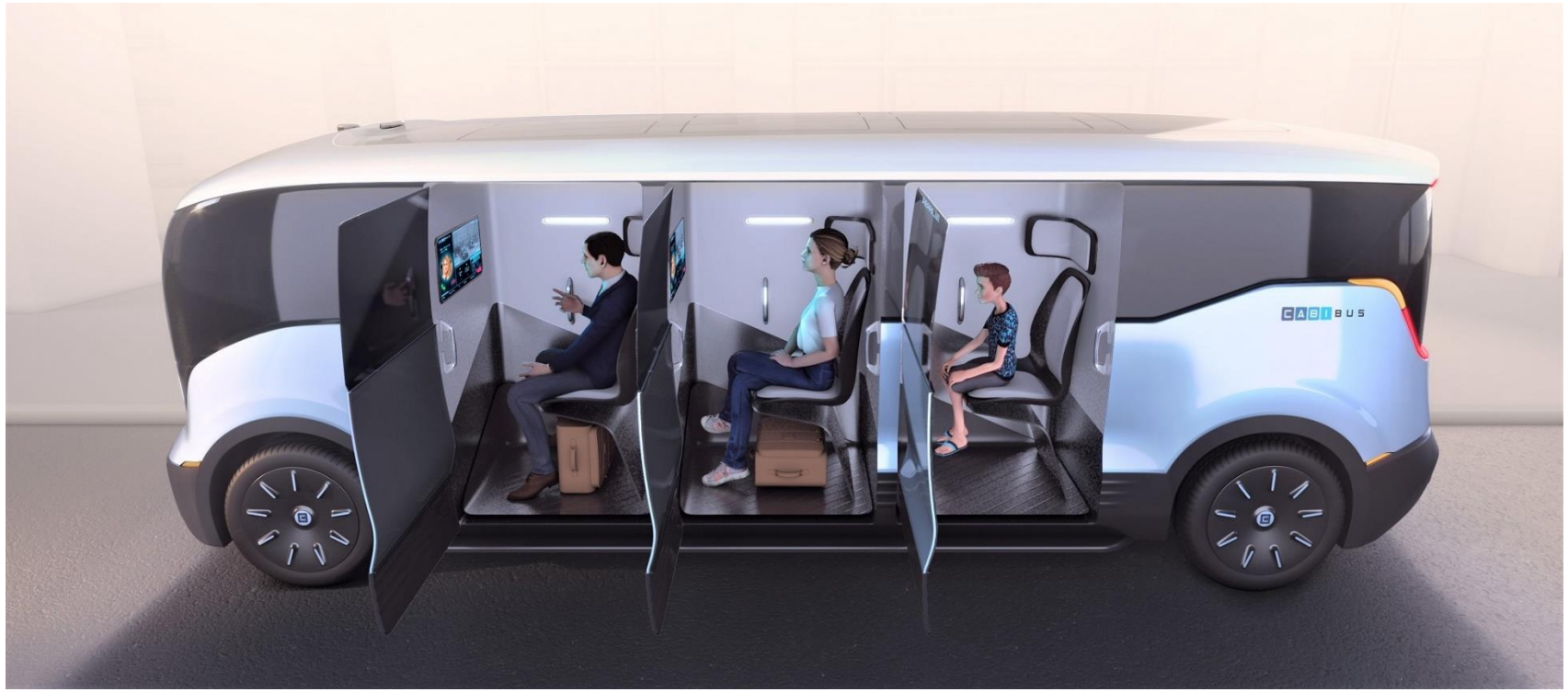
CABI BUS

Robotaxi with unique safety for shared mobility

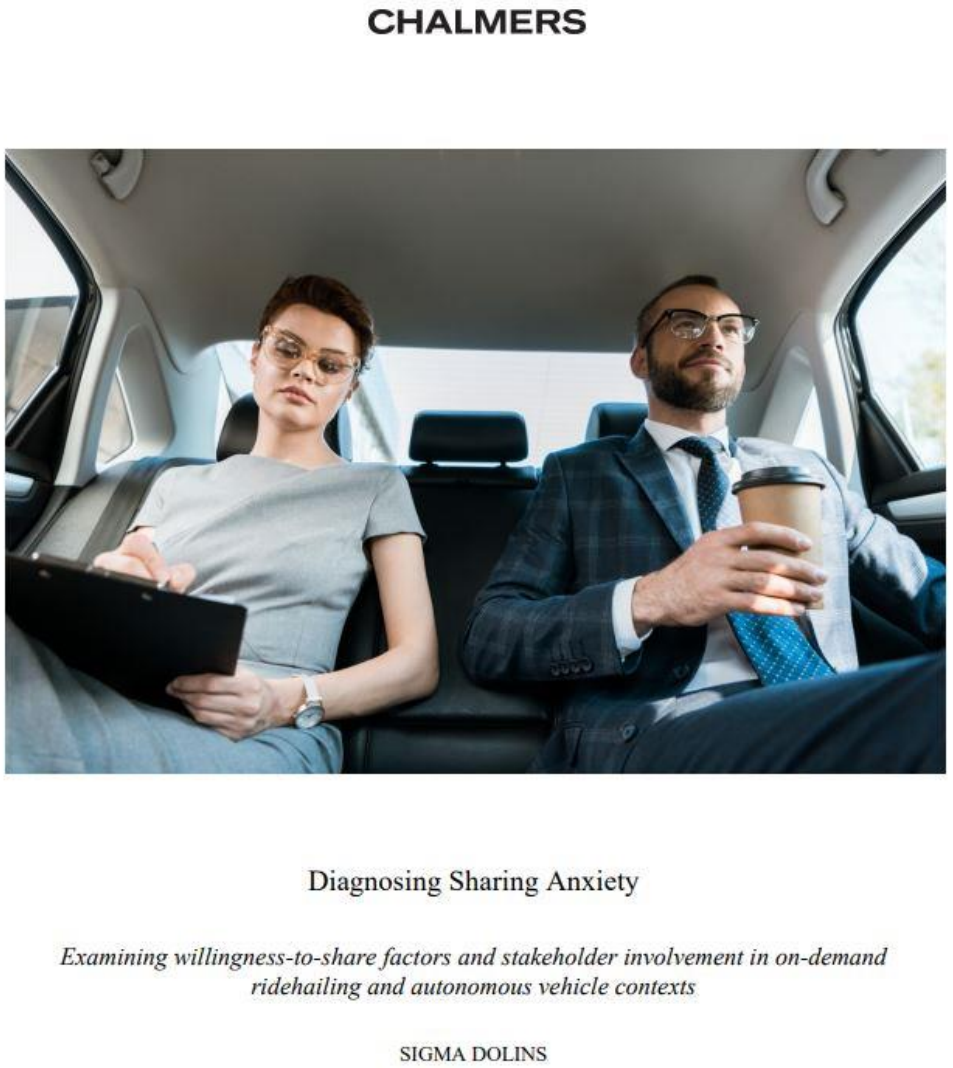


CabiBUS Sustainable Mobility AB

CabiBUS is the only shared Robotaxi vehicle concept that offers full protection against Sharing Anxiety according to researcher Sigma Dolins.

” In order for shared AVs (SAVs) to be a feasible service, users need to be willing to share a driverless space with strangers.”

Diagnosing Sharing Anxiety
Licentiate thesis, November 2021



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”Numerous studies indicate that the potential of autonomous vehicles (AVs) to reduce greenhouse gas emissions, reduce traffic congestion, and increase mobility access can only be fully realized through fleets of vehicles being used for shared rides, also known as dynamic ridepooling. This has the potential for transforming the public transport industry, as well as how transportation functions in urban and rural contexts.”

Sigma Dolins, researcher at RISE, Gothenburg, Sweden

https://research.chalmers.se/publication/526508/file/526508_Fulltext.pdf

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” However, the results showed that when presented with driverless scenarios, the focus group participants’ willingness-to-share dropped significantly, due to strong concerns about the unknown behaviour of their co-passengers. This revealed ”sharing anxiety” in even extremely motivated users of dynamic ridepooling, and a potential barrier to the deployment of SAVs (Shared Autonomous Vehicles).”

Sigma Dolins, researcher at RISE, Göteborg

https://www.cabibus.com/sharing-anxiety.html
https://www.cabibus.com/privacy-1.html

