



Public MaaS
Ruter – Oslo [webinar]



Introduction



Public Controlled MaaS



Platform Support



Q&A



Agenda

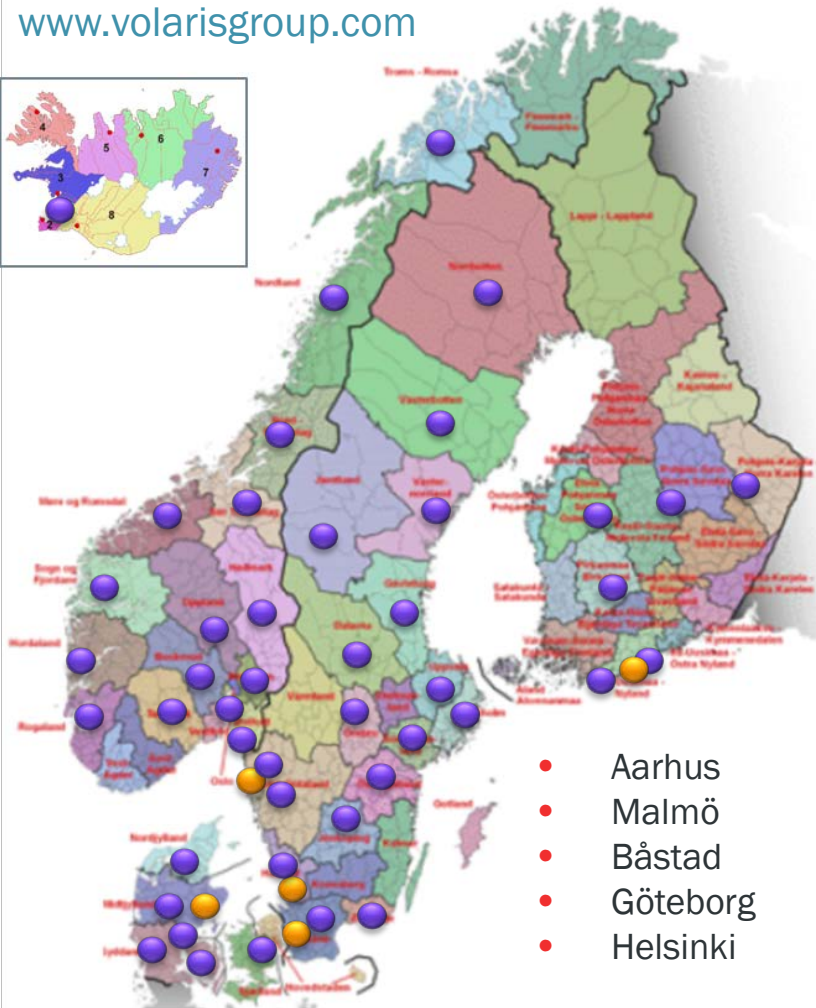
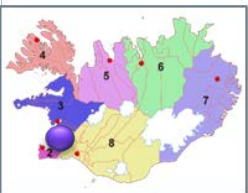


Public MaaS - OnDemand People Transportation

●—● FIXED ROUTE ●—○ FLEXIBLE ○—○ DOOR-TO-DOOR

www.volarisgroup.com

Hundreds of government and commercial organizations across Europe, North America and Asia Pacific have turned to our companies to realize efficiencies, enhance the quality and scope of their services and safely transport more people with less cost.



Trapeze Group works with public transit agencies and their communities to develop and deliver smarter, more effective public transit solutions. For more than 25 years we have been Here for the Journey, evolving with our customers around the world to helping them move people from point A to Z, and everywhere in between.

www.trapezegrup.eu

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TripSpark Technologies is a community transportation technology company focused on helping mid-sized transit agencies and private operators transform their operation - increasing community engagement and driving revenue. TripSpark makes this possible by linking the latest technologies with a dedicated focus to help you grow your operation and meet evolving community transit needs.

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Simpli Transport has simplified the way demand responsive transportation software is delivered, implemented and supported. Simpli Transport's web based scheduling system is specifically designed for smaller operations with limited resources and contracts required.

