International benchmarking study
about transportation services
28.5.2018

"Last Mile" Project

- The "Last Mile" project ("Perille asti" in Finnish) aims to improve the mobility of local residents and travelers in the Helsinki Region:
  - Jätkäsaari in Helsinki
  - Aviapolis and touristic destinations in Vantaa
  - Nuuksio and Rantaraitti in Espoo

- It is a joint project of the city of Vantaa, Espoo Marketing, Forum Virium Helsinki, Metropolia UAS, Aalto University, and Demos Helsinki

- "Last mile" is funded by European Regional Development Fund through the "Six City Strategy" during 2017-2019

METROPOLIA PROJECT TEAM

- Project Manager: Kaija Haapasalo
- Project Co-ordinator: Christophe Buyle
- Project Assistant: Milka Holmberg
- Project Assistant: Valentina Zeljonaja

- More information: kaija.haapasalo@metropolia.fi

INTRODUCTION TO RESEARCH

- This international benchmarking research was done by the project team of Metropolia University of Applied Sciences during January-May 2018 as part of Last Mile project.

- The main objective of the research was to provide examples of mobility services implemented or under development in cities and recreational areas similar to the target areas and cities involved in Last Mile project.

- In total 41 cases from all over the world were summarized and presented with help of a "Case card".

- The template and content of the "Case card" as well as the main research questions are shown on the following slides.

INTRODUCTION TO RESEARCH

- Cases were categorized into 4 sub-categories; transportation services, mobility applications, tour packages and other.

- The purpose of the research was to provide ideas of possible new mobility services that could be tested and piloted also in Finland e.g. as pilots of the Last Mile project.

- Therefore each "Case card" includes a short analysis and suggestions of how the idea of the case could be implemented in Espoo, Vantaa or Helsinki. However, a deeper business model analysis is not included.

- Summary conclusions are presented for each of the three target areas on separate slides.

CASE CARD TEMPLATE

#

City	
Name of the area	Picture
Name of the case	

Description of best practices:

- Type of service/package
- Purpose and type of approach
- Volume of users
- All-year-round or seasonal
- Funding model of the service (share of stakeholders in the project if known)

Ideas for Last Mile project cities

Subcategory of Cases

Customer	

Market Place
B2B, B2C, B2E, B2G, B2M, C2B, C2C, G2B, G2C, G2E, G2G, P2P...

Mobility Systems
What technologies are required for the service to function?

Transport Modes/ Mobility Services
What transport modes or services are used in the case?

Needed Infrastructures
What infrastructure is required for the service to function?

Stakeholders

Private	Public
Private stakeholders	Public stakeholders

Required indirect services in order for the service to run

Supplementary Markets

Author of the Card

6Aika · Euroopan unioni · Vipuvoimaa EU:lta 2014–2020 · Uudenmaan liitto · Vantaa · visit espoo · FORUM VIRIUM HELSINKI · A! Aalto University · DEMOS HELSINKI · Metropolia University of Applied Sciences

RESEARCH QUESTIONS

1. ***What kind of mobility services are offered to customers and what is included in the service?***
- Type of service/package
- Purpose and type of approach
- Customer segments
- Volume of users
- All-year-round or seasonal
- Funding model of the service (share of stakeholders in the project if known)

2. ***What is the operating model behind the service?***
- Market place e.g. B2C, G2C, C2C etc.
- Transportation and mobility services used to provide the service
- Technologies required
- Infrastructure required
- Stakeholders (private companies, public organizations)
- Supplementary markets connected to the service

3. ***Is the service relevant for the Finnish environment and how it could be implemented?***

CONTENTS OF THE RESULTS

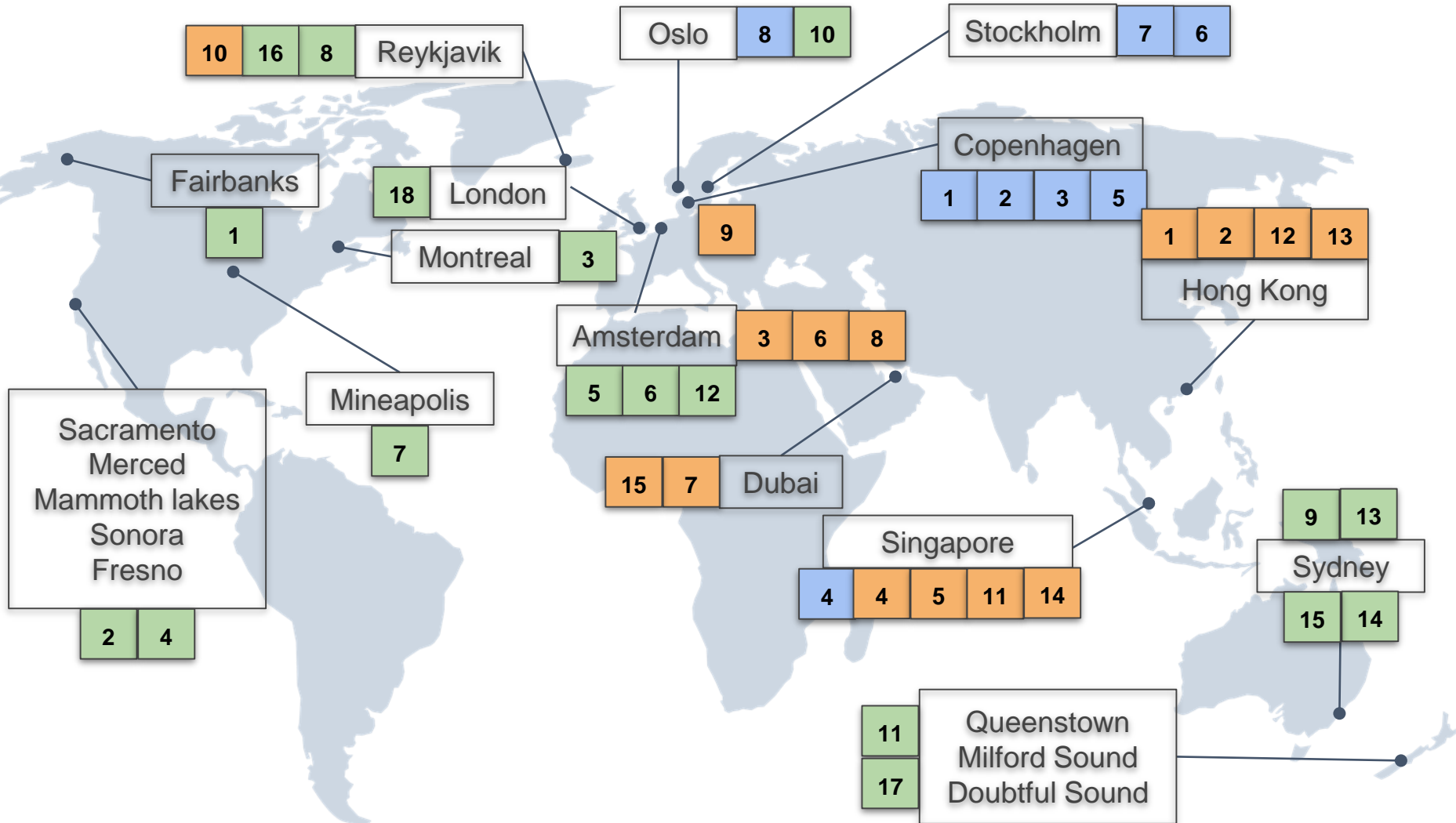1. Target areas of the study in Finland

2. Cases included in the benchmarking

3. Sub-categorisation of the cases

4. Presentation of the cases
   a. Natural Parks close to cities
   b. Archipelago and coastal areas close to cities
   c. Airport area close to a city

5. Conclusions

Target areas of the Benchmarking Study in Finland
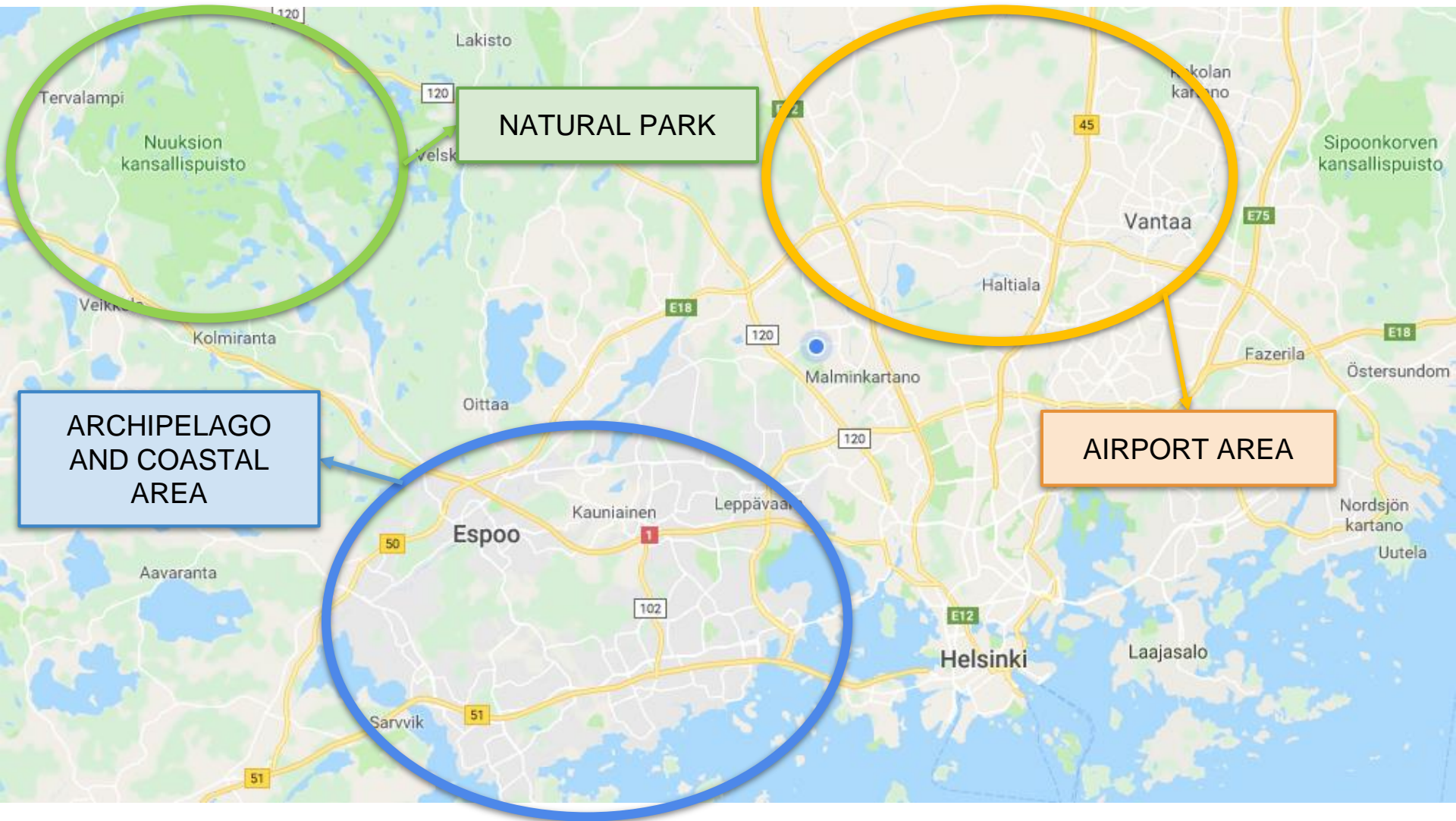
Cases included in the benchmarking study

Subcategories of the Cases

Transportation Service:	Represents primarily transportation service systems from point A to point B.
Mobility Application	Represents mobile applications that offer transportation services utilizing mobile database and other mobile resources.
Tour Package	Represents services for travellers including transportation service as a supplementary service. Primarily these tour packages aim at fulfilling other service needs of tourists than transportation needs.
Other	Represents services and solutions that have features which may benefit both the travellers´ transportation experiences or their other experiences of the target area. However, these services might not include transportation service as such at all.