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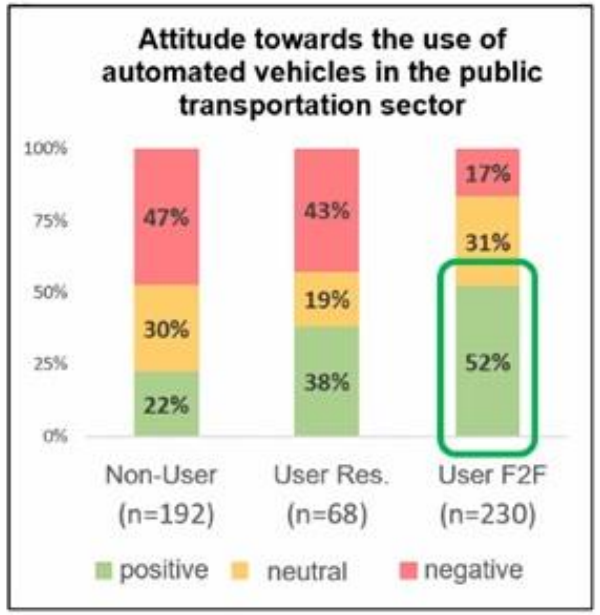
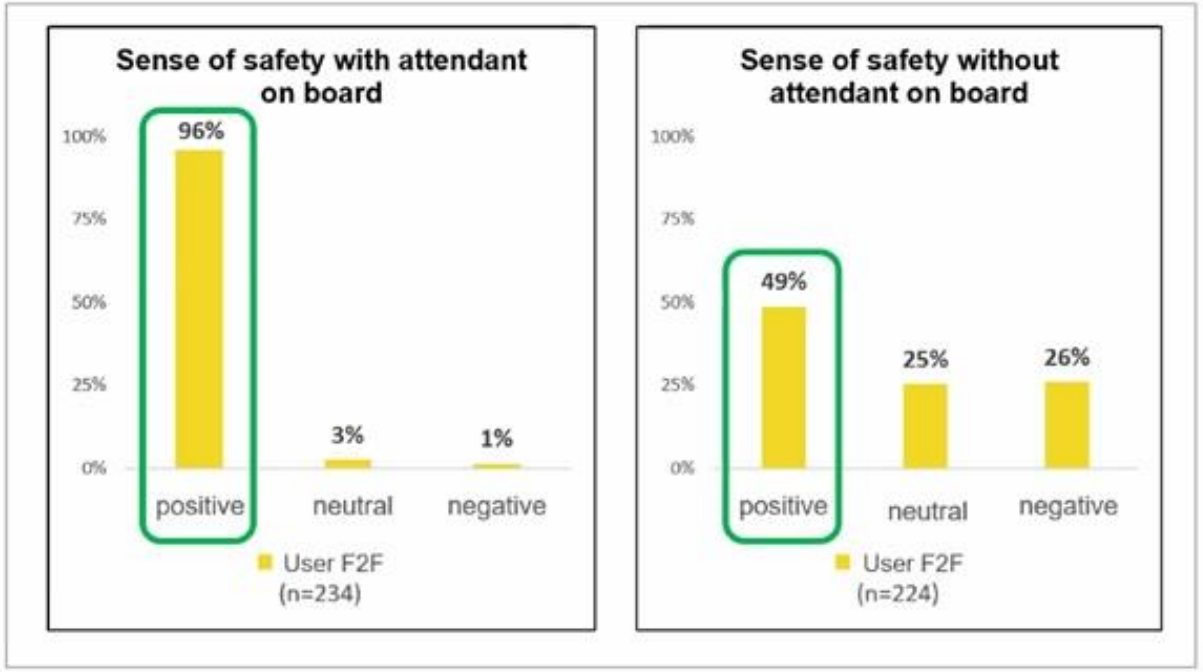
What have we learned about user acceptance and trust?

Results from acceptance study with passengers and residents by the ZTG - 'Center for Technology and Society' of the Technische Universität Berlin within the project scope of "Shuttles & Co":





* Res. = Results from survey with residents
F2F = Results from survey with passengers

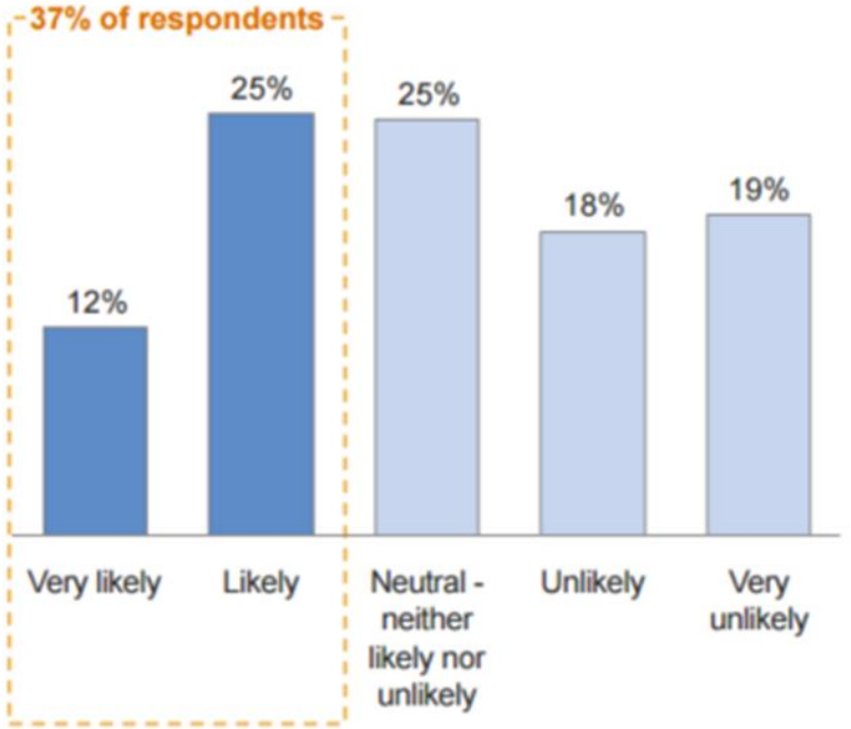
CabiBUS is the only shared Robotaxi design that offers full sense of safety without attendant on board

