

SEAMLESS TRAVELLING OUTSIDE NATIONAL BORDERS

EXAMPLES FROM FUNCTIONALITY OF EU-SPIRIT
(DISTRIBUTED EUROPEAN TRAVEL PLANNING)
AND EUROPEAN PROJECT RAIL BALTICA GROWTH CORRIDOR

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Public Transport Authority Berlin-Brandenburg (VBB)
Malmö, 09.09.2011



Verkehrsverbund
Berlin-Brandenburg
Alles ist erreichbar.



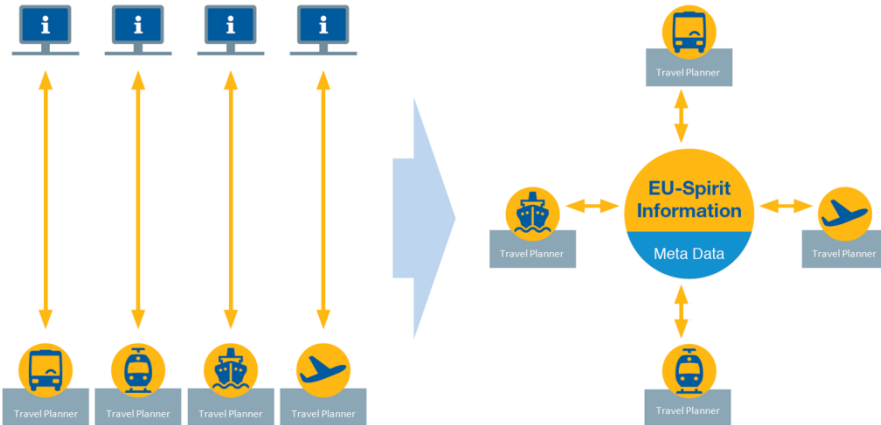
Baltic Sea Region
Programme 2007-2013



AGENDA

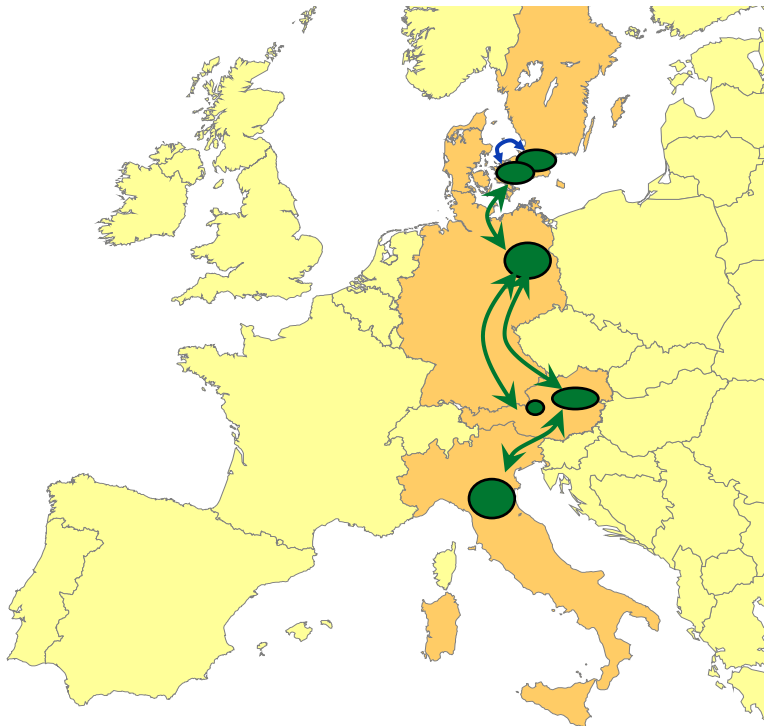
- **EU-Spirit Overview**
 - Historical background
 - Technical background
 - Current status and examples
- **European projects like Rail Baltica Growth Corridor**
 - Project idea (making use of EU-Spirit)
 - EU-Spirit enhancements

EU-SPIRIT: EU-PROJECT 1998-2001 (OBJECTIVES)



- Developing a customer-friendly, **Internet-based** information network **based** on **existing travel planners** offering **door-to-door** public transport information in **local languages** across Europe.
- Demonstration of this system using different links between the participating travel planning system operators.

