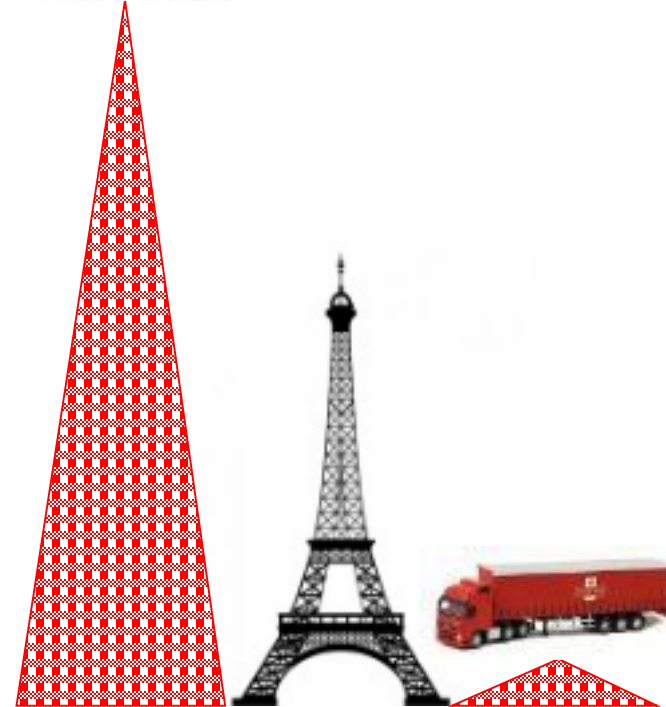
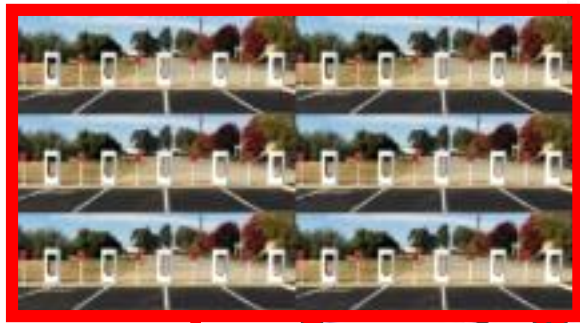
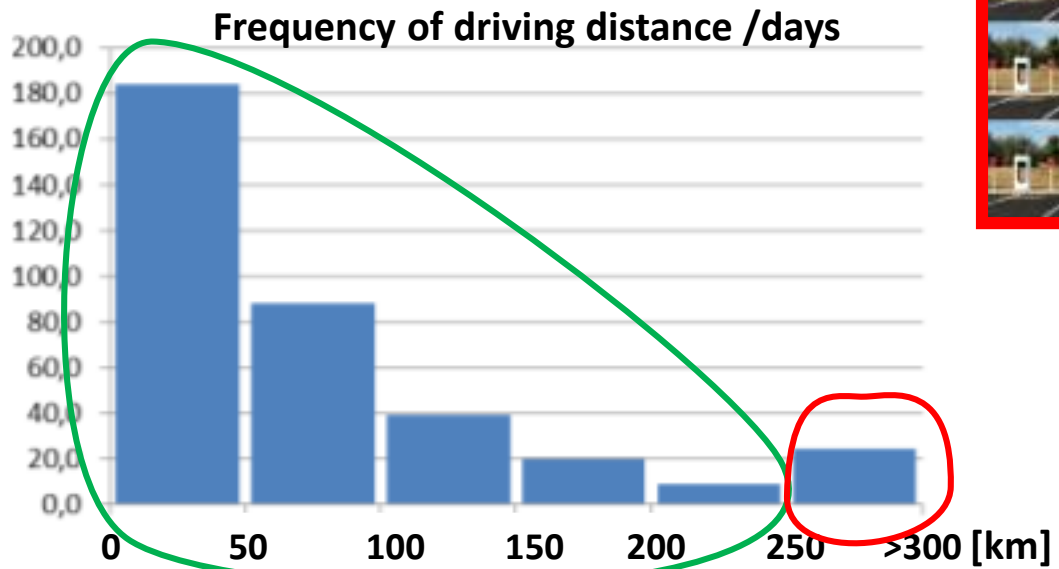