Safety for travelers will be crucial to become the market leader in autonomous passenger transport.

6 Consumers are more reluctant to share a self-driving taxi with strangers

WORLD ECONOMIC FORUM
COMMITTED TO IMPROVING THE STATE OF THE WORLD

In % of total respondents



Q: How likely are you to consider using a **shared self-driving taxi**?

n = 5,635

"It is not safe for a lady to share with strangers."

Janice, 39

"Who will maintain the car if it gets dirty?"

Keryn, 32

"Me, as a woman, I would never want to share a ride with three drunk guys at night"

Jennifer, 26

CabiBUS is the only shared Robotaxi vehicle concept that offers full protection against infection from other passengers.

Reducing the risk of infection has become the primary reason for the choice of a mode of transportation.

Key reasons to choose a mode of transportation,[1] rank

[1]Question: What were/are your key reasons to choose a mode of transportation? Aggregated results from China, France, Germany, Italy, Japan, UK, and US. Reasons ranked by number of respondents.
Source: McKinsey Center for Future Mobility

McKinsey & Company

Patent applied for 2014, granted 2018

” Because each passenger has their own separate space in the vehicle, the risk of being exposed to infection, theft or violence from other passengers is eliminated and there are good conditions for undisturbed work, which makes travel time more efficient.”

More patents covering details in the unique vehicle concept will be applied for to achieve substantial international protection.

CABI BUS

PATENT- OCH REGISTRERINGSVERKET
Sverige

(12) Patentskrift (10) SE 540 622 C2

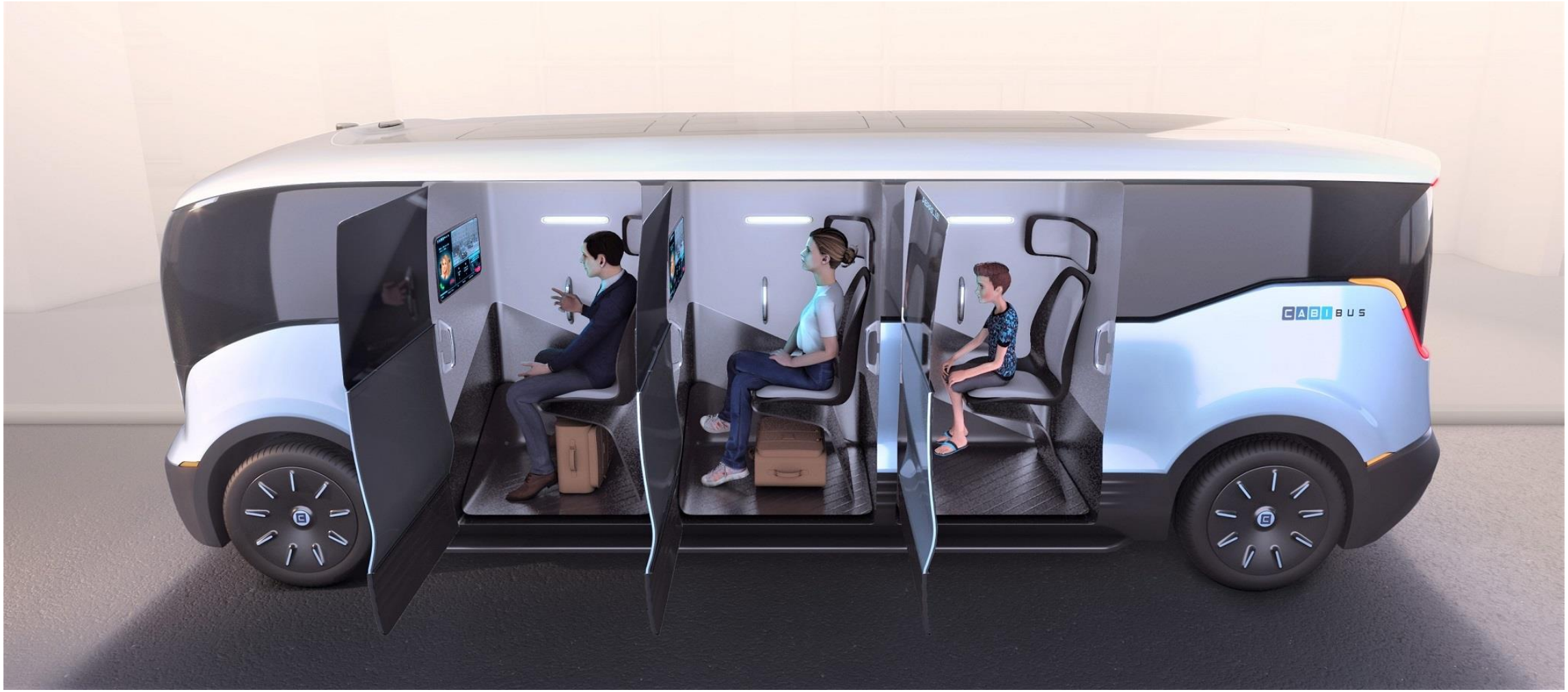
(21) Patentansökningsnummer:	1430082-6	(51) Int.Cl.:	
(45) Patent meddelat:	2018-10-02	*B62D 31/00*	(2006.01)
(41) Ansökan allmänt tillgänglig:	2015-12-10		
(22) Ingivningsdag:	2014-06-09		
(24) Löpdag:	2014-06-09		
(30) Prioritetsuppgifter:	---		

