



# StreetScooter

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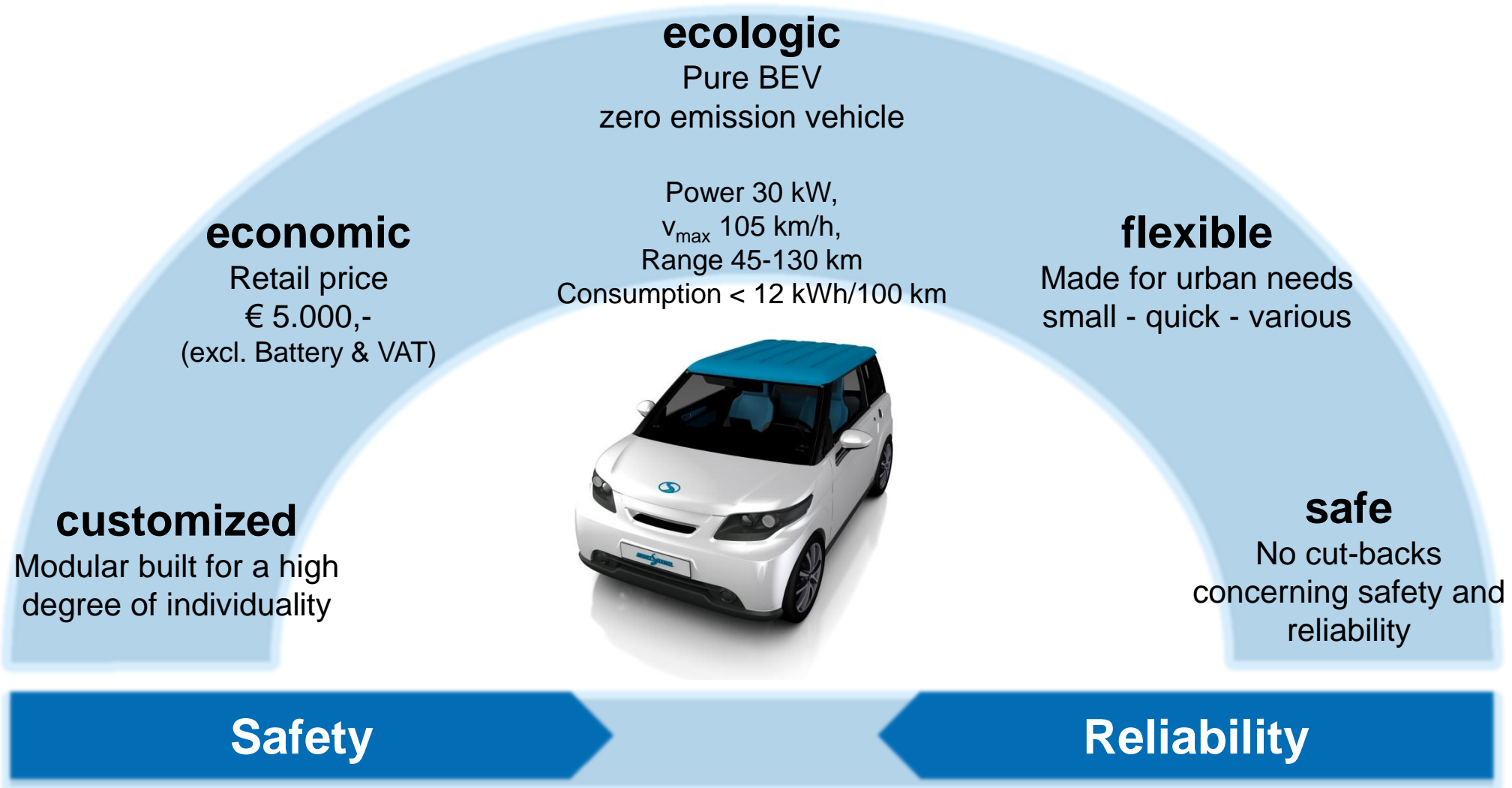
“NL meets NRW”



