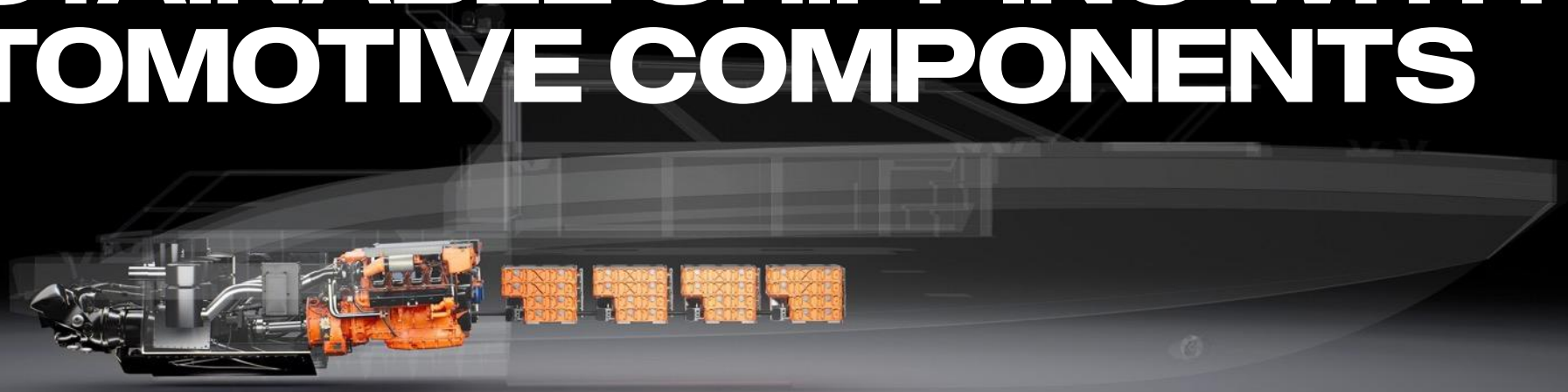
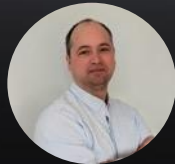




