

e.VOLUT-ΘN

SPACE



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Find your freedom

with the Shuttle SPACE

At e.Volution, we want to show that a large car for the whole family can be a maximally sustainable car at the same time.

With the SPACE, we are launching the world's first true Circular Economy vehicle that will be updated and reassembled in our Re-Assembly Factory every five years to achieve four times the lifespan of conventional passenger cars.

At the same time, with the SPACE, we are solving the conflict between CO₂ footprint and range without increasing the cost per kilometer.

In doing so, we are relying on an efficient combination of battery and range extender, which enables a range of up to 500 km.



The universal vehicle

As a crossover between an off-roader and a van, the SPACE is designed to combine all the features of a modern universal vehicle and to emotionalize electric mobility at the same time.

The SPACE makes full use of the advantages of e-mobility technologies: The very flat battery in the underbody allows to bring the vehicle's centre of gravity so low, to achieve a sporty, safe driving performance with a relatively narrow vehicle width (only 1.92 m) while fully utilizing standard parking garage height.

The two independent electric axles are so compact that large wheel angles are possible at the front. This makes the SPACE much easier to drive than comparable SUVs or vans.

Together with the sovereign vehicle height and the variable interior concept it makes the SPACE a "space-miracle" and create comfort in all driving situations.



Sustainability through innovation

A range of multiple hundred km can be refueled in just 5 minutes with the range extender option. We call this the "infinite" range that we are used to with our current combustion cars.

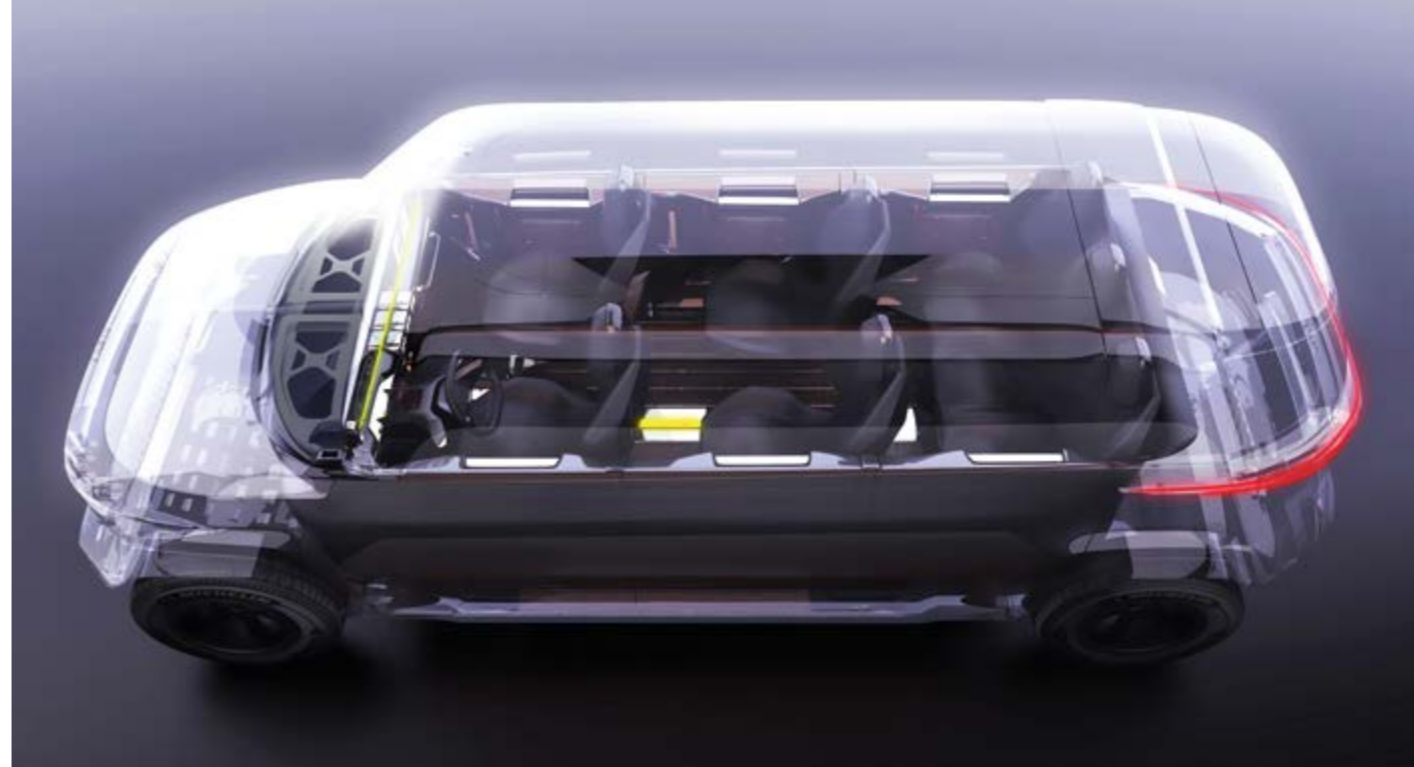
Our concept requires a comparatively small 40-80 kWh Li-ion battery made of standard modules. After five years the batteries will be reused for stationary solar operation for at least 20 years, thus reducing the carbon footprint of the battery pack. The SPACE will probably be driven 85-90 % of the time using only the power from the battery. Only for longer distances and high power requirements will the system or the driver switch on the range extender, which then charges the battery or boosts the battery's current.

