



VVO Dresden

May 4th 2017

Christian Fjaer – Ruter As – Oslo

Manager new sales channels and payments

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Ruter and RuterBillett

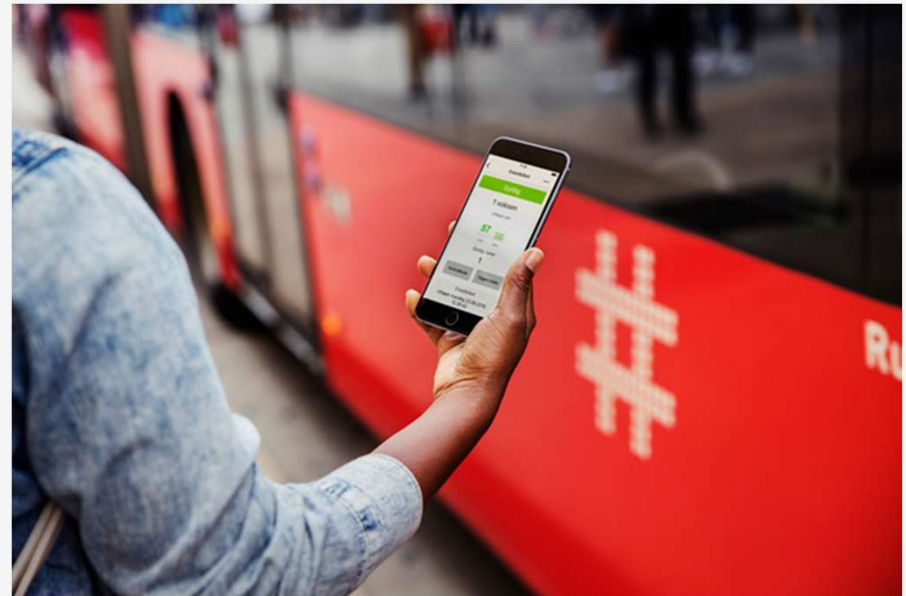
Our mobile ticket app

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350 million
Boardings a year

24 million
Mobiletickets a year

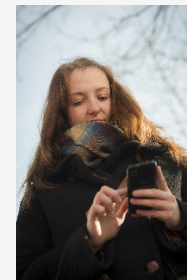
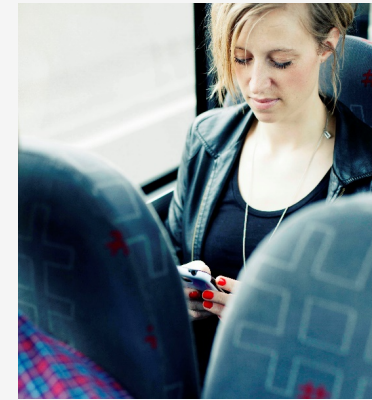
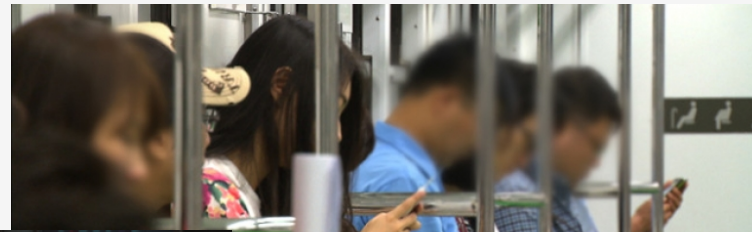
185 million
EUR in turnover on mobile a year



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Our travelers have the technology

- 87% of the population have a smartphone



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Availability Simplicity Efficiency

