

# Future challenges for a sustainable transport solution provider

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**SCANIA**

- Introduction to Scania
- Main challenges
- How do we meet the future?
- Are we doing enough?





# Volkswagen Group

- 600 000 Employees
- 200 billion € turnover



ŠKODA



Commercial  
Vehicles



Audi



BENTLEY



PORSCHE



SCANIA



SEAT



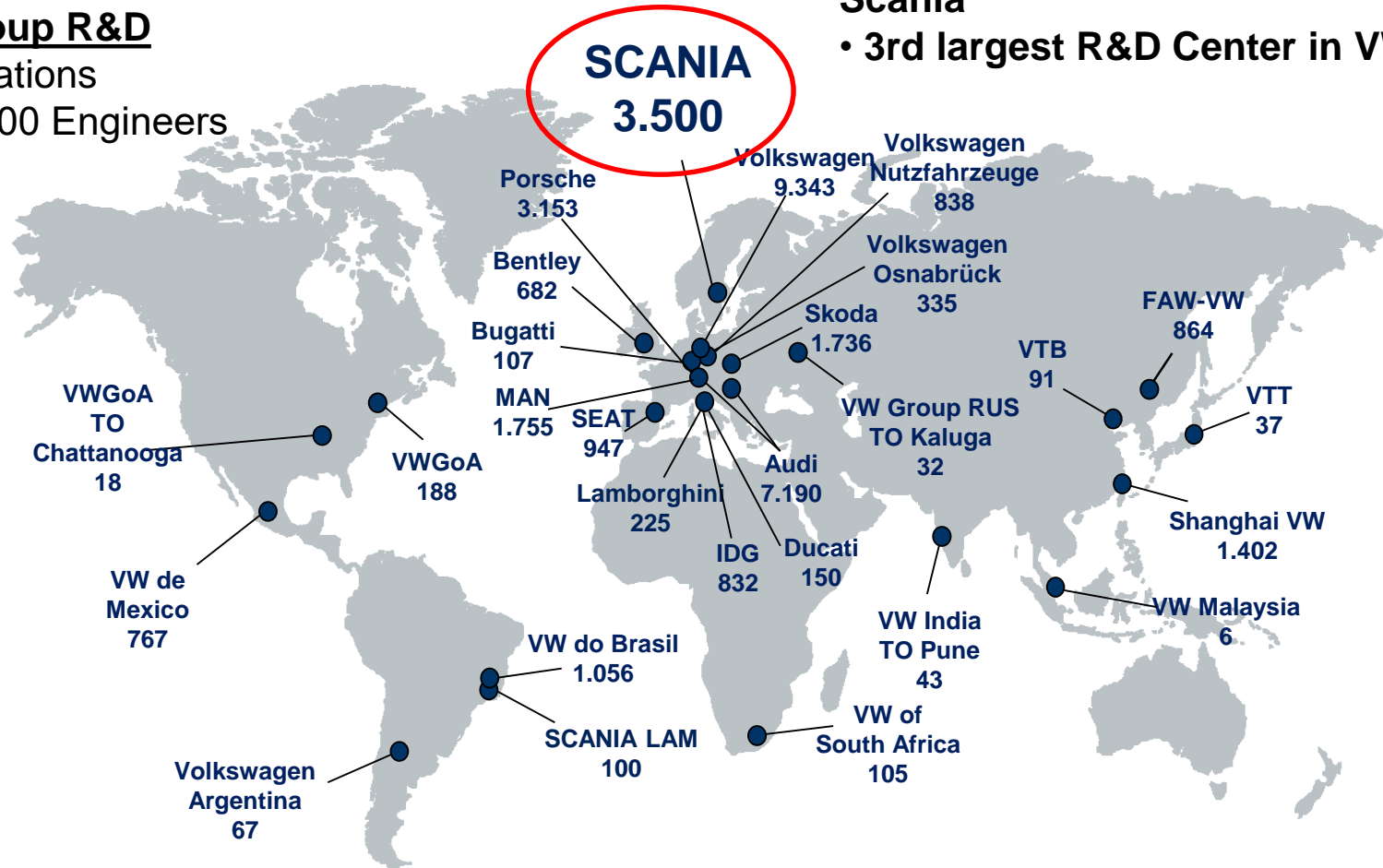
# Scania R&D in the VW Group

## VW Group R&D

- 28 locations
- ≈ 40.000 Engineers

## Scania

- 3rd largest R&D Center in VW Group



# Scania produces customer solutions: Transport equipment and services

## Trucks and Buses

- ❑ Transport equipment – moving people and goods
