



TRATON

Capital Markets Day 2022

Presentations Teach-ins (selection)

Södertälje, 5-18-2022



NAVISTAR



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The percentage figures shown may be subject to rounding differences. Due to different proportions and scaling in graphs, data shown in different graphs are not comparable.

Agenda

- 1. Modular System**
- 2. Electrification View**
- 3. Decarbonization**

TRATON

1. MODULAR SYSTEM

Claes Erixon
CTO, Scania



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It starts and ends with the customer



TAILORED SOLUTIONS



TRUCKS



BUSES



POWER
SOLUTIONS



Cabs



Charging
interface



Axles



Frames



Batteries



Gearboxes



Engines



Electric machines





**Tailor-made
transport
solutions
for each
customer**

**Lower cost
for Scania**

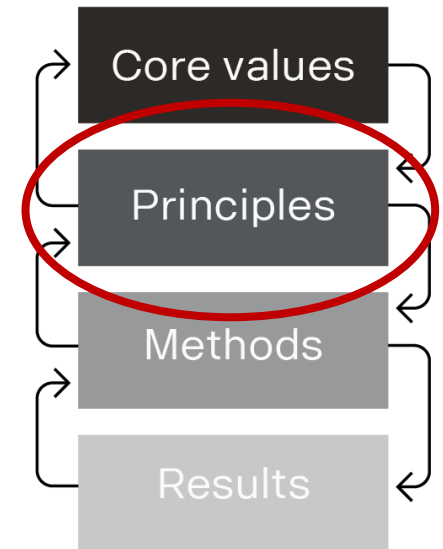
**Reduced
time to market**

Modularisation Principles

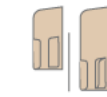
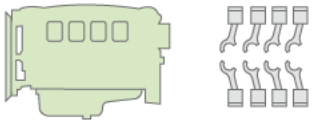
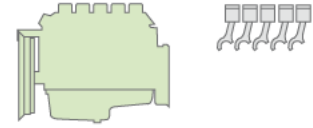
**Well-balanced
performance
steps**

**Standardized
interfaces
over time**

**Same need –
identical
solution**



Engines



Cabs



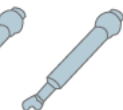
Gearboxes



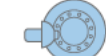
Frames



Propeller shafts



Axle gears



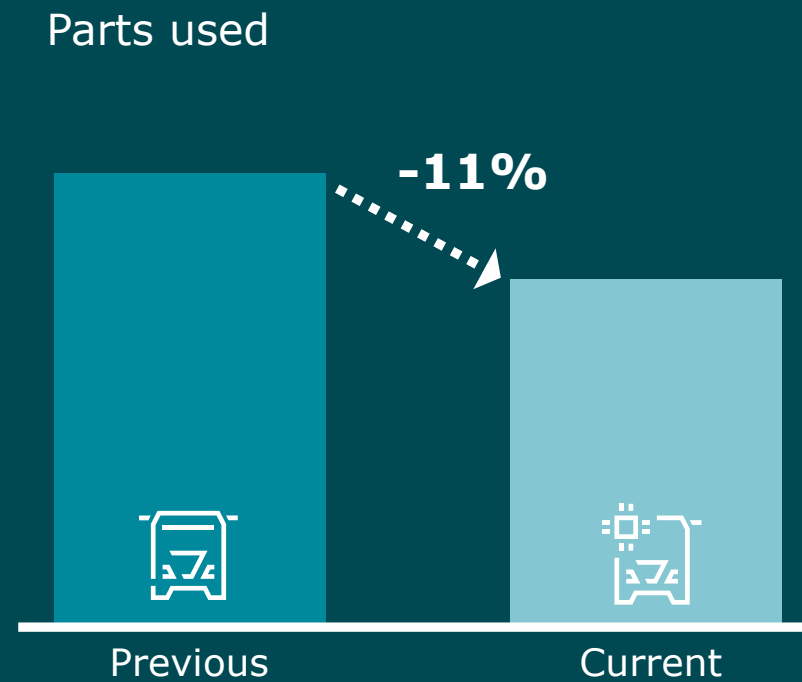
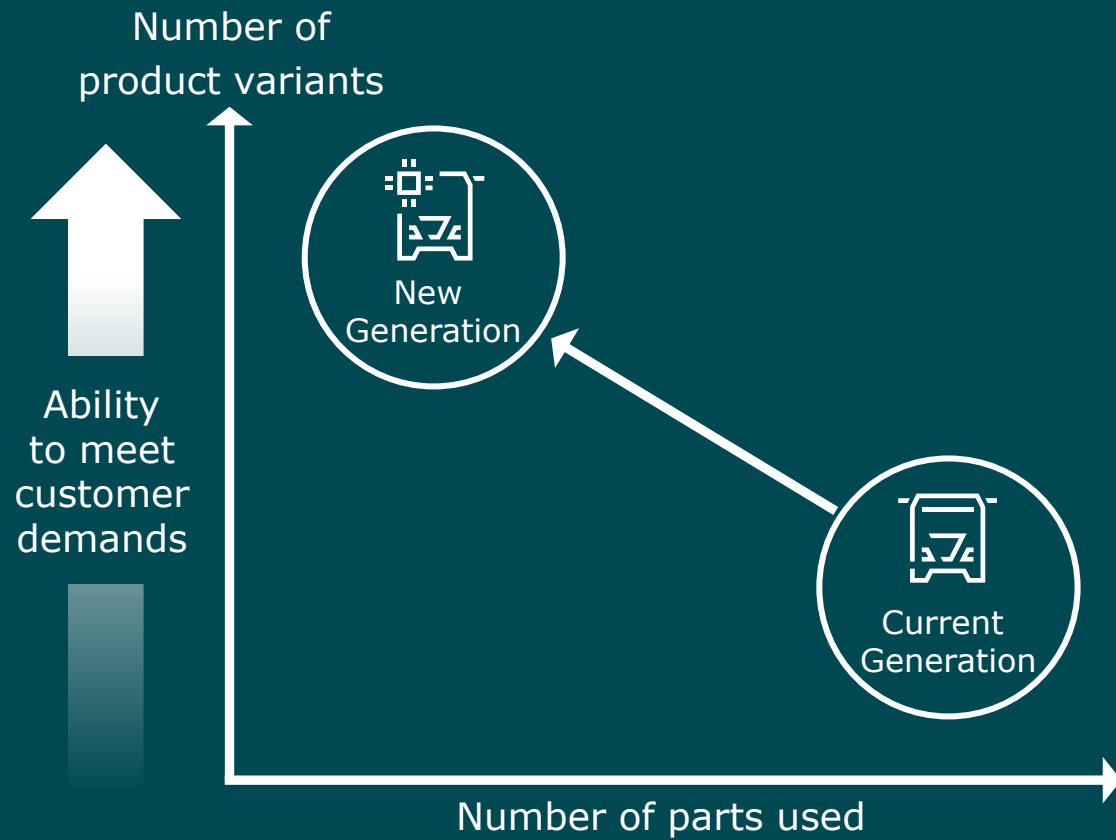
Steered axles



