

Den samlede reise

Kollektivtrafikk foreningen på studietur i Aalborg

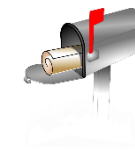
Finn Kock Sørensen

- **Experience**

- FlexDanmark
 - 2017 – Part of project “Better optimization”
 - 2015 - Project manager for nationwide MaaS project, “The connected journey”
 - 2014 - Senior consultant
 - 2011 -2014: Chief of business processes and business systems
 - 2013: Chief of FlexDanmark callcenter, Traffic monitoring unit
 - 2008- 2011: consultant & team leader for support unit
- And:
 - PTO (NT): “Traffic monitoring”
 - Region Nordjylland: Evaluation and booking of trips to/from public hospitals
 - Aalborg Taxi: Booking trips (including from PTO)

- **Education**

- 2014: Executive MBA, Master in Management of Technology (MMT)
- 2001: Master of Science in Public Administration (Cand. Scient. Adm.)



fks@flexdanmark.dk

FlexDanmark

- **Facts:**

- Started in 1997
- Independent public owned company from 2012 (owned by Danish PTO's)
- Yearly budget of 53 million DKR
- 110 employees placed in Aalborg (including call center and part time jobs for students). 35 employees in non call center
- We support and implement a process, not only an it-system
- We handle a nationwide IT-solution for Flex Traffic
- We run a 24/7 call center (booking and management of vehicles)
- We handled Flex Traffic for 150 million EUR 2016
- We handled more than 6 mio. Flex-travels in 2016

- **Our mission:**

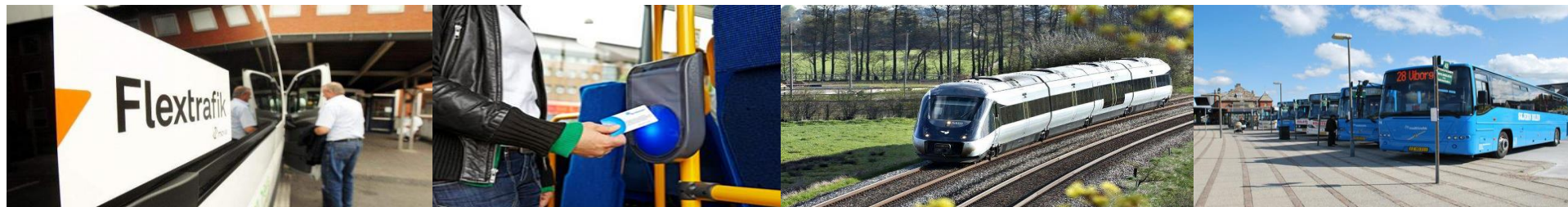
- Reduce total costs of FlexTraffic
- Improve our operation
- Improve services solution to citizens and stakeholders

What is "The connected journey"?

- Coupling first-/last-mile challenges with the regular public transit network
- Public address-to-address transit service, provides travel time, simplified booking and more security (e.g how and when to change from flex to bus) for the citizens.
- Improved access to the regular public transit network for rural areas, and an overall improved cohesion between different public transit services
- Pilot operation since Q4 2016. Public service offering in select areas since May 2017
- From January in whole Northern Jutland, and part of Funen ("Fyn") and Zealand
- Cost of the project is about 32 million DKK (44 million NOK)
 - 50% financed by the National Traffic Agency, earmarked for improvement towards rural areas
 - 50% financed by the transit authorities, through FlexDanmark