Conductive charging while driving

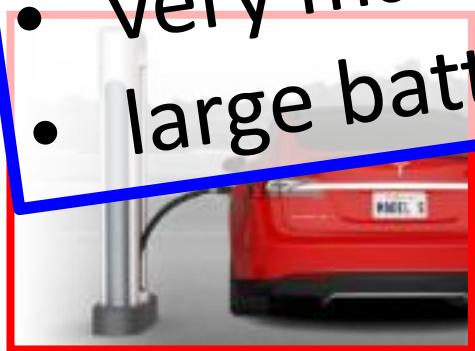
Annika Ahlberg Tidblad

Scania CV AB



Challenges:

- very many fast chargers
- large battery quantities

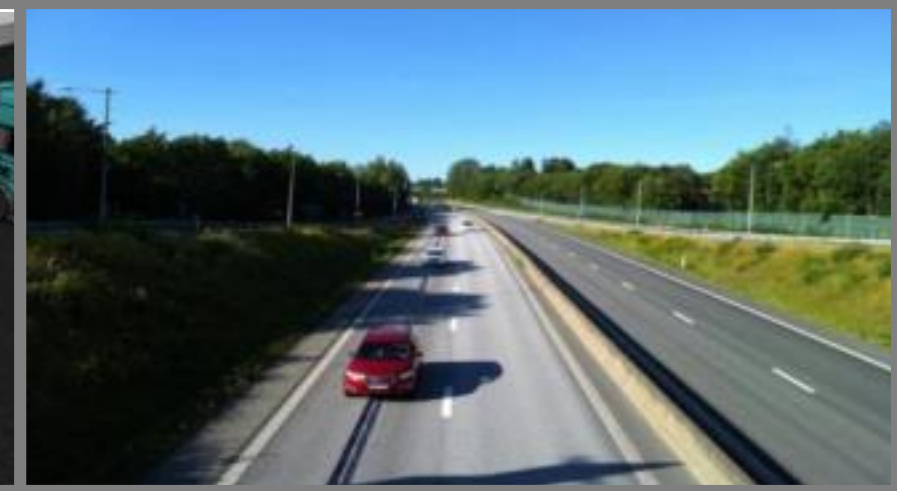
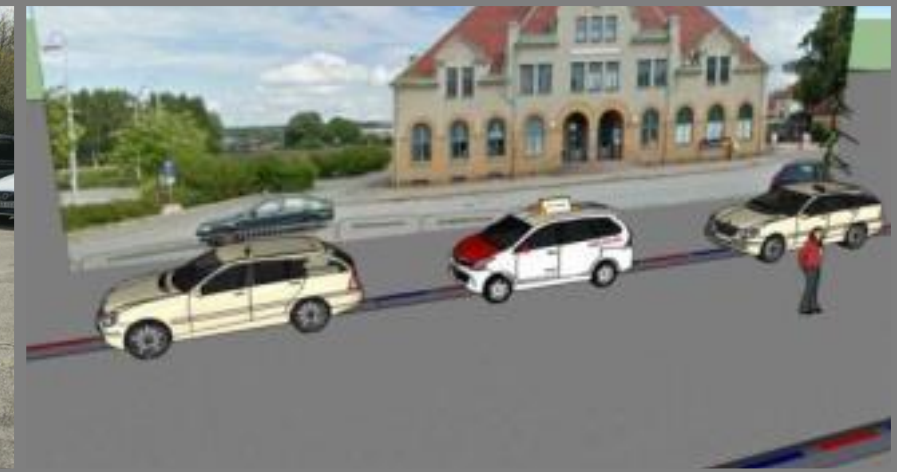
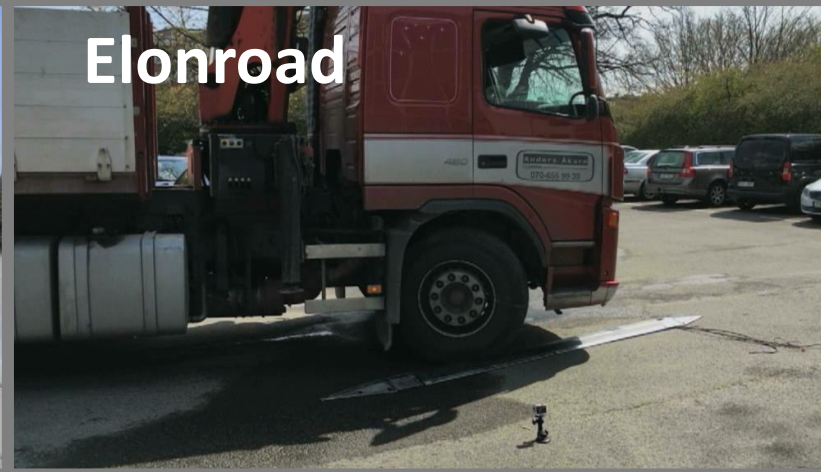
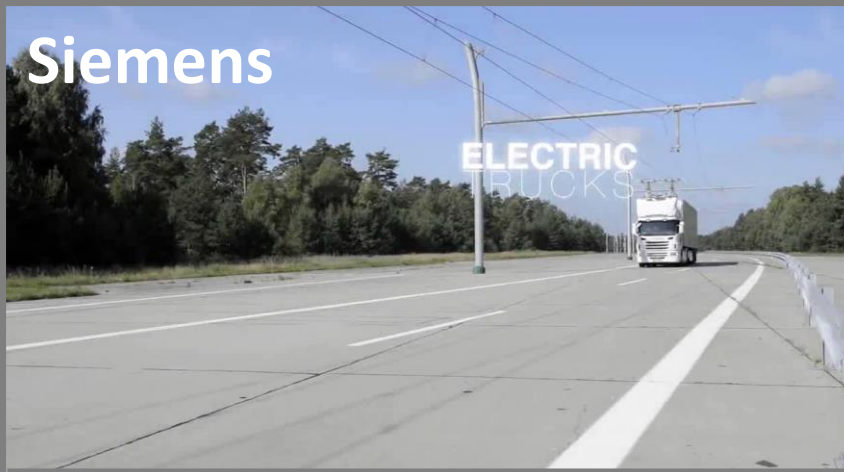