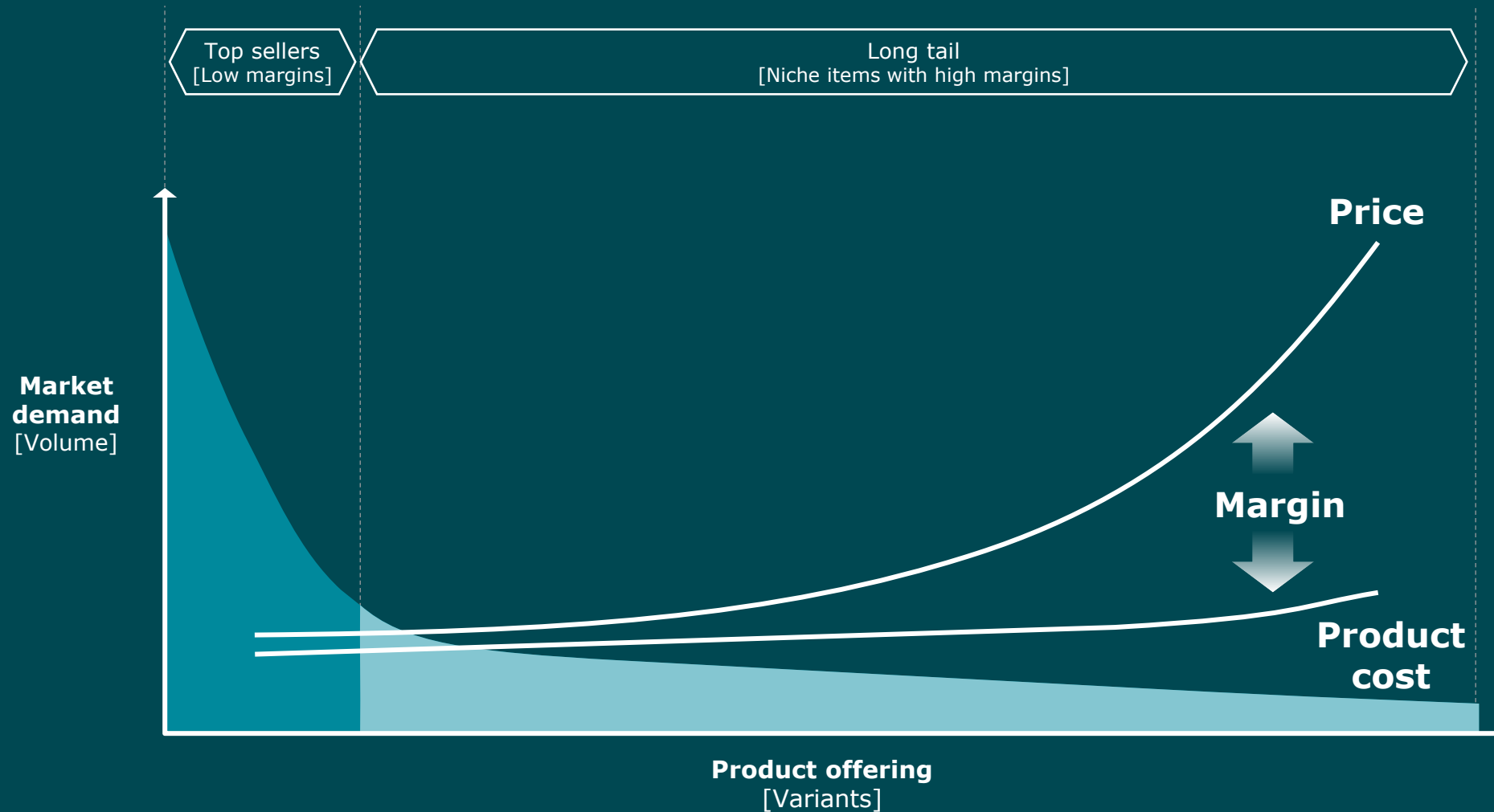
Driven axles



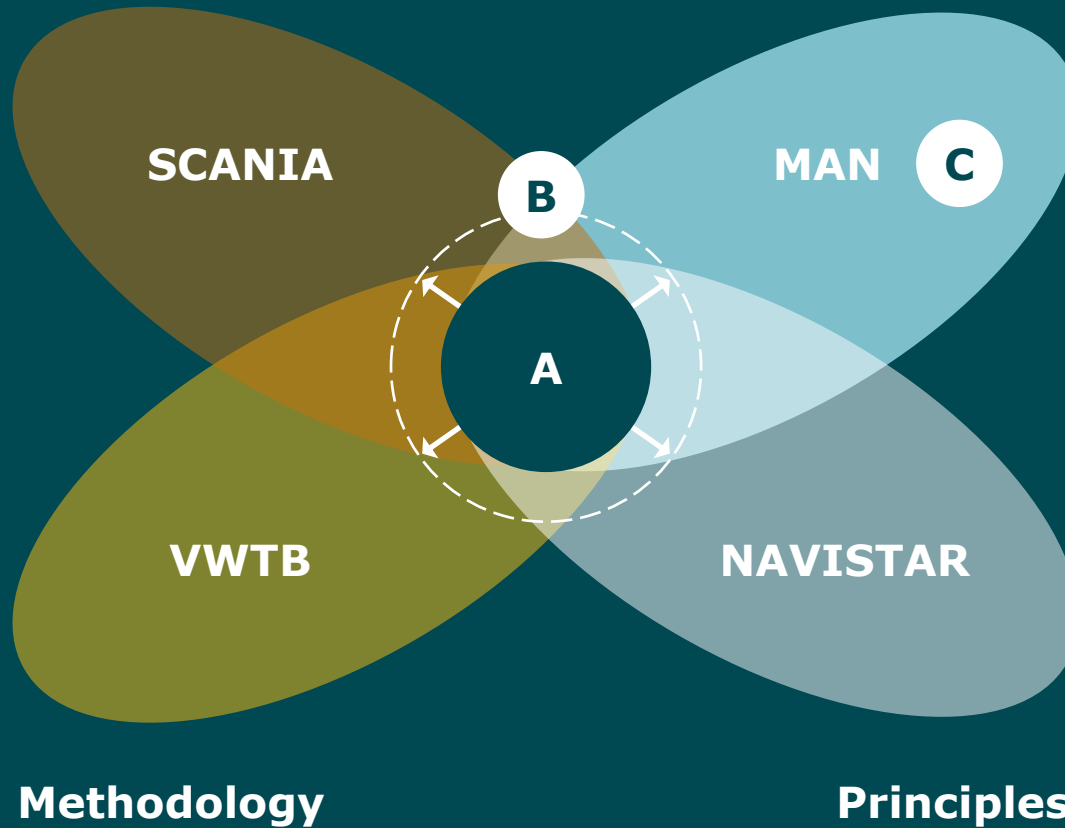
LEVERAGE BYGGLÅDAN



Long tail business model



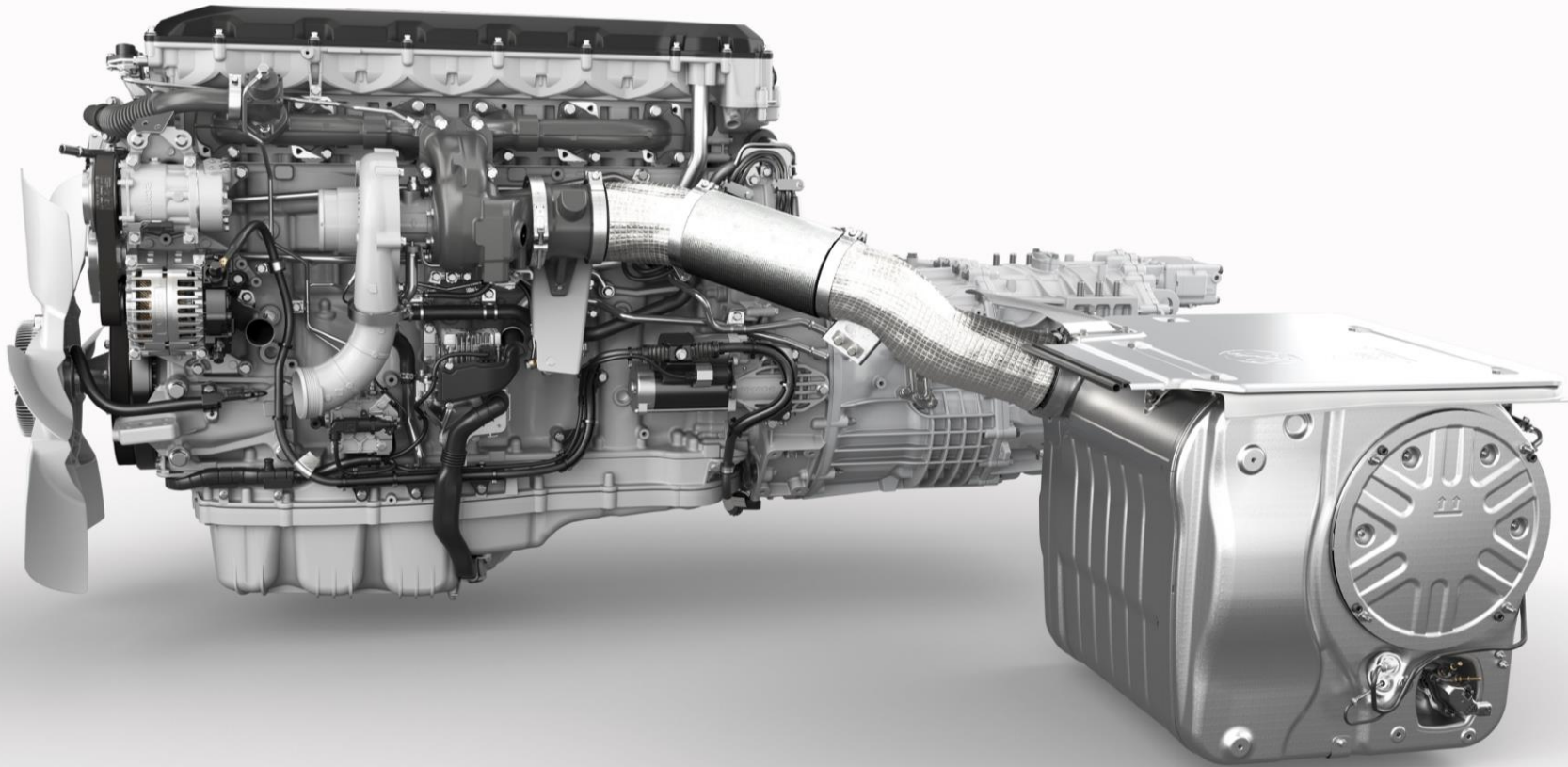
One TRATON GROUP Modular System



Modular System consists of components/platforms shared by:

- A** All brands globally
– Common capabilities
- B** Selected brands or regions
- C** Single brands