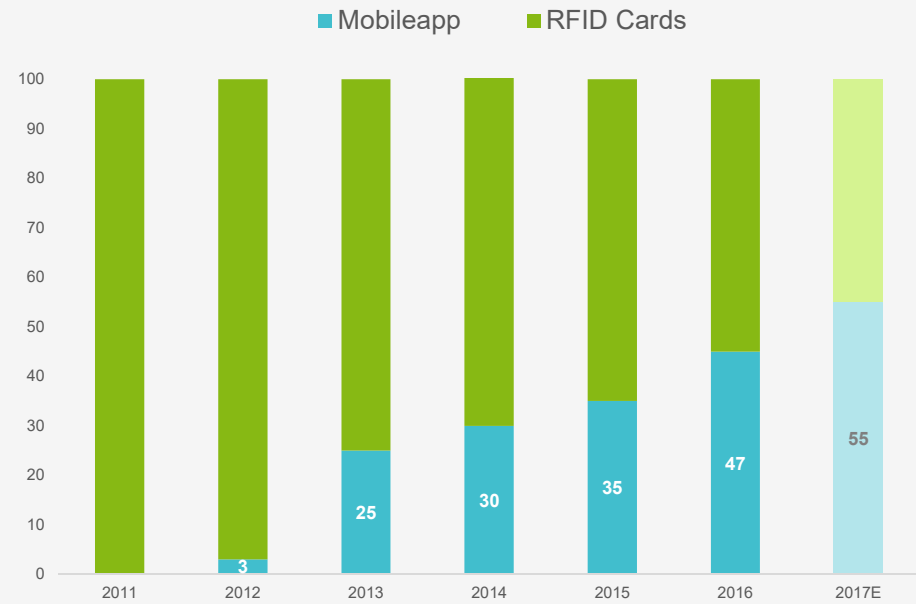
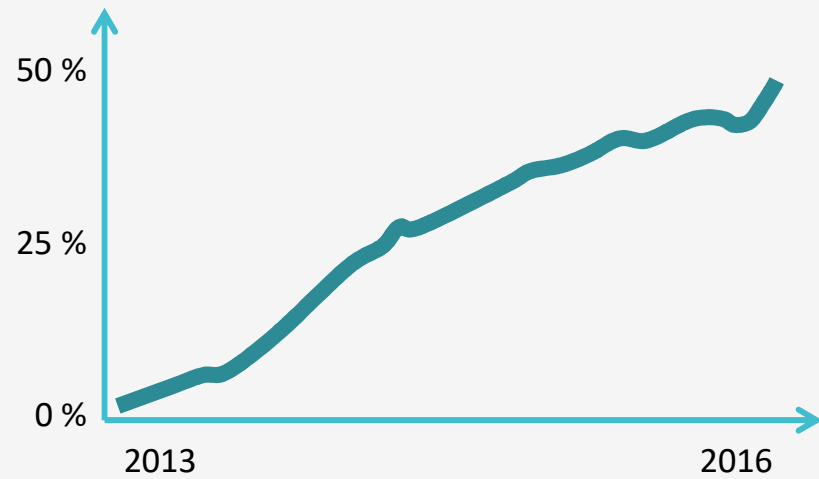


1.000 000 TVM's in the pocket



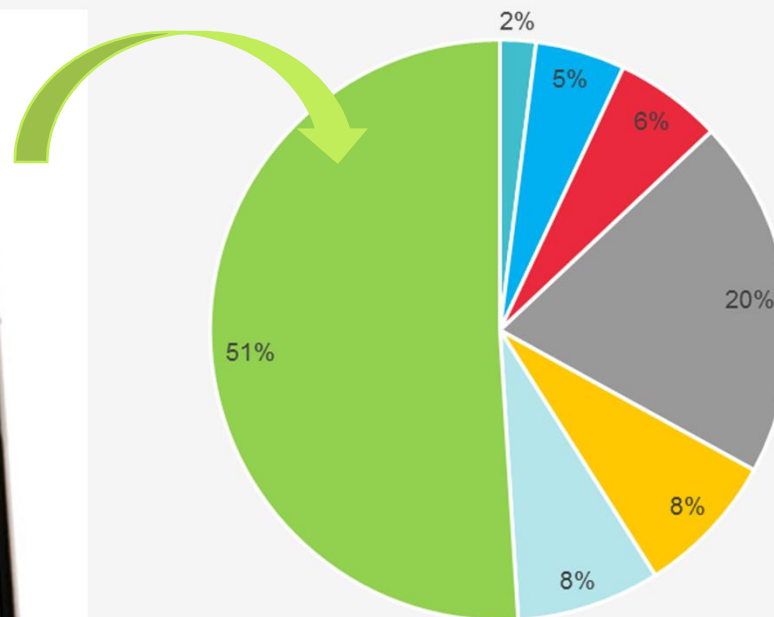
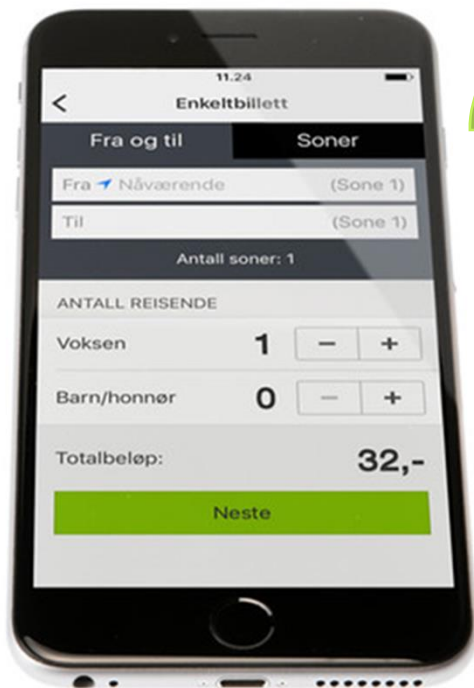
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Mobile ticket – a success story