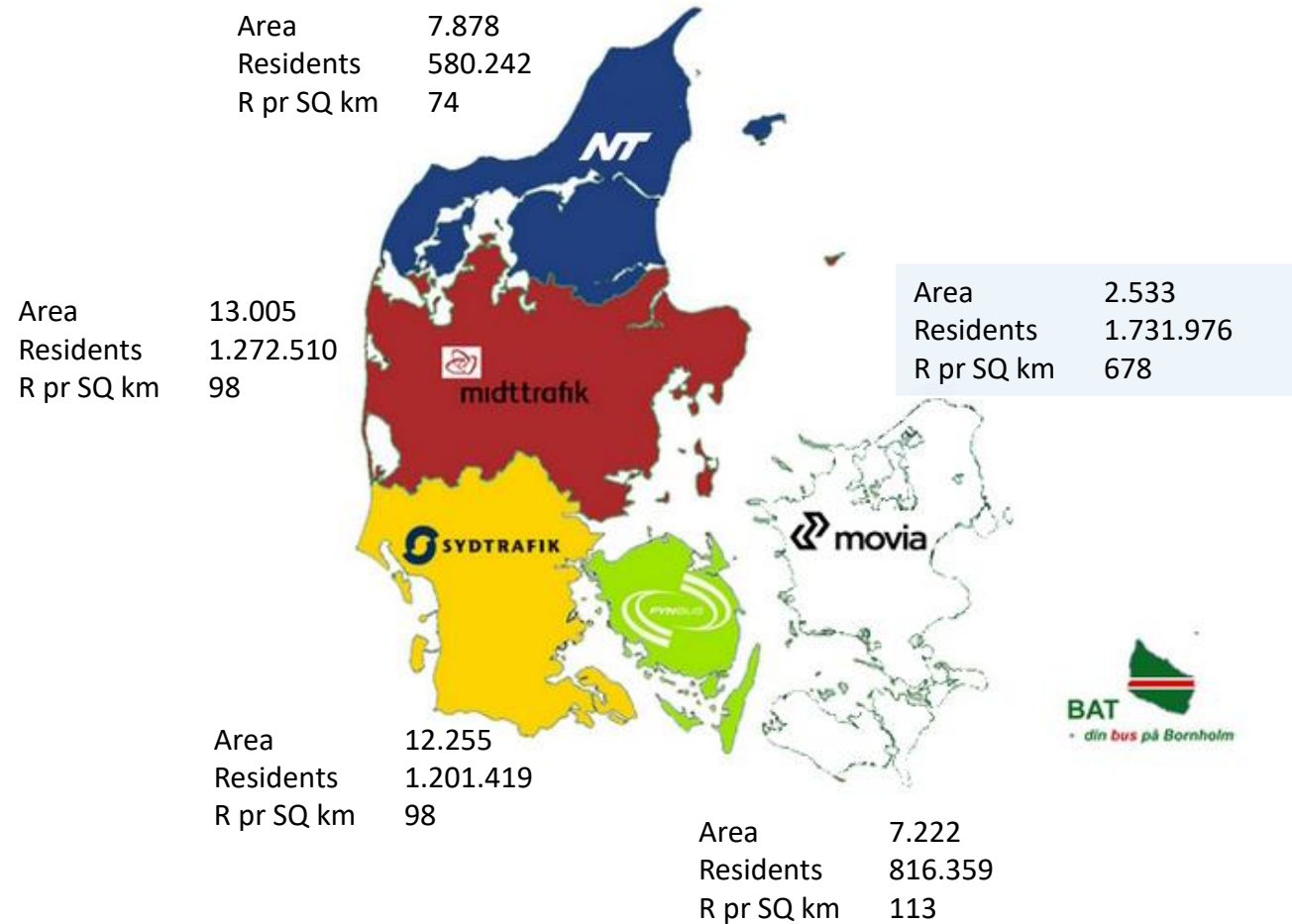
The Connected journey

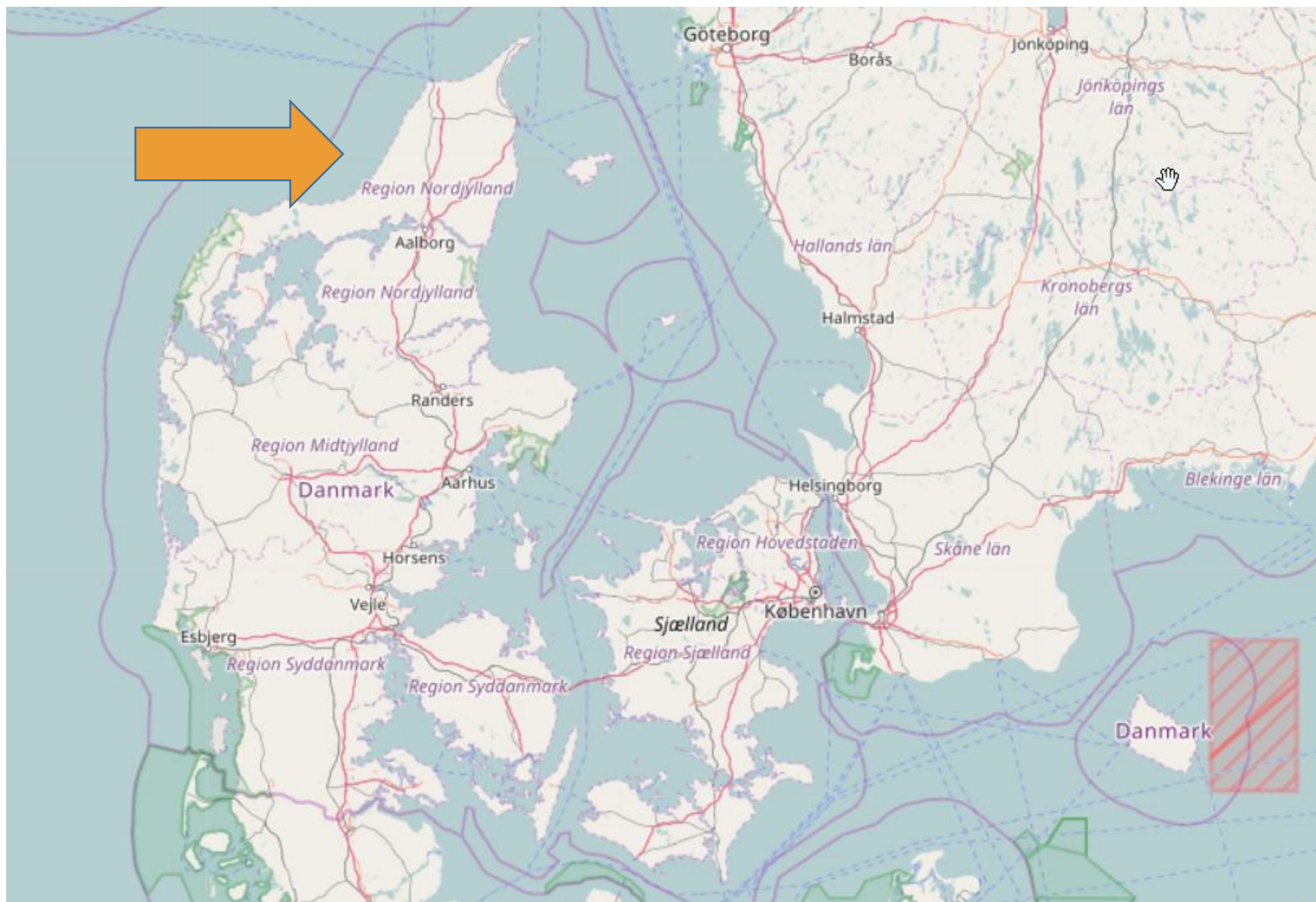
- Nationwide project MaaS solution. The Connected Journey is a project that creates better and more flexible offer of public transport for people in rural areas. This is achieved by expanding the nationwide planning website, Rejseplanen.dk, with additional public transport services, the so-called flex traffic (DRT)
- Funded jointly by FlexDanmark (including PTOs) and Danish Ministry of Transportation
- Live in parts of Denmark now and nationwide expected: end of 2018



The Danish Model (transportation orgs.)

