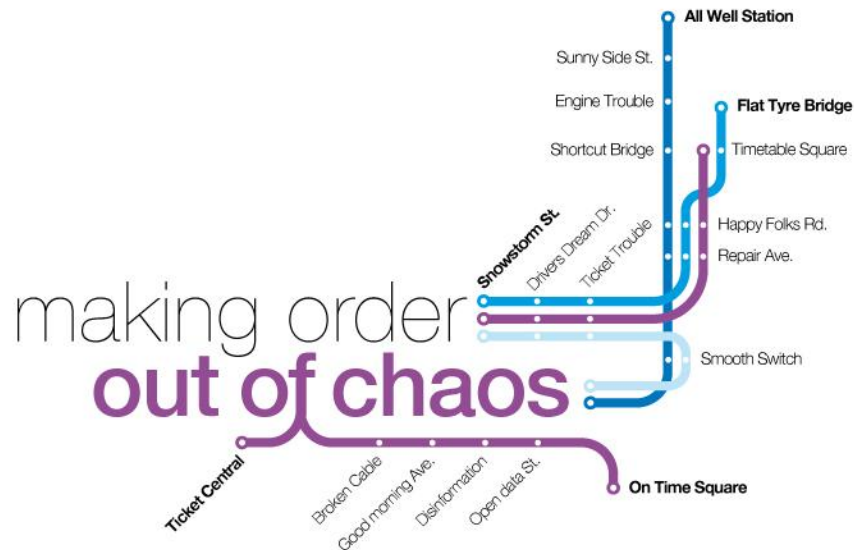


# Krister Nordland

Skånetrafiken, Sweden

(ver PA5)



# Presentation 5A: Case study: Borderless travel in the Øresund region

Borderless travel is based on integrated transport systems, traffic information including traffic anomalies across borders, and containing different types of traffic on a ticket. Realtime information is exchanged between Scania and Denmark both regarding public transport and car/road information. Skånetrafiken, Rejseplanen, Trafikverket, Vejdirektoratet will demonstrate solutions.

**Speakers:** Krister Nordland, Skånetrafiken and Charlotte Holstrøm, Vejdirektoratet, Denmark (stand-in speaker Sorin Sima, Trafikverket)



