

Data Driven Business Model for an E-Bike Sharing Offer

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DATA DRIVEN VALUE CREATION



DATA SCIENCE & ANALYTICS | VISUALIZATION & DATA EXPERIENCE | DATA MANAGEMENT

die **Mobiliar**

&

E-Bike Sharing

?

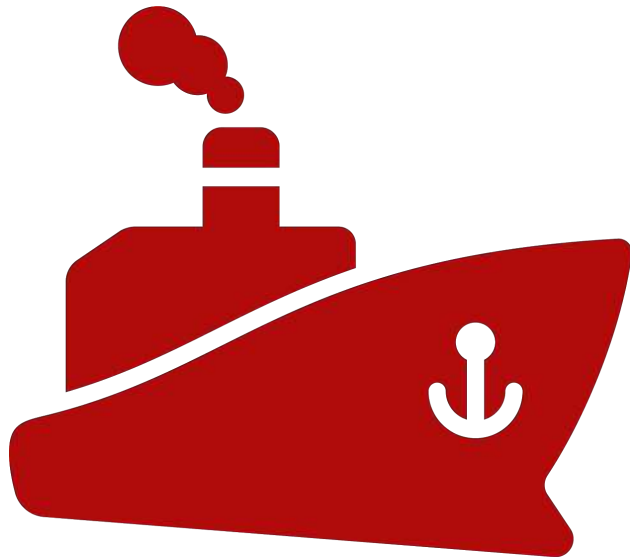
The logo for die Mobiliar, featuring the text "die Mobiliar" in white, with "die" in a lowercase script font and "Mobiliar" in a bold, uppercase sans-serif font, set against a solid red rectangular background.

die **Mobiliar**

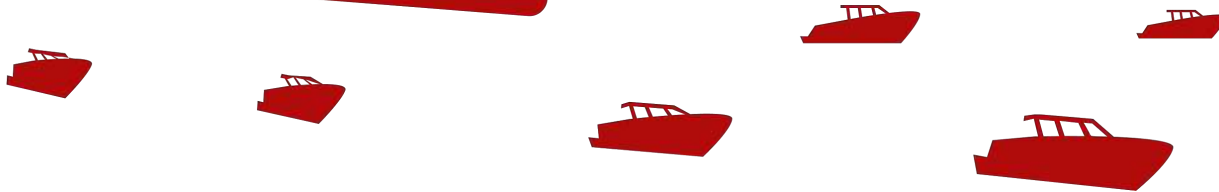
Very strong core business, but...

- need for better customer data
- little customer interaction
- need for higher customer loyalty
- uncertainty through megatrends
(mobility, sharing economy, internet of things etc.)

Innovation Strategy @ die Mobiliar



**Dual strategy for the digital age:
Mother ship & Speedboats**



Speedboats = internal start-ups that identify, test and develop new markets and repeatable and scalable business models.

**Everybody's got
plans...
until they get hit.**

Mike Tyson

**I know, that I
know nothing.**

1. Pilot

Goal:

Does the idea technically works?

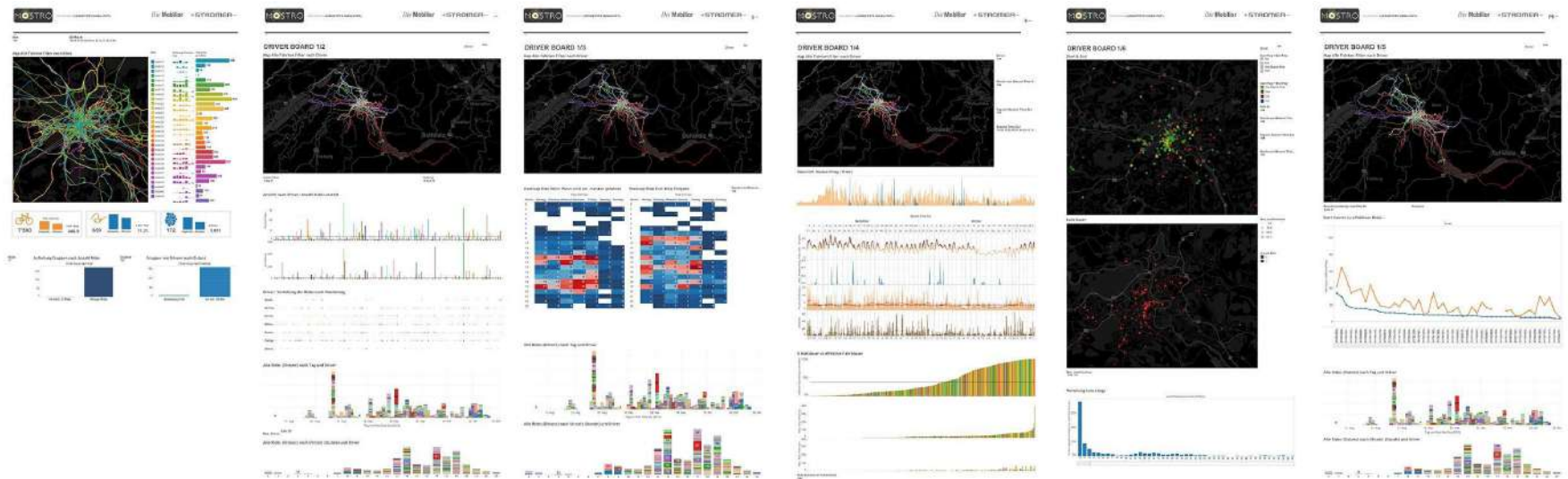
How is the offer used?

Which are possible customer groups?

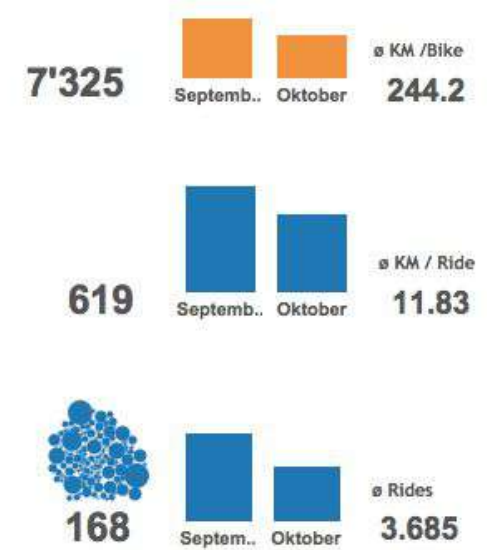
What are the challenges?