Scania SUPER powertrain



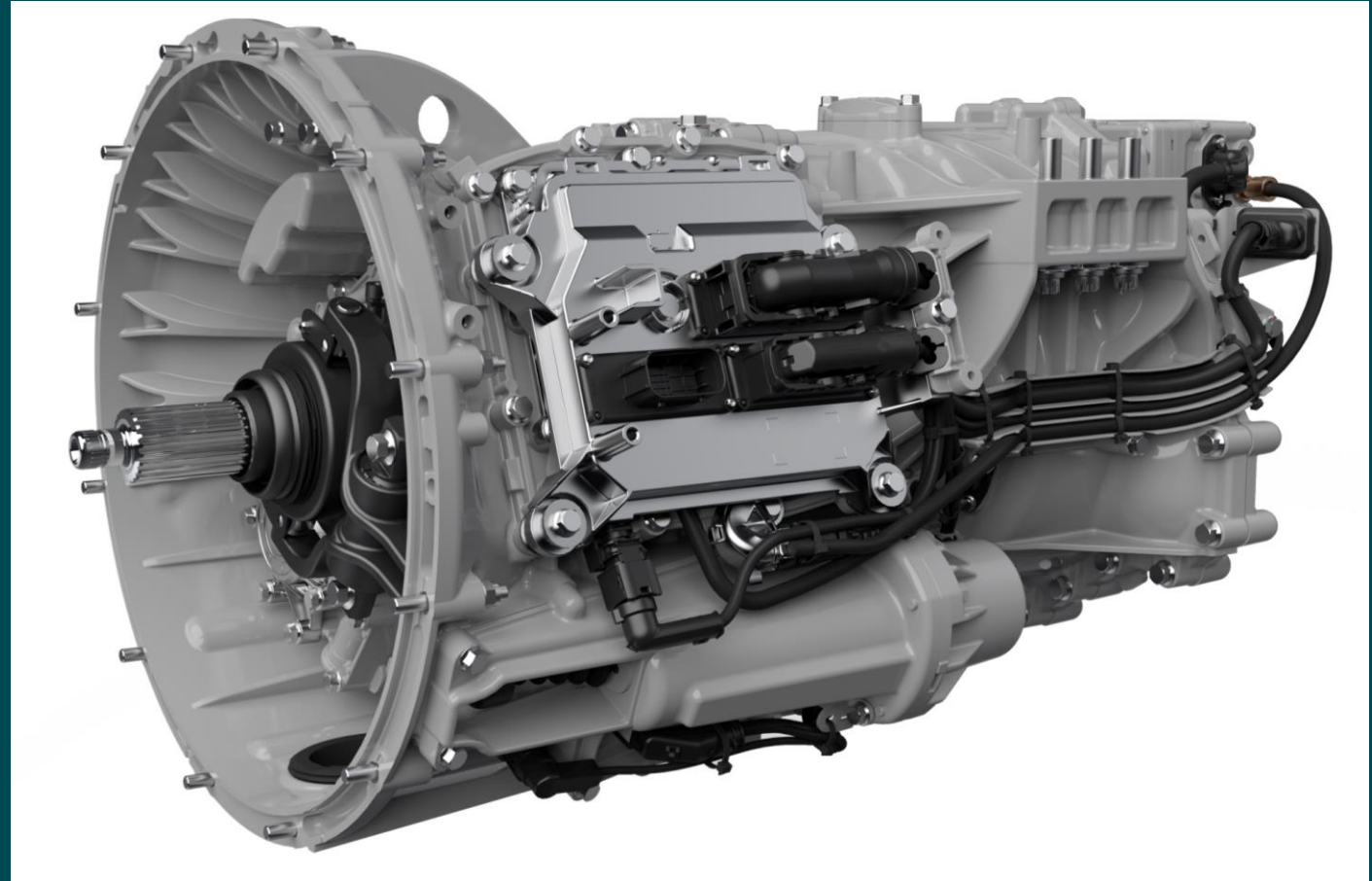
New modular AMT gearbox range

Improved
fuel consumption

Reduced weight

Reduced cost

A modular platform



Modularization in transmissions

Strategies to increase torque capacity



Base line



Wider gears



**Increased
axle distance**



Better material

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2. ELECTRIFICATION VIEW

Dr. Atif Askar

Head of Business Development
Strategy & M&A

Malte Schmitz

Head of Strategy &
Business Opportunities



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Today trucks are intensively used capital goods with high running costs

**Trucks are
Capital Goods –
TCO is essential**

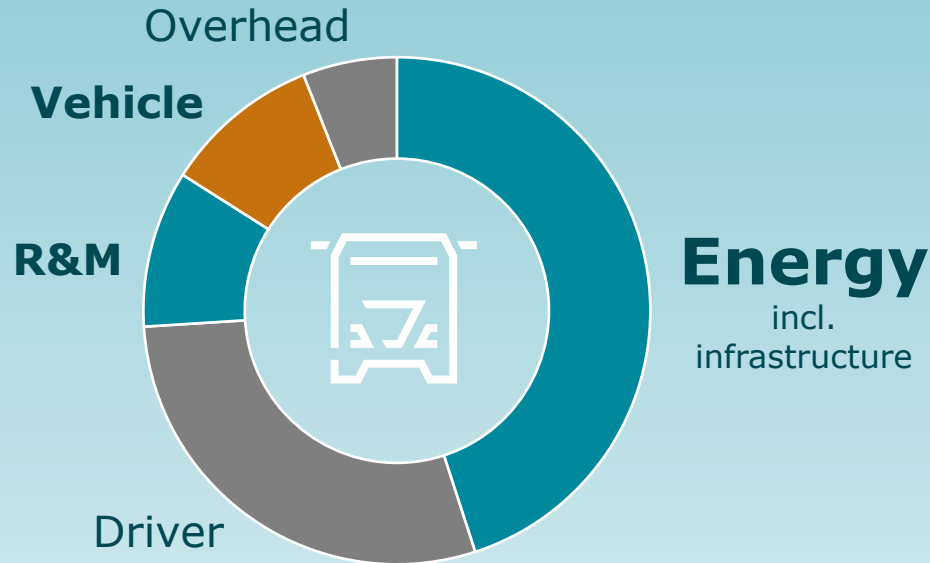


- Customer focus **Total cost**
- Usage pattern **Regular, intensive**
- Annual mileage **~130,000 km**
- Fuel consumption **~30-35 l/100 km**
- Product lifecycle **>10 years**
- Typical margins **3 %**

Today's truck running costs with high share of energy and driver

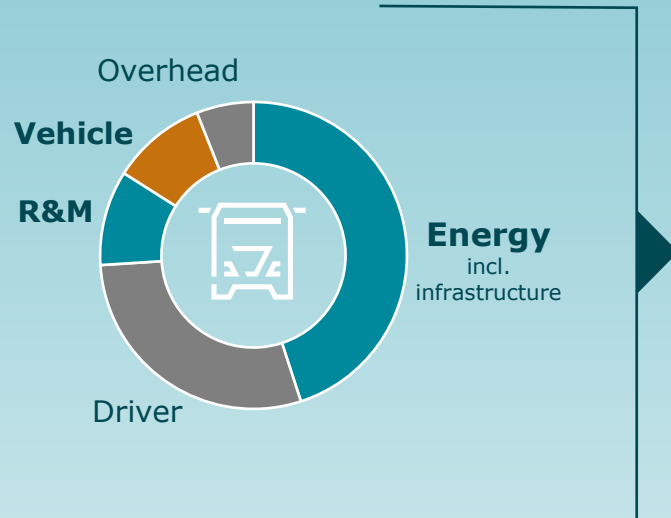
Cost distribution of a typical long-haul heavy-duty truck

