



Version A

CiViTAS
Cleaner and better transport in cities

MALMÖ

**"How to succeed with traffic information using
realtime, traffic messages and statistics"**

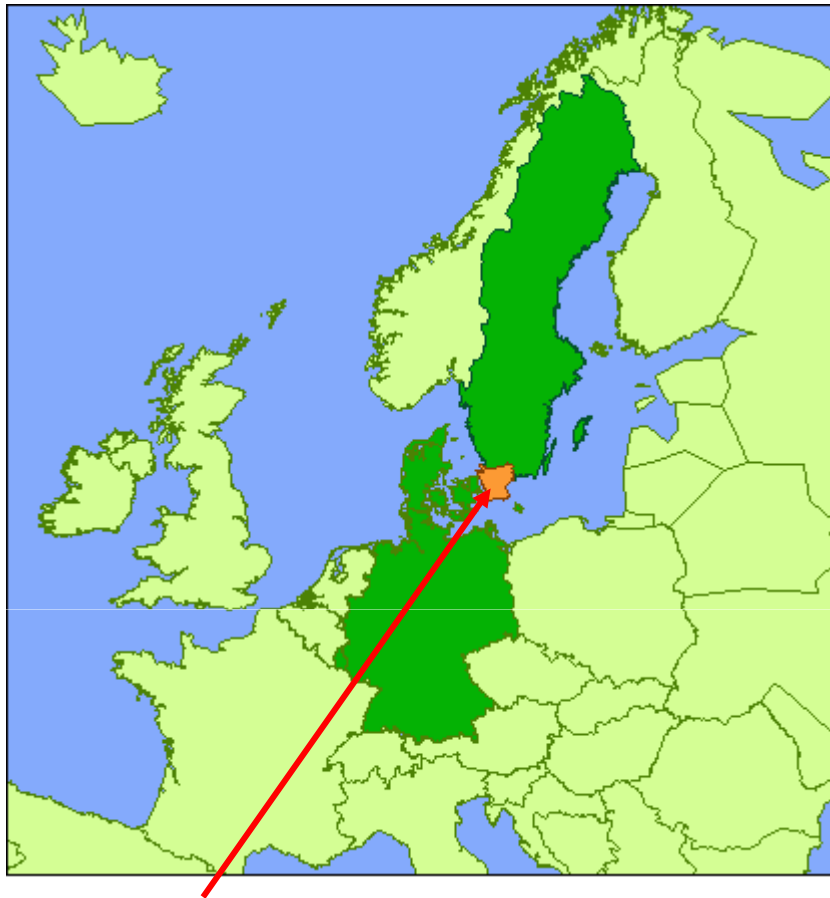
29 September 2010 at 11-12.30 o'clock

**Technical Session 8: The Well-Informed
Traveller: Information and Communications
Technologies to Aid Travel Decisions**

Krister Nordland, Skånetrafiken (PTA)



THE CIVITAS INITIATIVE
IS CO-FINANCED BY THE
EUROPEAN UNION



Skåne/Scania/Schonen

1,2 million people

Skånetrafiken = 11 years

Turnover 3300 MSEK / 340 M euro (2009), 136 M journeys/year

Strong increase in travel (+5-9%/year)

Lesson 1: Follow the information development

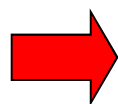
Kristianstad Stadsbuss 2

ÖSTERÅNG → RESECENTRUM → VÄ/TALLDALEN

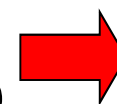
Börslagsplats	Resecentrum	Stora Torg	Hälsöskolan	Kökegatan	Väddåsa
måndag-fredag					
05.25	05.41	05.43	05.50	05.54	06.04
05.55	06.11	06.13	06.20	06.24	06.34
06.10	06.27	06.29	06.38	06.40	06.50
06.25	06.42	06.44	06.53	06.55	07.05
06.40	06.57	06.59	07.08	07.10	07.20
06.56	07.13	07.15	07.24	07.26	07.37
07.12	07.29	07.31	07.40	07.42	07.53
07.20	07.37	07.39	07.48		
07.27	07.44	07.46	07.55	07.57	08.08
07.35	07.52	07.54	08.03		
07.42	07.59	08.01	08.10	08.12	08.23
07.49	08.06	08.08	08.17		
07.57	08.14	08.16	08.25	08.27	08.38
08.04	08.21	08.23	08.32		
08.12	08.29	08.31	08.40	08.42	08.53
08.27	08.44	08.46	08.55	08.57	09.08
08.42	08.59	09.01	09.10	09.12	09.23
08.57	09.14	09.16	09.25	09.27	09.38
09.12	09.29	09.31	09.40	09.42	09.53
09.27	09.44	09.46	09.55	09.57	10.08
Därefter på följande minuttal					
47	04	06	15	17	28
07	24	26	35	37	48
27	44	46	55	57	08
13.47	14.04	14.06	14.15	14.17	14.28
13.57	14.14	14.16	14.25		
14.07	14.24	14.26	14.35	14.37	14.48
14.17	14.34	14.36	14.45		
14.27	14.44	14.46	14.55	14.57	15.08
14.37	14.54	14.56	15.05		
14.47	15.04	15.06	15.15	15.17	15.28
Därefter på följande minuttal					
54	11	13	22		
02	19	21	30	32	43
09	26	28	37		
17	34	36	45	47	58
24	41	43	52		
32	49	51	00	02	13
39	56	58	07		
47	04	06	15	17	28
16.54	17.11	17.13	17.22		
17.02	17.19	17.21	17.30	17.32	17.43



