



# polis MOBILITY



June 2022

## **SBD Insight – polisMOBILITY 2022**

Conference Summary

# About SBD Automotive

Management & technology consultants to the automotive industry for over 20 years



## Our expertise:

Connected

Autonomous

Shared Mobility

EV

Cybersecurity

Anti-theft

Click to find out more

## Our role:

As our industry faces...

Uncertainty



We provide our clients with...

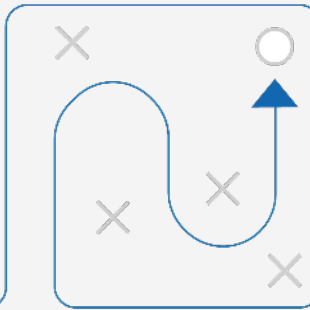
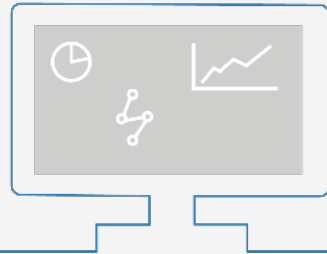
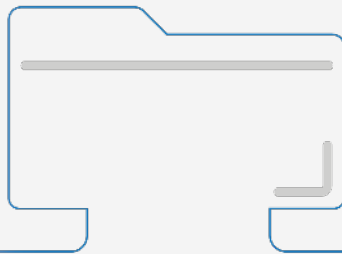
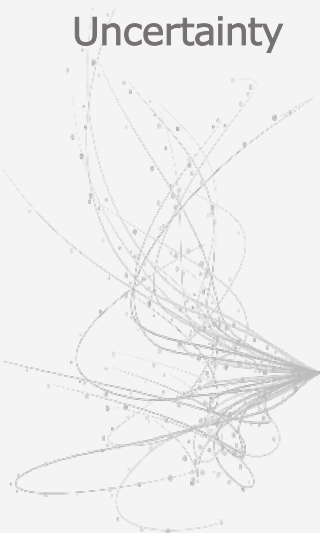
Data



Insight



Advice



## Seeing Beyond Data

Turning data into actionable advice



Research Portfolio



Consulting Services



Contact Us

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# Summary & Key Takeaways

The buzz topics and key trends from this year's polisMobility and what they mean

## polisMobility in numbers



## What is polisMobility 2022 ?

polisMobility defines itself as a discussion platform for a sustainable mobility transformation. The exhibition is based on three pillars.

- **The Fair** - where companies, start-ups and public institutions present their work and invite to conversations.
- **The Exchange** - with presentations and discussion panels to get different views and to better understand the current situation.
- **The Experience** - where everyone has the possibility to try out new mobility concepts and solutions on offer.

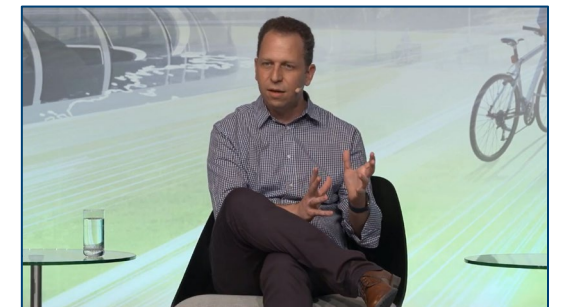
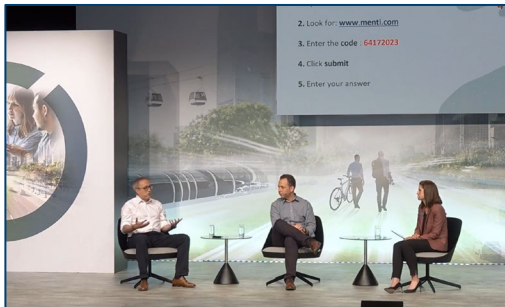
A wide range of workshops and experiences were held in the city center of Cologne to reach not only professionals and stakeholders from business, politics, and institutions, but also involve the public. Here everyone could try out new forms of mobility for free, even without a ticket.



## Innovations in Mobility

The Next Generation of Transport Software

SBD Automotive's Andrea Sroczyński was joined onstage by Marco Lanzetta (Automotive and Industry Director, Oracle) and Kobi Eisenberg (Co-Founder and CEO, Autofleet) at polisMOBILITY this week to discuss how appification, cloud technologies and new dedicated software will be at the heart of mobility innovation. In case you missed it, view their full discussion here.



The focus of the exhibition was everything around the topic of sustainable mobility. The introduction of new products was less in the spotlight than the presentation of the already available product portfolio. In addition to industry giants such as Toyota, Ford and Shell, a particularly large part of the fair was reserved for start-ups and government institutions:

## polis MOBILITY

New Energy Vehicles

Variations of charging  
infrastructure

Autonomous Shuttles & buses

Micro Mobility vehicles and  
e-scooter

SaaS

Start-ups

## Many electric vehicles and some hydrogen



- Electrification was a central theme at polisMobility. And most exhibitors had at least a reference to electromobility.
- Ford exhibited the Mustang Mach-E in the passenger car area and brought the new E-Transit for all those interested in commercial vehicles.
- At Toyota, visitors could look at the first in-house BEV bZ4X.
- Additional to the OEMs booth, visitors could find electrically propelled vehicles everywhere - from small scooters to deliver vans and buses for public transportation.
- Occasionally, visitors also came across hydrogen projects. Toyota, for example, exhibited the fuel-cell Mirai, which was also available for a test drive. Shell presented a hydrogen filling station and gave information about their future hydrogen strategy. And at the booths of government institutions, visitors could inform themselves on current or future hydrogen projects, such as the development of the largest hydrogen hybrid bus fleet of Europe in North Rhein Westphalia (NRW).

## Charging Infrastructure becomes diverse



- With the increasing supply of electric vehicles, the need for suitable charging infrastructure is also growing. At polisMobility, several variations were presented, not just for passenger cars, but also for micro mobility vehicles and bicycles.
- Shell ubitricity presented the lantern charging station "Heinz" which was specifically developed for city centres to replace the normal lanterns. Key advantages are low investment costs and quick implementation.
- The Company Qwello developed and presented an AC charging station for city user. USP are the status lights and a false parker detection.
- In the area of Micro mobility, the company Swobee talked about their Battery as a service solution and showed their Battery swap station for bikes and scooters.
- ONgineer demonstrated their inductive charging solution for e-scooters which achieves an efficiency of 94%.



