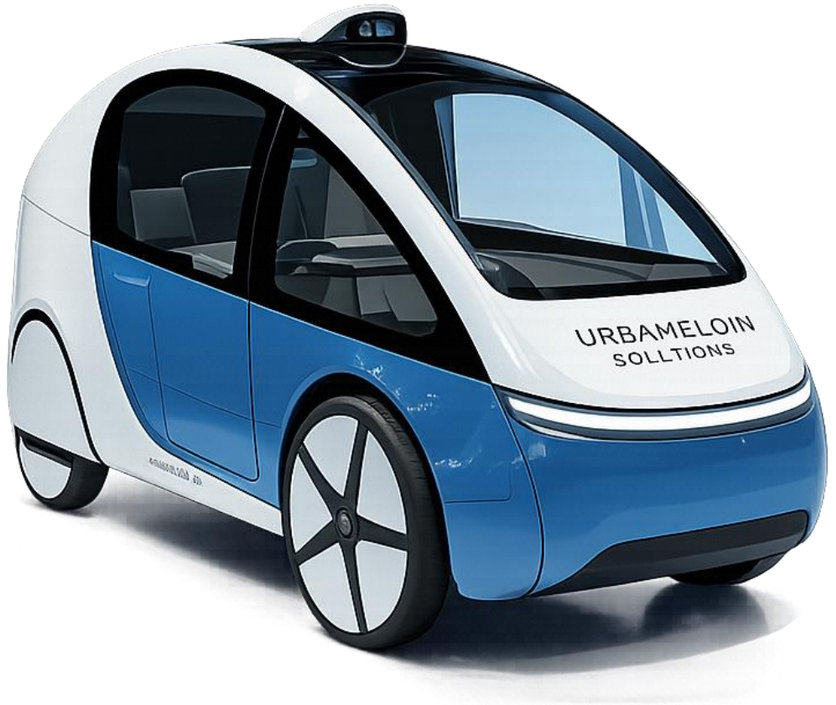
Self-driving Velomobile

Switches between People, Packages and Surveillance

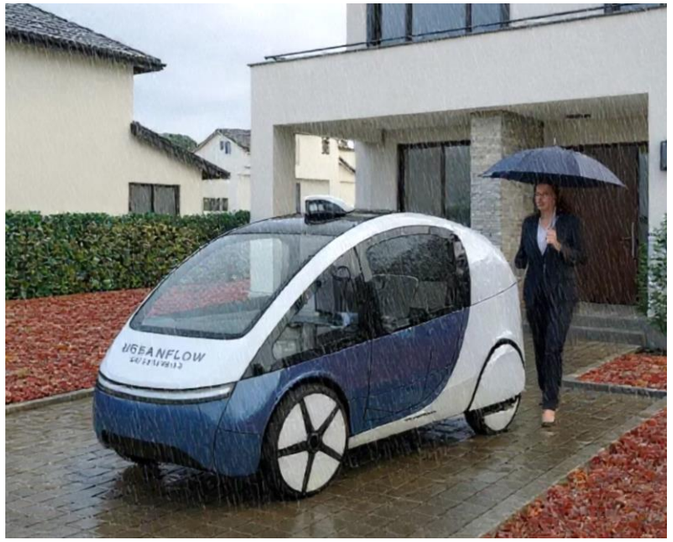
A velomobile is a three or four-wheeled “bicycle” with a body. It provides **comfort**, **weather-protection** and a **safe** ride in all weathers and has a very low environmental impact. You don't need a driver's license or be able to balance a bicycle, so it is **very inclusive**.

A self-driving velomobile may sound silly and unnecessary, but the self-driving technology is not intended to be used when you are riding it, but when it is empty. It will be used for autonomous parking, driving up, package delivery and surveillance.
This flexibility enables a **very high level of utilization** and is a great advantage both environmentally and economically.



