

Update from Sweden

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DRIVE : SWEDEN

Drive Sweden

Strategic Innovation Program

A government-sponsored collaboration partnership for designing & piloting the next generation mobility system, based on services delivered via *Connected, Automated and Shared vehicles*.



<https://youtu.be/WmYsWYDQxul>

Recently passed the three-year evaluation, nine more years to go!

With support from

VINNOVA

Swedish
Energy Agency

FORMAS

Strategic
innovation
programmes

DRIVE SWEDEN

TRAFIKVERKET

TRANSPORT
STYRELSEN



VOLVO



CEVT

SCANIA

UNITI

NEVS

E/NRIDE

VOLKSWAGEN

GROUP SVERIGE AB

NAVYA



2getthere

ohmio



Göteborgs
Stad



Driven by Innovation:

kissa
SCIENCE CITY



Stockholms
stad

wsp



Norconsult

SWECO



ATKINS

ch2m



Deloitte

Trivector

Sustainable
innovation

blue
advisory
group



ERICSSON



ZENUITY



SAAB

veoneer



bestmile
optimizing mobility



Autoliv

Viscando Traffic Systems

WirelessCar
BEYOND CONNECTIVITY

SPARE
LABS

RideCell

AND

MINDCONNECT

UNIVRS

CONSAT

Technolution

UNIQE
UniqueSec

Pantonium

vazridict

lapa

carmenta
superior situational awareness

swarco

dphniq
energising mobility

kapsch
challenging limits

ApParkingspot

Telia

telenor | connexion TELE2

Folksam

Forum for
transport innovation

Nobina

Samtrafiken



CABONLINE



Hertz

UBER

GoMore

mytaxi

transdev

Mekonomen Group

KEOLIS

OKQ8

icomera

careem

Holmgrens Bil

UbiGo

Go mobile
MOVING PEOPLE

AUTONOMOUS
MOBILITY

VOI

SnappCar

postnord

ASTAZERO

ACTIVE SAFETY TEST AREA

ICEMAKERS

True testing since 1973

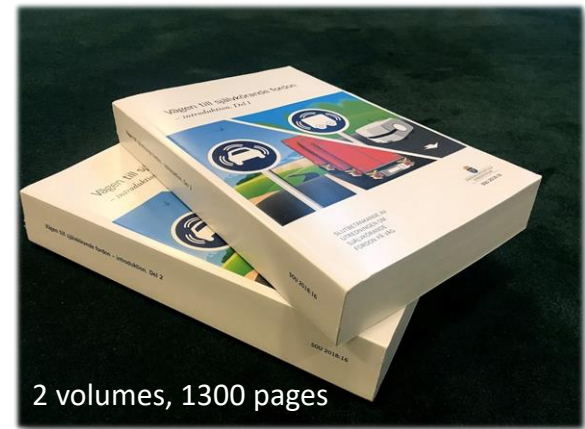
LINDHOLMEN
SCIENCE PARK

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2018 HIGHLIGHTS



REGULATIONS



Proposal introduced for regulations adapted to automated vehicles

- Supposed to be passed into law July 1st, 2019
- The owner of the vehicle will be responsible for any traffic offense
- Requirements on valid driver's license and sobriety remain
- Remote control accepted as replacing a human being inside the vehicle
- New traffic sign proposed to mark e.g. an AV specific lane



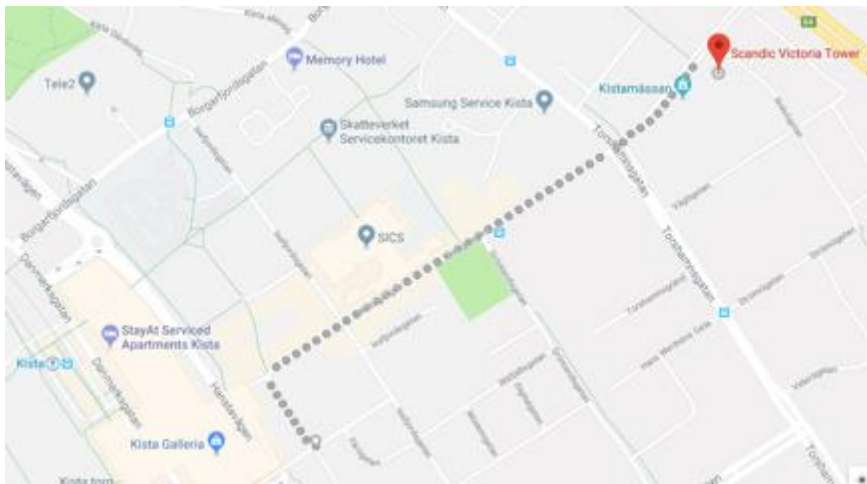
SHUTTLES



AV pilots on public roads, in mixed traffic – Autopilot

Kista, Stockholm

- Two Easymile vehicles, on a 1 km route
- Weekdays 7.00-18.00, free of charge
- Six months at this location, ~25,000 passengers
- Operated by Nobina