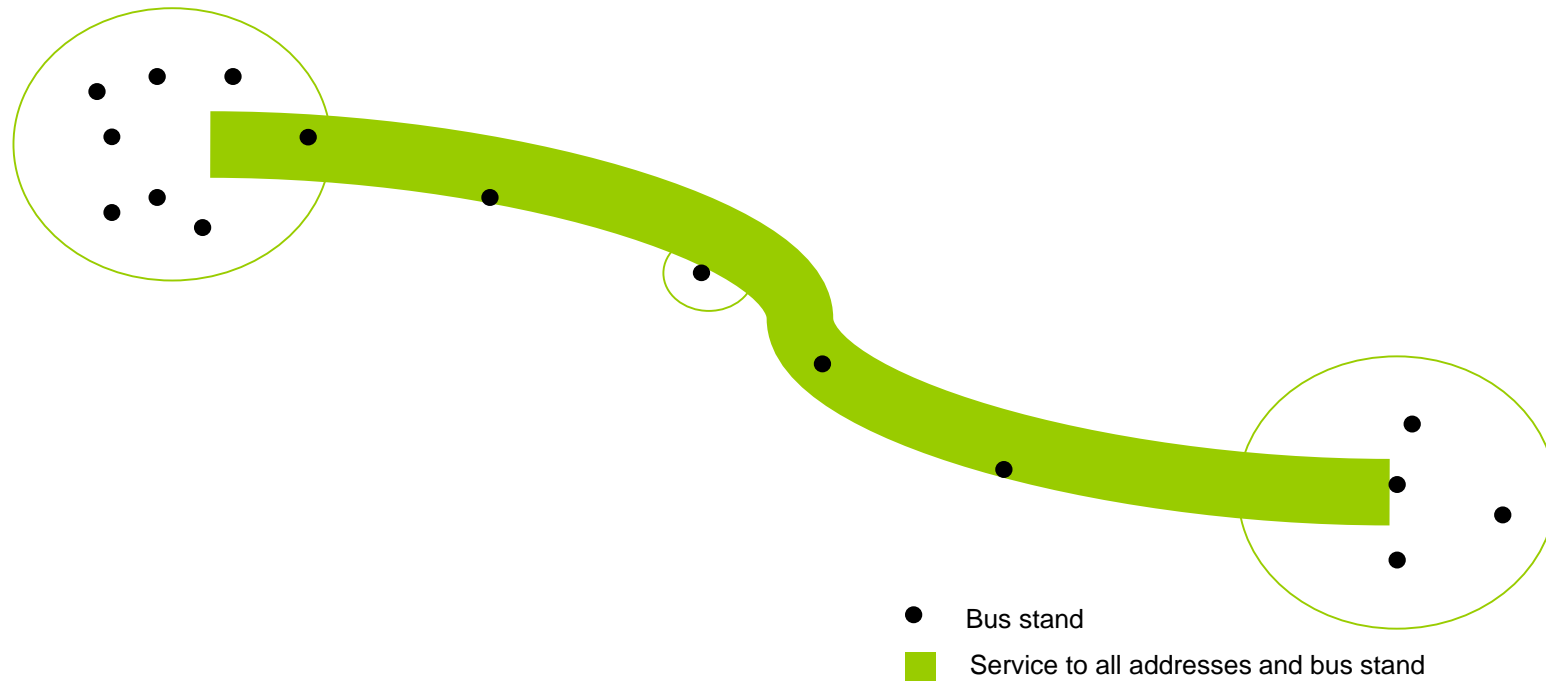
- One shared IT-system for the demand-responsive transportation needs
- Centralized IT, know-how and call-center operation
- Supports five transport authorities in Denmark
- 100+ municipal units with system access
- 10.000+ unique system users



