



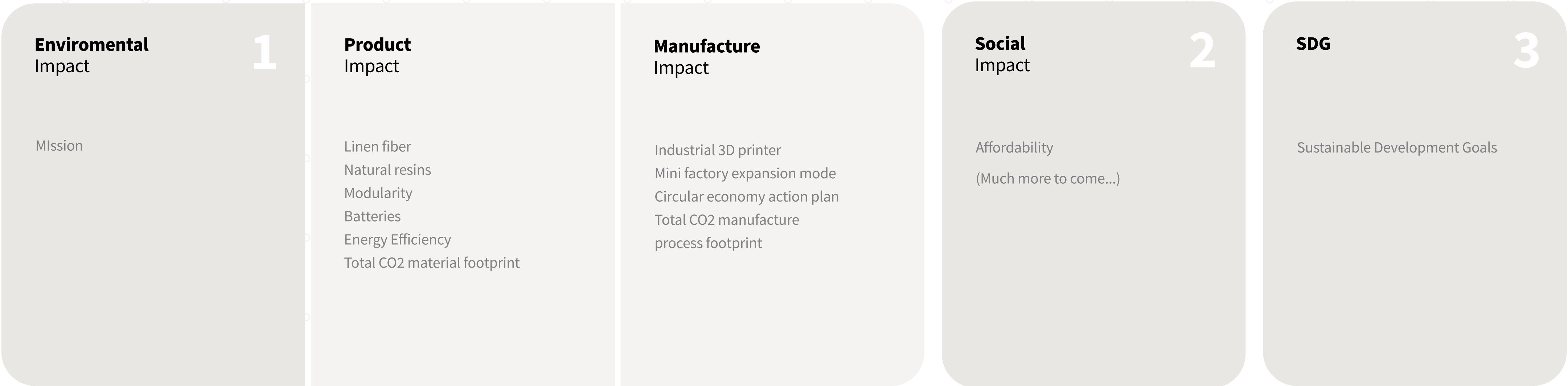
Sustainability vision
and challenges.



Please note that all the **data we provide** are projections carefully calculated on a **conservative approach**, and are based on the **information available at the time from various sources**.

However, as with all future projections, they are subject to uncertainties and risks, and we cannot guarantee that expected results will be achieved, **we only guarantee our transparency and our tireless effort to surpass any projection**.

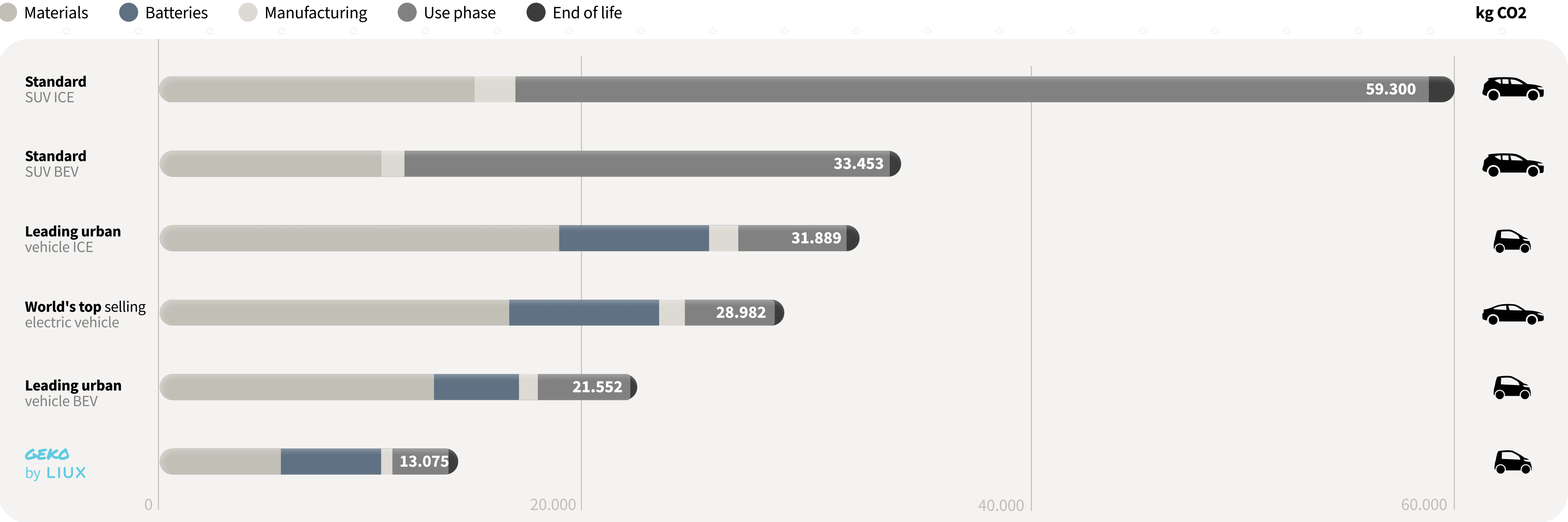
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Executive summary

Electric-light-urban vehicles make a difference in sustainability

Using a variety of solid sources, we can conclude that the total CO2 footprint of a vehicle like the GEKO can reduce dramatically the total emissions in the lifecycle, especially when compared to ICV (Internal Combustion Vehicles).



Future impact vision

Our mission is to build the most sustainable cars on the planet.

Sustainability means having the most positive impact on the planet and on people. Means we need to align social, environmental and economic goals.

We are working hard to make our products better...

...for the planet

- Bio-based, sustainable, recyclable materials to build our cars.
- Modular designs and architectures to ensure reparability, reusability and recyclability.
- Modular battery packs to avoid vehicle obsolescence, ensure circularity of batteries and simplify car-sharing operations.
- More energy-efficient cars, focusing on low weight, small size segments. Less weight means more range and less energy consumption.
- More sustainable, less energy intensive production processes.
- Local production strategy, ensuring a majority of local providers and designing profitable mini-factories for more efficient logistics.

...for people

- Designing a factory in which a great proportion of people with disabilities can perform a great job.
- Accessible cars with very low energy consumption and very low maintenance cost, cutting the cost of ownership significantly.
- Cars at the service of people, to solve real needs, to make life easier.





**Environmental
Impact**

The environmental impact of the automotive industry

25%

The transport sector accounts one-quarter of global C02 emissions.

The impact of materials

Metals generate between 30% and 60% of the CO2 footprint of the production of a car

Fuel consumption

Light-duty vehicles emissions accounts for 17% of total U.S. greenhouse gas emissions.

Road Transport

Road transport accounts for about 72% these emissions.

Noise Pollution

The noise pollution is the **second most significant** environmental problem affecting health in Europe, after air pollution. Road traffic is the main source of noise pollution in urban areas.

Regulation to accelerate the shift to **sustainable mobility.** ↻

Over 260 cities in Europe have established LEZs (Low Emissions Zones) to restrict the most polluting vehicles, including combustion cars. These zones cover a total area of more than

260 cities



Regulations play a crucial role in driving the adoption of sustainable mobility

“Fit for 55” program taxation policies to reduce net greenhouse gas emissions by at least 55% by 2030.

The Biden administration introduced a 50% electric vehicle (EV) target for 2030.

Over 150 European cities have already created access regulations under low emissions and pollution emergencies.

