8 000 000 000 tonnes of CO2

Road (passenger) 45.1%  Road (freight) 29.4%

Cars, motorcycles, buses and taxis  Trucks and lorries  Aviation, shipping, rail etc.

1/5 of global CO2 emissions
Building the world’s most flexible autonomous shuttles to solve last-mile transportation for early adopters of innovation.

**Lightweight & Compact**

The shuttle has the size and the mass range of golf cart which makes it suitable for pedestrian roads as well.

**Flexible & Affordable**

In-house production gives us the flexibility to develop the shuttle in accordance to the specific needs while keeping down the costs.
- **2018**: Development start
- **2019**: First car sold
  - Closed area deployments
- **2020**: Development of the 2nd generation vehicle
  - Hydren-fueled shuttle development start
  - Supercapacitor shuttle development start
  - Extensive in-house test bed capabilities
- **2021**: Phase 2 - Proof of Concept
  - Teleoperation capability testing and development
  - Modular and scalable platform
  - Capability of mass production
- **2022**: Phase 3 - Expansion
  - Full teleoperation capability
  - Recurring revenue from long-term deployments
  - 10 road legal vehicles for deployment in international projects
  - Development of the 2nd generation vehicle
- **2023**: 
- **2024**: 
  - Development of the 2nd generation vehicle
  - 10 road legal vehicles for deployment in international projects
Iseauto specifications

The electric autonomous shuttle for last-mile transit that is robust enough to endure different environments, flexible to be suited for multiple applications without any changes to the existing infrastructure and smart enough to seamlessly change the habits of transit. The shuttle can be used both as an on-demand service or with pre-defined bus stops.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating time per charge</td>
<td>8 hours</td>
</tr>
<tr>
<td>Cruising speed</td>
<td>up to 25 km/h</td>
</tr>
<tr>
<td>Passengers</td>
<td>8 seated</td>
</tr>
<tr>
<td>Length</td>
<td>3500 mm (147.79”)</td>
</tr>
<tr>
<td>Width</td>
<td>1500 mm (59.06”)</td>
</tr>
<tr>
<td>Height</td>
<td>2400 mm (94.48”)</td>
</tr>
<tr>
<td>Curb weight</td>
<td>1250 kg (2,755 lbs)</td>
</tr>
<tr>
<td>Wheelchair accessibility</td>
<td>yes, electric ramp</td>
</tr>
<tr>
<td>Air conditioning</td>
<td>yes</td>
</tr>
<tr>
<td>Teleoperation capability</td>
<td>yes</td>
</tr>
</tbody>
</table>

In-house manufacturing

LiDARs, cameras, GPS

Fleet teleoperation
The shuttle is designed to be lightweight and compact to adapt to different road conditions and use cases.

Tested in different weather conditions and on various roads to be able to offer solutions in a wide scope of environments.

The shuttle can put up with blistering sun, snowy winters and rainy autumns and feels confident both in busy urban streets and distant rural environments.
Full Scope Capability

**Application analysis**
risk analysis and safety assessment of the application and environment

**Autonomous shuttle bus**
in-house production that enables us to stay flexible and adapt to different customer needs

**Route mapping and set-up**
includes creating a high-resolution 3D map of the route and on-site efforts for setting up the vehicle or fleet

**Personnel training**
trained safety operator on board with technical know-how or in a control room where the fleet is teleoperated from the distance

**Operating en route**
on-demand shuttle service or a closed-loop operation with pre-defined bus stops according to needs

**Support, maintenance**
qualified off-site remote support during the project with maintenance visits on-site whenever needed
Operating portfolio

- TalTech University Campus
- Tallinn Zoo
- Ülemiste City Business District
- Lamia, Greece
- Tampere, Finland
- Kakumäe beach
- Rakvere City
- WRC Rally Estonia
- Tallinn Open Air Museum

+8 locations
Founded by a team of established experience in the automotive industry and background in custom vehicle development and manufacturing.

**Management Team**

**Väino Kaldoja**  Founder, angel investor  
- Former CEO of SilberAuto  
- a company with 25+ years of experience with the automotive industry  
- Currently actively taking part in the product and service design process

**Johannes Mossov**  CEO, Co-Founder  
- Experience in custom vehicle manufacturing  
- Extensive know-how from various manufacturing teams

**Mari-Ly Klaats**  COO, Co-Founder  
- Wide experience with different EU and funding projects  
- Strong background in engineering and finance

**Taavi Rõivas**  Supervisory Board Member  
- Former Prime Minister of Estonia  
- Experience with various start-up teams

**Team Leaders**

**Paula Johanna Adamson**  Head of Sales Team  
- background in B2B sales and automation

**Andreas Rebane**  Head of Mechanics Team  
- background in product development and mechanical engineering

**Henri Sink**  Head of Electronics Team  
- marine automation and HMI design  
- IoT system development

**Ott Männik**  Head of Software Team  
- automotive engineering Bachelor's degree from Coventry University
Hydrogen fuel cells

Together with the University of Tartu, we are developing a shuttle fueled by hydrogen to be used as an alternative to the regular electric shuttles.

Supercapacitors

A development project with Skeleton Technologies is in the works in order to use supercapacitors in the shuttle. This makes it possible to charge the shuttles within a few seconds, paving the way for 24/7 operations.
**Modular platform**

We aim towards creating a modular platform for the shuttle in order to be able to easily customise the design for various customer needs. This way we could provide autonomous services in different applications, such as waste transportation, parcel delivery, cargo transportation, street cleaning etc.
Thank you!

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