Target areas of the Benchmarking Study in Finland

Transportation Services:
4 / 8 / 3
Mobility Applications:
3 / 7 / 6
Tour Packages:
1 / 1 / 3
Other:
0 / 2 / 3

NATURAL PARKS

List of Cases related cities close to Natural Parks

Transportation Services	1	**The Transit**	Transportation inside the U.S. Denali national park
	2	**Yarts**	Transportation from urban centers to Yosemite national park in the USA.
	3	**Park Bus**	Transportation from urban centers to Canadian national and provincial parks
	4	**Proterra Electric Buses**	Zero-emission shuttle buses in the Yosemite national park in the USA
	5	**White Bicycles & Blue Bikes**	Free bike sharing network inside De Hoge Veluwe national park in Amsterdam Holland.
	6	**OV Fiets**	Paid bike sharing network at the outskirts of Zuid-Kennemerland national park in Amsterdam Holland
	7	**Paddle Share**	Paid kayak sharing network at Missisippi River US
	8	**IcelandByBus**	Transport service from Reykjavik city center to hiking trails in Iceland
Mobility Applications	9	**Tripgo**	Australian personalized multimodal journey planner
	10	**Outtt**	Application listing outdoor adventures around the city of Oslo and providing information about available transport options
	11	**Choice**	Journey planner for activities in Queenstown New Zealand
	12	**Greenwheels app**	Application of a car rental company used to inform also about the activities in Zuid-Kennemerland National Park in Amsterdam Holland
Tour Package	13	**NPWS app**	Application informing about self-guided tours for hikers in national parks of New South Wales in Australia
	14	**Experience WA app**	Data directory of attractions, natural sights, restaurants, events, tours etc. in western Australia
	15	**Scenic World**	"A park inside the park" in Blue mountain park Sydney Australia (cable car attraction at the entrance for marketing purposes of the park)
	16	**BusTravel Iceland**	Guided day trip by bus in Iceland including a stop in the Thingvellir National Park
Other	17	**Destination Fjorland**	Data directory for transportation services and other activities in Milford and Doubtful Sound national parks in New Zealand
	18	**Beeline device**	Device for a bike navigation system in London Metropolitan area

Fairbanks

Denali National park

The Transit

The Transit is a hop-on-hop-off shuttle bus system that offers an affordable transportation option to move people around within the park from the parking lot of the visitor center. The green buses serve the park facilities at trailheads. Visitors can get off anywhere and flag down a transit bus back to the park entrance. Buses operate during the summer season from June to September. 65% of the seats are reserved for online booking while 35% can be purchased on arrival. A central reservation phone number is provided to arrange transportation from Anchorage and Fairbanks. There are restrictions on personal vehicle use in large sections of the Denali park which encourages visitors to travel by bus. The commercial services division is responsible for the transportation system and manages contracts with other private companies.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by creating a bus line stopping at gateways around the park (**"green ring"**). Buses will start from the main gateways of the park such as Haltia and Hotelli Nuuksio. These 2 bus terminals are hubs which are connected to urban centers with a separate shuttle (**"nature bus line").**

Subcategory of Cases	Transportation Service

Customer	Hikers, bike riders or nature travelers

Market Place

G2C: Facilitates transportation inside a national park

Mobility Systems

Online booking system for individuals & groups

Transport Modes/ Mobility Services

- 6 shuttle buses (one is specially adapted to the needs of hikers and cyclists)
- The camper bus ticket is valid during the entire stay at the campground
- The "Camper Bus" has space for 2 bikes at a time (advance booking)

Needed Infrastructures

- Vast parking area for day-trip-travelers, overflow lot for ovenight parking, rest areas, scenic points, campgrounds and the visitor center.

Stakeholders

Private	Public
Doyon & Aramark (Joint Venture	DENA Park

Mountain guides, air taxi, guided hiking, hunting, dog sled

Supplementary Markets

Author of the Card
Christophe Buyle

6 Aika · Euroopan unioni · EU:lta 2014–2020 · Vantaa · visit espoo · FORUM VIRIUM HELSINKI · Aalto University · DEMOS HELSINKI · Metropolia University of Applied Sciences

Merced, Mammoth Lakes, Sonora & Fresno

Yosemite National Park

Yarts

The "**Yosemite Area Regional Transportation System**" (**Yarts**) is a public transit service helping 100.000 passengers per year to travel between the main cities surrounding the Yosemite National Park. Buses connect all intercity transit providers from 4 cities including 2 airports to the local shuttle buses which operate within the national park. There is a one-year-round-route and three seasonal routes operated from June to September. Vistors are hikers, bike riders or nature travelers. **Yarts** mainly relies on grants from the federal, state and local institutions while the passenger fares represent around 18% of the budget.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by launching a bus line (**"nature bus line")** which will connect the airport, train stations and bus terminals to the main gateway of Nuuksio such as Haltia and Hotel Nuuksio. A local network of shuttle buses (**"green ring"**) could take further to other park facilities in Haltia, Haukkalampi, Högbacka, Kattila, Siikaniemi, Hotelli Nuuksio, Veikkola, Lake Kurjolampi etc.

Subcategory of Cases	Transportation Service

Customer	Outdoor enthusiasts, park employees & residents

Market Place

G2C: Transportation from urban centers to a national park

Mobility Systems

- Online booking system
- Interactive map (Stops, trip ideas)

Transport Modes/ Mobility Services

- Shuttle buses starting from 4 cities (4 routes)
- Park entrance fee is included in Yarts fare
- "Park & Ride" facilities are available at walking distance from bus stops
- Storage compartments for bikes

Needed Infrastructure

Car park facilities for overnight and multiday-users, buses and stops. The stops are located in the city areas (airports, train stations and long-distance-bus-terminals), within the communities living around the park and inside the park (campgrounds and trail departures).

Stakeholders

Private	Public
Doyon & Aramark (Joint Venture	DENA Park

Supplementary Markets

- Community members making their living from tourism

Author of the Card
Christophe Buyle

Vancouver, Toronto, Montreal, Ottawa, Halifax

Canadian National and Provincial Parks

Park Bus

ParkBus connects city dwellers from major Canadian cities to National and Provincial Parks with affordable bus services. Since 2010 ParkBus has transported thousands of people either for a day trip, a weekend trip or for longer stay. Departures are from Toronto, Vancouver, Halifax, Ottawa and Montreal. ParkBus collaborates with the community ActiveDays which facilitates activities for outdoor enthusiats and NatureLink which provides subsidized transportation park to newcomers in Canada. As part of a partnership with MEC (cooperative selling outdoor recreation products), ParkBus will provide tranasport to the participants of the 5 Toronto Trail Race Series in 2018.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by promoting nature activities to people living in Helsinki region. Buses will start from Helsinki and stop in Espoo on their way to Vantaa during the weekend (**"nature bus line"**). Retail sport companies and outdoor enthusiats and communities could be partners of the project. The bus line could have flexible schedule serving a different destination or event each weekend.

Subcategory of Cases	Transportation Service

Customer	Outdoor enthusiasts, park employees & residents

Market Place

G2C: Transportation from urban centers to a national park

Mobility Systems

Booking system

Transport Modes/ Mobility Services

- Buses
- Outdoor trips for groups

Needed Infrastructures

- Specific bus stops at departure and arrival

Stakeholders

Private	Public
MEC TD (Bus Insurance) Smart Adventures	Transportation Options, BEST, ActiveDays, NatureLink Parks Canada, Ontario Trillium, Ontario Parks , Government of Ontario, BC parks

Supplementary Markets

- Outdoor programme to newcomers in Canada
- Expanding to parks arounds Mexico (Air Libre & Nana)

Author of the Card
Christophe Buyle

6 Aika · EU:lta 2014–2020 · visit espoo · FORUM VIRIUM HELSINKI · Aalto University · DEMOS HELSINKI · Metropolia University of Applied Sciences

Sacramento

Yosemite National Park

[Proterra Electric Buses](#)

Proterra designs and manufactures zero-emission-heavy-duty-buses. The company provided the Yosemite National Park with two "Proterra Catalyst" buses recently to expand its existing fleet. With 5 million visitors each year Yosemite faces transport congestion. The park encourages visitors to leave their car at one of the entrance and use shuttles to circulate between lodges, scenic viewpoints and trailheads. These free buses travel 701 673 km and manage 3.8 million boardings per year. The Proterra buses will be launched by the end of 2018 and are expected to transport 1480 visitors annually all-year-round. The park will save about 150 000$ in operational and maintenance costs.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by limiting car access in the busiest and more congested parts of the park such as Haukkalampi. Large car parks will be created at Haltia & Hotel Nuuksio from where electric buses will transport visitors to trailheads and other gateways around the park (**"green ring"**).

Subcategory of Cases	Transportation Service

Customer	Outdoor enthusiats, park employees & residents

Market Place

B2G: First U.S. National Park to add zero-emission buses to its shuttle fleet

Mobility Systems

Transport Modes/ Mobility Services

- Electric buses
- Service packages:
  - Fast turn parts
  - Training, phone support, route simulation, electric bill optimization, onsite field service technician...

Needed Infrastructures

- Charging stations
- Repair and maintenance shop

Stakeholders

Private	Public
[Proterra](#)	[Yosemite National Park](#)

- Tourist information and services around car parks at entrance gates.

Supplementary Markets

Author of the Card
Christophe Buyle

6 Aika | Vipuvoimaa EU:lta 2014–2020 | Vantaa | visit espoo | FORUM VIRIUM HELSINKI | Aalto University | DEMOS HELSINKI | Metropolia University of Applied Sciences

Amsterdam

De Hoge Veluwe National Park

White Bicycles & Blue Bikes

Visitors can discover the De Hoge Veluwe National Park by bicycle. 1800 **White Bicycles** are located in storage facilities at the park entrances and inside the park (next to the museums). The White Bicycles are free of charge and cannot be locked. There is an option to hire **Blue Bikes** from the central area in case visitors want to reserve a bike in advance. In addition, it is possible to rent private bikes from several shops located around the park. The purpose of the White Bicycles plan is to offer the opportunity to enjoy nature to everyone.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by extending the city bike network to all park entrances such as Haltia, Haukkalampi, Högbacka, Kattila, Siikaniemi, Hotelli Nuuksio, Veikkola, Lake Kurjolampi. Visitors will use the bus line connecting the city center to Nuuksio (**"nature bus line"**) to reach a park entrance from where they will continue the journey by bike. Due to the geography of the area only places of interest located at the periphery of the park are reachable by bike (**"green ring"**).

Subcategory of Cases	Transportation Service

Customer	Tourists & City Dwellers

Market Place

G2C: Free bike sharing network inside the national park

Mobility Systems

- Online booking system for the Blue Bikes
- No technology for the White Bikes

Transport Modes/ Mobility Services

- Adult Bikes
- Kids Bikes without side wheels
- Bicycles with front or rear child seats
- Wheelchair bicycle and tricycles
- Travel package including the pass for the park and the bus ticket from and to surrounding train stations

Needed Infrastructures

- 40 kilometers of designated cycling paths
- Storage facilities
- Workshop

Stakeholders

Private	Public
De Hoge Veluwe National Park (Independent National Park)	ANWB

- Supports the local business community: Activitiy planner with a booking system .

Supplementary Markets

Author of the Card
Christophe Buyle

Amsterdam

Zuid-Kennemerland National Park

OV Fiets

The purpose of the **OV fiets** is to remove the burden of the last mile in the journey chain for travelers using public transportation. There are 7 OV stations around Zuid-Kennemerland National Park which are located nearby train stations. The bike stations in the surroundings of the Zuid-Kennemerland National Park are mentioned in the section "how to get there" in the website of the park. Bicycles can be picked up from guarded bicycle storage or automated lockers at railway, bus, and metro stops as well as from town centers and park & ride areas. OV bicycles are part of a self-service bike network in Amsterdam, Utrecht and Rotterdam. The rent of an OV bicycle is € 3.85 per 24 hours.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio at summertime by opening bike routes between town centers located close to the park entrances. Bike stations could be located at Veikkola, Nummela and Espoon Keskus next to train stations and bus stops. Users could reach trails at Kurjolampi, Hotel Nuuksio, Siikaniemi or Haltia with an acceptable effort.

Subcategory of Cases	Transportation Service

Customer	Tourists, Residents & Commuters

Market Place

G2C: Paid bike sharing network at the periphery of a national park

Mobility Systems

- Chip card to unlock bikes at the stations
- Scanners for bike rental at guarded storages

Transport Modes/ Mobility Services

- Bikes
- The OV card entitles its holder to borrow up to 2 bicycles from 7 locations around the park.

Needed Infrastructures

- Bike trails, train stations, bus terminals, metro stops, town center, park & ride area, automated locker and guarded storages

Stakeholders

Private	Public
	Nederlandse Spoorwegen

Supplementary Markets

- The OV-fiets season ticket can be connected to traditional transport systems (Train, tram, metro and bus) but also to NS Zonetaxi and to Greenwheels short term car rental provider. The user can link the card to bicycle storage facilities and Q-park parking space.

