RESEARCH AND DEVELOPMENT STRATEGY of VTI

By
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The task of the Swedish National Road and Transport Research Institute is to conduct research and development concerning the infrastructure, traffic and transport sectors.

The Institute will work to fulfil the transport policy objectives by contributing to improve the knowledge within the transport topic.

One of the keywords for the work is cooperation, and the Institute cooperates with both other research environments and players in the business sector.
The objective of transport policy is to ensure the economically efficient and sustainable provision of transport services for people and businesses throughout the country.

- **Functional objective:**
  - Accessibility

- **Impact objective:**
  - Safety, health and environment
Vision

An effective, green and safe transport system

VTI will have a key role in the development of future effective, greener and safer transport system, both in Sweden and internationally.

Activities concept

VTI is a broad-based and customer-oriented centre for internationally prestigious research and development and advanced analytical work in the transport sector. VTI will continuously improve the knowledge of the transport sector to contribute to an effective, safe and sustainable transport system.
VTI's three core values are the foundation of the business. VTI's core values represent the fundamental values that characterize the corporate culture of VTI and that will permeate the business.
VTI’s research areas

- Infrastructure maintenance
- Vehicle technology
- The environment
- People in the transport system
- Planning and decision making processes
- Traffic analysis
- Traffic safety
- Transport economics
- Transport system
- Pavement technology
Research needs – Common challenges

**Climate Change**
A greater degree of urbanization focuses on issues of accessibility, capacity and congestion but also environmental noise, exhaust fumes and particles.

**Transport Efficiency**
The need for transportation of both goods and people will rise nationally and internationally

The Swedish Transport Administration highlights the importance of an energy efficient transportation systems, industrial transport and reliable infrastructure in the near future.

**Accessibility**

**Traffic Safety**
The European Commission highlights the need for safer transport, technology, education and attention of vulnerable road users.

**The Environment**
In order to limit emissions of greenhouse gases, the EU Commission points out a number of measures which can be expected to increase the research needs.
The interaction between transport modes is important for both goods and passengers.

Research and development related to general transport practice and intermodal transportation will be in demand.

The term "co-modality" means more efficient and environmentally sound use of modes of transport, individually but also in combination with an efficient transport chain.

Demands for increased effective interaction between modes is also clear from a European perspective.

Lack of capacity in the European transport networks is highlighted as one of the major challenges for the future of transport and it applies to all modes of transport.
Restructuring within the national level

The restructuring of the Swedish transport authorities still has some uncertainty with respect to how issues related to research and development in the sector will be handled by the authorities. Transport Agency and the Swedish Maritime Administration must take responsibility for their own research and development. VTI is however concerned about the proposal as it may result in a monopoly situation where the Swedish Transport Administration will be the sole buyer of transport research.

Suggested solutions

Evaluating the direction and results of operations for research, demonstration, innovation and development in transport sector. The evaluation should be able to measure development, introduction and spread of new and improved products and services focusing on their contribution to the transport policy objectives.

Each year allocated about 1.6 billion to this type of research and the State Treasury submits proposals on governance of transport research based on the experiences that the authorities have in different areas.
The Swedish transport sector must have access to the national skills which are quickly respond to the sector's skills needs.

VTI has a roll within the international area. This has blossomed through a combination of strategic initiatives, healthy opportunism and luck.
VTI's participation in international collaborative research is conducted mainly in EU research programs. The new research program that extends between 2014-2020 has received the collective name *Horizon 2020th*.

**The forthcoming EU framework program and the other European collaborations**

Other European cooperation framework which has a growing importance for VTI, is related to **Era-net transport**, where several new projects have already been started.

Furthermore, research and development with a strong focus on environmental and energy issues, such as **LIFE +**, has a growing importance for VTI.
Clients

Strategic goal is that VTI has satisfied customers and clients

Employments

Strategic goal is that VTI is an attractive workplace
Approximately 200 clients per year

- Swedish Transport Administration
- Vinnova – governmental agency for research funding
- EC funding
- Local authorities and regions
- Other national authorities, e.g. The Police and SIDA – Swedish International Development Cooperation Agency
- The automotive industry
- Contractors
- Insurance companies
- Tyre manufacturers
- Manufacturers of safety barriers and posts for road signs
- Manufacturers of child restraint systems
205 employees
44% females

62% of R&D staff have a Ph.D.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ECTRI</td>
<td>European conference of transport research institutes</td>
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<tr>
<td>FEHRL</td>
<td>Forum of European national highway research laboratories</td>
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<tr>
<td>FERSI</td>
<td>Forum of European road safety research institutes</td>
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<td>GRSP</td>
<td>Global road safety partnership</td>
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<td>ETSC</td>
<td>European transport safety council</td>
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<td>OECD</td>
<td>JTRC, IRTAD, ITRD</td>
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<td>PIARC</td>
<td>World road congress</td>
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Transguide, transguide.org, free of charge

Information searches and current awareness service on commission

Swedish centre for TRID (the TRIS and ITRD database) trid.trb.org

International cooperations with ITF/OECD, TRB, FEHRL, NRA/BRA and others

Contact: bic@vti.se
RS4C – ROAD SAFETY ON FOUR CONTINENTS

RS4C is a series of major international conferences on road safety, organised every second or third year since 1987

Organised by VTI in co-ordination with supporting international organisations and host countries

The next, 16th RS4C, in Beijing, China, May 15-17/ 2013
Contact: Kent Gustafson, kent.gustafson@vti.se
VTI annually arranges Transportforum, the largest meeting place for the Swedish transport sector where researchers and persons involved in the transport area meet.
NORDIC ROAD & TRANSPORT RESEARCH

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