Investor presentation

go-roo.com

Design Innovation Delivered

roo is a unique e-mobility innovation to enable the public to travel safely, efficiently, and carbon-free.

The solution is an entirely new vehicle for urban travel which is super compact, weather protected and can by parked anywhere.
It's called roo.
It not only opens up a revolutionary way to travel around…it's also hugely fun to ride!

Welcome to the 'roovolution'

- CO2-FREE
- ELECTRIC
- WEATHER PROTECTED
- HELMET FREE

Design attributes

PATENTED
Worldwide patented technology and design for the smallest vehicle with safety belt

STREET APPROVED
EU street approval according L2e category

SUSTAINABLY PRODUCED
Only sustainable materials are being used within the manufacturing process

SWISS ENGINEERED
Swiss engineering stands for high quality and is globally sought after

ONE-SEAT E-SCOOTER ON 3 WHEELS

DIMENSION	Length 1.45 m Width 0.8 m Height 1.85
POWER	2 kW / 4 kW
BATTERY	2 kWh / 3.7 kWh
SPEED	45 km/h
LUGGAGE	25kg front 25kg rear (opt)
TILTING MECHANISM	Self balancing

BUSINESS SUMMARY

FOUNDER

Adrian Burri
Founder & CEO

OFFICE:
Dorfstrasse 18
8608 Bubikon

INVESTMENT OPPORTUNITY

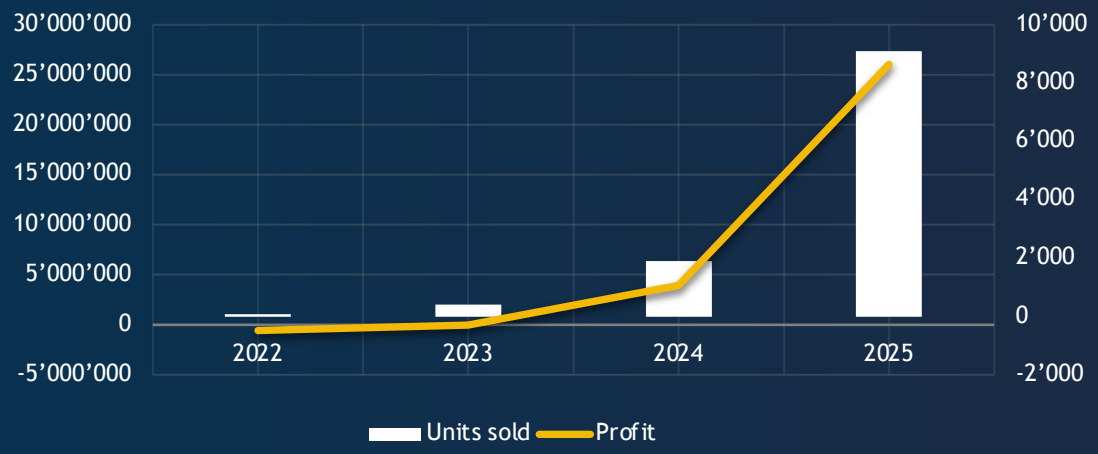
ACTUAL VALUATION (Pre-Money)

CHF 5.5mio » CHF 7.5mio.

POST-MONEY VALUATION

Investment offering: 1.5 mio. for 21 % shares

REVENUE



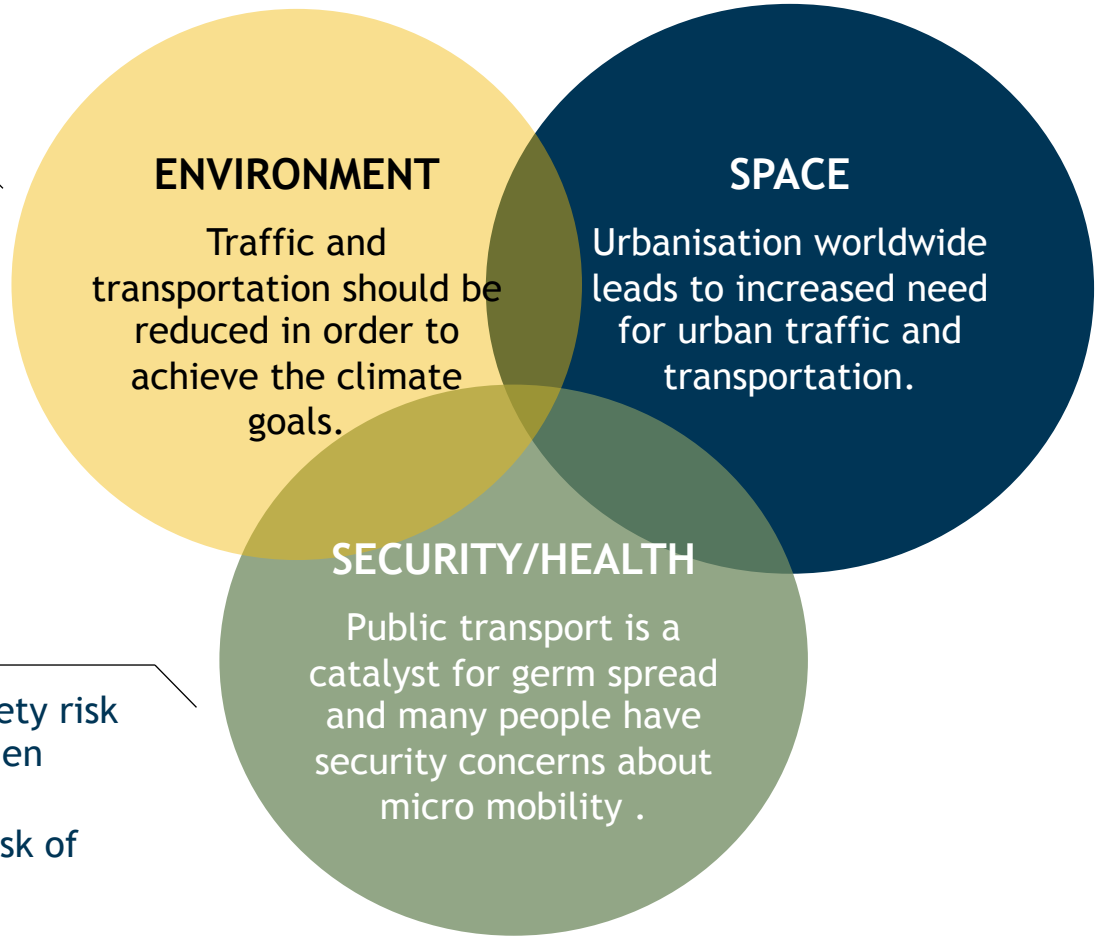
TIMELINE

- **2022**
  - 2 projects
- **2023**
  - Market entry CH, EU & US
- **2024**
  - Expansion in CH, EU & US
  - Market entry IND
- **2025**
  - Further expansion and launch B2C sales

MARKET DRIVERS

Challenges We Solve For

Mobility trade-off



ENVIRONMENT

- Urban passenger transport is an especially significant contributor to CO2 emissions, representing 40% of all passenger transport greenhouse gas emissions and 24% of all transport CO2 emissions [5]

SECURITY/HEALTH

- E-Scooters pose an increased safety risk also because most people ride then without helmets.[6]
- Public transport holds a higher risk of germ spread.

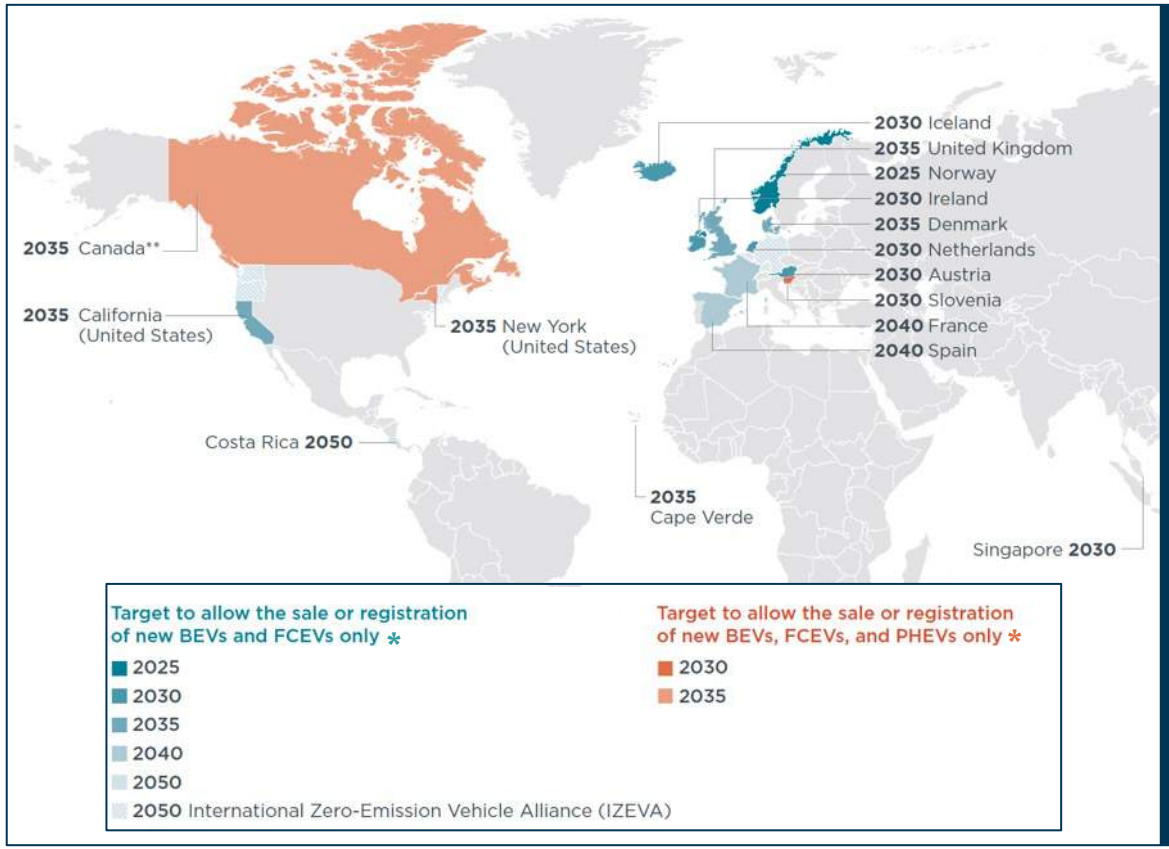
DENSITY / SPACE

Due to urbanisation the world will be facing a huge traffic and space problem:

- By 2050 70% of all humans will be living in metropolitan areas[1]
- Urban mobility will double by 2050 compared to 2021[2]
- Average traffic speed in German urban areas of cars 12 mph[3]
- Over 40% of all traffic is done individually and by car in developed countries [4]

[1] Prof. Dr. Nikolaus Lang IMO Universität St. Gallen
[2] annex: graph 1
[3] annex: graph 2
[4] annex: graph 3
[5] ITF: The innovative mobility landscape.
[6] annex: graph 4

Carbon-Free Cities Ahead...



