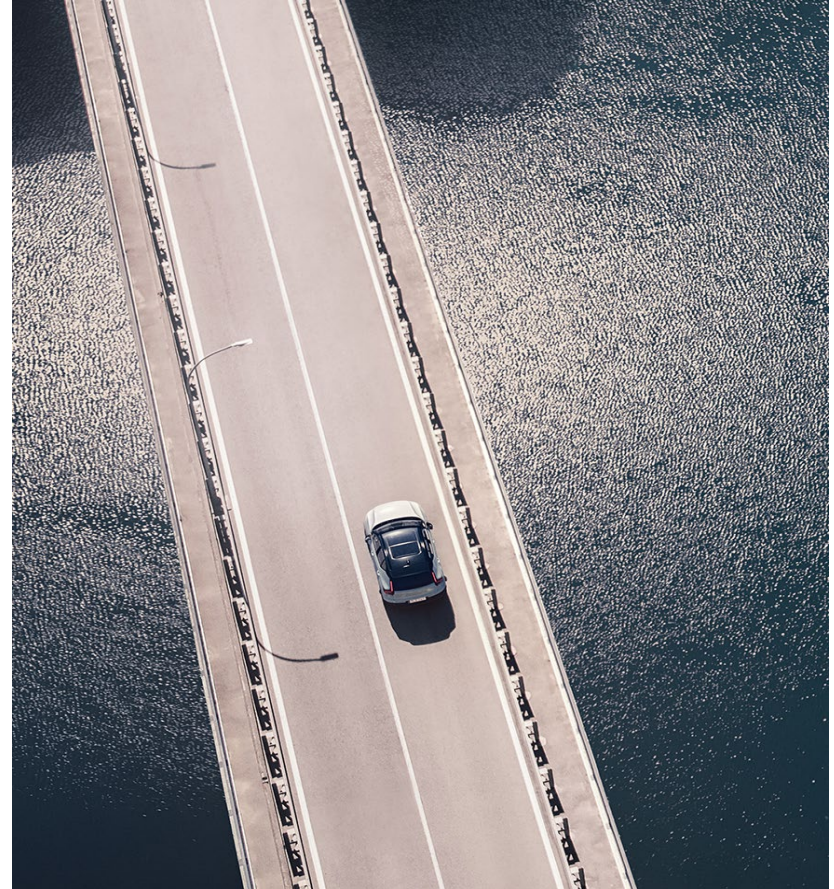


An Example of Circular Economy:

- Since 2016, Recycled Carbon Black used in all rubber chasis and body plugs in Volvo Car's models
- 20 different components

How will we do this? Short Term Actions Across the Value Chain

- Substitute materials to recycled, recyclable and bio based materials
- Efficiently use materials: Reduce waste by 30% per manufactured car by 2025
- Remanufacturing of parts



25% Recycled Plastics by 2025



XC60 Demo Car:

- 170 components
- 60 kg recycled material
- 40 suppliers

Materials:

- PP
- ABS
- PC+ABS
- PA
- PET
- PUR



Reduce Waste

- Focus on return packaging



Remanufactured Parts



Why move towards circular economy?

Volvo. Recharged.

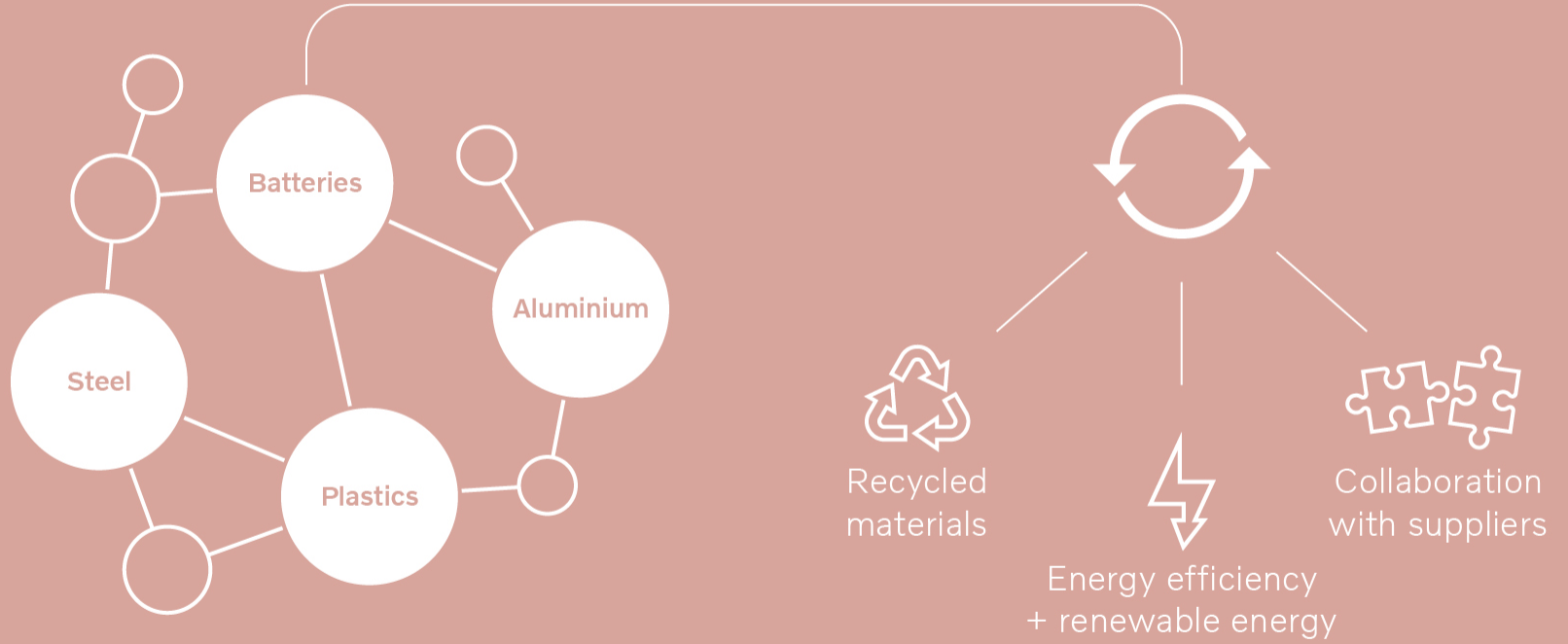
Our cars have always been designed to help protect people. We will now design them to help protect the planet too.

For a safer future

We are recharging everything we do, from our cars to our factories and supply chain. Our ambition is to reduce our carbon footprint by 40% per car by 2025 compared to 2018. And to be climate neutral by 2040. Because we have only one planet.

Electric is not enough

It's a start. But it's not the entire solution. To protect the safety of our planet, we must do more than merely electrify our cars. Our vision is to be climate neutral across everything we do by 2040 – a decade ahead of the Paris Agreement goal. So everything we do, has to be recharged.





Thank You!