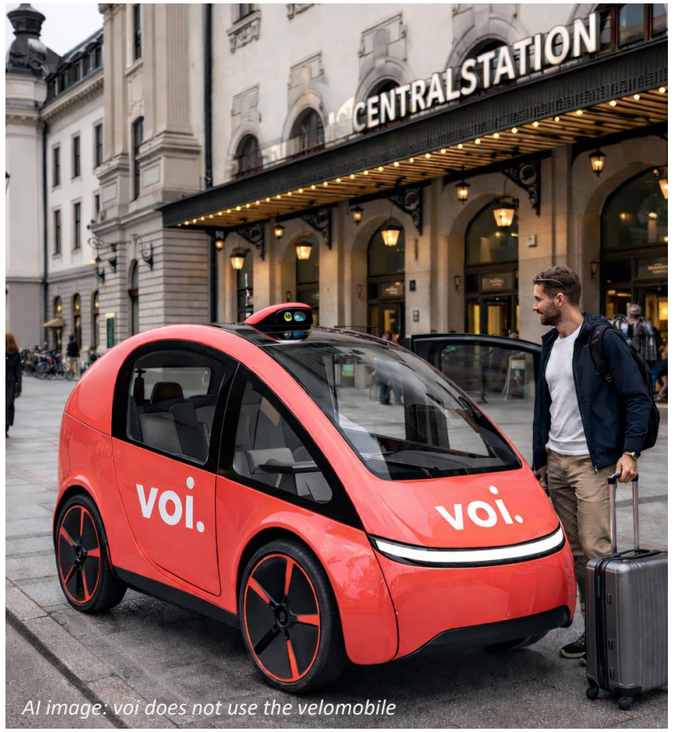
The parking problem

Automatic approach and parking is convenient but also intended to make it easier to find parking solutions even in dense city centers and residential areas. You can have the parking a good distance away.
It is also well suited for rental, just order it to your door like a mini robot taxi. And when you arrive, it parks itself autonomously in a suitable place or returns to a charging station.

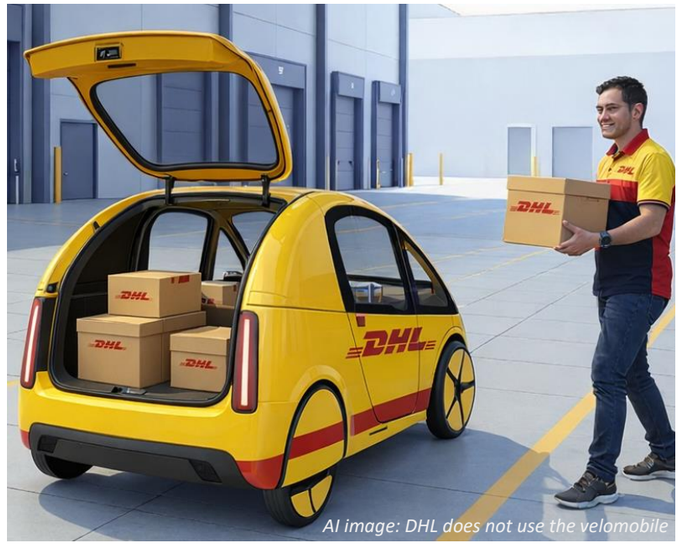


The last mile of public transport

The velomobile picks you up at the door and you pedal to the train station, where you simply get off and let it go on other errands.
When the train arrives, another velomobile is already there ready to take you the last leg. This should make public transport more attractive and accessible to more people and reduce the need for private cars. By making it easier to switch to public transport, the velomobile contributes to fewer private cars on the roads and a cleaner and safer urban environment.



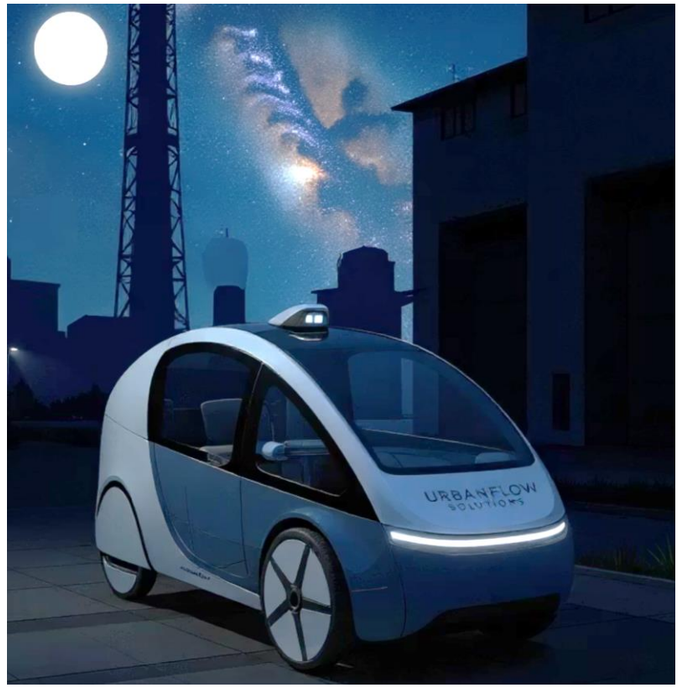
AI image: voi does not use the velomobile