January-June '18

Comprehensive report soon to be published

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AV pilots on public roads, in mixed traffic – Shared Shuttle Services

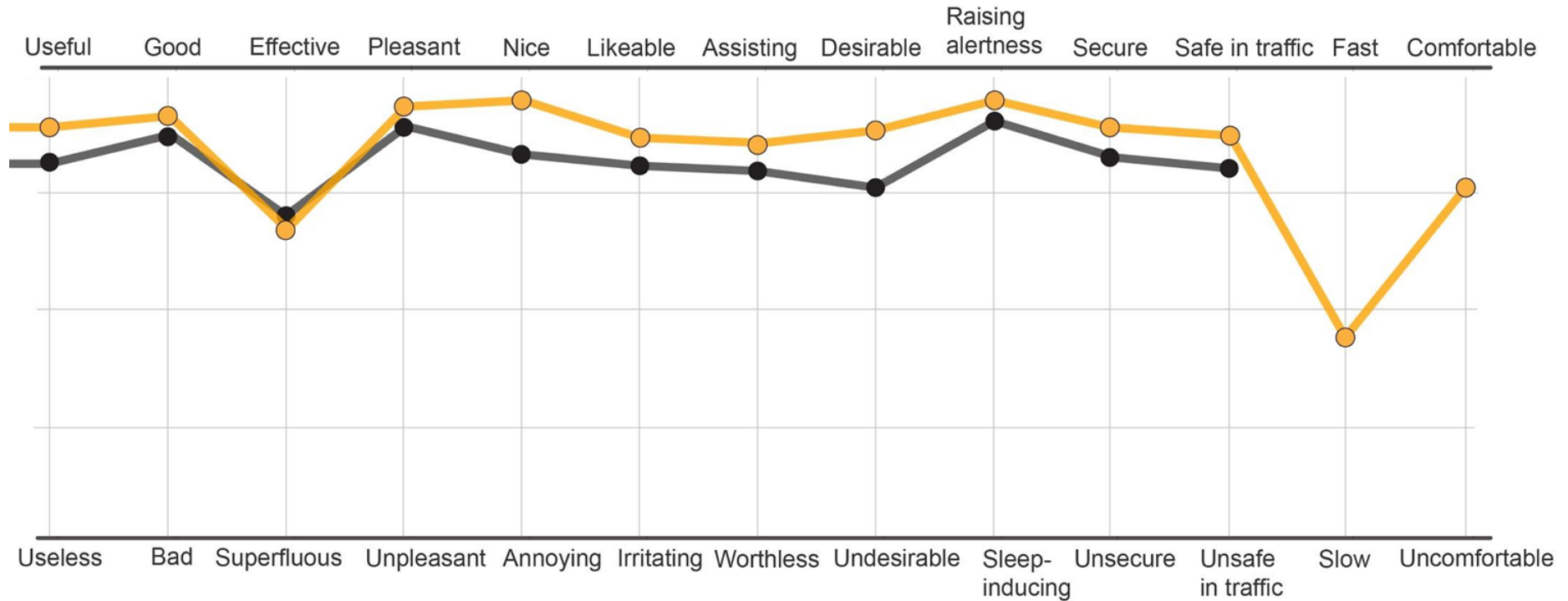
Chalmers Campus, Gothenburg

- One Navya vehicle
- Commercial operation, free of charge
- Two months at this location
- Operated by Autonomous Mobility