As a response to all the mobility pain points cities are launching different actions.

Reduction of Traffic and CO2 emission (Push Measures):

- Ban of new registrations of combustion engines (see graphic)
- Limitation of inner-city traveling speed to 30km/h
- Reduction of parking spaces

Examples:

- Bilbao, Brussels and Paris imposed a city-wide speed limit of 30 kph[1]
- In Glasgow, 20 mph zones have reduced pedestrian/car collisions by 31%[1]
- Paris is removing half its car street parking from 140'000 to 70'000 parking spaces[2]

Investment in alternative mobility (Pull Measures):

- Investments in public transportation to generate access
- Development of innovative mobility schemes (sharing, hailing)
- Investment in new small-format electric vehicles

New modes of transport will be necessary to tackle all the different density, environment and security challenges

**BEV: battery electric vehicles*
FCEV: fuel cell electric vehicles
PHEV: plugin-hybrid electric vehicles

[1]https://www.weforum.org/agenda/2021/09/european-cities-traffic-speed-limits-paris-brussels-glasgow-cop26/
[2]https://www.weforum.org/agenda/2020/12/paris-parking-spaces-greenery-cities/
Chart: https://theicct.org/publications/pvs-global-phase-out-FS-oct21

SPECIFIC TARGET GROUP DRIVERS

Private User

I hardly find a parking lot in the city anymore.

Traffic congestion getting worse and worse, I lose so much time when I travel in the city by car.

Travelling by foot, bike, scooter, public transport is a pain when the weather is bad.

I lose so much time travelling by public transport with waiting time and transfers by foot.

Public Transport

To achieve the ambitious climate goals, people have to travel by public transport. But the convenience is not high enough because the first and last mile is not covered.

Public transport in urban areas is already at its capacity limit in peak times. Increasing the infrastructure is costly and takes time.

Real estate developer

Our sales reps need more agile mobility solutions in the urban area.

There is no optimal solution to drive around on our big company campus.

We need a solution for our staff to travel quickly between our different offices.

Traffic is increasing in cities and CO2 has to be reduces. We need a new way to travel to solve this dilemma.

Congestion problems and reduced parking space in cities are not solved by EVs.

Investments in public transport infrastructure are very high and the construction phases are long and inconvenient.

Companies

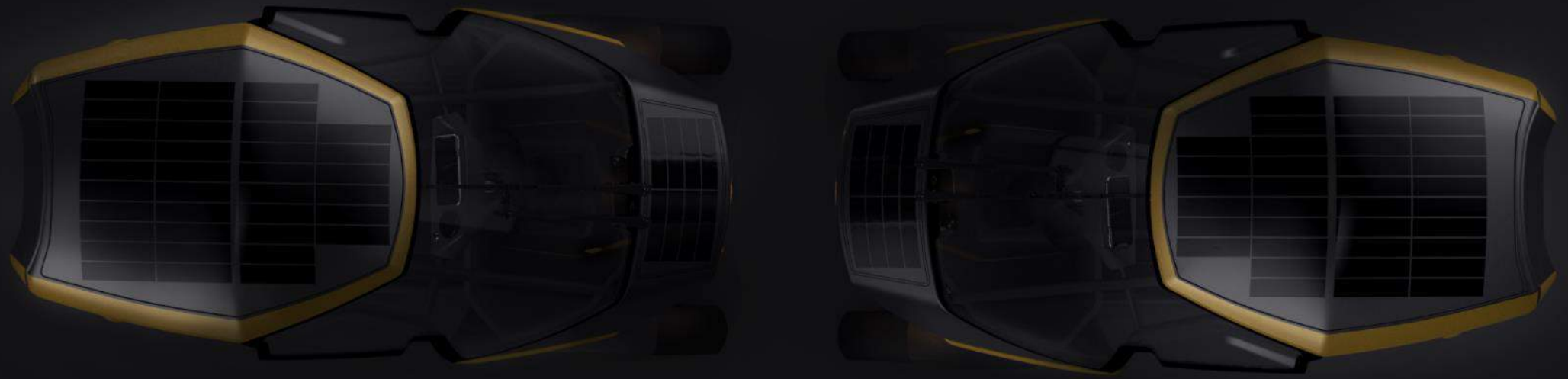
We are more and more forced to reduce parking spaces for housing areas and apartment buildings.

Our tenants don’t want to pay a lot of money for a parking space that is empty most of the time.

Our apartments need a good access to public transport (train or bus stations)

Cities

COMPANY



History

2014

- Research project at ZHAW with the topic “Mobility in 2030: How to get around in 15 years”

2015

- After 15 month of development from a 10 FTE project team, roo* was presented for the first time and shown at fairs in Mailand, Munich and Winterthur

2016

- Share your roo was founded by Burri

2017

- First investors were found, and the team grew to a headcount of 8

2019

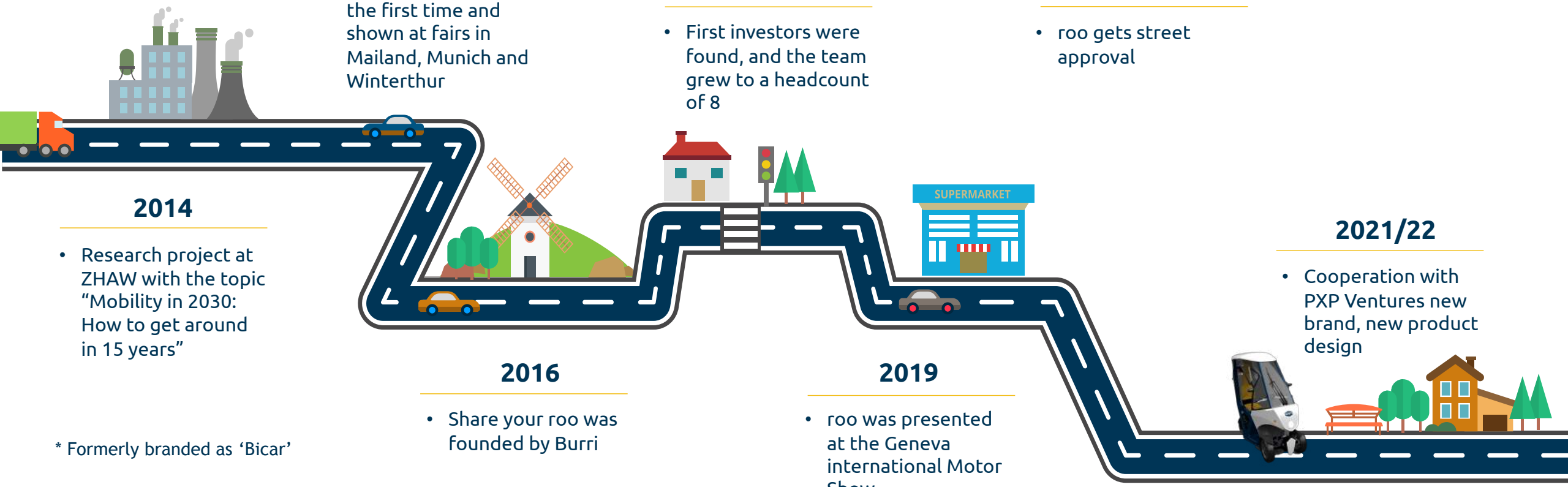
- roo was presented at the Geneva international Motor Show
- First test drives were performed

2020

- roo gets street approval

2021/22

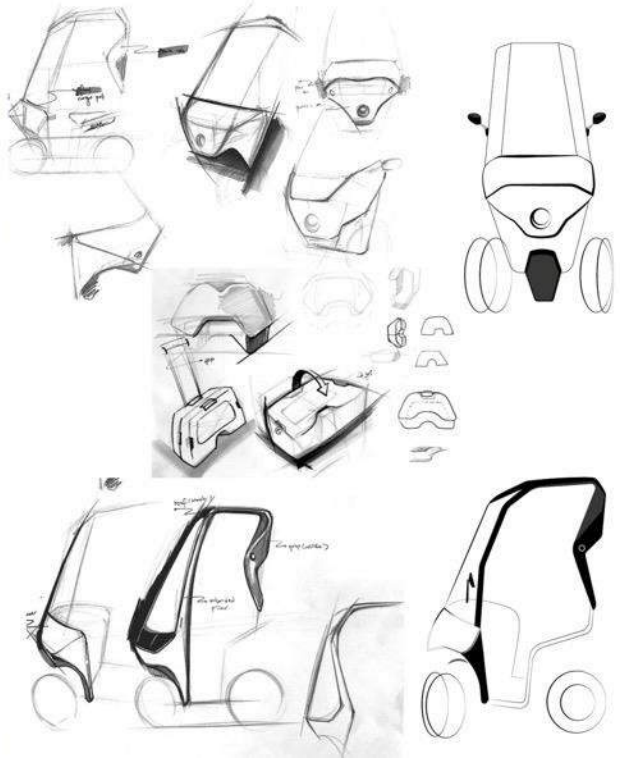
- Cooperation with PXP Ventures new brand, new product design