EU-SPIRIT: EU-PROJECT 1998-2001

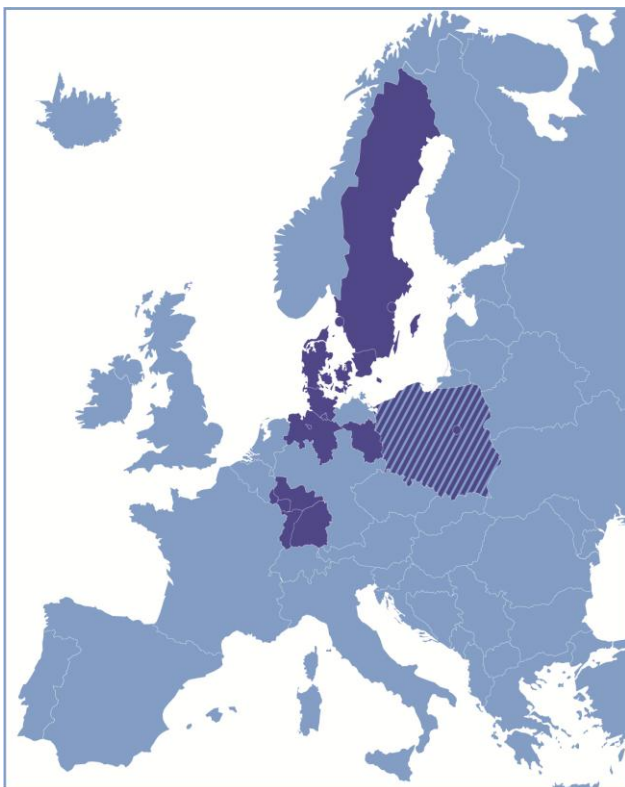


- German DELFI concept as of 1997
- EU - R&D project with 36 partners
- Start: late 1998
- Partners from Sweden, Denmark, Austria, Italy and Germany
- Long distance by rail
- Available on the Internet since 2000
- End of R&D project: Summer 2001
- *Öresund Bridge opening 2000*



Continuous service

CURRENT EU-SPIRIT SERVICE



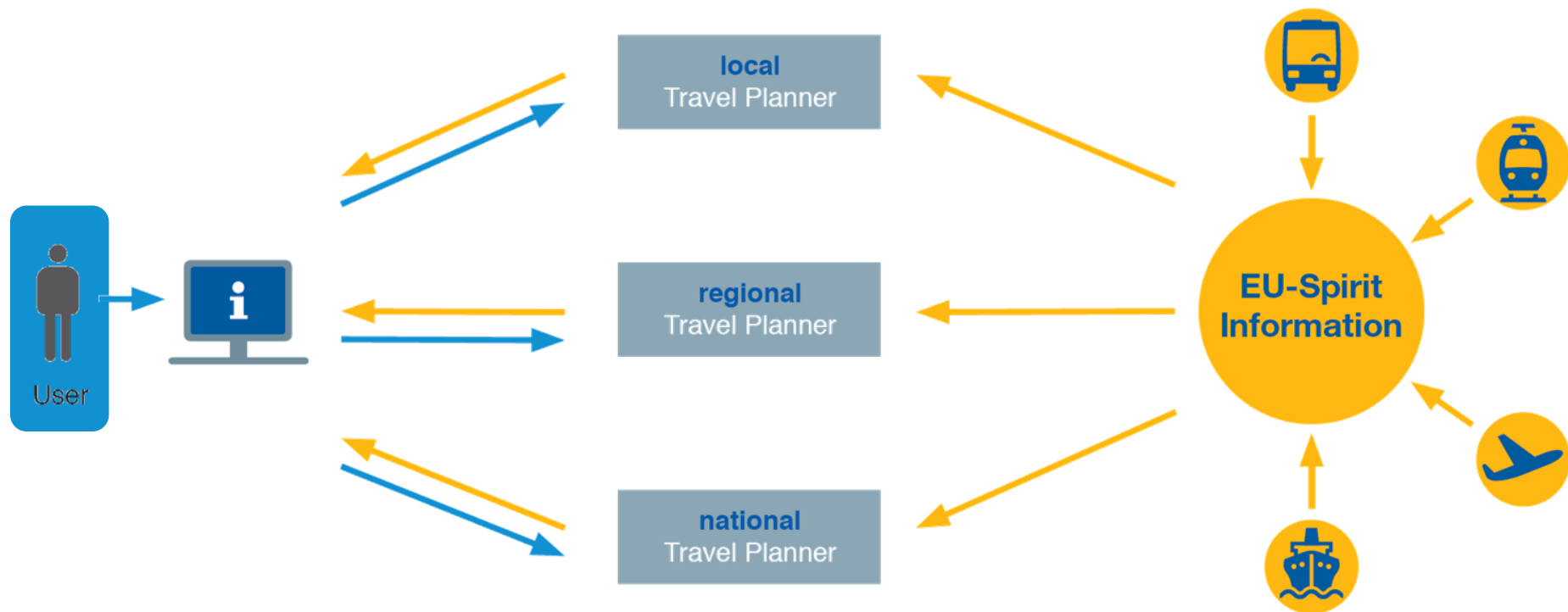
National or regional travel planners

- Alsace (FR)
- Baden-Württemberg (DE)
- Berlin-Brandenburg (DE)
- Gothenburg (SE, end of 2011)
- Hamburg (DE)
- Lorraine (FR, expected 2012)
- Luxembourg
- Northern Germany (DE)
- *9292 Netherlands (expected 2012)*
- Rejseplanen (DK)
- Rhein – Neckar (DE)
- Saarland (DE)
- Samtrafiken (SE)
- Schleswig-Holstein (DE)
- Skanetrafiken (SE)
- Stockholm (SE, as of 2011)
- Warsaw (PL)