Electric Road Systems (ERS)...

Previously discussed charging via pantograph connection to air wires...

...but conductive charging from a road line is also possible...





Conductive ERS concepts

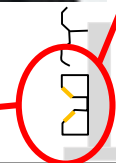
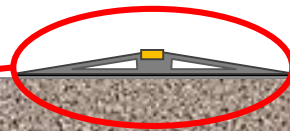
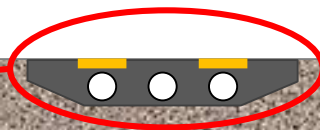
Elways

Alstom

Elonroad

Honda

Siemens

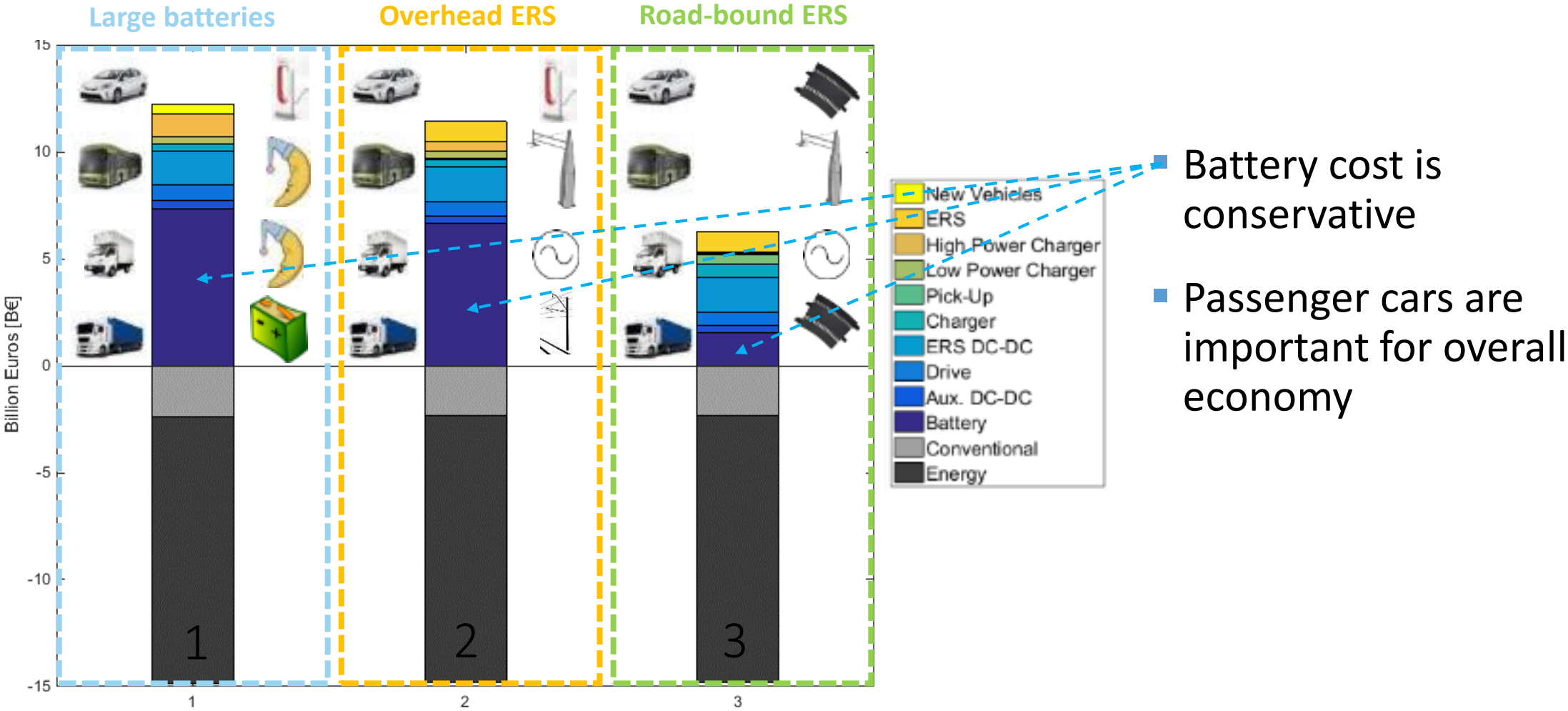


Benefit with charging “en route”