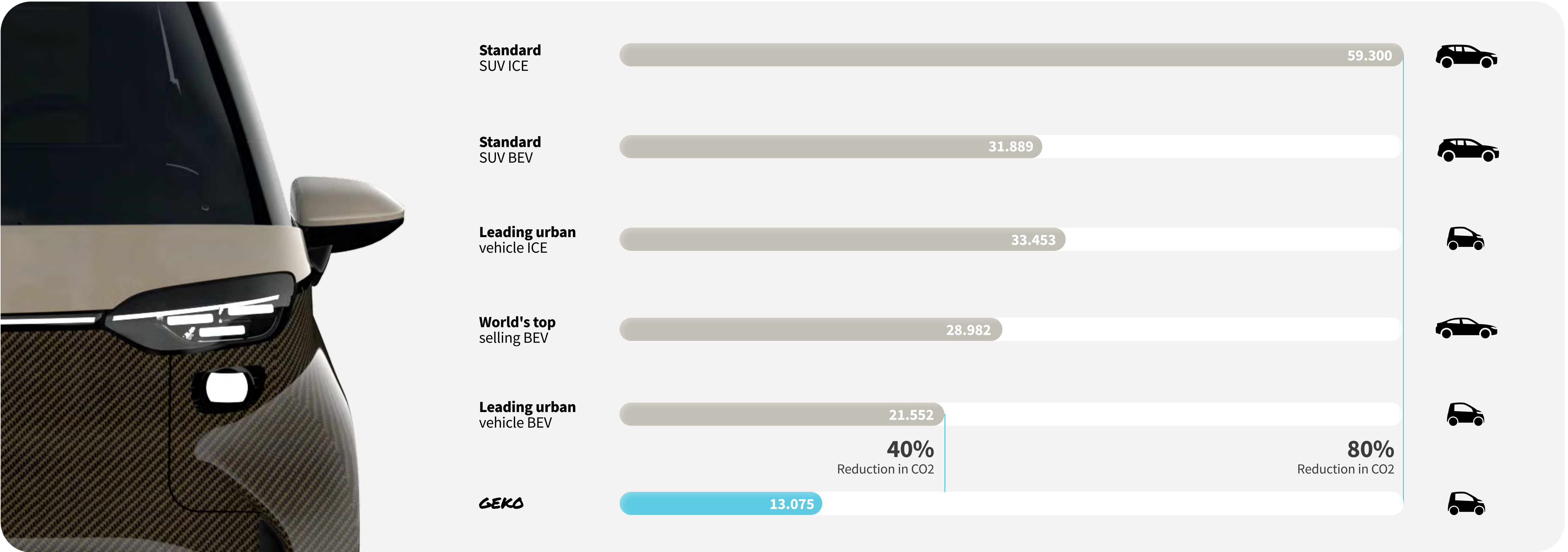
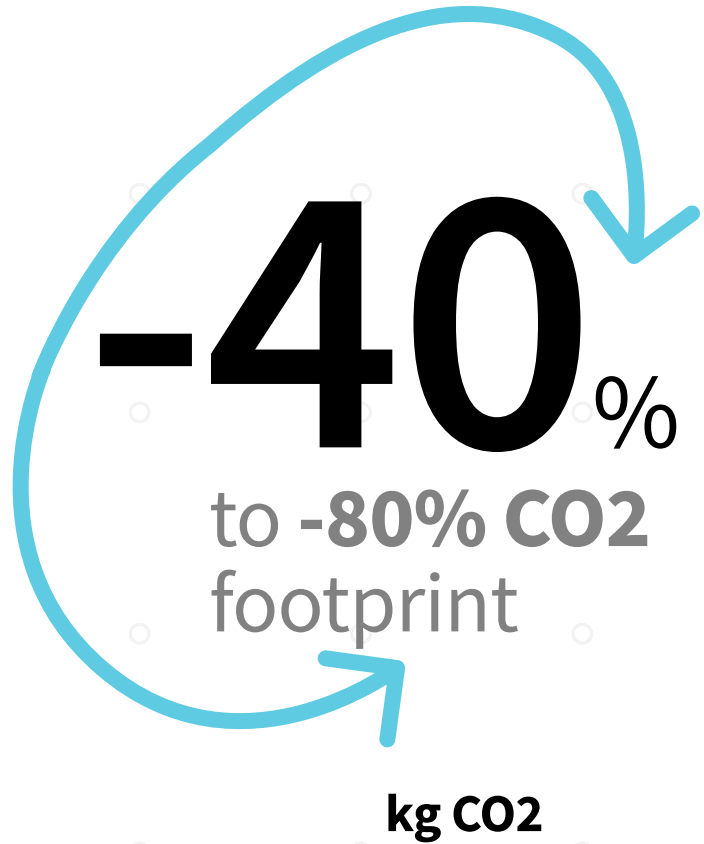
The EU banning combustion emitting engines in 2035

Our mission is to build the most sustainable cars on the planet and make them accessible and ultra desirable.



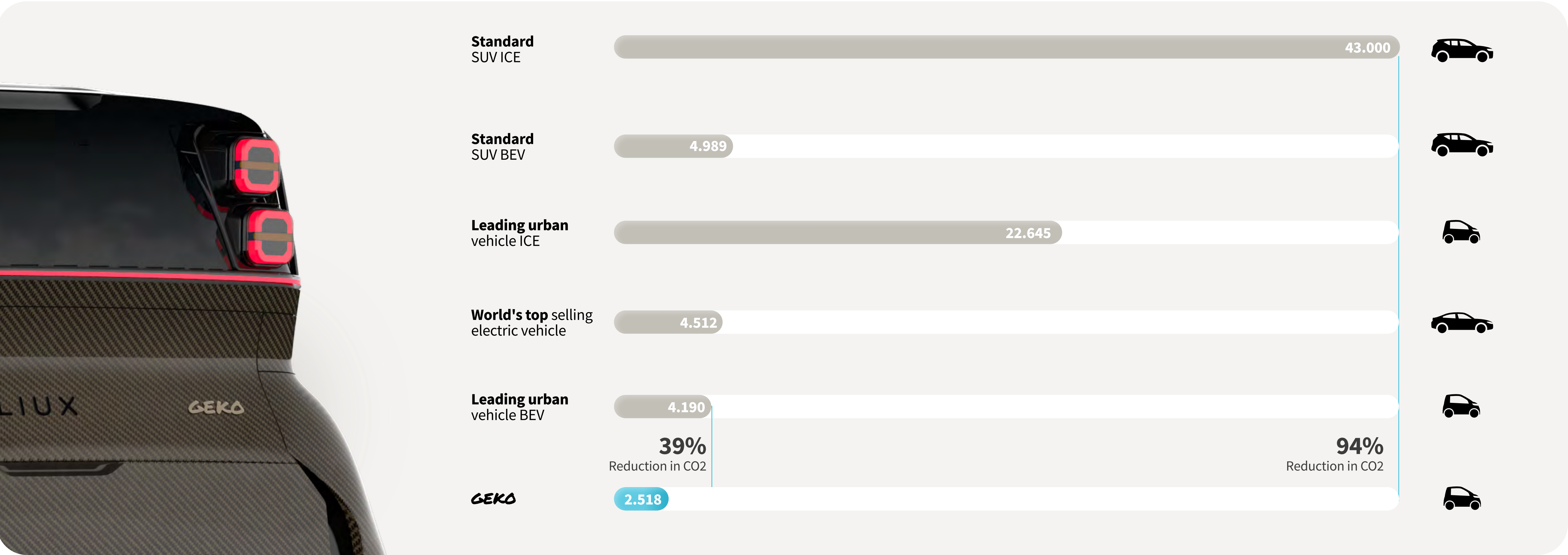
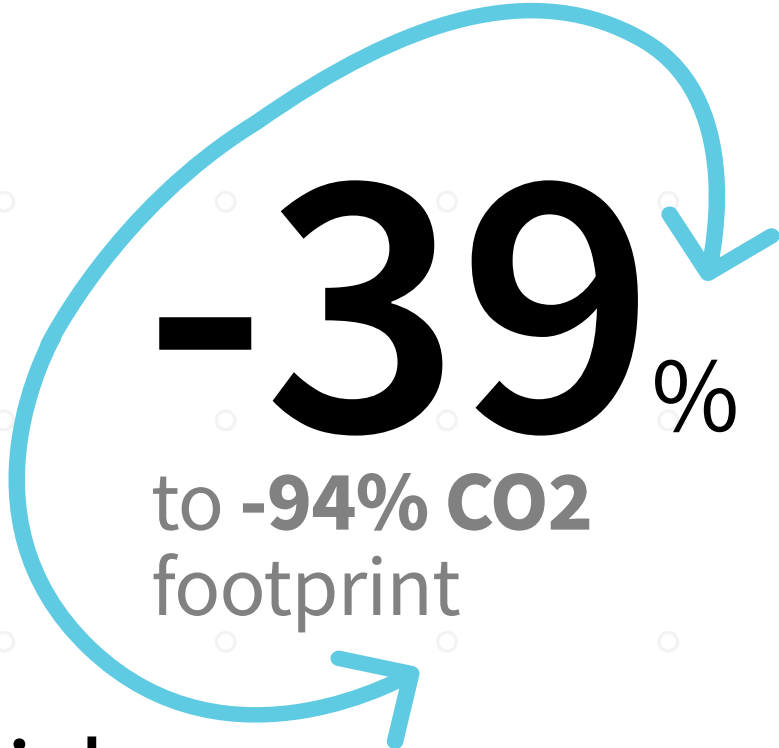
Outperforming traditional vehicles in total CO2 footprint