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PLANit and its subsidiaries — Holmedal and Malmator — provide software, systems and technology for more efficient resource management within the field of demand-responsive passenger traffic (DRT) and taxi systems. Customers include county transport authorities, taxi companies, local authorities and county councils primarily throughout Scandinavia.

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OUR VERTICALS





- > Agri-Business
- > Asset Management & Logistics
- > Communications
- > Cultural Collections Management
- > Drinks
- > Education
- > Financial Services
- > Justice
- > Library Management
- > Marine
- > People Transportation
- > Rental Management
- > Retail
- > Other Markets

More than 100.000 [DRT] journeys pr. day In Scandinavia

Public MaaS – Best Practice



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Jan 23, 2019 · Comments (0)

FLEXDANMARK OPTIMIZES SCANDINAVIAN SOFTWARE SOLUTION TO DELIVER EFFICIENT, HIGH QUALITY TRANSPORTATION TO ITS CITIZENS

IN OCTOBER 2018, AARP'S OFFICE OF POLICY, RESEARCH AND INTERNATIONAL AFFAIRS STAFF JANA LYNOTT AND KIM SEDMAK TRAVELED TO DENMARK FOR A STUDY TOUR AND VIDEO SHOOT OF THE SUCCESSFUL FLEXDANMARK TRANSPORTATION SYSTEM.



JANA LYNOTT
SENIOR STRATEGIC POLICY ADVISOR, PUBLIC POLICY INSTITUTE, AARP

FlexDanmark

<https://www.flexdanmark.dk>

LIVABLE COMMUNITIES

FlexDanmark Optimizes Scandinavian Software Solution to Deliver Efficient, High Quality Transportation to Its Citizens

By Jana Lynott

In October 2018, AARP's Office of Policy, Research and International Affairs staff Jana Lynott and Kim Sedmak traveled to Denmark for a study tour and video shoot of the successful FlexDanmark transportation system.

When it comes to transportation for older adults, people with disabilities, and rural residents, Denmark is known in transit circles for offering efficient and customer-satisfying service. The AARP Public Policy Institute confirmed this to be true during an eight-day study tour and video shoot of the FlexTraffix system. The entity behind the system, FlexDanmark — a nationwide software company owned by five regional public transport authorities — offers a global model for truly coordinated demand responsive transportation service.

Driving all the transit choreography are the public company's five call centers that are integrated through a central nationwide dispatch system. That system assigns each trip request to a transportation provider that then sends an appropriate vehicle to the customer's door. More than 550 unique private transportation providers are integrated into this single system, which serves both urban and rural customers throughout Denmark. Hospitals, medical offices, and human service agencies easily connect their clients using the FlexDanmark

portal. Regular citizens can obtain transportation to a doctor's appointment or other destination at a more affordable price than a taxi, because FlexDanmark can quickly identify another customer to share a ride with. Trips may be booked with lead times ranging from up to two weeks to two hours before.

How FlexDanmark's Services Work
FlexDanmark offers several fully integrated services within its FlexTraffix platform:

- A service going by the name FlexPatient provides free transportation from home to hospital for patients who cannot arrive by regular public transportation because of illness, disability, frailty, or lack of adequate transit service in rural areas. FlexPatient service is guaranteed by federal law.
- FlexHandicap, another service, is for individuals with a severe mobility impairment. Under federal law, Denmark's regional transportation authorities must provide at reduced