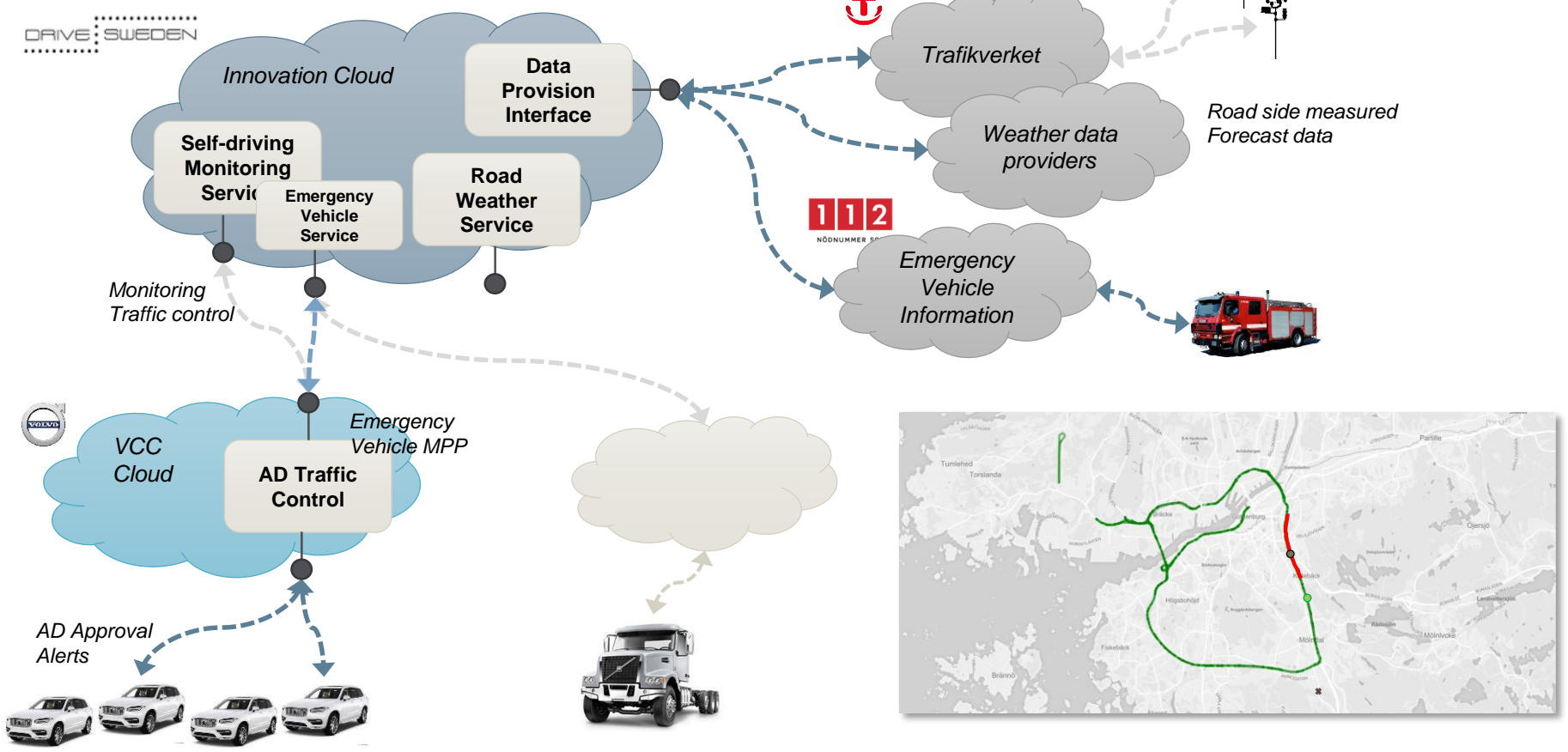
May & September '18

Responses from before/after survey

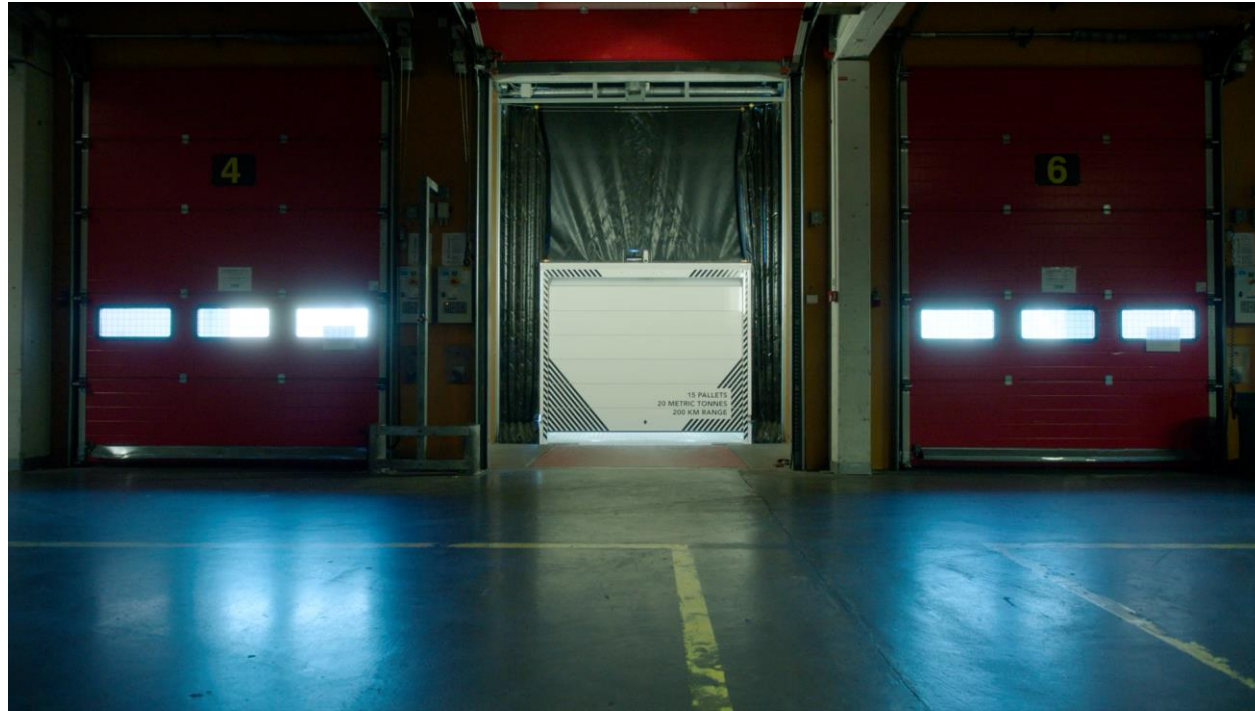


CONTROL TOWERS

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Einride truck – 'safety driver' via 5G/Control Tower



- As of last week, in commercial operation with DB Schenker in an intra warehouse use case within a confined area
- Soon to be expanded to a stretch of public roads

NEW VEHICLE CONCEPTS

Einride – T-log



Volvo Group – VERA

PILOTS



LIMA

- Lindholmen
- Science Park
- ••



Lindholmen Integrated Mobility Arena
 1,000 travelers & 100 cars
 Commitment by local employers to
 sponsor employees' participation



Control tower
 features, based on AI



Behavioural studies
 & Policy lab



Mobility-as-a-Service

Universal access to all
 transportation modes



"Shared carsharing"

Peer-to-peer car and ride-
 sharing



Mobility Hub



Remote
 parking
 shuttles



Partly
 automated
 city bus



BARKARBY – COMMERCIAL AV DEPLOYMENT

- Huge city development project
- Very low parking norms
- On October 23, SL deployed three of these vehicles when SL's **Line 549** was launched
- Running according to an official time table during 06.30-09.30, 13.00 – 19.30 on weekdays, and on Saturdays.
- Next steps