Printed/paper
(1-4 times/year)

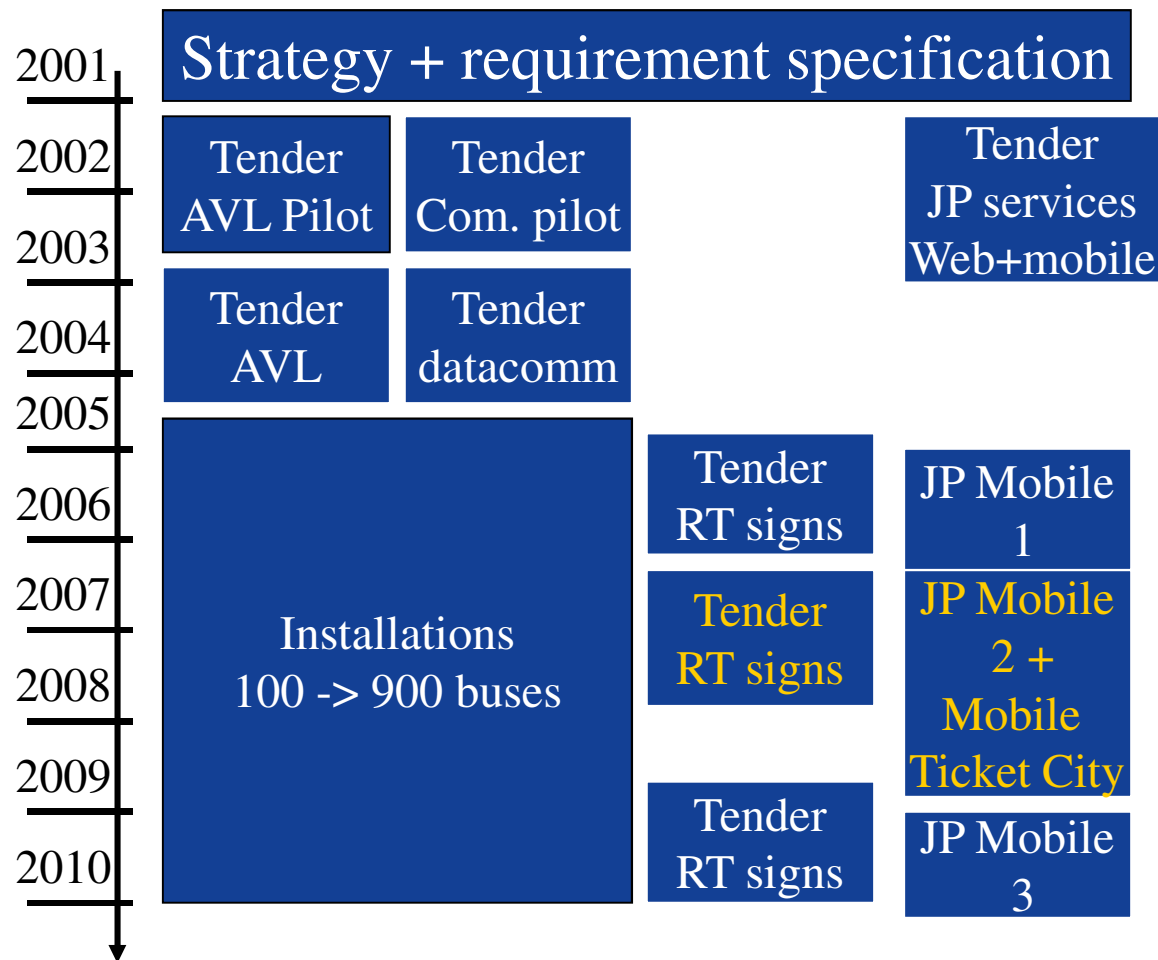


Mechanical
(1-10 times/hour)