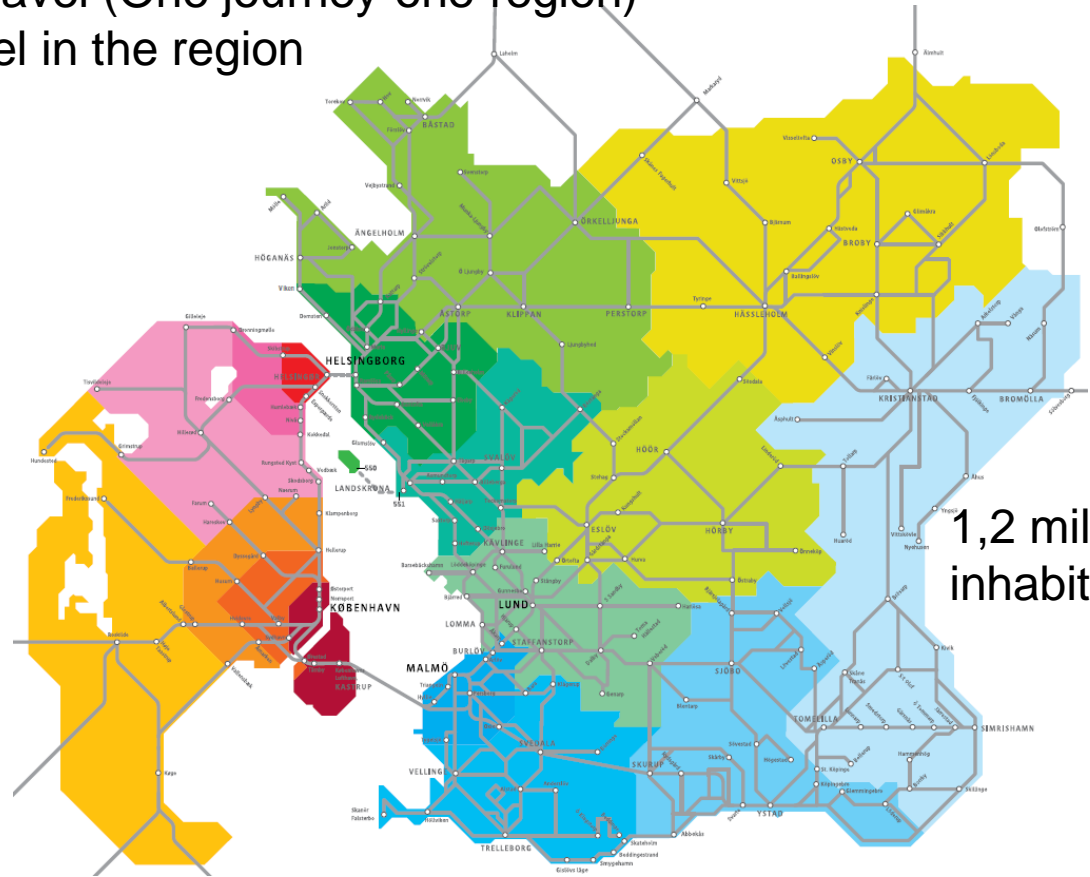


Mission:

ITS-solutions for borderless travel (One journey-one region)

Customers expects easy travel in the region

2,5 million  
inhabitants



1,2 million  
inhabitants

Borderless travel in the Öresund region

# ITS-Strategy

- Integrate in existing IT-systems
- Do not make new overlayer systems
- Same layout, presentation and language in own region/country and outside (long-distance journey)

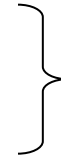
Öresund traffic information exists integrated in:

[www.reseplaneraren.skanetrafiken.se](http://www.reseplaneraren.skanetrafiken.se)

[www.rejseplanen.dk](http://www.rejseplanen.dk)

[www.trafiken.nu](http://www.trafiken.nu)

[www.trafikken.dk](http://www.trafikken.dk)



EU-Spirit distributed  
Travel planning

# Same itinerary using distributed technics But with different GU I/ languages

www.skanetrafiken.se →

Afg. 13:29 TROLLEBERG SVÄGEN 14 LUND 07.09.11  
Ank. 14:48 Gammel Køge Landevej 3, 2500 Valby, København 07.09.11

▼ Luk se rejseplan Kort Pris E-mail SMS Kalender

## Din rejseplan (se som tabel)

	Kl.:	Dato:	Spor:*	Frekvens:	Bemærkninger:
🚶 Gå fra <a href="#">TROLLEBERG SVÄGEN 14 LUND</a> til Lund Tingshuset. Det tager ca. 4 min. at gå dertil.	Afg. 13:29 Ank. 13:33	07.09.11			
🚌 Tag med 5 ( <a href="#">se køreplan</a> ) fra Lund Tingshuset mod Gastelyckan via Botulfsplatsen til Lund Bantorget. Ankomst Lund Bantorget	Afg. 13:33 Ank. 13:34	07.09.11			
🚶 Gå fra Lund Bantorget til Lund C. Det tager ca. 6 min. at gå dertil.		07.09.11			
🚆 Tag med Öresundståg 1063 ( <a href="#">se køreplan</a> ) fra Lund C mod Helsingør til København H. Ankomst København H	Afg. 13:41 Ank. 14:27	07.09.11			
🚶 Gå fra København H til Hovedbanegård/Tietgensbro. Det tager ca. 6 min. at gå dertil.		07.09.11			
🚌 Tag med Bus 1A ( <a href="#">se køreplan</a> ) fra Hovedbanegård/Tietgensbro mod Avedøre st. (bus) til Toftegårds Plads/Apoteket. Ankomst Toftegårds Plads/Apoteket	Afg. 14:34 Ank. 14:42	07.09.11			
🚶 Gå fra Toftegårds Plads/Apoteket til Gammel Køge Landevej 3, 2500 Valby, København. Det tager ca. 6 min. at gå dertil.	Afg. 14:42 Ank. 14:48	07.09.11			

Samlet rejsetid: 1:19

(Se detaljeret rejseplan - inkl. alle stationer, stoppesteder, mv. hvor der ikke gøres stop).