AI image: DHL does not use the velomobile

Autonomous package delivery

The velomobile is designed to quickly switch between passenger and cargo modes. At the distribution center, the backrest folds down and a partition wall slides forward to create a large flat cargo space. Upon arrival at the customer, a notification is sent via the app, informing them that the package is available for collection outside the customer's gate or driveway. The velomobile remains securely locked until the customer unlocks it with their app. This ensures safe and traceable delivery.



A rolling surveillance device

The self-driving technology with advanced sensors and cameras also makes it an excellent mobile surveillance system. Use it as a service vehicle during the day and letting it drive around and monitor a factory area at night. The relatively small format makes it possible to navigate even on pedestrian and bicycle infrastructure, courtyards and factory areas.

The technology also functions as a very advanced anti-theft system for the vehicle itself.

DUAL USE

Military Logistics Platform

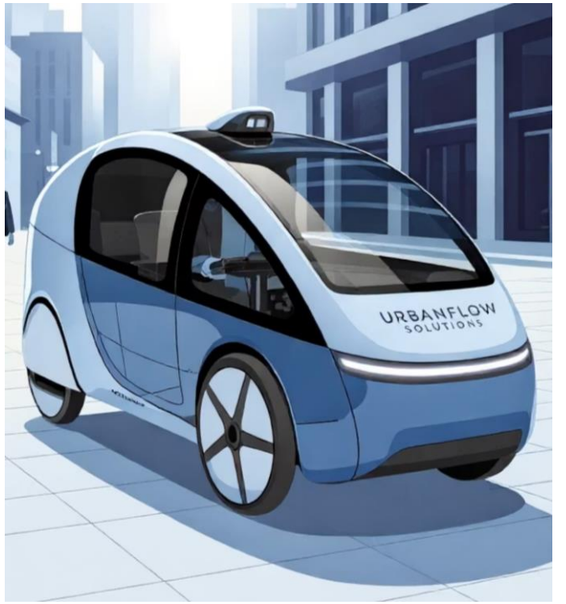
The standard model should also be suitable for civilian defense logistics (moving personnel and materials) and the same base plate with wheels and drive (the skateboard) and the self-driving technology should be able to be used for more specially adapted bodies and systems for purely military use.
So joint development between civilian and military industry could be interesting.

The velomobile's small size makes it resource-efficient, cost-effective, easy to transport, move and even carry, yet can still carry one person and their luggage. In autonomous mode, one or more units with equipment and supplies can also follow each person.

For purpose-built units on the same platform (skateboard), I can think of missions such as reconnaissance with more advanced cameras, antennas and reconnaissance drones on the roof. Mobile radio link that can constantly adapt to the situation and make detection more difficult. Transporting materials and supplies the last bit to the front without having to risk people. Transporting wounded to a safer pickup point. Rolling with walking troops as loading donkeys, charging station, satellite link or perhaps a platform for active countermeasures.

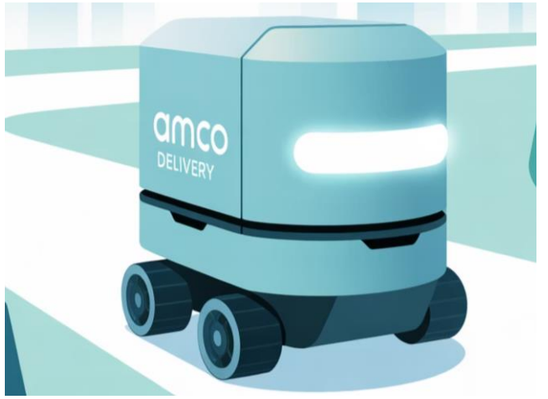
The road to autonomous driving

During human driving, the velomobile continuously collects data about traffic situations, obstacles, road conditions and perhaps most importantly human behavior for the cycling and walking infrastructure we want to use. The collected data is then used to train and improve the self-driving system with real traffic scenarios.
With human safety drivers during development and testing, the risk of getting the public and decision-makers against us is reduced. We don't need to release any vehicles into autonomous operation before they work well and have become an accepted part of traffic.



