Drive Sweden
- an update on Swedish Automation Activities

Jan Hellaker
Program Director

www.drivesweden.net/en
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Prometheus “Board Member Meeting”
Munich, January 1989

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SWEDEN – A red-hot automotive region

VOLVO

SCANIA

10 million

LYNK & CO

EINRIDE

DRIVE: SWEDEN
Drive Sweden
Strategic Innovation Program

A government-sponsored cross-functional collaboration platform aiming at designing the next generation mobility system for people and goods; based on connected, automated and shared vehicles.

https://youtu.be/WmYsWYDQxu1
Sweden4Platooning

• Three year project (2017-19) with Scania, Volvo Group, Royal Institute of Technology, SICS Swedish ICT, DB Schenker AB and the Swedish Transport Administration

• Main deliverables:
  • Pilot Multi-brand C-ACC (longitudinal control) in a haulage company operation
  • Demonstrate Multi-brand platooning (lateral and longitudinal control) at a test track
- Four-truck platoon
  - Drayage application
  - 1 L0 + 3 L4 trucks
  - 80 km/h
  - 10-12 m gap
The ‘T-pod’ is an electric, driverless and/or remotely controlled vehicle, set for prototype testing in late 2017.

Cargo capacity: 15 standard pallets
Gross vehicle weight: 20 tons
Length: 7 meters (23 feet)
Battery capacity: 200 kWh
Range: 200km (124 miles)
NEVS’ vision is to shape mobility on product, service and system levels.
InMotion concept vehicle at CES Asia

MoU with Didi Chuxing
100 families to commute by self-driving Volvo XC90s, on public roads in Gothenburg, Sweden.

- Pilot will begin in Q4 of 2017
- Highly-automated driving (L4) on demand
- No safety driver
- Secondary tasks allowed
- Certified roads only, ~50 km
- Weather limitations
Drive Sweden – Open Cloud

- External cooperation API
- Traffic Management
- Analytics
- Cloud Infrastructure
- Automated Bus Route
- Fleet Management
- Fleet APIs

Partners:
- TRAFIKVERKET
- City of Gothenburg
- Stockholms stad
AD Aware Traffic Control

The feature will be used to enable/disable self-driving of the Drive Me cars, individually per road segment, based on real-time weather and incident data.

Now under development:

Include information about emergency vehicles coming from behind
Area: 2000 acres
Rural road: 5.7 km
City area: 4 blocks
High speed: 45,000 m²
Multi-lane: 700 m

Dedicated 4G/LTE cellular network

5G network now under construction
Living labs launched by Sweden’s PM

- The Swedish Government has launched a new program, promoting deployment of "living labs" for a wide range of new technologies
- Drive Sweden has been appointed to organize two of these
FRAMEWORK FOR MOBILITY-AS-A-SERVICE IN SWEDEN

1. Business models & Ticketing systems
   1a. Availability of Digital tickets for 3rd party
   1b. New PT products for MaaS
   1c. Combined efforts for Open Data in PT

2. Legislation & Policy
   2a. Investigation of subsidies of mobility services
   2b. Pilots with changes/challenged policies

3. Pilots & Deployment
   3a. Implementation of MaaS in urban areas
   3b. Pilot projects in Urban areas
   3c. Pilot projects in non-urban areas

4. Evaluation
   4a. Analysis of traveller preferences and prerequisites
   4b. Framework and tools for effect analysis

0. Coordination & Collaboration
   0a. Project management
   0b. Collaboration arena

- Foundation
- Establishment
- Change

- Standard for roaming between services
- Further needs for supporting PT in MaaS

- New legislation for shared economy/mobility
- Review of tax legislation and employment benefits (mobility)

- Implementation of MaaS services in non-urban areas
- Pilots MaaS with Autonomous vehicles
- Pilots with Policy integration (MaaS level 4)
- Shared travelling as a norm.

- Effect analysis and new knowledge

- Mobility as a norm for employment benefit
- Legislation promoting shared services and shared mobility

- DRIVE SWEDEN
Autopilot, Stockholm

Automated docking & ‘bustrains’, Gothenburg

Shared Shuttle Services, Gothenburg

Cloud-connected traffic signals, Stockholm & Gothenburg

Simplifying car-sharing, Volvo Cars

Regulatory sand-box
It's not all about driverless vehicles. This is a completely new approach to mobility. We are on the threshold of a radical shift, and it's happening fast. In just a few years the world will change. We will see entirely new mobility business models enabling sustainable cities.