Most of the time the SPACE will be charged like any other e-vehicle at the charging station or wallbox.

From 150 kW DC-DC charging (15 minutes from 10% to 90% for 15 minutes) down to 2.2 kW charging at the 220 V Schuko household socket.

The long wheelbase allows the installation of the range extender tank instead of a transmission tunnel. This saves interior space and allows for numerous equipment configurations. The folding sun roof over the entire length can be replaced by a solar PV roof as an option. The rear cover of the trunk can be removed and thus used as a pick-up variant.

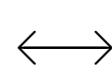
Powered by all-wheel drive from the two electric axles, the SPACE can be moved very dynamically despite its 2.8 t gross vehicle weight. In the long version, the 7-seat arrangement with center aisle can be supplemented by an 8th seat in the second row. The SPACE allows a payload of 650 kg and has a towing capacity of 2.5 t (braked). The top speed of the SPACE is limited to 160 km/h.



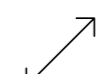
Battery capacity
40-80 kWh



Option:
REX for 350-500 km
combined range



Length 4500 mm
or 4920 mm



Width
1920 mm



Height
1910 mm



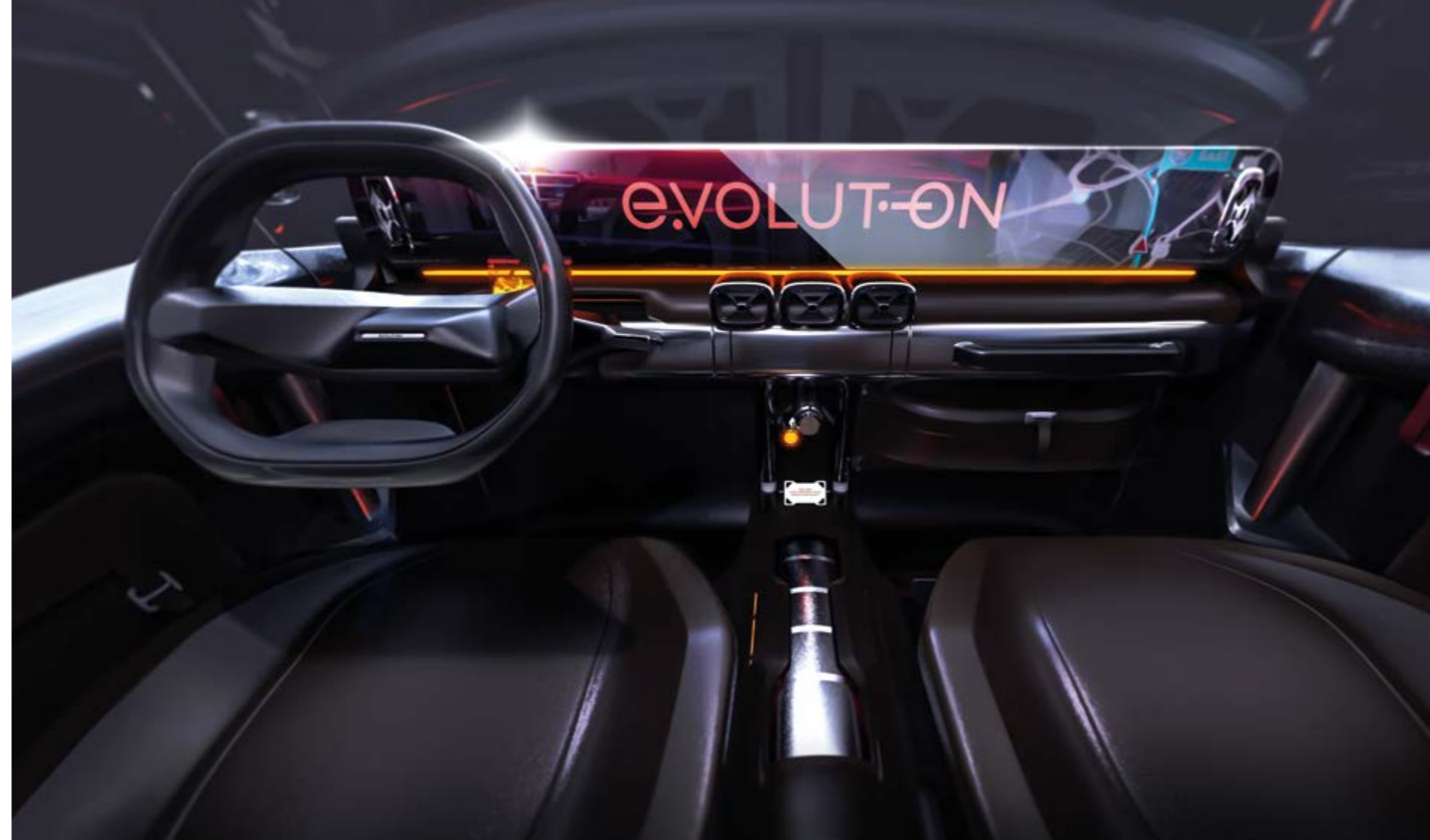
Payload
650 kg

Future-proof configuration

Interior

The interior of the SPACE features a full-length glass display in the cockpit, which serves as both a driver dashboard and passenger entertainment. The Circular Economy capability of our vehicles comes into play in terms of connectivity. The cockpit's interfaces are designed so that new displays and innovative technologies can be easily and quickly installed in future updates at our Re-Assembly factory.

Another example of the SPACE's superior sustainability are the seats covered with renewable natural fibers. The extremely durable and robust design of the seat structure allows the interior to be regularly upgraded with new upholstery and covering, rather than replacing an entire seat. Recyclable materials thus enable a particularly low CO₂ footprint.



Sophisticated. Durable. Sustainable.

Its wide range of uses, from corporate shuttle to family shuttle, make the SPACE the perfect companion. The variable and high-quality interior and the special drive topology with battery and range extender make it possible to react quickly and spontaneously to changes in one's own mobility needs. Thanks to its upgradeability, the SPACE impresses with high-quality design highlights and new functionalities in the interior and exterior.