## Autonomy presented to the public



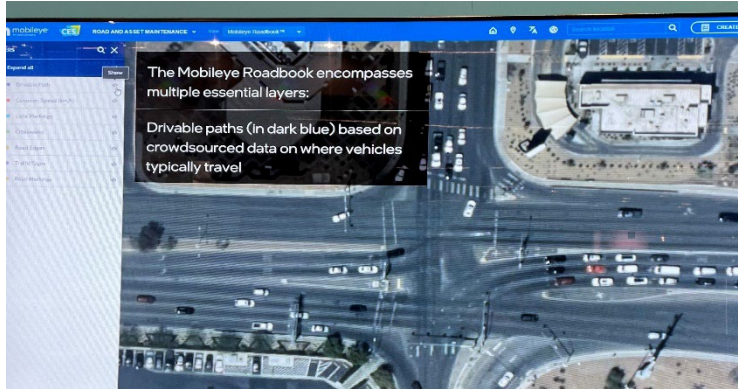
- One highlight was the autonomous shuttle bus from the company Auvetech which transported the visitors during the day from the south entrance to the exhibition hall. Although a safety driver was present, the passenger received it well and felt safe.
- The Turkish bus manufacturer Karsan presented its autonomous and electric BUS e-ATAK at polisMobility. The bus is already driving autonomously in four different countries as part of a pilot project.
- The Aachen-based start-up Ducktrain brings platooning to the last mile. They developed semi-autonomous light vehicles that follow a reference point, such as a delivery person on a bicycle. The clue is, that the delivery person, does not have to pull, the up to 300kg heavy elements, as they follow autonomously.

## Micro Mobility is omnipresent at the polisMobility



- In order to achieve the sustainability goals, mobility needs to be rethought. As a solution approach, especially for cities, micro mobility is fully in vogue. This trend, seen already at IAA in Munich last year, was continued at polisMobility. This includes private and public transportation but also companies that use micro mobility especially for logistics and last mile transportation.
- Shareconomy is key in the micro mobility sector and especially E-Scooter and Bike sharing provider were omnipresent.
- A few start-ups highlighted their newest pedelecs and cargo bikes but also Toyota presented the electric cargo bike EAV 2 cubed under their mobility brand Kinto.
- The Italian start-up Biro caused a lot of interest with their 15,000 Euro electric vehicle, which comes with a removable battery pack.

## SaaS shows their potential



- Software is becoming a key factor in making a business model ready for the next stage of industrialization. This includes not only the mobility sector but all areas of life.
- Nowadays, more and more devices are connected to the internet and collect data that, when processed correctly, can provide high added value to the user and great business opportunities for companies.
- Companies like Mobileye, Deutsche Telekom, EasyPark presented their SaaS business model and explained which advantages it brings to the customer.
- A reliable cloud infrastructure is crucial to be able to offer SaaS. One of the leading providers in this area is Oracle, which explained its cloud solution, and partnership approach on the exhibition stand, during various presentations and via open workshops.

## Big Stage for Start ups



- polisMobility 2022 had a special focus on start-ups, with an entire area (startupHUB) dedicated to smaller companies.
- More than 22 start-ups from four countries presented their solution to a wider audience at polisMobility. The business field ranges from smart parking and autonomous driving to innovative digital mobility solutions.
- On several days, Start-ups got a time slot on the “activeSTAGE”, to present their elevator pitch a wider audience and to take part on a competition sponsored by Oracle. More than 25 start-ups used that opportunity.
- The winner of the Smart Mobility Challenge, ran by Ford in collaboration with the Cologne University of Applied Sciences, got a dedicated area where they could present their project to visitors.

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# Exhibition Highlights


Exhibition and announcement highlights of brands supplier and start-ups divided by category

# Highlight Overview



Click on a company's logo to view announcement(s)

### OEMs












### Autonomous







### Micro Mobility



### Charging Infrastructure

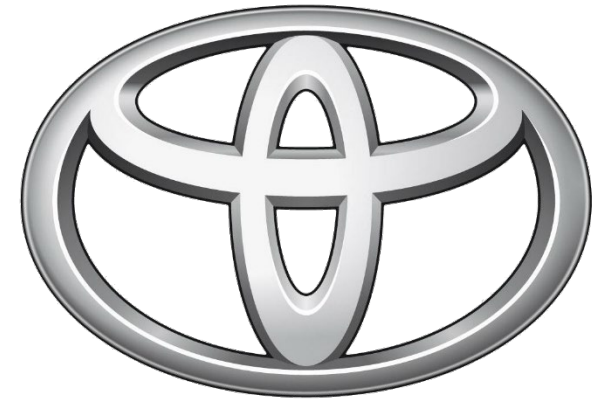


### SaaS



### Start-Ups





**TOYOTA**

**KiNTO**

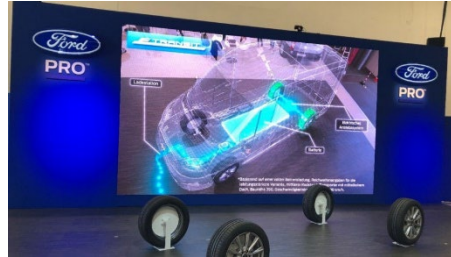
## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Ford presented their digital fleet solution "Ford Pro" for commercial customers](#)



On Sale

- "Ford Pro" is a digital platform targeting commercial customers.
- "Ford Pro" covers the areas of software, service, charging and finance.
- Due to specially equipped vehicles, maintenance can be done at the customer's site, which reduce the down time.
- The customer can choose between different packages depending on their needs and fleet size.

Concept

Planned

On Sale



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Presentation of the Mustang Mach-E and Ford E-Transit](#)



On Sale

- Ford demonstrated their software and charging solutions on the Ford E-Transit as well as Ford Mustang Mach-E.
- Visitors had the opportunity to test drive both vehicles.
- Ford announced to release 9 commercial BEVs by 2024.
- The new Ford E-Transit comes with a 68-kW battery and has a range of 317 km (WLTP).

Concept

Planned

On Sale



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

Ford "Share the Road" is aiming to increase the safety and understanding between different Road users



Campaign

- In the city, visitors and residents could experience typical dangerous situations between car drivers and cyclists.
- The situations were simulated through VR glasses which the cyclist needed to wear.
- "Share the Road" is a Ford campaign to make traffic safer and to look out for each other.
- Among other things, the campaign has also created an emoji jacket for more visibility.

Concept

Planned

On Sale





## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Toyota showcased for the first time in Germany their fully electric vehicle bZ4X.](#)



Planned

- The bZ4X is the first BEV from Toyota. The bZ in the name stands for beyond zero.
- By 2025 Toyota wants to introduce a total of 15 BEVs worldwide including seven "bZ" models.
- The car is equipped with a 71.4 kWh battery, which gives the bZ4X 513 km of Range.
- The SUV is based on the new modular e-TNGA platform and comes with a 150 kW CCS port.
- The BEV will be available from June 2022, prices starting at 47,490 Euro (VAT included).

Concept

Planned

On Sale

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Toyota showcased and offered test drives of fuel-cell vehicle Mirai.](#)



On Sale

- The fuel-cell vehicle Toyota Mirai could also be experienced at Toyotas exhibition stand.
- Furthermore, visitors had the possibility to make a test drive through the city of Cologne.
- Toyota is one of the few OEMs which offer a fuel cell vehicle. Prices for a Mirai start from 63,900 Euro (VAT included).