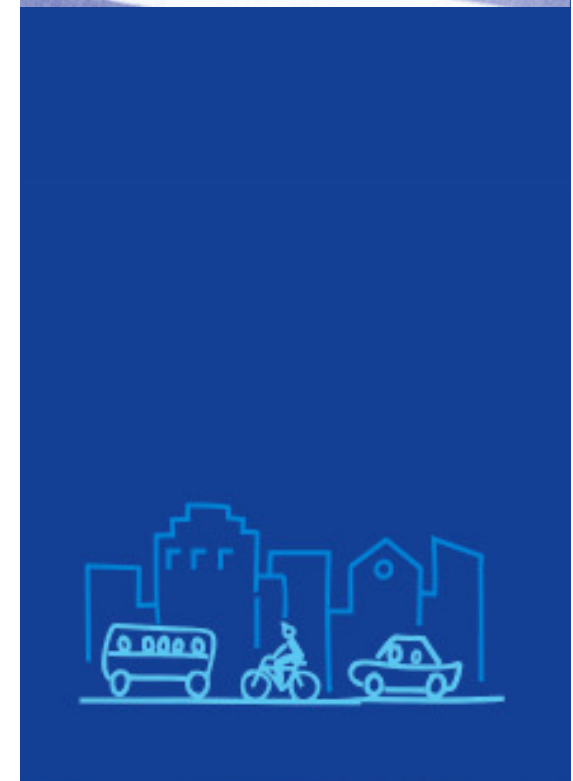


Electronic signs+mobile
(60-600 times/hour)

Lesson 2: Planning is most important



AVL = Auto Vehicle Location, JP = Journey planner
RT = Real Time,



The information development process

- Define requirements (customer + internal)
- Have well-defined, longterm strategies (IT, train, bus). For example: Data only to be inserted once.
- Use if possible open interfaces (avoid being dependant of ONE supplier)
- Put energy into the tenders
- Start small but think big
- Quality of traffic data important (own homework)
- Test, test, test....
- Have own experts understanding the different IT-systems
- Follow-up using existing statistics
- Cooperation between Public Transport Authorities, bus/train operators and national rail/road authorities
- Routines and the support of IT-systems important to keep up quality

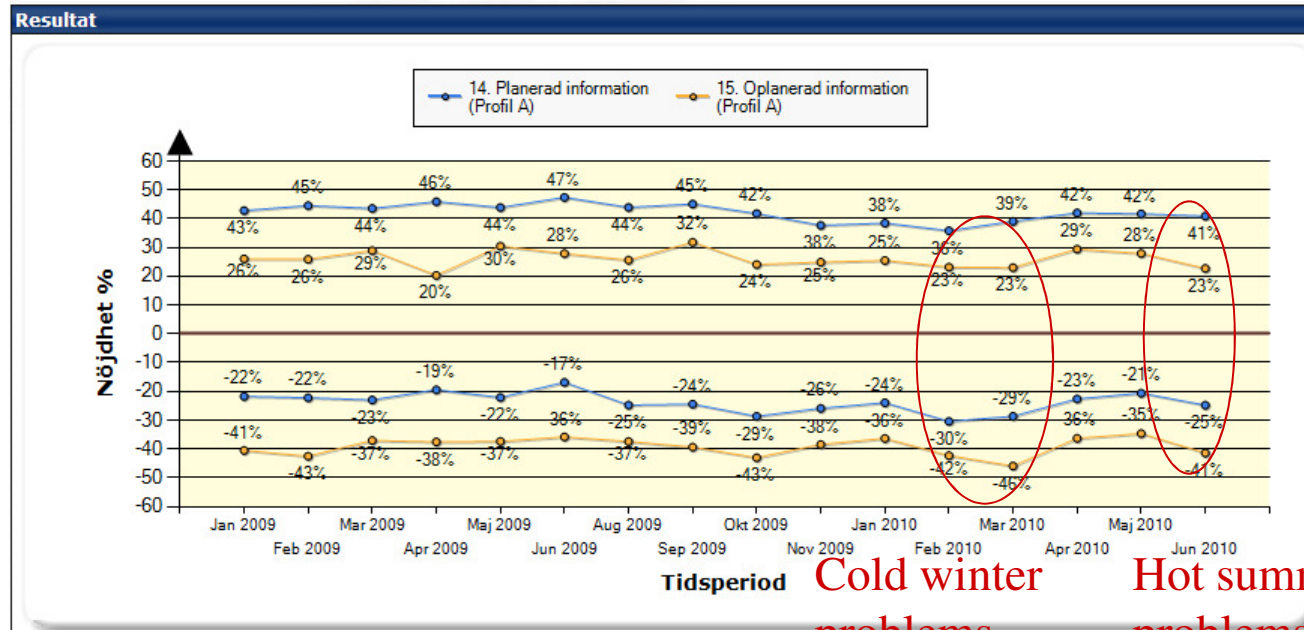


Lesson 3: Ask your customers

Question: Planned and unplanned traffic information works well (xx % agree) ?

