Differences and Similarities Between Road and Railway Asset Management

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We deliver public service – every single day ...

- Trains that run on time
- Navigable roads
- Current traffic information
- Safer transportation systems for everyone
- More energy-efficient transportation systems
- Infrastructure for people and nature
- Driver exams at 139 locations
- 38 ferry routes on sea and inland waterways
Agenda

- The Swedish Transport Administration
- Differences and similarities
- Challenge and absolute necessity
Brief data about the Swedish Transport Administration

The Board

Director General
Lena Erixon

6,300 employees, 150 occupations

Business volume in 2014
SEK 50,000,000,000

Of which
- Investments: SEK 21.5 billion
- O&M and traffic control: SEK 19.5 billion
- Miscellaneous: SEK 9.0 billion
General organisation

Board of Directors

Director-General

Internal Audit

Central Functions
- Finance and Control
- Purchasing and Logistics
- Strategic Development
- Legal Matters and Plan Review
- Human Resources
- IT
- Communication and Information Management

Business Areas
- Market and Planning
- Traffic Management
- Maintenance
- Investment
- Major Projects
- Profit Centres
Sweden’s roads and railways

- 13,000 km of main tracks
- 586 stations for embarking and disembarking
- 11,400 switches
- 98,400 km of State roads
- 16,000 bridges (3,781 railway bridges)
- 76,100 km of private roads with a state subsidy
- 41 ferry lines
- 41,000 km of municipal streets and roads

Total = 400,000 km roads including private roads etc.
From infrastructure authority to social developer
Agenda

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The transport systems ability to fulfil and deliver the planned travel and transport times and the ability to instantly provide correct and useful information during disturbed traffic.

The transport systems ability to handle the requested volume of travel and transport.

The transport systems ability to prevent and handle incidents that causes disturbed traffic.

The transport systems ability to satisfy the different customer needs and requests for transport and travel.

The transport systems ability to minimize the number of fatalities and seriously injured.

The transport systems ability to minimize the negative impact on and support the positive development of climate, landscape and health.
Asset management Framework

Network objectives

Route Strategies

Asset Strategies | Operational strategy
Route Asset Plans | Route Operational Plans
Route Delivery Plans | Timetabling and Access Planning
Execution of work | Network Operation

Core decisions and activities

Enablers
- Asset Information
- Risk management
- LCC-tools
- Business processes
- Competencies
- Supply Chain Management

Reviewing Mechanism
- Audits
- KPIs
- Management Reviews
- Corrective Activities

What is Applicable on Road Asset Management?
A preliminary maturity test for the Swedish Railway
Diagnose for Road Management Capability, oct-dec

Some reflections:

• **Timetabling** (mostly for buses) is a bit different – Higher flexibility, easier to chose another road, but loss of travelling time has the same importance on roads.

• **Capacity** – Most roads doesn´t have capacity problem, exceptions are peak hours in City’s, some tunnels – Important, but not the same focus.

• **Asset Structure** – Hierarchies with components, not the same need and therefore not established in the same way as for railways.

• **Possession times** for maintenance and renewal aren´t a big issue today – But it ought to be, loss of travelling time is important.

BUT ALMOST ALL PROCESSES DESCRIBED FOR RAILWAYS IN THE MATURITY TEST ARE RELEVANT FOR ROADS.
Some differences in present Asset Management

**Risks**
- Travellers have greater acceptance of “delays” (deviations in expected travel time)
- Common route strategies isn’t in place
- Lack of systemic view
- Well established asset strategies and asset management information systems but separated for paved roads, bridges, equipment etc., (with tools for historic analyses and forecasting)
- Rarely prioritisation between asset categories. If costs for snow clearance increase it always comes with less pavement activities.

**Railways**
- Passengers and operators have high expectations on punctuality
- Common route strategies partly in place
- Systemic view is a necessity
- Combined asset management information systems to handle failures, inspections, asset register etc. but a need for more tools for historic analyses and forecasting and established asset strategies
- Prioritisation between asset categories.
Decisions makers need alignment and transparency

Business objectives

Network objectives

Asset Management Policy

Route Strategies

Asset Management Strategy

Asset Strategies

Route Asset Plan

Route Delivery Plan

Execution of work

New facts

Track, Switches

Paved roads

Power Supply

Road equipment

IT and Telecom

Drainage

Bridges

Tunnel

Interlocking system

And others...

Mål för väg- och järnvägsnätet

Business objectives

Network objectives

Asset Management Policy

Route Strategies

Asset Management Strategy

Asset Strategies

Route Asset Plan

Route Delivery Plan

Execution of work

New facts
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One of the biggest challenges is:

- a uniform, reliable and efficient information management of the road and railway network, including transport network data, with a durable structure throughout the lifecycle

Today:

- Different and not always compatible information structures
- Different definitions, languages
- Information demands that aren’t aligned
- Lack of history
- Discussions about responsibilities
- Problem with data availability

The executives need this to be transparent decision makers
Thanks for your attention