Transport initiative seminar 2017, Chalmers

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Trafikverket
What can we know about the future?

• The curse of the present
• Path dependence
• Black swans
The transport policy goals

The overall transport policy goal is to guarantee a socioeconomically effective transport supply system for citizens and the business community that is sustainable in the long term throughout the whole country

• Transport policy functional goal: **Accessibility**

• Transport policy consideration goal: **Safety, environment and health**
Our tasks

• To be responsible for the long-term planning of the traffic system for road and rail transport, shipping and aviation

• To be responsible for the construction, operation and maintenance of State roads and railways

• To be responsible for R&I motivated by our tasks
Proposed National Plan 2018-2029
SEK 622.5 billion
Roughly EUR 65 billion

- Investments SEK 333.5 billion
- Operation and maintenance of roads SEK 164 billion
- Operation and maintenance of railways SEK 125 billion

- + SEK 90 billion from congestion taxes, loans, infrastructure fees, track access charges and other forms of co-funding

Research and innovation: 8 billion SEK. 667 million per year (521m 2017)
Suggested prioritized areas of R&I 2018-2029

- Transformation to a climate adapted and fossil free transport system
- A robust and safe infrastructure in the digitalized society
- An efficient and linked transport system for citizens and the business community
- An equal and inclusive transport system
Actions for increased innovation capability, 2018-2029

- Targeted initiatives for knowledge development in priority areas
- Mobilization through common agendas and programmes for system innovations
- Special efforts on testing and demonstration
- Greater focus on precommercial procurement
General organisation

- Board of Directors
  - Director-General
    - Internal Audit
  - Finance and Control
  - Purchasing and Logistics
  - Strategic Development
  - Legal Matters and Plan Review
  - Human Resources
  - IT
  - Communication and Information Management

Central Functions

Business Areas

- Market and Planning
- Traffic Management
- Maintenance
- Investment
- Major Projects
- Profit Centres
Long term planning of the transport system

Collect and process data on roads and railway

Planera trafik

Planera åtgärder på vägar och järnvägar

Planera åtgärder på vägar och järnvägar

Genomföra åtgärder på vägar och järnvägar

Styra och informera om trafik

Recherché and develop innovations

Collect and process data on roads and railway

Mission from the government

Research and develop innovations

Established transport plan

Planning the implementation of the transport plan

Collect and process data on roads and railway

Ge bidrag till enskilda vägar

Tillhandahålla ickekommersiell kollektivtrafik

Debidrag till enskilda vägar

Gensam värdering av vägar och järnvägar

Basis for the transport plan

Väg- och järnvägsförvaltning

Collect and process data on roads and railway

Sett och informera om trafik

Budget

Research and develop innovations

Government bill

Collect and process data on roads and railway

Research and develop innovations
All R&I operations are managed through portfolios, each with a steering committee with representativeness from all operation areas.

**Improvement of today’s system – R&I-portfolios**

- Planning
- Maintaining
- Enable
- Build
- Shipping
- Aviation

**Strategic R&I-portfolios for development and renewal of the transport system**

- Strategic initiatives
- Demonstrations
How do we deal with disruptive new developments?

Innovation Procurement

Development level

- TRL 1-3: Concept
- TRL 4-5: Prototype
- TRL 6: Test
- TRL 7: Verification/demonstration
- TRL 8-9: New approved solution available on the market
- COTS: Solution successfully implemented in the market

Product available on the market...

Development promoting procurement
(Within the procurement laws)

Examples: Simplified, Open, and Negotiated Procedure

Procurement of new solutions
(Within the procurement laws)

Examples: Competitive Dialogue, Negotiated Procedure and Innovation Partnership

Procurement of research and development services
(Outside the procurement laws)

Example: Pre-Commercial Procurement
Visions of a climate neutral freight sector

• Paris agreement

• Sweden to become one of the first welfare states in the world free of fossil fuels

• A transport sector free of fossil fuels
  – Reduction of CO2 emissions by 70% to 2030

• New climate law from Januari 2018
  – No net emissions by 2045
Examples of areas to be focused on

- Regulatory framework
- Incentives
- Planning
- Behavioural aspects
- Effects
- Logistics
- Services
- Business models
- Vehicles
- Infrastructure
- Energy

... 

With a clear focus on a systems’ perspective!
What do we want to achieve?

- A combination of research and innovation
- Long term commitment
- Triple helix, with strong societal and industrial drive
- Transport policy objectives
- Excellent research
## Preliminary timetable

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<tr>
<th>Aktivitet</th>
<th>Tidpunkt</th>
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<tr>
<td>Pre-commerical procurement launched</td>
<td>October 2017</td>
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<tr>
<td>Phase 0: Pre-qualification</td>
<td>January 2018</td>
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<tr>
<td>Evaluation and decision</td>
<td>February 2018</td>
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<tr>
<td>Phase 1: Programme description</td>
<td>March-April 2018</td>
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<td>Evaluation and decision</td>
<td>April-Juni 2018</td>
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<td>Phase 2: Build-up</td>
<td>Autumn 2018 – autumn 2020</td>
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<td>Evaluation of the build-up phase</td>
<td>Autumn 2020</td>
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<tr>
<td>Phase 3: Implementation 1</td>
<td>January 2021 – December 2025</td>
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<td>Evaluation of Implementation 1</td>
<td>Winter 2025/2026</td>
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<tr>
<td>Phase 4: Implementation 2</td>
<td>2026-2031</td>
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<td>Final evaluation</td>
<td>Spring 2031</td>
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