Inställningar			
I en frågestyrd analys jämför du frågor över tid och i en områdestyrd jämför du grafiska områden på en specifik fråga.			
Metod	Intervall	Period	Inställningar
<input checked="" type="radio"/> Frågestyrd <input type="radio"/> Områdestyrd	<input checked="" type="radio"/> Månad <input type="radio"/> Kvartal <input type="radio"/> År	Från: 2009 Till: 2010	<input checked="" type="checkbox"/> Visa värden i grafen
Fråga			
14. Informationen vid förändringar av tidtabeller och linjer är bra.			
15. Informationen vid förseningar och stopp fungerar bra.			
*** Ej vald ***			

Profil
Profil: Profil A
Deltagande företag
- Skånetrafiken
Delområden
- Skåne
Trafiktyp
- Regionaltrafik



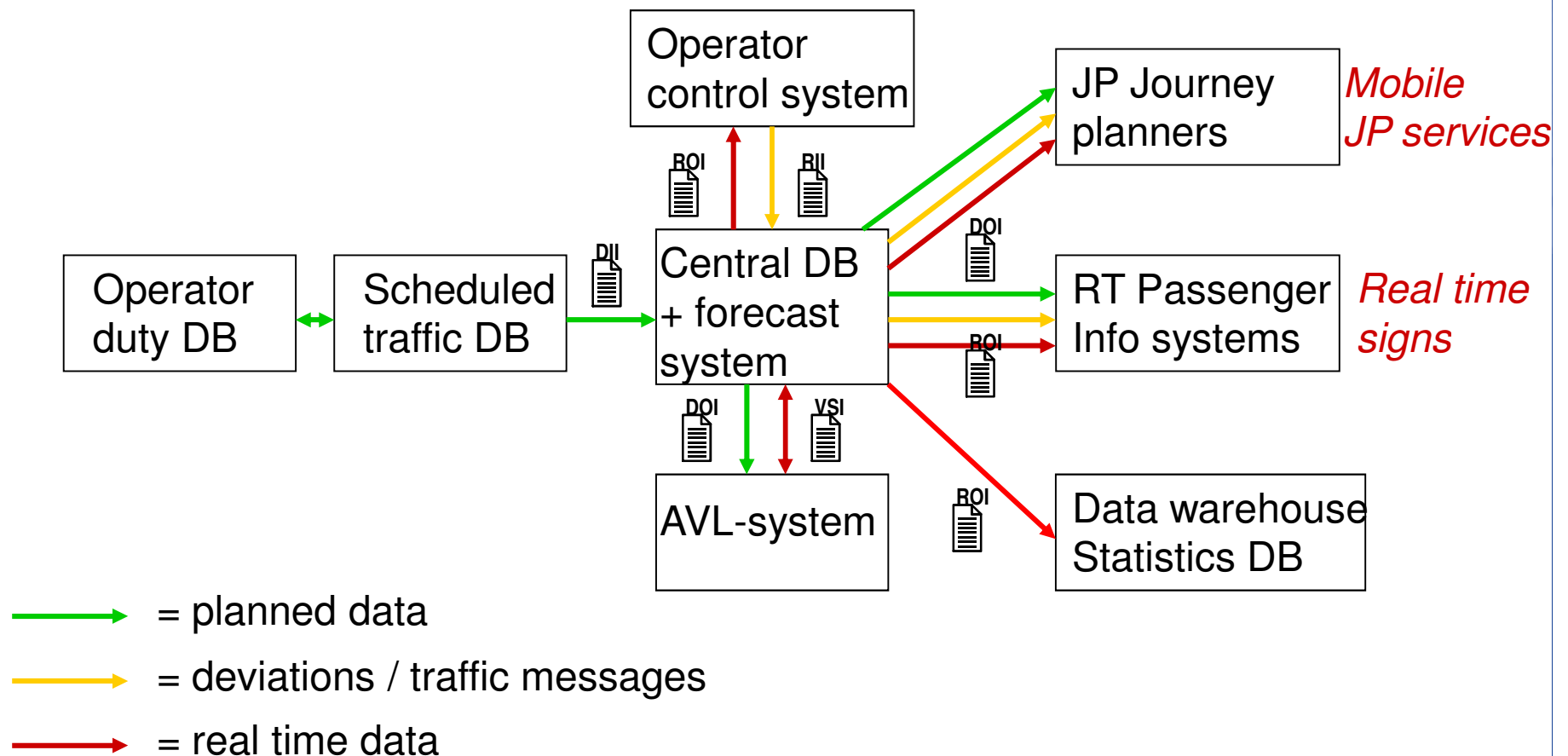
Cold winter
problems

Hot summer
problems



Lesson 4: Have a IT overview + knowledge

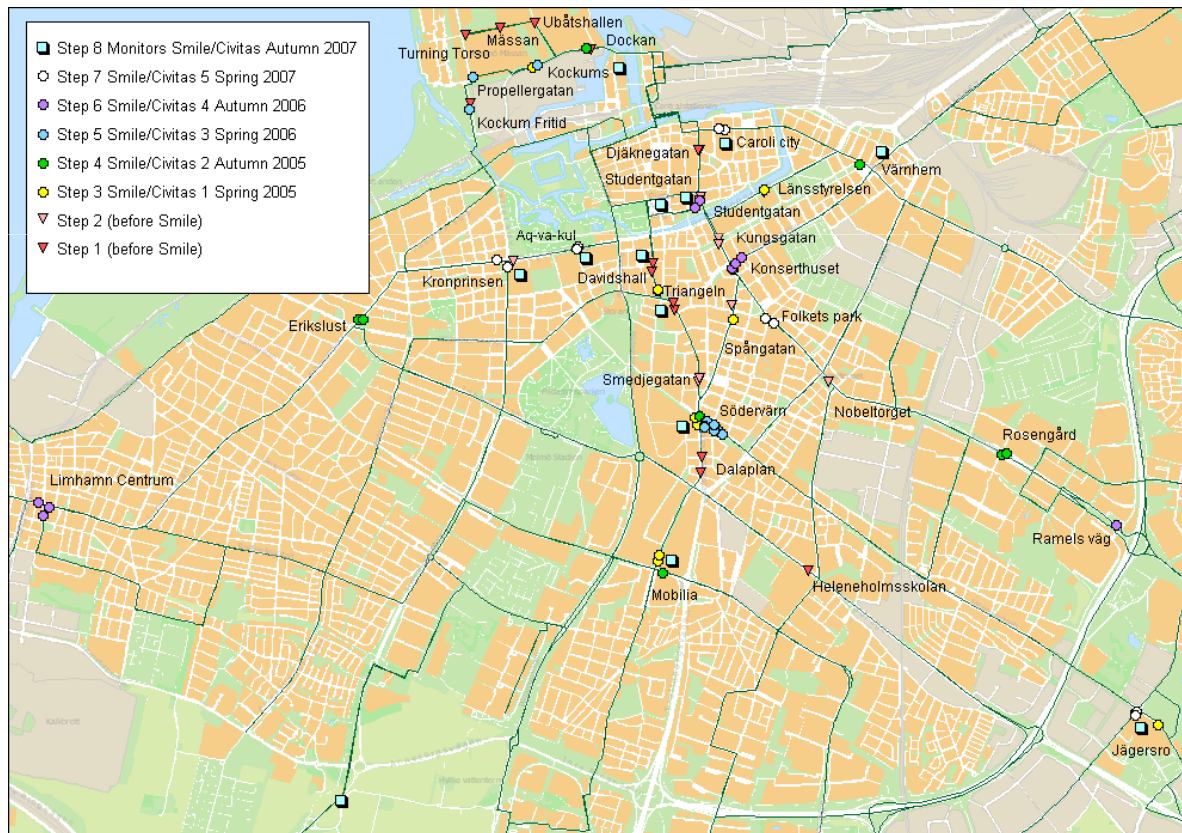
IT-overview of real time systems



Lesson 5: Equipment + datacomm. problem