Author of the Card
Christophe Buyle

6 Aika · EU:lta 2014–2020 · Vantaa · visit espoo · FORUM VIRIUM HELSINKI · Aalto University · DEMOS HELSINKI · Metropolia University of Applied Sciences

Minneapolis and St. Paul

Mississippi National River

Paddle Share

Paddle Share is a new recreational and transportation service available in the Minneapolis and St. Paul area. People can explore the Mississippi River with a kayak on their own. First, users make an online reservation for a kayak from one the 7 Paddle Share rental locations (up to 21 days in advance and several boats for 3 hours). When people are on paddle share rental location they unlock their kayak and accessories with an access code received by email or text message. At the end of the excursion, all equipment is returned to a selected kayak station.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by creating Kayak stations at Nuuksion Pitkäjärvi next to Haltia, at Siikajärvi close to Nuuksio Hotel, at Haukkalampi nearby Haukkalampi car park and at Salmijärvi by Salmen Tupa café. All kayak stations should be at a walking distance from bus stops, car parks or bike stations.

Subcategory of Cases	Transportation Service

Customer	Tourists & Residents

Market Place

G2C: Paid kayak sharing network in a national park

Mobility Systems

- Booking and payment system

Transport Modes/ Mobility Services

- Kayak
- Nearby "Bike Share" stations
- 6 single (25$) and 2 tandem (40$) kayaks

Needed Infrastructures

- Kayak stations with lockers

Stakeholders

Private	Public
Current Design Wheel Fun Rental REI co.op	NPS Mississipi Park Connection St Paul

- Some stations are connected to the rest of city transport network (River Trip Planner).

Supplementary Markets

Author of the Card
Christophe Buyle

Reykjavik

Thingvellir National Park

IcelandByBus

IcelandByBus offers non-guided bus routes from Reykjavik during the summer season to the Highland hiking trails located in the southern Iceland. IcelandByBus is operated by the travel agency Sterna Travel. The "Highland Hikers" passport includes a transfer from Reykjavik to the starting point of the hike and from the end of the hike back to the capital. The travel pass is bought online and seats are guaranteed after the check-in which has to be done at least 24 hours prior departure. Hikers get 2 transfers which are valid on 3 routes between June and September.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by creating and promoting hiking trails as an touristic attraction accessible directly from the airport or city center. Promotion of such outdoor activities will support the attractiveness of the bus line ("**nature bus line**"). Haltia, Nuuksio Hotel or other gateways which have already important volume of visitors could be the starting/finishing points of these type of excursions.

Subcategory of Cases	Transportation Service

Customer	Hikers

Market Place

B2C: Transportation for hikers from urban center to a national park

Mobility Systems

- Online Booking System
- Check-in system

Transport Modes/ Mobility Services

- Buses
- Pick up from 2 places in the center of Reyjavik
- Transportation of bikes on request
- Possibiity to ask/call the driver to be droped off / picked up at optional stops

Needed Infrastructures

- Bus stops for pick up and drop off
- Parking for busses at the attractions
- Roads

Stakeholders

Private	Public
Icelandbybus Sterna Travel	

- Provides day tours and activities.

Supplementary Markets

Author of the Card
Christophe Buyle

Sydney

Harbour National Park

Tripgo

Tripgo is an Australian mobile application, which combines information about the public transport system and private transport solutions. The App lists all possible options which enable to reach the destination for 200 locations around the world. For example the user will be proposed to get to Sydney Harbour National Park by 7 different modes of transport such as bike, Uber, bus, own & rental cars, boat or taxi.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio in order to get to Haltia during the summer by adding a water transport option to the journey chain. If different types of transport options are offered to the tourists, they can explore the Finnish culture at its fullest (forest, archipelago & shopping). A boat trip from Aalto University at Otaniemi to Espoonlahti (Marinsatama) offers the visitors a possibility to experience the archipelago. Addition of the scheduled Espoo archipelago boats itineraries to the HSL or Whim application would increase the range of possibilities to access Nuuksio. Connecting stops to Nuuksio at Haukilahti, Nokkala (Matinkylä), Suinonsalmi, Soukka, Ristiniemi, Kivenlahti would enrich travelers´ experience of Espoo.

Subcategory of Cases	Mobility Application

Customer	Tourists & Residents

Market Place

B2C: Personalized multi modal journey planner

Mobility Systems

- GPS Navigation & Agenda integrator
- Door-to-door trip planner & booking systems

Transport Modes/ Mobility Services

- Bus, train, ferry, tram, subway, metro, rail, taxi, cabs, ride sharing, shuttles, individual cars, car sharing, motorbikes, individual cycles, bike sharing and walking.
- Compares and combines transport modes
- Connects user´s calendar to trip planner automatically and provides the best option of transport to reach the next destination

Needed Infrastructures

Stakeholders

Private	Public
TripGo Skedgo	

- Coming soon: Trip planner module for the franchise and retail sector

Supplementary Markets

Author of the Card
Christophe Buyle

6Aika · EU:lta Vipuvoimaa 2014–2020 · Vantaa · visit espoo · FORUM VIRIUM HELSINKI · A! Aalto University · DEMOS HELSINKI · Metropolia University of Applied Sciences

Oslo

Natural sights around the city

Outtt

Outtt is an application that provides descriptions, local tips, maps and pictures of outdoor activities in Norway. The purpose of the App is to make outdoor activities more accessible to local and international hikers and help Norwegian Regions & Cities with marketing. The natural sights around Olso are categorized as "adventures in the city", "island hopping" and "a weekend hiking". The App presents the most popular adventures around the city as "tiles" by type of interest. Public transportation in Oslo has it own section called "getting around Oslo", which gives the links of the major transport providers operating in the capital. Eventhough there is no journey planner included in the app, there is a detailed description of the journey chain for each adventure.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by creating an app which lists all activities and places of interest available from each gateway of the park (Haltia, Haukkalampi, Kattila, Siikajärvi, Siikaranta and Luukki/Vaakkoi/Salmi). Users get a thorough description of the places and can select the best options of transport to reach them with help of this kind of journey and booking system. Activities and places are presented into "tiles".

Subcategory of Cases	Mobility Application

Customer	Outdoor enthusiasts – Norwegian Regions & Cities

Market Place

B2C: Provides information about the outdoor adventures around Olso and about transport options

Mobility Systems

- GPS Navigation when hiking

Transport Modes/ Mobility Services

- Detailed description of the journey chain to the natural sights
- Option to download maps for offline use when hiking
- Option to record information about the hike, add photos, take notes of the adventure
- Database of trails and sights from the community

Needed Infrastructures

Stakeholders

Private	Public
Kilmen til veksy StartupLab Bielke&Yang	Innovation Norway

Supplementary Markets

- Lists services available on sites such as restaurants, café...
- Possibility to contact a local guide
- Value for cabin owners and local business community

Author of the Card
Christophe Buyle

Queenstown

Natural sights around the city

[Choice](#)

Choice is a real time transport application facilitating the discovery of Queenstown in New Zealand. The purpose is to reduce waiting time of travelers so that they can enjoy their stay at its fullest. The App combines several modes of transport from different operators into one platform. It is possible to use the App from abroad so that travellers can explore the city before their arrival. This service reduces language barriers as it is available in four languages. The user is given several options of transportation in order to reach the desired service or sight. Solutions are categorized e.g. into "snow", "relax" and "explore" tiles.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by adding all activities available within and around the park (such as skiing, fishing, climbing, birdwatching, hiking, hut, berry & mushroom pick up, canoeing, sights & scenery, cycling, horsing, skating or swimming) into the [HSL](#) or [Whim](#) journey planner. Outdoor enthusiasts would be use the app to search activities instead of entering an address to get to a desired place. Transport options are included in the description of the activity through a "get there" feature.

Subcategory of Cases	Mobility Application

Customer	Tourists & Residents

Market Place

G2C: Journey planner for activities

Mobility Systems

- Journey planner & booking system
- GPS Navigation

Transport Modes/ Mobility Services

- Public transportation, taxi, ski shuttle, bus, rideshare, helicopter
- Information delivered in Chinese, Japanese, German and English
- Real time transport tracking
- Search by activities

Needed Infrastructures

Stakeholders

Private	Public
[Cardrona Alpine Resort](#), [Chariot Ridesharing](#), [Corporate Cabs](#). [Green Cabs](#), [Go Orange](#), [Heliworks](#), [NZ Ski](#), [Queentown Taxi](#) & [Treblecone](#)	[Queenstown Lakes District Council, Auckland Transport](#), [Otago Regional Council](#), [NZ Government](#) and [NZ Transport Agency](#)

Supplementary Markets

- Latest snow conditions and information about the ski resorts around Queenstown
- Supports the local business community by including activities and sights

Author of the Card
Christophe Buyle

Amsterdam

Zuid-Kennemerland National Park

[Greenwheels](#) app

Greenwheels is a car sharing company operating in the Netherlands. Users can rent a car either to transport boxes, furniture or the familly for a day trip. The network includes 1700 cars available 24/7 in 100 cities. On average each vehicle has 21 regular drivers. The rate for a day is cheaper (up to 25€) than traditional car rental service. The App shows the locations of the nearest available cars on the map and includes a car booking system. There are Greenwheels rental locations at 4 railway stations around Zuid-Kennemerland National Park and more in the city of Amsterdam. It can be subscribed flexibly by individual drivers and companies on a monthly basis.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by categorizing the destinations inside and around the park and creating packages which include transportation and different activities for travelers. The App would enable tourists interested in natural sites to book also activities when booking a car with **[DriveNow](#)**. Currently DriveNow focuses on renting vehicles but not on informing what can be done with a rental car. Including activities and destinations in each "hourly package" (3,6,9 & 24h) could be a great adaptation of Greenwheels in Nuuksio. E.g: The "6 Hours" package could include an entrance fee to Haltia with a detailed description of a trail starting and finishing next to the nature center.

Subcategory of Cases	Mobility Application

Customer	City Dwellers

Market Place

G2C: Paid car sharing network at the outskirts of the national park & urban centers.

Mobility Systems

- Near me feature & unlock systems
- Booking and payment systems

Transport Modes/ Mobility Services

- Cars
- Entitles users to rent a car for a short trip
- Different vehicles per type of use
- Flexible subsriptions: Occasional, regular (1 trip per month) and frequent (3 trips per month)

Needed Infrastructures

- Official parking bays
- Card reader, computer in the glove compartment of the car

Stakeholders

Private	Public
[Volkswagen Leasing](#) [Volkswagen Financial Services](#)	[Nederlandse Spoorwegen](#)

Supplementary Markets

- The OV-fiets season ticket can be connected to public and private transport systems.
- Insurance, road tax and parking.

Author of the Card
Christophe Buyle

Sydney
Harbour National Park
NPWS app

NPWS app provides a list of self-guided walking tours to hikers interested in discovering national parks in New South Wales. Users can download all important information about NSW national parks and tours such as maps and descriptions of the places. Instructions to reach trailheads are provided in the tab "how to get there" including different options of transportation. The Sydney Harbour National Park App provides links of online booking of bus and ferry tickets. Information about facilities and safety is also available through the app. Users can see their progression on the map by using the real time location feature.

Idea for Nuuksio National Park

Such model could be adapted to Nuuksio by creating an app offering all hiking trails within the park. Users could find information about the best transport options for reaching trailheads and for returning back to the closest transport hub at the end of the hike. In addition, a real time tracking system would locate the hiker on a map in order to follow progress.

Subcategory of Cases	Mobility Application

Customer	Hikers

Market Place
G2C: Self-guided tours for hikers

Mobility Systems
- GPS Navigation

Transport Modes/ Mobility Services
- Ferry & bus
- Walk planner
- 17 languages

Needed Infrastructures

Stakeholders
Private	Public
	NSW National Parks & Wildlife Service Office of Environment & Heritage

Supplementary Markets
- Free audio tour for 6 other National parks
- Companies can register an expression of interest to present a business initiatives that might improve the effectiveness, efficiency or flexibility of specific recreational attractions.

Author of the Card
Christophe Buyle

Western Australia

Natural sites in WA

Experience WA app

Experience WA application facilitates the discovery of Western Australia based on the interests of users. Many sights and activities are grouped into 9 categories including "hire", "tour" and "transport". Each service provider is presented in a tile with a description of the offer and place as well as the instructions to get there (journey planner) and the contact details. There is a large choice of destinations of natural sites in the section "tour", e.g. Pinnacles national park on Rottnest Island or other costal areas.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by categorizing all service providers, such as trails, restaurants, accomodation, camping sites, activities and guided tours, operating within the park. The transport options to get to these places of interest (from the urban centers or from other places within the park) could be provided via an integrated journey planner.