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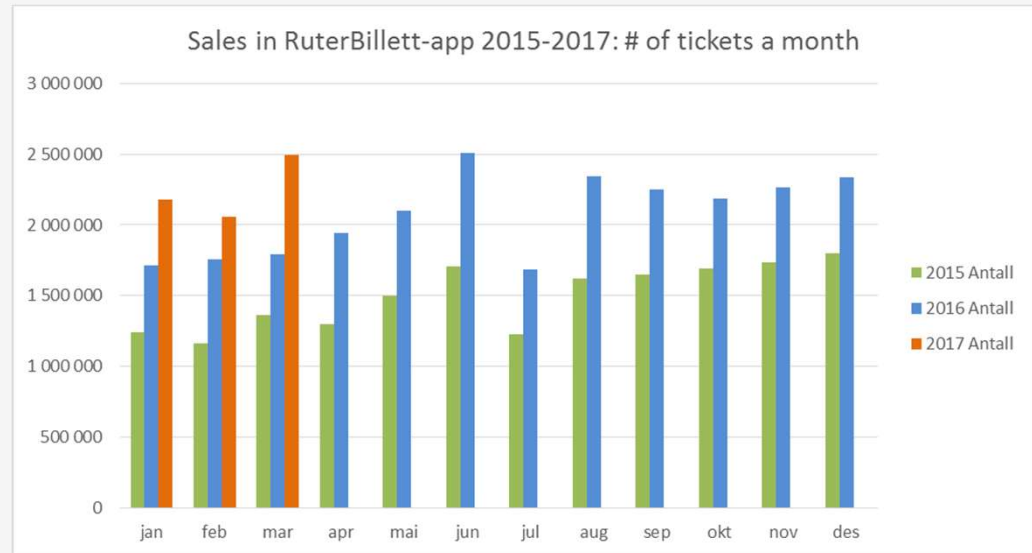
Distribution by sales channels



- On board
- Customer center
- TVM (170 units)
- Convenience stores
- NSB
- NSB mobile
- RuterBillett