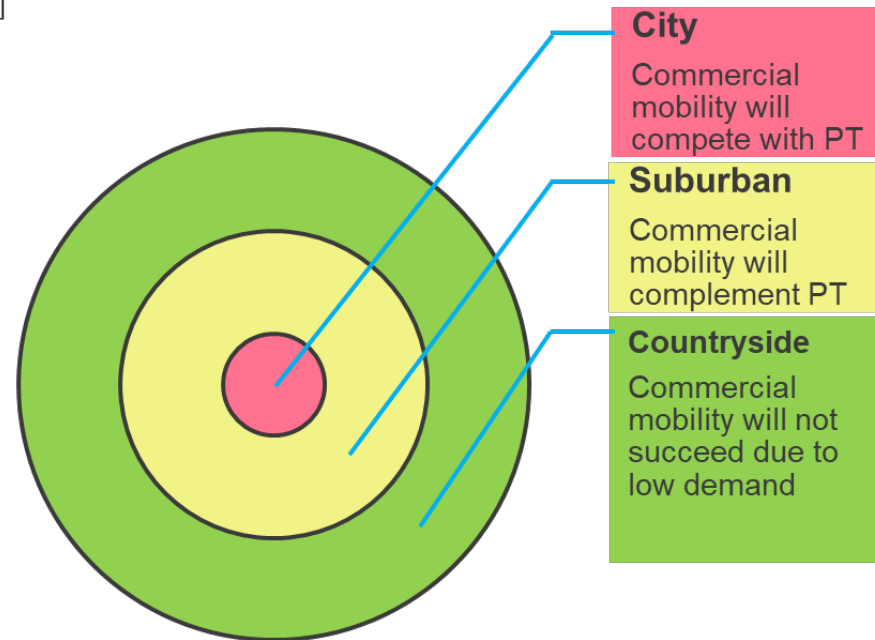
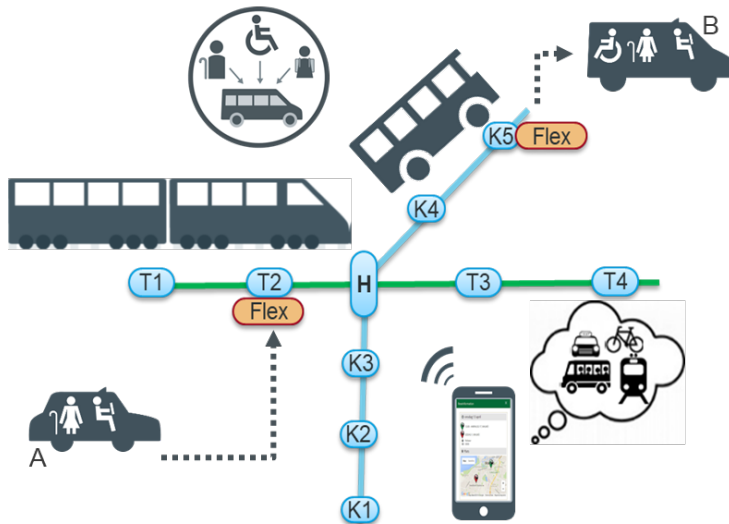
cost 104 one-way leisure trips per year to citizens with severely reduced mobility because of disability or frailty, at an out-of-pocket cost no higher than the cost of public transportation.

- Municipalities have the option of subsidizing other services within the FlexTraffix platform:
 1. Most municipalities invest in FlexTur, which allows any citizen to arrange demand responsive transportation through FlexTraffix. FlexTur riders share the cost of transportation with their sponsoring municipality.
 2. About half of the municipalities invest in FlexMunicipality, subsidized transportation to get residents to non-hospital medical appointments.
- What is significant about these services is that they may use the same vehicles to transport different categories of customers. For instance, our study

Mobility Trends ... 2020 - 2030

“WSP consultancy report – Scandinavia”

- Subsidized Mobility up 20% [we live longer]
- Combined Mobility up 300% [OnDemand Public Transport]
 - Commercial Mobility in Cities and Suburbs
 - Subsidized Mobility to cover Countryside/Rural