Concept

Planned

On Sale



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Toyota i-Road concept car ahead of time](#)



Concept

- The i-Road is a 3-wheel concept vehicle from 2013 and offers space for two persons.
- Has a net weight of 300kg.
- The vehicle is all-electric with approximately 50 km range. It can be fully charged within 3 hours.
- It features Active Lean technology, which stabilizes the vehicle and works against centrifugal force when cornering.
- The vehicle is in use as a test vehicle in different metropolises worldwide.

Concept

Planned

On Sale

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Kinto launched a leasing pilot project for logistics customers in its cargo bike division](#)



Pilot

- Kinto is the mobility subsidiary of Toyota.
- Business customers from the logistic sector can lease a cargo bike from Kinto.
- The cargo bike is named 2cube, has 4 wheels and comes from the British manufacturer EAV.
- The cooperation with EAV means a risk-free evaluation of the market for Kinto.
- The battery has a capacity of 2.5 kWh and supports the driver for around 70 km.

Concept

Planned

On Sale



**auvetech**



**KARSAN**

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Auvetech autonomous shuttle bus](#)



Pilot

- Visitors could drive autonomously between the entrances of the fair via Auvetech's shuttle bus.
- The Shuttle offers space for up to 8 people and can drive up to 25 km/h.
- It is equipped with LiDAR's and cameras.
- Via display, the passenger can see what the sensors of the shuttle detect.
- Due to regulations a safety driver was always on board.
- The Shuttle is already in operation in 14 different locations across Europe.

Concept

Planned

On Sale

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Autonomous delivery helper from the start-up Ducktrain](#)



Concept

- Ducktrain is a start-up from Aachen (Germany) that developed an autonomous, electric vehicle for the last mile.
- The vehicles follow a predefined target, for example a delivery driver.
- The target gets detected via cameras and sensorics.
- Up to five vehicles can follow one target.
- The current vehicles have a width of 1 meter and can carry up to 300 kg. That allows them to be used on the bike lane.

Concept

Planned

On Sale

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Karsan showcased electric and autonomous bus e-ATAK](#)



Concept

- The bus is made for autonomous driving L4 and already operates in Norway, France, Turkey and the USA, as part of a pilot project.
- It is possible to control the bus via Remote control.
- To ensure autonomous driving functionality LiDAR, Radar, Camera, and Ultrasonic sensors are built in.
- The e-ATAK has an electric range of around 300 km.
- Karsan has a partnership with BMW, which provides the Lithium-Ion batteries for the e-ATAK.

Concept

Planned

On Sale





ongineer

quello

S O P A G O



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Shell ubitricity presented the lamp post charging station "Heinz"](#)



On Sale

- Shell ubitricity integrates charging Infrastructure in already existing lamp posts.
- Their "Heinz" lamp post charging station can deliver 3,7 kW.
- "Heinz" is specifically developed for city centers and comes together with a traditional parking spot. The average parking time is 8 hours.
- Key advantages are low investment costs and quick implementation.
- In UK ubitricity has already installed more than 5000 charging points.
- In France the lamp post charging stations are sold under the name "Etoile" and in the UK under the name "Chelsea".

Concept

Planned

On Sale

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Shell Hydrogen fuel station](#)



On Sale

- Next to Electromobility and wind, hydrogen is the third focus topic of Shell in order to become a net-zero emission business by 2050.
- In the next ten years Shell aims to become the leading provider of green hydrogen for the industry and transport sector in Germany.
- According to Shell Hydrogen infrastructure has a lower cost than electrical infrastructure.
- Shell presented a hydrogen fuel station at polisMobility.

Concept

Planned

On Sale

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Sonnen showcased their storage solutions and energy services.](#)



On Sale

- Sonnen was acquired in 2019 by Shell.
- Sonnen is one of the leading providers of intelligent storage and energy services for private households in Europe.
- Their storage solution comes with a capacity of 22 or 55 kWh and offers an output of 4,6 kW or 9,9 kW.
- Customers can get additional hardware which modifies their storage into an emergency power unit.
- An electricity tariff for PV-storage user complete their product portfolio.

Concept

Planned

On Sale



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Customizable 25-50 kW DC fast charging station from iONiX](#)



Planned

- iONiX is based on a cooperation between Bender, Ebee Smart Technologies, and Silver Antena.
- A display offers space for advertisement.
- iONiX charging station comes as a customizable “white label” solution.
- The DC charging station, which is conformant with European calibration law, can be purchased in a 25 and 50 kW variant.
- Due to an attractive price, iONiX wants to become a DC alternative to AC charging stations
- They target both public and private customer.
- The market launch is planned for Q4 2022.

Concept

Planned

On Sale

# iONiX

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Inductive Dock-Lock charge station for e-Scooter](#)



On Sale

- Engineer's wireless charging solution for e-scooter achieves 94% efficiency.
- The scooters are locked in the charging station to be protected against vandalism.
- The system is universal and can be upgraded for every scooter.
- As the scooters are permanently charged, when not in use, the battery size can be reduced to 1/5 of a traditional scooter.
- All scooter are linked to a transferable deposit system. In case a scooter was not brought back to a station, anyone has the possibility to bring the scooter back and to earn the deposit.
- Zeus Scooter are using the Engineer solution.

Concept

Planned

On Sale

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Quello presented well-designed charging station with some innovations](#)



On Sale

- Quello is a German based Start-up and Charge Point Operator, which aims to provide an effortless charging experience.
- Their charging stations have integrated cables, which is a rarity for AC stations.
- Via App the user can find and reserve charging stations. It is possible to control the App via voice, too.
- The user can pay touchless ad-hoc or via App. Payment methods are RFID, Credit card, PayPal, Apple Pay and Google Pay.
- A lightbar on the top showcases the status. It can also showcase false parker that block the station.

Concept

Planned

On Sale



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Sopago modular solar parking lots](#)



On Sale

- Thanks to concrete-free foundations, Sopago's new solar carport can be set up particularly quickly.
- The system is designed for larger parking spaces in industry, commerce and in municipal hands with 35 spaces or more.
- The gained electricity can be used for the house/ business network, to feed the public grid or to charge a vehicle.
- Sopago uses bifacial photovoltaic modules. Placed in an east-west direction, they allow electricity to be generated evenly throughout the day.

Concept

Planned

On Sale

S O P A G O



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Swobbee showcased their battery swap station](#)



On Sale

- Battery Swap Station for Micro Mobility devices.
- They support seven common battery types, and more are planned.
- Swobbee offer 2 business models.
- Battery-as-a-service where Swobbee rents out a complete battery pool (Subscription model).
- Charging-as-a-Service where the batteries are owned by the customers and Swobbee is in charge of the charging (pay per swap).
- They offer their service exclusive to B2B customer.
- Swobbee is available in the center of several major German cities.