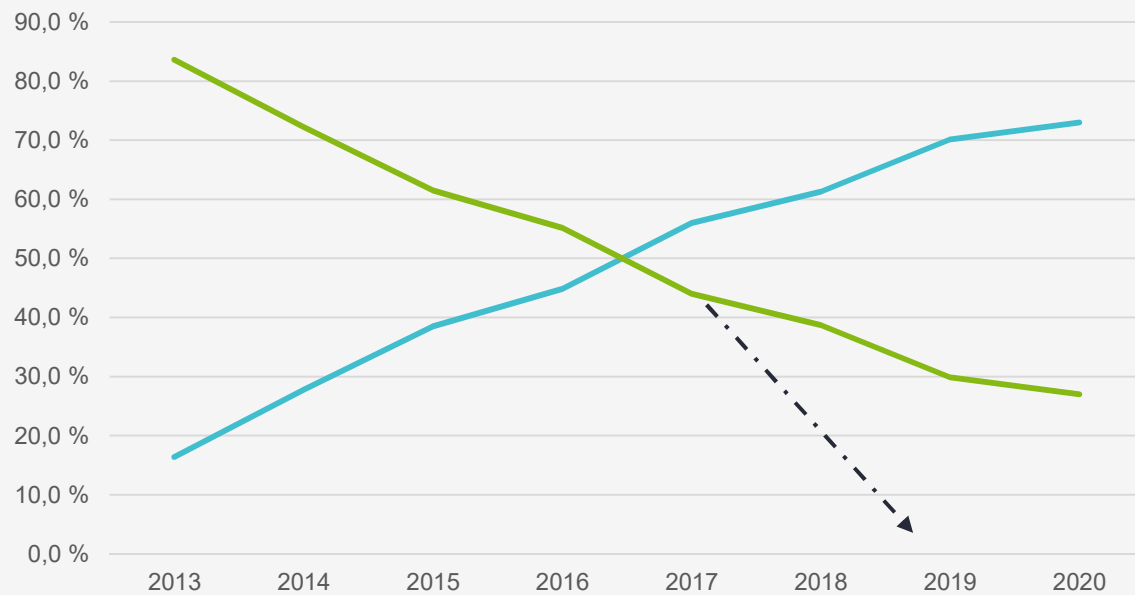
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Number of ticket sales last 3 years



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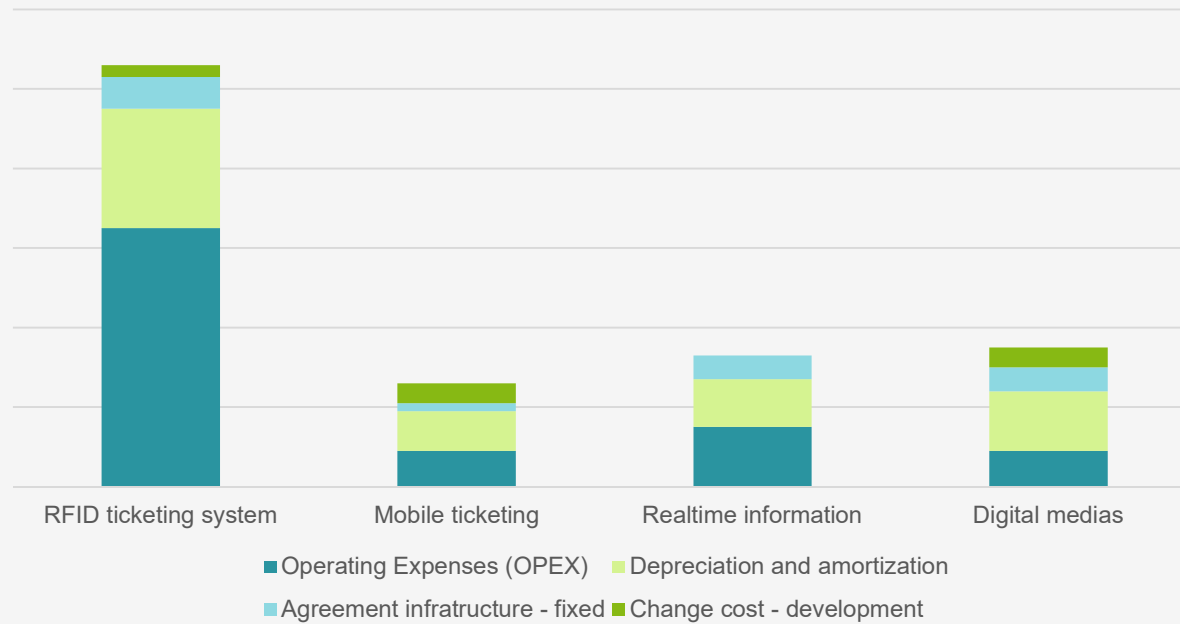
RuterBillett vs RFID Cards timeline prognosis



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Traditional vs. Mobile platform cost

