

The Volvo Group logo is centered in the upper half of the image. It consists of the word "VOLVO" in a large, bold, white sans-serif font, with "VOLVO GROUP" in a smaller, all-caps, white sans-serif font directly below it. The text is set against a solid dark blue rectangular background.

VOLVO
VOLVO GROUP

The background is a collage of three images. On the left, a coastal scene with a lighthouse on a rocky shore and a wind turbine in the distance under a cloudy sky. On the right, a large blue Volvo truck parked on a rocky hill with a person standing next to it. The central text is overlaid on the middle section of this collage.

Capital Markets Day

Gothenburg June 18, 2019

Martin Lundstedt

PRESIDENT AND CEO



Perform and transform



Volvo Group

Capital Markets Day 2019

2 18 June 2019

VOLVO
VOLVO GROUP

AGENDA

Perform and transform

Martin Lundstedt, President and CEO

Financial performance update

Jan Ytterberg, CFO

Group innovation road map

Lars Stenqvist, Chief Technology Officer

14:15-14:45

Break

**Building new businesses
through new technologies**

Martin Lundstedt, President and CEO

Tech-EXPO

Volvo CE – Building tomorrow

Melker Jernberg, EVP & President Volvo CE

Summing up and Q&A

Martin Lundstedt, President and CEO & team

18:00-19:30

Mingle dinner



Volvo Group and NVIDIA partnership

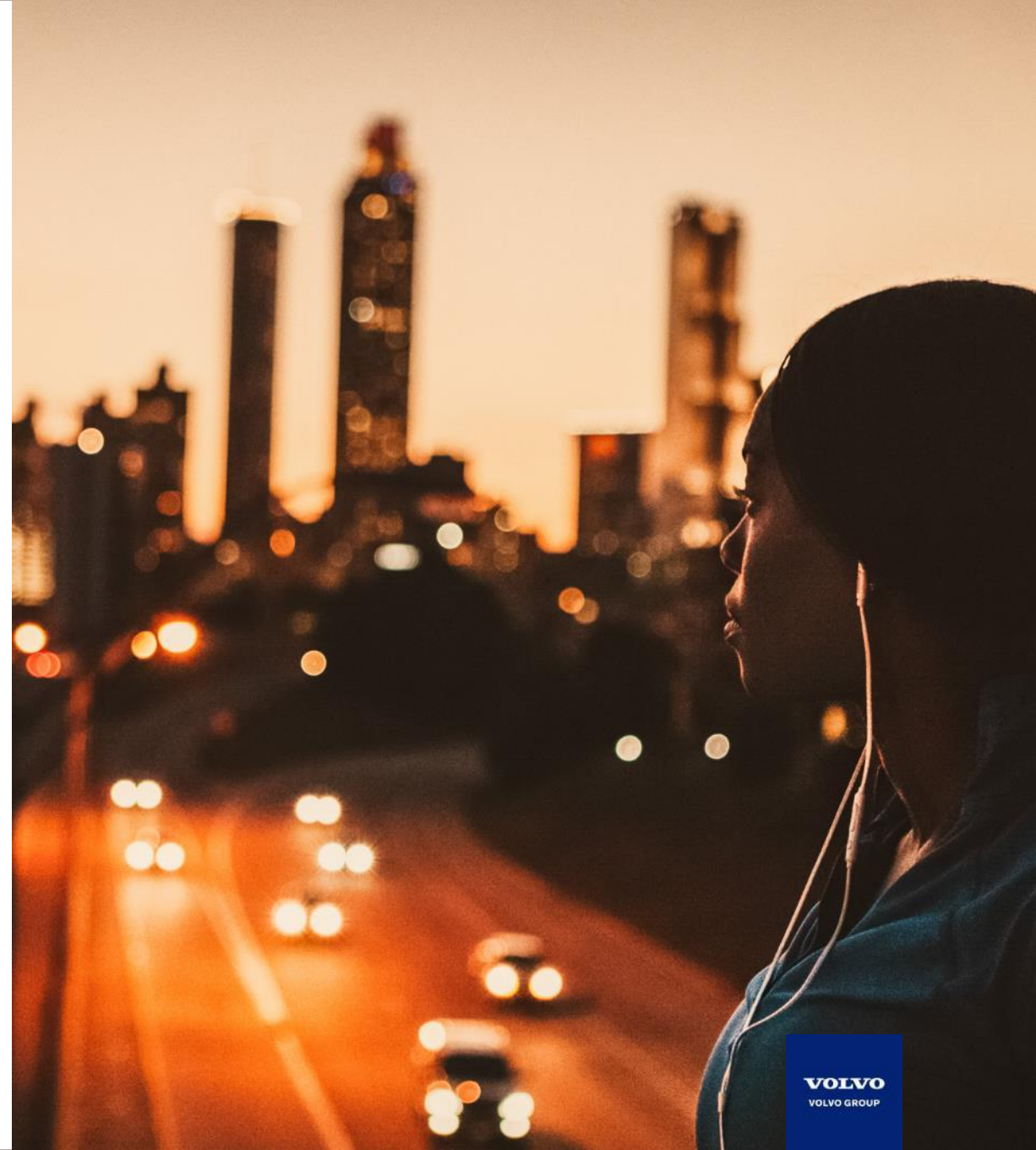
Jensen Huang
Founder & CEO, NVIDIA

Volvo Group and NVIDIA partnership

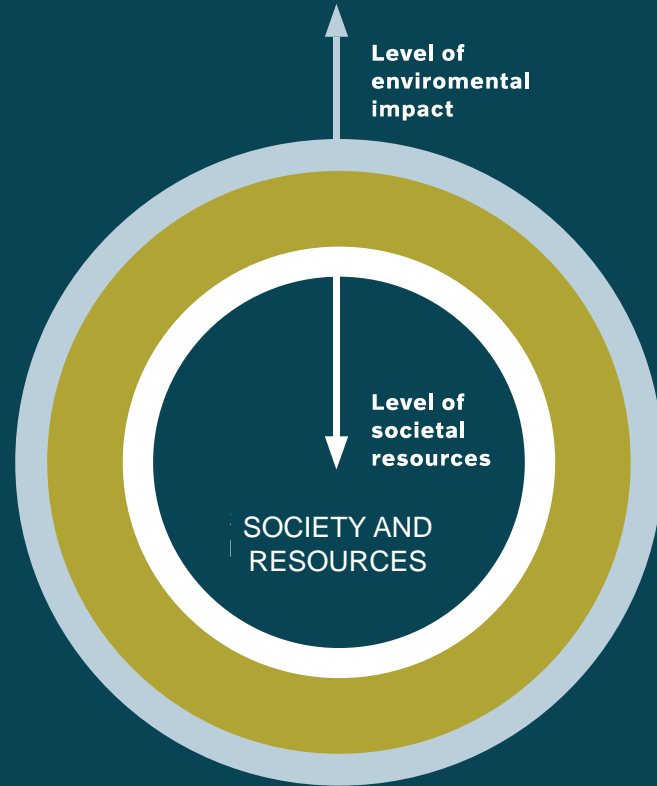
Creating the future of trucking



- **8 billion people** (2030) living in a **digital world**. It's a BIG opportunity for Volvo Group to achieve new growth
- The world faces an unprecedented **infrastructure** challenge. **\$8,000 billion** is the expected worldwide investment needed by 2040
- That means more than **\$900 billion** in **roads** annually
- Booming **e-commerce** - More than 50 billion packages were handled in China alone in 2018