Long-distance route information

- Rail service between participating regions
- Worldwide flights (flugplan.de)
- *Baltic Sea Ferries (as of 2012)*

SYSTEM CONCEPT



ADVANTAGES OF EU-SPIRIT

- **Customer service based on existing travel planners**
 - international door-to-door itineraries retrieved via internet
 - from / to all participating systems (supplier independent)
 - information presented in local languages customers are familiar with
 - Today planned timetable; realtime information to be integrated
- **High service quality due to a distributed system**
 - actual content and all updates are available
 - available from all participating systems for all connected systems
- **Existing services of local systems can be used:** fares, maps, POI's or addresses
- **Low cost solution:** Minimizing technical and administrative efforts



RESULTS AND OUTLOOK

- The EU-Spirit system works stable and sufficient
- EU-Spirit benefits the customers and providers
- EU-Spirit effort is acceptable for system operators
- Additional information providers can be integrated easily
 - Providers and system are open for additional members
 - Open for geographical enlargement
 - Striving for functional and content extensions (e. g. ferries)

BERLIN – LUND BY TRAIN VIA HAMBURG (VBB)

VBB Fahrinfo - Routenplaner - Mozilla Firefox

VBB Fahrinfo - Routenplaner

http://euspirit.vbb-fahrinfo.de/hafas/query.exe/dn?seqnr=4&ident=h5.0125801.1311079269&guiWCtrl_connection_detailsOut_add_C3-3#cis_C3-3

5 12247 Berlin-Lankwitz, Nicolaistraße 30 TROLLEBERGSSVÄGEN 4 LUND 20.07.11 ab 12:44 an 21:05 8:21

6 12247 Berlin-Lankwitz, Nicolaistraße 30 TROLLEBERGSSVÄGEN 4 LUND 20.07.11 ab 12:44 an 21:05 8:21

7 12247 Berlin-Lankwitz, Nicolaistraße 30 TROLLEBERGSSVÄGEN 4 LUND 20.07.11 ab 13:24 an 17:48 4:24

alle → [Details anzeigen](#) → [Drucken](#) → [Anfrage ändern](#) → [Neue Anfrage](#) → [Rückfahrt](#)

Detailsansicht - Verbindung 4

Routenpunkte	Datum	geplant	erwartet	Gleis	Linien	Bemerkungen
12247 Berlin-Lankwitz, Nicolaistraße 30	20.07.11				Fußweg	12 Min. Provider: VBB
S Lankwitz (Berlin)						
S Lankwitz (Berlin)		ab 12:46		2	S25	Richtung: S Nordbahnhof (Berlin) barrierefrei, Fahrradmitnahme möglich Provider: VBB
S Südkreuz Bhf (Berlin)		an 12:52		2		Betreiber: S-Bahn Berlin GmbH
Berlin Südkreuz (S)					Fußweg	5 Min. Provider: Deutsche Bahn
Berlin Südkreuz						
Berlin Südkreuz		ab 13:03		7	ICE 1512	Bordrestaurant Provider: Deutsche Bahn
Hamburg Hbf		an 14:52		5a/b		
Hamburg Hbf		ab 15:28		8a/b	ICE 37	Bordbistro Provider: Deutsche Bahn
København H		an 20:10				
København H		ab 20:13			1096	Richtung: Växjö Provider: Skånetrafiken Betreiber: Skånetrafiken
Lund C		an 20:58				
Lund C					Fußweg	7 Min. Provider: Skånetrafiken
TROLLEBERGSSVÄGEN 4 LUND						

Dauer: 8:31

Diese Verbindung → [ausdrucken](#) → [als Text anzeigen](#)

Weitere Möglichkeiten

Reiseinformationen gültig vom 14.07.11 bis 10.12.11. Software-Daten: HAFAS 5.28.VBB 4.7.5.28.VBB 4.7.1 - 19.07.11
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BERLIN – LUND BY PLANE VIA COPENHAGEN (VBB)

VBB fahrinfo - Routenplaner - Mozilla Firefox

http://euspirit.vbb-fahrinfo.de/hafas/query.exe/dn?seqnr=4&ident=8x.0158031.1311078084&OK#focus