Subcategory of Cases	Mobility Application

Customer	Tourists & Residents

Market Place

G2C: Directory for attractions, restaurants, events, & tours

Mobility Systems

- Interactive map ("Near me" features)
- Journey planner

Transport Modes/ Mobility Services

- Door-to-door itinenary for sights and activities

Needed Infrastructures

- Stops nearby places of interest

Stakeholders

Private	Public
	Tourism Western Australia

Supplementary Markets

- Promotes the local business community (accomodation, attractions, events, food & drink…)

Author of the Card
Christophe Buyle

Sydney	
Blue mountain national park	
Scenic World	

Scenic world is a tourist attraction at the entrance of the Blue mountain national park. Visitors can enjoy the lanscape of the rainforest and the surrounding mountains by 3 cable cars and an elevated boardwalk. This is a different way to experience nature. Visitors can plan their visit by downloading the Scenic World app which includes ticket options, information on how to get to Katoomba and suggestions of itineraries available. An interactive map displays places of interest such as restaurants, shops and events.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio around the area of Haltia. It could be a "park inside the park" acting as the main entrance and a transport hub of the park. Visitors could experience nature on short marked trails around the nature center (from the lake via forest to the top of the swinghill) including educational workshops, skiing in winter and mountain coaster or water activities in summer. The experience could be augmented through an interactive application providing list of sights, activities, events and restaurants.

Subcategory of Cases	Mobility Application

Customer	Tourists

Market Place

B2C: A park inside the park (Marketing platform and gateway of the national park)

Mobility Systems

- Interactive map ("Near me" features)
- Trip builder (saving must-see and must-do)
- Online Ticketing

Transport Modes/ Mobility Services

- Cable cars, train and bus
- Links of transport operators to reach Scenic park from Sydney

Needed Infrastructures

Stakeholders

Private	Public
Scenic world Blue Mountai Explorer Bus CDC Tours	Blue Mountain train

Supplementary Markets

- Supports the local business community in Katoomba : Festival, sport events, conference, fair

Author of the Card
Christophe Buyle

6Aika · EU:lta 2014–2020 · Vantaa · visit espoo · FORUM VIRIUM HELSINKI · Aalto University · DEMOS HELSINKI · Metropolia University of Applied Sciences

Reykjavik

Thingvellir National Park

[BusTravel Iceland](#)

The purpose of *BusTravel Iceland* is to show nature, geology, history and folklore of Iceland to tourists with help of excellent guide and transport services. *BusTravel Iceland* is a tour operator providing guided day trips to touristic attractions from Reykjavik. The Almannagjá fault in the Thingvellir National Park is included in the Golden Circle tours. The daily tour starts at 8.00 and lasts 10 hours while the afternoon option lasts 6 hours and begins at 11:00. Mini buses collect travelers from the hotels or guest houses in Reykjavik to one common gathering place at the central bus station.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by organizing guided day trips from Helsinki. Such tours would include a stop at the national park but also at other attractions within the Helsinki region. Another option could include a stop at Haltia or Nuuksio Hotel for individuals and groups during the transfer from the airport to the city center.

Subcategory of Cases	Tour Package

Customer	Tourists

Market Place

B2C: Guided day trip by bus including a stop at the national park

Mobility Systems

- Online booking System
- Agent login

Transport Modes/ Mobility Services

- Buses
- Pick up from hotels and guest houses
- Transfert to Blue Lagoon Spa
- Transfert to Keflavik Airport

Needed Infrastructures

- Bus stops for pick up and drop off
- Bus parking at attractions
- Roads

Stakeholders

Private	Public
[BusTravel Iceland](#)	

Supplementary Markets

- Supports the local business community such as horse farms, geothermal pool centers, restaurants, cafés and visitor centers.

Author of the Card
Christophe Buyle

Milford Sound & Doubtful Sound in New Zealand

Fjordland National Park

Destination Fjorland

Destination Fjorland lists all transport solutions to discover the Fjordland National Parks in the tile "Activities & tracks". A search functionality filters the activities and transportation options by category and location with a feature which refines the request with keywords. The purpose of the search engine is to facilitate the access to the national parks and to the activities there. Travellers can find packages combining transportation from Queenstown to the National Parks and activities there. Activities allowing the discovery of the park are also listed on the website for the use of independent travellers.

Idea for Nuuksio National Park

Such a model could be adapted to Nuuksio by creating an activity planner instead of a journey planner. Users do not want to enter an address but an activity such as skiing, fishing, climbing, birdwatching, hiking, hut, berry & mushroom pick up, canoeing, sights & scenery, cycling, horsing, skating, museums or swimming. As a result they get a list of service providers with all necessary information about the activity they are interested in as well as about payment and transport options.

Subcategory of Cases	Other

Customer	Tourists

Market Place

G2C: Transportation and activity directory

Mobility Systems

- Search engine

Transport Modes/ Mobility Services

- Boats, coaches, bikes, horse, kajak, helicopters, rafting and floatplanes
- Search by mode of transport, activities location and keywords
- Provide online contact details of transport and activity providers

Needed Infrastructures

Stakeholders

Private	Public
290 member businesses	Regional Tourism Organisation Destination Fjorland Venture Southland

- Scuba diving, family activities, farm visits, fisching, glowworm caves, golf, guided walks, movies, off road tours, photo tours, underworld...

Supplementary Markets

Author of the Card
Christophe Buyle

London

Metropolitan area

Beeline device

Beeline is an electric device which looks like a watch. It helps cyclists to navigate and plan the journey without being disturbed during the ride. System plans the most cycle-friendly routes and safe journey by using the intuitive route planner. The device has a compass indicator which makes it simple and easy to keep an eye on the journey (arrow shows the direction). The device can be used in any weather conditions (cold, rain, sun) and it has additional features integrated (clocks, speedo and ride distance). It fits any bike.

The company offers also an application, which is basically a cycle route planner. The App was first introduced in summer 2017, and is still on its testing phase. The device and services are improving and developing since many people have used them already and shared their experience.

Idea for Nuuksio National Park

Such a device helps the Last Mile experience of cyclists, since at the moment a majority of route planners ignore small changes in the route and do not indicate significant changes in direction which may complicate the journey.
.

Subcategory of Cases	Other

Customer	Tourist (Leisure, business), Local (Resident, Commuters)

Market Place

B2C : Bike navigation system (device)

Mobility Systems

Mobile device with integrated GPS and route planning system.

Transport Modes/ Mobility Services

Bicycle

Needed Infrastructures

Cycle paths / lanes

Stakeholders

Private	Public
Beeline	

- Equipment supply and manufacturing

Supplementary Markets

Author of the Card
Valentina Zeljonaja

6 Aika · EU:lta 2014−2020 · visit espoo · FORUM VIRIUM HELSINKI · Aalto University · DEMOS HELSINKI · Metropolia University of Applied Sciences

ARCHIPELAGO & COASTAL AREAS

List of Cases related to cities with archipelago and coastal areas

Transportation Service	1	**Bycyklen**	Smart electronic bicycles integrated to Copenhagen's public transport in Denmark
	2	**BoatFlex**	Airbnb for privately owned boats in Copenhagen Denmark
	3	**GoBoat**	Sustainable boat rental in Copenhagen Denmark
	4	**River Taxi**	Sustainable river taxi service in Singapore
Mobility Application	5	**DriveNown app**	Electric carpool in Copenhagen Denmark
	6	**UbiGo app**	Pilot in Stockholm about monthly paid mobility service for households including various transportation services
	7	**MoveAbout app**	Electric car sharing service in Stockholm Sweden
Tour Package	8	**Norway in a Nutshell**	Tour package adjusted combining public and private actors to provide services according to tourists`wishes

Copenhagen

Copenhagen & Frederiksberg

Bycyklen

Bycyklen has been built to be the "fourth leg" of public transport in Copenhagen with the idea of "connecting the Last Mile". These smart bicycles have electric motors and a touch screen with several functions like GPS, information about the bus/bicycle stops nearby and next bus departures close to the cyclist etc.

- Owned by By- og pendlercykel Fonden. Funded partly by EU, DSB (35m DKK), city of Copenhagen (40m DKK) and Frederiksberg (13m DKK)
- 100 bicycle stations in Copenhagen and Frederiksberg
- Contract until 2019

Idea for Espoo/Helsinki/Vantaa

Espoo has an opportunity to become Finland's leader in bicycle innovations in larger scale than only "Last Mile" scope. Could help in encouraging people to ride the bike instead of a car when trying to reach Helsinki or other parts of Espoo.

Subcategory of Cases	Transportation Service

Customer	Tourist (Leisure, business), Local (Residents, Commuters)

Market Place

G2C:Integrating smart electronic bicycles as the fourth leg of Copenhagen's public transport

Mobility Systems

Payment, booking, matching, GPS, syncing with public transport, app

Transport Modes/ Mobility Services

Gobike, bike with tablet + electronic motor

Needed Infrastructures

Bicycle paths, charging stations

Stakeholders

Private	Public
Gobike	DSB, Copenhagen municipality, Metroselskabet, Bikeshare Danmark A/S, by- og pendlercykel Fonden

Insurance, marketing

Supplementary Markets

Author of the Card
Milka Holmberg

Copenhagen

Harbour, sea

BoatFlex

Airbnb for boats. Hire a private boat for some hours or a whole day. BoatFlex offers also captains with the boats. Used by travelers and locals. Idea is that anyone can use the service, the package is built accordingly to the customers needs

- 1400 registered boats in 2017.
- Raised venture capital 1,3m USD in total. Last round March 2017, raised 729K USD
- 2016: 4000 users and 200 000 unique visits

Idea for Espoo/Helsinki Archipelago

Espoo and Helsinki inhabitants who have boats could rent them for others to minimize costs of having a boat and share the joy of boating in full capacity. Espoo has 10 harbors and place for 4200 boats

Subcategory of Cases	Transportation Service

Customer	Tourist (Leisure, business), Local (Residents, Commuters)

Market Place

C2C: Hiring privately owned boats
B2C: Tailored trips through BoatFlex

Mobility Systems

Payment, booking, matching, planner systems, app

Transport Modes/ Mobility Services

Privately owned boats

Needed Infrastructures

Peers, waterways for boats

Stakeholders

Private	Public
Yacht clubs, Capital investors (Seed capital), Lloyd's insurance	

Tailored trips (captains), insurance

Supplementary Markets

Author of the Card
Milka Holmberg

Copenhagen
Canals of Copenhagen
GoBoat

GoBoat is about experiencing Copenhagen sustainably on water. The company rents boats which are charged by solar panel energy produced by the company itself. GoBoat is used by locals and travellers. Anyone above 18 years can drive the boats.

- 123 000 customers and 8 boats in Copenhagen
- 100% owned by the three founders
- Innobooster invested 1,244m Danish kroner in 2016.
- GoBoat has expanded to Stockholm through partnership with a local actor

Idea for Espoo/Helsinki Archipelago

This kind of service could be interesting for locals and travelers also in Espoo and Helsinki coastline to enable people visit the archipelago on their own and do it sustainably.

Subcategory of Cases	Transportation Service

Customer	Tourist (Leisure, business), Local (Resident, Commuters)

Market Place

B2C: Sustainable boat rental

Mobility Systems

Payment, booking, matching, planner systems, GPS, app

Transport Modes/ Mobility Services

Boats (RAND Picnic 18), Torqeedo batteries

Needed Infrastructures

Peers, waterways, solar power charging system for the boats

Stakeholders

Private	Public
GoBoat (operator), Shape (app), Torqeedo, RAND boats, Gaia Solar, Helly Hansen,	Copenhagen municipality, Exide, Kebony, Tuco, Innobooster

Food & beverage services, customer service on- the-spot

Supplementary Markets

Author of the Card
Milka Holmberg

6Aika · EU:lta 2014–2020 · Vantaa · visit espoo · FORUM VIRIUM HELSINKI · Aalto University · DEMOS HELSINKI · Metropolia University of Applied Sciences

Singapore

Singapore River

River Taxi

Company offers water taxi service, which is very useful to reach the desired destination while enjoying some sights at the same time. The boats are going every 20 minutes and the entrance fee is 5$.

Currently, there are 24 bumboats in the fleet (13 types of Jetties), with still an increasing number. Furthermore, in 2008 company introduced electric boats for more environmentally friendly services (zero CO2 emission).

Idea for Espoo/Helsinki Archipelago

The challenge for Finland is the seasonal demand for waterway transportation (similar to Suomenlinna) and limitations in the number of destinations and boat service available.
City of Helsinki has already luxurious water taxis offered to large groups. This service is quite expensive. Cheaper and sustainable water taxi service like in Singaore is missing at the moment both in Espoo and Helsinki.