Running costs
dominate Total
Cost of Ownership
(TCO)

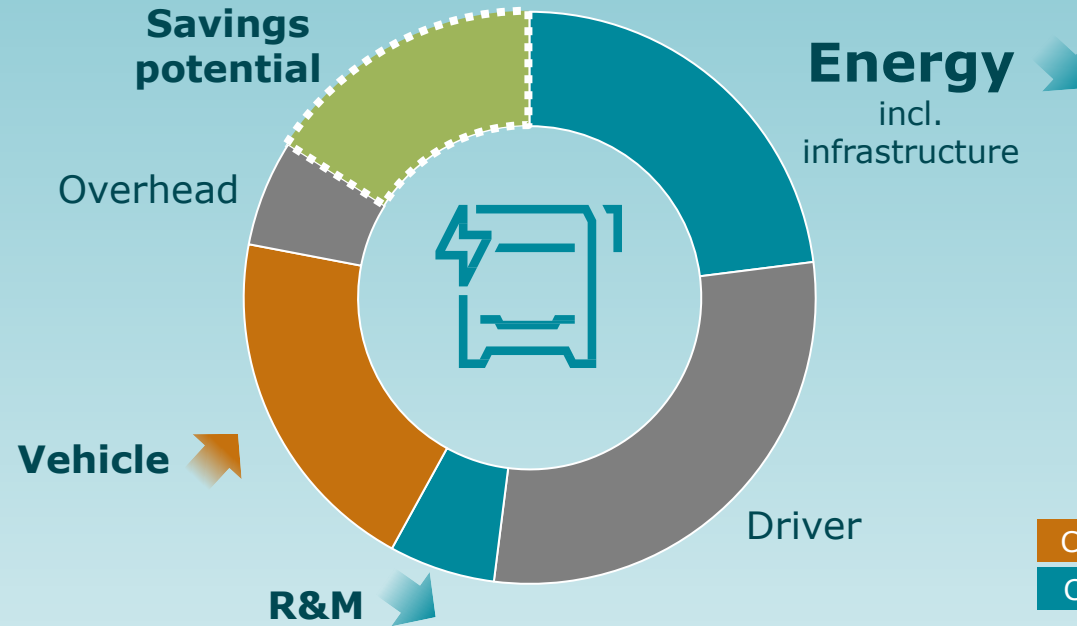


The cost distribution will change significantly with fully electric trucks

Cost distribution of a typical long-haul heavy-duty truck - today



Cost distribution electric long-haul heavy-duty truck ~2025-30

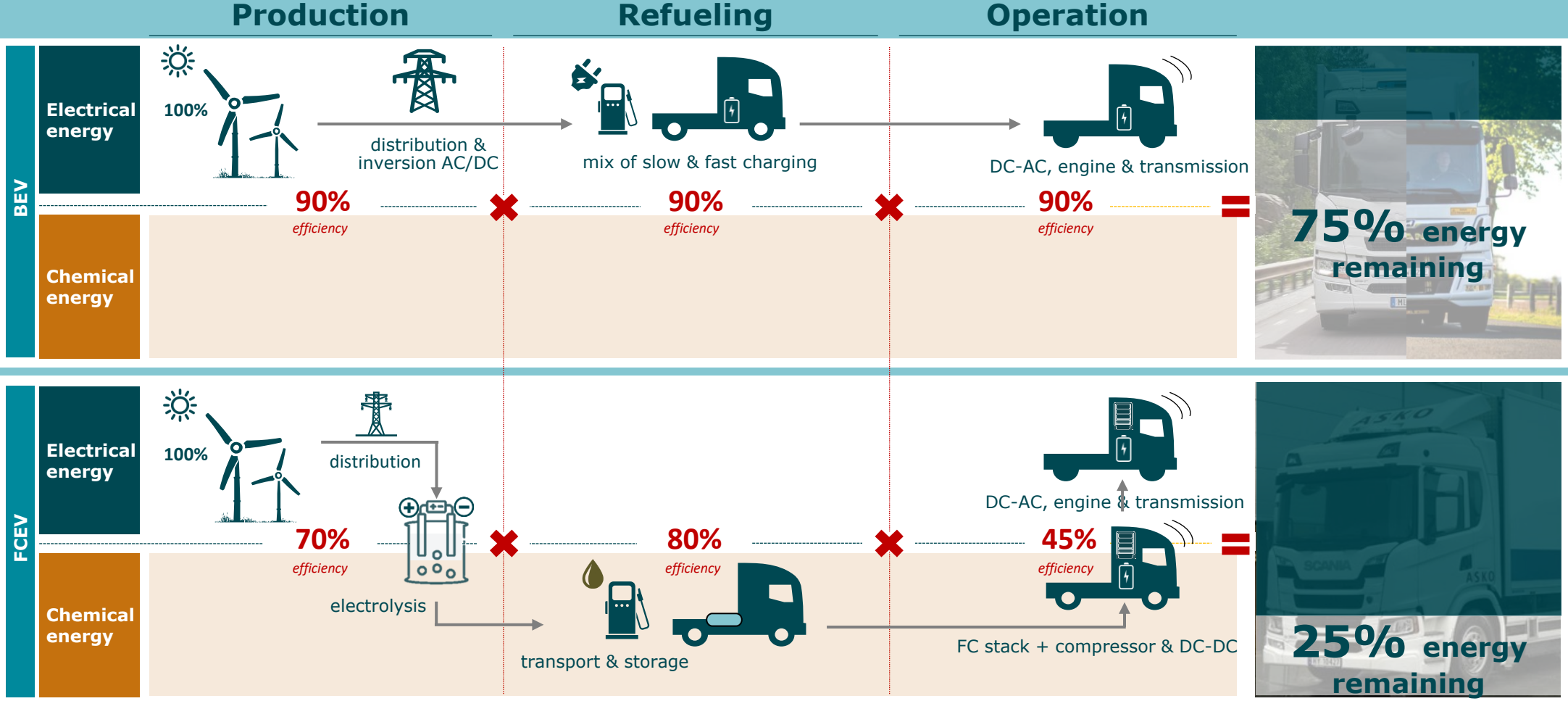


Electric trucks yield strong reduction in energy

Cost increasing with e-mobility
Cost decreasing with e-mobility

Energy is the most crucial cost driver – energy cost advantage is the key to quick market ramp-up of electric trucks