6 12247 Berlin-Lankwitz, Nicolaistraße 30 TROLLEBERGSVÄGEN 4 LUND 20.07.11 ab 12:44 an 21:05 8:21

7 12247 Berlin-Lankwitz, Nicolaistraße 30 TROLLEBERGSVÄGEN 4 LUND 20.07.11 ab 13:24 an 17:48 4:24

alle → [Details anzeigen](#) → [Drucken](#) → [Anfrage ändern](#) → [Neue Anfrage](#) → [Rückfahrt](#)

Detailansicht - Verbindung 7

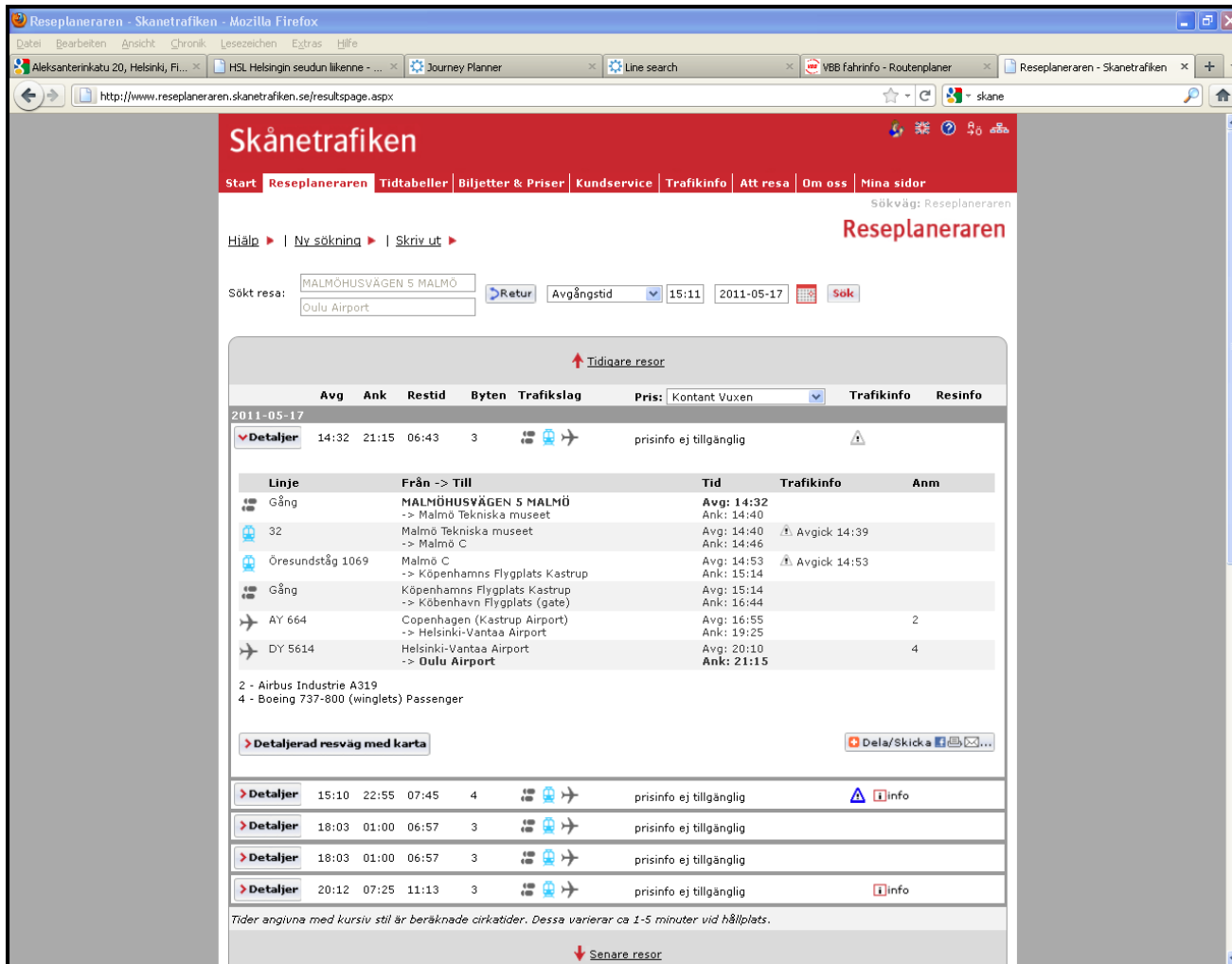
Routenpunkte	Datum	geplant	erwartet	Gleis	Linien	Bemerkungen
12247 Berlin-Lankwitz, Nicolaistraße 30 S Lankwitz (Berlin)	20.07.11				Fußweg	12 Min. Provider: VBB
S Lankwitz (Berlin)	ab 13:36			2	S25	Richtung: S Hennigsdorf Bhf barrierefrei, Fahrradmitnahme möglich Provider: VBB
S Südkreuz Bhf (Berlin)	an 13:42			2		Betreiber: S-Bahn Berlin GmbH
S Südkreuz Bhf (Berlin)	ab 14:00				Bus SXF1	Richtung: Flughafen Schönefeld Terminal (Airport) Halt am SXF, Terminal A Provider: VBB
Flughafen Schönefeld Terminal (Airport)	an 14:20					Betreiber: Bayern Express & P. Kühn Berlin GmbH
Flughafen Schönefeld Terminal (Airport)					Übergang	60 Min. Bitte beachten: Zeiten für den Fußweg samt Ein- bzw Auscheckdauer sind nur Richtwerte! Maßgeblich sind die Fristen, die Ihnen der Veranstalter nennt! Provider: VBB
Berlin Schönefeld Airport						
Berlin (Schoenefeld Airport)	ab 15:25				U2 4553	Airbus Industrie A319 Provider: flugplan.de Betreiber: easyJet
Copenhagen (Kastrup Airport)	an 16:25					
Köbenhavn Flygplats (gate)					Übergang	30 Min. Provider: Skanetrafiken
Köpenhamns Flygplats Kastrup						
Köpenhamns Flygplats Kastrup	ab 17:06				1076	Richtung: Karlskrona Provider: Skanetrafiken Betreiber: Skånnetrafiken
Lund C	an 17:41					
Lund C TROLLEBERGSVÄGEN 4 LUND					Fußweg	7 Min. Provider: Skanetrafiken