Concept

Planned

On Sale



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[GaloppE Pep is a modular human-electric hybrid platform from Akkurad](#)



On Sale

- The platform relies like a bike on muscle power for the front axle while the rear axle is powered by two electric motors.
- Modular bodies can be used to meet the different use case requirements.
- The 3 kWh battery provides a range of up to 100 km.
- Depending on the homologation, the vehicle has a max speed of 25 km/h or 45 km/h.
- The vehicle is connected and supports OTA updates, keyless entry and Apple Car play.

Concept

Planned

On Sale

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Italian Micro Mobility vehicle with removable battery](#)



On Sale

- The Biro comes in different versions and starts at 15,000 Euro.
- It can be bought or rented (60 month contract).
- The basic version has a max speed of 45 km/h but it can be upgraded to 60 km/h.
- An integrated battery has a capacity of 1000 W and a range up to 100 km.
- Additionally, the Biro has a removable battery which brings the Biro 55 km further.
- The Biro can be customized and comes in different colors.
- As of May 2022, Netherlands is Biro's biggest market.

Concept

Planned

On Sale



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Entry level micro-electric vehicle Neibor 150 from Cenntro](#)



On Sale

- In March 2022, Cenntro Electric Group and Tropos Motors Europe closed a long-term strategic partnership.
- Neibor 150 is their new fully electric entry-level model built in China.
- It comes with a 10-kWh battery, providing a range up to 128 km.
- With a loading capacity of 1,3 m<sup>3</sup> it is specially made for last mile delivery.
- Neibor 150 is part of the L6e class and just 2.86 meters long and 1.24 meters wide.
- It has a max speed of 45 km/h and starts at 14,400 Euro (excluding tax).

Concept

Planned

On Sale

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Metro light-electric vehicle for last mile delivery](#)



On Sale

- Metro is a multi-purpose light-electric vehicle suitable for city logistics and services.
- Different build-ons provide high flexibility for diverse use cases.
- The Metro can be bought with one or two battery packs of 13 kWh each, which provides a real-life range of 130 or 260 km.
- Depending on the version, a load capacity of up to 700 kg is possible.
- The Metro comes with integrated connected services and a preparation for fleet use. A companion app is also available

Concept

Planned

On Sale

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Dachser uses e-cargo bike from start-up Antric in pilot project](#)



Pilot

- Antric, a German based start-up, presented their cargo transport bike Antric one, to the public at polisMobility.
- It was developed for last mile delivery and is currently used as part of an evaluation project by logistic company Dachser.
- The cargo can carry a pallet weighting up to 300 kilogram.
- An innovative trolley system in combination with a low loading area ensures an easy load and unload process.
- The vehicle supports keyless starting.

Concept

Planned

On Sale

**DACHSER**  
Intelligent Logistics

**ANTRIC**

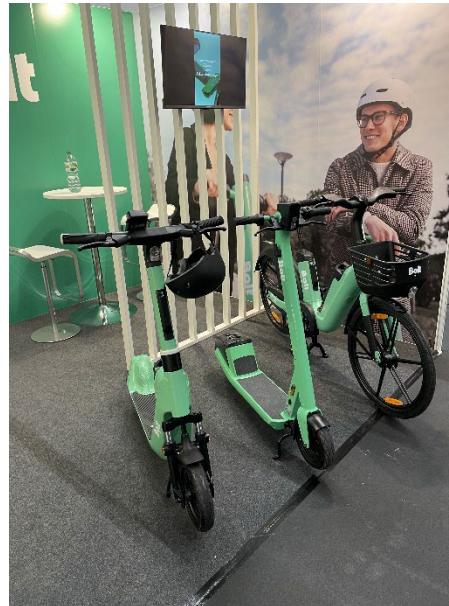
## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Bolt presented e-scooters and concepts at their booth](#)



On Sale

- Bolt explained their new tandem riding prevention system.
- They created a platform where people can rent e-scooter, bikes and e-mopeds as well as service solutions.
- Bolt developed the scooter on their own.
- They started a pilot for wireless charging in Tallinn and evaluating to roll out this service to other countries as well.
- Visitors had the possibility to test the scooter in the city center free of charge.


Concept

Planned

On Sale





Announcements/Exhibit	Video/Pic	Maturity	Highlights
<p><a href="#">Tier presented their micro mobility line-up at polisMobility in cologne</a></p>		<p>On Sale</p>	<ul style="list-style-type: none"> <li>• Tier has more than 135.000 vehicles in their fleet including e-scooter, e-bikes and e-mopeds.</li> <li>• Through the acquisition of bikeshare provider Nextbike in 2021, Tier become the largest micro mobility provider in Europe.</li> <li>• Tier is currently performing different trials, with the aim to increase pedestrian safety (camera based) and to support data-based decision making (analyzing tool).</li> <li>• They are testing the roll out of power boxes to increase micro mobility.</li> <li>• Visitors had the possibility to test the scooter in the city center free of charge.</li> </ul>



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Zeus presented their world's first 3-wheeled electric scooter](#)



On Sale

- Zeus is the first provider of 3-wheeled electric scooter that ensure stabilization and a higher level of safety.
- Fewer flipped scooters thanks to 3 wheels.
- Through the cooperation with Engineer, the scooter will be charged wireless.
- Zeus scooter can be found in 40 locations, 6 countries and 2 continents.
- Their fleet includes e-scooter, e-mopeds and e-bikes.
- Zeus offer cheaper subscription passes for heavy user.
- Visitors had the possibility to test the scooter, in the city center, free of charge.

Concept

Planned

On Sale

Deutsche  
Telekom 

**easypark**  
Parking. Made easy.

 **mobileye**<sup>®</sup>  
An Intel Company

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Telekom presented the city key a “one fits it all solution” for your city](#)



On Sale

- Based on the user location, the App shows relevant information for the city.
- With the App, user can claim official documents such as parking permits or request housing allowance.
- Users get informed about events close by or can take part on polls.
- Issues such as road damage or overflowing waste bins can be reported.
- News from the council or city administration can be received and shared with friends.
- Users get advices and suggestion for interesting places close by.
- By May 2022, 6 German cities are integrated in the App.
- The App can be downloaded for free and is available for iOS and Android.

Concept

Planned

On Sale

## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[EasyPark presented their payment product portfolio](#)



On Sale

- EasyPark is Europe's largest contactless parking payment provider with more than 6 million users worldwide and 10 million active users per month.
- Their Portfolio includes payment for charging of BEVs, payment per App, automatic payment, parking data as Service and more.
- In 2021 EasyPark acquired the Park Now Group, Parkimeter and E24.
- EasyPark is the first park App that supports Android Auto and Apple CarPlay.
- EasyPark has partnerships for In-Car integration with Volvo, Polestar and Mercedes-Benz.

