



---

# Modelling the Visualization of Internet-Maps

## The Making of a Map for Logistic and Travel Planning

*Lars Brodersen and Marlene Meyer*  
*National Survey and Cadastre, Denmark*

# Theory – Infrastructure and Products

---

## Value model and data model

Idea and identity

Concept

Application

Why?



What?



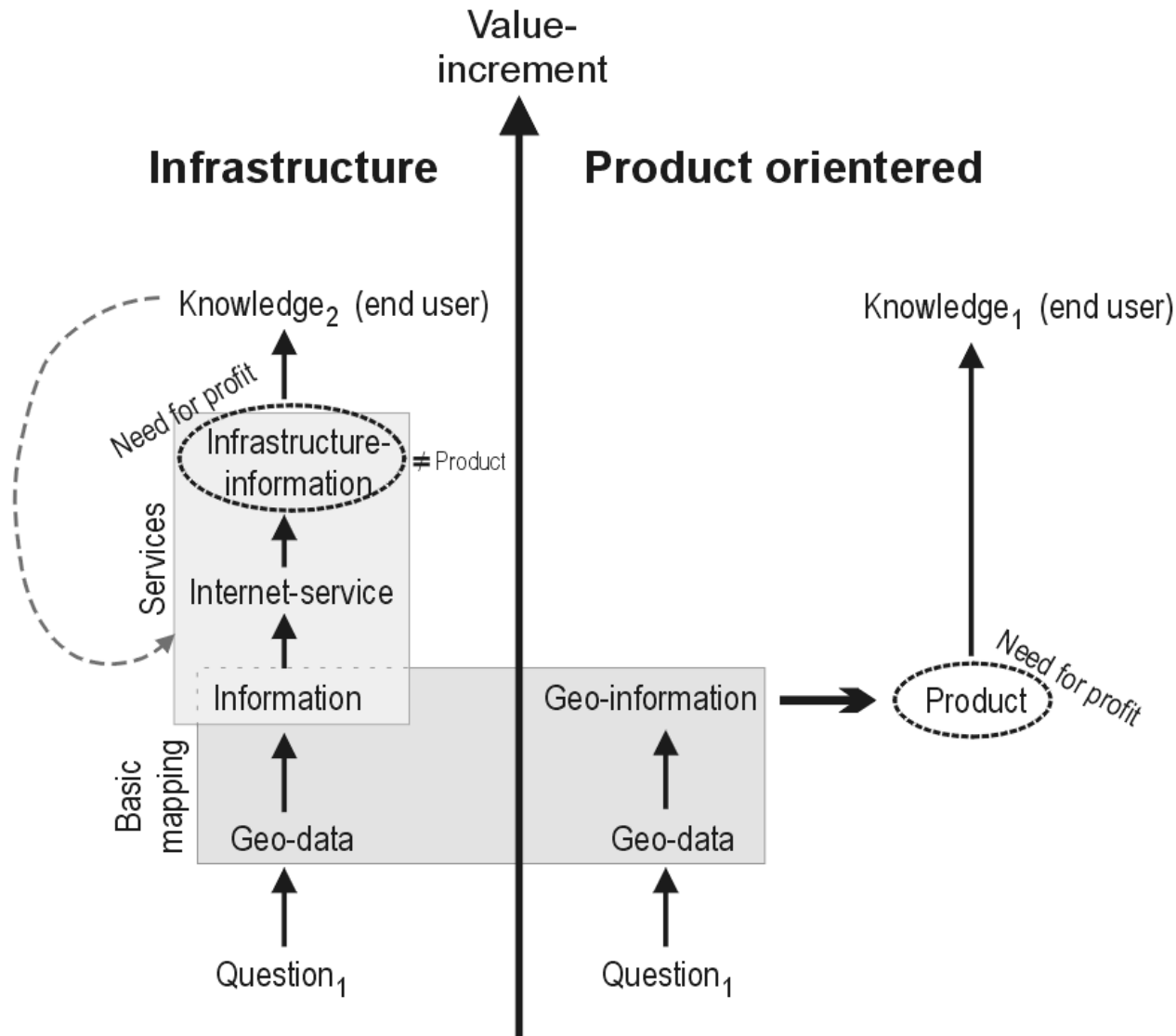
How?