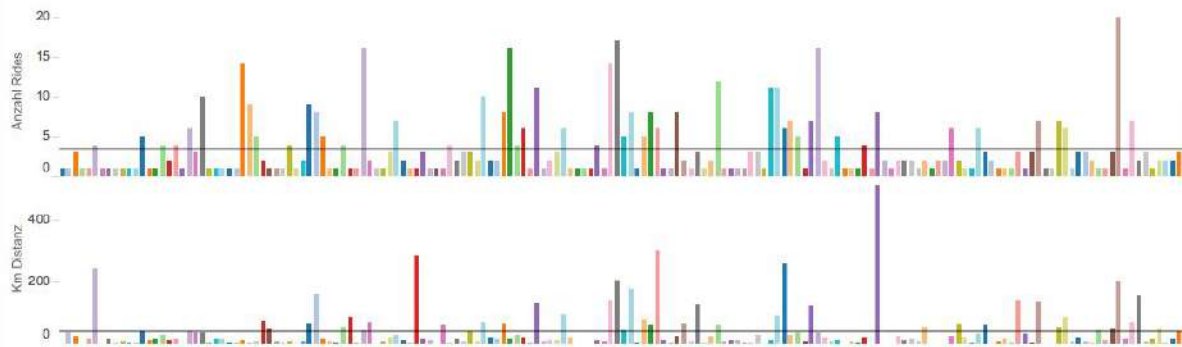
MOSTRO



All rides



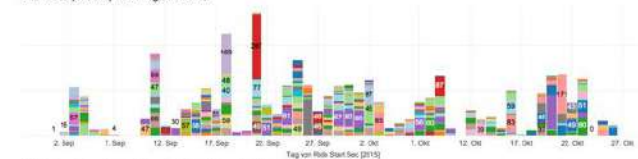
Ansicht nach Driver: Anzahl Rides und KM



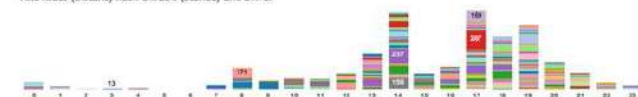
Driver: Verteilung der Rides nach Wochentag



Alle Rides (Distanz) nach Tag und Driver



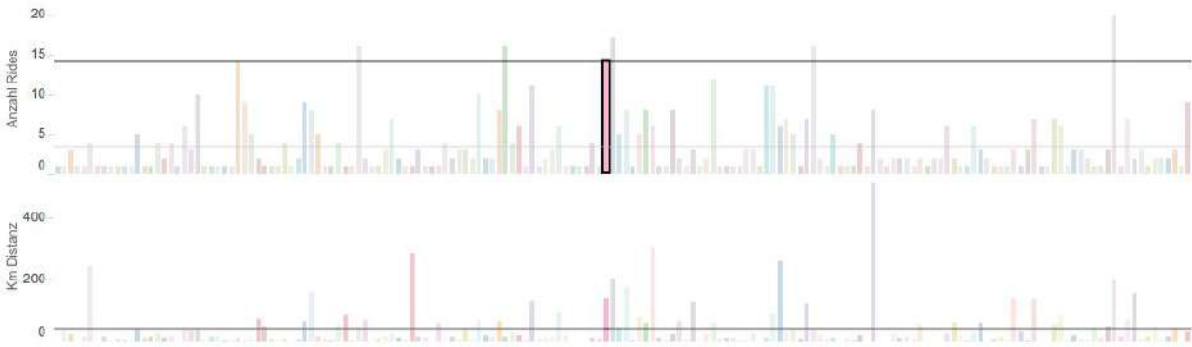
Alle Rides (Distanz) nach Uhrzeit (Stunde) und Driver



Commuter



Ansicht nach Driver: Anzahl Rides und KM



Driver: Verteilung der Rides nach Wochentag



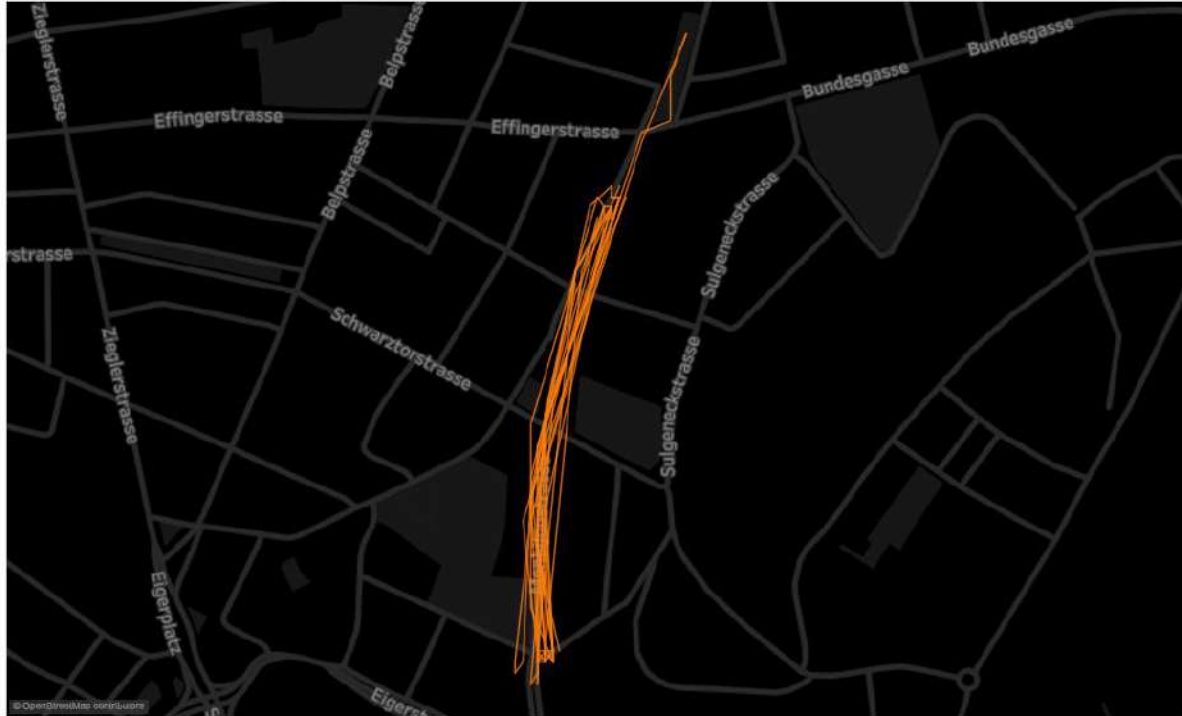
Alle Rides (Distanz) nach Tag und Driver



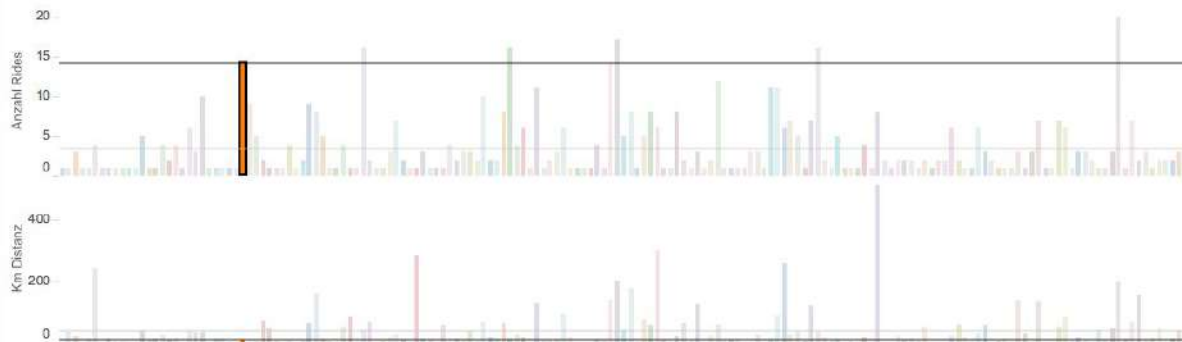
Alle Rides (Distanz) nach Uhrzeit (Stunde) und Driver



Business users



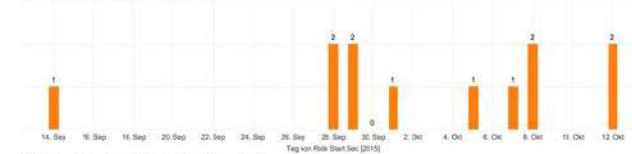
Ansicht nach Driver: Anzahl Rides und KM



