DEKRA

DEKRA DIGITAL

Danube Region Transport Days - Micromobility
- 15.12.2020

Innovating Safety

Our Vision

DEKRA DIGITAL

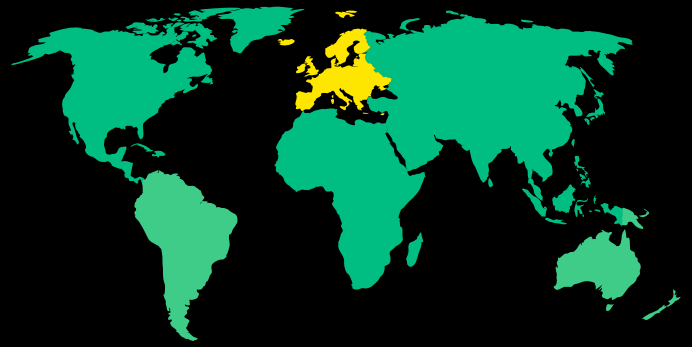
AT A GLANCE

4 LOCATIONS

Stuttgart | Málaga | Berlin | Bochum

70 EMPLOYEES

12 nationalities



2 COUNTRIES: GERMANY & SPAIN

Focus

Artificial Intelligence | Future Mobility |
Big Data | Internet of Things
Cyber Security & Functional Safety

VISION SINCE 2018

INNOVATING SAFETY

Our Mission Build digital services, lead digital transformation and drive open innovation for DEKRA to increase safety in everyday life.

Micro Mobility at DEKRA

Six Challenges within the e-Scooter Ecosystem

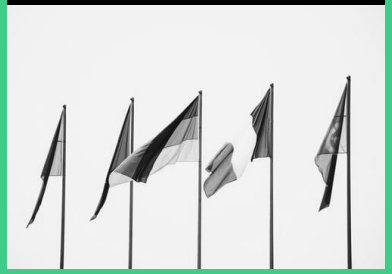
Speeding

Public Transit Integration

Unsafe Riding Behavior

No sustainable Hardware

Individual Governance



Lacking Infrastructure

When putting these challenges into statistics we see:
No regulation causes accidents!

In France (2019-2020):

- **35% accidents are reported collisions with pedestrians**
- 18% accidents reported collision with motor vehicles
- **10 reported deaths**

In the United States (since introduction)

- **More than 40,000 injured people**
- Over 40 reported deaths

Why do accidents happen?

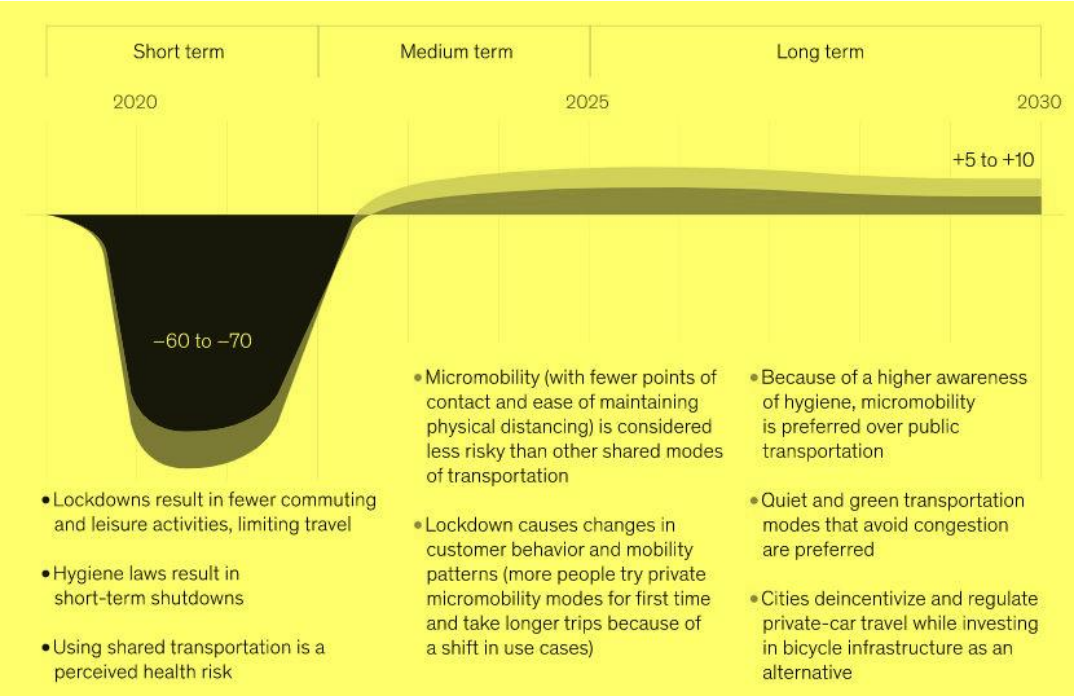
68% due to non-compliance with regulation