Value model

Data model



# Theory – Infrastructure and Products





THE SWEDISH TOURING CLUB

# Sweden

# Products

## Discover new horizons

Accommodation

Sweden search

STF facts

Forum

Links



**Svenska  
Turistföreningen**  
Box 25  
101 20 Stockholm  
[info@stfturist.se](mailto:info@stfturist.se)

+46 (0)8-463 21 00

Sweden has 25 provinces. Each of them has its own special character, culture and traditions. The country's landscape is highly varied, which is not surprising, given its 2,000 km (1,240 miles) length from north to south. Skåne in the south is flat and fertile, Småland is a region of deep forests, and Bohuslän in the west has a rocky coastline. In the east Södermanland and Uppland share a unique archipelago, while further north are the region of Dalarna with its delightful Lake Siljan, the gentle mountains of Jämtland and the high peaks of Lapland. Sweden's highest mountain is Kebnekaise, 2,117 metres (6,950 ft) above sea level. Welcome to Sweden!



# and Products





# THE SWEDISH TOURING CLUB Accommodation

## Accommodation

- [Search Youth hostel](#)
- [To stay at Youth Hostels](#)
- [FAQ Youth Hostels](#)

## Search Mountain station

## Search Mountain hut

## Sweden search

## STF facts

## Forum

## Links



Svenska  
Turistföreningen  
Box 25  
101 20 Stockholm  
[info@stfturist.se](mailto:info@stfturist.se)

+46 (0)8-463 21 00

[← back](#)

## STF/HI Youth hostel Långholmen

- [▶ Booking inquiry](#)
- [▶ On-line booking](#)

Långholmen is situated in a former prison from 1840 on an green island in the heart of Stockholm.

### Service

Breakfast is served every morning in the restaurant (not included).

### Special

Adapted for handicapped visitors  
Cultural location  
City location

**GPS coordinates RT90**  
X: 6579941, Y: 1626450

### Homepage

CLICK FOR MAP  
Province Surrounding area



Prices	Members		Non-members		Number of beds	Beds per room
	Adults	Children with accompanying member	Adults	Child 3-15		
	200 SEK	100 SEK	245 SEK	125 SEK	254	2-3
	175 SEK	90 SEK	220 SEK	115 SEK	26	2-4

Child 0-2 year 0 SEK

Washing facilities	Drying facilities	Pets	Credit cards
Yes	Yes	-	Yes

**Address for visitors:** Kronohäktet  
**Postal address:** Box 9116  
 102 72 Stockholm  
**Telephone:** 08-668 05 10, 08-668 05 00  
**e-mail:** [vandrarhem@langholmen.com](mailto:vandrarhem@langholmen.com)  
**Fax:** 08-720 85 75

**Opening times:** Individuals: 1/1 - 31/12. Groups: 1/1 - 31/12.

Stockholm - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Google  Search Web Search Site

http://www.meravsverige.nu/1...  
File Edit View Favorites Tools  
Google

### LÅNGHOLMEN

Till E4 (norrut)

0 500 m

Mälaren

↑ N ↓

Till E4 (söderut)

# Theory – Method

---

- Purpose
- User group
- Aim

Responsibilities:

the commissioning party

- Use model
- Information model
- Appearance of graphics

the producer



# Case – Background

- New version of map for ‘The Travel Planner’
- Standard web product for the travel and logistics
- Development & production in a KMS project





# Case - Purpose

---

- To produce a standard map product to providers of Internet services, primarily within the logistics and travel line of business
- – and to provide a map Version II to the 'Travel Planner'



# Case – Target Group

---

- Customers using 'The Travel Planner' when planning travel and transportation
- Professionals in the transportation and logistic line of business