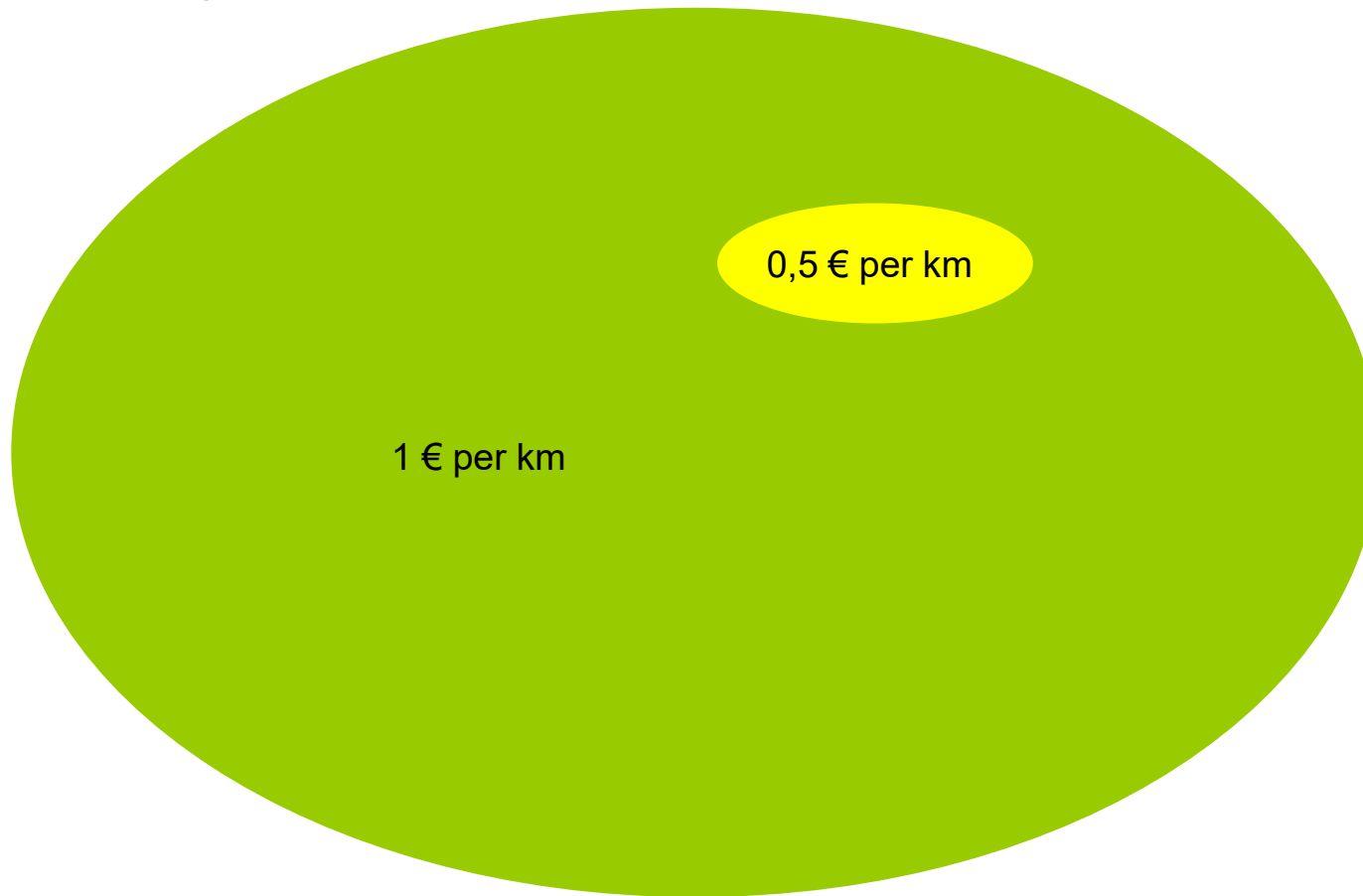


DRT - corridor

All bus stands in towns with > 1500 inhabitants
Addresses and bus stands in the corridor and in minor towns

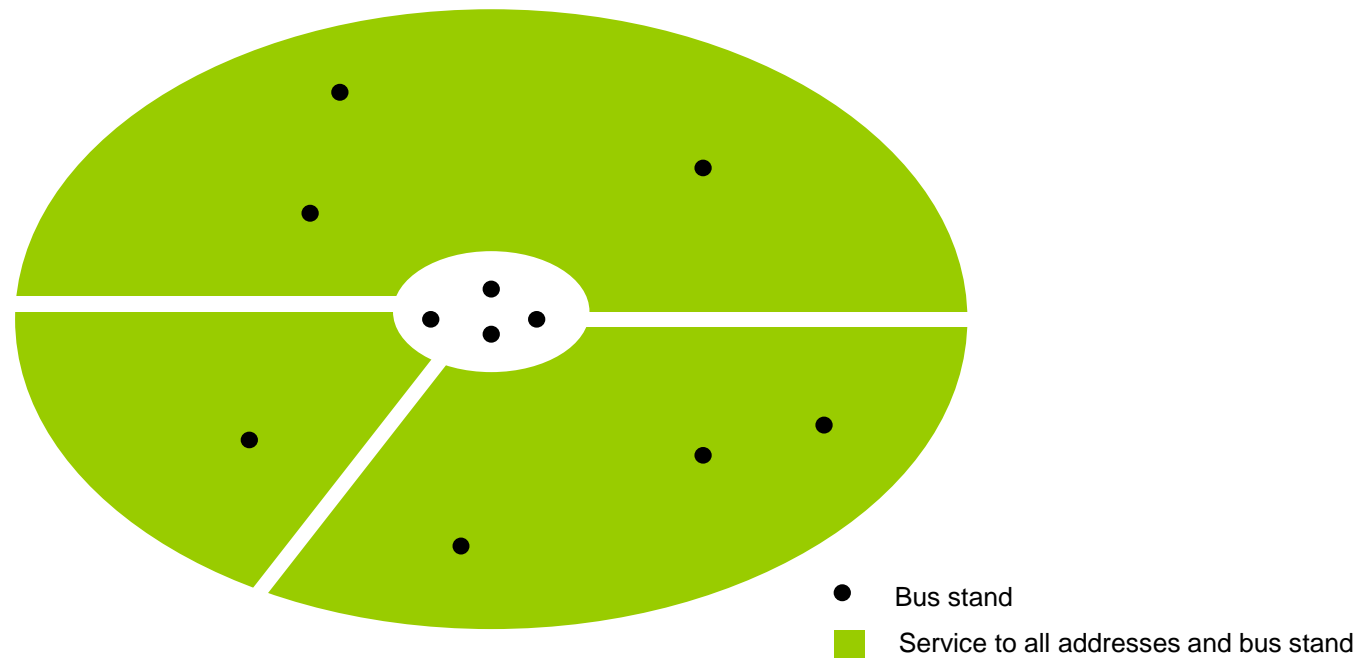


DRT – total area coverage with differentiated fares per kilometer



DRT – areal coverage with exceptions

- Bus stand in the towns
- Service to all adresses and bus stand
 - Except addresses with conventional public transportation



Bufferzones: Jammerbugt Municipality

Last mile / first mile in yellow areas covered by DRT feeding bringing customers to/from timetable bus/train

Now everyone has access to the primary net of public transport in the municipal.