Driver: Verteilung der Rides nach Wochentag



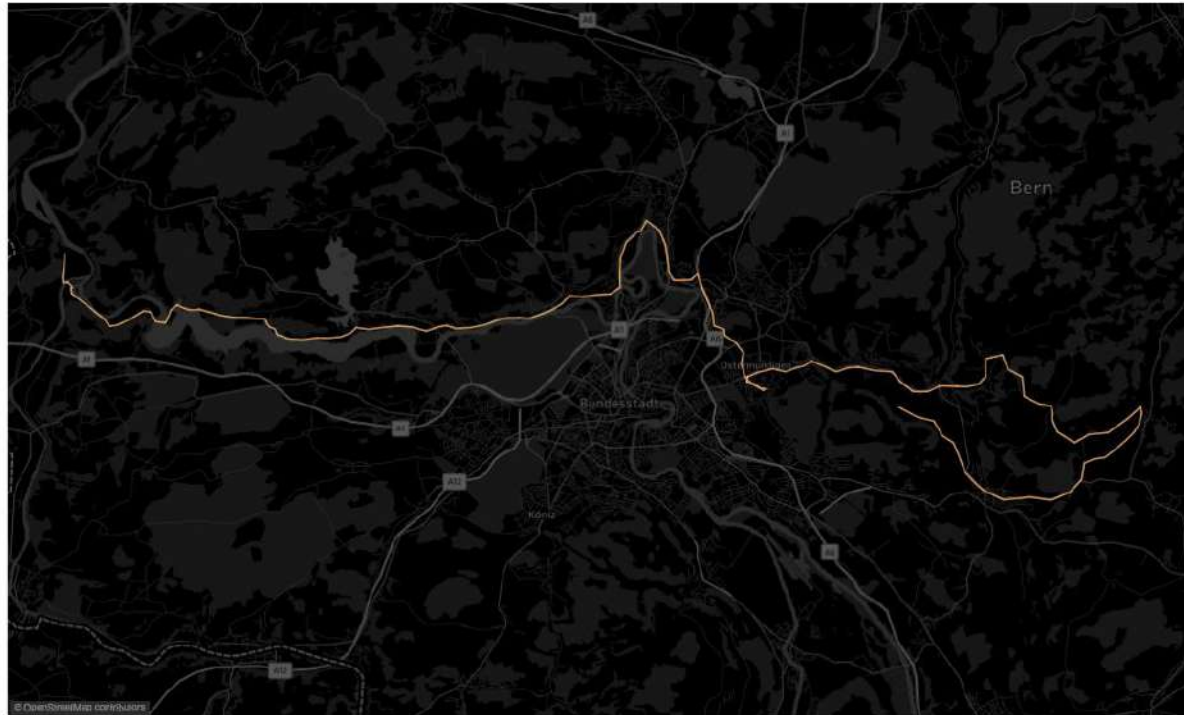
Alle Rides (Distanz) nach Tag und Driver



Alle Rides (Distanz) nach Uhrzeit (Stunde) und Driver



Leisure excursions



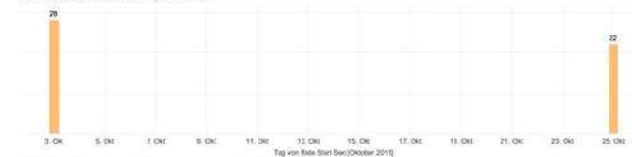
Ansicht nach Driver: Anzahl Rides und KM