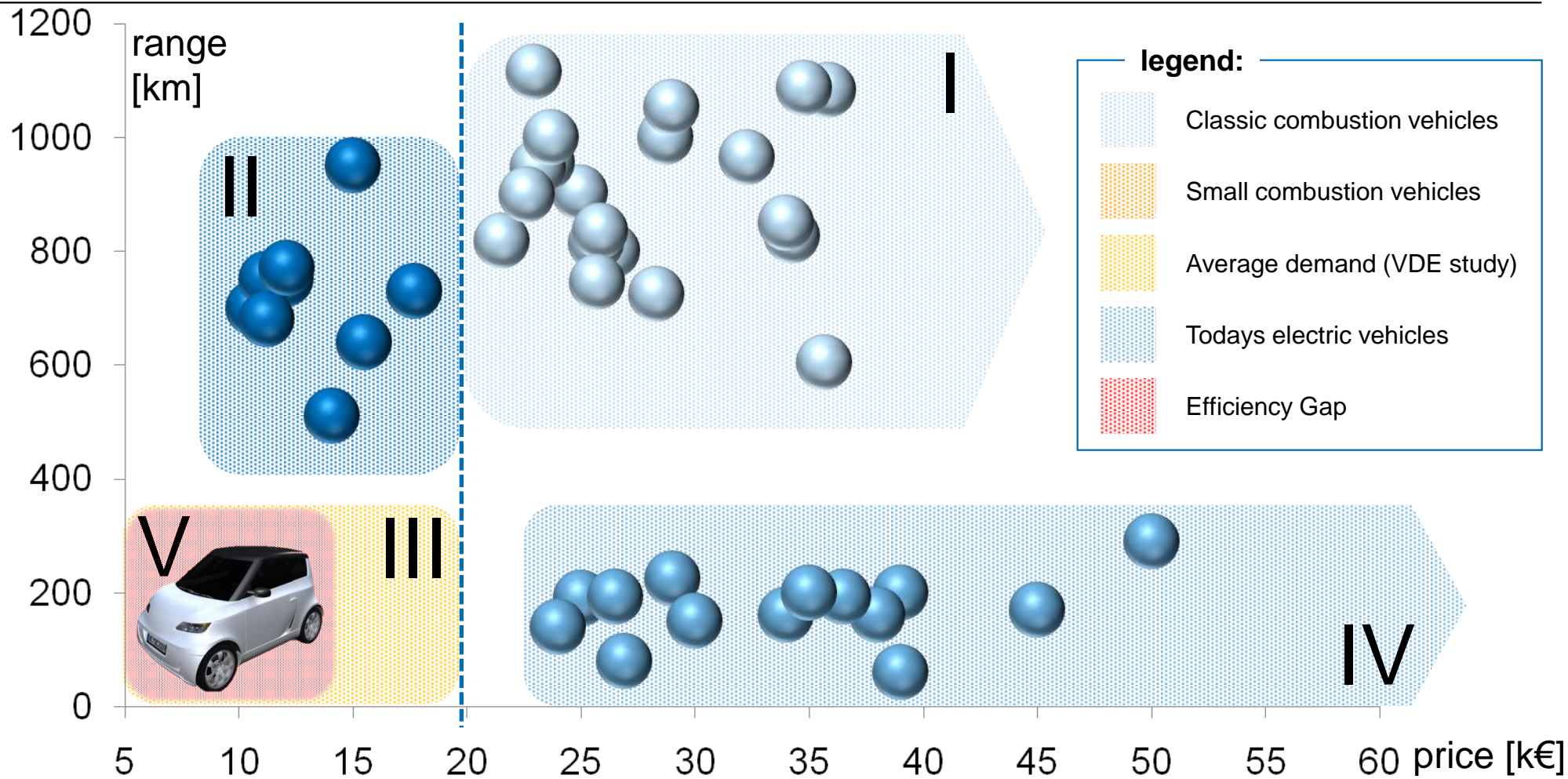
**streetsc?oter!**

Düsseldorf, April 18, 2012

## The StreetScooter fulfills future mobility needs



# StreetScooter closes the „efficiency gap“ – economical, efficient and made for urban needs

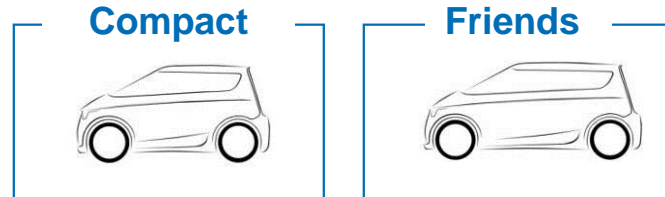


Electric cars: eBox, 4U green, Volt, Dash, iMiev, NXR City, Think, Flash, Wise, Sedan, Surge, Loremo, Miles, Tazzari; Combustion cars: Golf VI, Smart, IQ, Corsa, Polo, Micra, Fabia, Fiat 500, Swift, 207, 318i, A4, Accord, A 150, Mazda 6, C 200, Pajero, Qashqai, Insignia, Zafira, C5, 407, Laguna, Saab 9-5, Alhambra, Avensis, S80, Touran