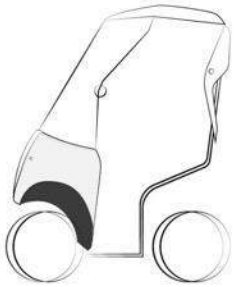


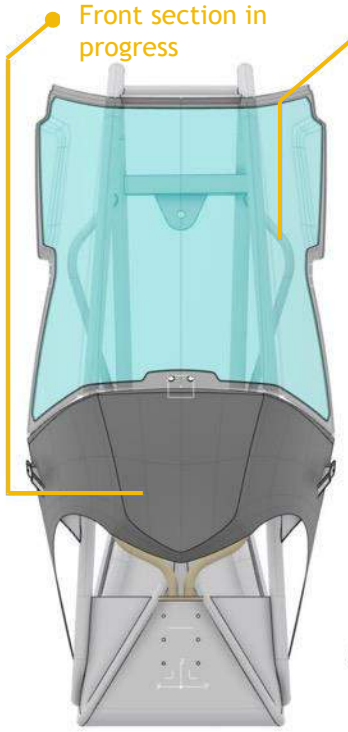
* Formerly branded as ‘Bicar’

BRAND & PRODUCT DESIGN

Design Evolution







Version 2020 | Development 1 | Development 2 | Development 3 / Sept 21

All new Design

SCALE STRATEGY

Scale Strategy – Target markets

Our scale strategy is based on first launching a strong proof of concept, which will be based on two projects planned in 2022. For these two projects we have identified 4 use cases with high success potential and 4 regions which we consider highly interesting for a rollout:

SWITZERLAND

- Broad existing network of leads
- High investments in climate goals
- Mature shared mobility market
- Many restrictions in city traffic for cars

EUROPEAN UNION

- High investments in climate goals
- Mature shared mobility market
- Many restrictions in city traffic for cars

USA

- Large user base
- Mature shared mobility market
- Many large cities

INDIA

- Very large user base
- Very dense mega cities
- High percentage of two- and three-wheelers

Scale Strategy – Use Cases

The following 4 use cases have been as identified as high potentials because roo offers a fit and symbiosis that has not existed till today:

COMPANY MOBILITY

roo as a part of a company fleet to cover short commuting in urban zones or on larger company areas. Solves for Scope 3 carbon for companies.

ACCOMODATION MOBILITY

roo as an integrative mobility solution for apartment buildings or housing areas in urban or suburban zones

PUBLIC TRANSPORT (SUPPLEMENT)

roo as a solution in cities or suburbs to cover the last mile which is not covered by public transport or inconvenient

MOBILITY SHARING

roo as an alternative to e-scooters, bikes or cars for existing sharing platforms

B2C SALES

(in a second step) roo will also be delivered to private users as an alternative for a car or a second car

Scale Strategy – Potential Project Partners

At the end of October we contacted all of our 1,500 existing leads to find two partners for two projects with approximately 50 roos each. Currently we are in discussions with the following potential partners:

voi.	Currently we are **in discussion with voi.**, a scooter sharing company from Sweden, who have shown interest in running a first project with roo.
drivemycar	Also we are in close contact with a Swiss platform called «drivemycar» which could be a potential software platform partner to deliver a full fledged solution for the accommodation case.
SBB CFF FFS Stadt Winterthur	Furthermore we are in discussion with SBB and the city of Winterthur to start a use case of city mobility in Winterthur.

FURTHER INTERESTED PARTIES (EXCERPT)

BASF We create chemistry

TOYOTA

SUZUKI

Henkel

Allianz

Actual Interest (01/2022)

Large global interest, before marketing has started

Global traffic Jan 2022

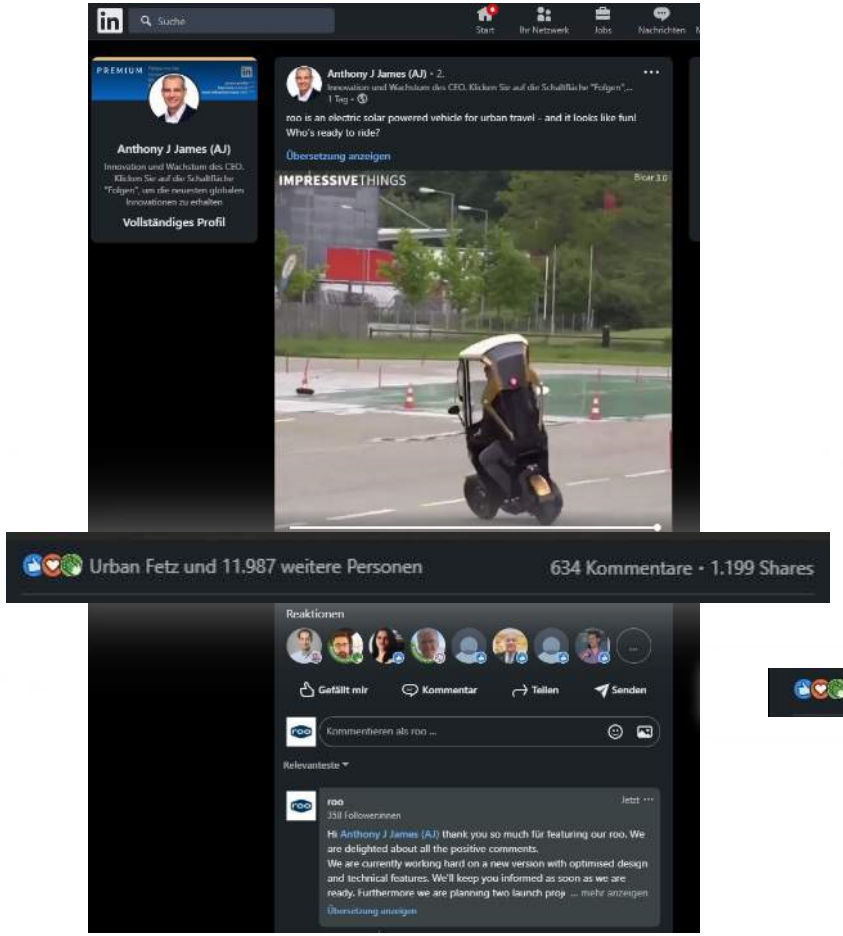
LAND	NUTZER
United States	306
Switzerland	187
India	115
Spain	97
Germany	67
United Kingdom	52
Canada	38

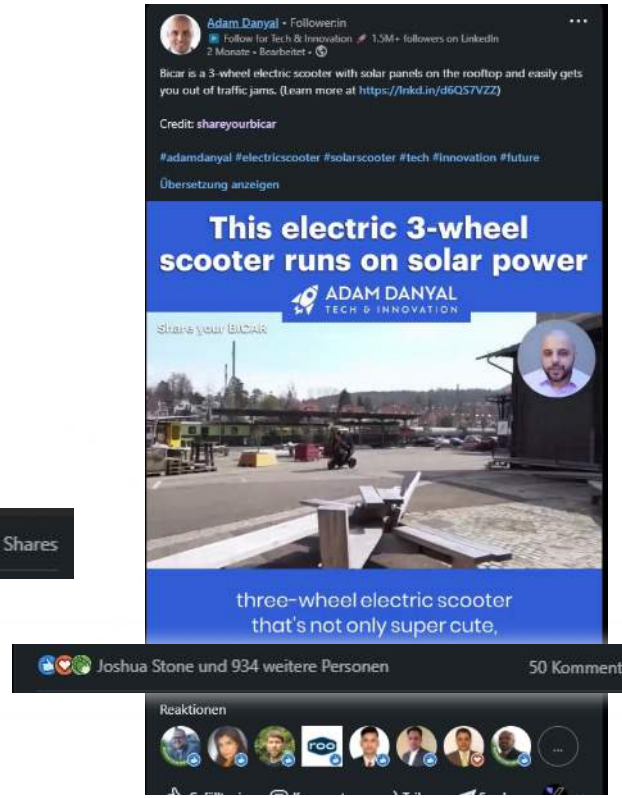
Performance

AUFRUFE	KONVERSIONSRATE	EINSENDUNGEN
952	15,86%	151

151 form submissions on the webpage:

- 30% Private
- 25% Corporate
- 45% misc
- 48 Product pre-reservations





Potential Buyers

LEGEND
= B2C
= B2B

AMOUNT
B2C: 1‘500 Contacts
B2B: 150 Contacts

Shape the Mobility of Tomorrow With Our roovolution

roo might me a small vehicle, but with a large calling:

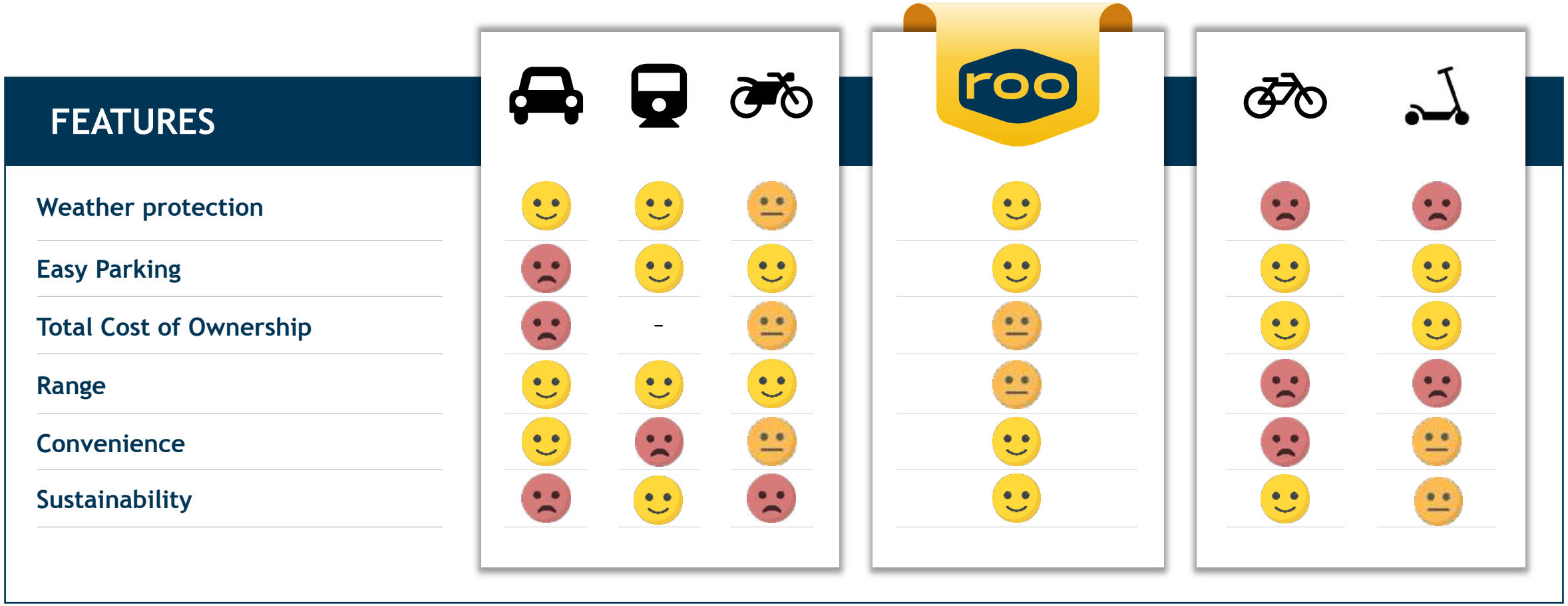
To change today's mobility to a better, more sustainable and fun way.