Driver: Verteilung der Rides nach Wochentag



Alle Rides (Distanz) nach Tag und Driver

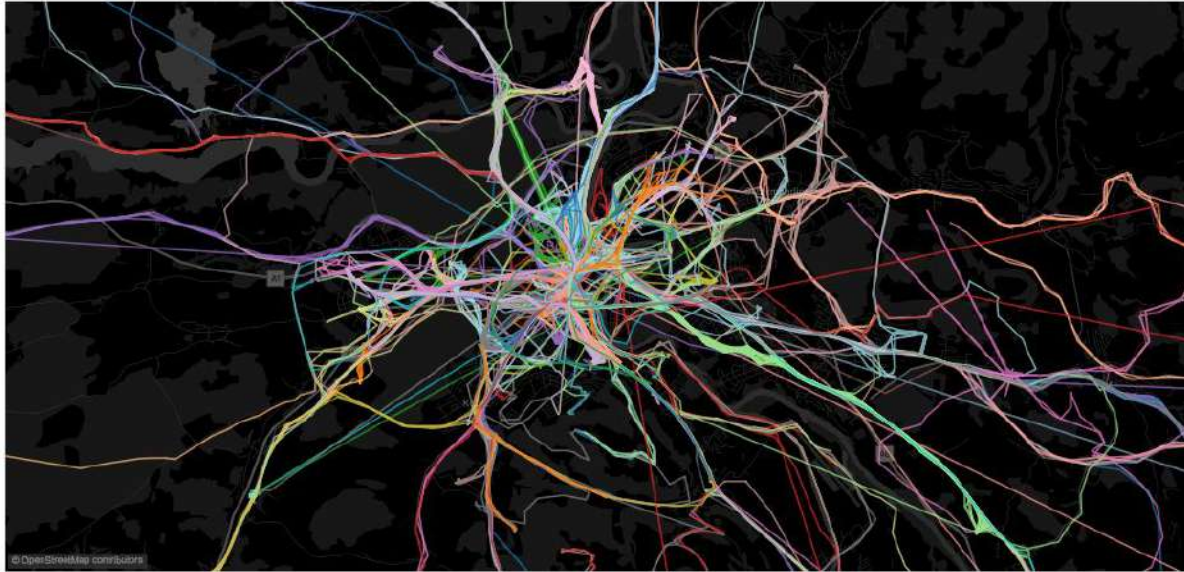


Alle Rides (Distanz) nach Uhrzeit (Stunde) und Driver

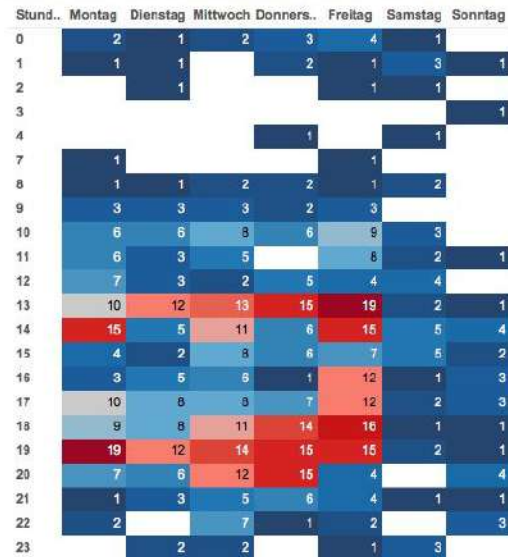


Fleet capacity utilization

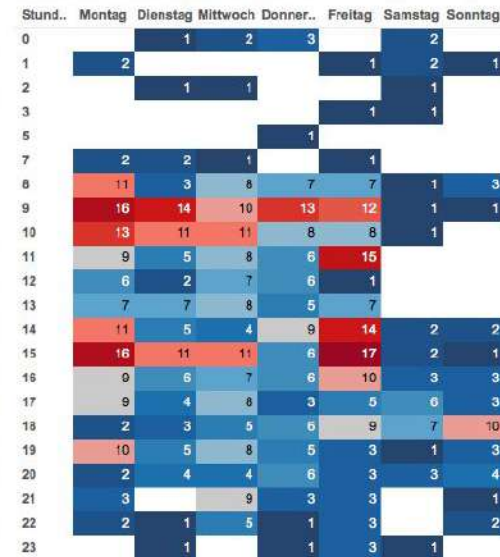
Date & Time



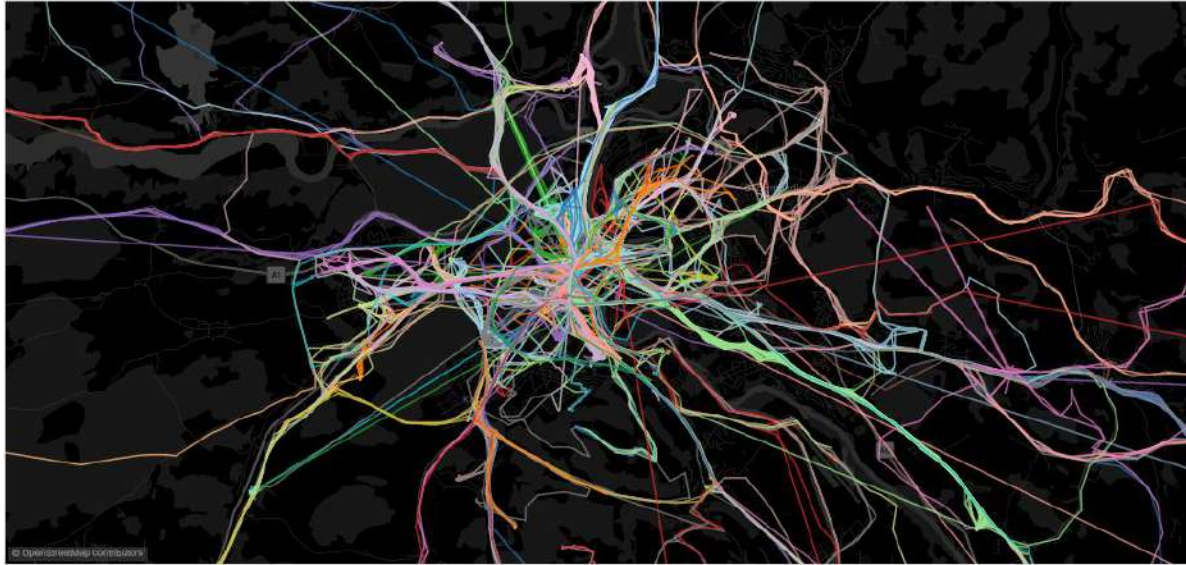
Heatmap Ride Start: Wann wird am meisten gefahren



