

Volvo Group on Automation

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Major benefits with automation

– for customers and society



Productivity

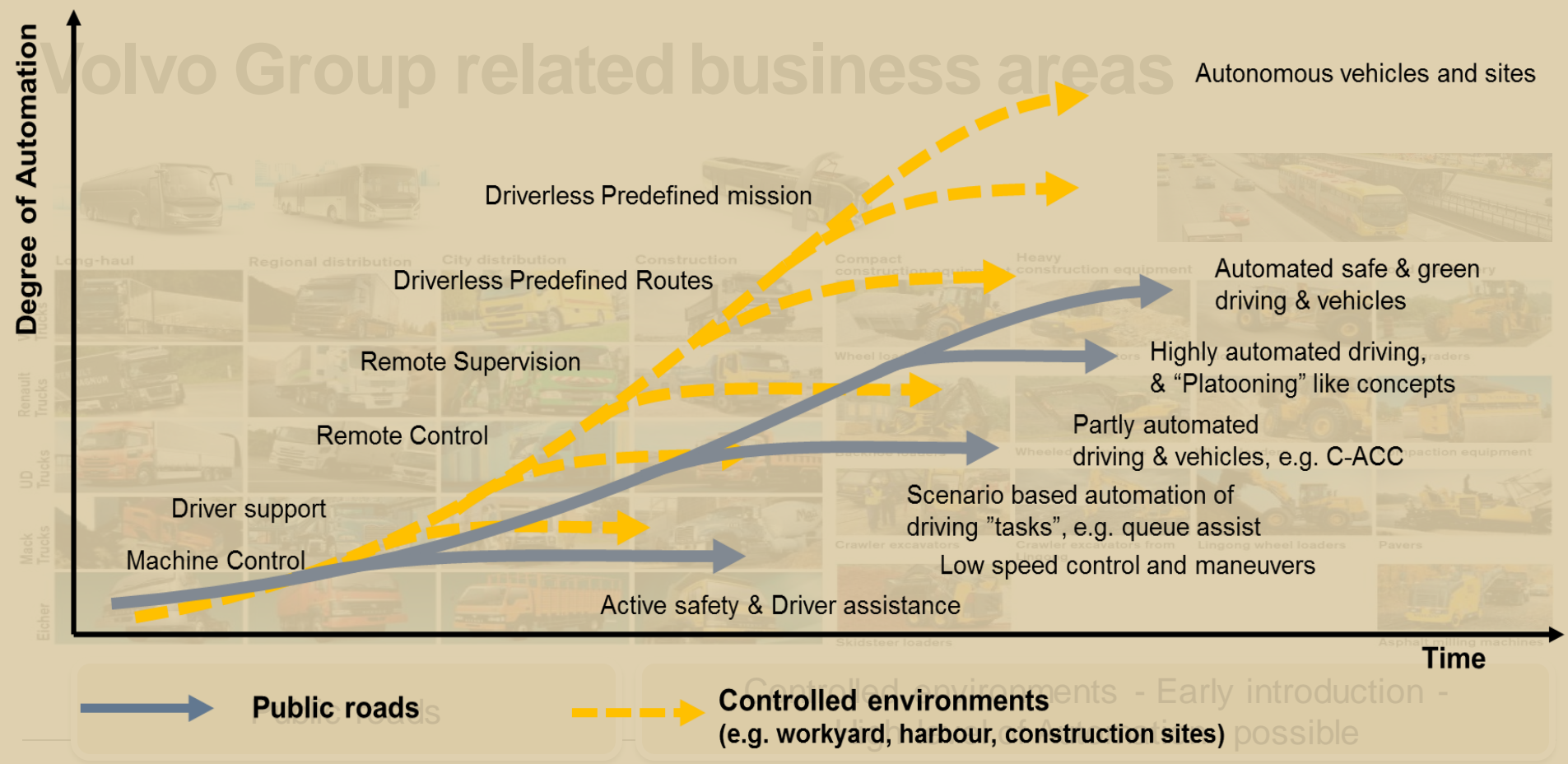


Safety



Energy Efficiency





Automation by Volvo Buses

- Safety systems for driver assist, such as Volvo Dynamic Steering (VDS)
- Bus Stop Docking for automatic positioning of buses at bus stops
- Depot operations
- Platooning



Automation areas

On road - ADAS towards Autopilot



Confined Area/Terminals



Platooning



Platooning

Customer & society Values

- Fuel savings & environment, traffic flow

Definition

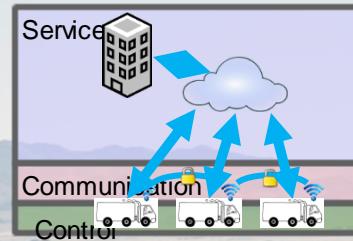
- Communication between trucks for cooperative driveline control and safety

