Are selfdriving vehicles the solution to the environmental challenges?

Dr. Anna Pernestål Brenden
Researcher
Project Manager Connected Mobility Arena
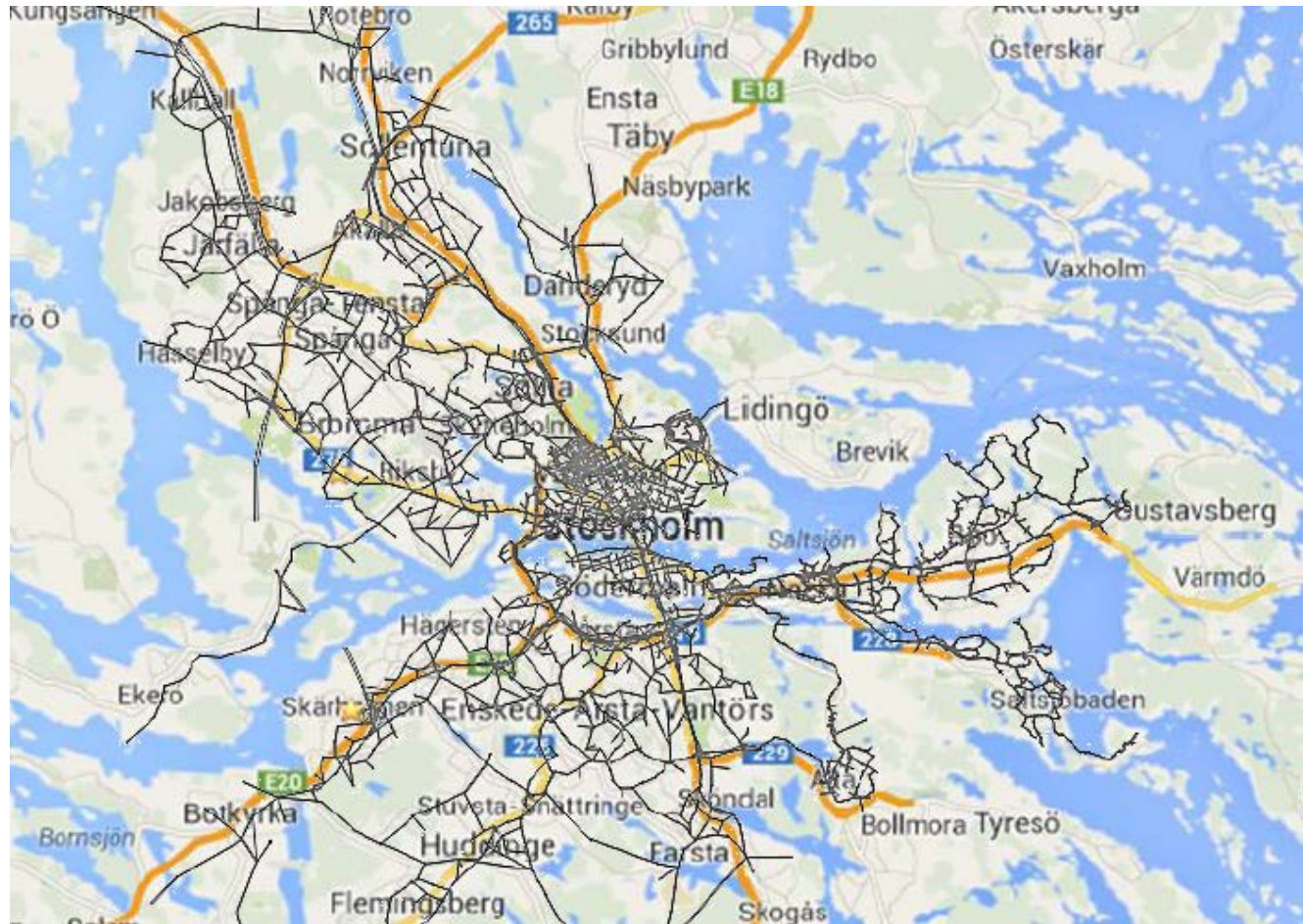
SCANIA **ERICSSON**
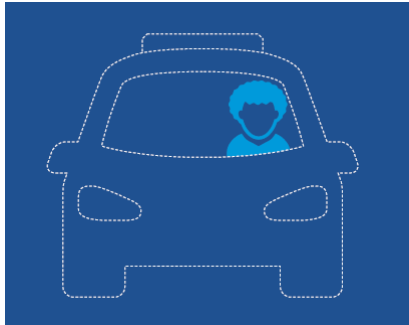
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Commuting traffic with cars in Stockhom