WP12.1 Real time signs

42 new real time signs in Malmö (40 existed before Civitas project)



One specification but two tenders resulted in two suppliers and not exactly the same signs

- a. water leakage
- b. Components dropping out
- a. Internal interference disturb data.comm

Lesson 6: No mobile standard

Mobile services in connection with:

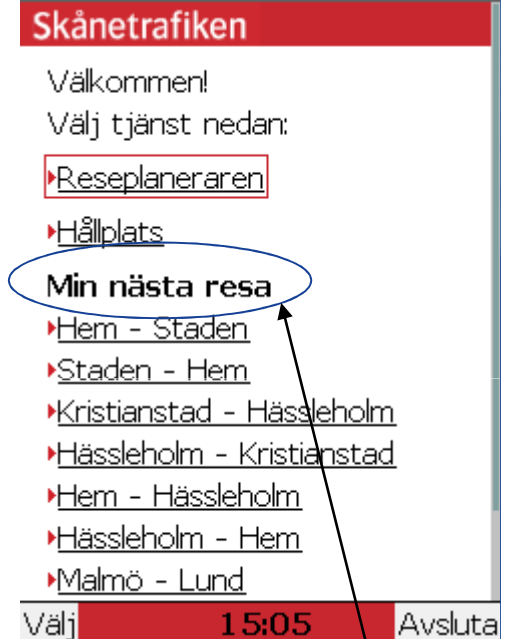
- travel planning /real time information
- mobile tickets

Three versions:

- Static timetables (general, to download, offline)
- Wap /browser (general, online)
- Application download (premium, personalized, online): Java, iPhone, Android

Functionality in WP12.3 (SMILE):

- Travelplanner with real time information
- Maps
- My places (personal info)
- Traffic messages disturbances
- Mobile ticket (city, one zone)



My next journey
(personalized)

Examples / screenshots

Travel search

Skånetrafiken

Från
Hem

Till
[]

Hållplats
[]