We are therefore not just looking for partners, customers and investors – we are looking for partners in crime to **start a roovolution** of the global mobility. Together we want to start a **global movement** to reduce polluting exhaust gases, awful traffic jams and inconvenient public transport.

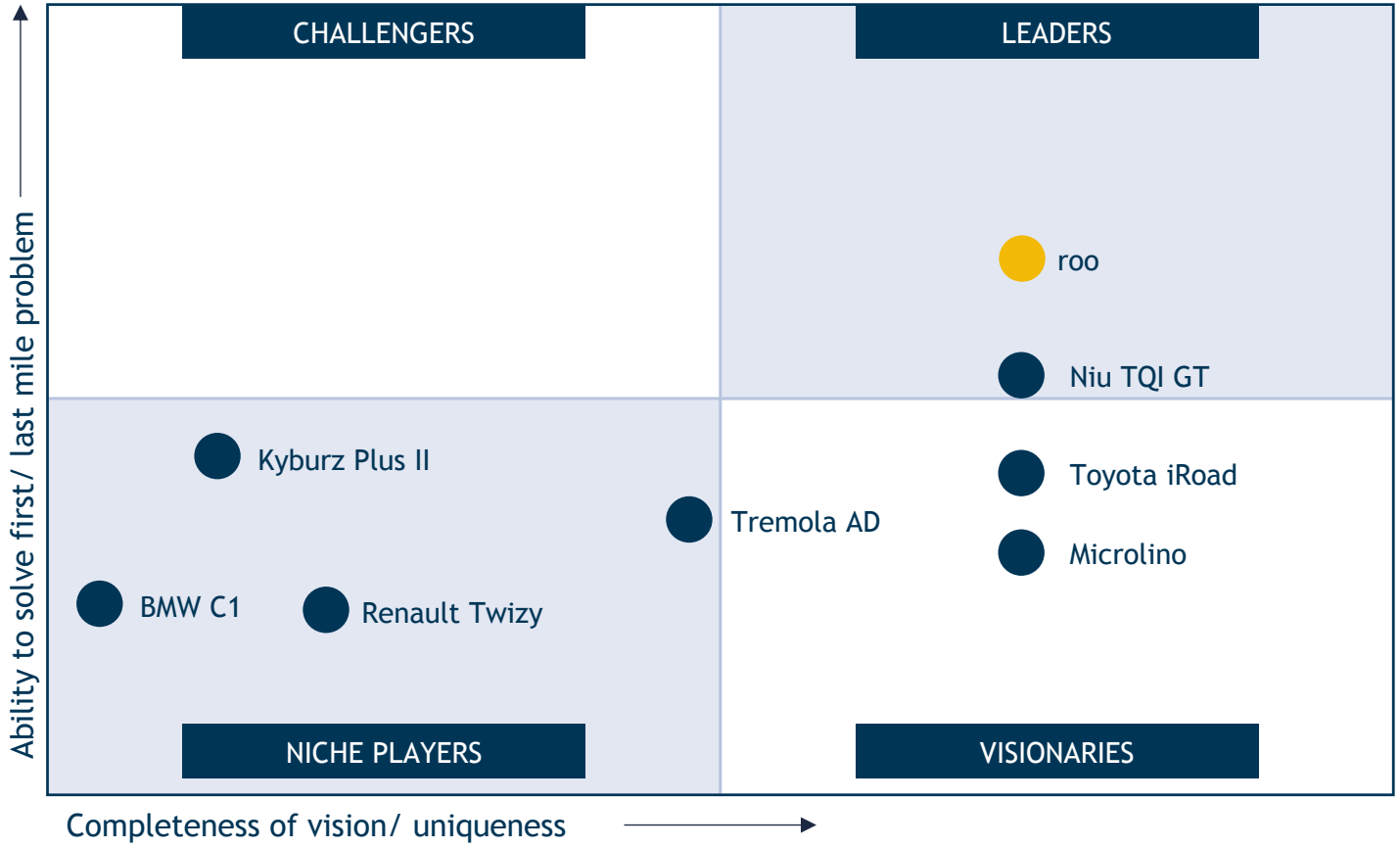
Together we want to:

Go roo

Competition



Other Mobility Solutions




BMW C1*


Niu TQI GT


Tremola AD


Toyota iRoad


Microlino


Renault Twizy


Kyburz Plus II

*combustion engine

Uniqueness of roo

- Smallest size
- Agility on small space
- No car drivers license needed
- Easy swappable battery
- Solar panels

MARKET POTENTIAL

Potential: Company Mobility

Vision
Commercial car registrations make out an essential part of all registered cars – in Europe 63% of all newly registered cars.
Especially medium and large companies in urban and suburban areas have a need for small and agile vehicles to travel between their subsidiaries or to clients or for their employees to travel trough the city area. Furthermore, roo represents the perfect solution to drive inside a company yard or on a campus.

Market
In a first step we would focus on the US and EU market for corporate fleet solutions, as the markets are well accessible and mature.
Newly registered corporate fleet cars 2021 in EU = 6 mio and USA = 5 mio.

Potential
Potential EU and USA = 11 mio. Cars p.a. for company fleets. 0.5% could be replaced by roo by 2030. **55'000 units**.

Source references: annex

Potential: Mobility Sharing

Vision
The Mobility Sharing market is a major pillar to meet the urban climate goals and the increasing mobility needs in urban areas. It will complement the public transport and cover the first / last mile problematic and is therefor a segment with a very high potential.
Roo offers micro mobility sharing providers the key to new (yet not accessible) user groups – seniors, security seeking, mid distance (2 – 15 km) – and to yet not profitable cities – high precipitation, low density.

Market
The mobility sharing market is growing globally by 3.6% (7.3 mio. units), hereby especially the micro mobility segment has a high growth rate of 15% – 19% (0.1 mio units).
Roo can be part of the micro mobility sharing market growth and add further growth potential to the projections. And complement the car fleets of car sharing providers.

Potential
Therefore we expect a potential of **20'000 to 50'000 units** in 2030 sales to mobility sharing providers*.

**- 2-5% of micro mobility volume (97k)*
- 0.2 - 0.6% of rental cars volume (7.5mio.)

Source references: annex

Potential analysis: Public Transport

Vision
Public transport is the major solution to achieve the urban climate goals concerning traffic. As public transport makes out only **17.2% or all urban traffic** which will more than double by 2050, it will not be possible to cover the traffic increase. Furthermore, public transport needs heavy investments in infrastructure and long planning and building periods.
Therefore, complementary solutions to complement and relieve public transport infrastructure are urgently needed. Especially solutions to cover first/last mile coverage to the main axis of public transport ways.

Market
Urban traffic will reach 30’000 billion person kilometers by 2030. 5160 bil pkm will be done by public transport. We assume, that first / last miles make out about 15% hereof = 774 bil pkm.

Potential
If we assume that a shared vehicle makes 20’000 km per year we would need roughly 40 mio. Vehicles to cover first and last miles.
Therefore we expect a potential of **40’000 units in 2030***.

** 0.1% of the market volume*

Source references: annex

Potential: Accomodation Mobility

Vision
Same as in the public transport case, this case has the goal to complement and relieve public transport infrastructure. As an integrated shared mobility solution in apartment buildings (integrated in rent), housing areas (closed user platform) or even in whole quarters or suburbs. This use case covers specifically **only mile travels,** where public transport is inconvenient due to first / last mile or waiting time, and are **today mostly made via car, bike or foot.**

Market
Urban traffic will reach 30’000 billion person kilometers by 2030. Our estimation is that only mile travels (all the traffic which is covered solely by private transportation – car, bike, foot, micro mob.) make out around 25% of all traffic not made via public transport = 24’840 bil. Pkm * 25% = **6’210b bil. pkm**

Potential
If we assume that a shared vehicle makes 20’000 km per year we would need roughly 310 mio. vehicles.
Therefore we expect a potential of **30’000 units in 2030***.

** 0.01% of the market volume*

Source references: annex

Potential: B2C Direct Sales

Vision
After a successful rollout in the b2b segments, a b2c rollout in a direct sales model or via intermediates will be planned.
Roo represents the perfect substitution of a car or motorcycle or the perfect supplement to an already owned car (instead of a second one) in urban and suburban areas.