DRT only where no busses covers the area

Opening hours

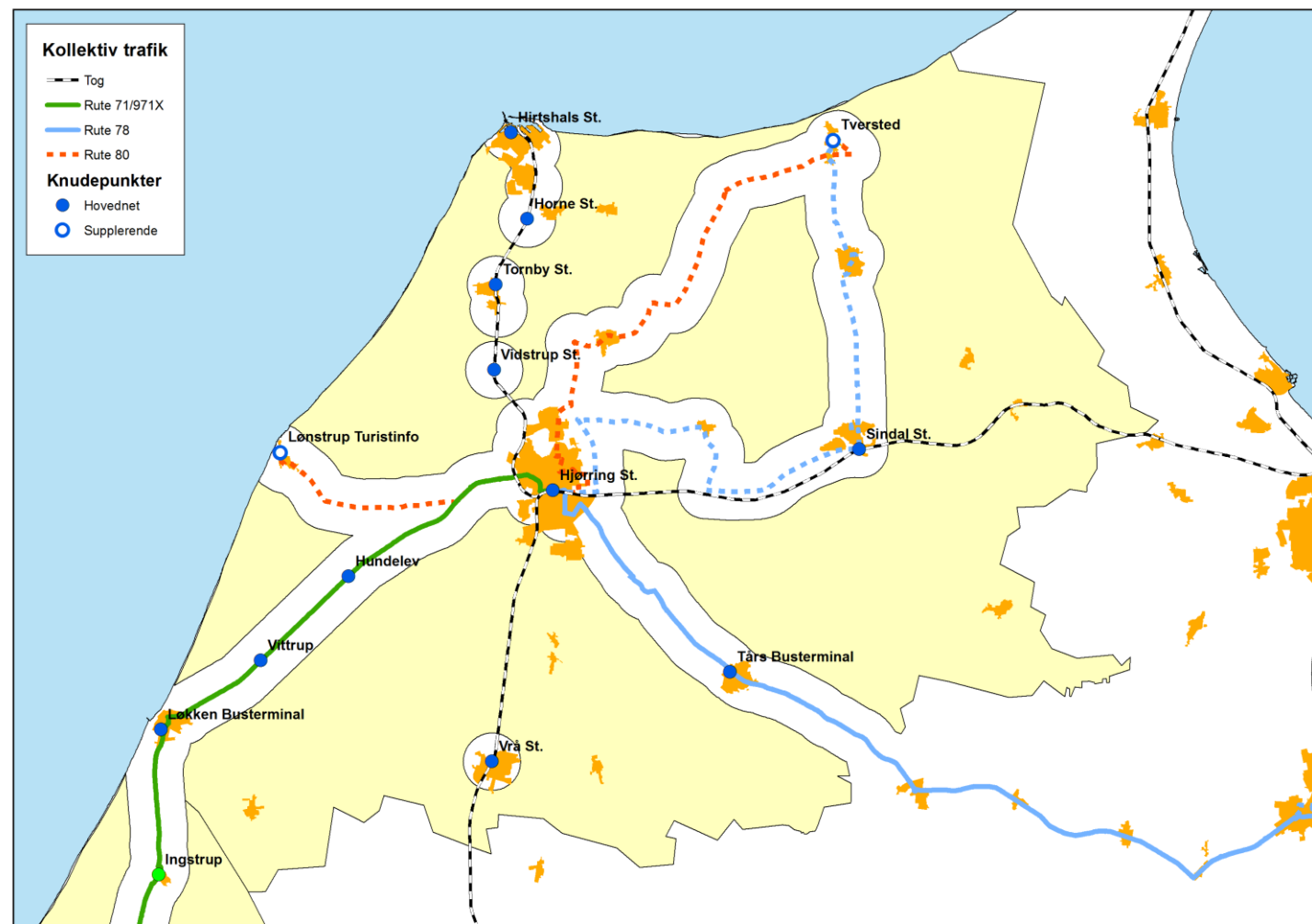
- All days: 04.30 – 00.30



Bufferzones: Hjørring Municipality (weekdays)