Dauer: 4:24

Diese Verbindung → [ausdrucken](#) → [als Text anzeigen](#)

Weitere Möglichkeiten

MALMO – OULU BY PLANE (SKANETRAFIKEN)



Skånetrafikens

Start | Reseplaneraren | Tidtabeller | Biljetter & Priser | Kundservice | Trafikinfo | Att resa | Om oss | Mina sidor

Sökväg: Reseplaneraren

Hiälp | Ny sökning | Skriv ut

Sökt resa: MALMÖHUSVÄGEN 5 MALMÖ | Retur | Avgångstid: 15:11 | 2011-05-17 | Sök

Oulu Airport

Tidigare resor

	Avg	Ank	Restid	Byten	Trafikslag	Pris:	Kontant Vuxen	Trafikinfo	Resinfo
2011-05-17									
Detaljer	14:32	21:15	06:43	3		prisinfor ej tillgänglig			
Linje	Från -> Till				Tid	Trafikinfo	Anm		
	MALMÖHUSVÄGEN 5 MALMÖ -> Malmö Tekniska museet				Avg: 14:32 Ank: 14:40				
	32 Malmö Tekniska museet -> Malmö C				Avg: 14:40 Ank: 14:46		Avgick 14:39		
	Öresundståg 1069 Malmö C -> Köpenhamns Flygplats Kastrup				Avg: 14:53 Ank: 15:14		Avgick 14:53		
	Gång Köpenhamns Flygplats Kastrup -> Köpenhamn Flygplats (gate)				Avg: 15:14 Ank: 16:44				
	AY 664	Copenhagen (Kastrup Airport) -> Helsinki-Vantaa Airport			Avg: 16:55 Ank: 19:25			2	
	DY 5614	Helsinki-Vantaa Airport -> Oulu Airport			Avg: 20:10 Ank: 21:15			4	
2 - Airbus Industrie A319 4 - Boeing 737-800 (winglets) Passenger									
Detaljerad resväg med karta									
Detaljer	15:10	22:55	07:45	4		prisinfor ej tillgänglig			
Detaljer	18:03	01:00	06:57	3		prisinfor ej tillgänglig			
Detaljer	18:03	01:00	06:57	3		prisinfor ej tillgänglig			
Detaljer	20:12	07:25	11:13	3		prisinfor ej tillgänglig			

Tider angivna med kursiv stil är beräknade cirkatider. Dessa varierar ca 1-5 minuter vid hållplats.

Senare resor

WARSAW – MALMÖ BY TRAIN (ZTM WARSAW)

ZTM Warszawa - zaplanuj podróż - Mozilla Firefox

ZTM Warszawa - zaplanuj podróż

http://wyszukiwarka.ztm.waw.pl/bin/query.exe/jpn?switchEuspirit=yes&seqnr=7&ident=ax.07654101.1311078375&REQ0HafasScrollDir=2

szczegóły połączeń

Warszawska (W) 3, Wesola → SKEPPSBRON 2 MALMÖ
 Początek podróży 18.07.11 o 13:26, dotarcie do celu do 19.07.11 o 08:04
 Czas połączenia 18:38