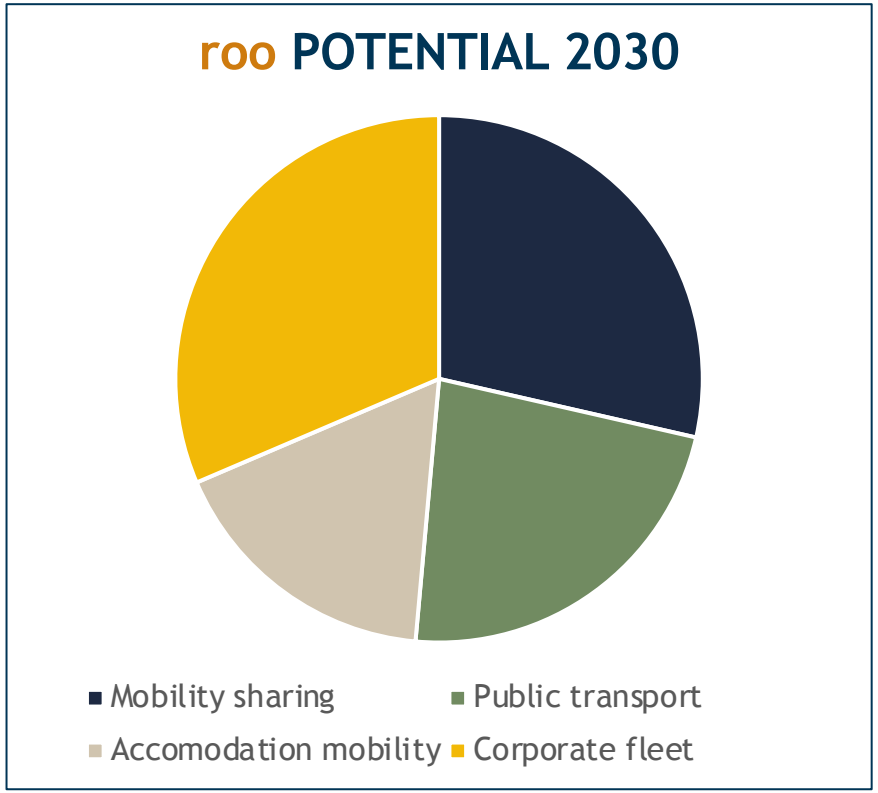
Market
Worldwide 100 mio. Cars and motorcycles are sold per year.

Potential
By 2050 0.1% of the market could be owned by roo.
100’000 units

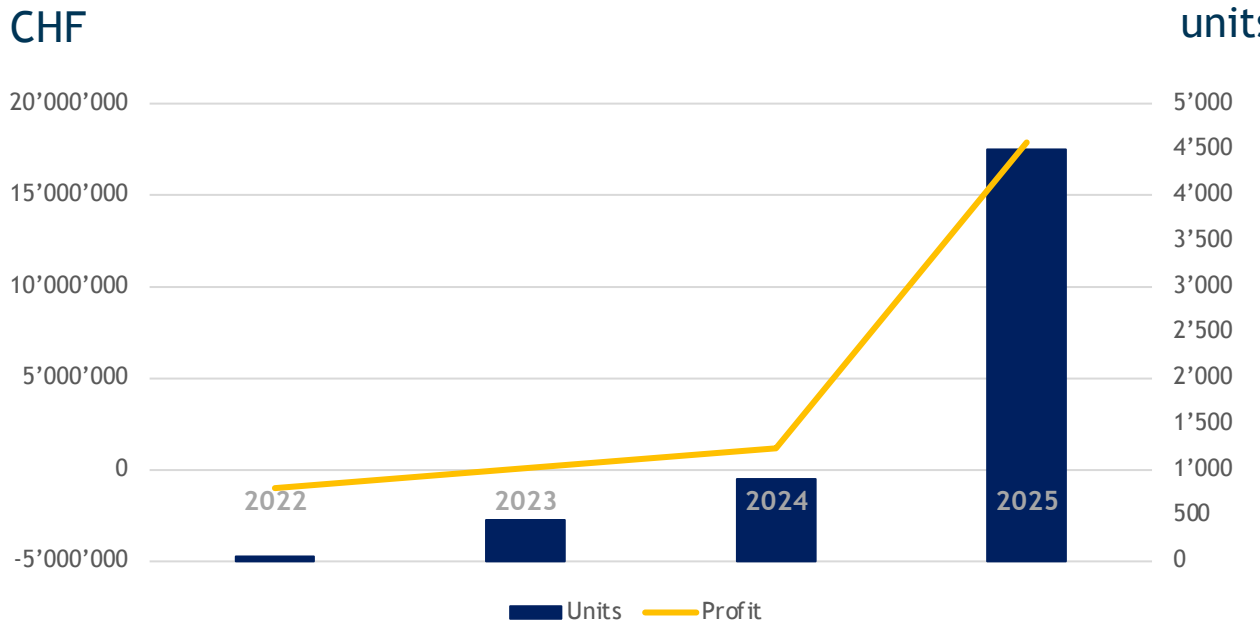
Source references: annex

Potential Market Opporunities: Summary

Case	Market Share	Roo potential 2030 (units)
Mobility sharing	*2-5% of micro mobility volume (97k)* *0.2 - 0.6% of rental cars volume (7.5mio.)*	20’000 – 50’000
Public transport	0.1%	40’000
Accomodation mobility	0.01%	30’000
Corporate fleet	0.5%	55’000
TOTAL (without private sales)		**145’000 - 175’000**
Private sales	0.1% (by 2050)	100’000



Business Plan



Units sold per market				
Pilots	50			
CH		150	200	300
EU		200	300	1700
US		100	400	2000
IND		0	0	500

BACKGROUND

Main purpose: Vehicle sales

2022/23: CHF 10’000 (Unit price)
2024/25: CHF 7’000 (Unit price)

Relative costs:
- Labor increasing
- Marketing increasing
- Production costs decreasing

2022: 2 Projects
2023: Market entry CH, EU with company and city mobility cases and US with a mobility sharing partner.
2024: Expansion in CH, EU, US and market entry IND with a car sharing partner and company mobility cases.
2025: Expansion and launch of B2C sales.

INVESTMENT OPPORTUNITY

Investment Roadmap

We need an investment of CHF 1.5 Mio. in 2022, to produce 100 vehicles. These 100 vehicles will be **offered to project partners for free,** to realize two lighthouse projects either in USA, UK, EU or CH.

8.2022: CHF 1.5 Mio. Seed

Production of 2 fleets with 50 vehicles each for 2 lighthouse projects.

Expand team and prepare market roll-out.

2023/24: CHF 7-10 Mio. Series A

Market Entry USA, EU, IND:

- Roll out mass production
- Build-up core team
- Increase Marketing & Sales

2025: Series B or Exit

Scale worldwide and enter B2C direct delivery:

- E-Commerce
- Regional subsidiaries or Partnerships

Seed Investment

Shape the future of mobility with us and be part of this unique opportunity to change the world for the good.

ACTUAL VALUATION (Pre-Money)

POST-MONEY VALUATION

Investment offering:
CHF 1.5 mio. for 21% shares

Roo is a product of *Share your BICAR AG* – a public limited company based in Switzerland.

Cap Table

Shareholders	Number of shareholders	% of shares
Founders	4 private persons	74%
Seed investors	3 private persons 1 association	10%
Corporate Investors	2 corporations	11%
Employees	ESOP	5%

Impact Investment

Summary

- The CHF 1.5 mio. investment capital will be used to **finance the first two projects** with 50 vehicles each in 2022
- The learnings and results of the projects will be used as **a proof of concept** and to raise awareness
- After the projects the **full market launch** will be prepared in **2023/24** in two major markets, depending on the result of the projects
- An **exit or a larger investment round** is planned in 2024/25

As an investor you participate not only on the development of a company with ambitious goals in a market with great potential, but you have also the chance to shape the future of the world in a good way.

Join the roovolution

and shape the future of mobility with us.