Our GEKO model reduces the CO2 footprint by at least **40% over its lifetime** compared to the leading urban BEV vehicle.



Reducing environmental impact during use phase

Thanks to its low weight and energy efficiency, during its **use phase**, the GEKO reduces the CO2 footprint by at least 39% compared to the leading urban BEV vehicle.

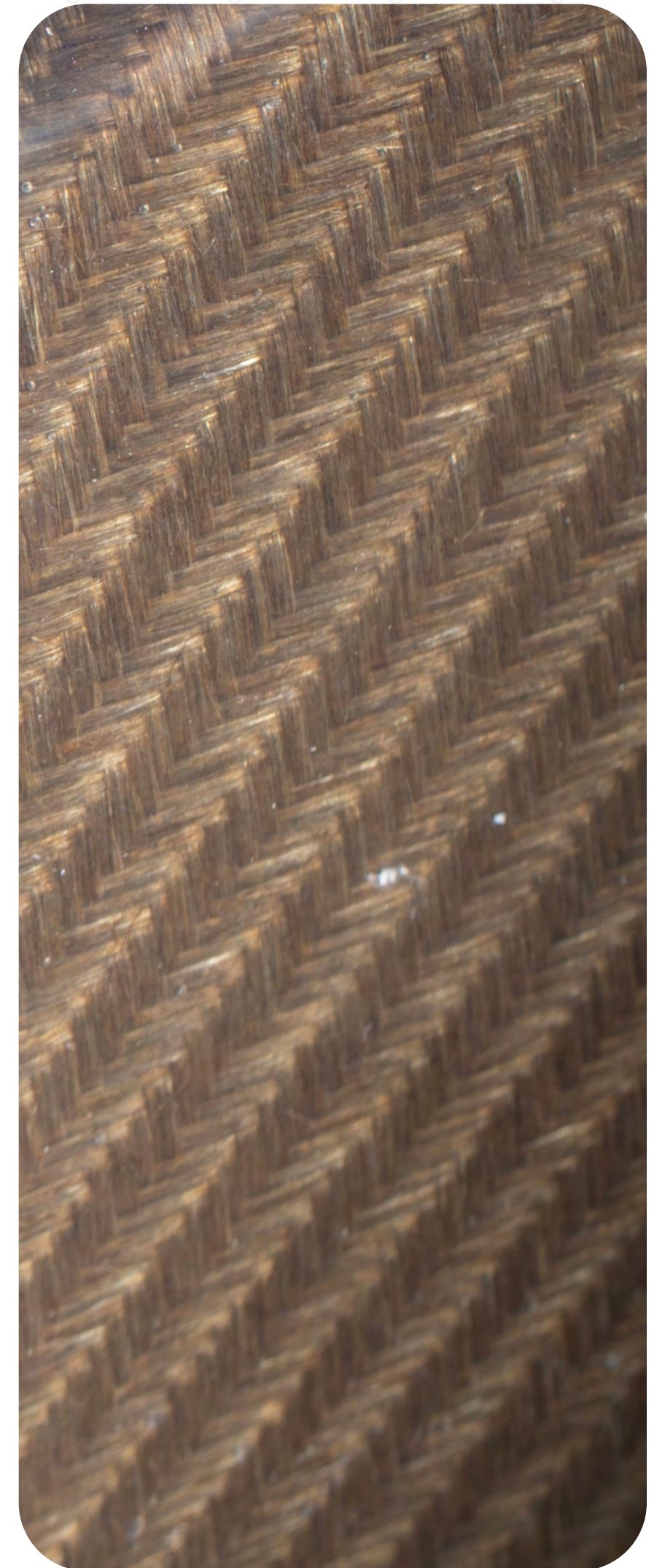
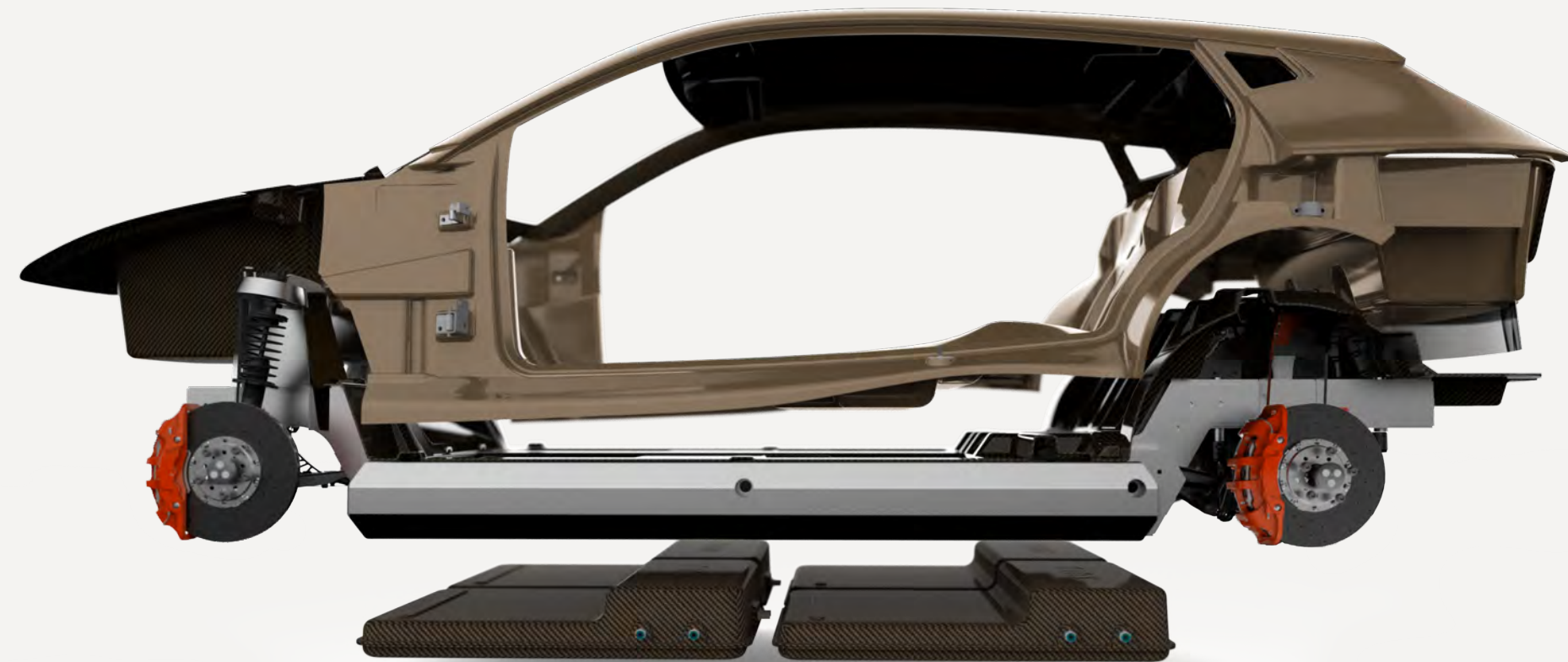




Product
Impact

First ever linen fiber bodywork and monocoque structure

With our first prototype, the LIUX Animal, we have developed the **first ever bio-based car** built with a linen fiber composite that reduces weight, cost and CO2.