080507 1659 Avg

Sök resa

Hjälp

Ändra **17:05** Backa

Skånetrafiken

Fritextsök
Jobbet

Från
Hem

Till
Jobbet

080507

Sök resa

Hjälp

Välj **17:05** Stäng

work home

Skånetrafiken

Jobbet - Hem

Datum: 080507 - 080508

Avg	Ank	Byt
16:43	17:58	1
17:18	18:17	1
18:18	19:11	1
19:18	20:11	1
21:43	22:51	2
05:43	06:41	1
06:18	07:11	1
07:18	08:11	1

Välj **17:05** Backa

Presentation incl maps

Skånetrafiken

Hem - Jobbet

Datum: 080507

Byten: 1

Restid: 01:10

Visa på karta

Resväg Start Mål

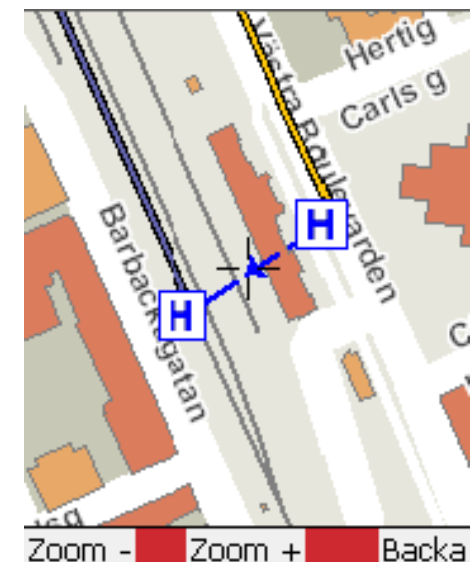
Gång

RYTTERS VÄG 14C

ARKELSTORP - Arkelstorp

Affären

Välj **17:08** Backa



Lesson 7: Ask your customers again Train + Bus travellers request:

- **Better, easy to understand information:**
 - with higher volume in speakers at stations
 - from bus drivers
- **Correct, updated and honest information (= Real Time + traffic messages)**
- **Inform exactly what has happened. Estimate how long the delay will take.**
- **Inform about alternative routing or departures (see later lesson 9)**
- **Inform about train-replacement traffic**
- **SMS to commuters/regular travellers, to people that have requested the information**



Lesson 8: Continuously improve

What improvements in traffic information will hopefully improve customer satisfaction ?

1. Updated Journey Planner (RPW7.1) with alternative routing or new departure information when unplanned traffic problems. Introduced end of november 2010 (before the winter).
2. Traffic situation right now on web and mobile with focus on consequences and possible alternatives for the commuter (even if it is also important to inform about what has happened).
3. Better routines and information about "train-replacement buses"
4. New information channels in form of deviation-SMS to commuters and/or on request for selected itineraries,
5. Secure information quality on real time signs



Lesson 9: Same information in all channels

Journey planner JPW7.1 (with alternative routing)

Help ► | New Search ► | Print ►

Sökväg: Reseplaneraren
Reseplaneraren

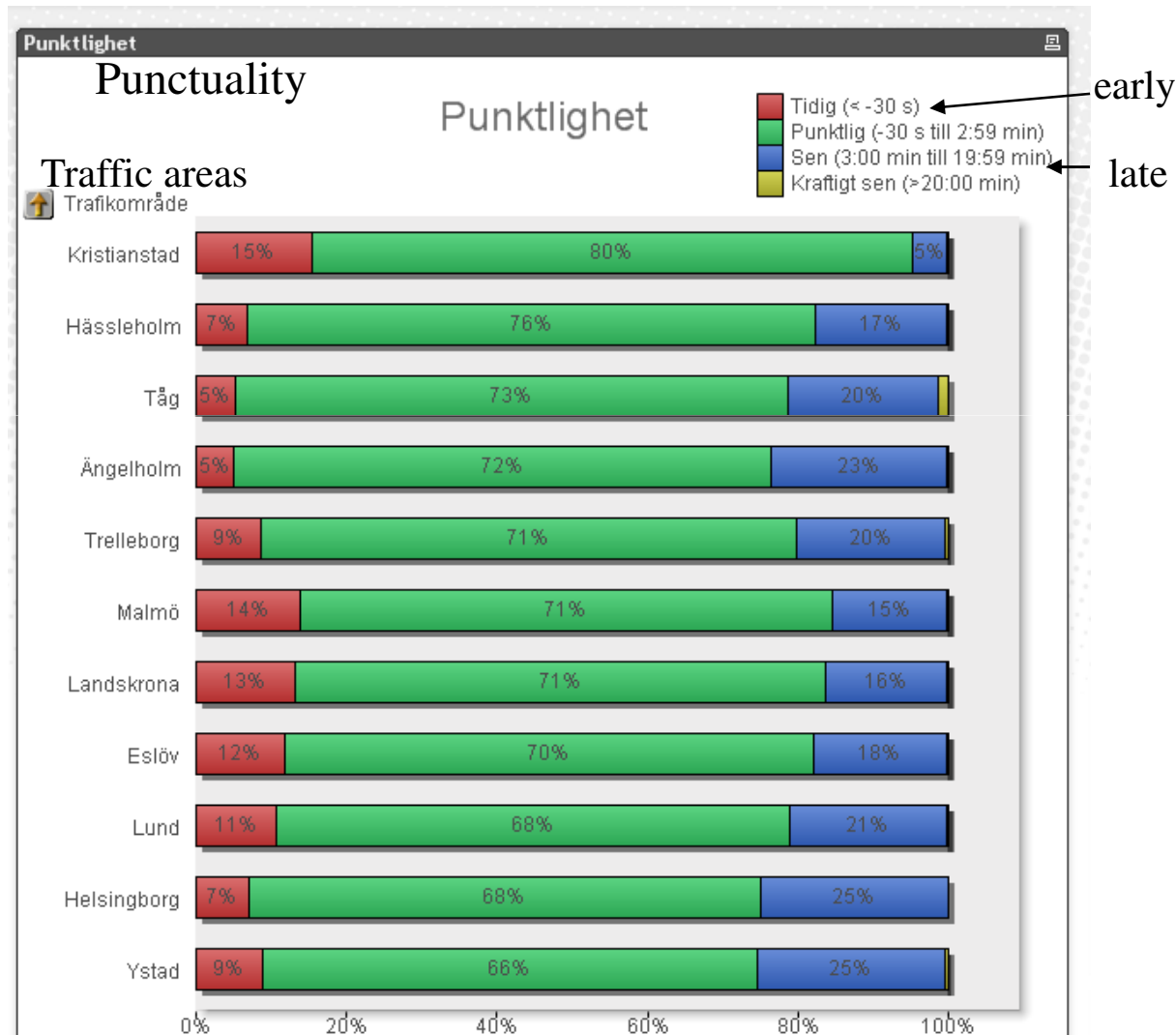
Searched journey:

↑ Earlier journeys

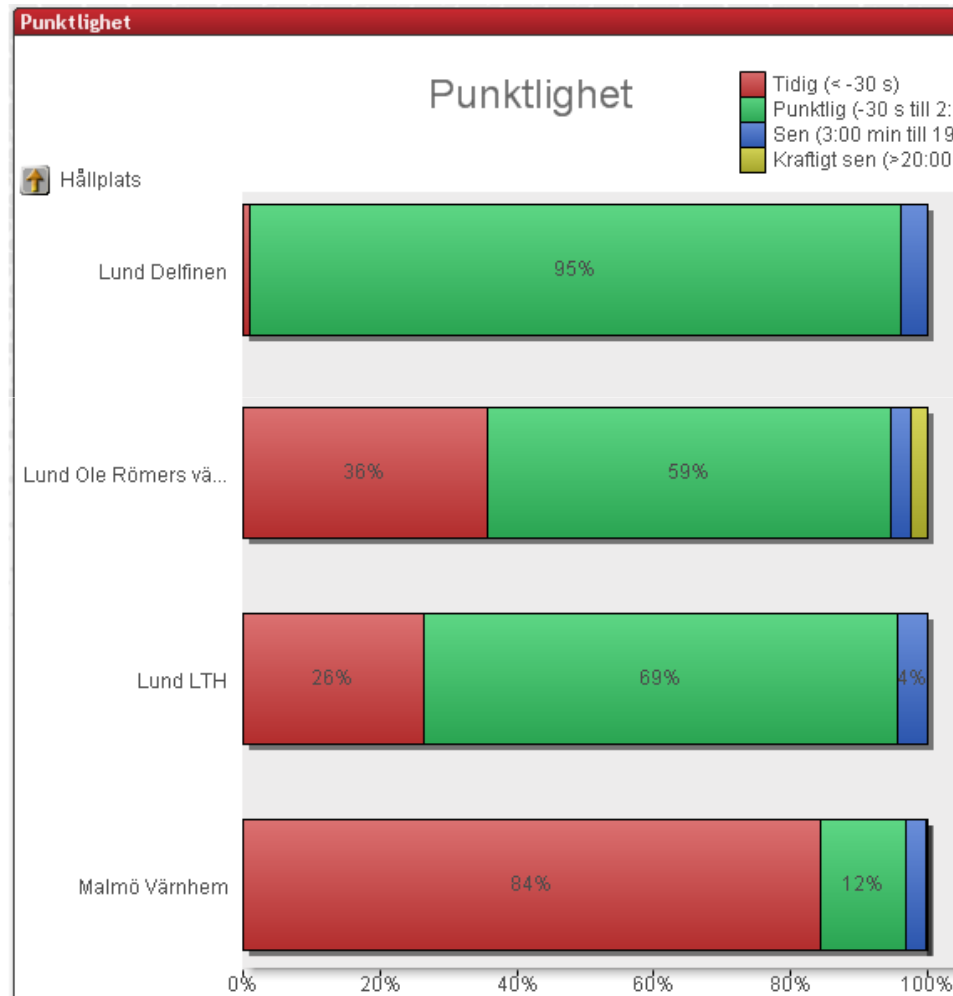
	Dep	Arr	Duration	Changes	Transport mode	Fare: Regular Adult	Traffic info	Travel info
2010-09-24								
> Detaljer	09:25	11:05	01:40	1		96,00 kr		
> Detaljer	09:45	12:05	02:20	2		96,00 kr		
> Detaljer	10:30	12:24	01:54	1		96,00 kr		
✓ Detaljer	11:25	13:05	01:40	1		96,00 kr		
11:30 14:50 A deviation affected the original route options. View original route according to timetable								
Line	From -> To	Location	Time	Traffic info	Comments			
Pågatåg	Simrishamns station -> Malmö Persborgs station	2	Dep: 11:25 Arr: 12:49	Arrived 12:49				
1	Malmö Persborgs station -> Malmö Södervärn	B L	Dep: 13:00 Arr: 13:05	Left 13:01 Arrived 13:05				
Detailed itinerary with map								
Share / Send								
<i>Times in italics are estimated times. They vary by about 1-5 mins at stops.</i>								
↓ Later journeys								
Selected means of transport: Local bus, Regional bus, Train, Ferry service, Airport bus								