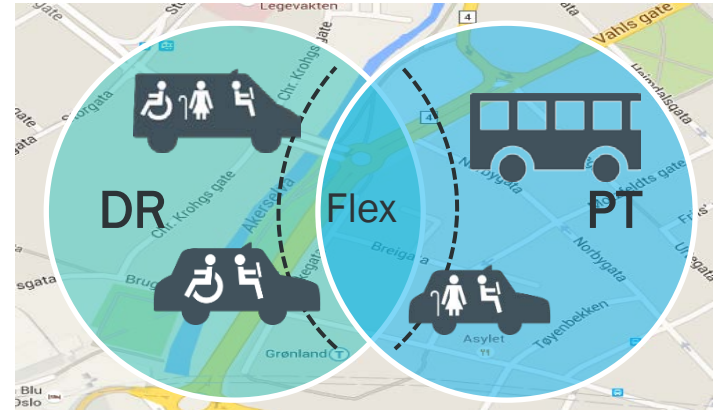


FirstMile/LastMile – Microtransit – OnDemand...



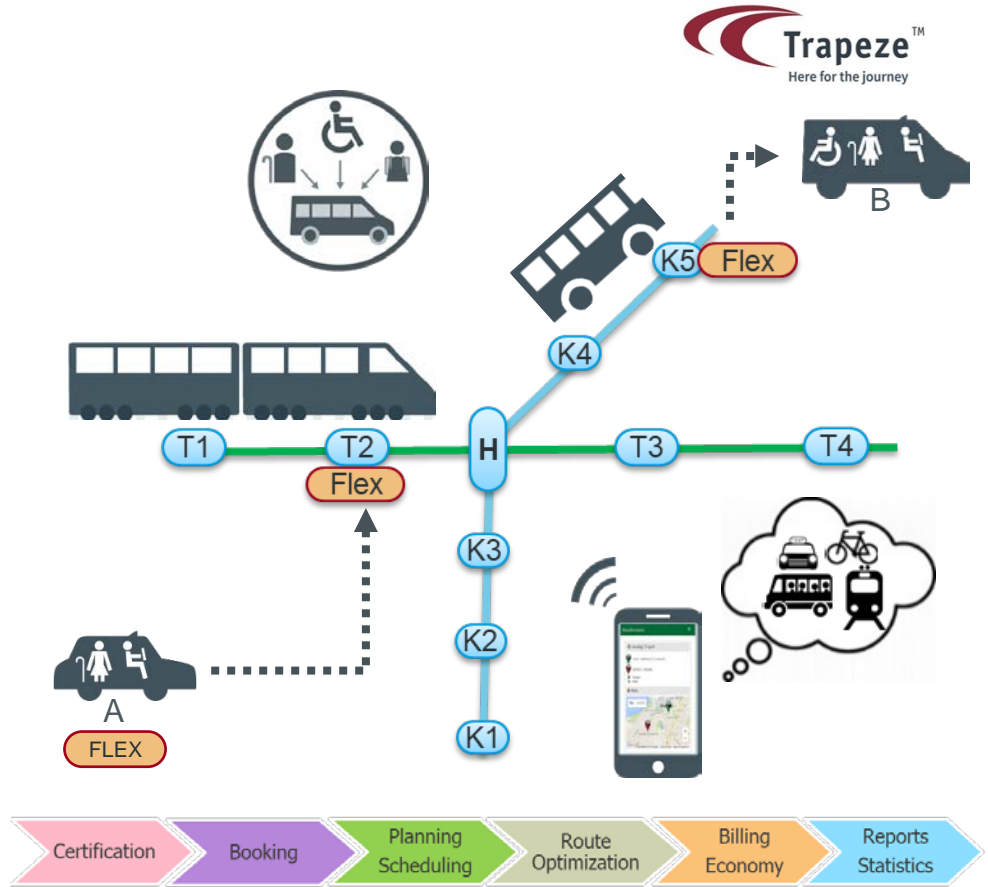
Optimization of Public Transport with Demand Response

- Day
- Week
- Month
- Individual timing
- Public Transport 24/7-365



SUPPORTS SUSTAINABLE TRANSPORT SOLUTIONS FOR

●-● FIXED ROUTE ●-○ FLEXIBLE ○-○ DOOR-TO-DOOR



Platform Support ...