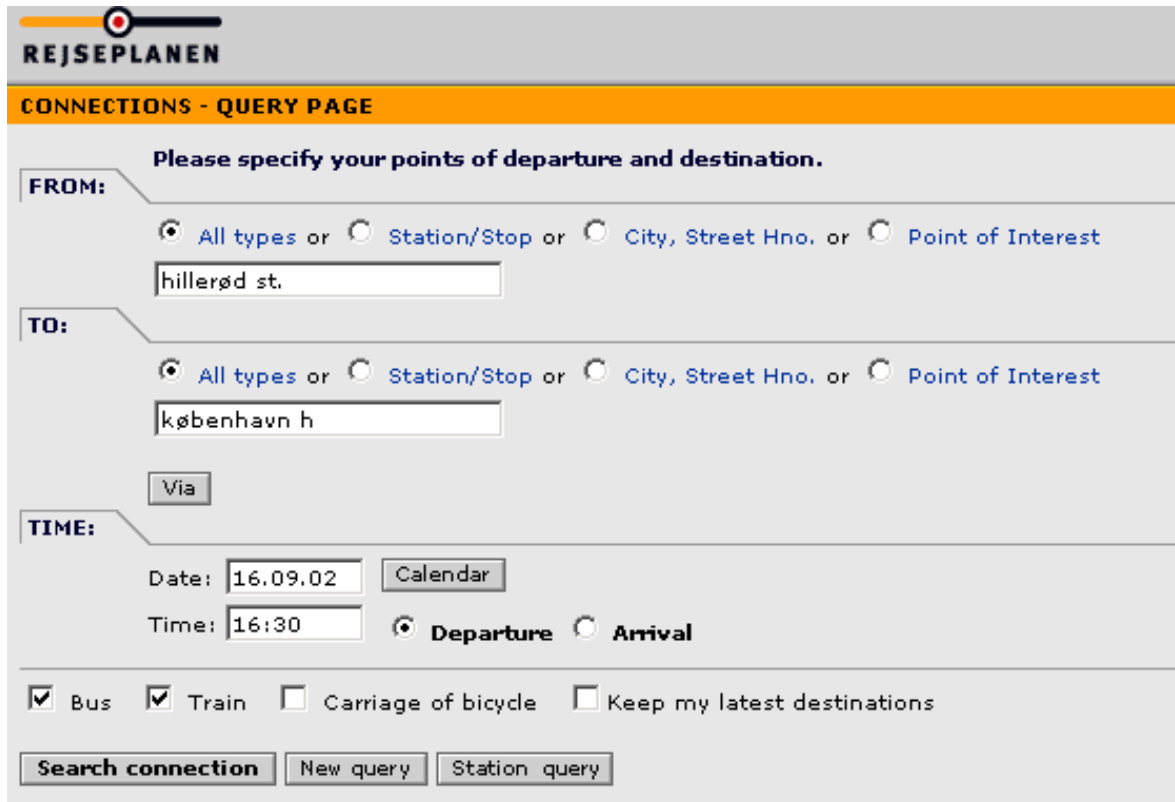
# Case - Aim

---

- To produce a web map with national coverage
- Based on our national digital topographic vector database
- Consisting of map canvas
- Seamless zoom from street to nation level
- Application and platform independent
- High cartographic standard – compared to other web products

# Case – Use Model

- The user indicates starting point, destination and desired departure or arrival:



**REJSEPLANEN**

**CONNECTIONS - QUERY PAGE**

Please specify your points of departure and destination.

**FROM:**

All types or  Station/Stop or  City, Street Hno. or  Point of Interest

hillerød st.

**TO:**

All types or  Station/Stop or  City, Street Hno. or  Point of Interest

københavn h

Via

**TIME:**


Date: 16.09.02

Time: 16:30  Departure  Arrival

Bus  Train  Carriage of bicycle  Keep my latest destinations

# Case – Use Model

- ‘The Travel Planner’ returns an itinerary



**REJSEPLANEN** CONTACT • LINKS • HELP CHOOSE LANGUAGE ▶ DANSK | DEUTSCH | ENGLISH

**CONNECTIONS**

Overview: [← Earlier connections](#) | [Later connections →](#)

Stop/Address/Point of Interest	Date	Time	Changes	Duration	Products
<input type="checkbox"/> Hillerød st. København H	16.09.02	Dep 16:26	0	0:45	S
	16.09.02	Arr 17:11			
<input checked="" type="checkbox"/> Hillerød st. København H	16.09.02	Dep 16:36	0	0:45	S
	16.09.02	Arr 17:21			
<input type="checkbox"/> Hillerød st. København H	16.09.02	Dep 16:46	1	0:44	S Re
	16.09.02	Arr 17:30			
<input type="checkbox"/> Hillerød st. København H	16.09.02	Dep 16:46	0	0:45	S
	16.09.02	Arr 17:31			