13:26	odj.	18.07.11	Warszawska (W) 3, Wesola	
			Dojście piesze 6 min., ok. -1 m	Provider: ZTM
13:32	przj.			
13:32	odj.		WSPÓLNA 01	
			Bus 173 Kierunek WIATRACZNA 23	Rozkład ważny od 2011-01-03, kurs realizowany przez pojazd niskopodłogowy; Provider: ZTM
13:45	przj.			
13:50	odj.		Przeładka PŁOWIECKA 01	
			Bus 521 Kierunek SZCZĘŚLIWICE 03	Rozkład ważny od 2010-11-18, kurs realizowany przez pojazd niskopodłogowy; Provider: ZTM
14:14	przj.			
14:14	odj.		DW.CENTRALNY 02	
			Dojście piesze 10 min., ok. 0 m	Provider: ZTM
14:24	przj.		Warszawa Centralna	
14:40	odj.			
			EC 42	Provider: DB; Przewoźnik: Nahreisezug
20:12	przj.		Gleis 13 Berlin Hbf	
20:12	odj.			
			Dojście piesze 8 min., ok. 0 m	Provider: DB
20:20	przj.		Berlin Hbf (tief)	
22:31	odj.		Gleis 4	
			EN 300	Provider: DB; Przewoźnik: S3/Georg Verkehrsgesellschaft mbH
08:01	przj.	19.07.11	Malmö Central	
08:01	odj.			
			Dojście piesze 3 min., ok. -1 m	Provider: Scantrafik
08:04	przj.		SKEPPSBRON 2 MALMÖ	

HAMBURG – REYKJAVIK (REJSEPLANEN)

Rejseplanen - Mozilla Firefox

http://www.rejseplanen.dk/

REJSEPLANEN

Min Rejseplan

Større tekst | Mindre tekst | Hjælp

Udskriv oversigt | Hent link til reiser

Rejsetider

Tidligere afrejser

Kl.:	Start/Stop:	Dato:	Tid:	Skift:	Transportform:
Afg. 06:47	Hamburg, Isestraße 3	19.07.11	4:37	3	
Ank. 09:20	Reykjavik (Keflavik International Airport)	19.07.11			

Luk: se rejseplan | Kort | Pris | E-mail | SMS | Kalender

Udskriv rejsebeskrivelse (Printvenlig)

Din rejseplan (se som tabel)

	Kl.:	Dato:	Spor:	Frekvens:	Bemærkninger:
Gå fra Hamburg, Isestraße 3 til Hamburg, Hoheluftbrücke. Det tager ca. 2 min. at gå dertil.	Afg. 06:47	19.07.11			
Tag med U-Bahn U3 (se køreplan) fra Hamburg, Hoheluftbrücke mod Barmbek til Hamburg, Kellinghusenstraße.	Afg. 06:49	19.07.11			
Ankomst Hamburg, Kellinghusenstraße	Ank. 06:52	19.07.11			
Tag med U-Bahn U1 (se køreplan) fra Hamburg, Kellinghusenstraße mod Norderstedt Mitte til Hamburg, Ohlsdorf.	Afg. 06:52	19.07.11			
Ankomst Hamburg, Ohlsdorf	Ank. 07:01	19.07.11			
Tag med S-Bahn S1 (se køreplan) fra Hamburg, Ohlsdorf mod Hamburg Airport (Flughafen) til Hamburg Airport (Flughafen).	Afg. 07:05	19.07.11			Vorderer Zugteil zum Flughafen
Ankomst Hamburg Airport (Flughafen)	Ank. 07:08	19.07.11			
Gå fra Hamburg Airport (Flughafen) til Hamburg (Fuhlsbüttel Airport) (HAM). Det tager ca. 49 min. at gå dertil.		19.07.11			
Tag med FI 513 (se køreplan) fra Hamburg Airport til Reykjavik (Keflavik International Airport).	Afg. 08:00	19.07.11			Boeing 757-200 (winglets)
Ankomst Reykjavik (Keflavik International Airport)	Ank. 09:20	19.07.11			Passenger

Samlet rejsetid: 4:37

(Se detaljeret rejseplan - inkl. alle stationer, stoppesteder, mv. hvor der ikke gøres stop) = Spor er kun vejledende

Afg. 07:42	Hamburg, Isestraße 3	19.07.11	9:18	5	
Ank. 15:00	Reykjavik (Keflavik International Airport)	19.07.11			