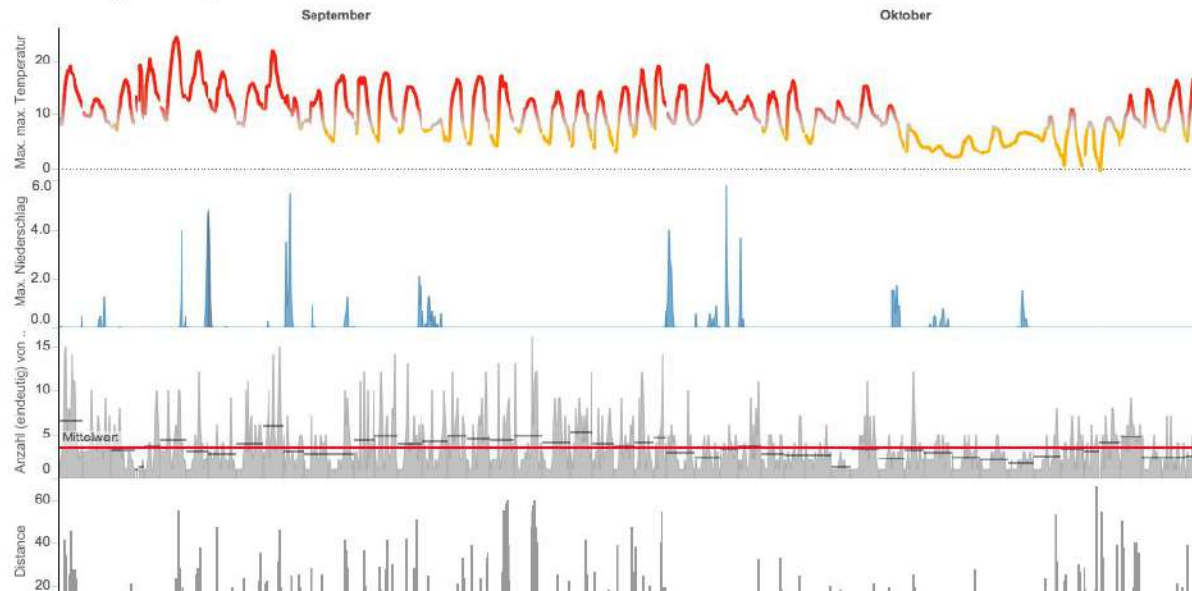
Heatmap Ride End: Bike Freigabe



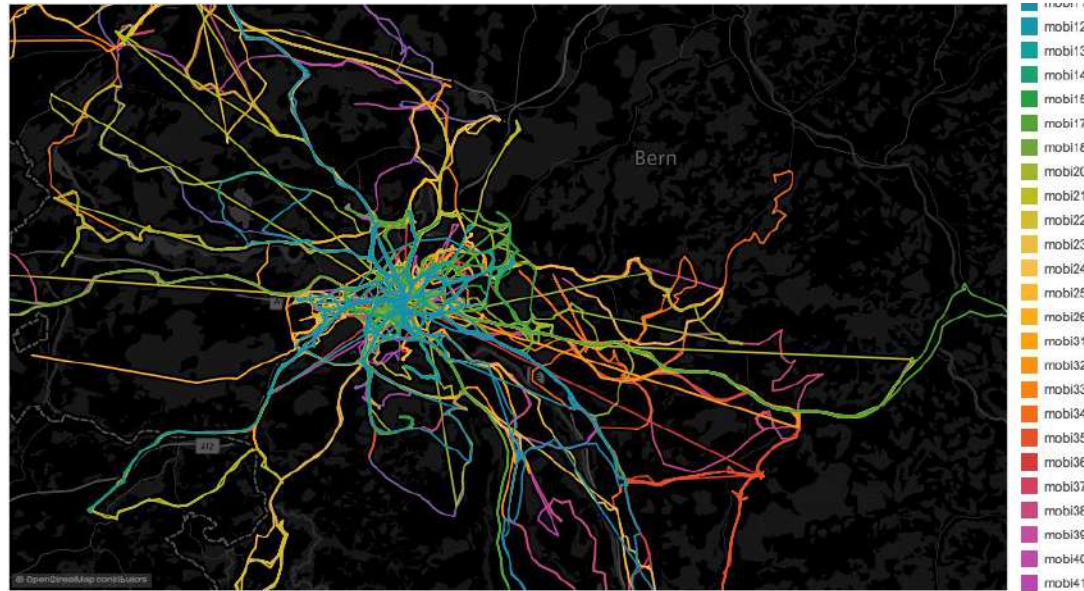
Weather



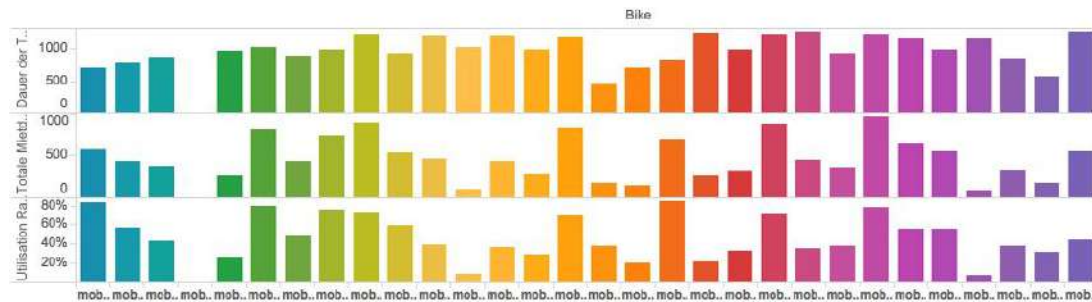
Niederschlag und Temperatur



Overall utilization



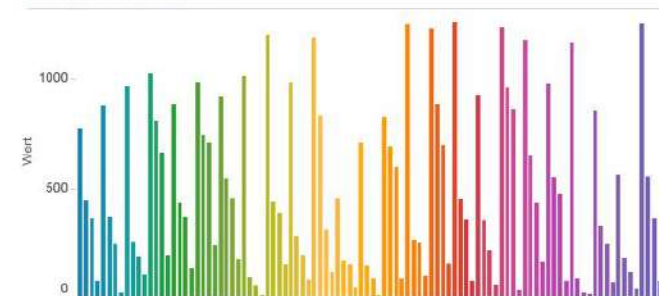
Utilisation pro Bike



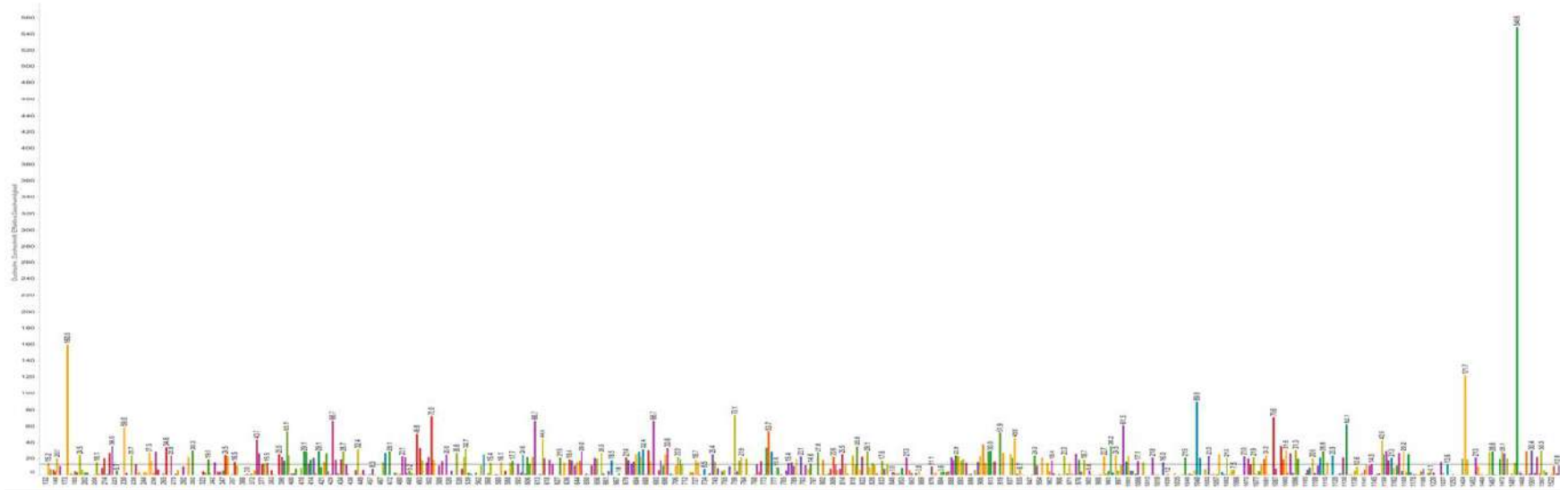
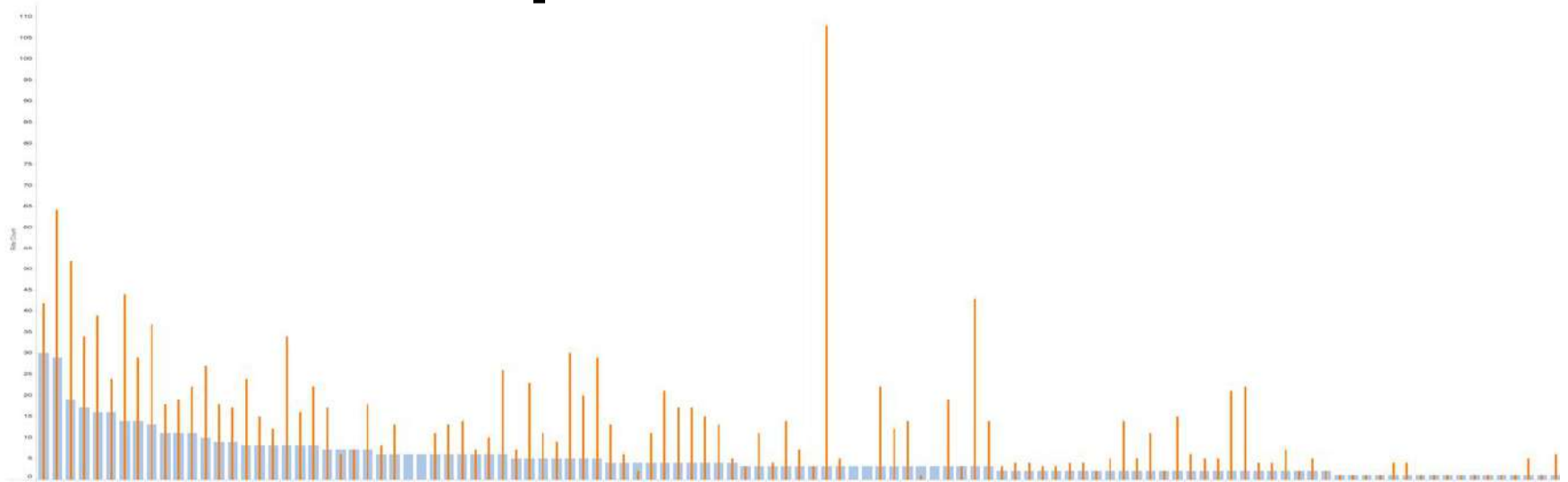
System Utilisation.