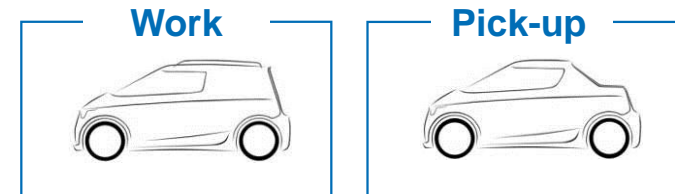
# StreetScooter is a modular build car

## Designed to easily derive new vehicle concepts

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**Styling:**  
StreetScooter A12



**Study:**  
StreetScooter B14

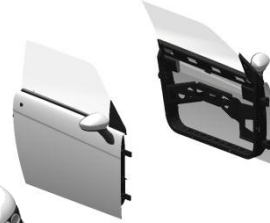
# StreetScooter partner are organized in Lead Engineering Groups: decentralized component / module development



Body (structure)



Body (exterior)



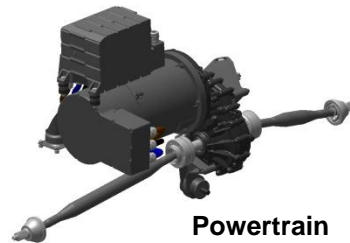
Body (interior)



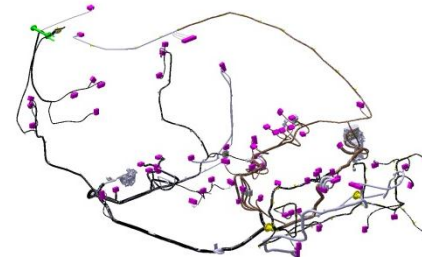
Chassis and safety systems



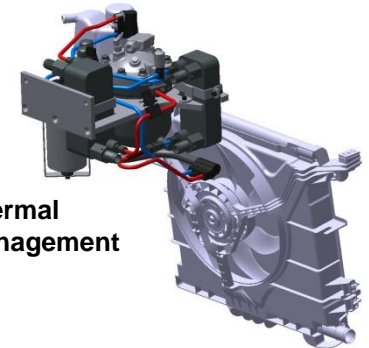
Battery



Powertrain



Electronics and wiring harness



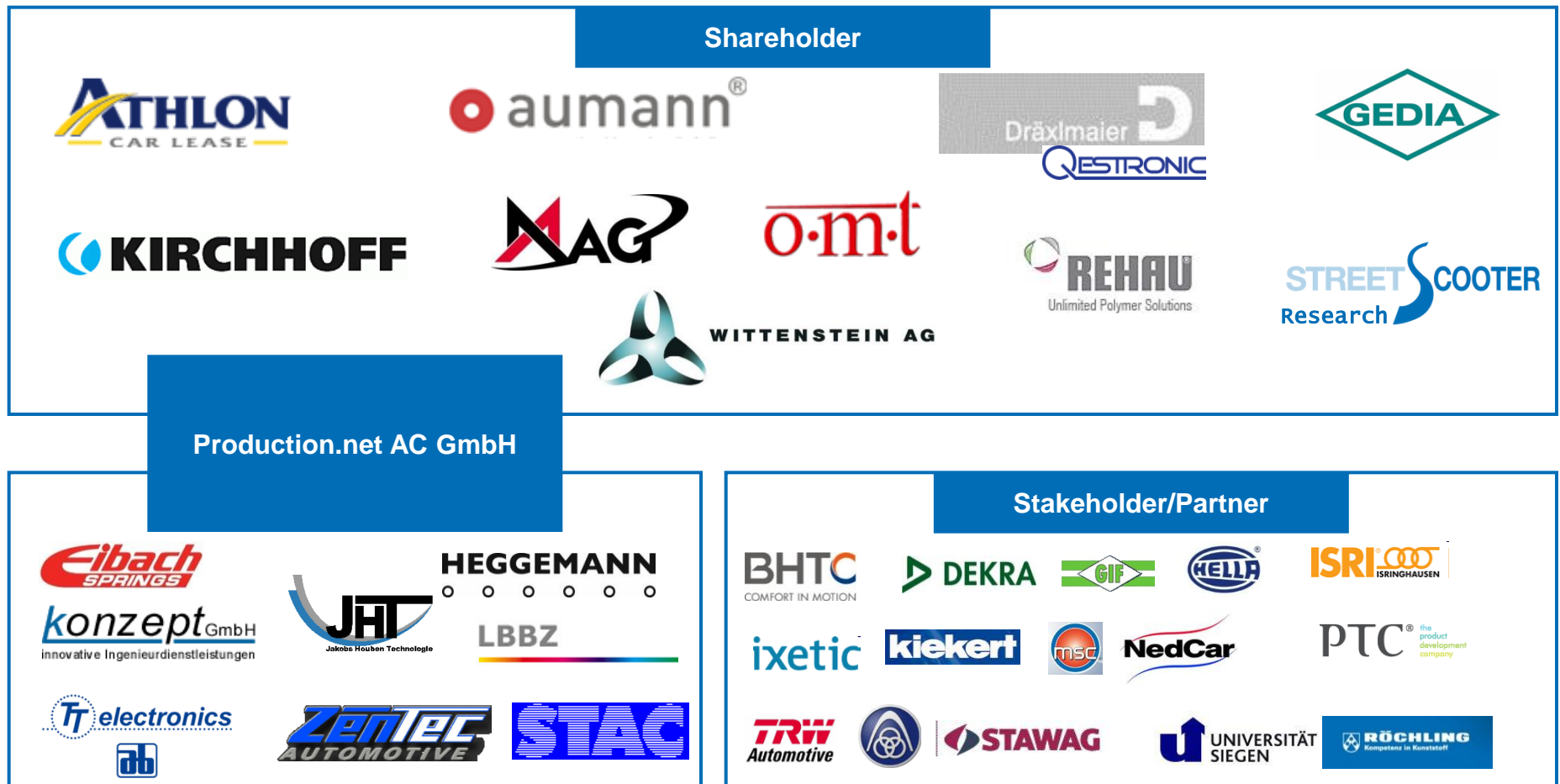
Thermal management

CAD and project data as well as PM are managed by the PLM system Windchill by PTC.



# StreetScooter

## Shareholders and Partners



# NedCar is supporting the StreetScooter body shop, final assembly and logistics development

- NedCar is a car manufacturer in Sittard-Geleen (Born) approx. 45 km from Aachen and also an associate of the StreetScooter network.
- Currently NedCar assembles the Mitsubishi Colt and Outlander.
- At the moment 1.500 employees are working for NedCar.



NedCar and the WZL of the RWTH Aachen University are developing the production concept of the StreetScooter including body shop, paint shop, final assembly and logistics.

Source: [www.nedcar.nl](http://www.nedcar.nl)

© WZL/Fraunhofer IPT

# Car leasing companies are a key factor in making electric vehicles attractive to customers: **StreetScooter** cooperates with **Athlon Car Lease**

- Athlon is an international provider of operational car leasing with an experience on more than 50 years and also an associate of the StreetScooter network.