- ❑ Generating business and profit for our customers
- ❑ Part of a sustainable transport system – now and in the future



# Vision: To be the leader in providing sustainable transport solutions

## Main Challenges:

- Societal challenges: urbanisation, congestion, emissions etc
- Changes in the transport business model
- Connectivity-how can we use the potential?
- Increase energy efficiency in vehicles
- Inefficient transport systems
- Lack of collaboration between main stakeholders of the society
- Employees with right Competence at the right time

# Challenge: Right competence at the right time



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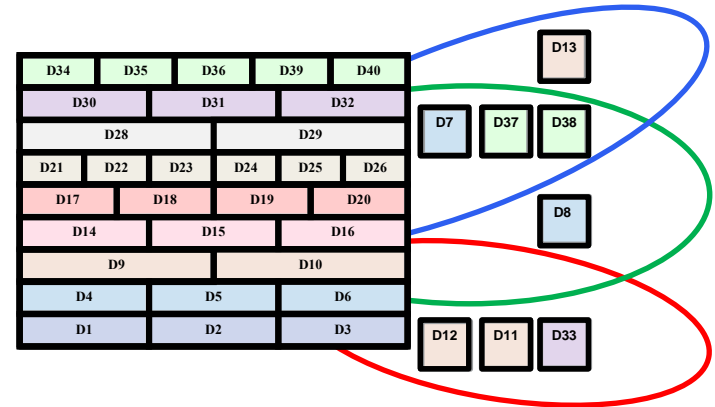
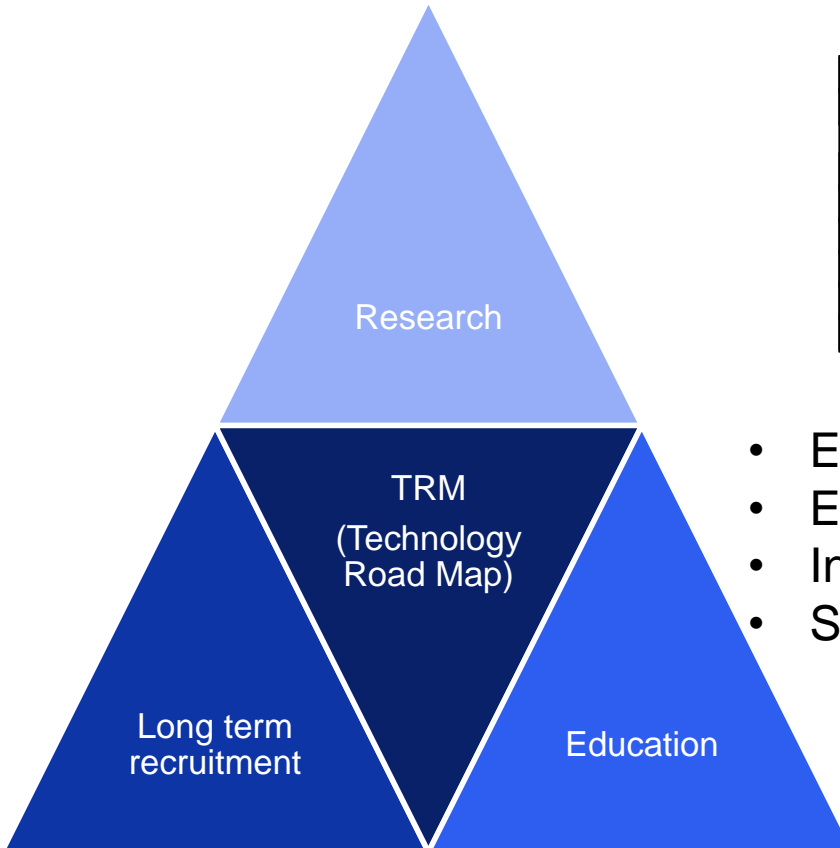