Linen fiber

Has excellent properties

- Tubular structure with low density and high stiffness.
- Strong resistance to breakage in tension, compression.
- Viscoelastic = strong ability to dampen vibrations.
- Very good mechanical properties among natural fibers.
- Intrinsic affinity with epoxy for a good fibre-matrix adhesion.

Why is linen a **clean plant**?

Production/transformation

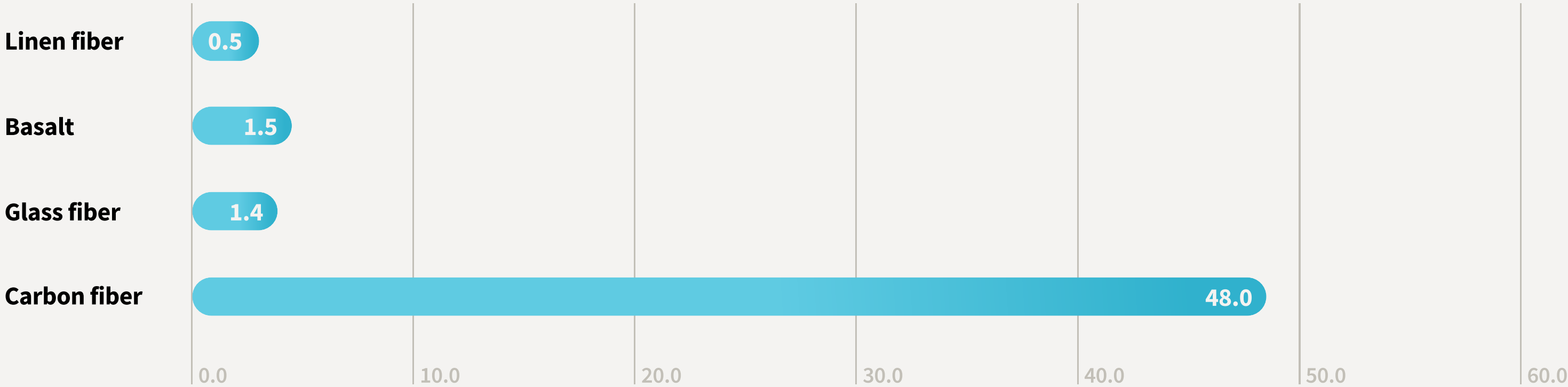
- Indigenous plant that grows **naturally in Europe**.
- Low requirements for water** and nutrients to feed the plant, plants are resistant to the lack of water - global-warming friendly.
- Natural retting process on the field is enabled by natural fungi and bacteria, **without the help of chemicals**.
- Use of an **indigenous plant** which acts as a rotational crop for enhanced harvests on existing farmlands.
- The linen plant **can be used in its entirety**.

Lifecycle impacts

- Our provider's linen fibers are **CO2 neutral cradle-to-gate**.
- At the end of life, composite parts can be recovered or recycled without any residual waste ending up in landfills.
- The European linen fiber supply chain supports economic and social structures in **rural areas of Europe**.

kg CO2/kg fiber

Global Warming Potential



Source: BComp



Recoverable/recyclable resins

100% recyclable resins with **game-changing properties**

Mechanical strength ⚙️

Composites with 100% recyclable resins can have tensile and impact capacities, durability and UV projection comparable to conventional resins, making them suitable for applications that require high-quality mechanical properties.



Recyclability 💎

Total recyclability with low-carbon emitting processes is a key advantage. With 100% recyclable resins we have the ability to easily recycle pieces at the end of their life cycle or after a crash event. This 100% recyclable resins are compatible with mechanical and chemical recycling processes, allowing the separation and recovery of both the resin and the fibers used to reinforce the composite, and their reuse in subsequent production cycles. This not only means a step up in sustainability, but also in cost-efficiency.

Cost ⚡

Traditionally, composites with 100% recyclable resins have been more expensive than conventional composites due to the necessity of using low production resins and advanced, costly recycling technologies. However, the epoxy-vinylester resin models we are using have a fairly competitive price, making it possible for the costs of composites with 100% recyclable resins to decrease as production scale rises, and become comparable to conventional composites.



Removable modular battery packs & modular chassis

Simple design

We seek simplicity.

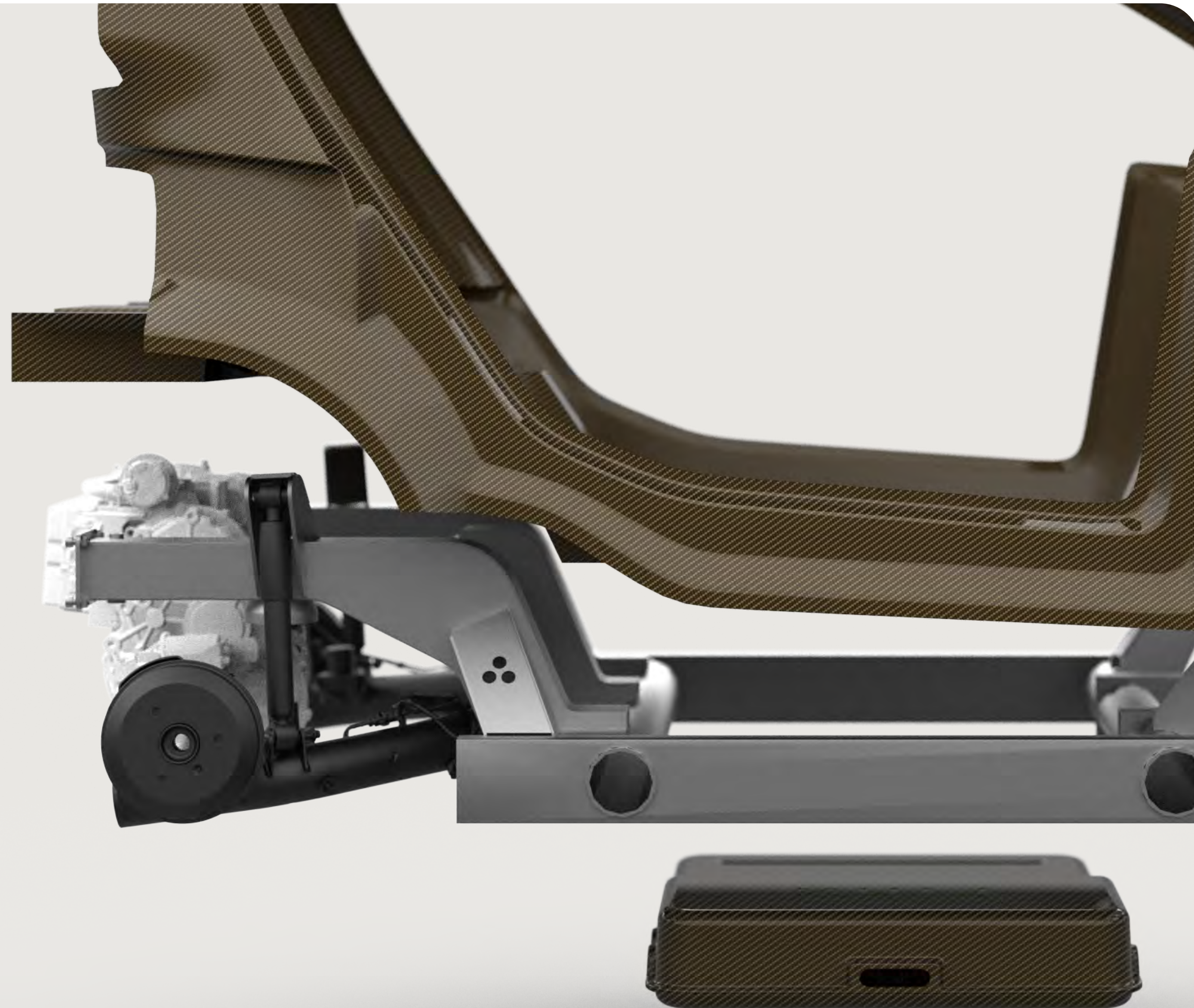
Remove the unnecessary and focus on value.