- Athlon is active in nine European countries and headquartered in the Netherlands (1.125 employees).
- The StreetScooter will be offered in Car lease models or as company fleets.
- There will be a leasing concept of battery modules to keep initial vehicle cost low

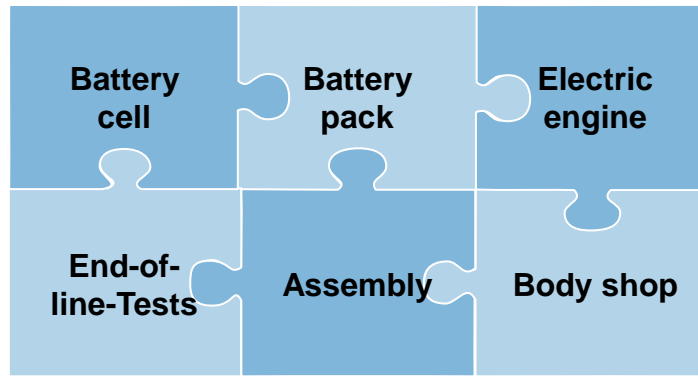


Source: <https://www.athloncarlease.com/>



# “eLab” and “Anlauffabrik”: Available equipment shall be used to tap the potentials of integrated product and process development

## Equipment infrastructure



- Production equipment for the electric vehicle value chain
- Access to a technology platform
- Assessment of production steps for large scale production

### 1. Ramp-Up Factory for low volume vehicle manufacturers

- Preparation and development for series production
- Enhancements in terms of “made for production”



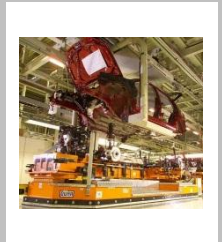
### 2. Integrated product and process development

- Prototypes of vehicle components will be produced
- Analysis of Design-for-X Potentials



### 3. Assembly

- Improvement of automotive assembly steps
- Assembly of electric vehicle components



# Conclusion

## The **StreetScooter** development is based on...



- ... **an equal partner network of experts** in the supplier industry (process machinery and component supplier) as well as value added service suppliers (repair, leasing, certification)
- ... **production focus on par with product planning** with an integrated product and process development
- ... **industrialization and assessment of processes in an expert network**



**Application to the technology  
and innovation platform  
StreetScooter**





# Thank you very much.

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Prof. Dr.-Ing. Achim Kampker

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