Technology

- V2X communication
- High integrity safety

Challenges

- Vehicle to Vehicle introduction cross brand
- Safety sets the limits on timegap
- User and society acceptance (timegap and platoon length dependant)



On Road ADAS towards Autopilot

Customer Value

- Safety, Productivity, Convenience

Technology

- Environment perception - sensor and sensor fusion
- Vehicle control and decision

Challenges

- Environment perception
- Safety
- Human factors



Confined Area & Terminals

Customer Value

- Productivity, Safety and Energy Efficiency

Definition

- Automated hauling systems
- Low speed scenarios

Technology

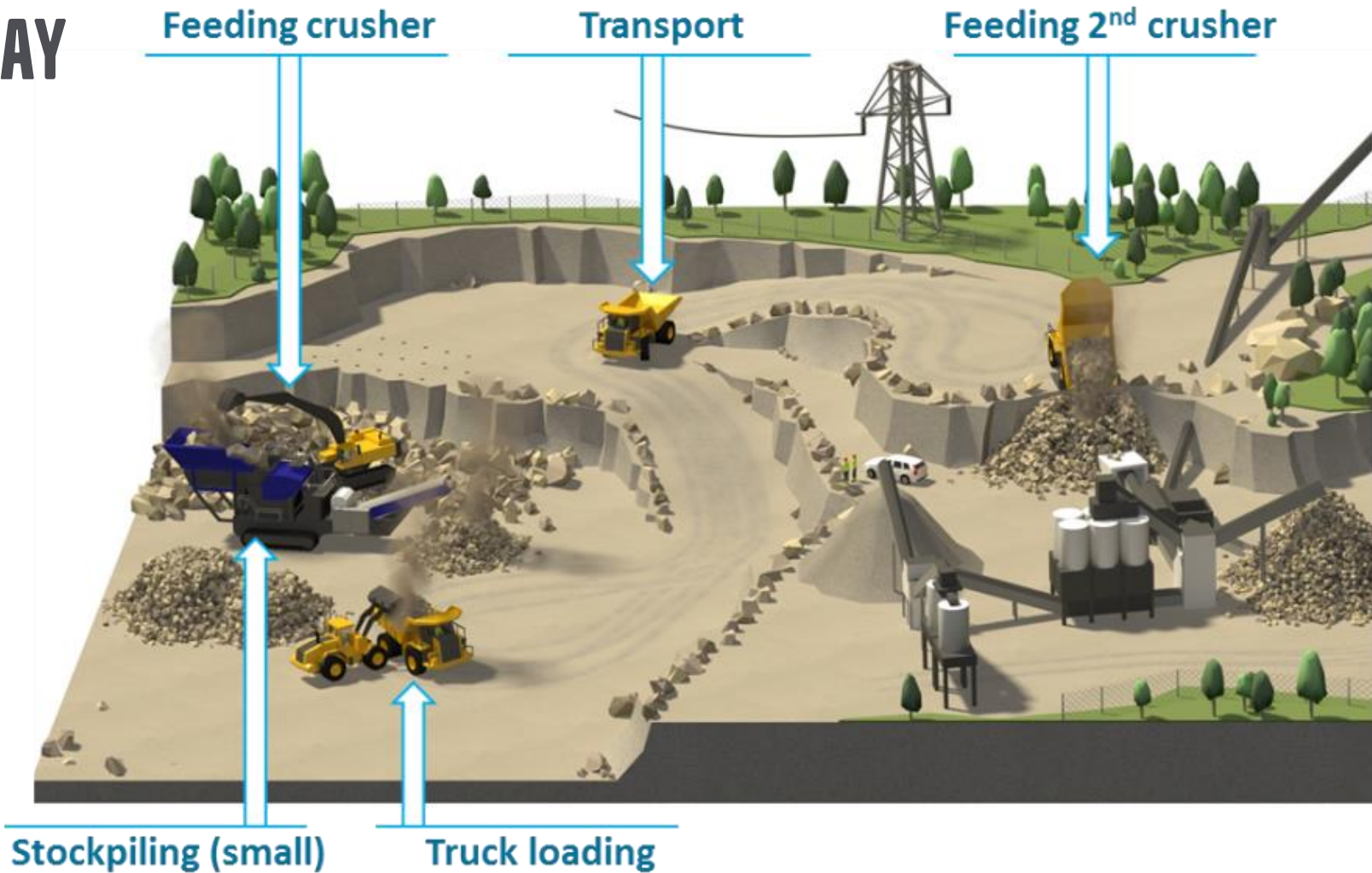
- Fully autonomous vehicles
- Site management & control