Is made with extremely simple components that are easy to assemble, disassemble, repair and recycle, thus reducing pieces and materials by 25%.

— = +

25%

Less pieces
and Materials



Extreme modularity

Our platform is completely modular.

- Battery packs are independent self-supporting modules that can be conveniently extracted, allowing update, replacement, inheriting on a new car, recycling or selling for a second life to be used embedded in a renewable energy storage device.

Batteries with multiple lives

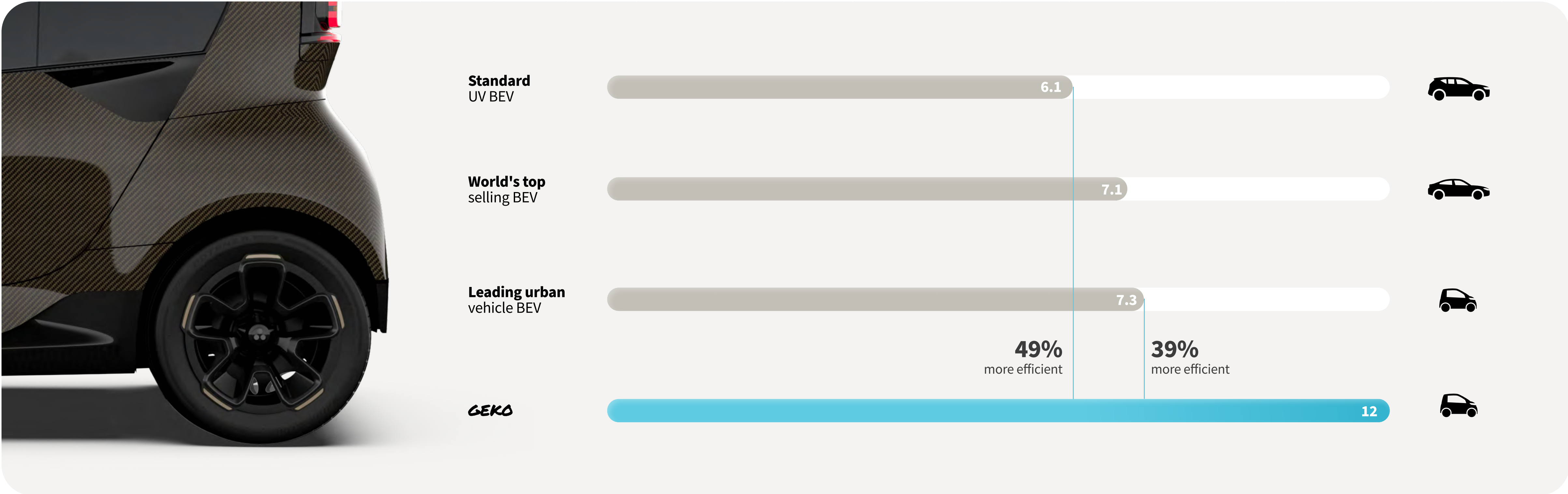
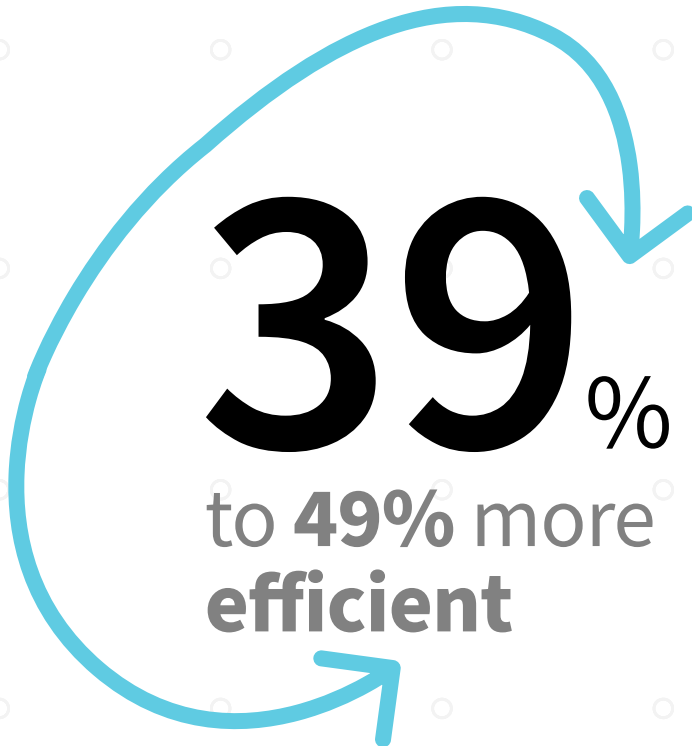
Maximizing value at the end-of-life

Battery packs are independent self-supporting modules that can be conveniently extracted, allowing update, replacement, inheriting on a new car, recycling or selling for a second life **to be used embedded in a renewable energy storage device.**