\*= Spor er kun vejledende

Details 13:29 14:48 01:19 2 150,00 kr

Line	From -> To	Time	Traffic info	Comments
🚶 Gång	TROLLEBERG SVÄGEN 14 LUND -> Lund Tingshuset	Dep: 13:29 Arr: 13:33		
🚌 5	Lund Tingshuset -> Lund Bantorget	Dep: 13:33 Arr: 13:34		
🚶 Gång	Lund Bantorget -> Lund C	Dep: 13:34 Arr: 13:40		
🚆 Öresundståg 1063	Lund C -> København H	Dep: 13:41 Arr: 14:27	⚠ Late 1 min	
🚶 Gång	København H -> Hovedbanegård/Tietgensbro	Dep: 14:27 Arr: 14:33		8
🚌 Bus 1A	Hovedbanegård/Tietgensbro -> Toftegårds Plads/Apoteket	Dep: 14:34 Arr: 14:42		
🚶 Gång	Toftegårds Plads/Apoteket -> Gammel Køge Landevej 3, 2500 Valby, København	Dep: 14:42 Arr: 14:48		

8 - On foot

▶ Detailed itinerary with map

Share/Send

← www.rejseplanen.dk

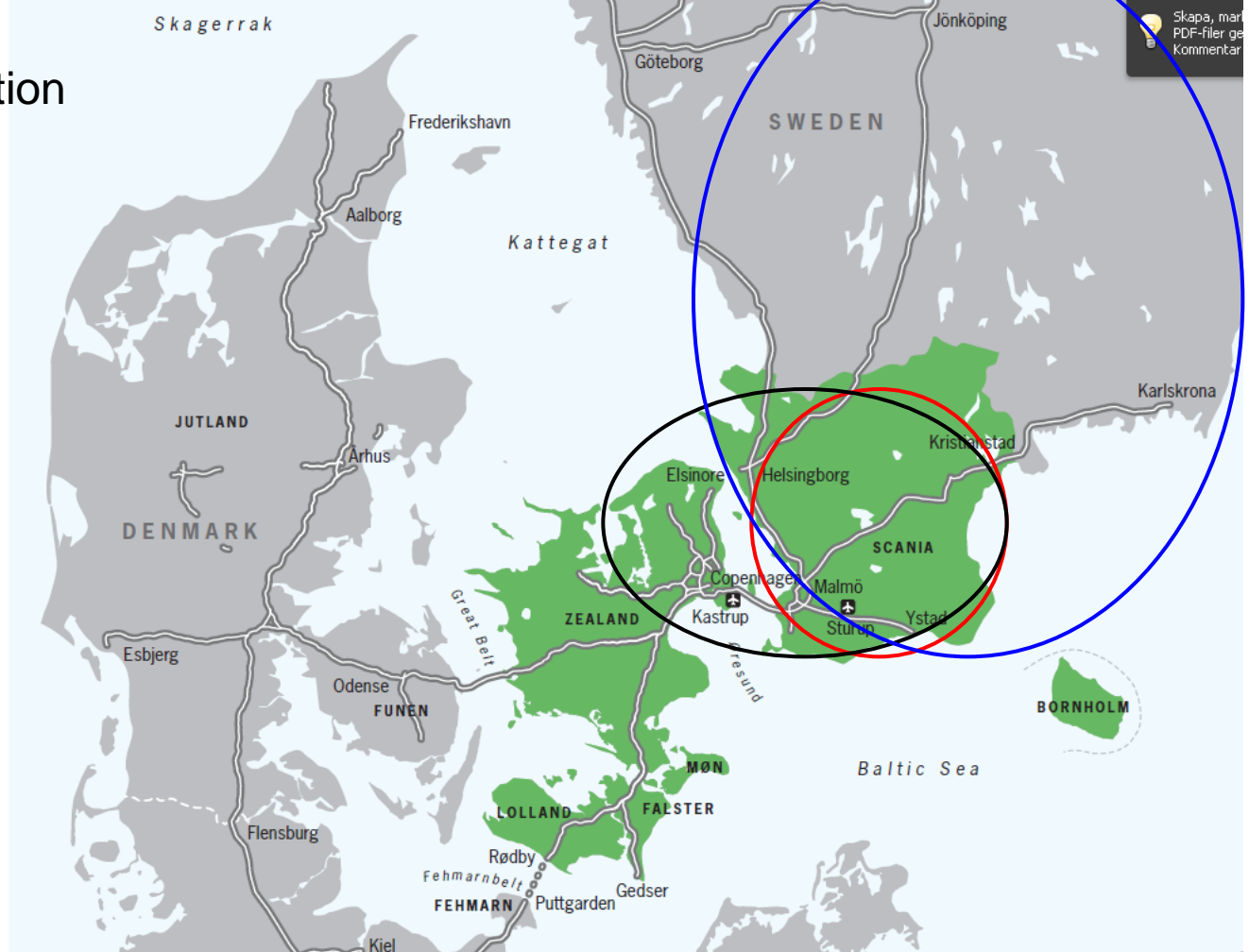
# Status of Integration on the road towards "one journey-one region"