Mietdauer vs Fahrdauer

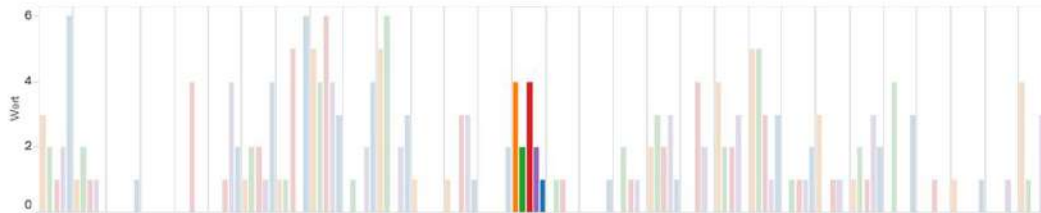


Technical aspects

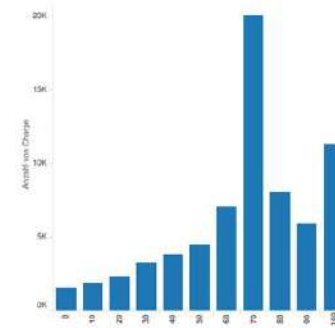


Energy

Spannungssprünge



Summe der Spannungssprünge



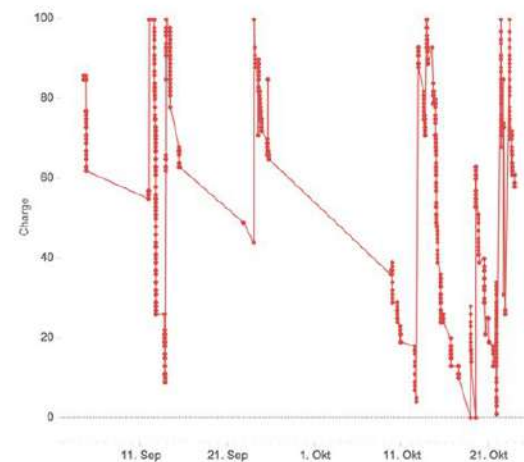
Verbrauch/KM



Energieverbrauch pro Bike



Energieverbrauch

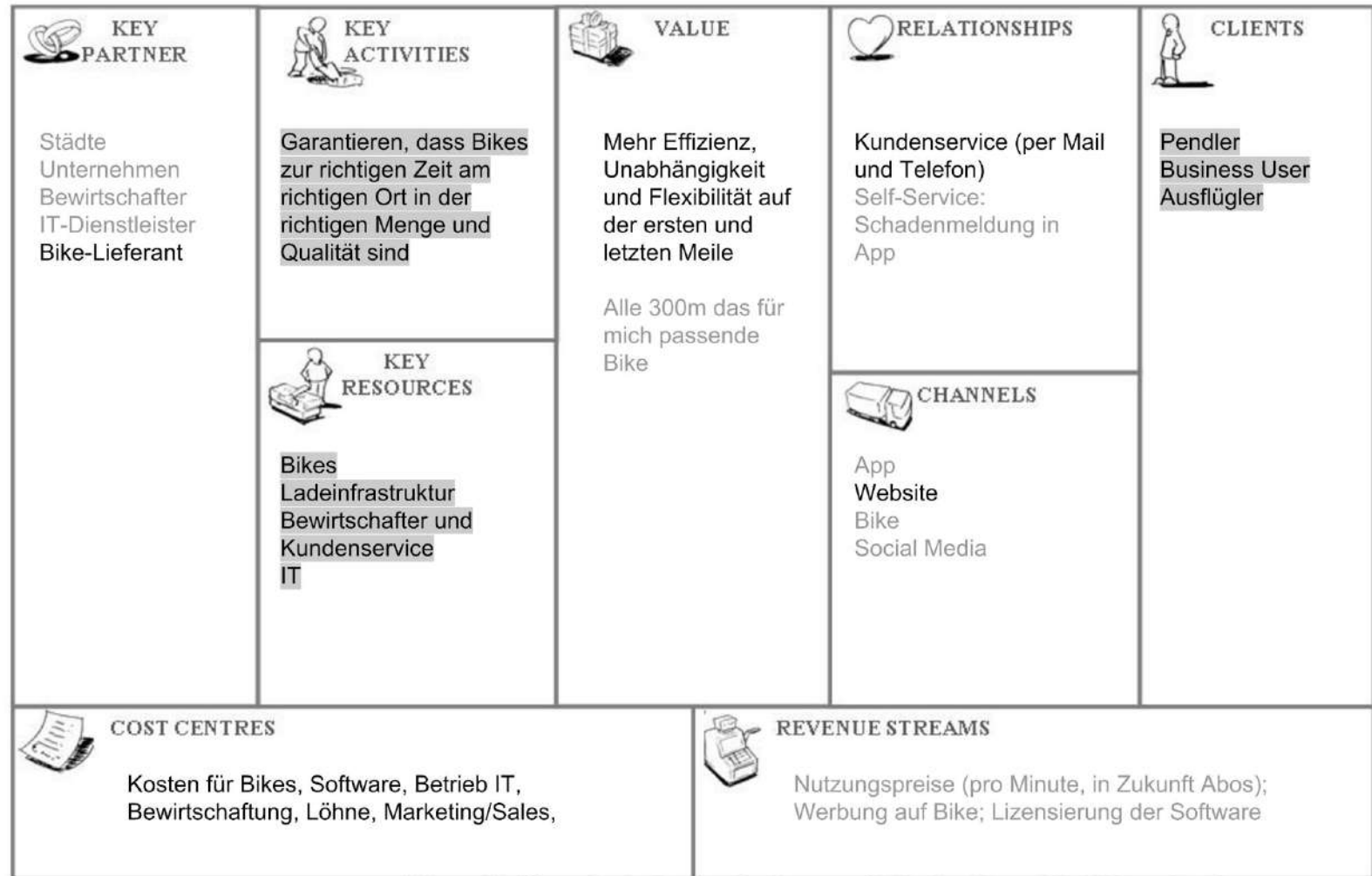


Data findings

1. Various user groups (excursions, commuters, business users + others)
2. User behavior changes over time (service level / battery charging)
3. Communication between Mobile - DB - Bike needs to be improved
4. Weather influences are less noticeable than imagined
5. App / Service Dashboard requirements are defined



Osterwalder Business Models

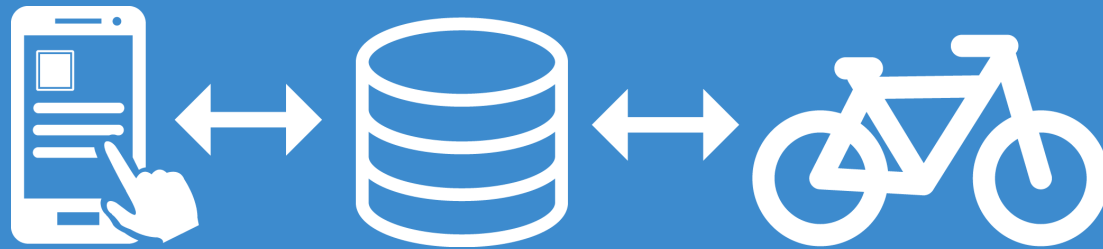


TAKE AWAY 1

1. **Testing / measuring is mandatory and brings insights.**
2. To operate a free floating e-bike sharing system economically, it needs:
 - intelligent technical systems
 - early implemented automation (e.g. processes, monitoring)
 - scalability possibilities (interface capability)



2. B2B Pilot Zürich25+



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17557.4 km

Zürich

Melbourne

6 weeks

8 companies

357 customers



Goals & data findings

Goal:

Understand
use case B2B
(scalability)

Where can value
be created?