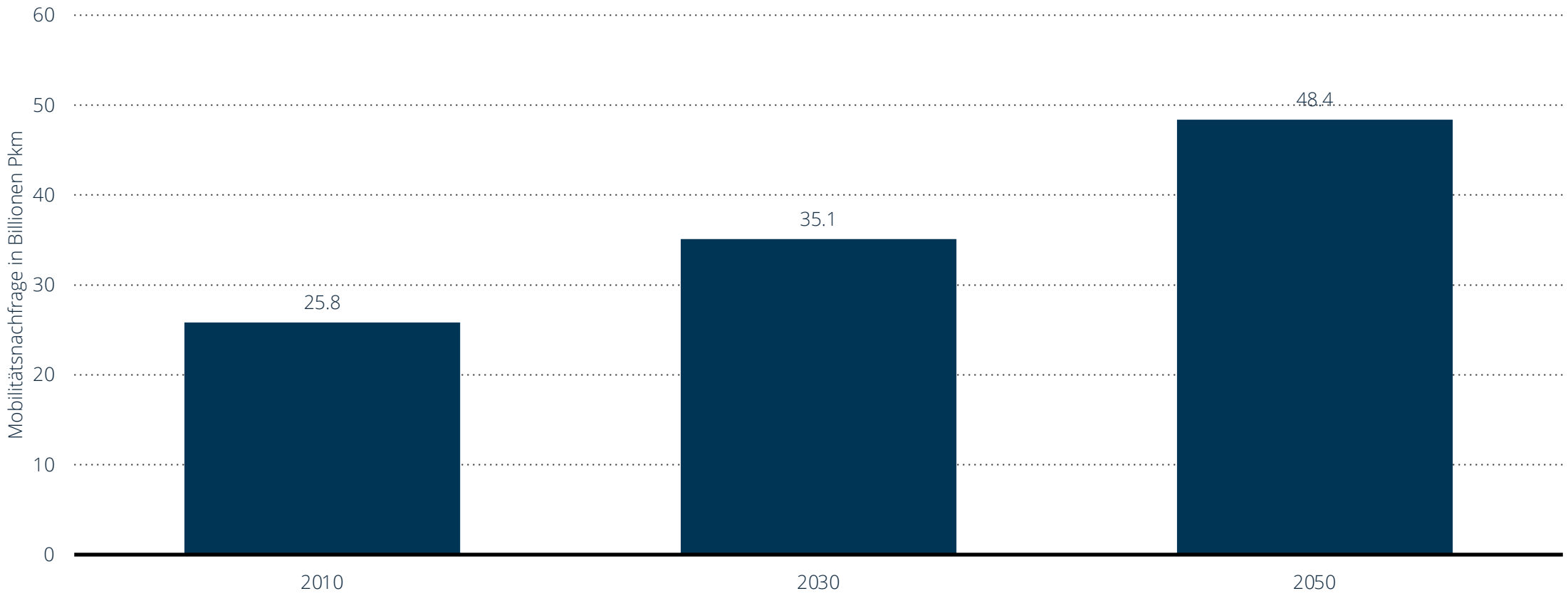
roo

Go future

go-roo.com

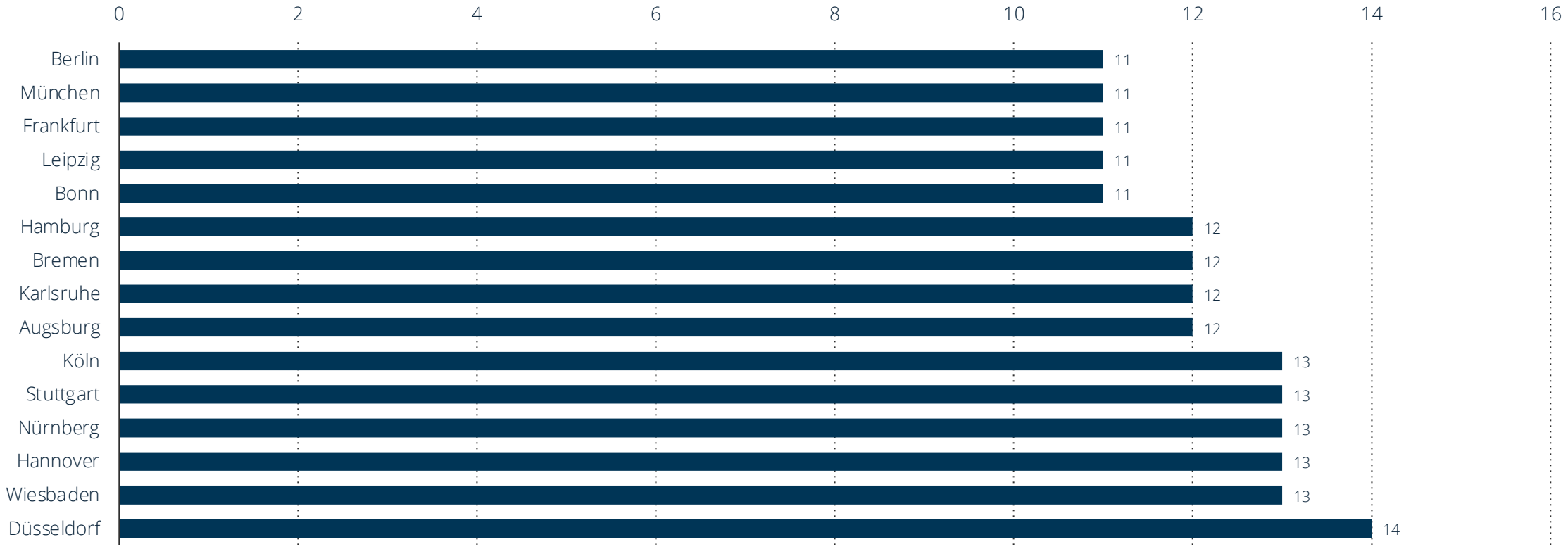
Annex: General statistics

Graph 1: Urban Mobility *(in billion Person-KM)*



Hinweis(e): Weltweit
Weitere Angaben zu dieser Statistik, sowie Erläuterungen zu Fußnoten, sind auf Seite 110 zu finden.
Quelle(n): Arthur D. Little; ID 1084696

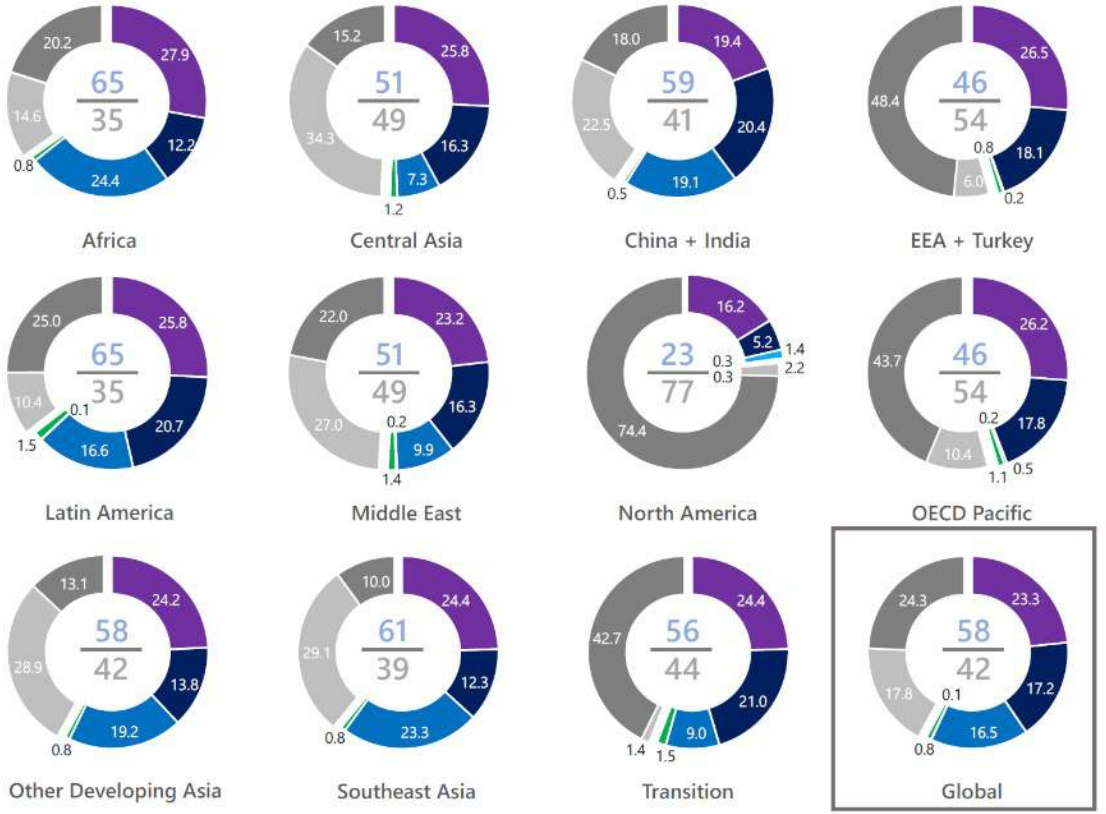
Graph 2: Average car speed in cities (mph)



Hinweis(e): Deutschland
Weitere Angaben zu dieser Statistik, sowie Erläuterungen zu Fußnoten, sind auf Seite 120 zu finden.
Quelle(n): INRIX; ID 994676

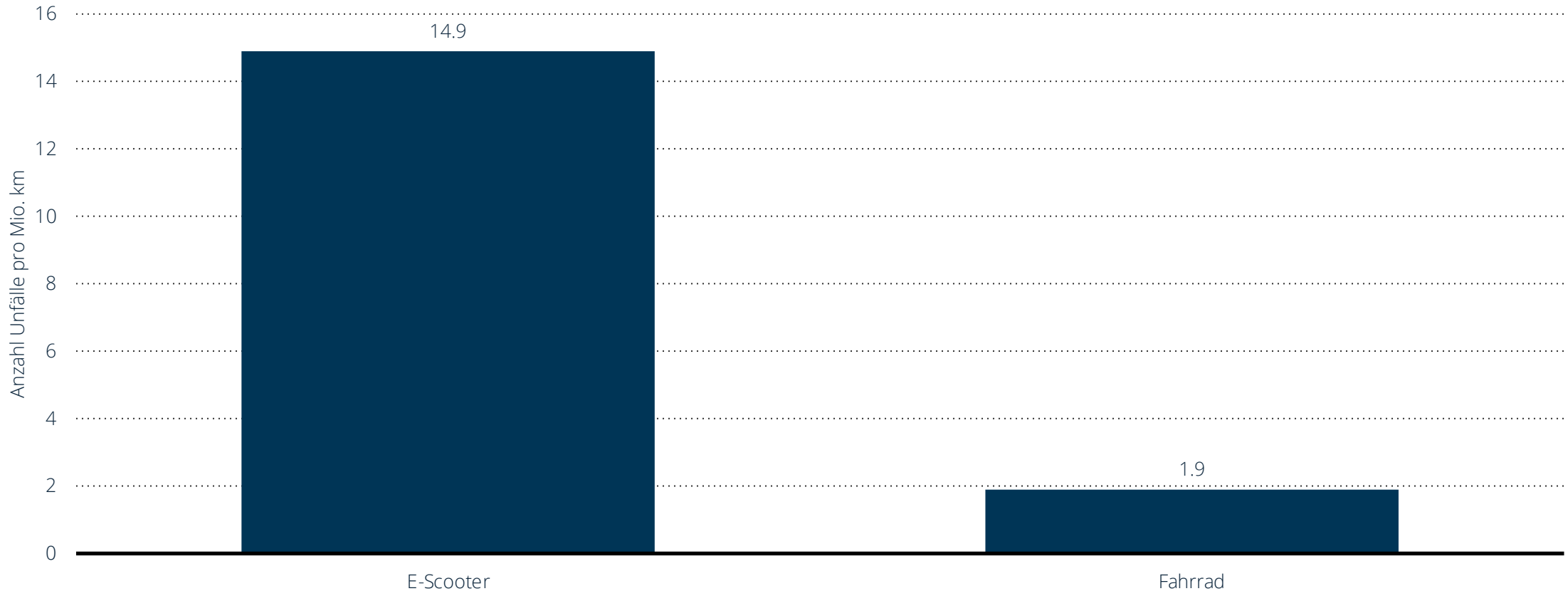
Graph 3: Urban trip mode share worldwide

Figure 2. Urban trip mode share by world region in 2015 (percentage of urban trips)