- Public transport
  - Fare system (but 2 ticket systems, paper printout necessary)
  - Traffic data
    - planned, realtime, cancellations, environment data
- Car transport
  - Roadwork, road congestions (realtime)

# Fare system integration

3 fare systems in one ticket system:

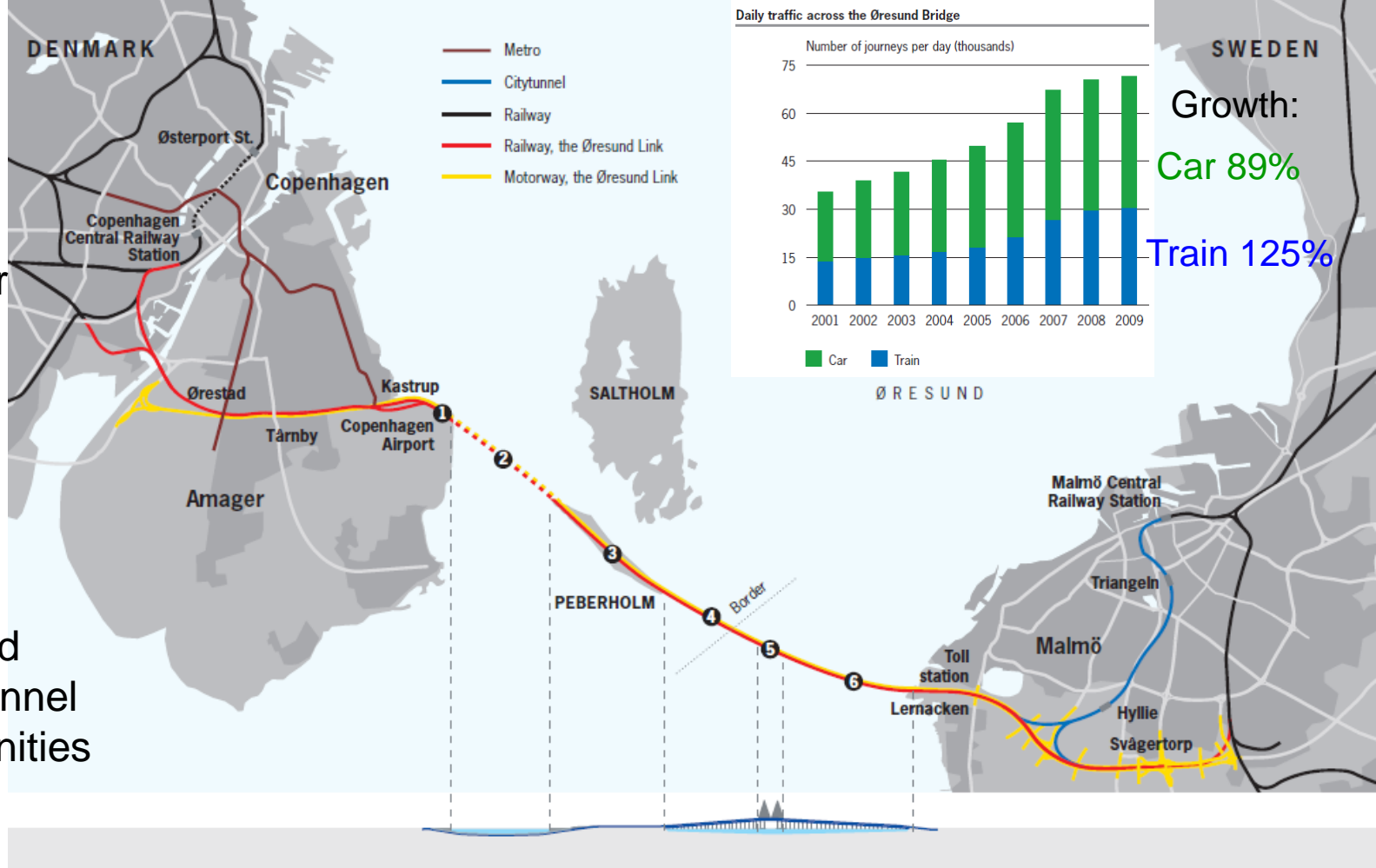
- 1) Skånetaxa
- 2) Öresundstaxa
- 3) Sydtaxa



Borderless travel in the Öresund region

Big increase in crossborder travelling !

The Bridge, Cph Metro and Malmö City tunnel gives opportunities



# Travel planner generations

- **Generation 1:** Itinerary based on only planned data
- **Generation 2:** Itinerary based on planned data and realtime as a remark
- **Generation 3:** Itinerary based on realtime with alternative routing (re-calculation due to delays and cancellations)

# Alternative routing – normal case

A

B



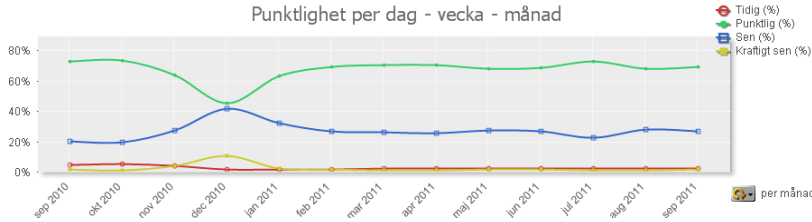
# Alternative routing – Deviation due to delay / cancellation