Opening hours

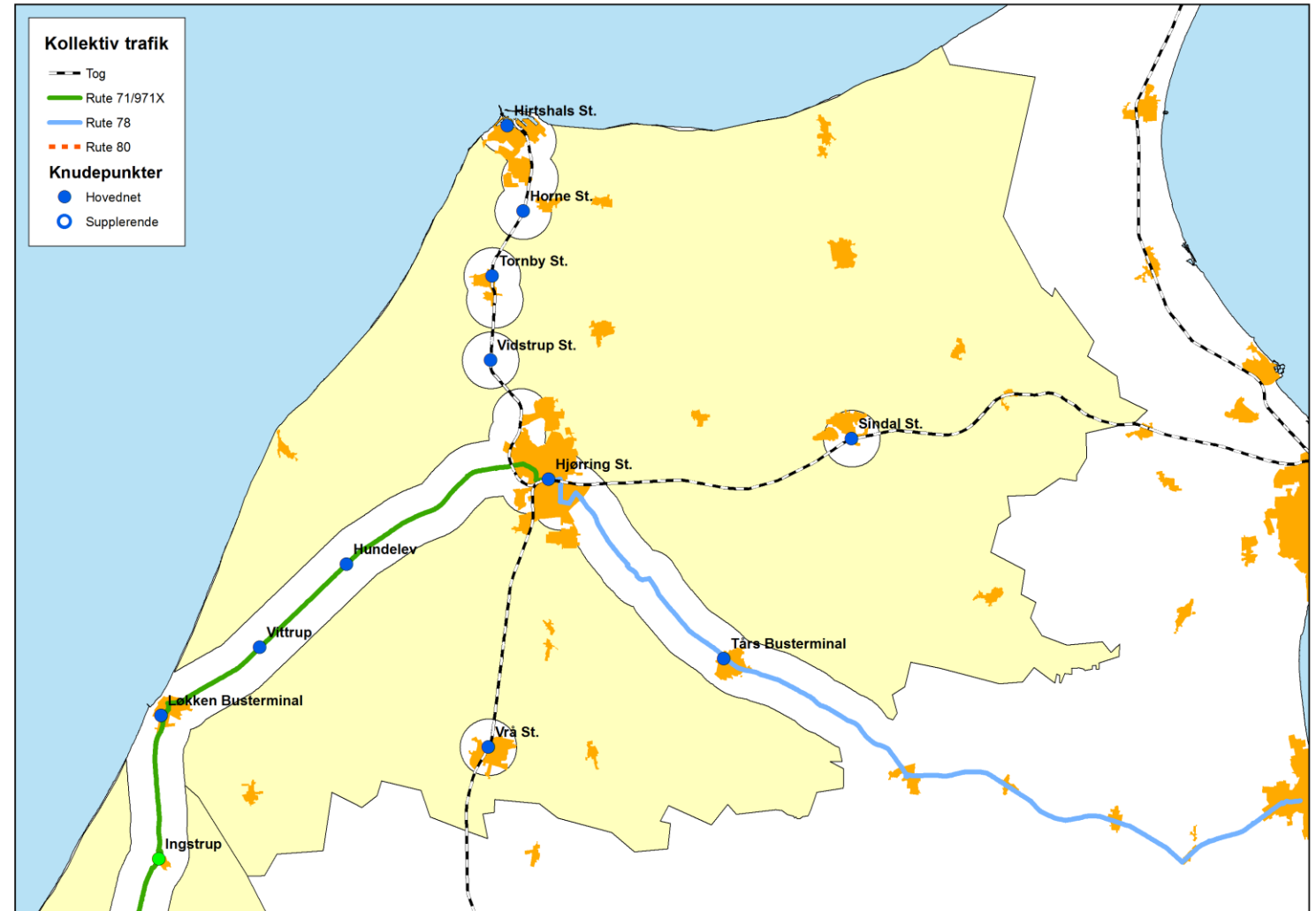
- Weekdays: 04.30 – 21.00



Bufferzones: Hjørring (evening/weekend)

Opening hours

- Weekdays: 21.00 – 00.30
- Weekend: 04.30 – 00.30



”TCJ” starts at Rejseplanen.dk

- Rejseplanen.dk is a nation wide product for travel planning
- Built upon HaCon (HAFAS-product, same as e.g. ”Rutebok.no”)
- Main obstacle: There is no international standard for surface based demand-responsive traffic covering our needs
- Solved through dialogue and cooperation with Rejseplanen/HaCon – but a international standard is still missing
- The offered price is calculated by a price-service developed by FlexDanmark, and only covers the DRT-part of the trip

Rejs: i Danmark

A

Briketvej 32, Moseby, 9490 Pandrup,

B

Aalborg busterminal

Afg. 24.04.2018 17:00

Tilpas søgning

Find

Tidligere

Ti. 24.04.2018

17:32

Plustur

200

1 t 4 min, 1 skift

Bemærk: Plustur er Flextrafik og du skal bestille den senest 2 timer før afgang. Du kan få mere information her.

Vis pris

Køb billet

18:36

18:38

Plustur

71

1 t 3 min, 1 skift

Bemærk: Plustur er Flextrafik og du skal bestille den senest 2 timer før afgang. Du kan få mere information her.

Vis pris

Køb billet

19:41

19:08

Plustur

200

1 t 2 min, 1 skift

Bemærk: Plustur er Flextrafik og du skal bestille den senest 2 timer før afgang. Du kan få mere information her.

Vis pris

Køb billet

20:10

Senere

A

Pandrup

Plu Bus 200

B

Aalborg

Bus 200

Leaflet | Map data © OpenStreetMap contributors, Imagery © HaCon

... And you are transferred to a Portal





- Users are transferred from Rejseplanen.dk to DSRs portal at www.densamlederejse.dk
- Details of the trip is transferred
- Responsive website design
- Improved for vision impaired users

[Forside](#) [Hjælp](#) [Handelsbetingelser](#) [Cookie- og privatlivspolitik](#) [Systemkrav](#) [Tilgængelighed](#)

Du er igang med at bestille Flextrafik til følgende rejse

24. april 2018

Tidspunktet for Flextrafik er vejledende og bekræftes først ved bestilling

	Tidspunkt	Adresse	Transportmiddel	Pris
	17:32	Briketvej 32, Moseby, 9490 Pandrup, Jammerbugt Kommune	Plustur 	22 kr.
	17:44	Kås Midtby (Plustur)		
	17:49	Kås Midtby (Plustur)		
	17:50	Kås Midtby (Jammerbugt Kommune)		
	17:50	Kås Midtby (Jammerbugt Kommune)	Bus 200	Betales på rejsen
	18:36	Aalborg Busterminal		

Antal rejsende

1

+

☐ Jeg ønsker at medbringe hjælpemidler på rejsen

[« Afbryd](#) [Bestil](#)

Travel details are adjusted using the Portal

- Users select the number of travellers, adds payment information and additional information (e.g mobility aids) using the DSR-portal
- The order is transferred to PLANET using the SUTI-protocol (= generic integration interface)
- Planning, optimization and monitoring is completed in the same manner as all other demand-responsive trips (flextrips)
- Receipt on screen and email
- Reminder on SMS 24h and 15 minutes before departure

What are the plans for the rest of 2018?