Concept

Planned

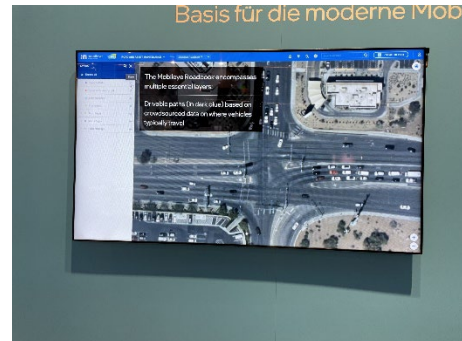
On Sale

**easypark**  
Parking. Made easy.

## Announcements/Exhibit

[Mobileye presented their data services for city authorities and municipalities](#)

## Video/Pic



## Maturity

On Sale

## Highlights

- More than 60 million vehicles are equipped with Mobileye technology and collect data.
- The collected data is filtered, anonymized, analysed and processed before it is made available to the customer.
- More than 3 million miles and 150 million signs are mapped every day.
- Mobileye offers cartographic maps, provides data about the road conditions and live traffic data.
- As a result, roads can be maintained more efficiently, dangerous road sections can be located, and the planning of future road sections can be optimized.

Concept

Planned

On Sale

aparkado

lynes



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Aparkado offers an APP that allows to reserve parking spaces for truck driver](#)



Planned

- The Truck driver or Fleet Manager can reserve a parking spot for the night.
- The current traffic situation is considered when calculating parking spaces to ensure that the rest times are maintained.
- All parking lots are equipped with barriers to make sure that they are not occupied.
- The parking spaces can be filtered by additional criteria, such as camera surveillance, catering facilities, etc.
- A big aim of the start-up is to improve the everyday life of truck drivers. Therefore, drivers get the possibility to rate parking spots, get in contact with the community and to receive discounts and benefits from shops and restaurants.

Concept

Planned

On Sale

aparkado



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Gamification for public transportation](#)



On Sale

- Gamification elements encourages user to use sustainable mobility more often.
- By using public transportation, user collect points which can be exchanged for rewards.
- Through leader boards with local reference, competitions can be held within cities or between different departments of companies.
- Through Lynes, local campaigns can be implemented, e.g., CO2 emissions can be compensated, or trees can be planted.
- Intra-company bonuses can be awarded through the company package and mobility data are made available.
- The App is available for iOS and Android.

Concept

Planned

On Sale



## Announcements/Exhibit

## Video/Pic

## Maturity

## Highlights

[Start-up plans to generate energy through the power of the Rhine](#)



Concept

- The start-up RheinSharing plans to build a modern platform at the "Rheinhaufen" in Cologne, which invites visitors to experience the Rhine river, exchange ideas about energy generation concepts and to use micro mobility solutions.
- Under the platform are turbines which use the Rhine flow to gain energy and to supply the platform with green electricity.
- The turbines are variable in height and adjust to both, the water level and the flow intensity, to achieve the best possible efficiency.
- The gained green energy is used to charge E-Scooters, E-Bikes and other Micro Mobility vehicles.

Concept

Planned

On Sale



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# Conferences & Sessions

Summary of Highlight presentations and panels during the exhibition

# Conferences & Sessions List



*With 40+ Conferences and Panel session at this year's polisMobility, SBD selected and summarized some of the most impactful. They are categorized by Topic.*

Topic	Session Name
General	<a href="#">polisMobility Opening Speech</a> *
General	<a href="#">The Power of Small Steps</a> *
Autonomous and Connected	<a href="#">Oracle: Innovations in Mobility</a> *
Autonomous and Connected	<a href="#">The new Shuttle: bigger, favorable and flexible</a> *
Autonomous and Connected	<a href="#">Mobility in the city of short distances: learning from the global south</a>
Autonomous and Connected	<a href="#">Sustainable types of mobility in the Compact City – How do changes find acceptance among the population?</a>
Urban and district development	<a href="#">Mobility in the city of short distances: learning from the global south</a>

\* summarized

# Conferences & Sessions List



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Topic	Session Name
Urban and district development	<a href="#"><u>Sustainable types of mobility in the Compact City – How do changes find acceptance among the population?</u></a>
Urban and district development	<a href="#"><u>Forms of Mobility in the Compact City</u></a>
Urban and district development	<a href="#"><u>Mobility in the city of short distances: learning from the global south</u></a>
Urban and district development	<a href="#"><u>Liveable Cities for the 21th Century</u></a>
Urban and district development	<a href="#"><u>Cities, Industry, Policymakers: How can we shape tomorrow's Mobility?</u></a>
Urban and district development	<a href="#"><u>Making the Last Mile sustainable: Where are we now, and how can we move forward?</u></a>
Urban and district development	<a href="#"><u>EIT Urban Mobility - An initiative to create more liveable urban spaces</u></a>

# Conferences & Sessions List



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Topic	Session Name
Urban and district development	<a href="#"><u>EIT Urban Mobility. An European initiative for more liveable Cities</u></a>
Mobility as a Service	<a href="#"><u>Mobility as a Service: Seam- and careless mobility?</u></a>
Mobility as a Service	<a href="#"><u>Shared Mobility: Market outlook from local authorities' perspective</u></a>
Drive Technologies	<a href="#"><u>Sustainable Mobility is a given, but how efficient?</u></a>
Drive Technologies	<a href="#"><u>All or nothing? The Hydrogen System in focus</u></a>
Drive Technologies	<a href="#"><u>Whatever drives your car – New drive technologies and their market relevance</u></a>

## Goal of polisMobility

- Create awareness for sustainable mobility among citizens but also among stakeholders in business and politics.
- The creation of a discussion platform for the city of Cologne, the region, but also internationally.
- Inspiring people in the region to embrace the mobility transition by giving possibilities to test and gaining own experiences.

## Future of Cologne

- Cologne intends to become climate-neutral by the year 2035.
- Cologne should become more attractive for the citizens again and the quality of life should be increasing.
- In the medium term, a shift away from cars towards smart mobility should be achieved within the cities.

## Facts and Approach of polisMobility

- polisMobility should be based on three pillars (Exhibition, Exchange through Workshops and Presentation and the Experience area in the city)
- More than 140 exhibitors in the fair building and in the city will participate in the event.
- In the CityHub, more than 40 exhibitors present their products to the citizens of Cologne, invite them to try out their products and initiate discussions on mobility.
- 25 start ups from several countries are guests at the fair and exhibit or give a presentation.
- More than 200 speakers discuss topics related to mobility.
- Best practice solution will be presented and discussed.

## Speakers

- *Bianca Hauda (Host)*
- *Henriette Reker (Mayor of Cologne)*
- *Oliver Frese (Managing Director Cologne Fair)*



Click on Picture to watch Session (German)

## Climate Change

- Climate change is here. The biggest problem is the speed with which it is progressing.
- The goal is to limit the temperature increase to 1.5 degrees by 2100. At the current level, we are heading for a 3-degree rise.
- In 2012 our world has been on course for a 4-degree increase. Our measures had already a small effect, but there is still lots of work to be done.