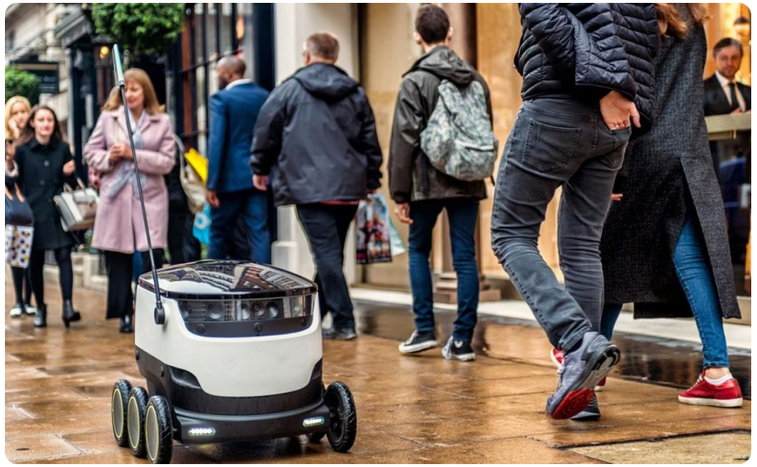
Advantages over pure delivery robots

Unlike specialized delivery robots, our velomobile can switch between different applications and operating modes and achieve a very high utilization rate. Our hybrid solution can be introduced earlier than fully autonomous alternatives because it works well even without fully developed autonomous operation.



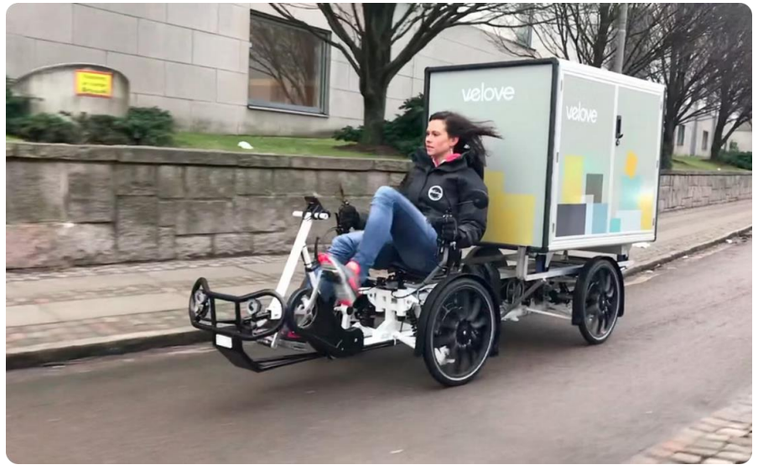
Existing technology – combined into a new solution

The vision we present is not based on future fantasy technology, but on the integration of already existing and proven solutions.



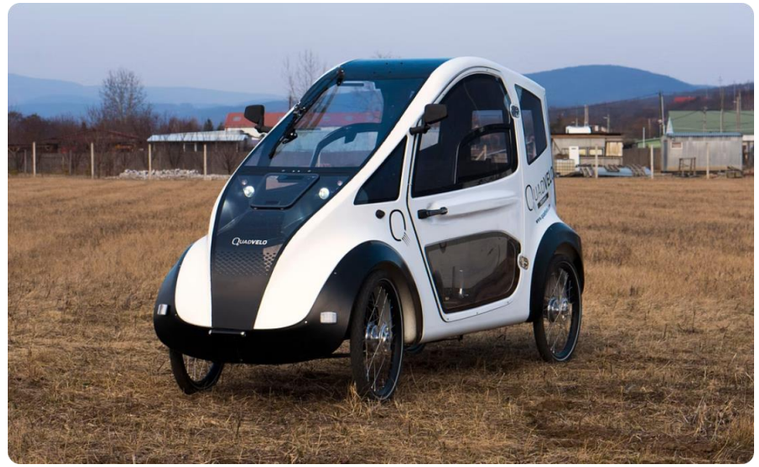
Starship Delivery Robots

These small, autonomous robots are already being used for last-mile deliveries, particularly on campuses, handling food and small packages with high efficiency, demonstrating the potential of unmanned transportation.