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Selfdriving car pool

8 %

km

124 %

Burghout et al.: Impacts of Shared Autonomous Taxis in a Metropolitan Area, in Proc. of the Transportation Research Board Annual Meeting 2015.

Selfdriving shared rides

km

8 % ~~8 %~~

124 % ~~124 %~~

5 %

76 %

Burghout et al.: Impacts of Shared Autonomous Taxis in a Metropolitan Area, in Proc. of the Transportation Research Board Annual Meeting 2015.
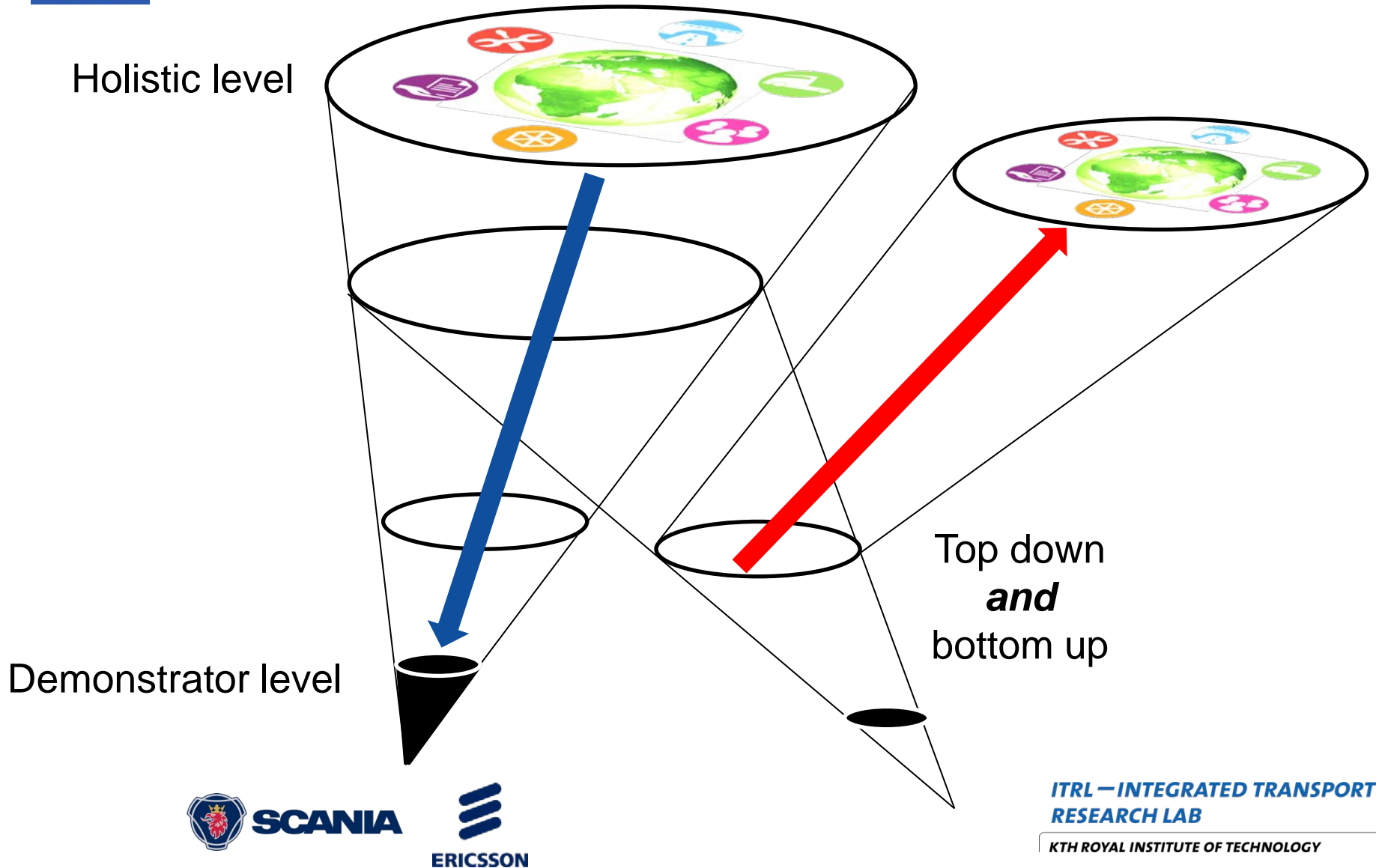
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Integrated transports perspective