A

B

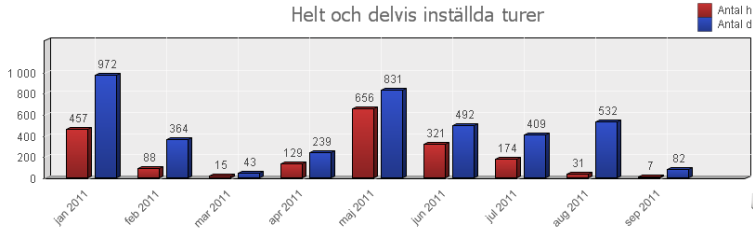
## Punctuality 2011

Punktighet per dag - vecka - månad

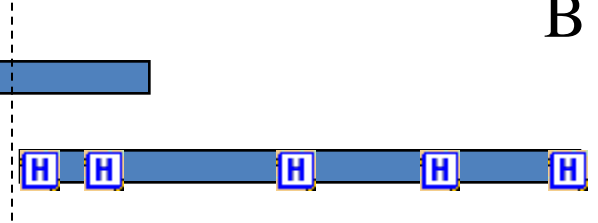


## Cancellations 2011

Helt och delvis inställda turer



Time for the search



11.00

11.15

11.30

11.45

12.00

Demo travel planner  
Journey Skåne-DK with local alternative routing

# Alternative routing latest nov 2011

Help | New Search | Print

Searched journey:

Help to make right choice when cancelled trips and heavy delays

↑ Earlier journeys

Dep	Arr	Duration	Changes	Transport mode	Fare: Regular Adult	Traffic info	Travel info																		
17:45	18:30	00:45	1		42,00 kr																				
<p><b>Details</b> 17:45 18:30 00:45 1   42,00 kr  </p> <p> 7:45 <del>18:16</del> A deviation affected the original route options. <a href="#">View original route according to timetable</a></p> <table border="1"> <thead> <tr> <th>Line</th> <th>From -&gt; To</th> <th>Location</th> <th>Time</th> <th>Traffic info</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td>Pågatåg 1837</td> <td>Åstorps station -&gt; Helsingborg C</td> <td>Åstorps station</td> <td>Dep: 17:45 Arr: 18:08</td> <td> Left 17:46  Late 17 min</td> <td></td> </tr> <tr> <td>2</td> <td>Helsingborg C -&gt; Helsingborg Gustav Adolfs torg</td> <td>Helsingborg C</td> <td>Dep: 18:26 Arr: 18:30</td> <td> Left 18:30  Arrived 18:33</td> <td></td> </tr> </tbody> </table> <p> Buss ersätter vissa tåg Hässleholm - Bromölla och Åstorp/Vinslöv - Kristianstad kvälls- och natttid 17 oktober - natt mot 12 november</p> <p>Ett banarbete vid Kristianstad som pågår kvälls- och natttid från söndag 17 oktober till natt mot fredag 12 november medför att buss ersätter vis...</p> <p>Från natt mot måndag 13 november till natt mot fredag 12 november medför Hässleholm som m...</p> <p>restid när du reser</p> <p><a href="#">Detailed itinerar...</a></p> <p><a href="#">Details</a> 17:51</p> <p><a href="#">Details</a> 18:22</p> <p><a href="#">Details</a> 18:22</p> <p><i>Times in italics are est...</i></p>								Line	From -> To	Location	Time	Traffic info	Comments	Pågatåg 1837	Åstorps station -> Helsingborg C	Åstorps station	Dep: 17:45 Arr: 18:08	Left 17:46 Late 17 min		2	Helsingborg C -> Helsingborg Gustav Adolfs torg	Helsingborg C	Dep: 18:26 Arr: 18:30	Left 18:30 Arrived 18:33	
Line	From -> To	Location	Time	Traffic info	Comments																				
Pågatåg 1837	Åstorps station -> Helsingborg C	Åstorps station	Dep: 17:45 Arr: 18:08	Left 17:46 Late 17 min																					
2	Helsingborg C -> Helsingborg Gustav Adolfs torg	Helsingborg C	Dep: 18:26 Arr: 18:30	Left 18:30 Arrived 18:33																					

New itinerary

Journey not possible due to train delay. New proposal are shown

Reseplaneraren - Microsoft Internet Explorer provided by Skånetrafiken

http://194.16.222.107/wcfclient/originJourney.aspx?id=1596969839029976&seq=0&language=en

Åstorps station - Helsingborg Gustav Adolfs torg Dep: 17:45

Line	From -> To	Location	Time	Traffic info	Comments
Pågatåg 1837	Åstorps station -> Ramlösa station	Åstorps station	Dep: 17:45 Arr: 18:04	Left 17:46 Late 16 min	
219	Ramlösa station -> Helsingborg Gustav Adolfs torg	Ramlösa station	Dep: 18:12 Arr: 18:16	Left 18:16 Arrived 18:20	V

Original itinerary

Searched journey:

## Alternative routing latest nov 2011

Help to make right choice when cancelled trips and heavy delays

↑ Earlier journeys

Dep	Arr	Duration	Chg.	Transport mode	Fare: Regular Adult	Traffic info	Travel info
>Details	11:55	13:14	01:19	2		No price info.	
▼Details	12:33	13:54	01:21	2		No price info.	