40% unsafe riding behavior

22% due to faulty infrastructure

Sources: Federation Francaise de l'assurance, USA Today, CBS,

Strong postpandemic recovery expected for Micro Mobility



Cities across globe are transforming road infrastructure to accommodate micro mobility vehicles

Shifting consumer behavior more towards shared mobility

Source: McKinsey and Company, July 2020

The Solution


The DEKRA
Micro Mobility
Safety Standard

4 reasons why it works for cities and mobility providers

- **8 areas, 120 test points**
- **Make micro mobility safe and sustainable**
- **Enables integration of micro mobility sharing into existing public transit**
- **Tool for municipalities to regulate the micro mobility space**

The 360° approach to make Micro Mobility safe and sustainable (1/2)

Technical Design

Covers various technical national regulations concerning the vehicle

Production, Delivery and Assembly

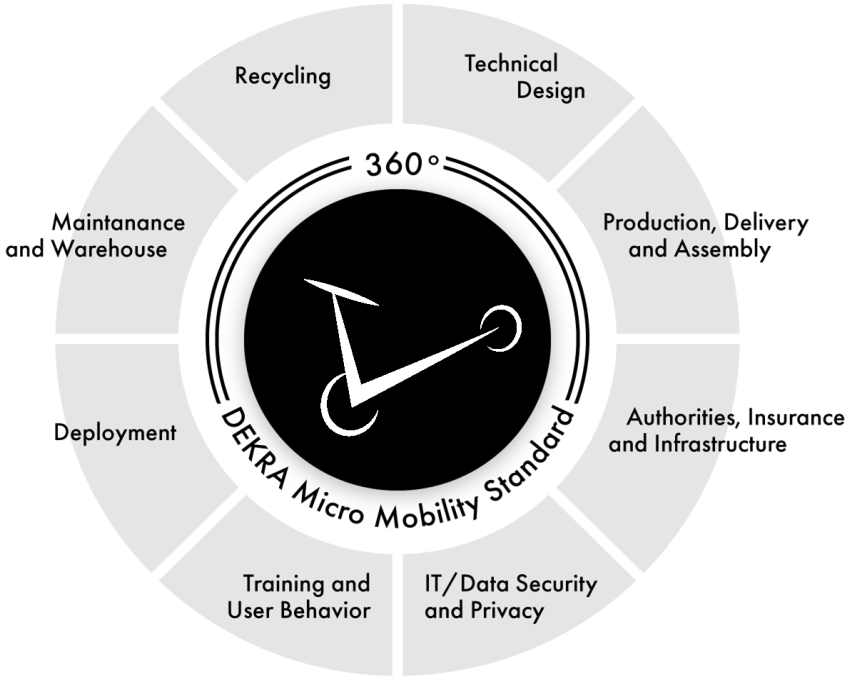
Focus on core manufacturing process, assembly and delivery of the vehicle

Authorities, Insurance and Infrastructure

Guide city authorities to properly integrate the e-scooter sharing into existing public transit

IT/Data Security and Privacy

Guidance for setting data standards and security measures



The 360° approach to make Micro Mobility safe and sustainable (2/2)

Training and User Behavior

Train users how to use the vehicle and educate them about road traffic rules

Deployment

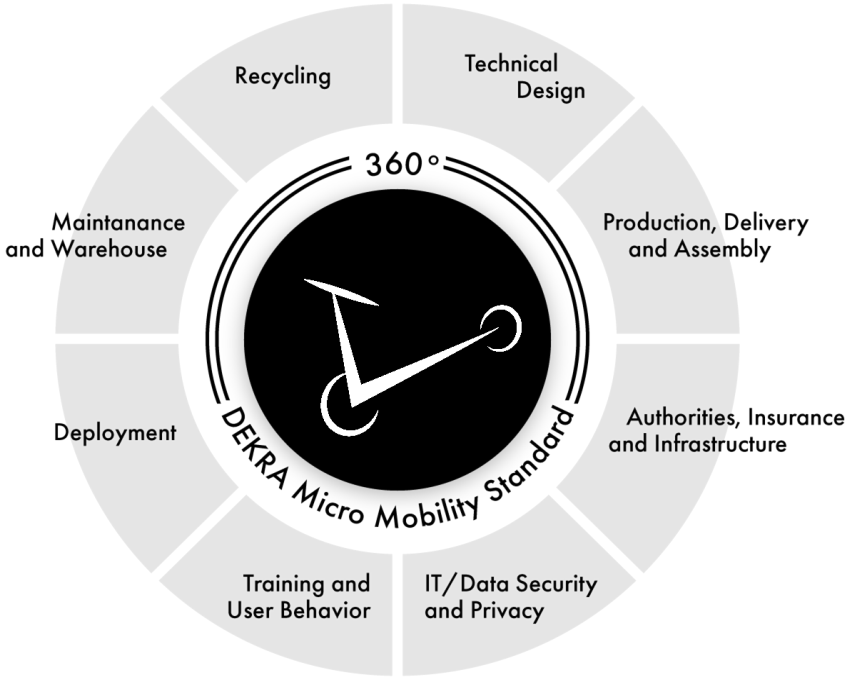
Safe deployment of scooters during operating hours