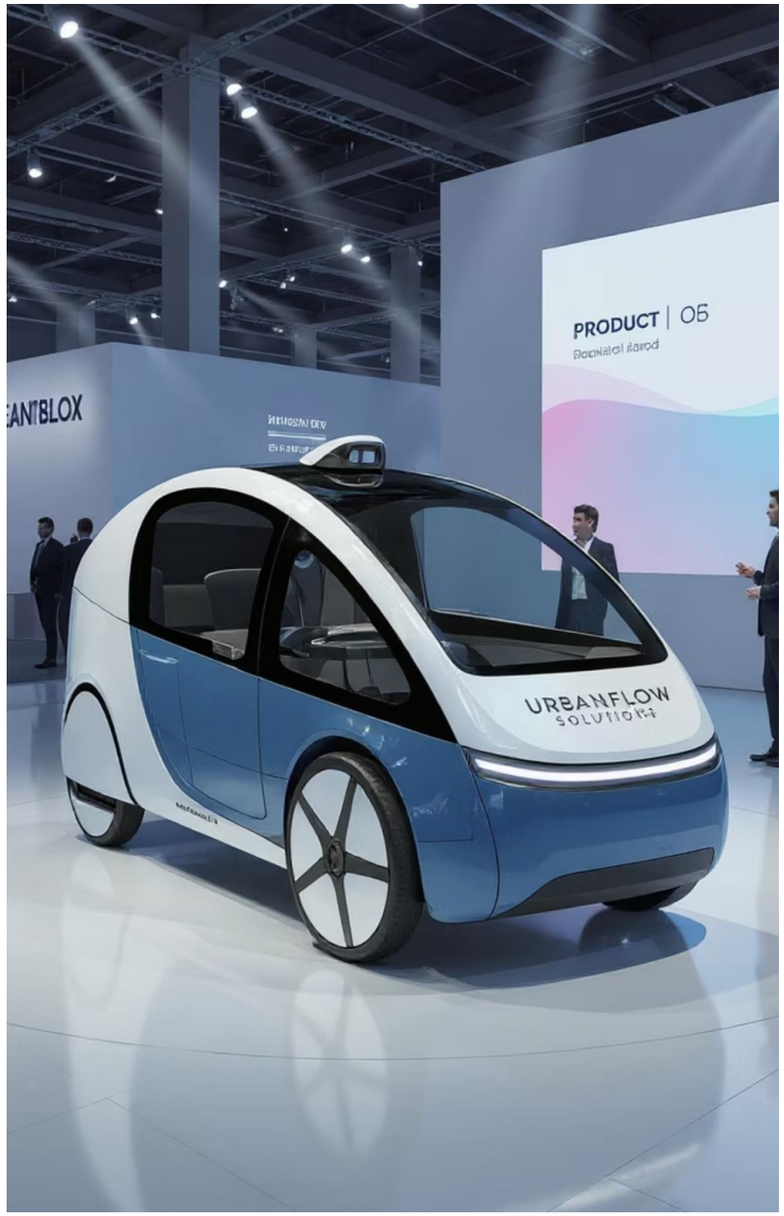
Velove Last Mile Cargo Bike

An cargo e-bike designed for efficient and sustainable deliveries in urban environments. It combines large cargo capacity with the ability to use bicycle infrastructure.



Quadvelo Velomobil

An aerodynamic and protected velomobile that offers comfort and efficiency for passenger transport. Its four-wheeled construction and canopy inspire the multifunctional design that our velomobile will have.



Summary and next steps

A genuine game changer

Den skälvkörande tekniken gör aktiv mikromobilitet tillgänglig och attraktiv för väldigt många fler. Och multifunktionaliteten ger lönsamhet trots dyr teknik och utveckling.

Accelerated development

Our unique ability to use human drivers enables faster development and approval than competing fully autonomous solutions.

Search for partners

We are now looking for strategic partners and investors to bring this groundbreaking solution to market. Contact us to help shape the future of sustainable mobility!

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