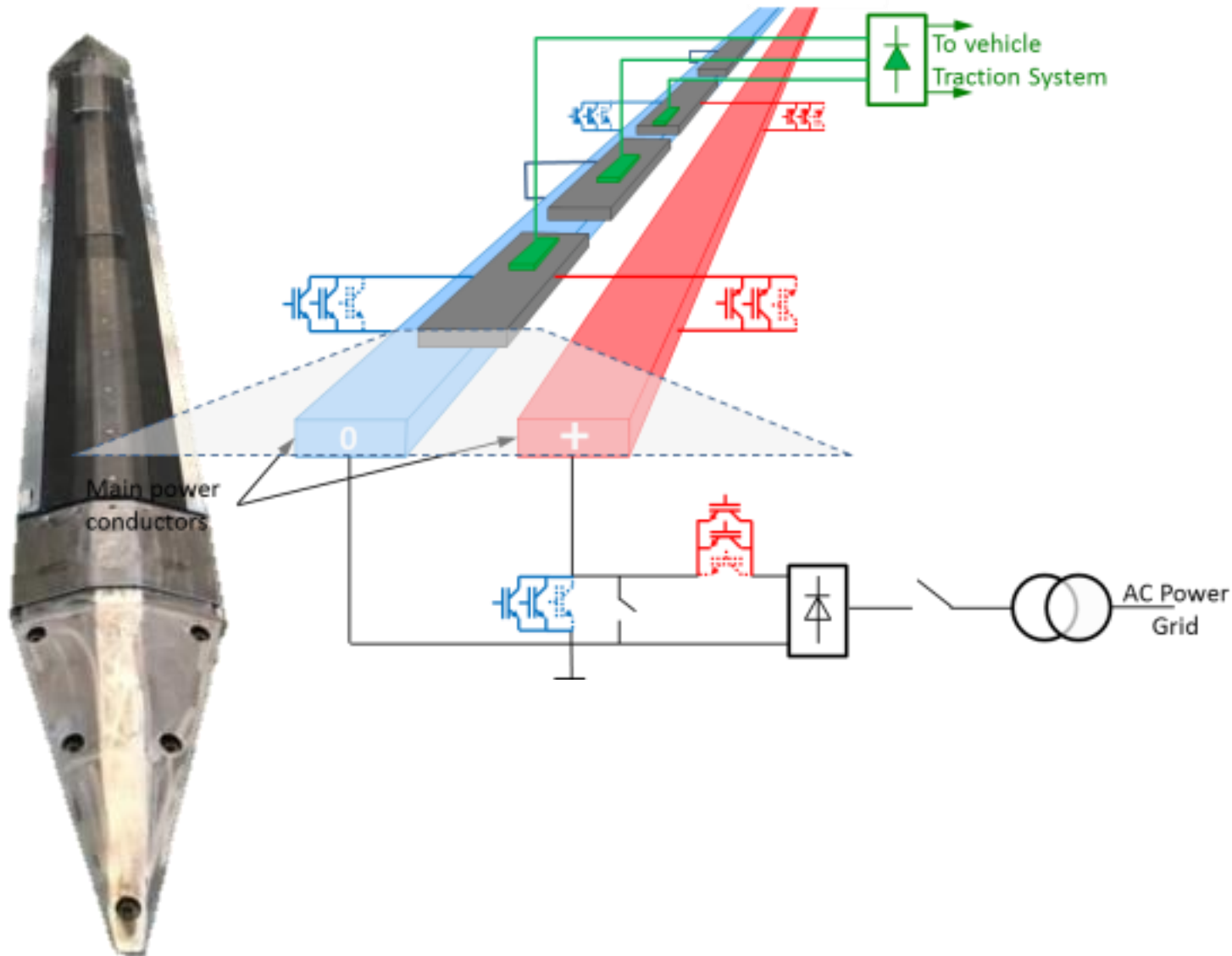
- Impact on EV business case
 - Utilization of charging infrastructure improved
 - ✓ Multiple vehicles can be serviced at the same time
 - ✓ Road bound charging technology can be used by both heavy duty vehicles and passenger cars
 - ✓ Conductive charging systems expected to be less costly than inductive solutions
 - Potential for battery reduction, up to 80%
 - ✓ Cost benefit
 - ✓ Material resources/waste management
 - Less need for fast charging systems – potential for improved battery durability
- Convenience
 - Time saving



Estimated costs for different charging solution...



Necessary technology....



- Extruded Aluminium
- Insulating material
- Power electronics
- Control technology
- Wirebound and wireless communication
- Power grid technology
- Servo technology
- Metallurgy/corrosion
- Energy metering and cost charging...
- Road construction
- Road maintenance
- ...