Se rejseplan | Kort | Pris | E-mail | SMS | Kalender

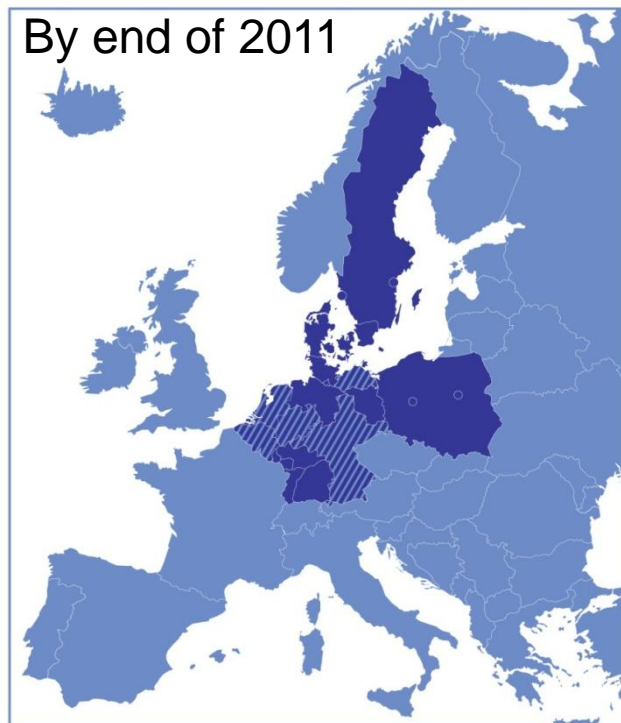
Afg. 10:52	Hamburg, Isestraße 3	19.07.11	6:18	4	
Ank. 15:10	Reykjavik (Keflavik International Airport)	19.07.11			

INTERREG PROJECT

RAIL BALTICA GROWTH CORRIDOR

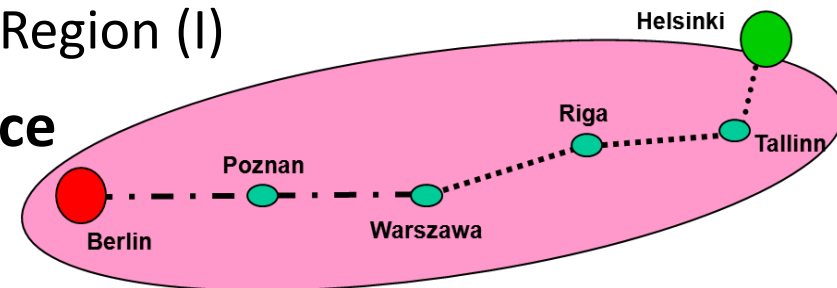
- **INTERREG IVB; October 2010 – June 2013**
 - Enhancing the competitiveness and accessibility of cities and regions in the Eastern Baltic Sea Region
 - Especially improving the railway corridor connecting the Eastern Baltic Sea Region
- **Making use of existing EU-Spirit services (WP 5 “Connectivity Pilot”)**
 - Extending service network around the Baltic Sea
 - Integrating complete Rail and Ferry information for long distance
- **Integrating additional systems**
 - *Warsaw already done (via INTERREG IVC project CAPRICE)*
 - *Poznań (via German EFRE project e-Kom)*
 - Łódź and Białystok (to be clarified)
 - Helsinki / Finnish system (to be clarified)
- **Developing appropriate stakeholder concept including**
 - Baltic States / St. Petersburg
 - Solutions for future cooperation

EXTENDING EU-SPIRIT SERVICES IN THE RBGC PROJECT



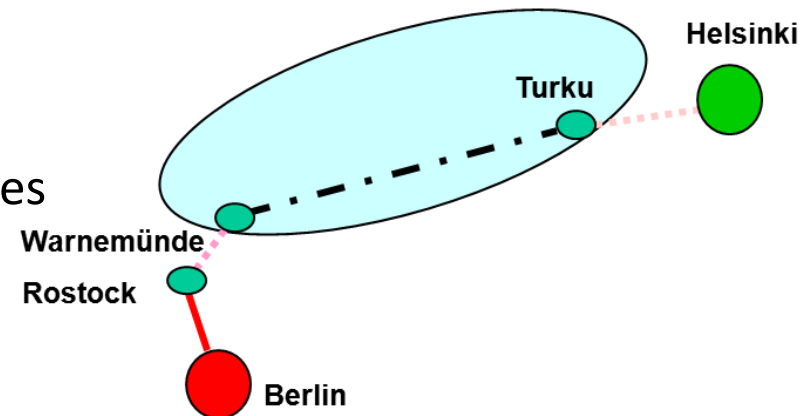
CONNECTIVITY PILOT (1): EXTENDING RAIL SERVICE IN EU-SPIRIT

- **Rail service integration concept**
 - Key element for overall Baltic Sea Region (I)
- **Clarification of system maintenance**
 - Information provided by DSB
- **Technical integration into EU-Spirit (central components)**
- **Integration of European stations as start and destination**
- **Extending existing EU-Spirit moduls**