(73) Patenthavare:	Kenneth Palmestål, Blodboksgatan 24, 42674 Västra Frölunda SE
(72) Uppfinnare:	Kenneth Palmestål, Västra Frölunda SE
(74) Ombud:	---
(54) Benämning:	Fordon för transport av flera passagerare i skilda utrymmen
(56) Anförda publikationer:	US 4582354 A1 · WO 2011154681 A1 · WO 2008033540 A2
(57) Sammandrag:	

Den föreliggande uppfinningen avser ett fordon med en anordning för automatisk drift utan förare (100) för persontransport kännetecknat av att nämnda fordon innefattar ett antal kupéer (101), och har egen dörr(102) för in- och utstigning samt säte (103) för en passagerare så att varje passagerare reser avskild från övriga passagerare och därmed får en tryggare, bekvämare och effektivare resa.

FIG. 2

CabiBUS 6+1 cabins offers safe and comfortable shared rides for all.



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Other Robotaxi examples:

Waymo

Cruise

Zoox

CabiBUS patented solution with individual and exchangeable cabins is the only solution that offers full privacy, safety and security when sharing rides with strangers.

"Hello Kenneth, Your technology looks great"
Julia Bauer, Head of Sustainability at
Nico Rosberg
Sustainability Entrepreneur & Formula 1 World Champion

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Now is a perfect time to start developing CabiBUS!

Level 4 autonomy: 10 August 2023 Waymo is now authorized to collect fares for driverless rides in San Francisco!

Cities starts to plan for public transit with Shared Autonomous Vehicles, SAV:
IAA Mobility, 5 September 2023Oslo, Norway presented plans for 20 000 SAVs to reduce the car traffic with 50% to 2030.

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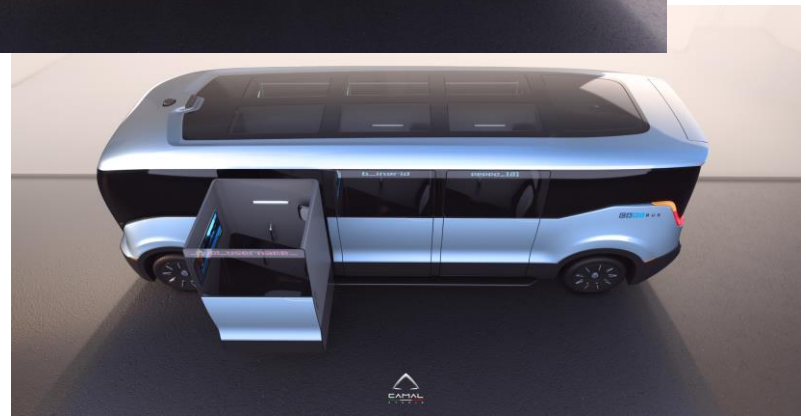
Last miles deliveries

On evenings and weekends, there is less need for passenger transport and most people are at home and can receive deliveries of parcels and food (also chilled and frozen).

The patented solution with exchangeable cabins makes it possible to use the same vehicle. It is a perfect combined use.

The cabins are prepacked for a certain area at the different companies and then picked up by the CabiBUS.