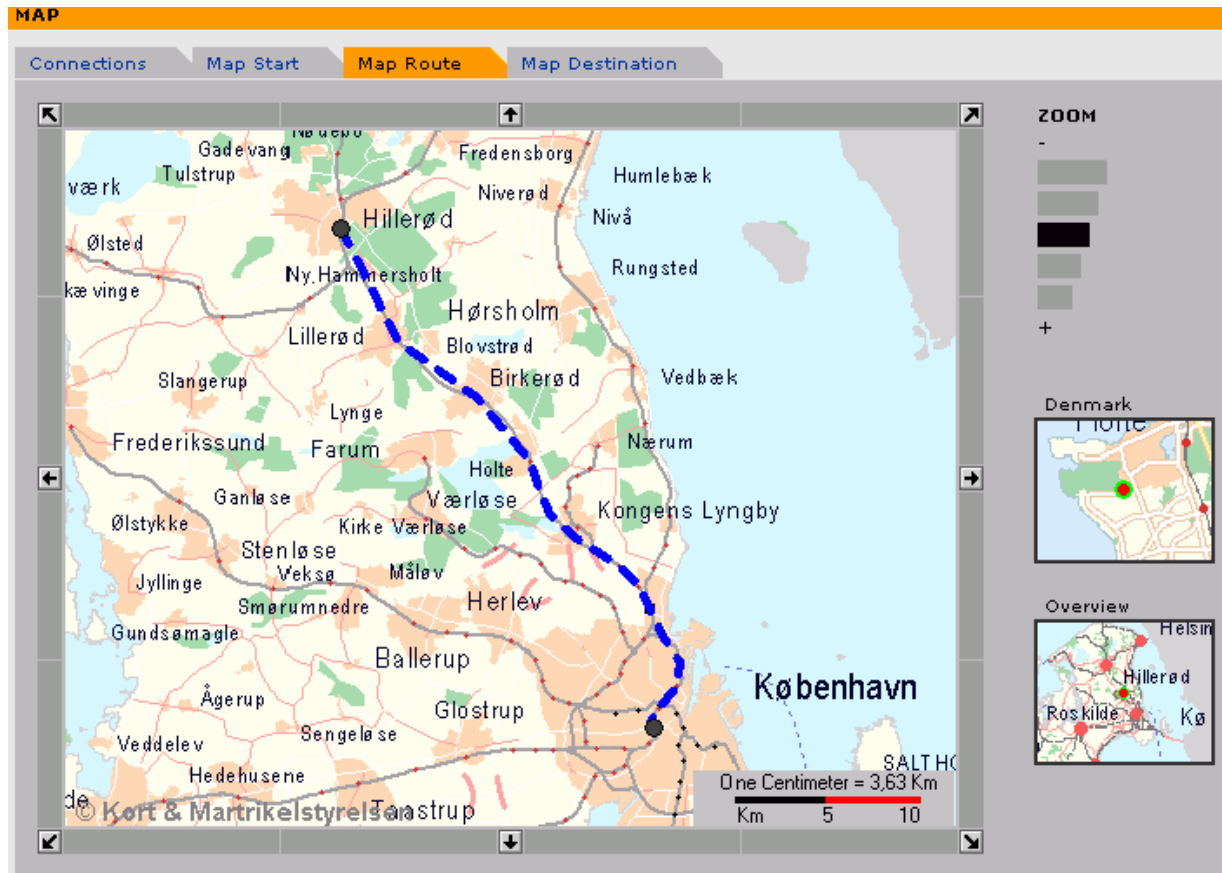
Show selection Show all

**Itinerary:**

Stop/Address/Point of Interest	Date	Time	Bus/Train	Comments
Hillerød st. København H (S-tog)	16.09.02	Dep 16:36	S E	Direction Køge st., Cykelmedtagning
	16.09.02	Arr 17:15		