A comparison of system efficiency between BEV and FEV underlines the focus on BEVs



The prospects of commercial BEV vehicles have improved markedly, specifically on the battery side

View on BEV in long-haulage, mid 2010s

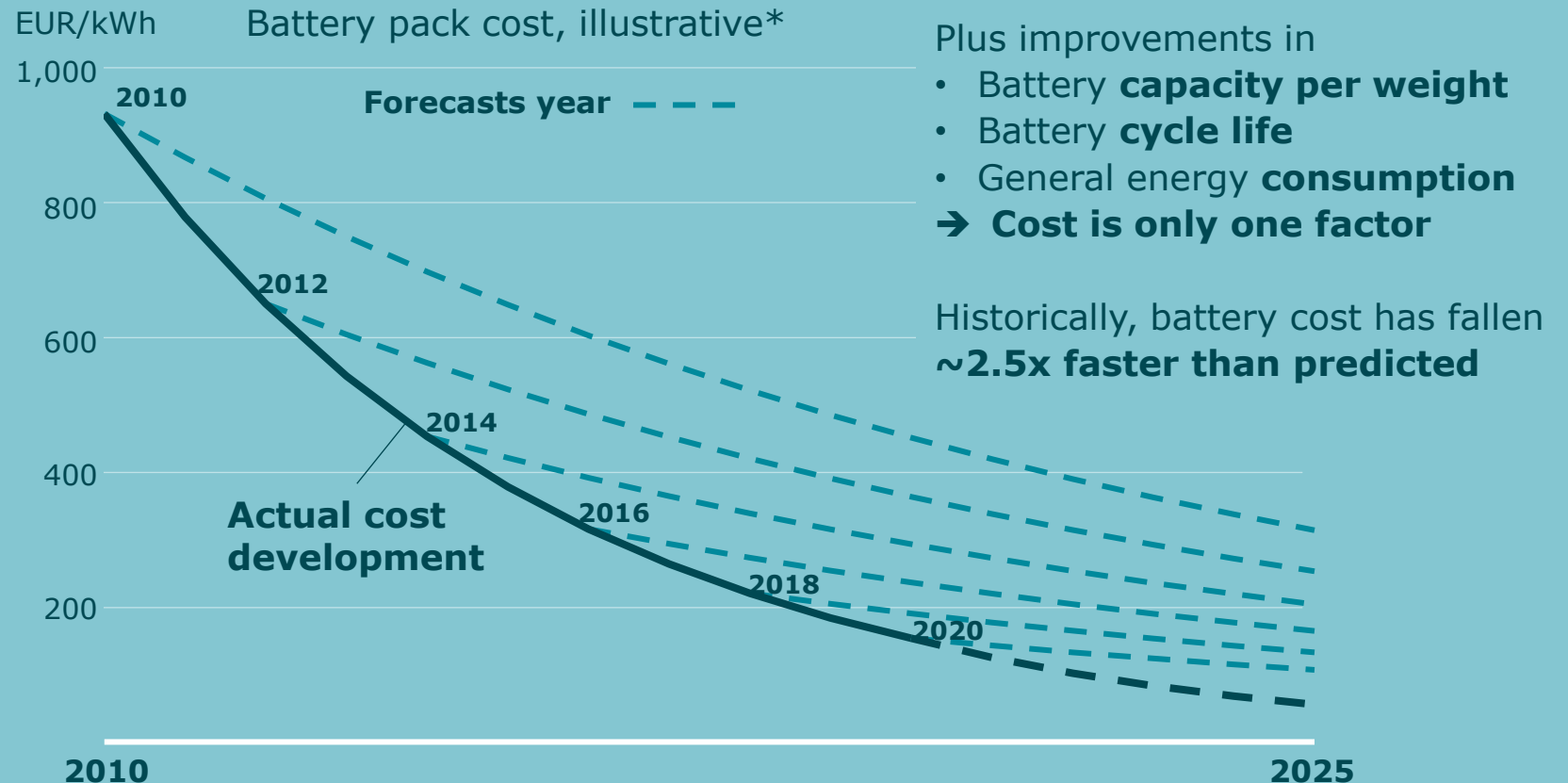
"A truck capable of going **1000km** hauling 27t [...] would need a **battery weighing 25t**, and could only carry about 2t of cargo.

And because a heavy-duty truck battery is so heavy and large, charging takes too long – typically **12 hours or more**."

www.energyskeptic.com, 2016

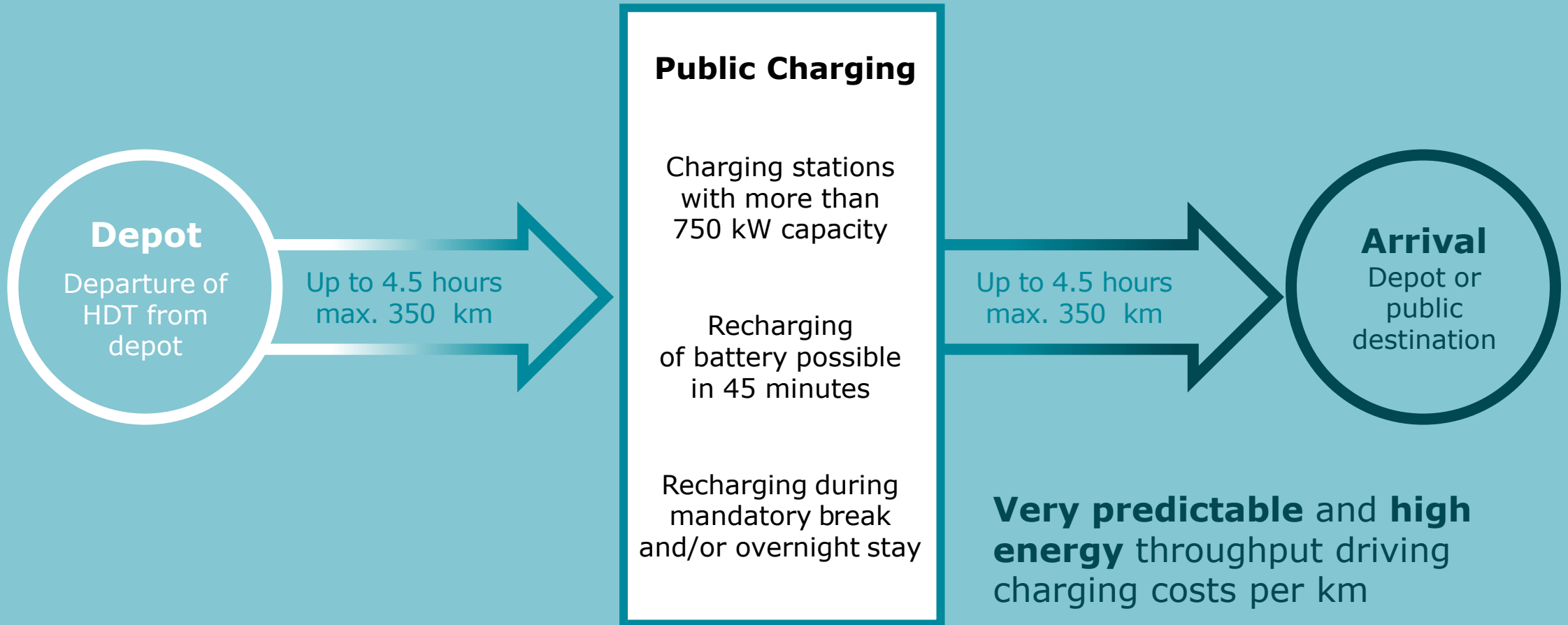
5 years ago, few expected **BEV concepts to apply in long-haulage**