IT system cost

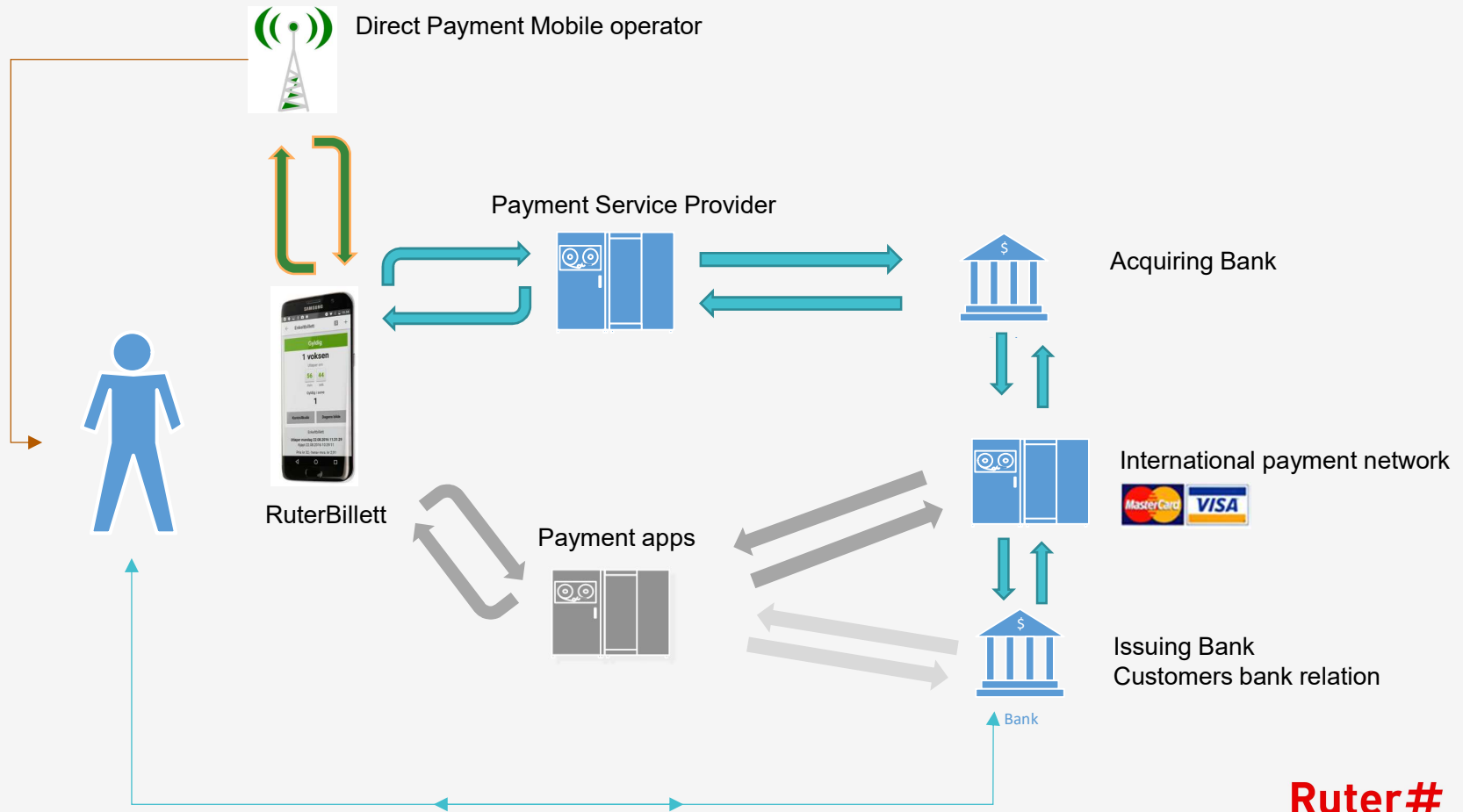


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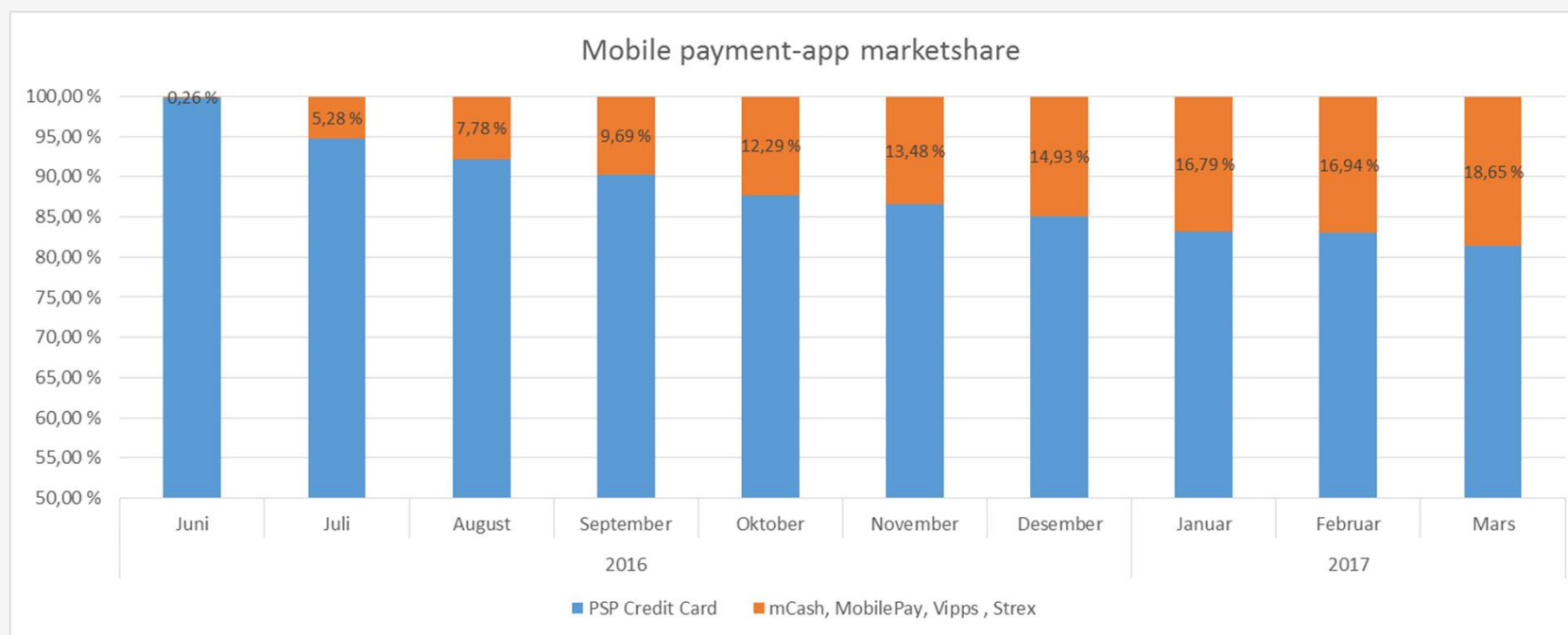
Mobile ticket app development



- **User experience (20 %)**
 - Mobile-app frontend
- **Backbone – core system (80 %)**
 - Integration layer, web services, API
 - Payment solution
 - Zones – stop register
 - Order database (current – future)
 - PSP CRM (customer database PCI DSS)
 - Siebel CRM customer service



New payment players - disruption



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Why not mobile?

- Do not own a smartphone
- Fear of empty battery
- Product sharing
- Satisfied with travel card