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# One solution: Academic collaboration

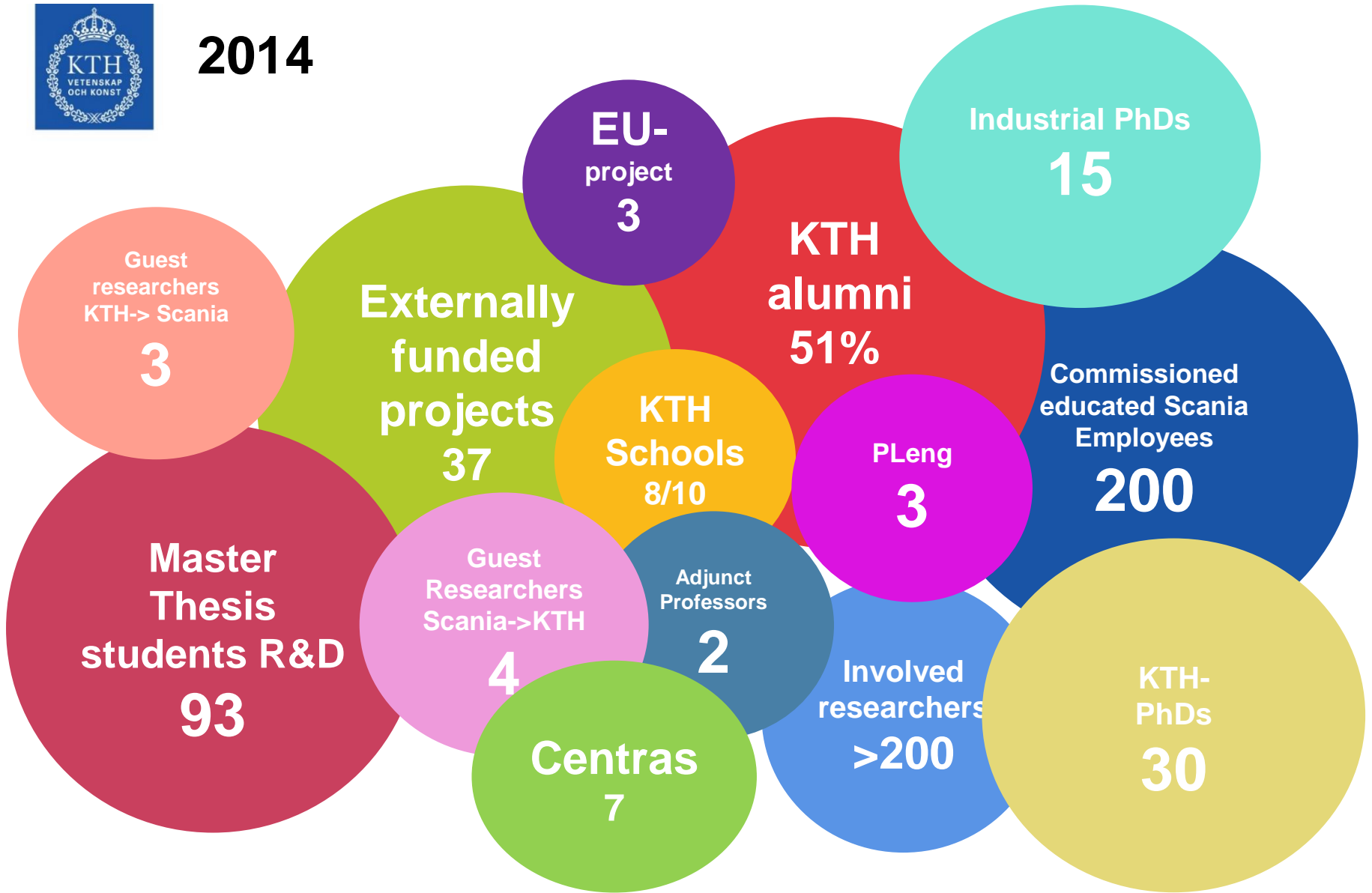