Infrastructure

Mobility services

Efficient transport

Policy & Business models

Users & society

Connected transport

Integrated research AND Demonstration

Holistic level

Demonstrator level

Top down
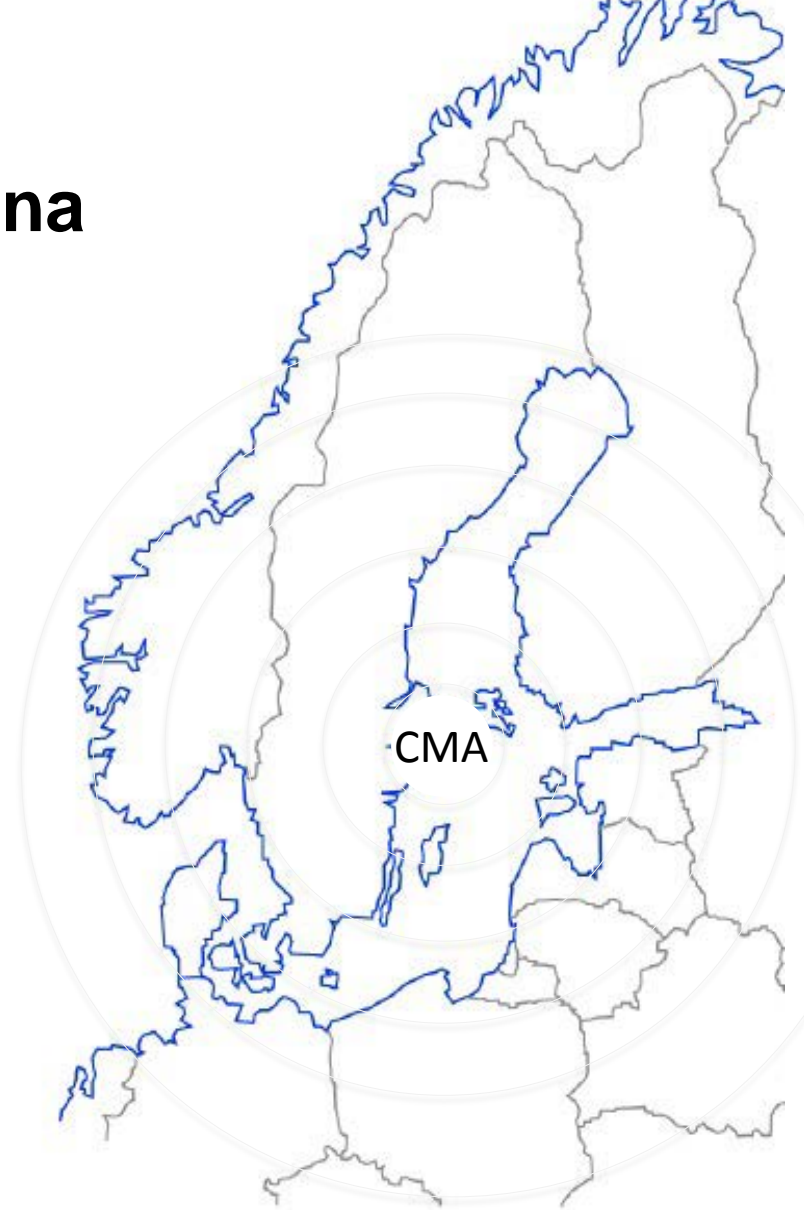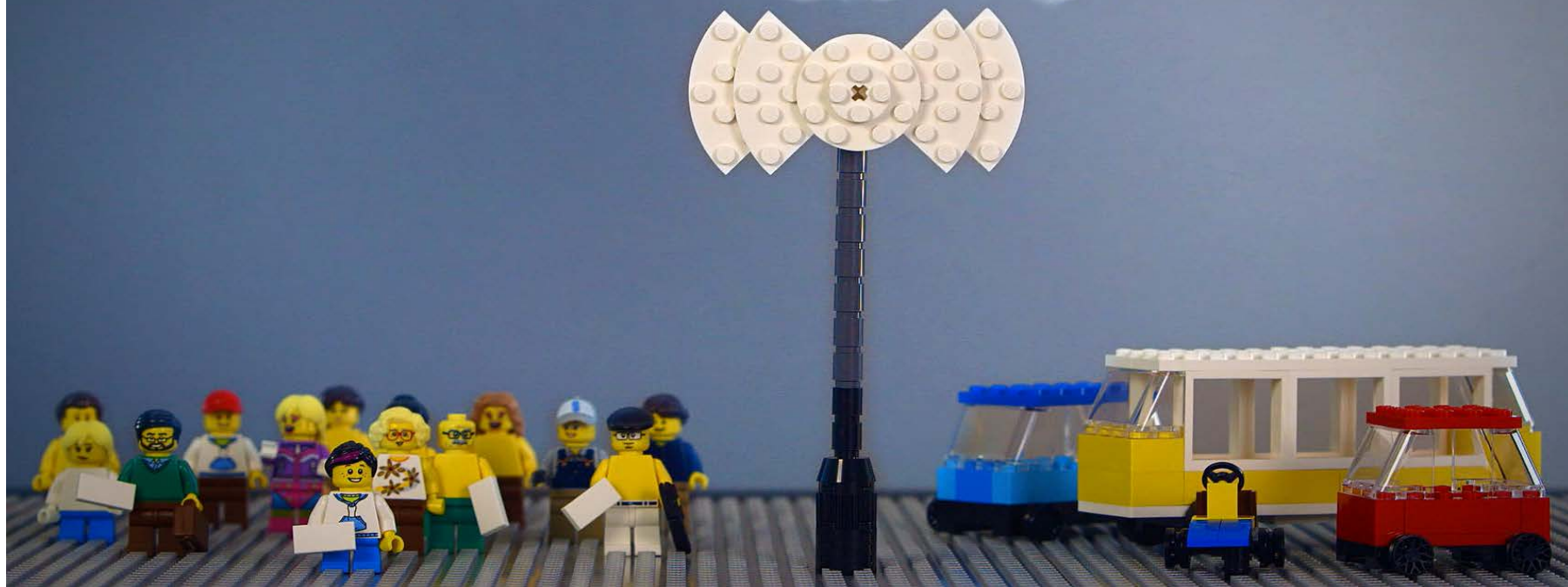*and*
bottom up