• Travel Service [web & App]

- Mobility Browser [offered mobility services]
- Ticketing, Booking & Cancellation
- Registrations and Subscriptions "my Page"
- Realtime Push Info



• Core Service [SaaS]

- Callcenter Support
- Booking and Planning
- Coordination and Optimization
- Sys Admin



• Traffic Service [web & App]

- Tendered Resources
- Driver Manifests
- Reporting/Payments
- Realtime Push Info

Under the Hood ... [Multiple Algorithms, 50K inserts pr. Hour]



Bookings

Date: 2020-06-09

From area: [] To area: []

Service type: [] Schedule status: []

Admin Unit: [] Eligibility condition: []

44 Total records

Requested time	Client name	Service type	Space	From address
07:05		SI		HON & HAN DACKERPLAN 3, MÖJLEBY
09:00		SI		MALMENS ÅTERVINNINGSCEN MA...
08:25	1122334455Kund 1122334455Ma...	SI		HON & HAN DACKERPLAN 3, MÖJLEBY
11:05	1122334455Kund 1122334455Ma...	SI		HÄGERS FRISERSALONG KUNGSV...
09:30	1122334455Kund 1122334455Ma...	SI		MALMENS ÅTERVINNINGSCEN MA...
14:00	1122334455Kund 1122334455Ma...	SI		NORRÅRSVY RINGSTAMO, NORR...
11:05	Agile Client	PE		HON & HAN DACKERPLAN 3, MÖJLEBY
14:00	Agile Client	SI		Löviken 1, 56393 Gränna
07:00	AGNES ANTHA GOUGH			HON & HANS HÄRVÅRD BLÅELDS...

1 of 5 of 44

Open booking (8) Schedule (5) Change schedule time (2) Cancel and copy (0)

Client name	ClientID	Client C side	Bookin gID	Elig Conditions	Funding Sources	Internal Comments
Agile Client	489917		327327 24124 327			

From	To	Needs	Phone	Address comments	Total Dwell Time
Löviken 1, 56393 Gränna					
ZETTERBLOMS BIL SMEDVERK, NORRÅRSVY					

Date	WeekDay	Sch. TI	Neg PU -time	Req ED T	Req. fr am	Est DO- time	Req LA T	Passen giv Co vnt	Fare 154	Fare Ty pe
2020-06-09		me						1		

Space Type	Mobility Aid	Excusi ve Gro	Total D well TI	Return In Same Ve hicle	Extra consideration	Instructions To Dr iver

Run list

Date: 2020-06-09 Time: 08:00 Capacity type: [] Providers: [] Garage in municipality: []

From vehicle: [] Vehicle (run): [] Run category: []

Graphical timeline

Run n.	Vehicle n.	Capac.
1101	1101	BAT 30
1103	1103	SPEC S...
1103	1103	SPEC S...
1104	1104	SPEC S...
1105	1105	SPEC S...
1108	1108	BAT 30
1108	1108	BAT 12...
1114	1114	SPEC S...
1120	1120	SPEC S...

1 of 5 of 137

Single run

Vehicle (run): 1101 Date: 2020-06-09 From Time: 08:00 To Time: 21:00

Run name: 1101 Vehicle name: 1101 Capacity type: BAT 30 Provider name: 1901 From garage: Kiselg KISELG 1... To garage: Kiselg KISELG 1... Driver Phone number: +242/36-54 45263214