Better energy efficiency

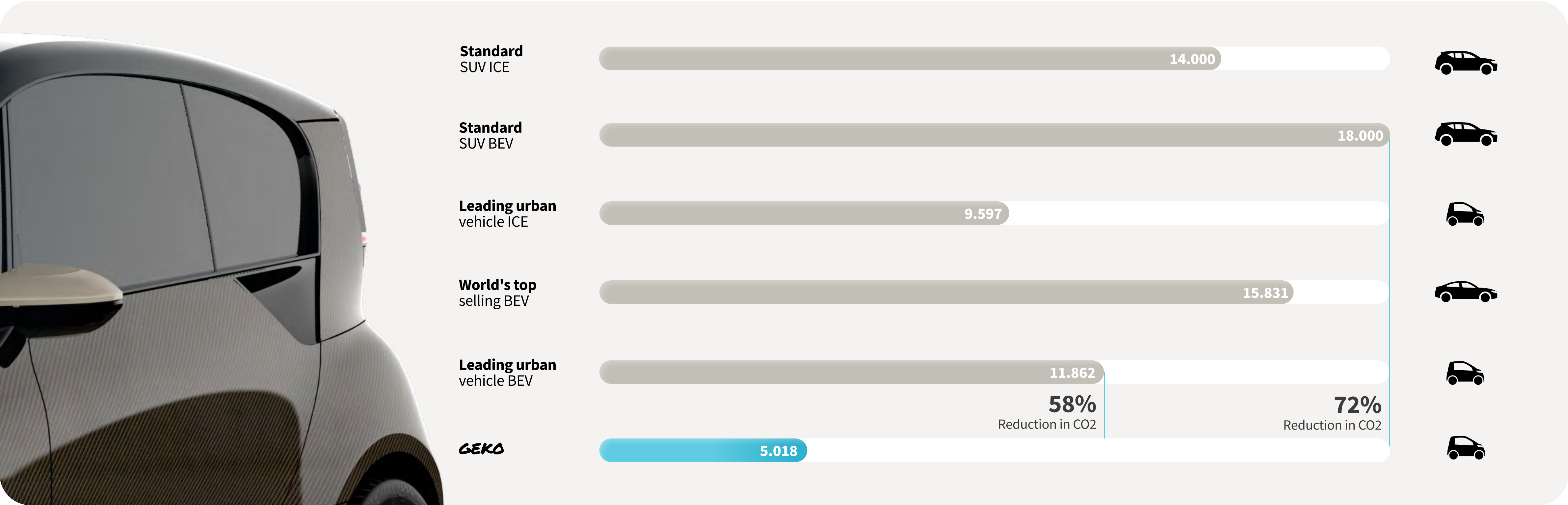
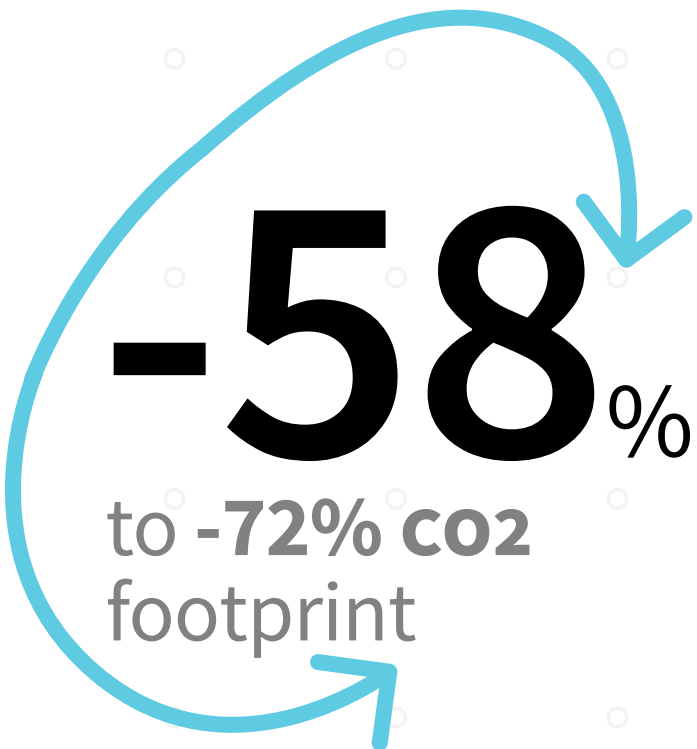
The weight of an electric vehicle is a crucial factor in its overall efficiency. It directly impacts the range, performance, and energy consumption. Our car is 39% **more efficient** than the leading urban electric car on the market.



Material innovation

A 58% reduction in CO2 emissions from chassis and bodywork **materials**.

85% reduction of the cradle-to-gate CO2 footprint vs metal or carbon fiber pieces.
50% weight reduction vs metal pieces, which translates into better energy efficiency and range.



Same segment
**Different materials
comparison**

Weight 

Cost €

CO2 footprint 

Stamped steel
chassis and bodywork

Highest

-35%

Highest

LIUX Bio Composite
monocoque and bodywork

-30%

-35%

-50%

Carbon fiber
monocoque and bodywork

-45%

Highest

-10%



**Manufacture
Impact**

3D printing + milling for molds production

More than efficient

1. Reduced material waste

3D printing builds an object layer by layer, using only the necessary material. This results in significantly less material waste, which reduces costs and the environmental impact.

2. Lightweight design

By producing lighter parts, vehicles become more fuel-efficient, thereby reducing emissions and further promoting sustainability.

3. On-demand production

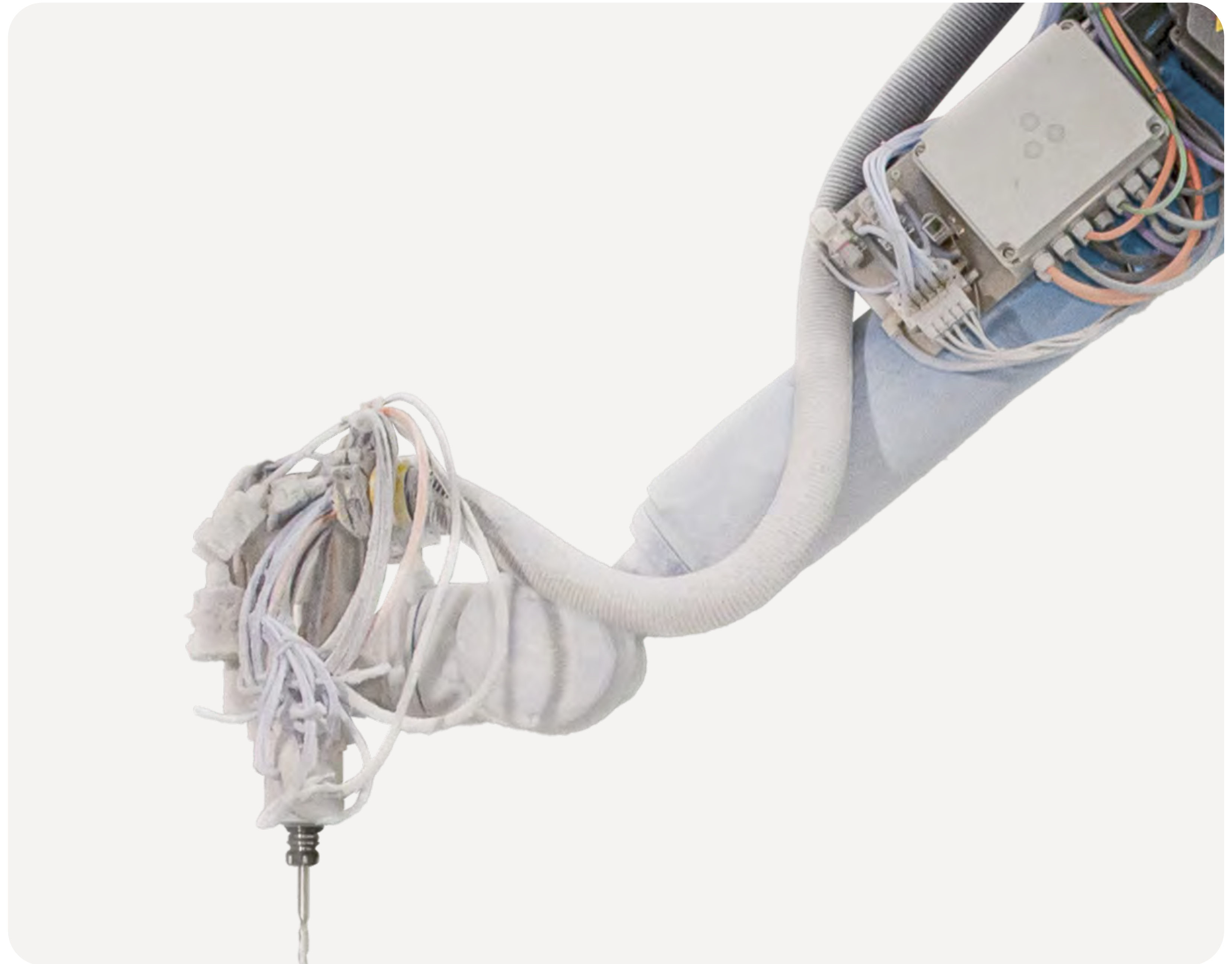
This reduce the need for large inventories, which in turn reduces waste from excess production and material obsolescence.

4. Rapid prototyping

3D printing allows for quick design iteration and prototyping. This speeds up the development process and reduces the number of prototypes needed, leading to less waste and more efficient production.