~~12:31~~ ~~13:34~~ A deviation affected the original route options. [View original route according to timetable](#)

Line	From -> To	Location	Time	Traffic info	Comments
174	Dalby busstn -> Malmö Konserthuset	A I	Dep: 12:33 Arr: 13:11		
133	Malmö Konserthuset -> Malmö C	H G	Dep: 13:14 Arr: 13:19		
Öresundståg 1061	Malmö C -> Köpenhamns Flygplats Kastrup		Dep: 13:33 Arr: 13:54		

Journey not possible due to bus cancelled. New proposal are shown

New itinerary

Reseplaneraren - Microsoft Internet Explorer provided by Skånetrafiken

http://194.16.222.109/originJourney.aspx?id=167684851486812512&seq=1&language=en

Dalby busstn - Köpenhamns Flygplats Kastrup Dep: 12:31

Line	From -> To	Location	Time	Traffic info	Comments
SkåneExpressen 6	Dalby busstn -> Lund C	B H	Dep: 12:31 Arr: 12:53	Canceled Canceled	
Öresundståg 1059	Lund C -> Köpenhamns Flygplats Kastrup		Dep: 13:01 Arr: 13:34		

Times in italics are estimated times

Selected means of transport: L

**Traffic Information**  
By dialling +46 771-77 77 77 get straight through to the Traffic Information knowledgeable

# Left to do:

- AJAX-search across the boarder
- Alternative routing across the boarder
- E-tickets, mobile tickets across the boarder



## DOOR-TO-DOOR IN A CLICK

The challenges of climate change, increasing congestion and fuel costs mean we need to find smarter ways to travel. Multimodal travel – using different types of transport for one journey – is part of the answer. It may not only be better for the environment, it may also be easier on our wallets.

Multimodal travel is by its very nature more complex. That is where multimodal journey planners come in. These online tools can help travellers plan a journey from A to B detailing the different types of transport to take, times and even fares.

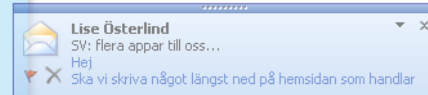
Click on a flag to find a national journey planner



**SIIM KALLAS**  
Vice-President,  
TRANSPORT

“Why can’t I yet plan or book my journey through Europe — switching from air to rail or sea, to urban or road transport — in one single go and online?”

Siim Kallas, Vice-President of the European Commission, in charge of transport



# Swedish ITS Council

- A council under the Ministry of Enterprise, Energy and Communications (Näringsdepartementet) with representatives from different authorities, the industry and academy's like - Svensk Kollektivtrafik
- Tasks
  - Give advice and accerate Swedish Transport Administration/Trafikverket's and other participants to carry out the ITS action plans
  - ITS Council shall develop the forms of cooperation between authorities and the industry
  - Work for an increased Swedish involvement in EU in the ITS arena

# Some mentioned important measures

- Access to data and information for all traffic modes
- Attractive travel services
- Common payment system in public transport

For more information please contact:

Alf Peterson, Trafikverket, [alf.petersson@trafikverket.se](mailto:alf.petersson@trafikverket.se)





Thank you very much  
for your attention!

[krister.nordland@skanetrafiken.se](mailto:krister.nordland@skanetrafiken.se)

making order  
**out of chaos**



InformNorden  
Sweden Malmö  
7-9th Sep 2011