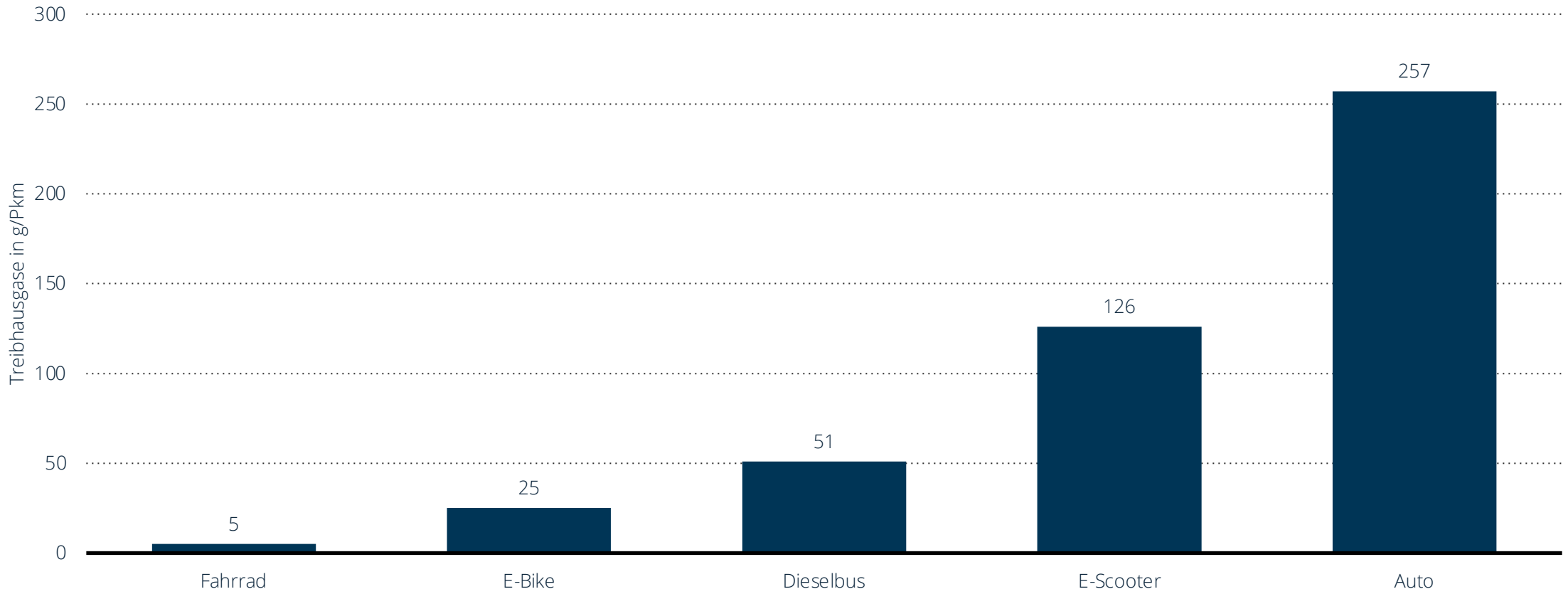
Source: ITF: The innovative mobility landscape.

Graph 4: Accident propability of e-scooter and bicycle in Munich 2019



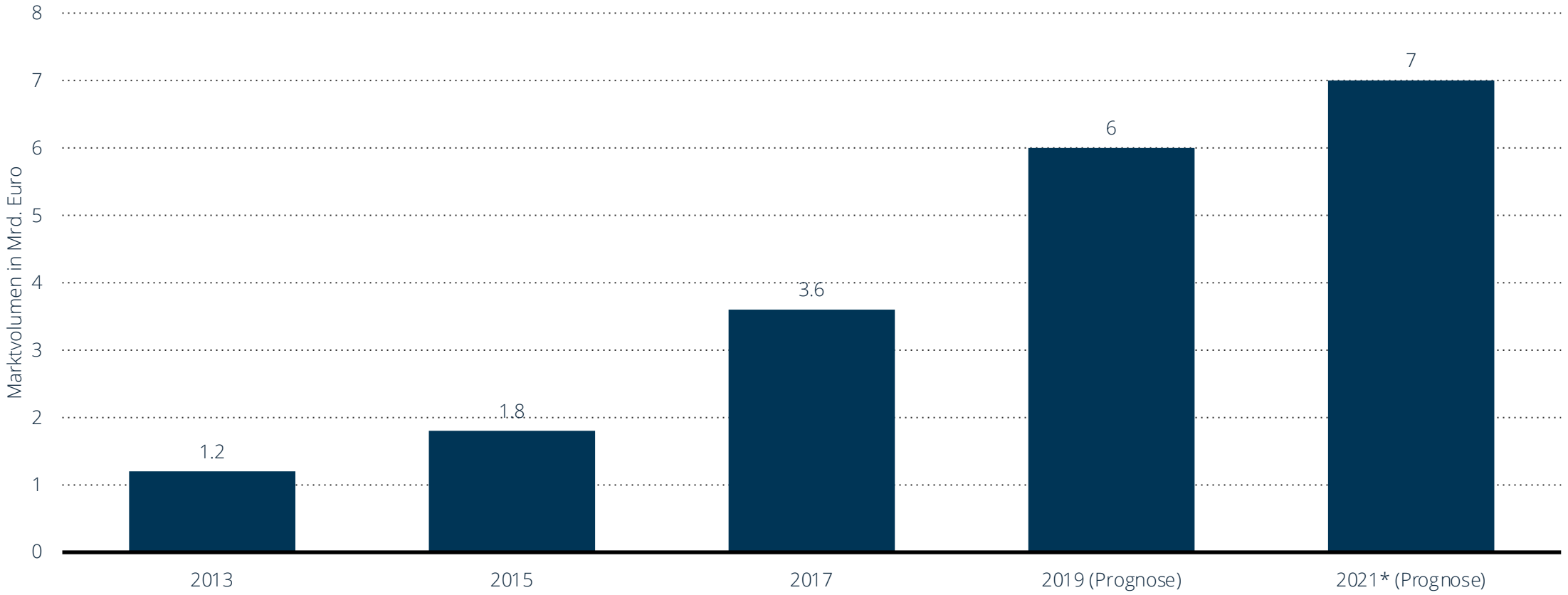
Hinweis(e): Deutschland (Bayern)
Weitere Angaben zu dieser Statistik, sowie Erläuterungen zu Fußnoten, sind auf Seite 195 zu finden.
Quelle(n): Civity; Polizeipräsidium München; Statistisches Amt München; SZ; ID 1037241

Graph 5: CO2-emissions of e-scootern in comparison with other vehicles USA



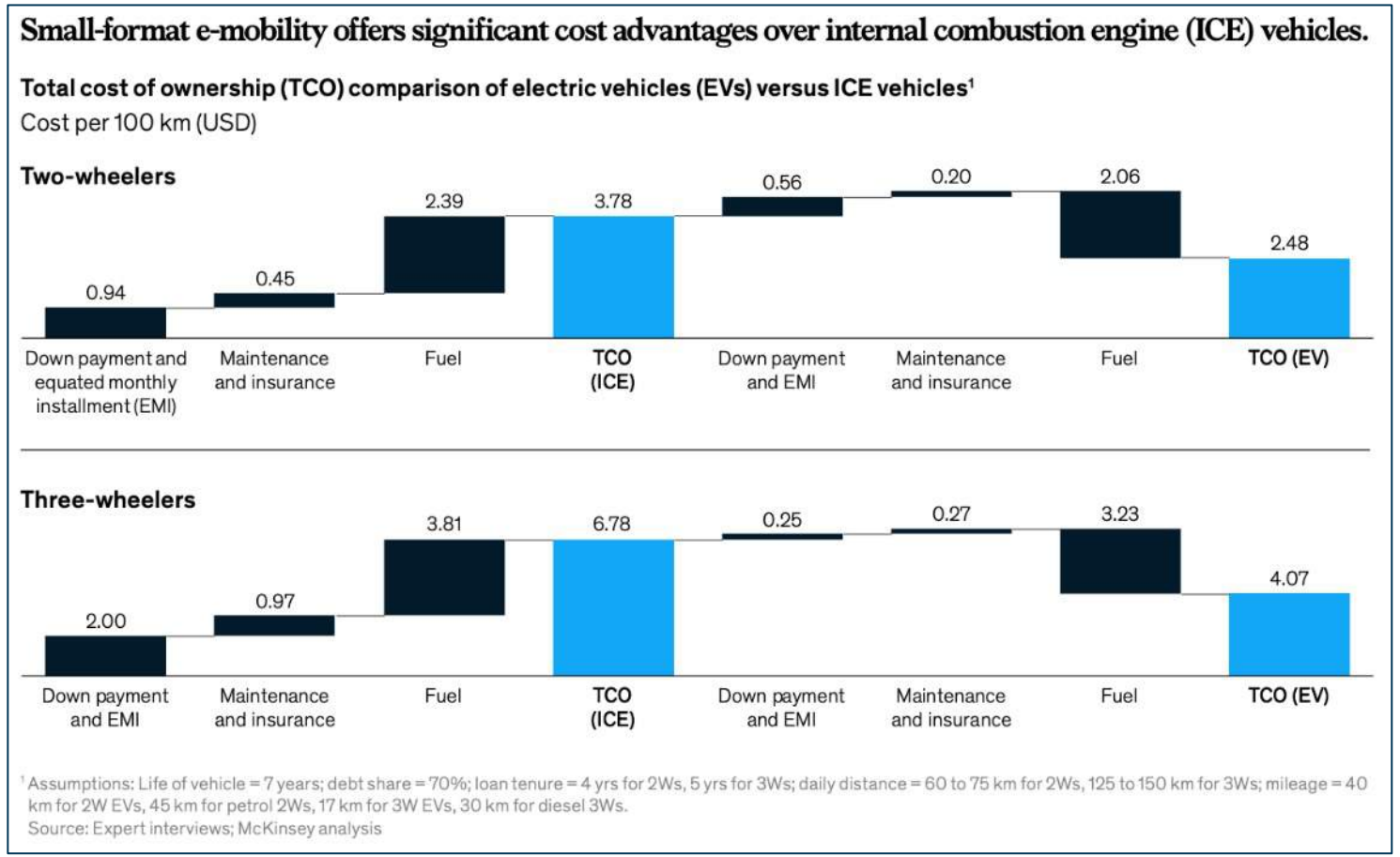
Hinweis(e): USA
Weitere Angaben zu dieser Statistik, sowie Erläuterungen zu Fußnoten, sind auf Seite 196 zu finden.
Quelle(n): SZ; Environmental Research Letters; ID 1037358