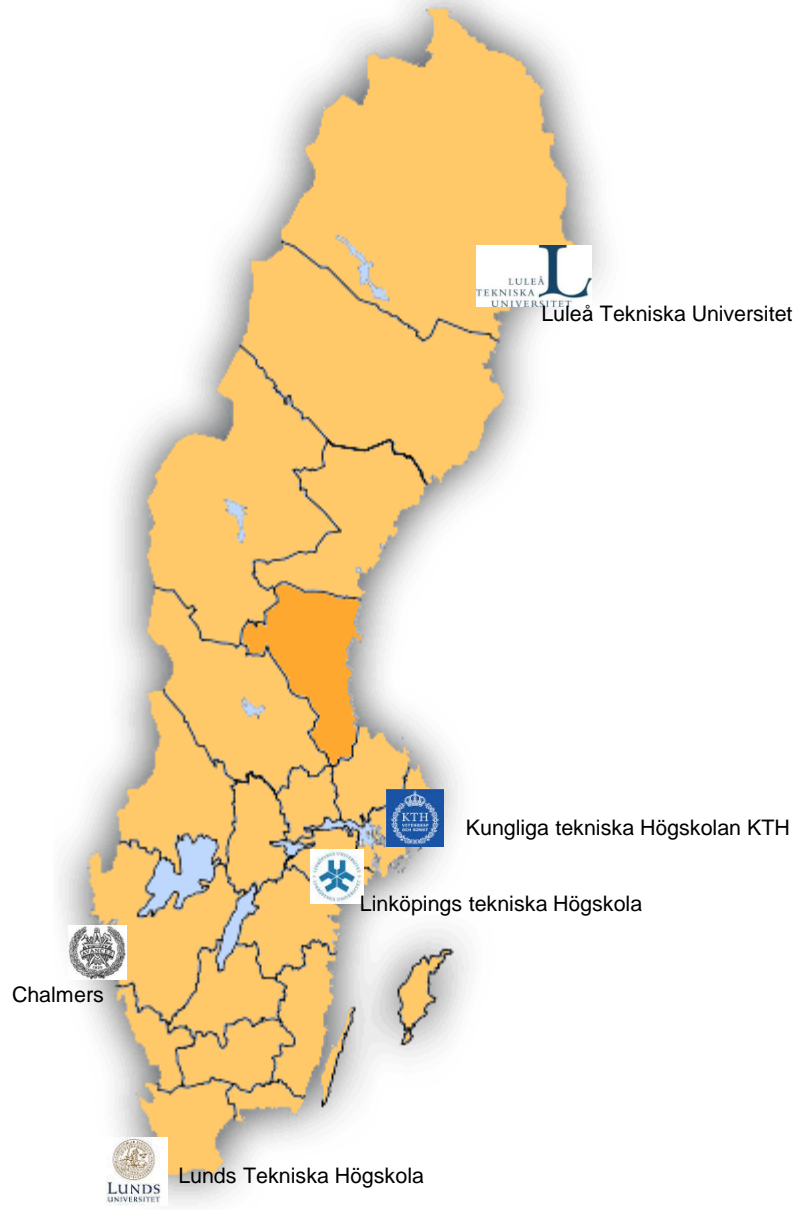
- Excellent Research
- Excellent Education
- Increased interest to engineering studies
- Skilled engineers