One Example:
Connected Mobility Arena

- Create an open test environment / architecture using 5G cloud and automated fleets

- Aiming at public/shared transport

- A collaborative effort

- Part of DRIVE SWEDEN

CMA

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Mobility tomorrow – the CMA vision

"Attractive and efficient shared mobility system that makes people leave their private car"

Mobility tomorrow
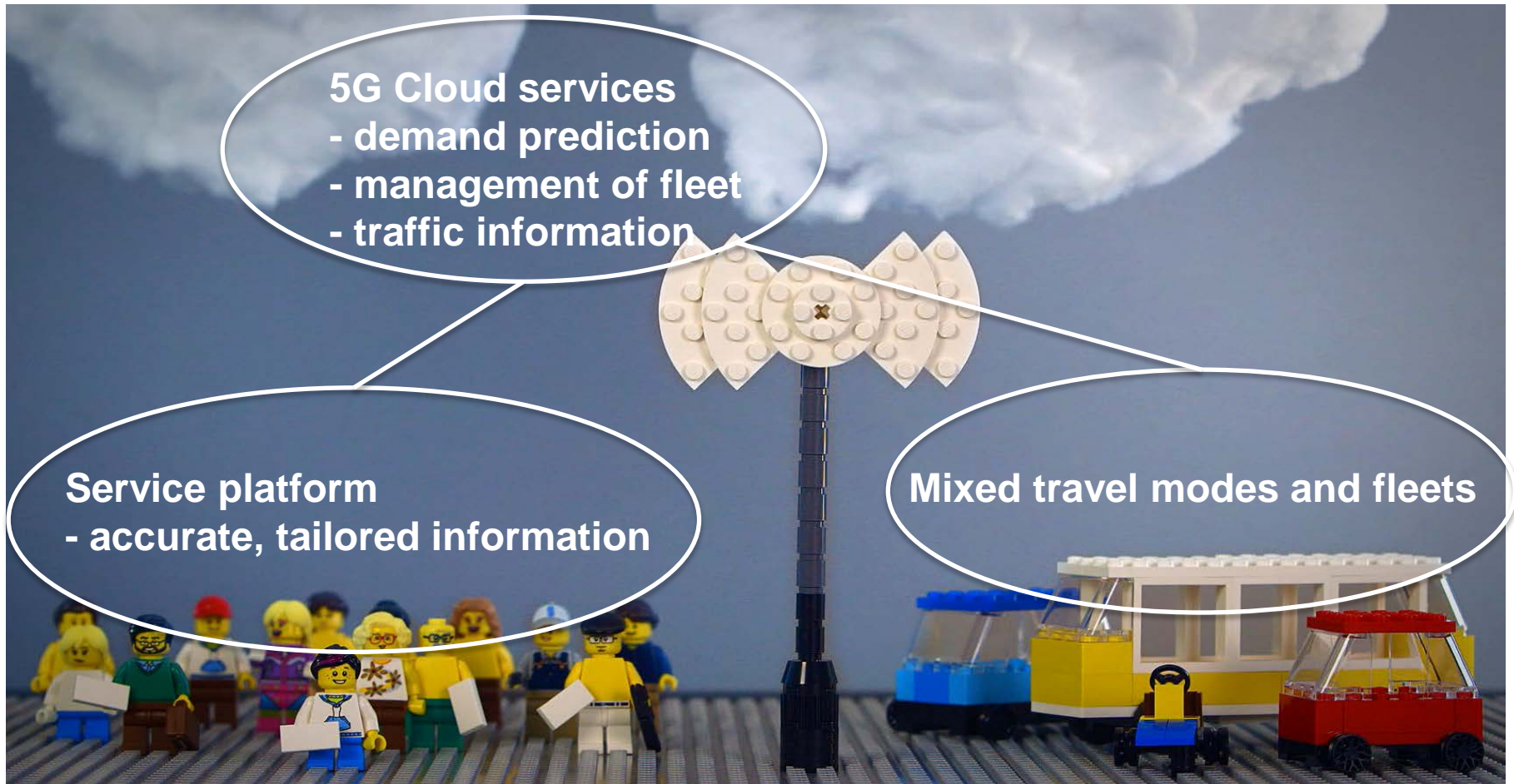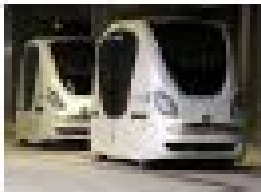# – 3 main system components

5G Cloud services
- demand prediction
- management of fleet
- traffic information

Service platform
- accurate, tailored information

Mixed travel modes and fleets

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Yearly demonstrations of test site capabilities in Kista

2016

5G connected automated vehicles

Automated busses of different sizes

Personal travel assistant app – high quality of service

Vehicles rin eal transport assignments

Clever demand & dispatch handling

2021

Mixed fleet with high availability

CONNECTED VEHICLE CLOUD

Arrival 11:48

75 SEK

Vehicle 1
Vehicle 2
Vehicle 3
Vehicle 4
Vehicle 5
Vehicle 6

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To summarize…

… regarding selfdriving vehicles…

KEEP CALM I'M AN ENABLER

… sharing rides…

… combine perspectives

Infrastructure

Efficient transport

Mobility services

Policy & Business models

Users & society

Connected transport

Thank you!

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