## The Power of Small Steps

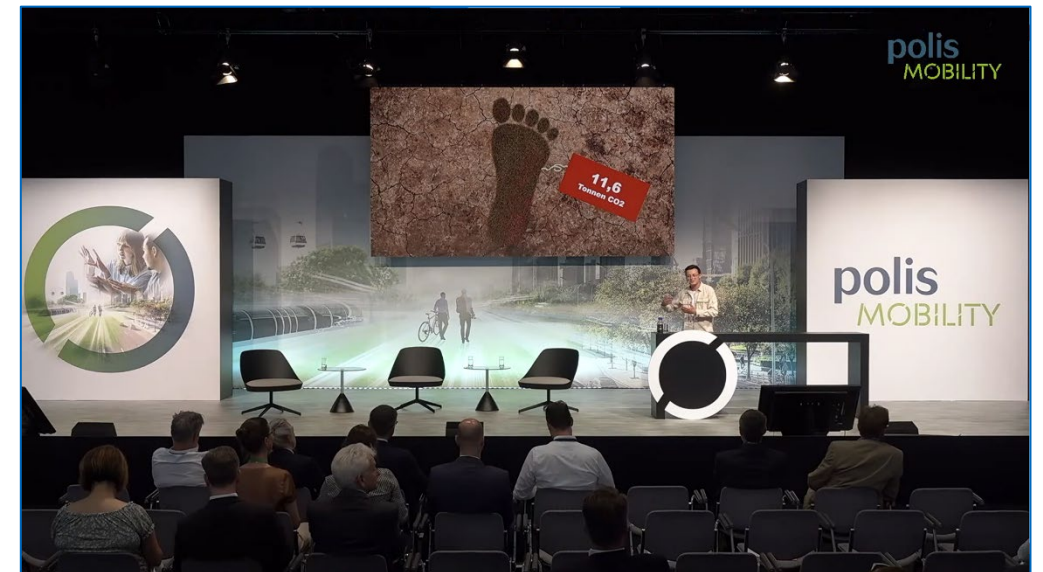
- If just every person on this planet would do one little step towards climate neutrality, we would have 7.77 Billion steps.
- It is important to set a good example and do a step of your own, instead of pointing with finger at others.
- One way would be to consume less meat and buy more locally sourced plant products instead. This has a CO2 saving potential of 33%-50%.
- Another option is to carpool and use public transportation more often.

## CO2 Footprint

- A big problem is that the CO2 emission is invisible and odourless which is not apparent to us at first sight.
- There is a good tool to illustrate these emissions: the CO2 footprint.
- By simply entering information such as apartment size, mobility behaviour and other information it is possible to quickly calculate a personal carbon footprint.
- The average German has a CO2 footprint of 11.6 tons of CO2 per year.
- Even if not everything is perfect yet, we should applaud ourselves for the steps we have already taken and continue to take. This motivates others to do the same and with many small steps great things can be achieved.

## Speakers

- *Bianca Hauda (Host)*
- *Jacob Beautemps (Science Youtuber & Researcher)*



Click on Picture to watch Session (German)



## Oracle

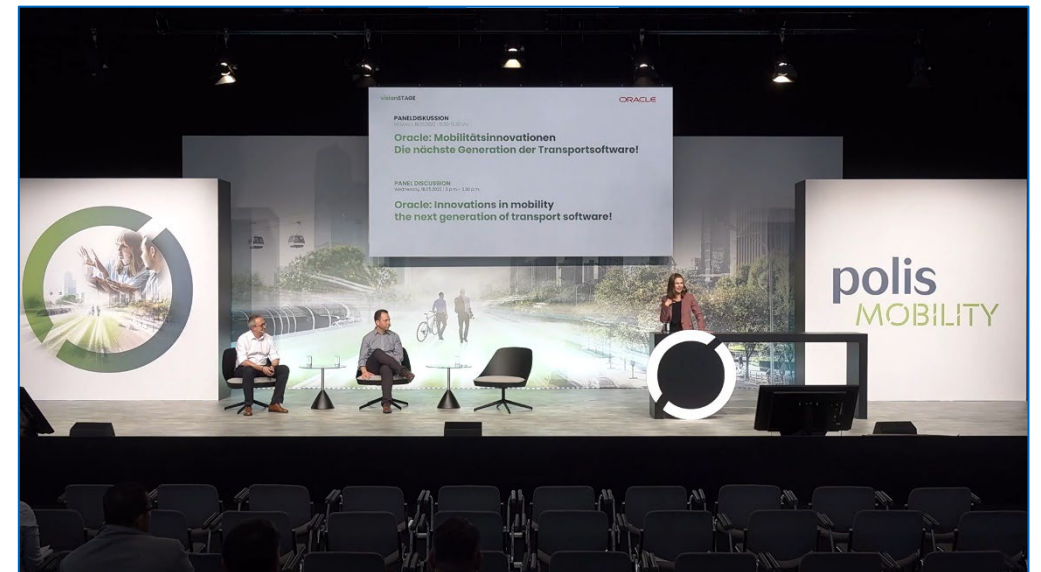
- Oracle has a leading cloud Infrastructure with decades of experience in handling data.
- They have a focus of investing, expanding their offer and bring innovation to hyper growing industries such as the mobility industry.
- What makes Oracle unique is that they start with a blank page with each of their new partners. Together they set a goal and build and invest together in order to bring innovations fast.
- Ways of Partnerships are nearly endless: Technology partnerships, Business transformation and Strategic Business partnerships are all is possible.
- Some of their Partners are Siemens, Intive, Lyft and Red Bull Racing.

## Panel Discussion

- Technology has been key to bring most of the mobility projects - we see around the world - up to life. The core in the beginning was about finding customer centric solutions to grow in the mobility area.
- Now we see a slight shift towards profitability, sustainability and maximizing efficiency within the mobility Industry. Therefore, technology plays an important role.
- The magic is happening in two major areas when discussing technology. First the mobility disruption coming from technologies like connectivity, electrification and autonomous driving. Second the convergence of more tech related innovations through customer centric Apps, IoT devices and the cloud. A combination of both is powerful.
- In order to run a profitable and sustainable fleet business, it is necessary to look deeply on each step of the operation, analyse the data correctly and in the best case be able to make forecasts.

## Speakers

- *Andrea Sroczynski* (Managing Director SBD Germany & Host)
- *Marco Lanzetta* (EMEA Director Automotive & Mobility Oracle)
- *Kobi Eisenberg* (Co-Founder CEO Autofleet)



Click on Picture to watch Session (German)