Subcategory of Cases	Transportation Service

Customer	Tourist (Leisure, business), Local (Residents, Commuters)

Market Place

B2C: Water taxi service, which is run by environmentally friendly solutions

Mobility Systems

Payment service (EzLink or NETS FlashPay), travel information (schedule, occupancy and pricing)

Transport Modes/ Mobility Services

Jetties, electric boats, bumboats (traditional Asian boats)

Needed Infrastructures

Waterways (Singapore River is 3 km long)

Stakeholders

Private	Public
Singapore River Cruise Pte Ltd	DENA Park

↓ Facilities placed at the riverbanks (restaurants, sights, shops and other)

Supplementary Markets

Author of the Card

Valentina Zeljonaja

6 Aika

Copenhagen

Metropolitan Area

DriveNown app

DriveNow

Carpool of 400 electric cars in Copenhagen. Rent per minute or hour. Service as an addition for public transport and operated by Arriva. Will be added to rejseplanen.dk (local Reittiopas). Driving in urban areas.

- 50 000 registered users, 1600 new users each month.
- Operates on franchise basis in Copenhagen (by Arriva)
- Travel card can be connected to the service

Idea for Espoo, Helsinki and Vantaa

Many Espoo inhabitants prefer still a private car to public transport. This leads to traffic jams. DriveNow decreases the amount of private vehicles in traffic even though it offers still the option of private transport. DriveNow functions without any limitations of fixed stops or certain areas in a geographically wide-spread city like Espoo.

Subcategory of Cases	Mobility Application

Customer	Local residents

Market Place
B2C:Electric carpool within marked area in Copenhagen city

Mobility Systems
Payment, booking, matching, planner systems, key card, GPS-positioning, app

Transport Modes/ Mobility Services
Shared electric cars

Needed Infrastructures
Roads, charging stations

Stakeholders
Private	Public
BMW, Sixt,Mini	¨Arriva, Copenhagen municipality

- Parking
- Insurance

Supplementary Markets

Author of the Card
Milka Holmberg

Stockholm

Metropolitan Area

UbiGo app

UbiGo is a "super" transport provider in Stockholm. It was launched after the 6- month- MaaS-pilot involving 70 households. Service includes that a household can buy all its monthly transportation needs from UbiGo. This includes car rental, taxi, public transport, carpool and bicycles. Prices are set according to estimated use in a month per household.

- Uses services of SL, DriveNow, Hertz, Citybikes, CabOnline
- 156k SEK turnover 2016
- UbiGo received funding from VINNOVA: 2017 302,7K SEK, 2012 9,934K SEK, 2015 500K SEK, 2016 2x 4K SEK
- UbiGo was proved successful already by a pilot in Gothenburg (2012-2014) and was re-launched in March 2018 in Stockholm. The business model is functioning, however, this is a starting project

Idea for Espoo and Helsinki and Vantaa

Similar concept could be tested in Finland Metropolitan area as well.

Subcategory of Cases	Mobility Application

Customer	Local residents

Market Place

B2C: Monthly mobility service for households including taxi, public transport, biking, carpooling and car rental

Mobility Systems

Payment, booking, matching, planner systems, invoicing

Transport Modes/ Mobility Services

Rental cars from Hertz
Taxi from Cabonline
Public transport (railway, tram, bus) by SL
Bicycles by Citybikes

Needed Infrastructures

Road, railway, stations

Stakeholders

Private	Public
Hertz, Drivenow, Cabonline, Fluidtime	SL, EU, Stockholm municipality, Eccentric, Drive Sweden

Taxi service if the chosen transport method is delayed

Supplementary Markets

Author of the Card
Milka Holmberg

6 Aika · EU:lta 2014–2020 · Vantaa · visit espoo · FORUM VIRIUM HELSINKI · Aalto University · DEMOS HELSINKI · Metropolia University of Applied Sciences

| Stockholm |
| Metropolitan Area |
| [MoveAbout](#) app |

Open and closed electric carpools. For local associations, individuals and companies. Pricing per hour, half-day or whole day + monthly payment. The cars are in fixed stations and they are returned to the station after use. A private company, which was involved in the GrowSmarter EU-project.

- 8000 users and 30 000 trips in 2017 in Sweden

Idea for Espoo/Helsinki/Vantaa

Possibility for Finnish cities to encourage the use of cars in more sustainable and eco-friendly way. MoveAbout is interested also in business model of renting electric bicycles. Inhabitants might be interested in tailored electric car and bicycle sharing services.

| Subcategory of Cases | Mobility Application |

| Customer | Local residents |

Market Place
B2C: Electric car sharing with fixed stations for private consumers, companies and associations

Mobility Systems
Payment, booking, matching, planner systems, key card, GPS-positioning

Transport Modes/ Mobility Services

Electric cars

Needed Infrastructures

Charging stations, roads, internet networks

Stakeholders

Private	Public
[Move About](#), [Ecomobilité Ventures](#)	[GrowSmarter](#), [Stockholmshem](#), [Jernhusen](#), [Nordic Electric Avenue](#)

Insurance, maintenance

Supplementary Markets

| Author of the Card |
| Milka Holmberg |

Oslo

Oslo-Myrdal-Flåm-Gudvangen-Voss-Bergen

Norway in a Nutshell

An adjustable tour package for tourists including public train, bus and ferry transport from capital of Norway, Oslo, to the Fjord-Norway. The best known part is the train ride by Flåmsbanan. The package is built by a private company, which is partly owned by public authorities.

- Norway's most popular tour
- In 2016 the Flåmsbana (part of the package) had 930 000 passengers.

Idea for Espoo/Helsinki/Vantaa

Similar concept of a service package for tourists by combining public and private actors into one package could work in Finland too. This is efficient for tourists and for marketing of the touristic attractions.

Subcategory of Cases	Tour Package

Customer	Tourist (Leisure, business), Local (Residents, Commuters)

Market Place

B2C: travel service package adjusted according to tourists´wishes

Mobility Systems

Payment, booking (transport, external services, accommodation)

Transport Modes/ Mobility Services

Train (NSB & Aurland Ressursutvikling 50/50), Cruiseboat (The Fjords), Bus (FjordTours)

Needed Infrastructures

Waterways, railways, roads

Stakeholders

Private	Public
The Fjords Tours, travel agents, local hotels and service providers	NSB, Aurland Ressursutvikling

Supplementary Markets

Accommodation, service packages (hikes, guiding etc.)

Author of the Card
Milka Holmberg

AIRPORT AREA

List of Cases related to cities close to airport area

Transportation Service	1	**Automated People Mover**	An automated driverless vehicle transporting airport passengers between Terminals at the airport of HongKong
	2	**SkyPier**	Transportation hub connecting air passengers to the touristic attractions in HongKong
	3	**OV-Fiets**	Bike rental service inside the airport area in Amsterdam Holland
Mobility Application	4	**Grab app**	Application to book shared transportation services and taxi services (Singapore
	5	**Beeline app:**	Application reporting the need of a buss service in Singapore
	6	**Reisplanner Xtra app:**	Application which informs about overcrowded transport units in Holland
	7	**RTA Dubai app:**	Application that provides wide range of information related to transportation in Dubai
	8	**Schiphol app:**	Navigation application inside the Schiphol airport in Amsterdam Holland
	9	**CG Transit app:**	Offline route planner in Czech Republic and Slovakia
Tour Package	10	**Reykjavik Excursions:**	Organised tour from the Reykjavik airport to the sights like Blue Lagoon
	11	**Free SIngapore Tour:**	Bus-operated free sightseeing tour for transit passengers in Singapore
	12	**Lantau and Monastery Tour:**	Tour for transit passengers, covering the area nearby the HongKong airport
Other	13	**Octopus Card:**	Travel payment card, that can be used for paying many retail and governmental fees in HongKong
	14	**Stopover in Dubai:**	Stopover tour package including transfer and discounts to some facilities in Dubai
	15	**SSH:**	Stopover tour package with free accommodation and entertainment facilities in Singapore

Hong Kong
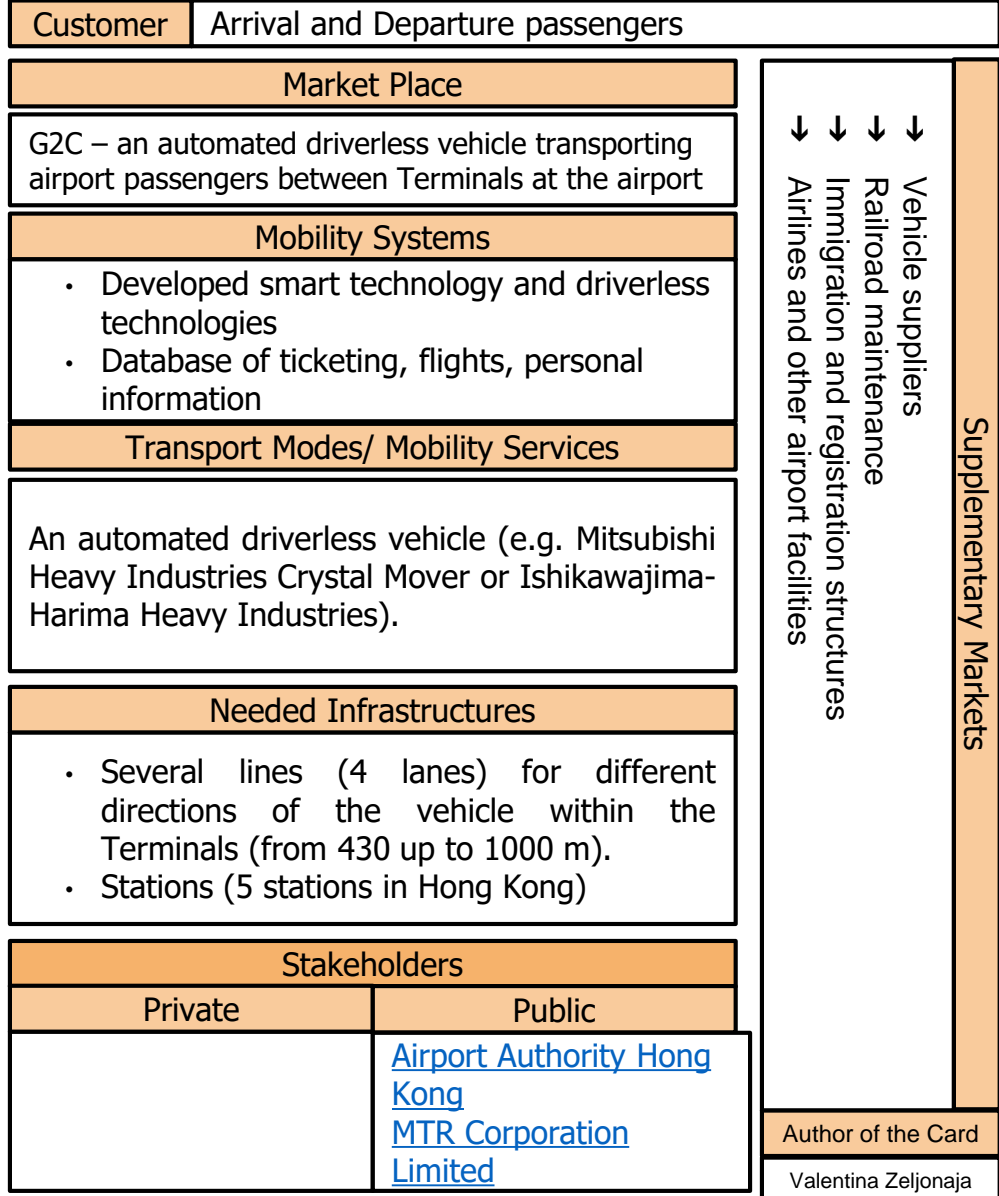## Hong Kong International Airport
Automated People Mover

A driverless train/metro, which transports people inside the airport between terminals. The vehicle is also connected with the Skypier – see Case Skypier about a ferry terminal in HongKong.

This type of vehicle is the fastest and easiest way to travel between terminals (going through registration and immigration phases as well). Passengers travelling in both directions from SkyPier can bypass customs and immigration formalities, which reduces their transit time. However, APM is available only for airport passengers, who have flight tickets or registration numbers.

Idea for Helsinki-Vantaa Airport and Aviapolis

Helsinki-Vantaa airport is not as complicated and big as HongKong airport. However, the numbers of travelers are growing fast. This might justify investments similar to HongKong APM, which make transit travel more convenient and fast (during night time, holidays and rush hours).