Also use
social
medias

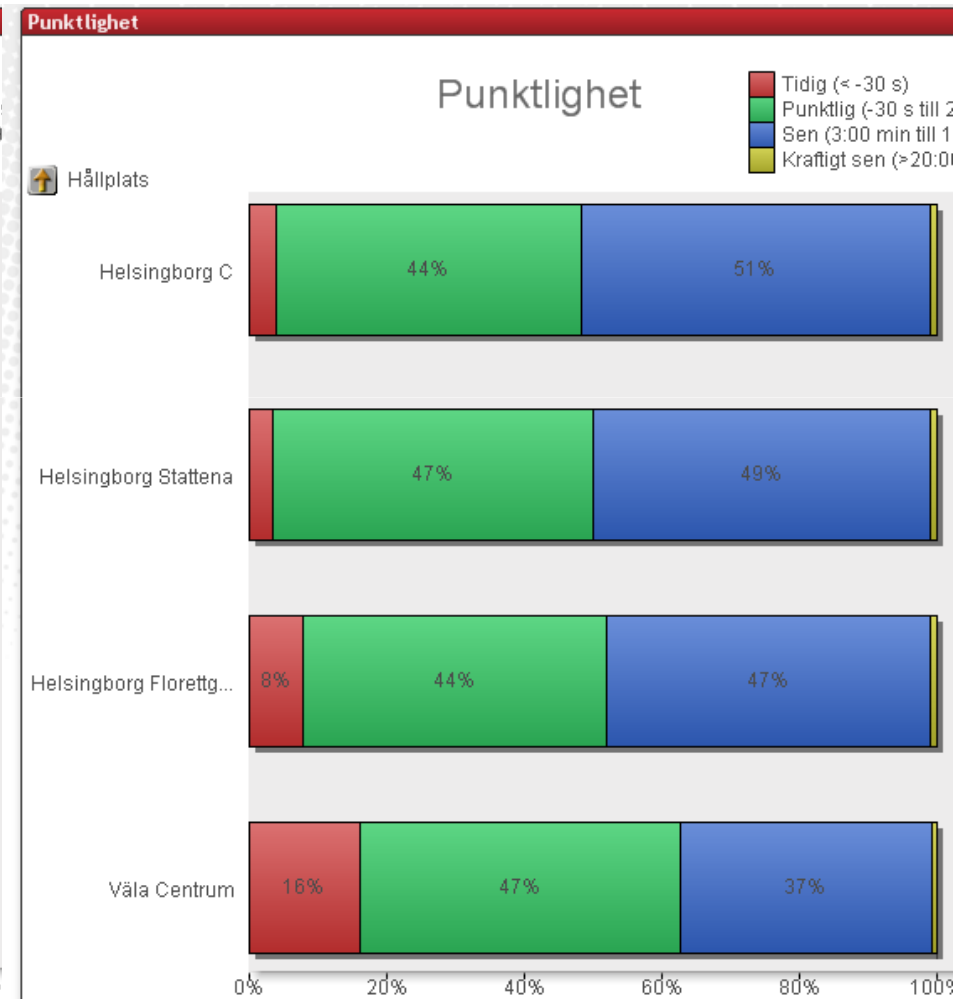
Lesson 10A: Use to the Real Time Statistics for testing and for better traffic planning



Punctuality case 1: early departure: Bad timetable ?



Punctuality case 2: late departure: bad traffic situation ?



Summary / Conclusions

- Real time applications need lots of quality work
- Planning and knowledge is important
- The work never ends.
Continuesly improve !



Thank you

Krister Nordland

For more information, contact
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www.civitas-initiative.org



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