POWERING SUSTAINABLE SHIPPING WITH AUTOMOTIVE COMPONENTS



Deepak Shekhar
E-mobility Product Manager

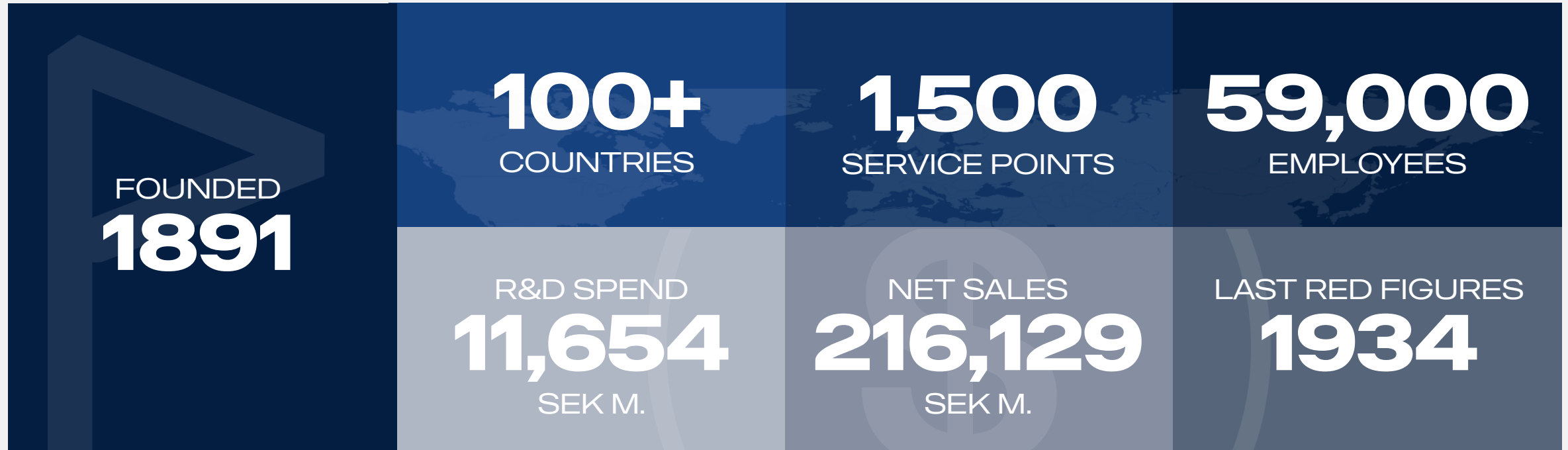


Johnny Rohdin
E-mobility Senior Design Engineer

SCANIA



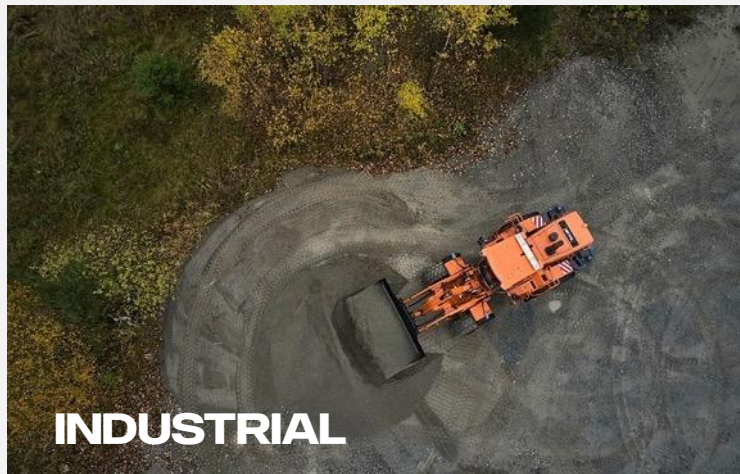
SCANIA IN BRIEF





POWER SOLUTIONS

At the heart of off highway equipment worldwide.





MODULAR SYSTEM

PHYSICAL TAILORED SOLUTIONS



Trucks



Bus chassis



Engines

Batteries



Cabs



Gearboxes



Electric machines



Engines



Axles



Software



Charging interfaces



Auxiliary components



MODULAR SYSTEM

PHYSICAL TAILORED SOLUTIONS



Trucks



Bus chassis



Engines

Batteries



Software



Electric machines



Engines



Auxiliary components



Charging interfaces





ROBUST COMPONENTS WITH HIGH RELIABILITY

HIGH AVAILABILITY AND LONG SERVICE LIFE (target: \approx 2 million km in heavy-duty operation)



Designed for life



-40°C – 70°C operating temperature range
IP6K9K ingress protection
UP TO 7G vibration and shock

Validated against extreme operating conditions



Sourcing

1,000+ direct and
10,000+ indirect suppliers.



Compliant with European automotive regulations

UNECE R10 (EMC)

Controlled emissions
Immunity to electromagnetic disturbances

IACS E10

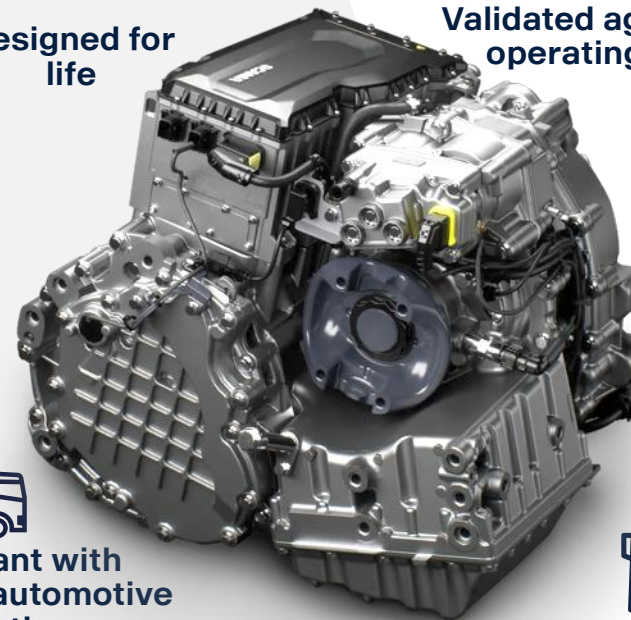
Conducted EMC



Service and connectivity

640,000 connected vehicles worldwide.

Connectivity module with each electric powertrain.





MORE THAN JUST AN E-MACHINE

Several benefits of using automotive components for marine applications



EM C1-2

Installed in Silverö

Performance and Durability – For tough marine conditions and flexibility.

Power: 245, 330, 440kW
Thermal management : Oil cooled
Operating range: -40°C. – 70°C
Maintenance: Oil change every 20 000hrs

Easy installation- For compact spaces. Facilitates the possibility to remove marine gearbox

Torque: upto 6200Nm (with the integrated gearbox)
Power density: 1.1kW/ kg

Highest efficiency- Facilitates more work per installed kW/h

System efficiency(DC-output shaft): 96%
Motor: Permanent magnets
Inverter: SiC

Easy integration in vessel architecture – Integrated Power control unit facilitates a single point of interface the vessel control

Control – CAN J1939 via integrated Power control unit and Scania proprietary control software



POWER SOLUTIONS ON THE BACK OF TRUCKS AND BUSES



Production



R&D



Parts logistics



Network



Services

PASSENGER FERRY SINGLE HYBRID



PASSENGER FERRY TWIN ELECTRIC



PILOT VESSEL TWIN HYBRID





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