5. Energy efficiency

⚡⚡ **70%**
Less mold manufacturing
time / energy / CO2



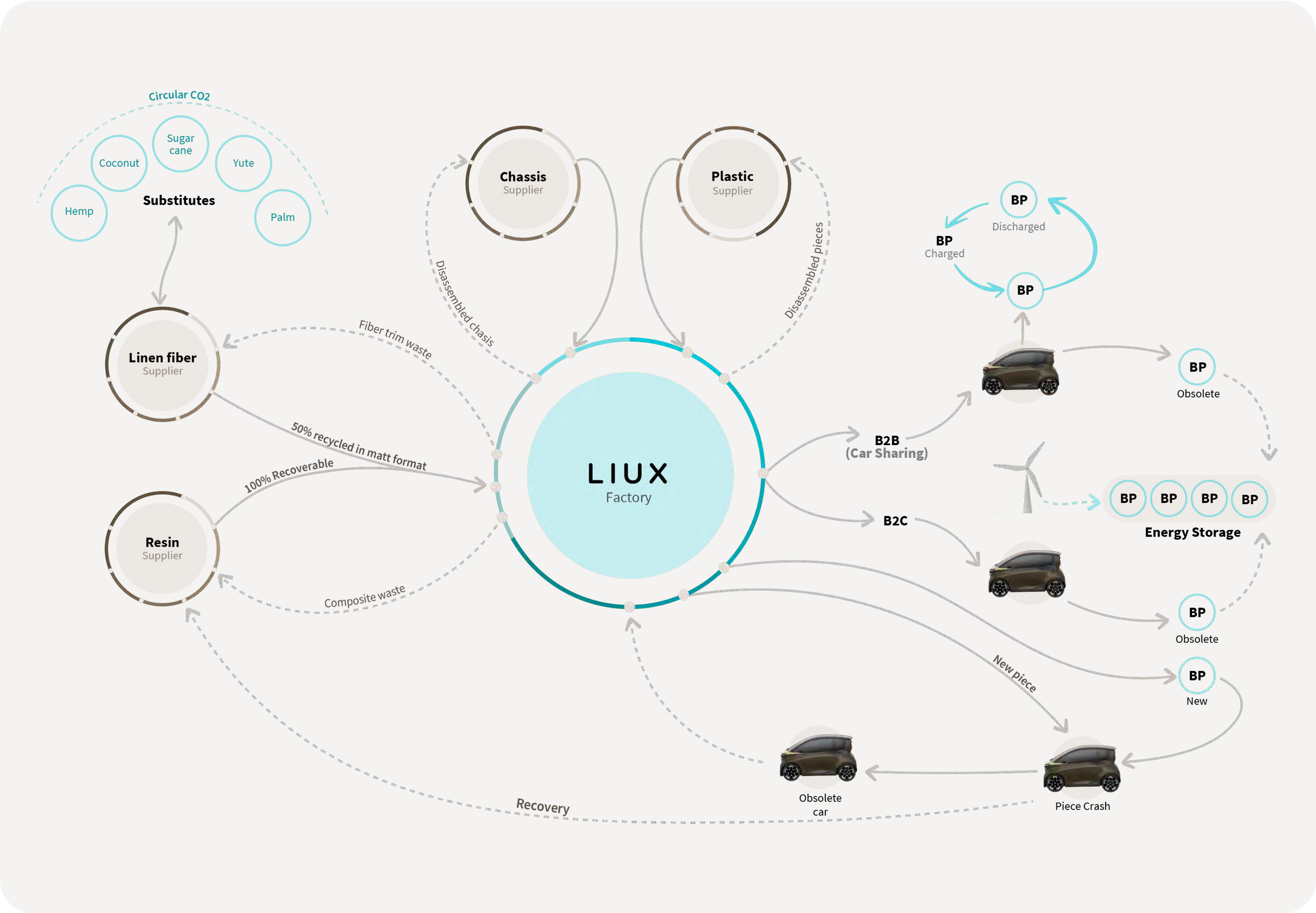
Mini factory expansion mode

Circularity in manufacturing, minifactories & local providers

The approach to production with mini factories allows LIUX to cut logistic CO2 impact, reducing shipping distances for cars (instead of having cars traveling thousands of km to reach customers). LIUX will attend markets on a regional basis, expanding operations to new regions with new mini factories. **The intention is to impact positively in the economy of those regions where its vehicles are sold.**

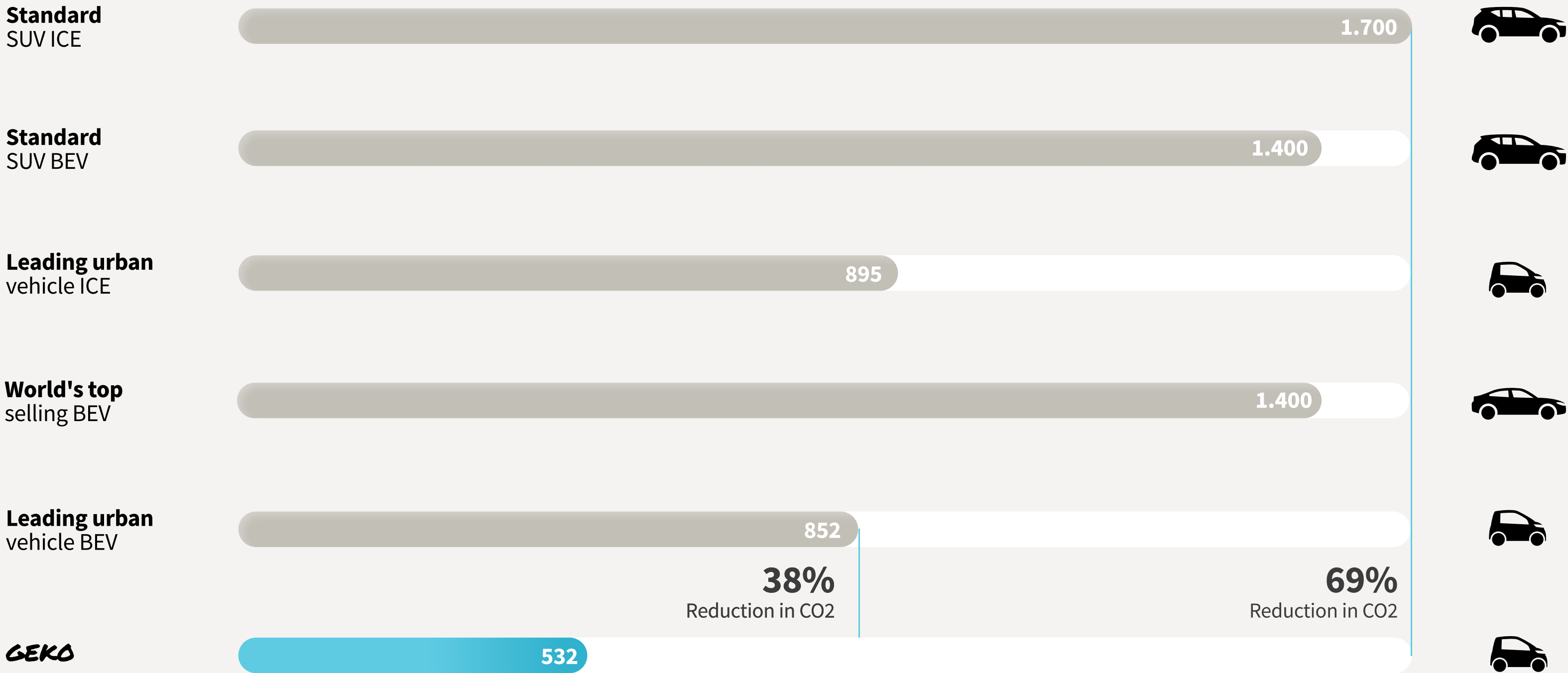
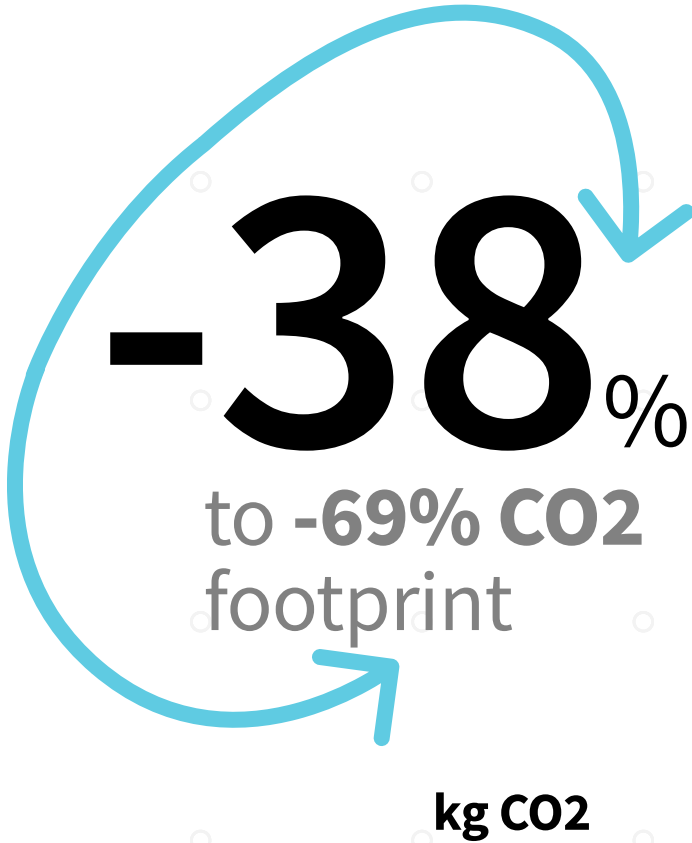