Increased utilization of vehicles provides better economy and reduces the need for resources to manufacture vehicles and batteries.



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Kenneth Palmestål, founder

Engineer, inventor, entrepreneur.
Human ecology studies at Gothenburg University 1974-1975.

Patent for IQtherm smart thermostat 1987. CEO until business sold 1999. http://iqtron.se/IQtherm_eng.htm

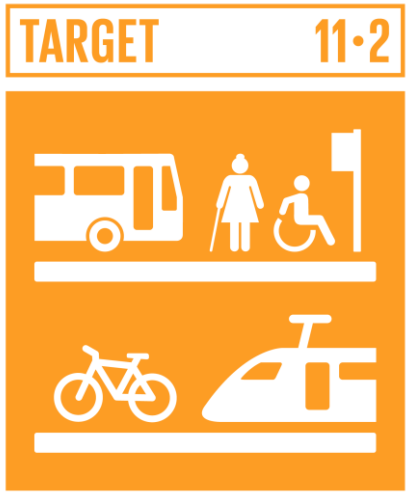
Patent for SoundRacer gadget for Sports Car engine sound in ICE cars 2008, CEO and largest owner. Product developed for electric vehicle warning sound, AVAS, now factory installed in Solaris buses and Rimac Nevera Hypersportscar. www.soundracer.com
www.evsoundsystem.com

Patent for CabiBUS applied for 2014, granted 2018. Founded the CabiBUS Sustainable Mobility AB.

Plan: Build a multi-country patent portfolio on the new technical solutions in the CabiBUS vehicle.