The SPACE is offered in a full-service subscription. This includes maintenance, service costs and spare parts as well as regular updates in our re-assembly process.

Therefore, not only are the costs much more predictable but users are also assured that the vehicle is regularly updated to the latest technology on a regular basis and can be used for a much longer period without constraints.



Maximum sustainability

Ensuring high sustainability requires to not only maximize the shuttle's utilization but above all its lifespan. This new modularity makes our shuttles the first series vehicles in the circular economy. The thermoplastic outer skin, combined with the aluminum profile chassis allows for a low-capital production in a microfactory and for a highly efficient re-assembly factory. Every 5 years, the vehicle is completely renewed and remains updated for decades in operation.

Our contribution to consistently sustainable and holistic mobility is based on the approach of value preservation and circular economy. Therein, the concept of the durable, modularly renewable vehicle plays a crucial role. The significant increase in the total service life by a factor of 4 compared to a classic combustion engine vehicle leads to massive conservation of resources within the circular system.

In addition to the vehicle concept and the low-capital and energy-efficient production in the micro-factories, we offer a completely new and industrial refurbishment process in our re-assembly factory. The modular vehicle concept and the re-assembly factory enable a vehicle lifespan of up to 50 years, which not only makes the shuttle the most sustainable car, but also allows for a significantly cheaper operation than other electric vehicles. The depreciation of the shuttle is minimized by the complete renewal every 5 years and the upgrade of both hardware and software. Ecology and economy hence harmonize in a way that is completely new to the automotive industry.

With this and in accordance with the current state of research, e.Volution presently creates the most sustainable mobility system.

About us

e.Volution GmbH, based in Aachen, is a provider of holistic mobility solutions as well as a developer and manufacturer of application-specific electric vehicles. The e.Volution GmbH has a high level of expertise in the area of microfactories and re-assembly factories as well as vehicle homologation for the production concept of EV shuttles.

e.Volution was founded in 2021 by Prof. Günther Schuh (CEO).



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