# E.volut-ON: The new Shuttle - bigger, favorable and flexible



## The Situation

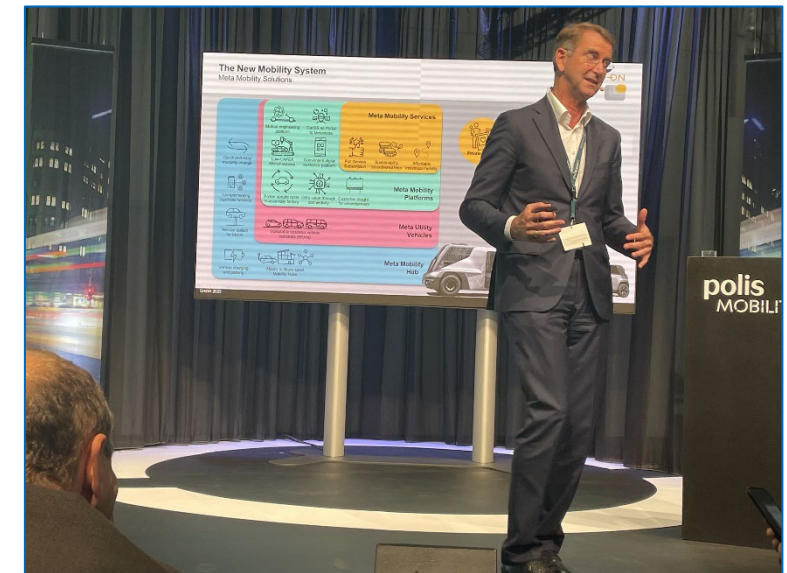
- Cities are becoming more and more packed with vehicles.
- Currently, 70 % of city traffic comes from commuting.
- Most of the city's traffic comes from outside the city.
- Even for manufacturing businesses, 25 % of CO2 emissions are due to employee commuting.
- In the city's authorities, a rethinking is taking place and the number of vehicles within the cities will be reduced and need to become emission-free in order to achieve the climate targets in the next years. This requires a new mobility concept.

## Corporate Shuttle

- One solution would be a corporate shuttle with integrated office.
- From the moment of boarding, work can be done, and working time is counted.
- For this purpose, several screens are available for each employee and the shuttle is always Connected.
- To get traffic out of the cities, e-mobility hubs will be set up on the city outskirts where the shuttle will pick up employees.
- The E.volute-ON shuttle is designed for 8-9 people and will be presented in Berlin in June 2022.
- It is only available via a subscription model. Every 5 years it will be refurbished including the interior. The subscription package will include everything, even a parking spot.
- The vehicle is designed to reach a lifespan of 50 years.

## Speakers

- *Prof. Günther Schuh (Professor and start-up founder)*



## Innovations in mobility – the next generation of transport software



English

Technologies and services that enable people and goods to move around more freely are facing massive transformation and growth. Sharing economy (Usage vs Ownership) preferences, on demand customer preferences (from product-based experiences to service based ones), Cities & Government push (CO2 and city congestion reduction) and Digital disruption (Mobiles, IoT, Cloud..) are main drivers. It is time for an even more customer centric approach, software enabled, to drive the future of mobility forward focusing on efficiency, profitability and protecting the planet. [Click here for Summary.](#)

## Law: The System Dynamite



German with simultaneous translator

Higher, faster, further - that's the mantra of technology enthusiasts when considering the mobility of tomorrow; but are all the promising visions actually feasible?

Philipp Reusch offers an unusually open and refreshing look at the legal framework, underestimated possibilities and new perspectives.

## V2X: Autonomous – connected – unsafe? The Importance of Safety and Reliability in Autonomous Mobility

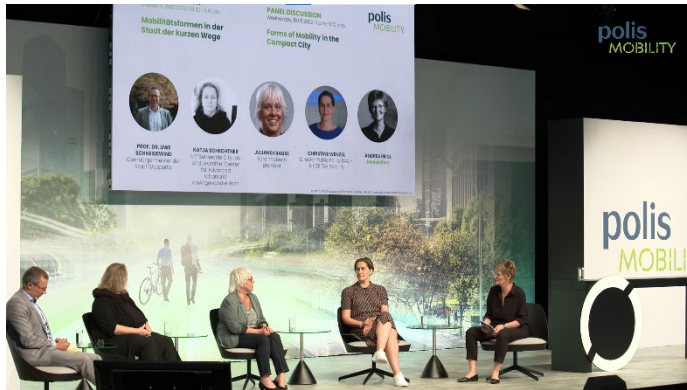


German with simultaneous translator

It is clear that autonomous mobility systems will come onto the market in the coming years. An important point regarding the future acceptance of these systems lies in the area of safety and reliability. Where are we today? What needs to be done? Which industries can we learn from? Prof. Andreas Braasch (IQZ Wuppertal) and Philipp Reusch (Reusch Rechtsanwalts-gesellschaft mbH) put these questions up for discussion.

Click on Picture to watch the Session

## Mobility in the city of short distances: learning from the global south



German with simultaneous translator

The spatial separation of living, working and leisure is no longer appropriate in many cases - and is no longer desired by citizens. What does successful mobility in the "city of short distances" look like? What can we learn about dense, diverse neighbourhoods not only from European models such as Paris and Barcelona, but also from the efficient and creative further development of informal mobility services in the cities of the global south?

## Sustainable types of mobility in the Compact City – How do changes find acceptance among the population?



German with simultaneous translator

Successful change thrives on positive experiences. This is especially true in the case of mobility, where persistence in old and familiar patterns is particularly entrenched. The mobility turnaround therefore needs a variety of experimental spaces - in the sense of local and temporal experimental sites where new mobility can be "experienced" in a very concrete way. The lecture will look at examples of such "laboratories".

## Forms of Mobility in the Compact City



German with simultaneous translator

The city of short distances and the demands of New Urbanism – i.e. the advantages of the European city – are well known and are currently experiencing a determined renaissance. How suitable are micromobility offers for everyday use and who do they benefit? After keynote speeches by Prof. Katja Schechtner (MIT Boston) on how we can learn from the global South and by Prof. Uwe Schneidewind (Mayor of the City of Wuppertal) on sustainable forms of mobility the discussion will be continued in a panel.

Click on Picture to watch the Session

## Why we want to promote different types of mobility and stop promoting the current mainstream



English

We have learnt to take for granted that our streets are mainly used for the transportation of personal vehicles that bring people as fast as possible from A to B. But the street was, is and should be so much more. What happens if we ask questions about to whom the street belongs? And how can we once again recapture the true potential of our public space? Join the Movement!

## Liveable Cities for the 21th Century



English

Jan Gehl is a practicing Urban Design Consultant and Professor of Urban Design at the School of Architecture in Copenhagen, Denmark. He has extensively researched the form and use of public spaces and put his findings to practice in multiple locations throughout the world. Only after establishing a vision of what kind of public life is desired in a given space, can attention be given to the surrounding buildings and the ways the spaces can productively interact.

## Cities, Industry, Policymakers: How can we shape tomorrow's Mobility?

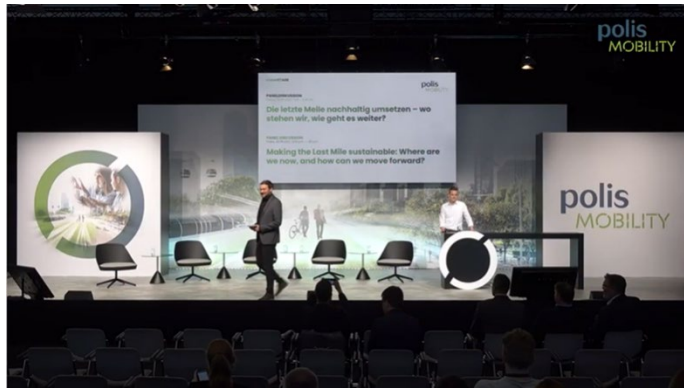


German with simultaneous translator

Whether it's electromobility, transport planning or urban development: there are already forward-looking concepts and best-practice examples for all areas. But what needs to happen for the transport revolution to actually succeed? What framework conditions must policy-makers create? And where are new forms of cooperation necessary to make mobility climate-friendly? These questions will be addressed at this panel of polisMobility.