Subcategory of Cases	Transportation Service

Customer	Arrival and Departure passengers

Market Place

G2C – an automated driverless vehicle transporting airport passengers between Terminals at the airport

Mobility Systems

- Developed smart technology and driverless technologies
- Database of ticketing, flights, personal information

Transport Modes/ Mobility Services

An automated driverless vehicle (e.g. Mitsubishi Heavy Industries Crystal Mover or Ishikawajima-Harima Heavy Industries).

Needed Infrastructures

- Several lines (4 lanes) for different directions of the vehicle within the Terminals (from 430 up to 1000 m).
- Stations (5 stations in Hong Kong)

Stakeholders

Private	Public
	Airport Authority Hong Kong MTR Corporation Limited

↓ ↓ ↓ ↓

Vehicle suppliers
Railroad maintenance
Immigration and registration structures
Airlines and other airport facilities

Supplementary Markets

Author of the Card

Valentina Zeljonaja

6 Aika | EU:lta 2014–2020 | visit espoo | FORUM VIRIUM HELSINKI | A! Aalto University | DEMOS HELSINKI | Metropolia University of Applied Sciences

Hong Kong

Hong Kong International Airport

Skypier

Skypier is one of the furthest piers of Hong Kong, which provides the shortest route to Macau and other cities around the South Asian Sea. This pier is built on the same island as Hong Kong airport making the airport passengers the main target customers. The Automated People Mover (previous case) APM, transfers passengers from the Hong Kong International Airport to the Skypier. From Skypier it is possible to travel directly to Macau, Guangzhou, Shenzhen, Zhongshan, Zhuhai Jiuzhou and Dongguan Humen.

Idea for Helsinki-Vantaa Airport and Aviapolis

A similar transportation hub, transporting tourists from the airport directly to the attraction centers, might be successfully established at the Helsinki-Vantaa Airport too. E.g. automated busses or trams could transfer passengers directly to the Jumbo shopping center,. This speed line would eliminate time wasted on stops at the public busline stops.

Subcategory of Cases	Transportation Service

Customer

Market Place

G2C - transportation hub connecting airpassengers to the touristic attractions

Mobility Systems

- Developed smart technology and driverless technologies
- Database of ticketing, flights, personal information

Transport Modes/ Mobility Services

An automated driverless vehicle (e.g. Mitsubishi Heavy Industries Crystal Mover or Ishikawajima-Harima Heavy Industries).

Needed Infrastructures

- Several lines (4 lanes) for different directions of the vehicle within the Terminals (from 430 up to 1000 m).
- Stations (5 stations in Hong Kong)

Stakeholders

Private	Public
	Airport Authority Hong Kong MTR Corporation Limited

Supplementary Markets

- Vehicle suppliers
- Railroad maintenance
- Immigration and registration structures
- Airlines and other airport facilities

Author of the Card

Valentina Zeljonaja

6 Aika EU:lta Vipuvoimaa 2014–2020 Vantaa visit espoo FORUM VIRIUM HELSINKI A! Aalto University DEMOS HELSINKI Metropolia University of Applied Sciences

Amsterdam

Metropolitan area

OV-fiets

Bikes rental at over 300 locations across the Netherlands; at many train stations, at bus or tram stops, in several city centres and at P+R car parks. Bike rental also at the airport.

Dutch Rail expected 3 million rides in 2017. In recent years Dutch Rail expanded their rental fleet by around 1000 bicycles a year to keep up with the demand. However, a surge in demand forced NS to rush an order of extra 6000 bicycles in 2017. The number of registered users has jumped from ~200,000 to ~500,000.

The Dutch system is highly integrated with the public transport network so that people who cycle to the station can continue traveling by bike from the station to their destination.

Idea for Helsinki-Vantaa Airport and Aviapolis

In peak seasons and with good weather, Stopover or layover passengers could enjoy the attractions of Vantaa by renting a bike at the airport. This could be an alternative for them instead of spending time and money at the airport.

Subcategory of Cases	Transport Service

Customer	Tourist (Leisure, business), Local (Residents, Commuters)

Market Place

G2C - Bike rental service inside the airport area

Mobility Systems

Travel Card Services (payment, rental, personal information, etc.)

Transport Modes/ Mobility Services

- Bicycles
- Offering bicycles in very populated areas, such as railway stations and airports, where people could leave their luggage and use the cheapest and most environmentally friendly transportation.

Needed Infrastructures

Bicycle stations, cycling roads/lanes, transport hub stations (airport, terminal, railway, bus stations), ticket vending machines or stations

Stakeholders

Private	Public
	NS (Nederlandse Spoorwegen railway service operator)

Supplementary Markets

- Governmental transportation facilities, such as railway stations, bus stations and other.
- Travelcard, which is the supplementary, but necessary tool

Author of the Card

Valentina Zeljonaja

Singapore

Metropolitan area

[Grab app](#)

An online service that provides many transportation solutions, such as ride sharing, taxi, car sharing, parking, bike sharing. The Grab's combined fleet is over 50,000 vehicles.

Promised prices are lower than taxis by 20-40%, which includes prices for both commercial and non-commercial taxi drivers. Grab has acquired Uber in Singapore to make the taxi services more combined and integrated. Uber´s services and databases are completely adjusted and utilised as part of Grab services.

There is demand for this time of service especially during the peak seasons like holidays, night times

Idea for Helsinki-Vantaa Airport and Aviapolis

Uber is coming to Finland in summer 2018. Cost and time efficient transportation services at the airport would definitely be interesting at least for low-budget travelers.

Subcategory of Cases	Mobility Application

Customer	Tourist (Leisure, business), Local (Residents, Commuters)

Market Place

C2C – Shared transportation units (bike, ride and car sharing)

B2C - taxi services, bike and car rental services

Mobility Systems

Database for payment, route planning, personal information, information of transportation (timetables, journeys, types of vehicles), GPS, pricing, booking

Transport Modes/ Mobility Services

- Cars, minibuses
- Both private and public ride/transportation services integrated into the same application

Needed Infrastructures

Transportation hubs, roads, mobile data and devices (Internet)

Stakeholders

Private	Public
Grab	

- Commercial/professional transportation providers
- Technical support and maintenance

Supplementary Markets

Author of the Card
Valentina Zeljonaja

Singapore

Metropolitan area

[Beeline app](#)

Beeline is a demand-driven, shared transit application pilot brought by GovTech and LTA. The application service initiates new routes and journeys, driven by the customers ´ suggestions and demand. Reliable bus operators and organisations co-operate to make those requests come true.

The uniqueness of such a service is in the combination of customers providing the information for private bus operators and organisations. This aims at improving the service. Private bus operators can benefit from the knowledge of high-transport-demand locations or routes, and offer their services there more effectively. Cooperating organisations reduce also competition.

Idea for Helsinki-Vantaa Airport and Aviapolis

Similar application could be utilized by local businesses in Vantaa airport area too. Also Aviapolis residents could benefit from knowing the passenger volume since it directly affects the railway transportation service. As a consequence, this might significantly improve commuters´ travel experience.

Subcategory of Cases	Mobility Application

Customer	Tourist (Leisure, business), Local (Residents, Commuters)

Market Place

G2B – an application reporting the need of a buss service

Mobility Systems

Payment data (personal details, credit information, contact details), Internet, GPS; mobile data

Transport Modes/ Mobility Services

- Buses

Needed Infrastructures

Roads, bus stations, mobile data and mobile devices

Stakeholders

Private	Public
	Beeline > [GovTech](#) + [Land Transport Authority](#) (LTA)

Supplementary Markets

- Cooperation with many bus operators, such as CatchThatBus (Malasia)
- Technological support and maintenance

Author of the Card

Valentina Zeljonaja

6 Aika Euroopan unioni EU:lta 2014–2020 Uudenmaan liitto Vantaa visit espoo FORUM VIRIUM HELSINKI Aalto University DEMOS HELSINKI Metropolia University of Applied Sciences

Amsterdam

Metropolitan area

Reisplanner Xtra app

The official application of the NS (Dutch national railway) provides up-to-the-minute information on departure times, suggested routes, prices and even disruptions in service when travelling outside Amsterdam. The app has very useful and interesting services integrated - overcrowding report. It informs passengers about the volume of the particular vehicle or route, and suggests to pick an alternative journey. The preliminary usage of the app is in the range of 1 to 5 Million installs. The app is used in many countries like Germany, UK, and France.
The app can additionally help in predicting the overcrowded routes and road and vehicle conditions, as well as the necessity for infrastructure maintenance.

Idea for Helsinki-Vantaa Airport and Aviapolis

Similar features and services could be added to e.g. HSL application. This coulld attract more customers and be available for tourists as well, making their travel experience more functional and effective.

Subcategory of Cases	Mobility Application

Customer	Tourist (Leisure, business), Local (Residents, Commuters)

Market Place

G2C –app informing about the overcrowded transport units
G2B – app indicating routes that have the most demand and need for maintenance

Mobility Systems

Database for payment, route planning, personal information, information of transportation (timetables, journeys, types of vehicles), GPS, pricing and etc…

Transport Modes/ Mobility Services

- Public transportation (bicycles, buses, train, trams, and metro)
- The "overcrowding report" service informs which routes and transportation systems are currently busy, and suggest other transportation means or journeys

Needed Infrastructures

Transportation hubs (airports, terminals, railways and bus stations), roads, bicycle lanes, railroad / tram lane, mobile data (WIFI), mobile device

Stakeholders

Private	Public
	- NS (Nederlandse Spoorwegen –railway service operator)

- Technical support and service mantainance

Supplementary Markets

Author of the Card

Valentina Zeljonaja

Dubai	
Metropolitan area	RTA
RTA Dubai App	

Awards winning application, which has around 40 different features and services included (supports different languages; driving theory test to familiarize foreigners with the traffic rules; parking services; taxi services; payment services; Smart Drive; Smart Salik and many more).

The app is the 3rd year award winner as the Best Government Service via Mobile Phone worldwide in the 'Transport & Infrastructure Sector. The rating in Google Play is 4.3 (more than 15 thousand reviews).

Idea for Helsinki-Vantaa Airport and Aviapolis

Challenge is in complicated integrated systems, that could be difficult to maintain by private sectors Furthermore, particular skills and technologies required. If this App could be utilized in Finland, it might improve the experience of everyday transportation of both residents and tourists.

Subcategory of Cases	Mobility Application

Customer	Tourist (Leisure, business), Local (Resident, Commuters)

Market Place

G2C – an application that provides wide range of information related to transportation

Mobility Systems

Databases including personal information, booking, ticketing, traffic and passenger volumes, languages, parking and taxi data integrated with cooperative authorities, travel and payment cards, smart watch integration and etc.

Transport Modes/ Mobility Services

- Public transportation (buses, metro, rail, boats citybikes)
- Private taxis, cars, bikes

Needed Infrastructures

Mobile database and devices (internet), transportation hubs, roads

Stakeholders

Private	Public
	Roads and Transport Authority (RTA)

Dubai Taxi; Licensing Agency ; Rail Agency; Traffic and Roads Agency; Public Transport Agency

Supplementary Markets

Author of the Card

Valentina Zeljonaja

6 Aika · EU:lta 2014–2020 · visit espoo · FORUM VIRIUM HELSINKI · Aalto University · DEMOS HELSINKI · Metropolia University of Applied Sciences

Amsterdam

Schiphol Airport

Schiphol Airport app

The purpose of the service is to provide necessary information to the airport users (local and tourists). The app shows where are the check-in desk and boarding gate. It keeps customers informed of important changes regarding the trip. It's convenient to book a parking space with the app at the airport from anywhere. It is possible to choose outdoor or indoor parking within walking distance of the departure and arrival halls or with a short connection by bus. Additionally, claiming for a voucher for a € 5 discount is possible by using the app. It can be used at various shops at the airport. Since Shicphol Airport is the 3rd largest in Europe, it was decided to improve the navigation inside the gates.

Idea for Helsinki-Vantaa Airport and Aviapolis

Helsinki-Vantaa airport is growing fast and becoming more and more international and therefore additional services in more languages might be needed in the near future. The benefit of this app is that it can provide essential information in relevant languages without extra costs.

Subcategory of Cases	Mobility Application

Customer	Hikers, bike riders or nature enthusiasts

Market Place

G2C – a application that improves the navigation inside the airport

Mobility Systems

Database for payment, route planning, personal information, information of transportation (timetables, journeys, types of vehicles), GPS, pricing, flight schedules and information, guidance and navigation at the airport, etc…

Transport Modes/ Mobility Services

Mobility service allows tourists and local commuters easily navigate themselves inside the airport area, saving a lot of time. The Amsterdam airport is one of the busiest and largest in Europe and such tool in some way balance out the passenger flow

Needed Infrastructures

Airport and its facilities

Stakeholders

Private	Public
	Royal Schiphol Group

Supplementary Markets

- Facilities inside the airport: restaurants, shops, entertainment
- Parking facilities

Author of the Card
Valentina Zeljonaja

6 Aika · EU:lta 2014–2020 · Vantaa · visit espoo · FORUM VIRIUM HELSINKI · Aalto University · DEMOS HELSINKI · Metropolia University of Applied Sciences

Czech Republic and Slovakia

Metropolitan area

CG Transit app

The application is very similar to the Google Map route planning app, but it contains many additional features It can show the directions offline, even abroad.