 - 2019: 6 shuttles, fixed routes
 - 2021: On-demand, testing
 - 2025: On-demand, launched



SL Start Reseinfo Köpa biljett Mitt SL Kundservice & villkor

OKT 24

Ny busslinje i Barkarbystaden med självkörande bussar

Torsdag 25 oktober börjar den nya busslinjen 549 gå i Barkarbystaden. Den körs med självkörande bussar.

Den nya linjen 549 går på sträckan Barkarby handelsplats östra – Korpralsvägen – Löjtnantsgränd – Stora torget och omvänt. Den går främst i rusningstrafik på vardagar, men även cirka klockan 12 – 18 på lördagar.

Linje 549 ingår i det ordinarie utbudet och samma villkor gäller som i övriga SL-trafiken. Till exempel gäller förseningsersättningen och biljettkontroller görs ombord på bussarna. Barnvagn, rullator och rullstol går bra att ta med i mån av plats.

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.

Sign up for our
Smart Mobility
Newsletter
at www.drivesweden.net

Thank you!

www.drivesweden.net/en

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Experiences from operating in mixed traffic

- Proven that it works - Route complexity (Pedestrians, cyclists, trucks, cars, bus lines and construction work)
- We drive with an AV that follows the traffic rules 100% of the time, whereas surrounding traffic disregards them more often than not.