Maintenance and Warehouse

Periodically testing e-scooters to maintain its operating life and storing them safely during non-operating hours

Recycling

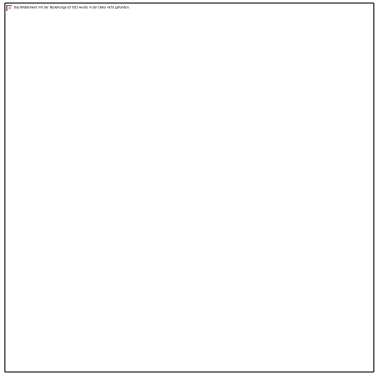
Recycling of parts and finding different usage of batteries



Our 11 Suggestions to Public Authorities & e-Scooter Providers – developed with the German Traffic Safety Council

1. Mandatory turn signals
2. Minimum User age of 15 and a test certificate
3. Increase visibility through reflecting tapes
4. Unique contact for authorities and police
5. Fines for driving on footpath
6. Align road use with bicycle traffic
7. Designated parking zones
8. Anchor change of perspective in driver training
9. Regular and orderly deploying and collection of e-scooters
10. Automated speed limits
11. Rental rates according to distance instead of time

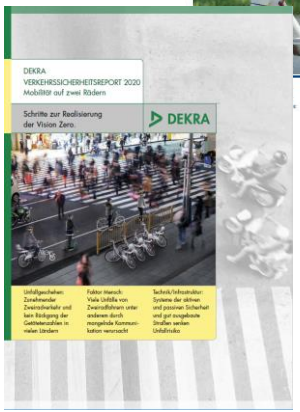
DEKRA DIGITAL Badge for Micro Mobility



Our Involvement within the Ecosystem of Mobility

50 JAHRE DVR 2019

50 JAHRE Deutscher Verkehrssicherheitsrat



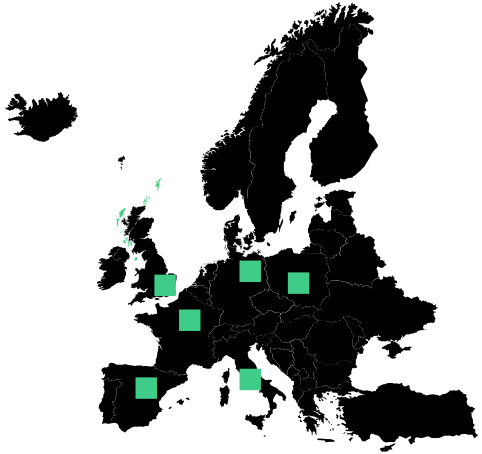
International Transport Forum | SUMMIT

Transport Innovation for Sustainable Development

27 - 29 May 2020
Leipzig, Germany

ERTICO
ITS EUROPE

DEUTSCHE VERKEHRS WACHT



European Cities

ETSC
European Transport Safety Council

PROJECT PROPOSAL

MICRO-MOBILITY & VULNERABLE ROAD USERS IN URBAN AREAS

Benefit from our Expertise and Services around Micro Mobility

Type approval

Get e-scooters tested and approved for usage in different markets

Operations handling

Ensure safe & efficient handling of e-scooters in cities

Technical fleet monitoring

Ensure safety through frequent tests & monitoring of fleet

Safety app, reports, campaigns & training

Ensure that customers know how to use e-scooters safely (Safety app, safety campaigns and safety reports)

Industrial Inspection

Warehouse inspection and electrical safety inspection

Auditing

Management system certifications, customized audits

Consulting

Cyber Security, Health, Safety, Environmental, City Intrastructure

Tenders management

Help cities organize, select mobility providers

What’s next?

In Development: Battery Testing

Maintain good health of your fleet batteries!

What can be tested?

Device can basically test all batteries between 6V and 48V where you can get galvanic (direct) access to the poles, e.g.

- eBikes
- eScooters
- Powertools

Questions?

Contact us!

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