2014





# Challenge: Transport business 2030



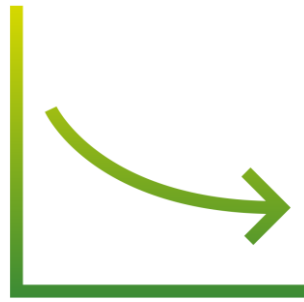
# Challenge: Transport business 2030



# One solution: Scania's approach to sustainable transport



Smarter transport



Energy efficiency



Alternative fuels



# One solution: Scania's approach to sustainable transport



Smarter transport



Energy efficiency



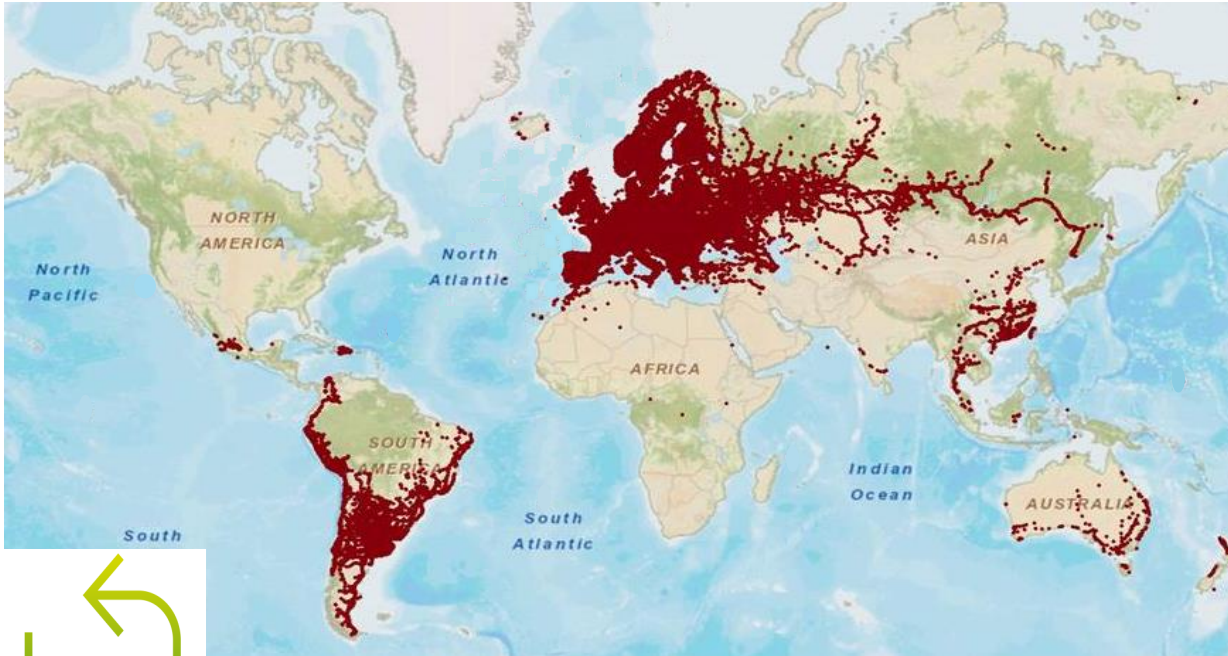
Alternative fuels

# Smarter transport, night deliveries



Smarter transport

# Currently 150 000 connected vehicles



driving over 30 000 laps  
around the world every  
month

Smarter transport

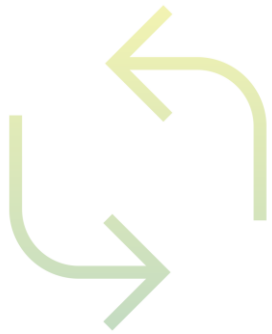
# Connectivity - the bridge into autonomous vehicles