Weltweites Marktvolumen von Bike Sharing-Diensten bis 2021



Hinweis(e): Deutschland
Weitere Angaben zu dieser Statistik, sowie Erläuterungen zu Fußnoten, sind auf Seite 189 zu finden.
Quelle(n): Earth Policy Institute; Unternehmensangaben; Roland Berger; Experte(n) (Peter Midgley); ID 726018

Benefits of EV's



TCO ADVANTAGE OF EV's

A study by McKinsey & Company has shown that the TCO of two-wheeler electric vehicles (EV) is

34% less

than of vehicles with a combustion engine (ICE) and the difference is even larger when comparing three-wheeler EV's with ICE's:

40% less TCO

Quelle: The unexpected trip: The future of mobility in India beyond COVID-19 (McKinsey & Company)

Annex: Use cases

Mobility sharing

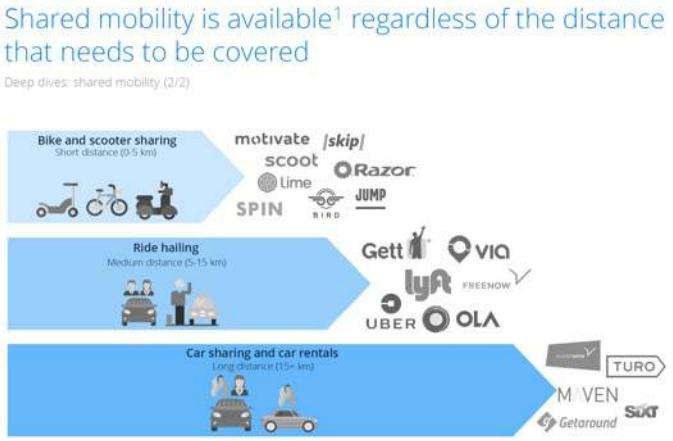
Sharing Market

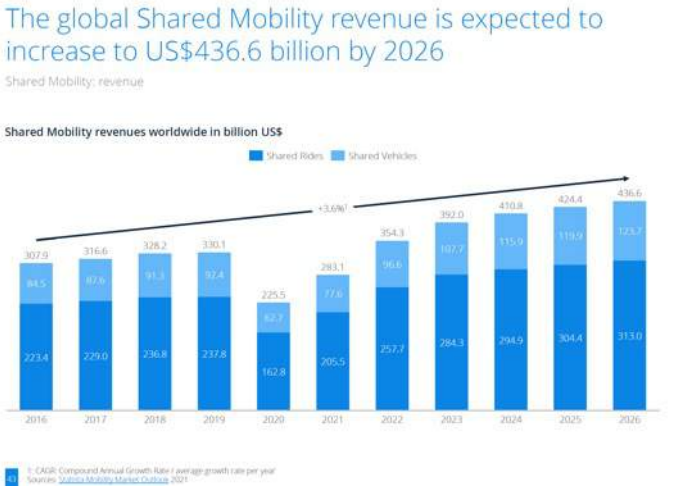
- 1.5x from 2016 to 2026
- Annual growth rates of more than 3.6%
- Total rental cars worldwide 2025 = 7.5 mio.

Micro Mobility Sharing Schemes

- EU & US kick scooters: 150’000 (by 2020)
- Growth rate of kick scooter sharing : 15% p.a.
- Lifespan of e-scooters: 12 – 24 months

= Growth + Renewal = Total annual kick scooter sales
= (150’000 * 15%) + (150’000 * 0.5) = **97’500 units p.a.**





Mobility sharing

E-Scooter Sharing Schemes (statista)

- Revenue in the E-Scooter-sharing segment is projected to reach US$1,344m in 2021.
- Revenue is expected to show an annual growth rate (CAGR 2021-2025) of 18.13%, resulting in a projected market volume of US$2,617m by 2025.
- In the E-Scooter-sharing segment, the number of users is expected to amount to 115.6m users by 2025.
- User penetration is 0.9% in 2021 and is expected to hit 1.5% by 2025.
- The average revenue per user (ARPU) is expected to amount to US$20.91.
- In the E-Scooter-sharing segment, 100% of total revenue will be generated through online sales by 2025.
- In global comparison, most revenue will be generated in the United States (US$540m in 2021).

Public transport / Housing areas

Increase in City Mobility of about 70% until 2050 (48.4 bil. Pkm)

- 51% of global urban pkm travelled in 2015 were driven by private vehicles, only 17.2% in public transport.
- Average daily urban travel distance 14km
- In 2030 about 1/6 of 30’000 bil. pkm will be made by public transport. Hence, 25’000 bil. pkm will still be made either via shared or private.

-> As innercity traffic will be reduced with political push measures, public transport will be facing a huge challenge concerning capacity and density of it’s services.

- To partly solve this problem a seamless and comfortable first/last mile solution to supplement public transport has a very high market potential.

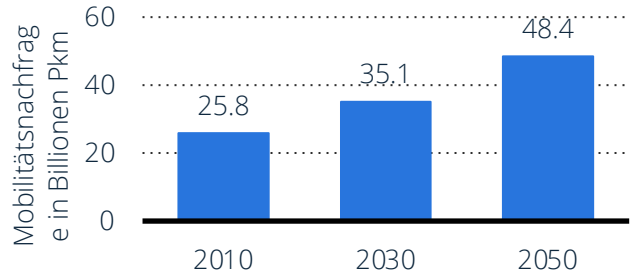
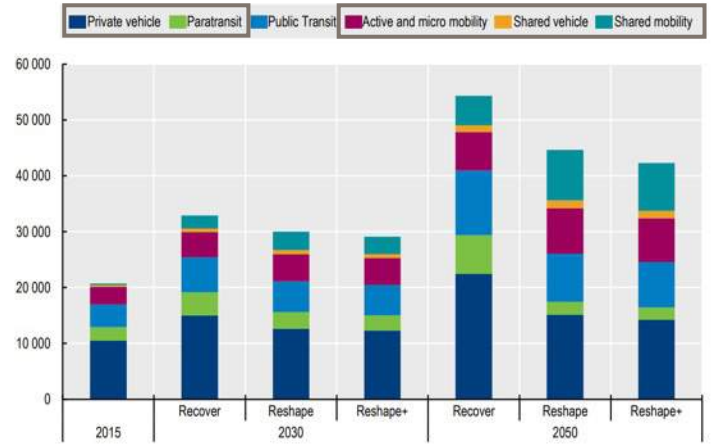


Figure 4. Demand for urban passenger transport, by mode
Billion passenger-kilometres



Note: Note: Active and micromobility includes walking, biking, scooter sharing, and bike sharing. Public transport includes PT rail, metro, bus, LRT, and BRT. Paratransit includes informal buses and PT three-wheeler. Shared vehicle includes motorcycle and car sharing. Private Vehicle includes motorcycles and cars. Shared mobility includes taxis, ride sharing, and taxi buses.

Corporate fleet

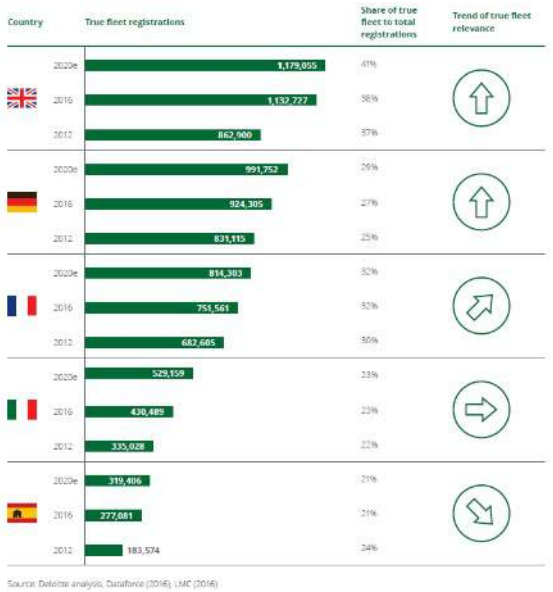
Corporate Fleet

New Registrations

- **EU:** Company fleet = 6 mio. car registrations in 2021 (new)
- **USA:** Estimation: 5 mio. Cars (total car sales 16 mio.)

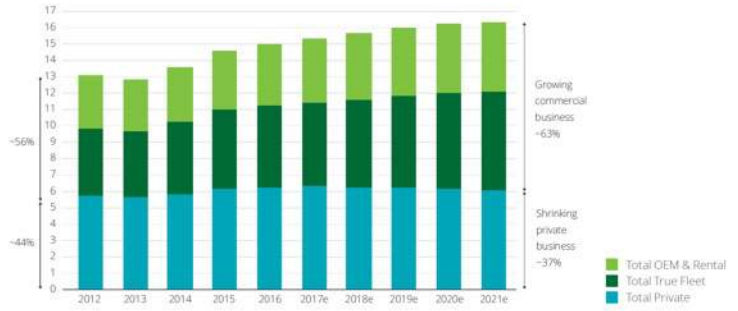
Registered Company Cars

- **DE:** 5.1 mio. cars with commercial holder (licenced)
- **US:** 8.2 mio. cars in company car fleets (licenced in 2020)



Source: Deloitte analysis; Dataforce (2016); LMC (2016)

Fig. 3 – New car registrations in Europe (EU16) in millions



Source: Deloitte analysis; Dataforce (2016); LMC (2016)

Potential analysis: Personal use

Personal Use

- New person car registrations worldwide: 63 Mio. (2020)
- Asia: 30 Mio.
- EU: 14 Mio.
- USA: 13 Mio.
- Rest: 5 Mio.
- New cars sales (commercial cars excl.) 54 Mio. (2020)
- Motorcycles >50 cc 47.2 mio. Units sold 2020
- EU: 1.4 Mio.
- USA: 3.4 Mio.
- Asia: 40.3 Mio.
- Africa: 2 Mio.
- Scooters > 50cc 17.1 Mio. worldwide