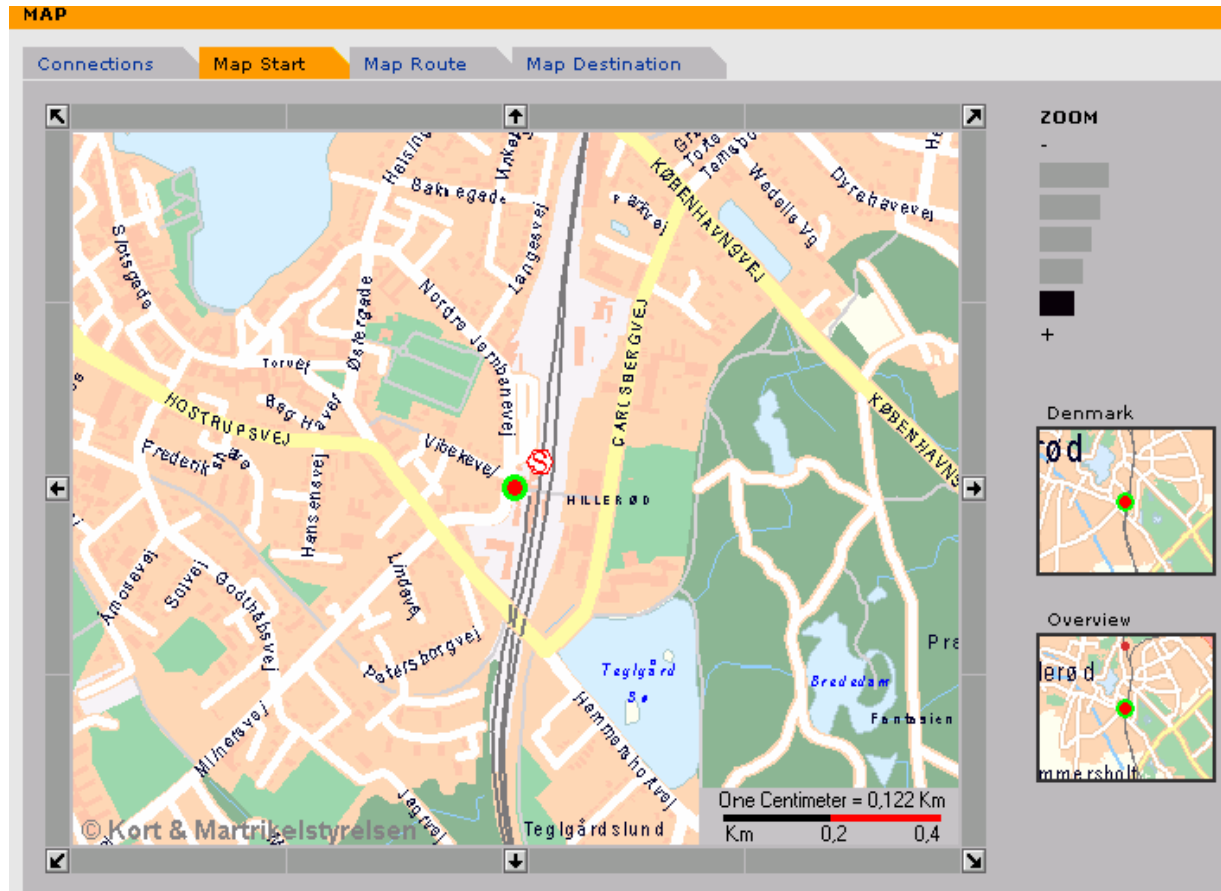
# Case – Use Model

- A map showing entire route:



# Case – Use Model

- Maps showing departure and arrival points



# Case – Information Model

- Large scales: Transportation network, buildings and other landmarks and text



# Case – Information Model

- Medium to small scale: Transportation network, towns, lakes, forests, text



# Case – Appearance of graphic

---

- No legend – therefore supposedly self explanatory
- Traditional choice of colors
- Faint colors in map canvas to highlight user defined POI eg train stations





# Discussion

---

- Was the method followed?
- What was the result of the project?
  - Is it infrastructure?
  - Is it a product?