Battery cost development over time



*best-in-class, CV equivalent, simplified representation

How would a long-haul operation with a BEV look like?



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3. DECARBONIZATION

Andreas Follér

Head of Sustainability,
Scania

Erik Nellström

Technical Manager,
Product Sustainability Scania

Nina Vikkula

Senior Business Developer,
Supply Chain Decarbonisation
& Circularity Scania

Fabian Heidinger

MAN Sustainability Lead

Christopher P. Perzan

Vice President, Environment and Sustainability Navistar



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Responsible Company

Make responsible behavior a top priority in everything we do

- ▶ **Decarbonization** & Circularity
- ▶ People & Diversity
- ▶ Governance & Ethics

Science-based targets (SBT)



<1.5°

Paris agreement
2015



$f(x)$

Aligning corporate
carbon reduction
targets with
climate science



Targets approved as
“science-based” –
in line with what is
necessary to meet
the goals of the
Paris Agreement

No. 1



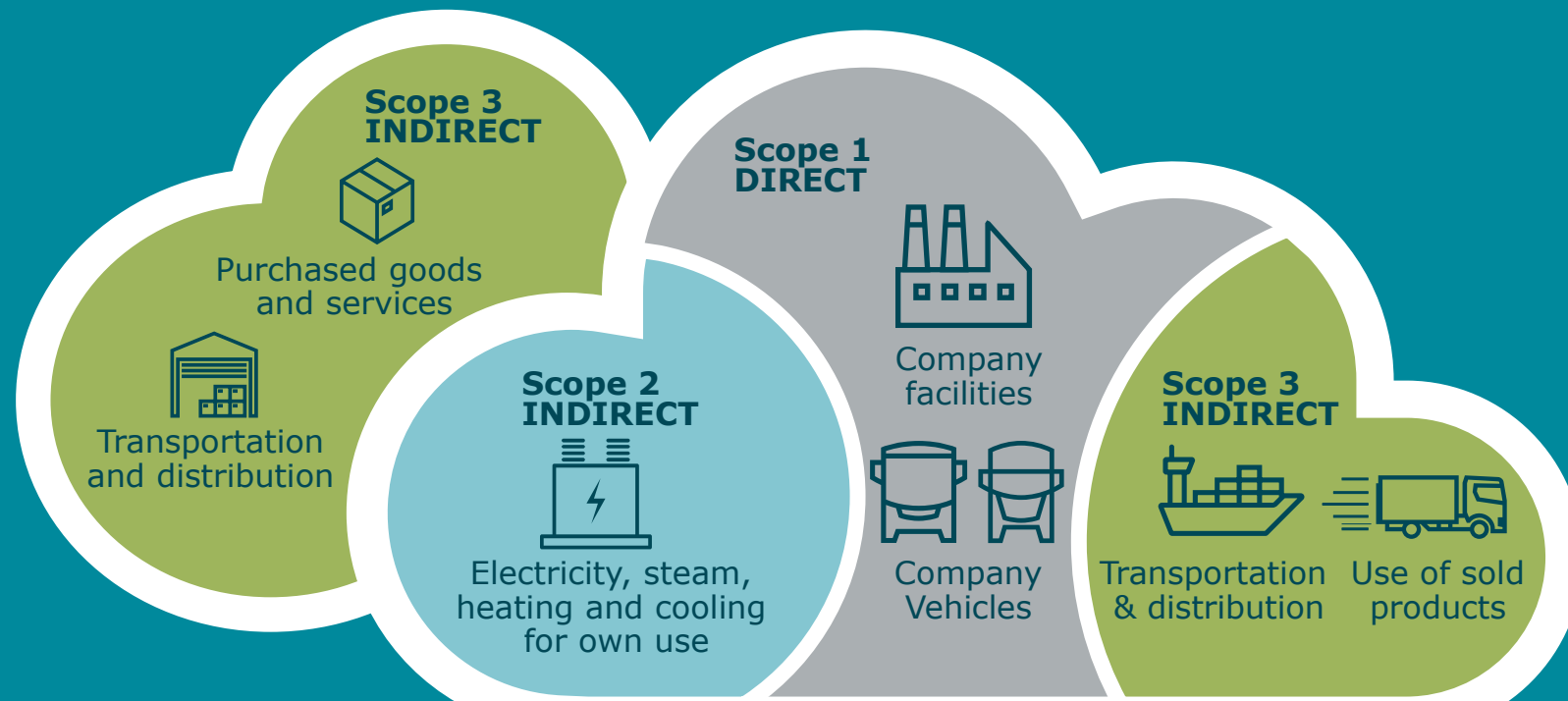
Scania

In 2020, **Scania**
became the first
heavy goods vehicle
manufacturer to
set SBT



WORLD