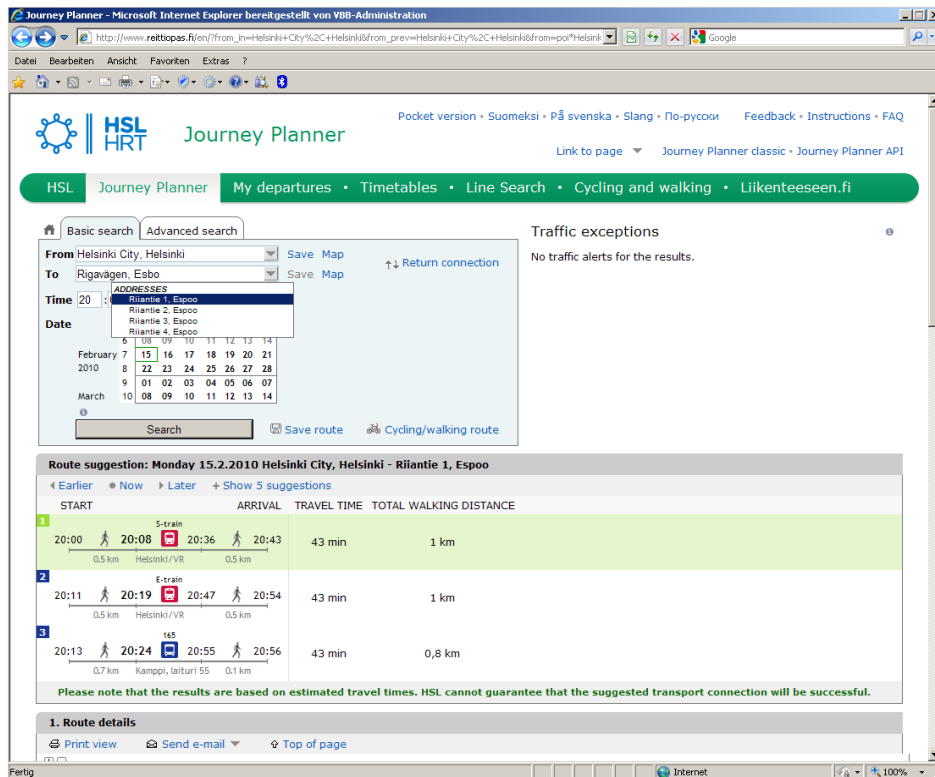


CONNECTIVITY PILOT (2): FERRY SERVICE INTEGRATION IN EU-SPIRIT

- **Ferry service integration concept**
 - Key element for overall Baltic Sea Region (II)
 - Main prerequisite for Finnish integration in EU-Spirit
- **Clarification of timetable data maintenance and management**
- **Technical integration into EU-Spirit**
- **Defining Interconnections**
 - between public transport, rail and ferries
 - for intermodal information (metadata)
- **Extending existing EU-Spirit moduls**



CONNECTIVITY PILOT (3): INTEGRATION OF FINNISH SYSTEMS INTO EU-SPIRIT



Route suggestion: Monday 15.2.2010 Helsinki City, Helsinki - Riantie 1, Espoo

START	ARRIVAL	TRAVEL TIME	TOTAL WALKING DISTANCE
20:00 0.5 km Helsinki/VR	20:08 20:36 0.5 km	43 min	1 km
20:11 0.5 km Helsinki/VR	20:19 20:47 0.5 km	43 min	1 km
20:13 0.7 km Kamppi, laiturit 55	20:24 20:55 0.1 km	43 min	0,8 km

Please note that the results are based on estimated travel times. HSL cannot guarantee that the suggested transport connection will be successful.



Route suggestion: Monday 15.2.2010 Helsinki City, Helsinki - Riantie 1, Espoo

START	ARRIVAL	TRAVEL TIME	TOTAL WALKING DISTANCE
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20:13 0.7 km Kamppi, laiturit 55	20:24 20:55 0.1 km	43 min	0,8 km

Please note that the results are based on estimated travel times. We can not guarantee that the suggested connections will always be successful.

SUMMARY: PROJECT GOALS

- **International Public Transport information around the Baltic Sea**, e.g. for
 - Berlin <> Poznań <> Łódź / Warsaw / Białystok
 - Helsinki <> Stockholm; including local public transport and long distance services
 - Malmö <> Poznań for visiting EURO 2012
- **International rail information and ferry timetables**, e.g. for
 - Tampere <> Stockholm by train and ferry or flight
 - Berlin <> Vilnius by train and ferry or flight
 - Stockholm <> Tallinn by flight or ferry
- **Development of future cooperation model for**
 - cooperation of information service providers
 - financing of network maintenance (central technical components)

THANK YOU VERY MUCH FOR YOUR ATTENTION!



Verkehrsverbund
Berlin-Brandenburg
Alles ist erreichbar.

Juergen Ross

Division Head
Planning and Customer Information

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