Optimization
expenses

Multi client
capability

Technical development:

Bike:
Theft protection

Tools:
For B2B customers to
rent,
App for administrators

Operation:
Initialization service
team
→ simplified fleet
management tool

Measurements:

User behavior

System stability &
reliability:

→ GPS accuracy
(from 150m to
0-2m)

→ Accessibility of
bikes

Lesson learned:

→ Frame size

→ Operating
costs

→ Weather



2. B2B Pilot Zürich25+

Customer and employee feedback → great enthusiasm

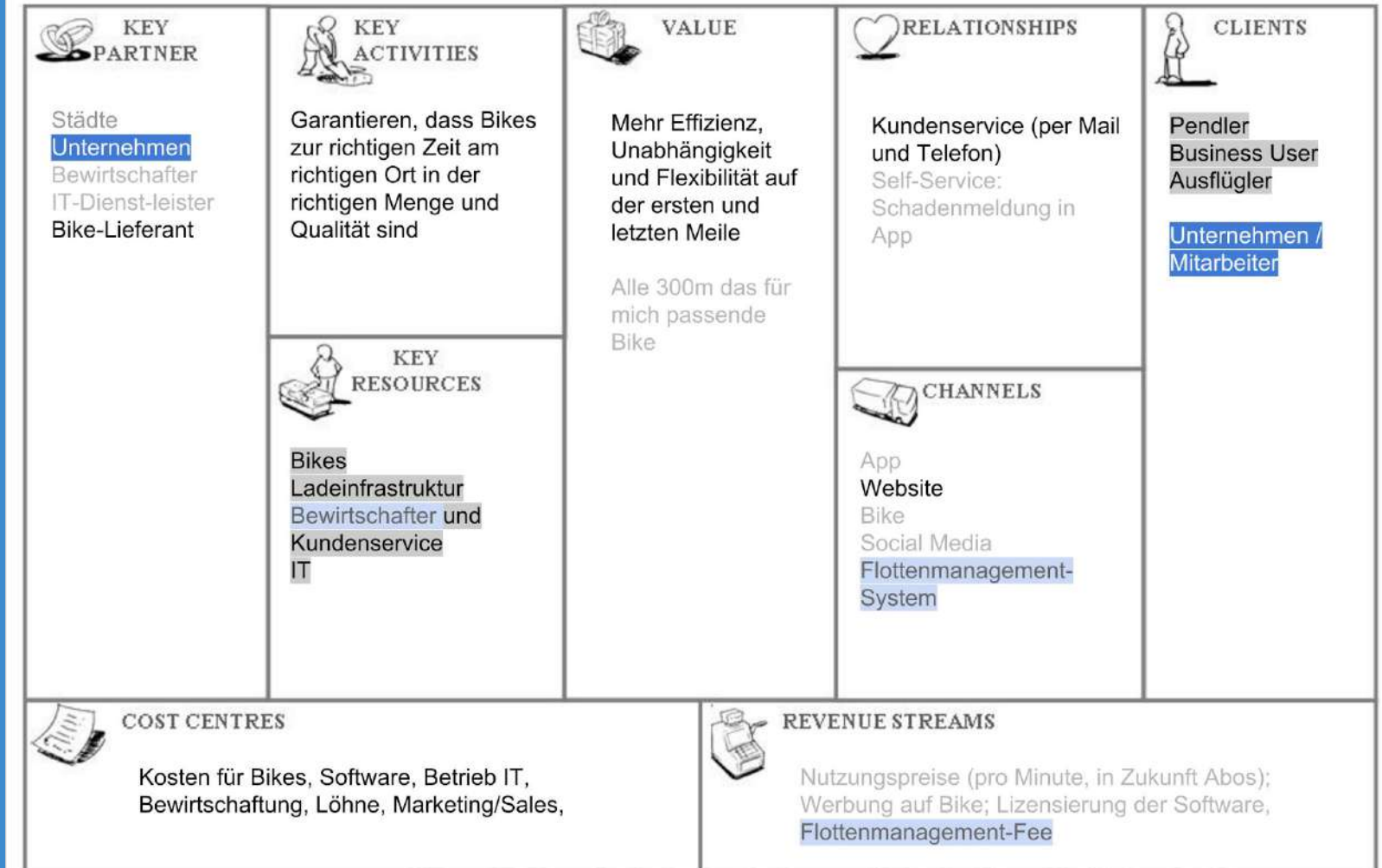
«Good vibes, positive feedback»

«Increases efficiency»

«We want to have»



Osterwalder Business Models



TAKE AWAY 2

With increased knowledge business cases develop further

That means for a project team:

- being flexible in one's own idea: nothing remains as it is
- working agile with open and changeable systems and structures
- make quickly new approaches and test them

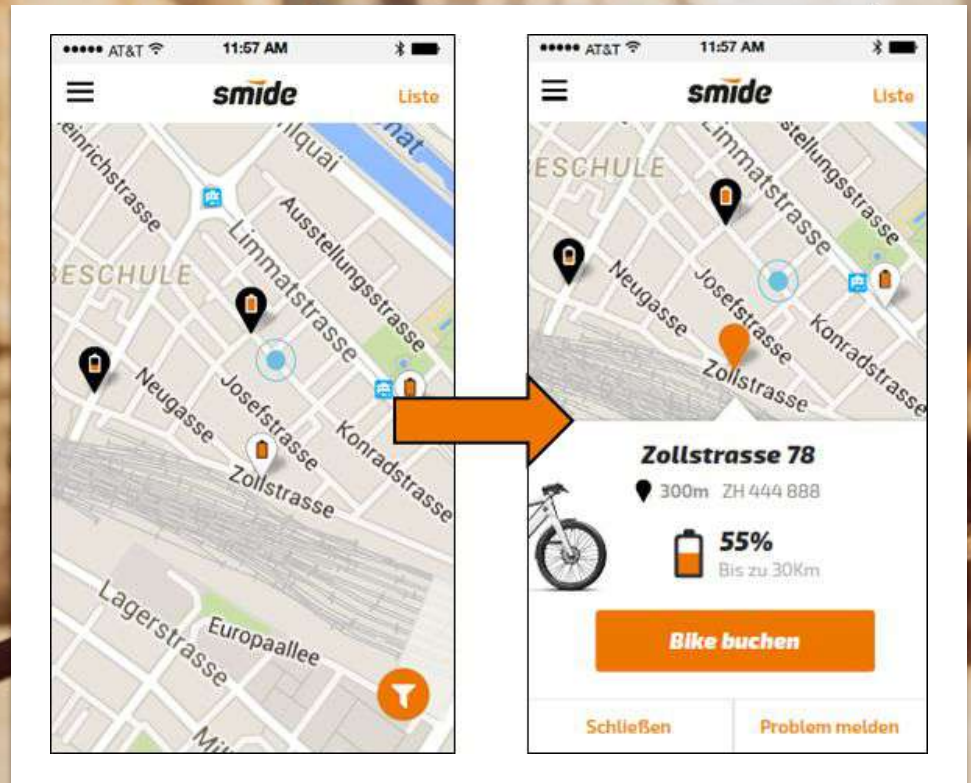


3. B2C Pilot Zürich200

The first free floating offer
for flexible mobility.