It is considered as one of the most useful travel apps in the world. Besides that, it's graded 4.6 in Google Play and 4+ in Apple Store. Overall there are > 300 000 downloads worldwide.

Idea for Helsinki-Vantaa Airport and Aviapolis

A route planning app that works offline would be a great experience for travelers also in Finland especially if they are planning to travel to nature attractions in the North since the internet connection can be limited in those areas. A Finnish app might be expanded to other Scandinavian countries and rest of Europe, Baltics and Russia.

High competition in similar services may make the release of new service unnoticeable. Internet connection is largely available in capital areas, which may reduce the need of such an app for many customers.

Subcategory of Cases	Mobility Application

Customer	Tourist (Leisure, business), Local (Resident, Commuters)

Market Place

B2C - offline route planner

Mobility Systems

Mobile database of traffic information, GPS, personal data, payment services

Transport Modes/ Mobility Services

- The app is able to download a map (for particular subscription) so that it can be used offline
- The app works in real time -> if a customer misses the vehicle the app identifies that and suggests a new route.
- Adapted to many European, American and Canadian cities .

Needed Infrastructures

Roads (public transportation), mobile device

Stakeholders

Private	Public
Circlegate	

Mountain guides, air taxi, guided hiking, hunting, dog sled

Supplementary Markets

Author of the Card

Valentina Zeljonaja

Reykjavik

Blue Lagoon

[Reykjavik Excursions](#)

The main purpose of the package is to provide a bus tour from the airport to the sightseeing destinations. The destinations include the most visited and most precious landmarks of Iceland. The return journey is arranged to the Reykjavik or to the hotels. Busses have audio guide, luggage carry, and internet connection.
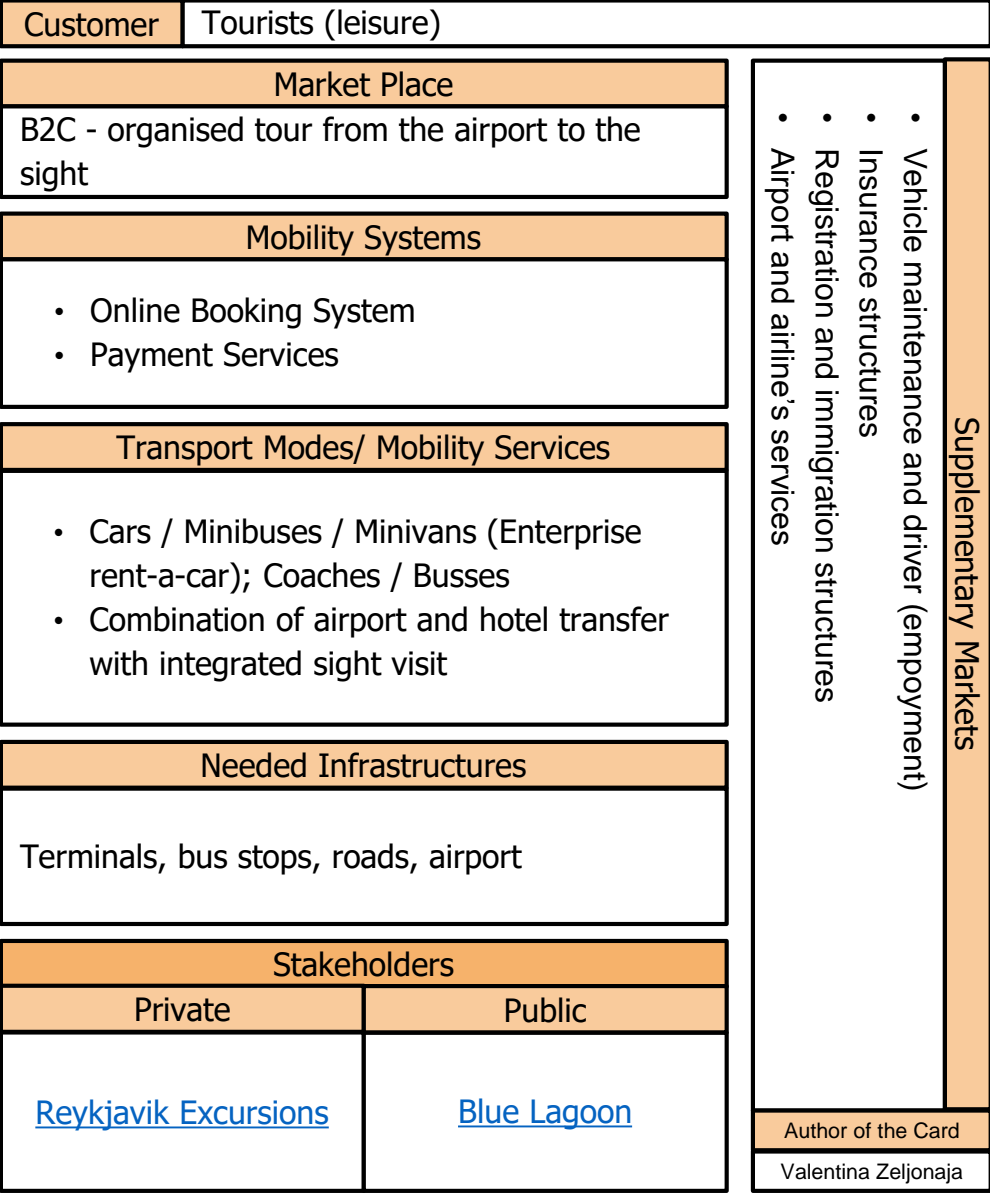
There were 1,767,726 passengers going through Keflavik airport in 2016. Around 25% of which have visited the Blue Lagoon only, which is the second most visited attraction in Iceland.

Idea for Helsinki-Vantaa Airport and Aviapolis

In Finland, Finavia offers busses going directly to the sights of Helsinki (Linnanmäki, Railway Station / Kiasma, National Opera). The challenge is to increase the awareness of other places in more peripheral areas.

Helsinki-Vantaa Airport had 2018 approc. 2,6 Mio international passengers (more than in Keflavik), which means, that there could be demand for similar packages introducing nature sights of Vantaa like Sipoonkorpi.

Subcategory of Cases	Tour Package

Customer	Tourists (leisure)

Market Place

B2C - organised tour from the airport to the sight

Mobility Systems

- Online Booking System
- Payment Services

Transport Modes/ Mobility Services

- Cars / Minibuses / Minivans (Enterprise rent-a-car); Coaches / Busses
- Combination of airport and hotel transfer with integrated sight visit

Needed Infrastructures

Terminals, bus stops, roads, airport

Stakeholders

Private	Public
[Reykjavik Excursions](#)	[Blue Lagoon](#)

Supplementary Markets

- Vehicle maintenance and driver (empoyment)
- Insurance structures
- Registration and immigration structures
- Airport and airline's services

Author of the Card

Valentina Zeljonaja

Singapore

Metropolitan area

Free Singapore Tour

The transit passengers, who are staying at the city/airport at least for 5,5 hours, have the opportunity to spend this time with Singapore tour, eiter Heritage tour or City Sights Tour, for free. The purpose of such a tour is to introduce local sights, traditions and friendly attitude to the transit tourists. The target is to make passengers return to Singapore for a longer period and spend more money there. The Changi Airport carried 62,2M passengers in 2017, which is the main stakeholder of the offer. Consequently, this package attracts tourists to choose also particular airlines, or airports, for transit.

Idea for Helsinki-Vantaa Airport and Aviapolis

Similar free tour package could in the long run increase the numbers of travellers in Finland even more. Howver, this kind of arrangement has registration, luggage and immigration legislation/restrictions, which vary by each country and number of air traffic.

Subcategory of Cases	Tour Package

Customer	Transit tourists from Changi Airport (Business and Leisure)

Market Place

G2C - a free sightseeing tour for transit passengers

Mobility Systems

Database for ticketing information, personal information, flight information

Transport Modes/ Mobility Services

Buss or other transport service

Needed Infrastructures

Roads, bus stops, natural landmarks and/or sightseeings

Stakeholders

Private	Public
	Changi Airport Group Singapore Tourism Board Singapore Airlines

Supplementary Markets

- Airport facilities
- Bus service providers and its employees
- Tourism agencies

Author of the Card
Valentina Zeljonaja

Hong Kong

Lantau Island

Lantau and Monastery Tour

The purpose of the tour is to make transit passengers, that have at least 5 hours at the airport, visit sightseeing places located close or nearby the airport. The package is paid and should be booked beforehand. This cultural package includes all essential Hong Kong features within few hours, such as traditional dishes, village and cultural establishment/monuments. Furthermore, there were around 34 Mio transit passengers and same-day in-town visitors in Hong Kong during the 2017.

Idea for Helsinki-Vantaa Airport and Aviapolis

Similar packages could be considered for Stop-over-travelers enabling them to visit sights of Vantaa within 5 hours and involve private travel and tourist companies and transport provides in the planning and providing of this package.

Subcategory of Cases	Tour Package

Customer	Transit passengers

Market Place

B2C - a tour for transit passengers, covering the area nearby the airport

Mobility Systems

Data and information of the tour, payment and booking services

Transport Modes/ Mobility Services

Tour includes places, such as: Tai O Fishing Village, Big Buddha, Po Lin Monastery and vegetarian lunch, Ngong Ping Village, Ngong Ping Cable Car ride and transfer back to the airport.

Needed Infrastructures

Sightseeing areas near the airport area, road and vehicle options. Opportunity for having the cable car excursion would bare additional advantage.

Stakeholders

Private	Public
Splendid Tours & Travel Ltd	

Supplementary Markets

- Cooperation companies and properties
- Vehicle maintenance and supplier companies

Author of the Card
Valentina Zeljonaja

Hong Kong

Metropolitan area

Octopus Card

"Octopus is a smart contactless payment tool which is fun and easy to use and accepted all over Hong Kong! Use it for public transport, dining, entertainment, shopping and more. It is the easy way to get the most from your time in Hong Kong!"
It was a first a simple public transport payment card. Now Octopus has extended its reach into small-value payments in the retail sector as well government tolled tunnel, parking, access control for residential and commercial building, support for various facilities in schools and self-service kiosks. The card can also be used online with compatible NFC devices.
Today, more than 34.5 million Octopus cards are in circulation, with 99% of people in Hong Kong using Octopus cards to travel, shop and dine without cash.

Idea for Helsinki-Vantaa Airport and Aviapolis

In Finland, a similar common travel/payment card would enable cashless payments. Getting rid of currency exchange may save some money too. Octopus card has similarities with the HSL travel card, which means that rather than investing into a new card service, HSL or other existing travel/payment card could be improved with help of governmental funding.

Subcategory of Cases	Other

Customer	Tourist (Leisure, business), Local (Residents, Commuters)

Market Place

G2C - a travel card, that works as an universal payment card

Mobility Systems

NFC systems, database for payments, travel information and other financial needs.

Transport Modes/ Mobility Services

Needed Infrastructures

Transportation, ticket vending machines, buildings (shops / restaurants etc..)

Stakeholders

Private	Public
30% are privately owned shares	Octopus Holdings Limited

Supplementary Markets

- Dining, retail and other facilities
- Transportation service providers
- Vending machines, kiosks, online services, where it is possible to purchase the card

Author of the Card

Valentina Zeljonaja

Dubai

Dubai International Airport

Stopover in Dubai

The stopover package includes a transfer of passengers to the hotels (breakfast is included) and discounts to the sights and entertainments (without fees). For an additional fee, visas (for 96 hours up to 30 days) and a large choice of hotels are included.

The volume of Emirates Airline passenger flow reached 56.1 Million in 2017. Furthermore, Dubai International Airport is considered as one of the busiest international traffic airports, reaching the point of 80 Million passengers. The numbers are still growing, meaning that the demand on stopovers might also increase

Idea for Helsinki-Vantaa Airport and Aviapolis

Finnair, as well as Finnavia, are considering themselves as a hub for transit tourists, so more travel-friendly and budget-friendly opportunities, could increase the attractiveness of Helsinki-Vantaa airport and Finnair even more.
This requires cooperation with hotels, immigration/registration authorities, transportation providers and entertainment facilities.