Click on Picture to watch the Session

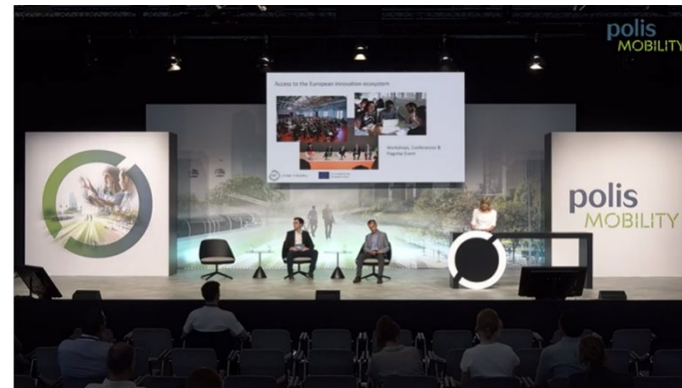
Making the Last Mile sustainable:  
Where are we now, and how can we  
move forward?



German with simultaneous translator

Making city logistics more sustainable is becoming increasingly urgent and is an important part of a successful transformation. What is the status quo and which concepts, and technologies are promising? How can the players involved be brought together? And what influences are currently preventing a fully sustainable "last mile"? All these topics will be discussed at this panel session.

EIT Urban Mobility - An initiative to  
create more liveable urban spaces



English

During the session, you will learn more about EITs mission and activities, as well as how you can participate in EITs community. Moreover, the EIT Urban Mobility Marketplace will be introduced as a platform featuring the leading innovative solutions in urban mobility from the EU and beyond. A series of innovative products, best practices and pilots included in the Marketplace, and tackling the most important urban mobility challenges faced by global cities will be presented during this session.

EIT Urban Mobility. An European  
initiative for more liveable Cities



English

What is EIT Urban Mobility? How can we create more liveable cities? How can citizens be more involved in the mobility of their cities? What is your opinion about the future of mobility? Come to our session to know more about us and learn interesting examples of innovative solutions implemented in our cities that benefit our citizens, including examples of citizen engagement activities.

Click on Picture to watch the Session

## Mobility as a Service: Seam- and careless mobility?



German with simultaneous translator

Travelling through the city in an intermodal manner or booking a one-stop ride in an app: Mobility as a Service – mobility without ownership – offers new ways of being mobile, both from a private sector perspective and in combination with public transport systems. This session discuss, how services need to be designed in order to be accepted by customers, how thereby a sensible transformation of individual mobility behaviour can be supported and how those services can be integrated in urbane space and systems

## Shared Mobility: Market outlook from local authorities' perspective



German with simultaneous translator

The market of shared mobility is predicted to grow strongly and the attributes of these new forms of mobility promise positive effects on urban spaces and resources. The business models of these public means of individual transport are subject to private sector logics and the mechanisms of use are based on marketable spaces. This session, will shed light on the dynamics of the market and the offers and discuss how these can be meaningfully integrated into municipal mobility offers and concepts.

[Click on Picture to watch the Session](#)

# Overview: Drive Technologies

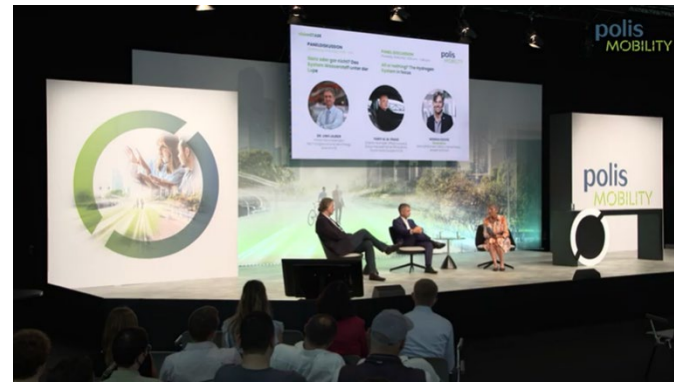
## Sustainable Mobility is a given, but how efficient?



German with simultaneous translator

The change in mobility particularly affects the automotive industry. The topic of zero emissions is set; the technical solution is usually called "electric". Whether this is a good path to take will be measured at the latest by whether there continues to be affordable and easy access to mobility for everyone. Domain knowledge and methods from automotive engineering can play a key role in the design and selection of the right vehicle, from the fleet to the mobility system, as Dr. Rittmar von Helmholt (AVL List GmbH) will discuss in detail in his presentation

## All or nothing? The Hydrogen System in focus



German with simultaneous translator

Strong growth is predicted for the hydrogen market, but production capacities and distribution must first be developed on a highly industrial scale. Furthermore, the use of hydrogen plays a decisive role and thus the decision whether to use it in mobility or industry. In an open discussion, they looked at the current market and technology issues and shed light on questions that we should keep in mind when considering hydrogen mobility in the future.

## Whatever drives your car – New drive technologies and their market relevance



English

The traffic turnaround sets far-reaching transformation processes in motion and demands industry-wide flexibility and reorientation. How are companies dealing with this – and how is the market adjusting? This session, set the tone for the consideration of sensible technology trade-offs and provide insights into the adaptation processes of key players: the future briefing of the automotive industry.

Click on Picture to watch the Session



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# Contact us

How to get in touch for all your post-polisMobility needs



# Contact SBD Automotive

## Do you have any questions?

If you have any questions or feedback about this research report or SBD Automotive's consulting services, you can email us at [info@sbdautomotive.com](mailto:info@sbdautomotive.com) or discuss with your local account manager below.



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**Garren Carr**  
**North America**  
[garrencarr@sbdautomotive.com](mailto:garrencarr@sbdautomotive.com)  
+1 734 619 7969

**Luigi Bisbiglia**  
**UK, South & West Europe**  
[luigibisbiglia@sbdautomotive.com](mailto:luigibisbiglia@sbdautomotive.com)  
+44 1908 305102

**SBD China Sales Team**  
**China**  
[salesChina@sbdautomotive.com](mailto:salesChina@sbdautomotive.com)  
+86 18516653761

**Andrea Sroczynski**  
**Germany, North & East Europe**  
[andreasroczynski@sbdautomotive.com](mailto:andreasroczynski@sbdautomotive.com)  
+49 211 9753153-1

**SBD Japan Sales Team**  
**Japan, South Korea & Australia**  
[postbox@sbdautomotive.com](mailto:postbox@sbdautomotive.com)  
+81 52 253 6201