www.smide.ch

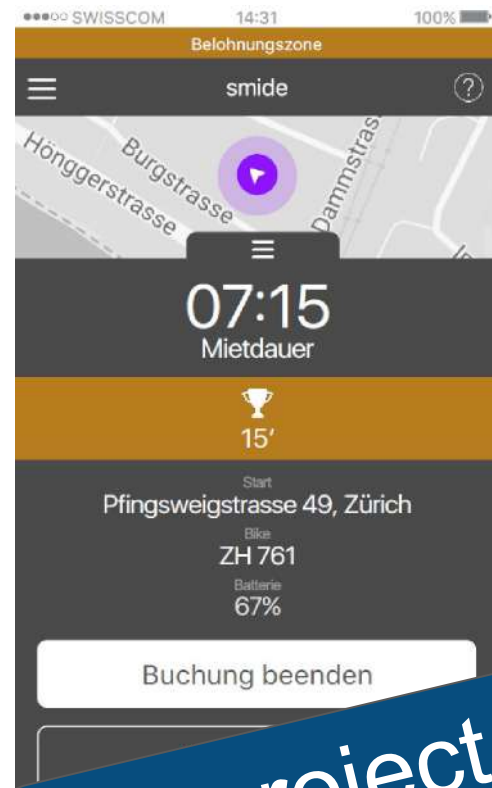
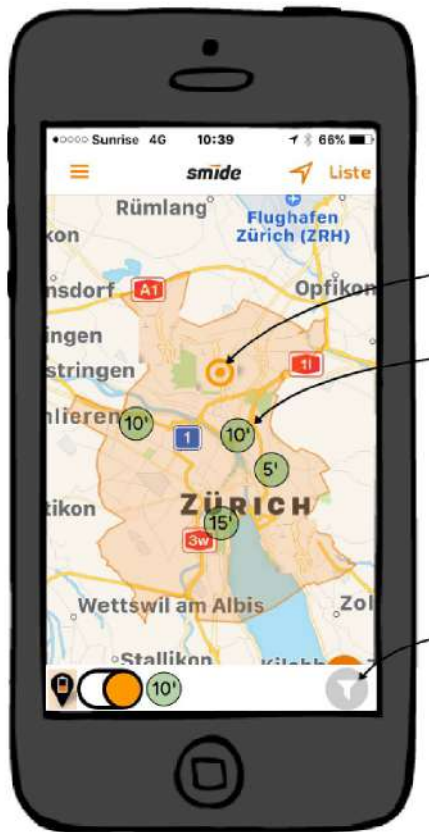


Goal

1. 300m
2. Co-Production/Co-Creation
3. Further measurements on behavior



Getting customers to do the job for you



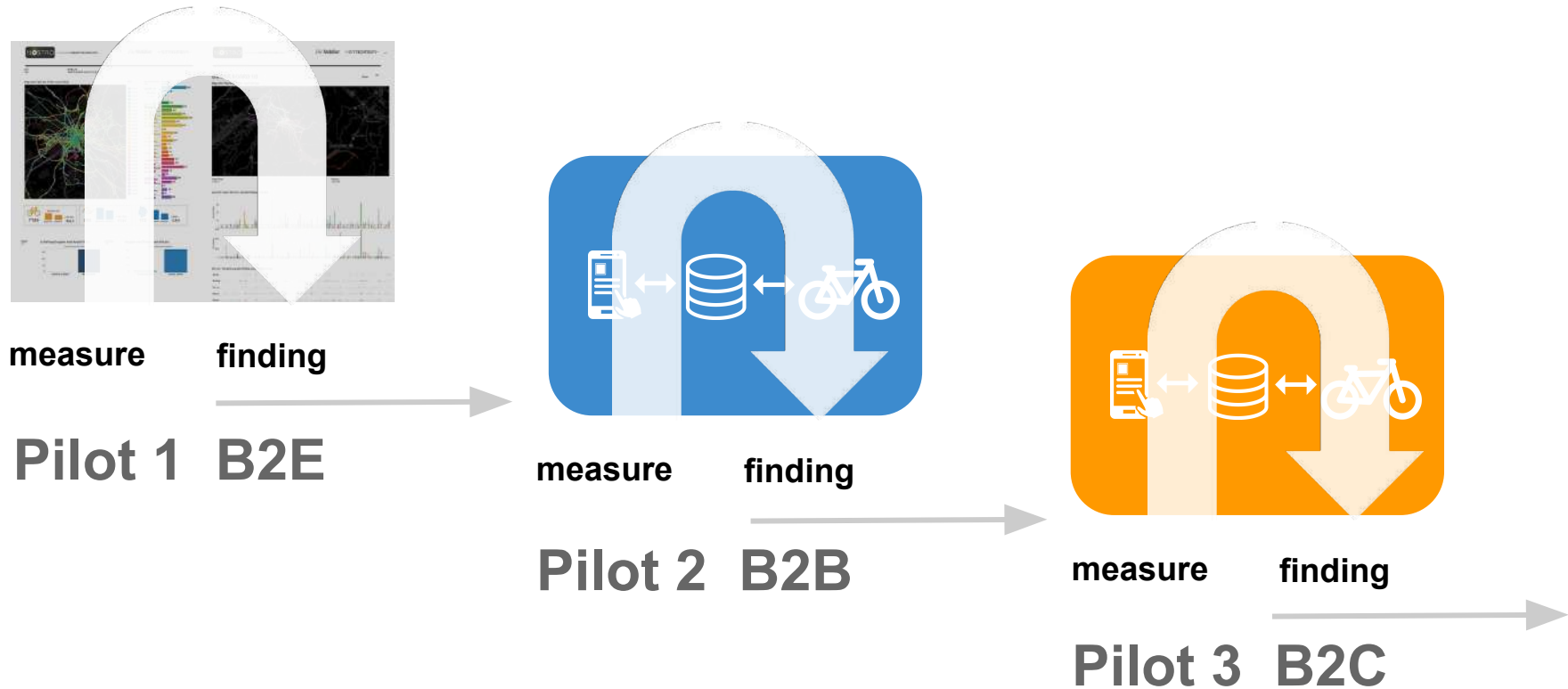
CTI project
with ZHAW



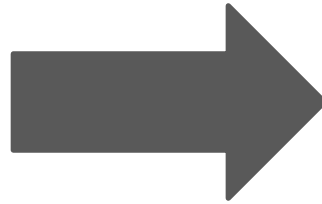
TAKE AWAY 3

1. Pilot means: develop MVP's
2. Keep your head up
3. Be always one step ahead.

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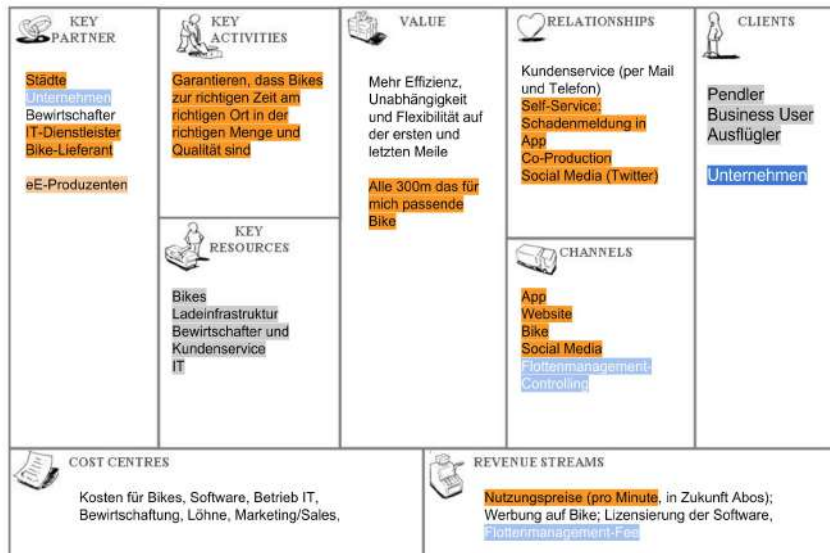


NEXT STEPS



From experimentation to operation!

NEXT STEPS



B2B2C?

- filling low capacities?
- e.g. garage or hotel

Scaling?

- New cities, countries, companies?
- Selling SW/HW-package or only SW?

Refining the Business Model

Data Driven Business Model for an E-Bike Sharing Offer

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