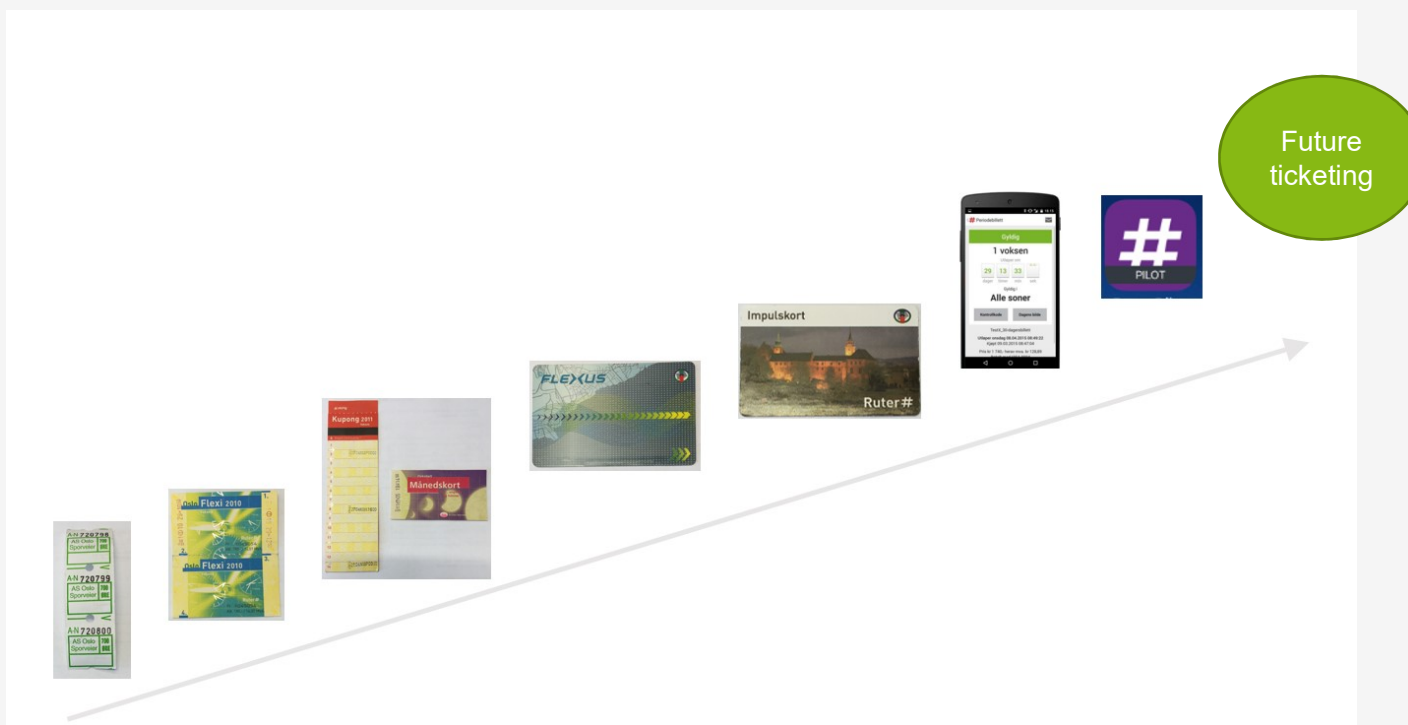
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Piloting the future

New technology platforms for fare collection, payment and other on board customer experience

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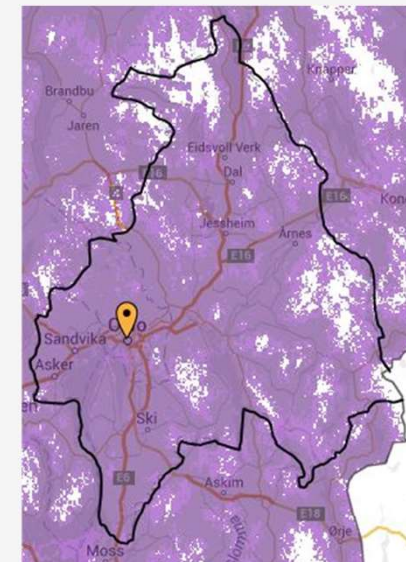
From paper to beacon: continuous simplification as an important tool for market growth and innovation



We are always online

- Our solutions are designed and operated as realtime, online solutions
- Some implications:
 - No more compensating for possible loss of connection, we trust the mobile networks
 - If we get a network failure, our systems don't work
 - No more «docking» or batch transfers

4G



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Next gen ticketing shall be based on the following



Customers
«To be where the customers are»



Technology
«Mobile and new technology have replaced the need for traditional travel card infrastructure»



Economy
«Cost efficient and flexible infrastructure taking care of revenue assurance»



Transition
«New ticketing solutions in parallel with the reality of today»

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NextGen back-end systems

Strategic angle

To enable mobility services visualized in 2016
Ruter report

Propositions

- Enable personalised services based on customer behaviour and external data enrichment
- Infrastructure light systems, less instalment of devices in vehicles
- Standard components, no proprietary systems



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NextGen back-end systems

Collection and enrichment of data streams from Beacons, GPS, Google traffic API, weather services and others.