CABI BUS

Our mission



11 Sustainable Cities And Communities

Make cities and human settlements inclusive, safe, resilient and sustainable

11.2 AFFORDABLE AND SUSTAINABLE TRANSPORT SYSTEMS

By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

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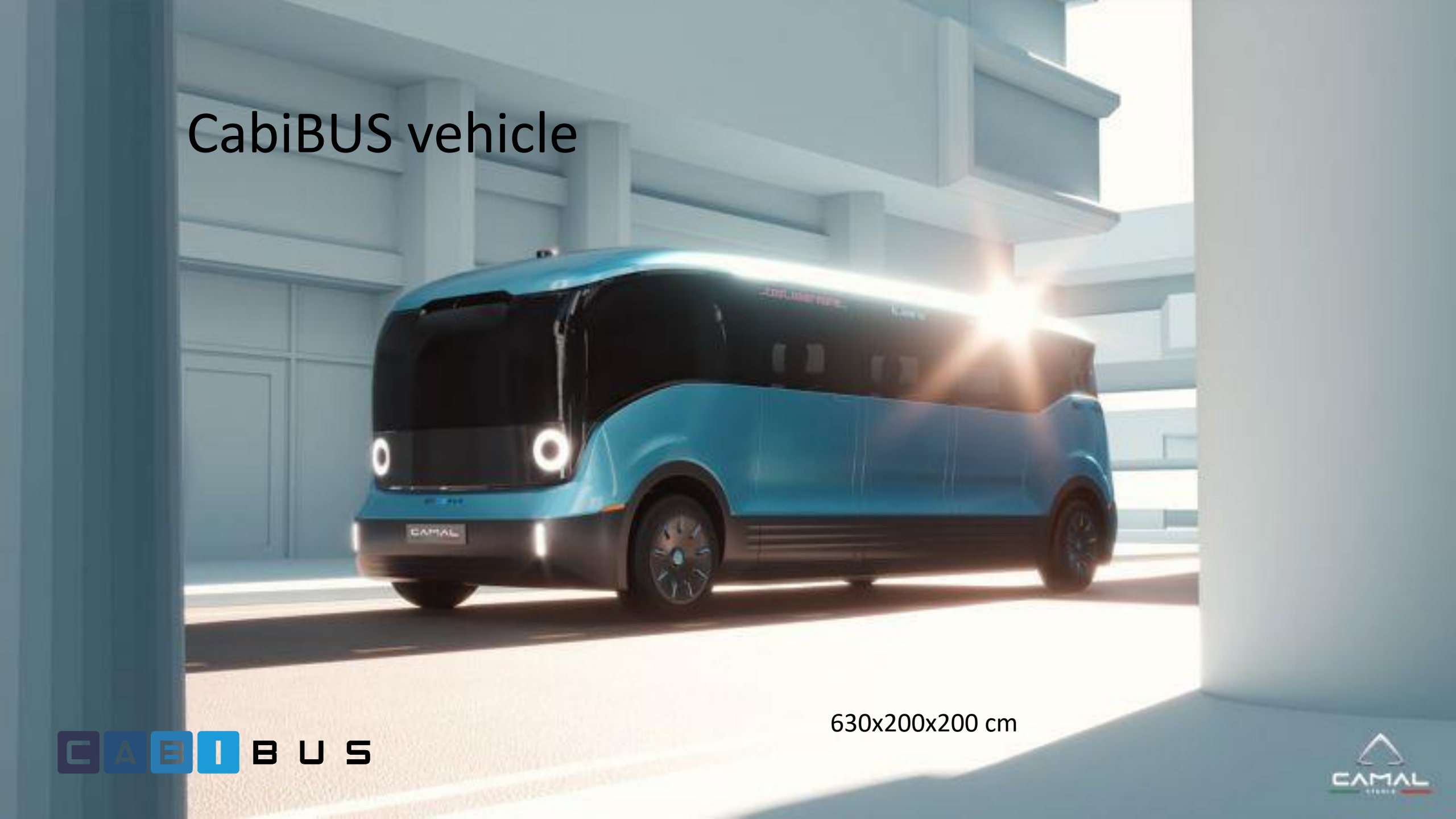
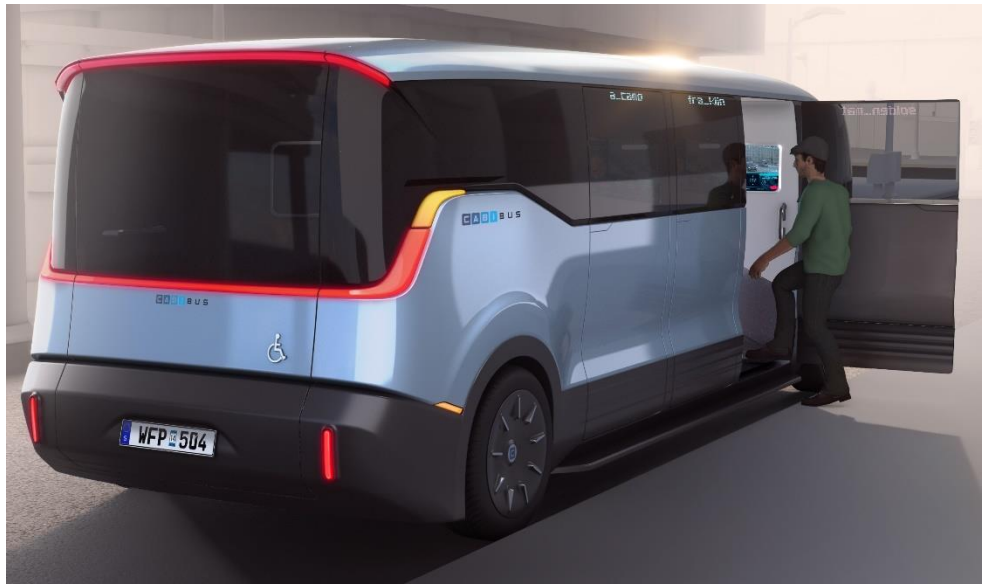
CabiBUS vehicle



630x200x200 cm

Touch screen functions

- forward view
- video call
- Information
- light and temperature settings
- emergency call
- TV, stream, radio …



- Autonomous Level 4
- Electric
- 6 private cabins for one or two persons.
- 1 Wheelchair/baby stroller/baggage cabin
- Safest shared travel for all passengers through
  Separate fresh filtered air to each cabin
  UV-C light virus disinfection after each passenger
  Airbags all around in each passenger cabin
  Strong framework between and around all cabins.
- Battery range 500 km. Top speed 110 km/h
- Door2door, on-demand
- Cover up to 100 km around each city

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Full size cabin prototype shows the spacious private cabin that allows two persons to share the ride.

A cabin is not shared with other passengers, only with two persons travelling together.

There is also room for shopping bags and luggade.

Private cabin enables travelling with a dog without disturbing other passengers (booking system can help allergic persons avoid cabins that has had a dog inside).

Total CabiBUS capacity is 12 persons in 6 cabins plus one wheelchair passenger in rear cabin.

All required technology is available from suppliers like these.

CabiBUS will be designed so that the best Level 4 autonomy system can be selected at production start. Also possible to select system for different countries.

PARTNER WISH LIST This is a dreamteam of companies that we hope to partner with to create the best 1-100 km shared mobility vehicle and public transit in the world.

