Future transportation systems
-Policy initiatives and testbeds in Sweden

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Outline

• Introduction to Drive Sweden
• Movie Automated transport systems
• Testbeds and real-life tests
Drive Sweden – A Strategic Innovation Program

• Focused on automated transport systems
• Started in spring 2015
• Automotive and ICT industry in the forefront + tradition of systems thinking and excellent collaboration between industry, academia and government
**Strategic Innovation Agenda**

- **Implementation**
  - Programme Office (co-ordination & support)
  - Supporting projects (Open call, SIP sets agenda, VINNOVA adm)
  - Strategic Projects (SIP sets agenda, closed call)
  - Test and demo sites
  - Influence, analyze (Influence policy)

**Instruments**
- **Transformational change**
- **Radical & disruptive**
- **Technological & Social Innovations**
- **Tranend a narrow sector and regional focus**

**Start**

**Funding**
- VINNOVA funds appr. 2-5 mn € p.a.
- **Funds from VINNOVA should be matched minimum 1:1 by business partners**

**VINNOVA**
- Funding the agenda
- Selection of agendas to fund
- 3-6-9 yr Evaluation: Funds for 3 more yrs

"Finish" 12 yrs
Movie
Initial Stakeholders/partners

National Authorities
- Trafikverket
- Transportstyrelsen
- City of Gothenburg
- Stockholms stad

Universities & Institutes
- Chalmers
- KTH
- SP
- LiU
- Linköping University

Test beds
- Lindholmen Science Park
- Kista Science City
- ASTAZero
- Ice Makers

Science parks
- Transdev
- Nobina
- Tele2
- Samtrafiken
- Telenor

Infrastructure/operators
- Postnord
- Verdict
- WSP
- Atkins

Specialists
- Norconsult
- Carmenta
- MINDCONNECT
- Googol
- UbiGo

Products
- Nemo
- Volvo
- Scania
- Vinnova
- Local Motors
- Autoliv
A network of testbeds

The complexity requires several projects that tests the results in a variety of settings

**Drive Me**
Test self-driving Volvo cars in a real-life setting (living lab)

**ICEmaker**
Test vehicles och systems in an arctic environment

**Connected Mobility Arena**
Test autonomous public transportation in reality with 5G technology

**Asta Zero**
Test environment in full – scale for future road-safety

Drive Me
Test self-driving Volvo cars in a real-life setting (living lab)
Testbeds and tests in reality
1. Klicka på bildikonen i mitten och infoga en bild (obs! bilden måste vara 4:3 med bra upplösning).

2. Klicka på textrutan och klicka på figurfyllning på fliken Ritverktyg.

- Laboratory
- Test site
- Reality (living lab)
<table>
<thead>
<tr>
<th>Purpose</th>
<th>Laboratory</th>
<th>Test site</th>
<th>Reality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Explore characteristics</td>
<td>Test solutions in a controlled and realistic environment</td>
<td>Test solutions in reality with real users (living lab)</td>
</tr>
<tr>
<td>Reproduceability</td>
<td>Easy to reproduce</td>
<td>Moderate reproduceability</td>
<td>Hard to reproduce based on trust and a lot of stakeholders</td>
</tr>
<tr>
<td>Investment</td>
<td>Expensive</td>
<td>Varies</td>
<td>Marginal cost for availability</td>
</tr>
<tr>
<td>Commitment</td>
<td>&gt;10 yrs</td>
<td>Varies</td>
<td>&lt;10 yrs</td>
</tr>
<tr>
<td>Complexity</td>
<td>Isolated tests</td>
<td>Complicated, yet in a controlled environment</td>
<td>Very high and necessary complexity</td>
</tr>
<tr>
<td>Financing</td>
<td>Well established support</td>
<td>Established and new ways of support on its way</td>
<td>Underdeveloped</td>
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</table>
Vinnova supports the evolution towards the city as a laboratory
Courage – political leadership

Make a real-life environment available for testing. Find new ways of public procurement

Innovative management

Have an active dialogue and engage all types of relevant actors incl. policy makers

Economic incentives

How to compensate and incentivize real-life testing sites, cities etc?

Trust and cooperation!
Thank you! Questions?

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