Provider Phone number: 1409 Preliminary cost: 1409

Default/Standard 442

Sch. TI	Act	Neg. Time	Orig. time	Est. time	Address	Client
11:05	●	11:00		11:05	HON & HAN DACKERPLAN 3, MÖJLEBY	holger
10:00	●	09:30		11:02	MALMENS ÅTERVINNINGSCEN MALMENÅGERSV 2, LL	1122334455Kund
11:42	○			11:42	HON & HANS HÄRVÅRD BLÅELDSV 26, STUREFORS	
11:42	○			11:42	HON & HANS HÄRVÅRD BLÅELDSV 26, STUREFORS	holger
	○			11:50	HON & HANS HÄRVÅRD BLÅELDSV 26, STUREFORS	SIV-BRIT HOLGER
12:15	○			12:20	SLEVRINGE HÖNSGÅRDEN G. ÅTYDABERG	Eddie George Hol
12:19	○			12:19	NORRÅRSVY RINGSTAMO, NORRÅRSVY*	1122334455Kund
	○			13:58	HOLMTORP ASPBACKEN Förbi kornÅnden, NORRÅ...	LARS HOLGER LU
18:36	●			18:30	HON & HAN DACKERPLAN 3, MÖJLEBY	Trapeze Testing
18:36	○			19:00	HON & HANS HÄRVÅRD BLÅELDSV 26, STUREFORS	Trapeze Testing
17:59	○			18:34		
18:50	○			17:22		
20:59	○			14:26		
20:39	○			08:19		
17:00	○			17:09	Kiselg KISELG 13, NORRÅRSVY	

Illustration of how the algorithm works

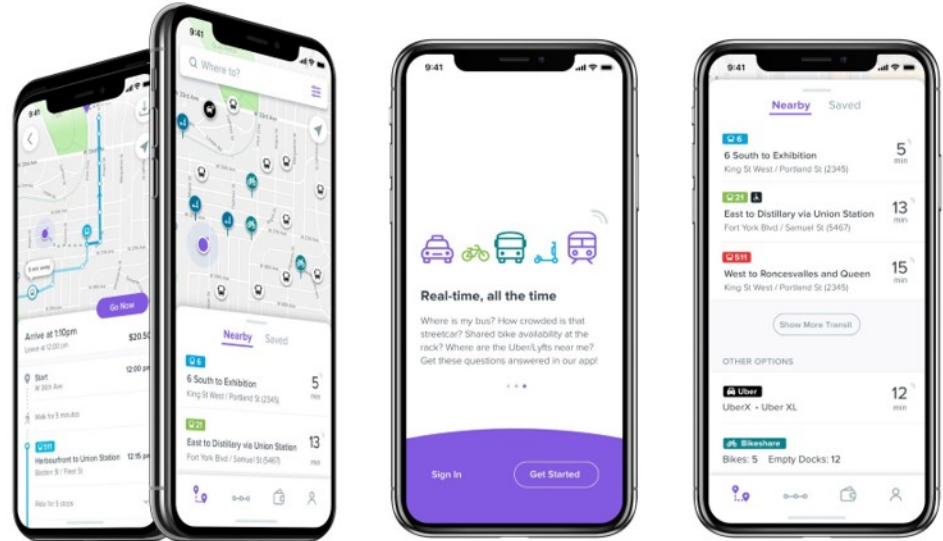
Scheduling Scenario:

- 1) A set of optimization criteria
- 2) A booking, A-B
- 3) All available mobility services, cost, and their current schedules



Platform App [if not API integrated]

- High level App. [regional/national] with all modes of transport
 - High Class Public Transport
 - Bus, Train and Ferry
 - Low Class Public Transport
 - Bus, Train and Ferry
 - Microtransit
 - Area to Area
 - Area to Stop
 - OnDemand
 - Address to Address
 - Curb to Curb



Public MaaS from a Scandic perspective ...



1. What ECO-system should be in place to make MaaS services successful?
2. What role will your company have in successful MaaS services and do you see roles that others need to take, who in that case?
3. In order to integrate MaaS successfully, one must accept the many differences in the mobility services, offered for urban, suburban and rural areas?

1. A National Public operated ECO system for Mobility, including; Journey planning, Booking, Ticketing and Real-Time for integrated MOBILITY products:
 - Integrated but not Monitored [Commercial MaaS]
 - Integrated and Monitored [Public Controlled MaaS]
2. A provider of API integrated Turn-Key solutions Journey planning, Booking and Ticketing for integrated MOBILITY products with “clean” IP value chain:
 - Integrated but not monitored [Commercial MaaS]
 - Integrated and monitored [Public Controlled MaaS]
3. A big difference ... [wsp report]
 - Commercial MaaS, service the individual
 - Public Controlled MaaS, service the area



Thank you!