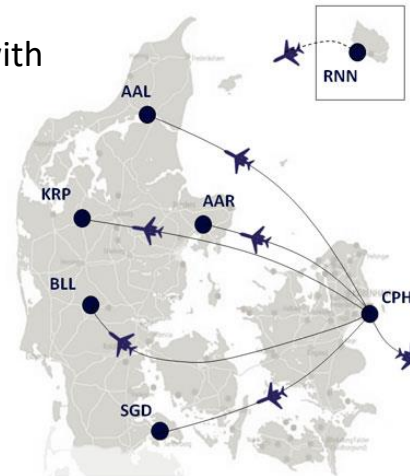
- Develop and improve tools for trip monitoring
- Ramp-up for national coverage
- Automation of administrative tasks

The Future ...?



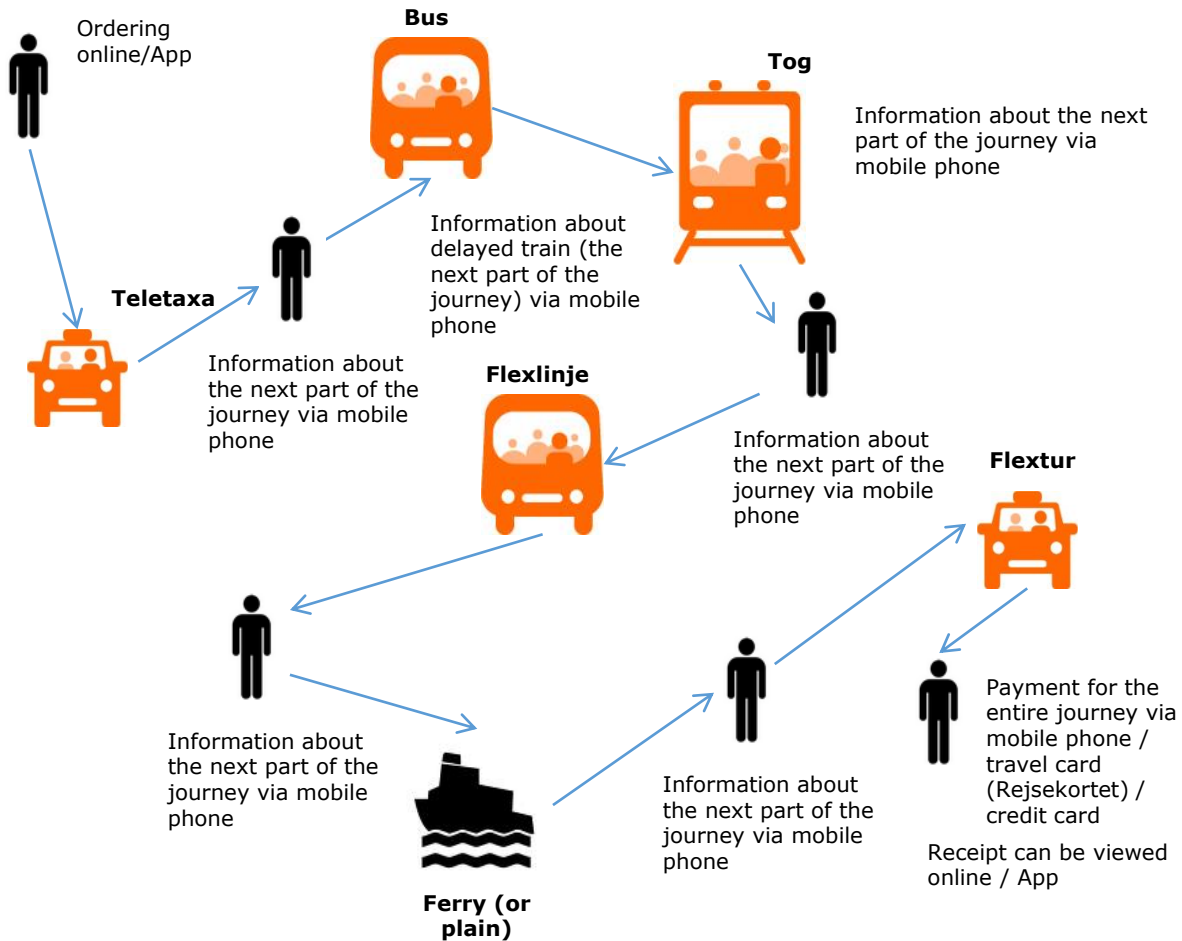
34 danish islands with
ferry connections
(booking required)

Other connections
from DK to S, N, D,
GB, IS & FO



AAL – CPH:
16 daily flights

The Next Step?



Self-service bookings: App/Internet

Only one frontend booking interface for the citizens – but if necessary this leads to several different bookings in other systems (train, bus, taxi)

Receipt can be viewed online / App

The future is almost here

- Tomorrow You will learn more about this subject. I promise, it will be extremely interesting

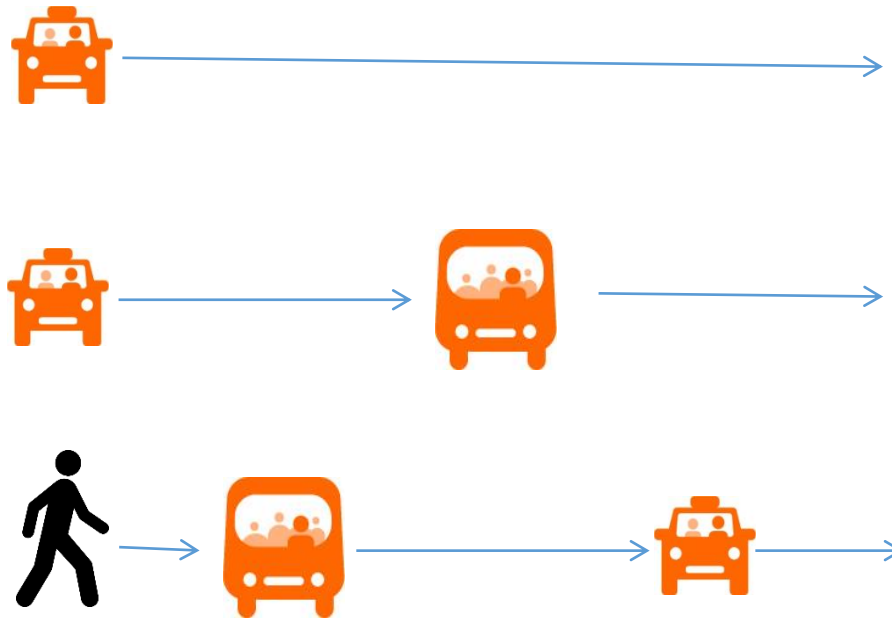
From Your program:

Multimodal reiseplanlegger

Flemming Bundgaard, Nordjyllands Trafikselskab

Forbedring av mobiliteten i de Nordjyske landdistrikter. En ny nordjysk versjon av 'Rejseplanen', som favner flere og nye transportformer. Den nye appen skal favne både kollektivtrafikken og private transporttilbud som for eksempel taxi, samkjøring og ferjer.

The "nextT Future: Cost Reduction



Patient transport financed by taxes

- Automated evaluation
- Integration between private transport (taxi, ride-share, etc.) and public transport services
- Public expenditures today: about 1.000.000.000 DKK (134 mio. EUR)



A New Paradigm is Necessary

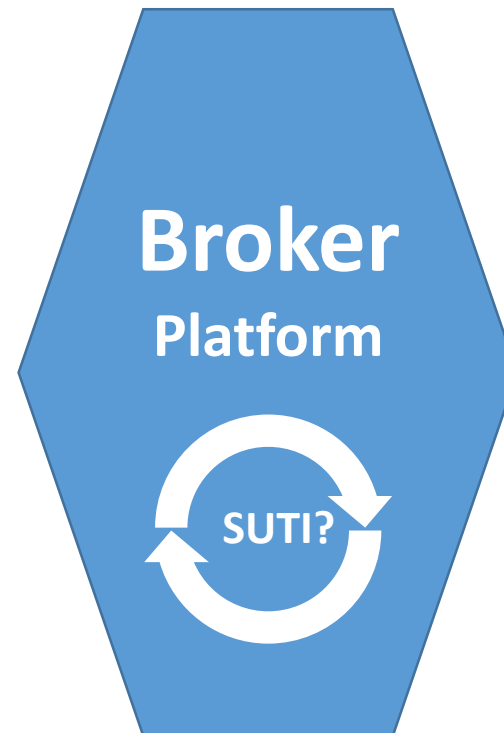
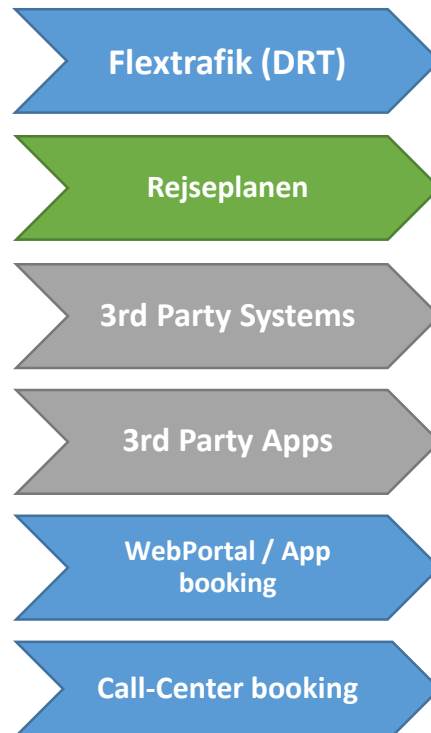
- It is necessary to shift the way we think about public transit
- Important not to focus on timeliness of a given service alone
- Important to take responsibility for the entirety of the travelers journey, from A to B – this is part of the DSR mindset
- This is also necessary in order to responsibly move citizens from taxis to other public transport services (or parts of the trip)

Other requirements for introducing MaaS

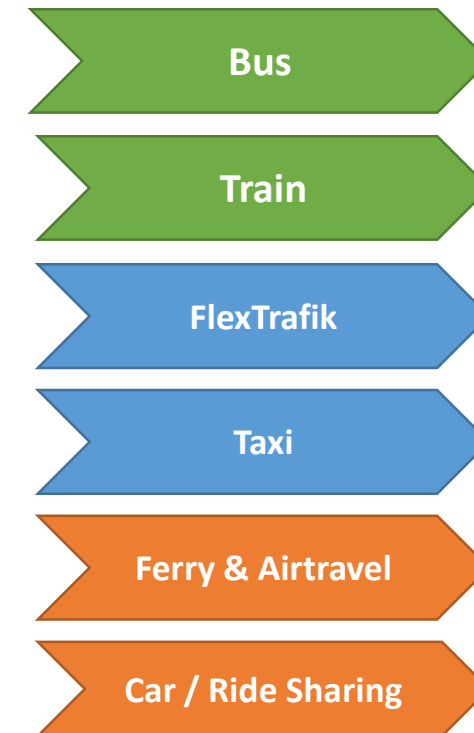
- **Open interfaces for data exchange between operators/systems**
- Description of resources
- Description of individual transit modes
- Description of geography, availability, etc.
- Description of payments
- Description of real-time positions
- Handshake between different operators/systems
- ...

Common Platform for Mobility?

Demand



Supply



Blue is in operation - Green is in test - Yellow is on the way but needs clarification - Red is future needs

Thank You for Your attention and interest!

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- Questions is welcome later today and through email.



fks@flexdanmark.dk