New concepts – automatic fare debiting

Identify patterns in the passenger's location tracking history and assisting by prediction of their intended next steps

Traffic planning and ad-hoc re-scheduling

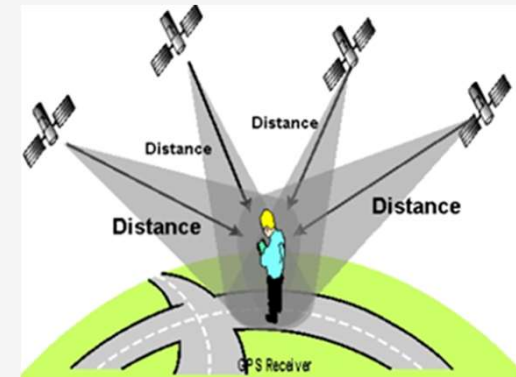
Driver enroute guidance



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Pilot-app 2016 - 2017

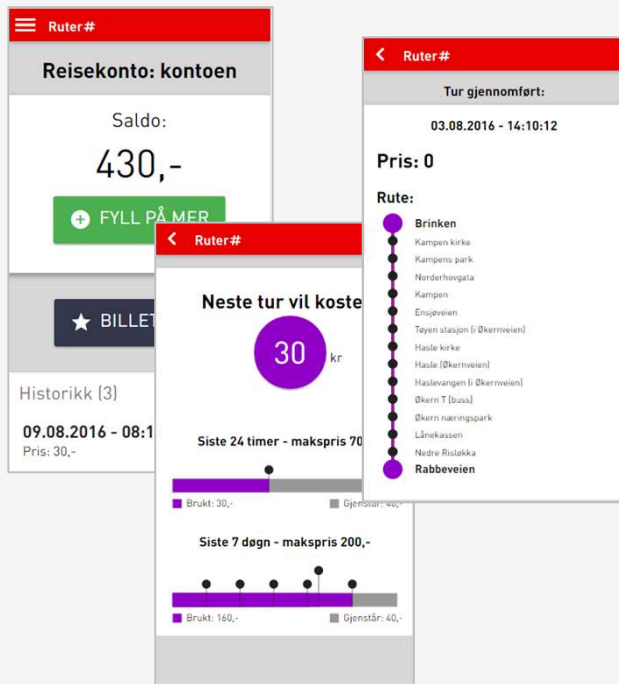
- Verification of technological capacity
- Pilot-app with payment functionality
- Installed beacons on 80 busses - citylines
- Spring 2017
 - Testing new ticket concepts
 - Testing combined mobility - MaaS
 - Testing personalised travel information based on location
- Data security and privacy



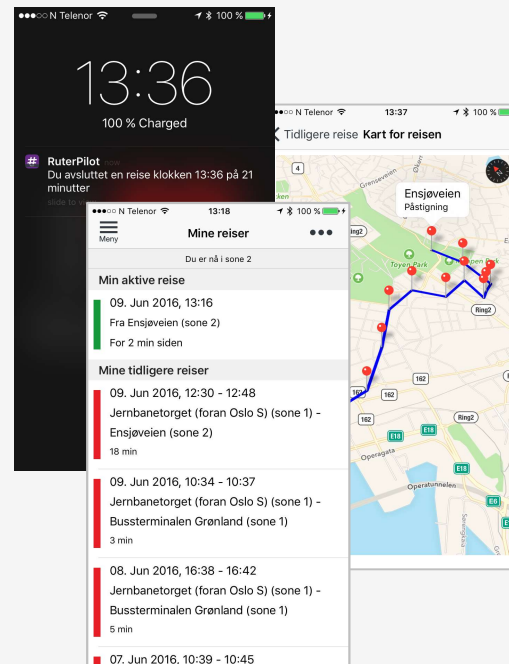
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The «RuterPilot»-app contains many functionalities

My account and fare concepts



Journey log



Other concepts, e.g. surveys



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