WAYMO autonomous Level 4 technology	AURORA autonomous Level 4 technology
The next wave of AV technology.	SoundRacer Acoustic Vehicle Alerting System, AVAS
northvolt Batteries	Rimac EV technology
ERICSSON Telecom 5G connected vehicles	SKF Bearings
GHSP UV-C disinfection	NVIDIA DRIVE platform
CAMAL STUDIO Vehicle design and visualisations	MAGNA Vehicle development and production
Autoliv Airbags	TESLA EV Driveline
VOLVO Buses Global supplier of public transportation	NEVS Vehicle prototype and production
NAWATechnologies ULTRACAPACITORS	Phantom Auto Teleoperation solution
ROCSYS charging robots	ClearMotion Proactive suspension technology
CHASSIS AUTONOMY Fail-operational Steer-by-wire and Brake-by-wire	BraunAbility Wheelchair lift design

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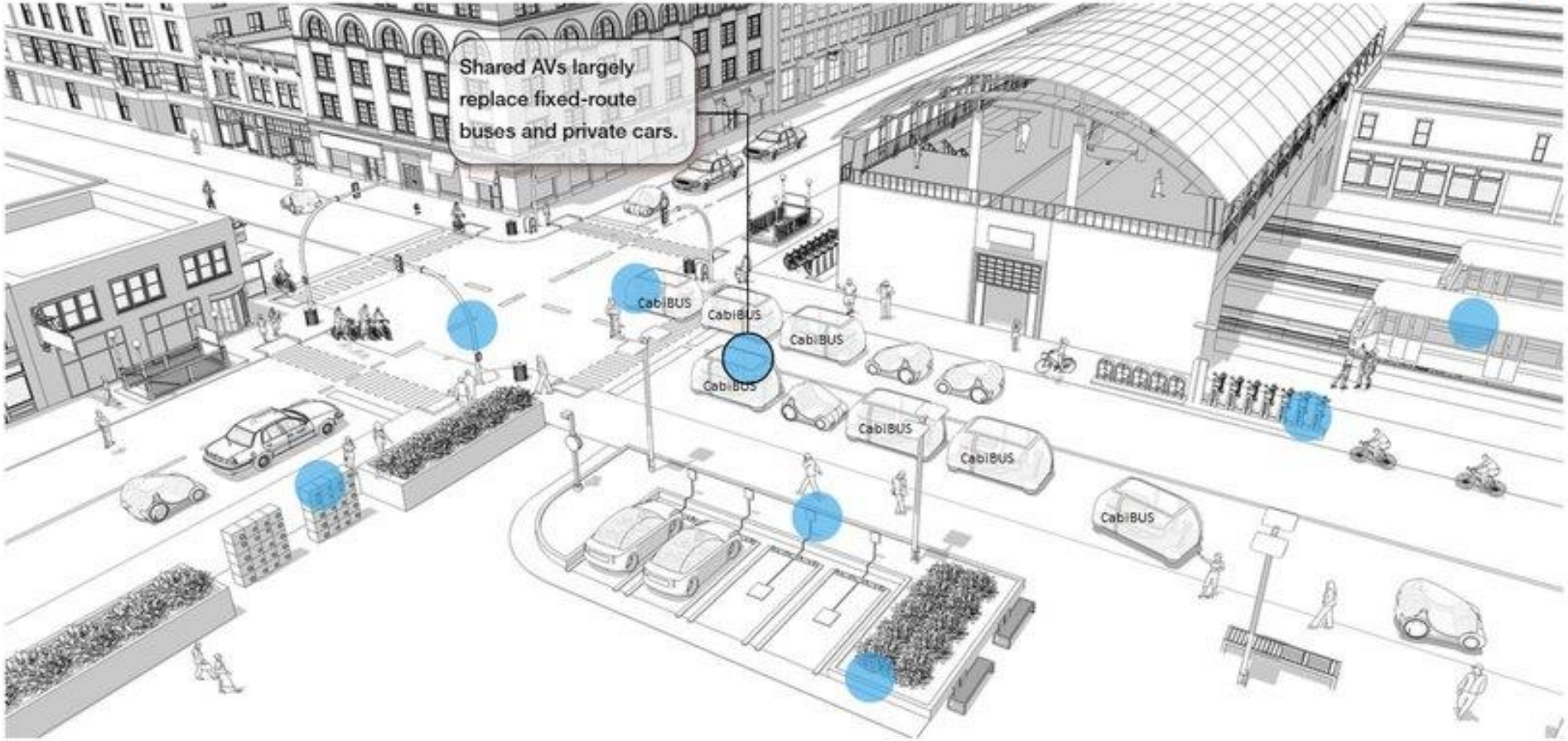
Scenario 3 shows a typical intersection under seamless mobility in 2030.

NEXT



McKinsey & Company

(CabiBUS text on AV vehicles added by CabiBUS)

Just a suggestion, Västtrafik is not a partner (yet)

CabiBUS Sustainable Mobility AB

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