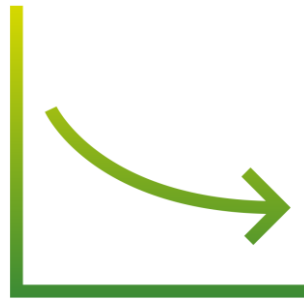
Smarter transport



# Scania's approach to sustainable transport



Smarter transport



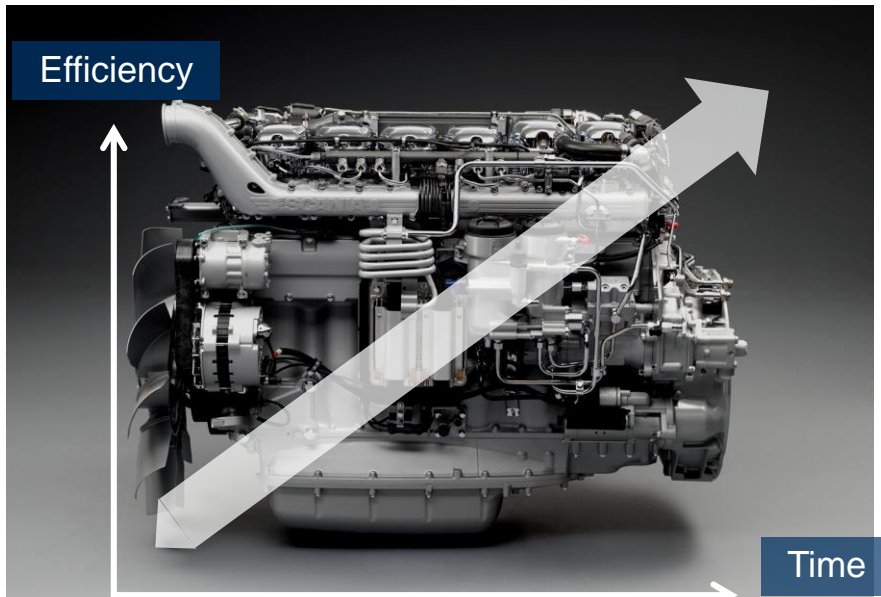
Energy efficiency



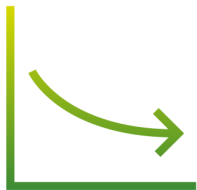
Alternative fuels



# Engine development



- Engine and exhaust after treatment
- Waste heat recovery
- Electrification of sub-systems
- New combustion systems



Energy efficiency

# Platooning

- May reduce emissions to 20%
- May tripplle highway throughput
- May reduce fatalities by 10%

[PATH, 2010; Robinson et al., 2010]



Energy efficiency



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# Longer vehicles- High Capacity Transport

Optimised logistic planning is need to avoid low filling rate



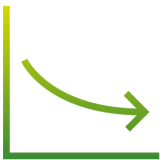
Energy efficiency

# Electrified road systems



Energy efficiency

# Fully electric vehicles



Energy efficiency

# Scania's approach to sustainable transport



Smarter transport



Energy efficiency



Alternative fuels

# Biofuel outlook



Biodiesel  
FAME

Bioethanol

HVO

Natural  
gas

Hybrids

Biogas

Fully  
electric

Fuel cells



Alternative fuels



# Challenge: Lack of collaboration

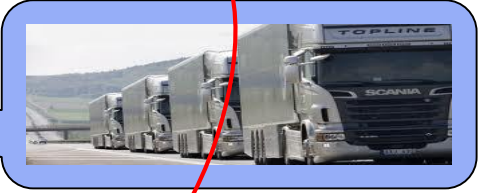
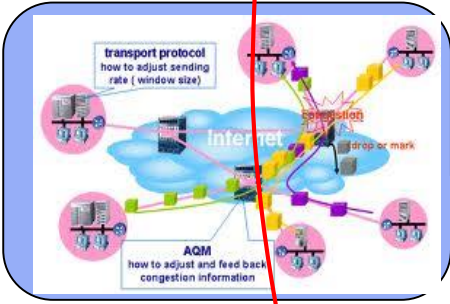
## Solution: Integrated Transport Research Lab



Infrastructure

Services

Vehicle concepts



Policies

Society



# Summary

Scania is a member of VW group

Vision: To be leader in providing sustainable transport solutions

Main Challenges:

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- Are we doing enough?

-No it goes to slow and we need more collaboration!



# Thank you for your attention!

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