Subcategory of Cases	Other

Customer	Tourists using Emirates Airline and Transit passengers

Market Place

G2C - a stopover package including transfer and discounts to some facilities

Mobility Systems

Online ticketing and booking services; mobile data of traffic, personal information.

Transport Modes/ Mobility Services

The service attracts passengers to use particularly Emirates airlines when taking transit from/to Europe and India/Middle East.

Needed Infrastructures

Buildings (hotels), roads, sights, airport

Stakeholders

Private	Public
	The Emirates Group

Supplementary Markets
- Arabian Adventures
- Congress Solutions International
- Emirates Holidays
- Emirates Tours

Author of the Card

Valentina Zeljonaja

Singapore

Metropolitan area

Singapore Stopover Holiday

The purpose of this Stopover package is to offer tourists accommodation and free museum visits enabling them to explore the beauties of Singapore by themselves. The package offers the choice of 3- to 5-star hotels, access to over 20 attractive deals, complimentary rides on the SIA Hop-on Bus and more. Package is only available for passengers using Singapore Airlines, or their daughter company Silk Airlines.

In 2016/17 the Singapore Airline carried 19M passengers, covering 31 countries (the main stakeholder of the offer). The Changi Airport carried 62,2M passengers in 2017.

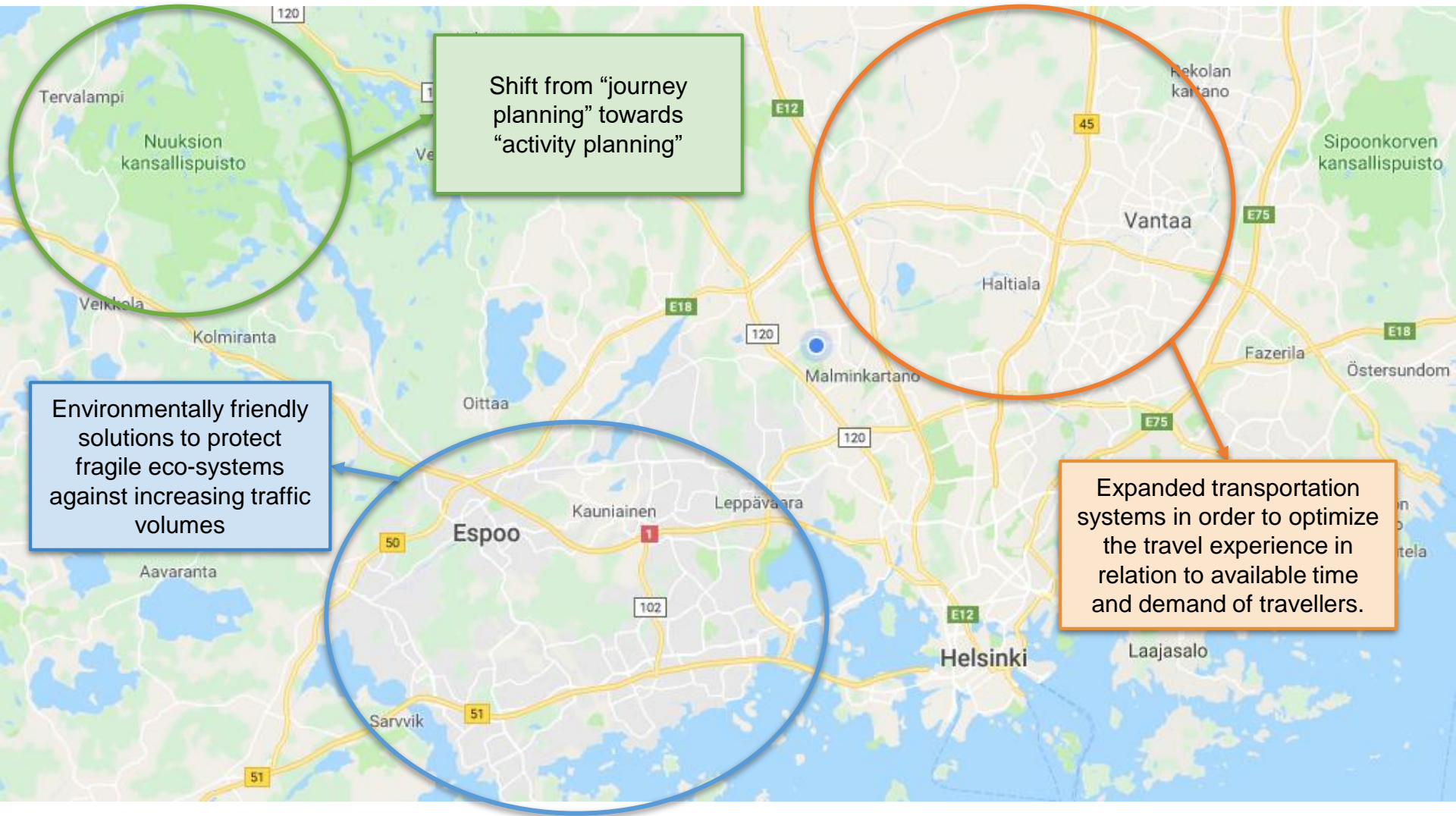### Idea for Helsinki-Vantaa Airport and Aviapolis

There are already a lot of supplementary packages and offers for the stop-over tourists in Finland as well. However, an opportunity to visit some places and sights without extra fees or even for free, could attract more tourists to use Finnair and utilize the services related to the packages.

Subcategory of Cases	Other

Customer	Tourist (Leisure, business)

Market Place

G2C - a stopover package with free accommodation and entertainment facilities

Mobility Systems

Online ticketing and booking services; mobile data of traffic, personal information.

Transport Modes/ Mobility Services

The service provides discounts or completely free entrance fees to main attractions in the city (including hop-on-off services) - **transportation is not included into the package**

Needed Infrastructures

Roads, transportation, sightseeing spots

Stakeholders

Private	Public
	Singapore Airlines (half governmentally owned)

Supplementary Markets

- Hotel partnerships (3* to 5*)
- Partners in sightseeing establishments
- Public and private transportation
- Dining, retail and entertainment facilities

Author of the Card
Valentina Zeljonaja

Short conclusions by target areas in Finland

Shift from "journey planning" towards "activity planning"

Environmentally friendly solutions to protect fragile eco-systems against increasing traffic volumes

Expanded transportation systems in order to optimize the travel experience in relation to available time and demand of travellers.

CONCLUSIONS

CONCLUSION RELATED TO NATIONAL PARKS

Shift from "journey planning"
towards "activity planning"

The cases studied support offering outdoor activities for tourists and city dwellers living close by and developing transportation to help people to reach their place of interest easier.

There is a clear shift from "journey planning" towards "activities planning" in the demand for transportation and mobility services. People want to focus more on activities available and expect that the best transport option will take them there easily. Instead of typing an "address" in a journey planner, people would like to enter the desired "activity" in a search box. All useful information related to the activity and the area of interest as well as the booking and payment systems should be provided in the same application. The journey chain can be integrated as a trip planner module to the tile representing the activity in the application.

The focus of future mobility services should be in the interaction between activity providers and transport operators in order to deliver the best possible door-to-door experience. Stakeholders operating within a place of interest should be involved in the development of mobility services. Local transport options and attractions available around Nuuksio Natural Park should be integrated into one package for outdoor enthusiasts who give high priority finding all necessary information easily from one place.

DEVELOPMENT IDEAS FOR NUUKSIO NATURAL PARK

- A "nature bus line" connecting the airport, train stations and bus terminals to Haltia, the main entrance to Nuuksio natural park.

- A "green ring" operated by electric buses and connecting the Haltia Nature centre to trailheads and other places of interest around the park.

- Car restrictions in the center of the park will reduce the congestion at Haukkalampi.

- These systems utilizing buses can be completed with a car sharing system that is available not only for the residents but also for tourists wanting to visit Nuuksio.

- A network of rental bike stations could help visitors to move from one gateway to another (around and inside the park).

- Kayak rental locations available at several lakes in the park.

- An App listing hiking trails enables outdoor enthusiasts to explore the park off the beaten tracks.

- Activities available within and around the park as well as local transport solutions in Espoo (itineraries of the archipelago boats) should be integrated into the HSL or Whim journey planner.

- Developing the area close to Haltia Nature Cetnre into a tourist attraction and "Spearhead" of the national park so that outdoor enthusiasts pay attention to it on their way to the center of Nuuksio as well as day-trip-tourists from Helsinki city center or directly from the airport enjoying a guided in Nuuksio.

CONCLUSION RELATED TO ARCHIPELAGO AND COASTAL AREAS

Environmentally friendly solutions
to protect fragile eco-systems
against increasing traffic volumes

The studied mobility solutions seek for efficient use of transport by sharing vehicles and services in order to implement increasingly sustainable transportation solutions for customers. More and more transport services utilize sustainable fuel and promote the sharing economy ideology.

Sharing economy includes the ideology of shifting from owning your vehicle to sharing your or pool's vehicle. Sharing transport vehicles enables customers to smoothly utilize different transport methods like bicycles, cars, taxis or boats for different needs. This is rather convenient when moving to and within the city archipelago where transportation is needed on (urban) land, sea and getting around the islands.

It is recognized that urbanisation leads to congestion and limits the possibility of owning your vehicle. Therefore sharing transport vehicles functions best in urban environment together with means of private and public transport. Customers gain by being able to use several modes of transport flexibly and more cost-efficiently according to their needs.

Modern technology has changed the transport services from being just a service of moving people from point a to point b. Mobility services can include also various relaxation or adventure activities especially in areas near the coast and archipelago. In order to preserve the beauty of the archipelago, also transportation solutions there have to be more sustainable.

DEVELOPMENT IDEAS FOR CITIES NEAR THE COAST AND ARCHIPELAGO

- Accessibility of the coastal areas and archipelago for travelling groups like families or friends could be improved by establishing carpools at beforehand specified locations by the archipelago. Co-operation between carpooling services and the public transport system could create new potential visitor segment for these areas.

- The coastline of Espoo offers great environment for cyclists. A citybikepool, where bicycles are synchronized with public transport, would improve the accessibility of the area and speed of travelling to archipelago from the urban areas and vice versa. Possibility to check on your phone the availability of bikes either at the subway station or while visiting archipelago would encourage travellers to make more spontaneous trips and recognize city bikes as modern mobility service.

- Services like sustainable picnic boats for friends and families could be available in certain areas.

- Visitors, who seek for longer, true experience in the archipelago, should be offered the possibility to rent e.g. a boat owned by some "Airbnb for boats" type of company with fixed routes/trips. These routes could be planned with local entrepreneurs, like restaurants or bed and breakfast places, to include them into the service as well.

- Mobility services should include more holistic experience of the archipelago instead of just a transportation.

CONCLUSION RELATED TO CITY AREAS NEAR THE AIRPORT

Expanded transportation systems in order to optimize the travel experience in relation to available time and demand of travelers.

All the cases studied presented solutions of mobility services that would primarily improve the travel experience of both arriving and departuring airport passengers. Some of these services benefit also local residents of the area, as well as private transportation businesses nearby or offering their services at the area.

There is a clear focus on improving the travel and mobility functionality to be less time-consuming. Goal is to create and offer solutions, which make transportation from point A to point B as smooth, as direct and as fast as possible. Currently many businesses emphasize journey planners which give travelers wider choice of transportation alternatives.

Another focus area is demand driven solutions, particularly in the transport hubs like an aiport. Helsinki-Vantaa airport is a growing transfer hub for tourists from Europe and Asia. These transfer tourists are time depended. Demand driven services improve their mobility with help of easy route planning keeping them away from traffic jams and overcrowded routes.

Demand of tourists has an effect on transportation solutions of the local residents within the area as well, since new faster services benefit them too.

DEVELOPMENT IDEAS FOR VANTAA AIRPORT AREA

- To improve the tme efficiency, airport area should offer more transportation options for travelers. However, this needs to be done together with mobility application development.

- If the range of available applications is too high, the airport stakeholders should provide clear guidance telling what application is reliable to use and what services they use. Particularly tourists should have an easy access and receive as many transportation options integrated as possible.

- Currently there are not sufficiently direct transfers from the airport to the sights of Vantaa or Espoo. Transportation options provided should consider people of each budget range, thus offerring express services as well as bicycle options.

- Sights and attractions of Vantaa and Espoo are not as well known as the ones in Helsinki city center. Offers to tourists should include short-time airport and sight tours, either paid or free.

- There could also be a collection point at the Helsinki-Vantaa airport from which direct buses take to the sights of Vantaa, such as Kuusijärvi, Jumbo / Flamingo, Heureka and Fazer factury.