RESOURCES
INSTITUTE





SCOPE
1&2

OWN OPERATIONS

Energy waste



Energy efficiency



Renewables



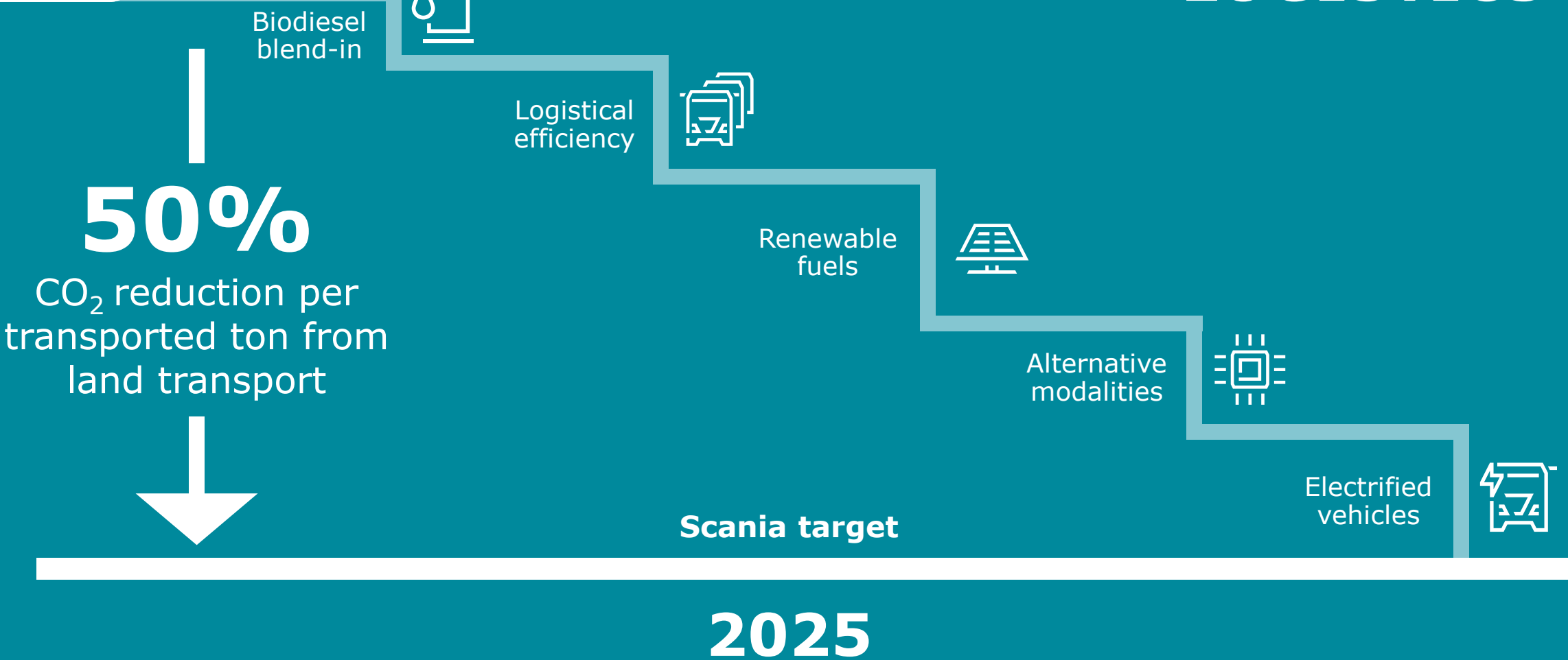
Scania SBT

2025

50%
absolute CO₂
reduction from
Scania operations



LOGISTICS



USE PHASE

>90%

of all Scania emissions come from when
our customer use Scania trucks and buses.



Diesel mix



Combustion engine improvements



Electrified vehicles



Driver evaluation/optimization



Green energy and biofuel partnerships



Scania SBT

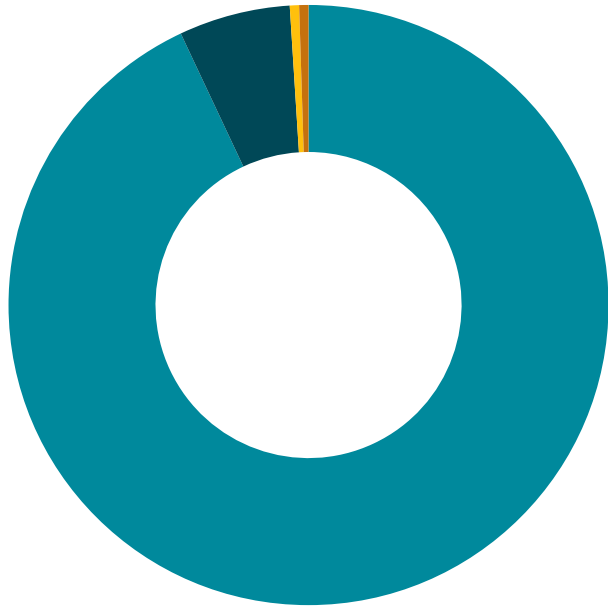
2025

20%
CO₂ reduction
from
products/km

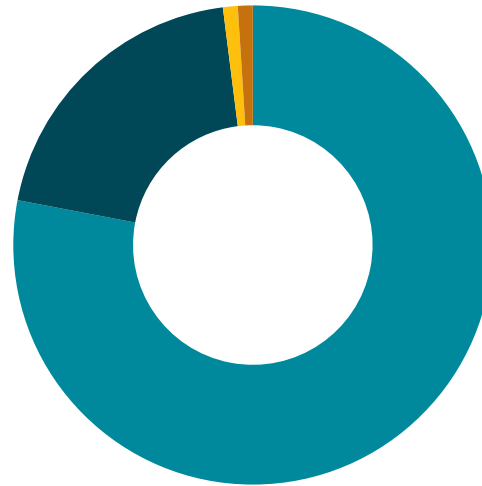


Our CO₂ impact stems almost exclusively from our products' use phase – but will change in the future

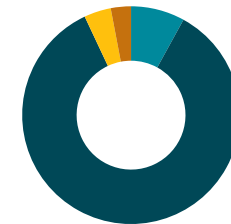
Combustion engine



BEV
(electricity mix)¹



BEV
(green electricity)²



¹ Based on EU 2016 electricity mix

² Based on prognosed EU 2030 electricity mix

Source: Scania estimates

SUPPLY CHAIN



BEV

ICEV

Battery



Steel



Steel



Aluminum



Aluminum



Cast Iron



Cast Iron



Plastic



Plastic



Scania Target

60%

CO₂ reduction
per BEV

45%

CO₂ reduction
per ICEV

2030

TRATON – Exciting pathway ahead