Circular economy action plan



Disrupting manufacturing

During its **manufacturing process**, the GEKO reduces the CO2 footprint by at least 38% compared to the most efficient urban car on the market.



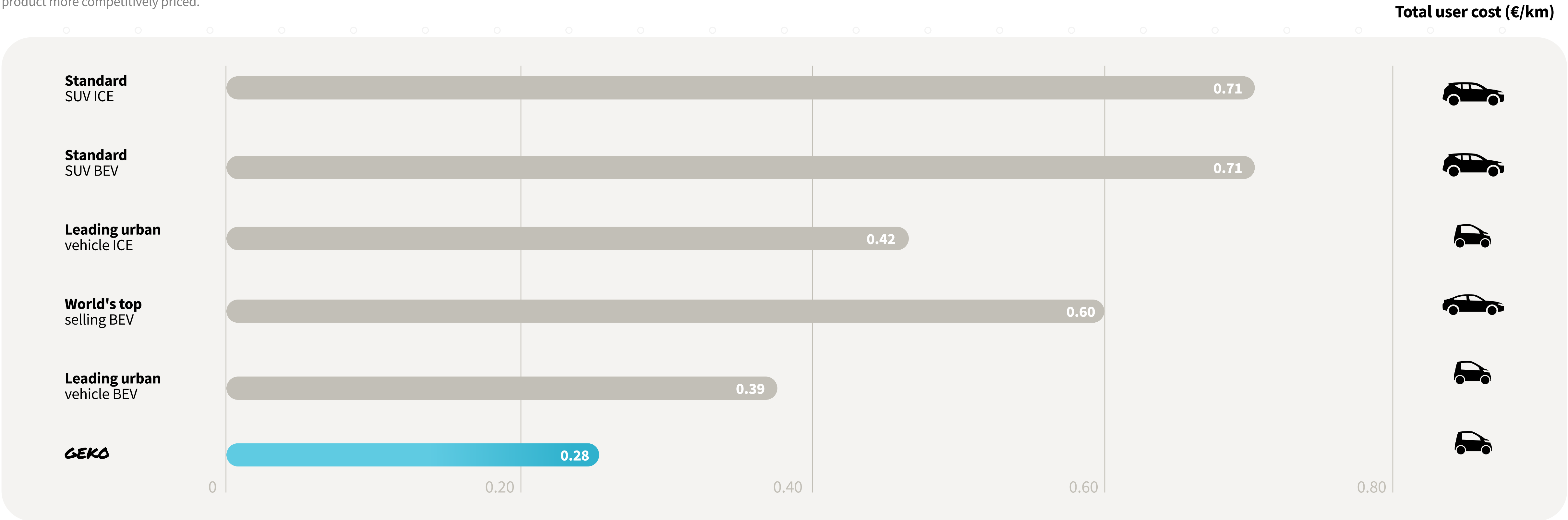


**Social
Impact**

Customer choice and competitive pricing: Sustainability must be affordable

Not only L7 cars have the capacity of being enormously competitive against M1 cars in terms of PSP, but the difference increases when considering the total cost of ownership during the lifespan of the vehicle. The data shown compares different BEV prices and total costs of ownership per kilometer.

Providing customers the choice of more sustainable products and services involves cutting costs, making the final product more competitively priced.





Sustainable Development Goals For 2030

Goals 2030

<div>7</div> <div></div>	<div>Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all.</div> <div>LIUX batteries are modular and easy to extract. At the end of the battery's lifetime it can be used to store energy produced by solar panels or other technologies. In this way, it can contribute to the generation of electricity with renewable energies</div>
<div>8</div> <div></div>	<div>Goal 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</div> <div>Love, Honesty and Humility are our values. We deeply believe in our team and we provide them with a dignified job. We are inclusive and want them to grow professionally and personally. We also carry this through to our suppliers. We want to work with companies that share our principles.</div>
<div>9</div> <div></div>	<div>Goal 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.</div> <div>The automotive industry is facing a revolution that will change mobility forever. We are part of the change. Our micro-factories model is a paradigm shift. It allows sustainable and distributed growth in terms of infrastructure. It facilitates adaptation to the region, local supply chains creation, and opens up many more opportunities for innovation.</div>
<div>11</div> <div></div>	<div>Goal 11 Make cities and human settlements inclusive, safe, resilient, and sustainable.</div> <div>Cities are currently home to 75% of the population in Europe. That is why we need to take care of them. Our LIUX Geko model is designed precisely for this environment. We want to reduce the inefficient use of large, heavy vehicles for one or two people and short distances. We want to respond to the real needs of cities today.</div>
<div>12</div> <div></div>	<div>Goal 12 Ensure sustainable consumption and production patterns.</div> <div>The consumption of raw materials has grown significantly in recent decades. These raw materials are finite. At LIUX we design our vehicles to be simple and thus save up to 25% of unnecessary components. In addition, 90% of the materials used on our monocoque and bodywork are renewable, bio-based.</div>
<div>13</div> <div></div>	<div>Goal 13 Take urgent action to combat climate change and its impacts.</div> <div>Climate change is a reality. Our mission is to build a better world through a new sustainable movement. Transport emissions account for more than a quarter of the EU's total greenhouse gas emissions according to the European Environment Agency. The fight against climate change is part of our strategy. Using lean manufacturing and renewable bio-based material, we can significantly reduce the CO2 footprint of our cars. Also, substituting large, heavy cars for electric light cars helps energy efficiency.</div>

Sources: gathering and verifying information

The information provided contains data and details that have been compiled from various sources, including internal sources. 

- [Mckinsey. The race to decarbonize electric-vehicle batteries. 2023](#)
- [Tesla. Impact Report highlights. 2022.](#)
- [Carbon footprint report – Volvo C40 Recharge. 2022](#)
- [Híbridos y eléctricos. ¿Cuánto CO2 emite \(indirectamente\) un coche eléctrico en España?.2022](#)
- [Statista. Small Cars - United States](#)
- [Polestar Sustainability Report 2022](#)
- Bcomp Ltd.About Flax. 2022
- Internal data from LIUX.

An aerial photograph showing a two-lane asphalt road winding through a dense, lush green forest. The road is positioned diagonally, starting from the top center and curving towards the bottom right. The forest is composed of many small, rounded tree canopies, creating a textured green surface. The lighting is bright, casting soft shadows on the road and the forest floor.

We are putting **biotechnology** and **innovation**
at the service of **sustainability**.