Challenges

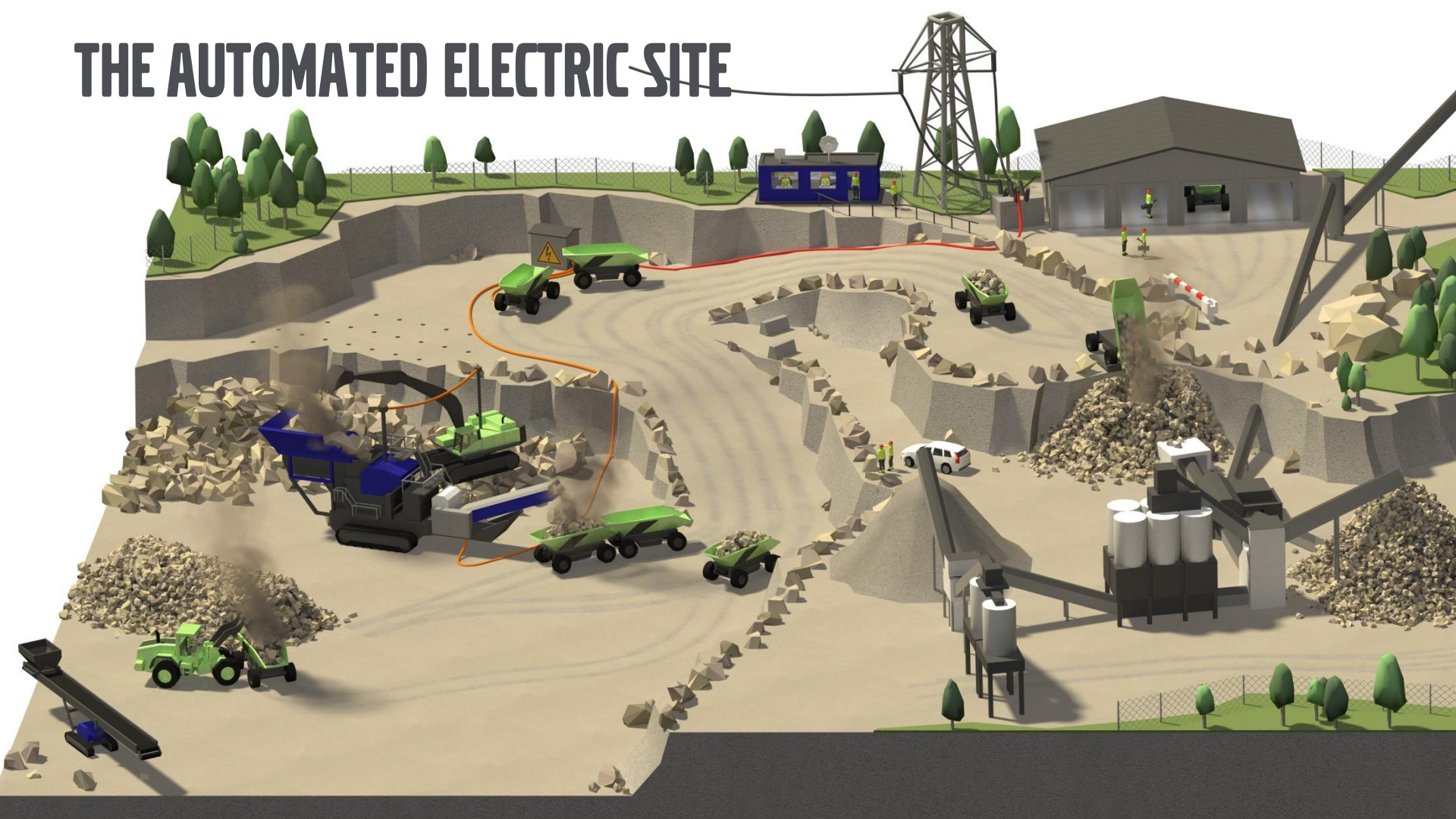
- Localisation
- Site production system integration



TODAY



THE AUTOMATED ELECTRIC SITE



THE AUTOMATED ELECTRIC SITE

Volvo
Concept
Lab

BY COMBINING
CLEAN ELECTRIC MACHINES
AUTOMATED MACHINES
AND CONNECTED MACHINES

CO2
95% ↓

TCO
25% ↓

The Automation Puzzle

Customer needs &
application scenarios

User acceptance,
liability &
legal framework



Technology,
opportunities,
limitations &
dependability

Production / logistic & fleet
management



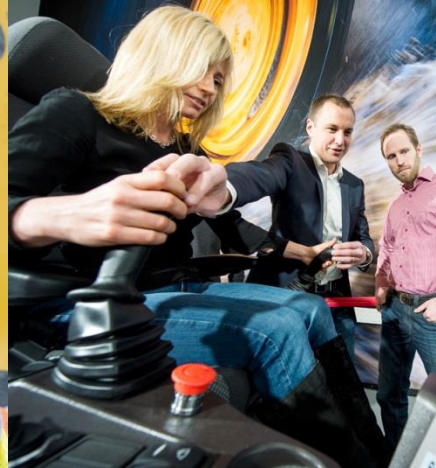
Working together

Volvo

Customer

Academia

Public Authorities



TOGETHER WE MOVE THE WORLD

