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Project

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We shape the future of urban mobility

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Gefördert durch:

aufgrund eines Beschlusses des Deutschen Bundestages

und Energie

https://urbanmove.ac/en/

URBAN MOVE

UrbanMove

We shape the future of urban mobility

Information Logistics for a People-Mover Platform

Martin Bremer, Jörg Hoffmann, Jacques Engländer, Laura Pannemann



Supported by:



– DLR Projektträger

on the basis of a decision by the German Bundestag Vienna, January 11th, 2019

UrbanMove Inner-city mobility platform based on autonomous People-Mover



"A lighthouse project for smart, lowemission, autonomous electric mobility in Aachen - entirely in line with the requirements and needs of the inhabitants of European city centers"

Definition of the Customer Journey



Starting with a minimum viable platform the other steps in the customer journey are assessed and optimized to create a successful service



- Ordering, Waiting, Riding, Arriving and Paying are the central elements of the transport service
- Awareness and Consideration are critical to make customers start using the transportation service
- **Recommending** and **Loyalty** are important to gather more users for the platform

Workshop I: The most important requirements



Ordering



- Definition of the Customer Journey
- Location passenger
- Location Load Vehicle
- Payment dates

- Arriving
- Location Passenger
- Location Vehicle
- Drop off Yes/No

Waiting

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- Location Passenger
- Location Vehicle

- Vehicle
- Location
- Status Doors

- Riding
- Location Vehicle
- Load Vehicle
- Check-in Yes/No

- Loyalty Cha
- Charging locations
 - State of charge
 - Access to charging

Workshop II: The most important requirements



Awareness



- No changing vehicles
- Door to Door transport
- No schedules: Flexibility

- Arriving
- Destination visible on the screen

Ordering

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- Planability and predictability
- Simple and intuitive

- Paying
- Various payment options

- Riding
- Austin B
- Real-time vehicle tracking



Subscriptions

Workshop II: The most important requirements



Awareness

- s No changing vehicles
- Door to Door transport
- No schedules: Flexibility

Arriving

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Destination visible on the screen

Ordering

 200 memory

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 1 Ministration

- Planability and predictability
 - Simple and intuitive

- Paying
- Various payment options

Riding

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Real-time vehicle tracking

- Loyalty
- Subscriptions

The workshop results are used to create user stories and use-case diagrams





The information logistics concept for a people-mover platform is mainly derived from the use-case diagrams



Martin Bremer - Information Logistics for a People-Mover Platform

ICIMP 2019: 2nd International Conference on Information Management and Processing

1) Notification scheme based on: Nienke, S. T. 2018. Ontologie für Energieinformationssysteme produzierender Unternehmen. Dissertation. Rheinisch-Westfälische Technische Hochschule Aachen, Aachen.

The information-logistics-concept is then transferred into a microservice platform architecture



In conclusion: Our approach benefited the research's rapid progress



Price calculation

Traveled Time

Transmission frequencies

Shortest Distance

Traveled Distance





Central element for the rapid progress of the research project

Trips

Frequent

Past

Cancelled

s - every second m - every minute h - every hour d - daily iC - if changed oD - on demand

Planned

PeopleMover Platform

Order via smartphone

Use street map

(Get departure information

Order via website

Order people-mover

Use GPS

Get price

<<includes>> <<includes>>

(Select departure place) (Select arrival place)

<<extends>> <<extends>> <<extends>>

Orderer

URBAN MOVE

Thank you for your attention!

Martin Bremer FIR (Institute for Industrial Management) at RWTH Aachen University Campus-Boulevard 55

52074 Aachen, Germany

E: Martin.Bremer@fir.rwth-aachen.de T: +49 241 477 05 - 511



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