Always balancing global challenges

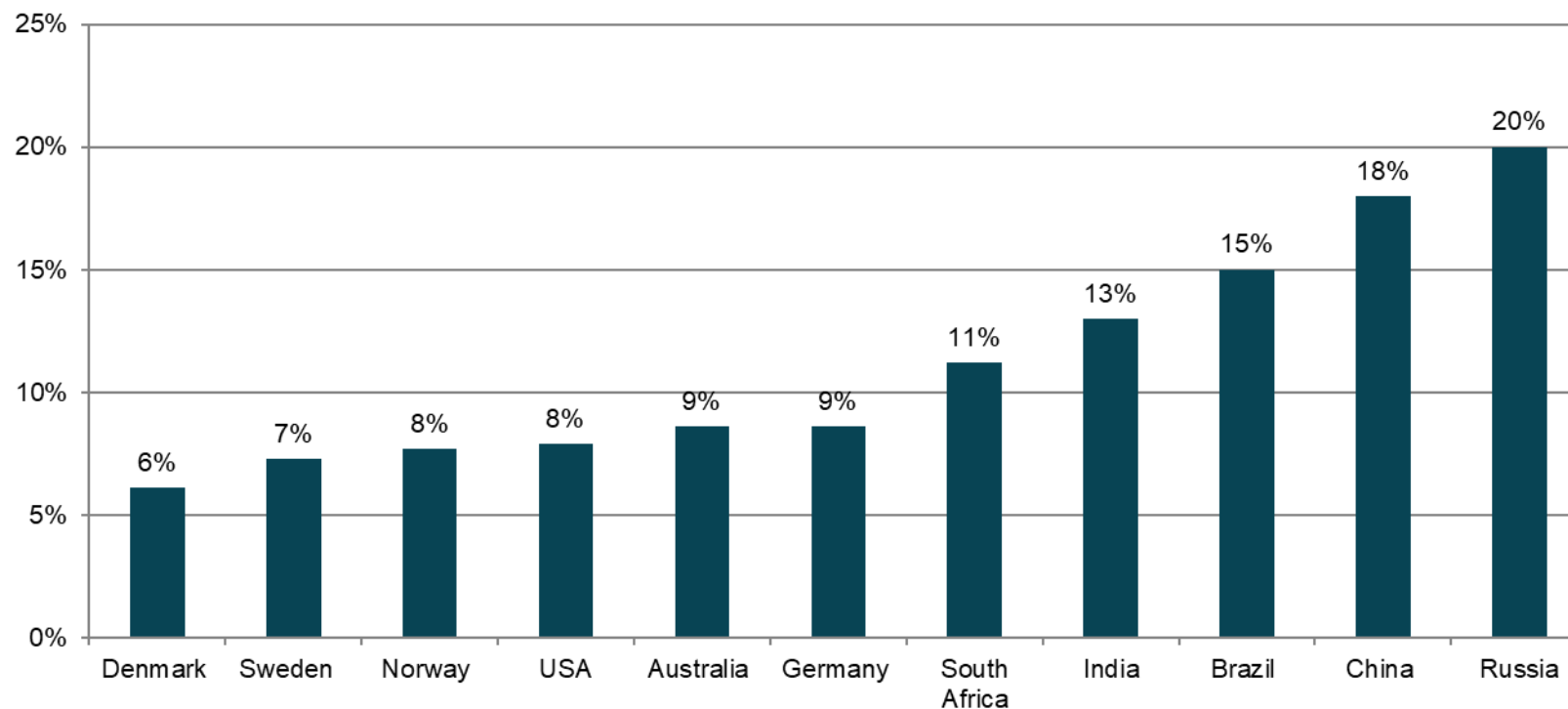


Kate Raworth's
Doughnut Economics
model

Driving prosperity, in all aspects of the word, means that the impact on environment and the usage of our society's limited resources must always be considered in our activities.

Our products and services are part of the solution

Logistics cost as percentage of GDP



Driving the industry transformation

Used ~25% of the time over the life cycle



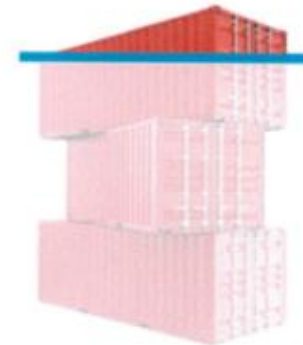
~60% of total length theoretically available for more cargo



5-10% of total fuel consumed is used to move goods



Road reaches peak throughput only 5% of the time...and even then, it is only 10% covered with vehicles

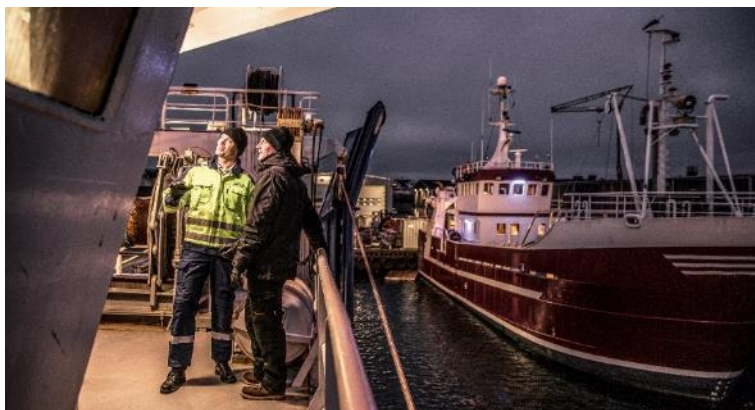


~7% of all accidents in Europe involve trucks: ~17% for fatal accidents

A fantastic industry in transition



**We are well invested
with strong assets
to build on**



Capital Markets Day 2019
11 - 18 June 2019

VOLVO
VOLVO GROUP

Segment and customer knowledge

10 largest industry segments	Share of VG total sales ¹	Trend last 5 years
Building & Construction	22%	↗
Mixed Cargo	14%	↗
Industrial	9%	→
Daily Commodities	7%	→
Consumer Goods	6%	↗
Mining & Quarry	6%	↗
Agriculture	6%	→
Public Svc & Utilities	5%	→
Petroleum & Chem.	4%	↘
Waste & Recycling	3%	↗
Other	17%	
Total	100%	

¹ 2014 estimate

Strong assets to build on

Go to market strategy

Main geographical **FOCUS** for respective brand



Please note: Illustrative markets with significant presence per brand

Application excellence



Leveraging synergies



The Volvo Group journey continues

1999-2011 ACQUISITION-DRIVEN GROWTH

Scale, synergies &
geographical expansion



2012-2015 TRANSFORMATION TO CLOSE THE GAP

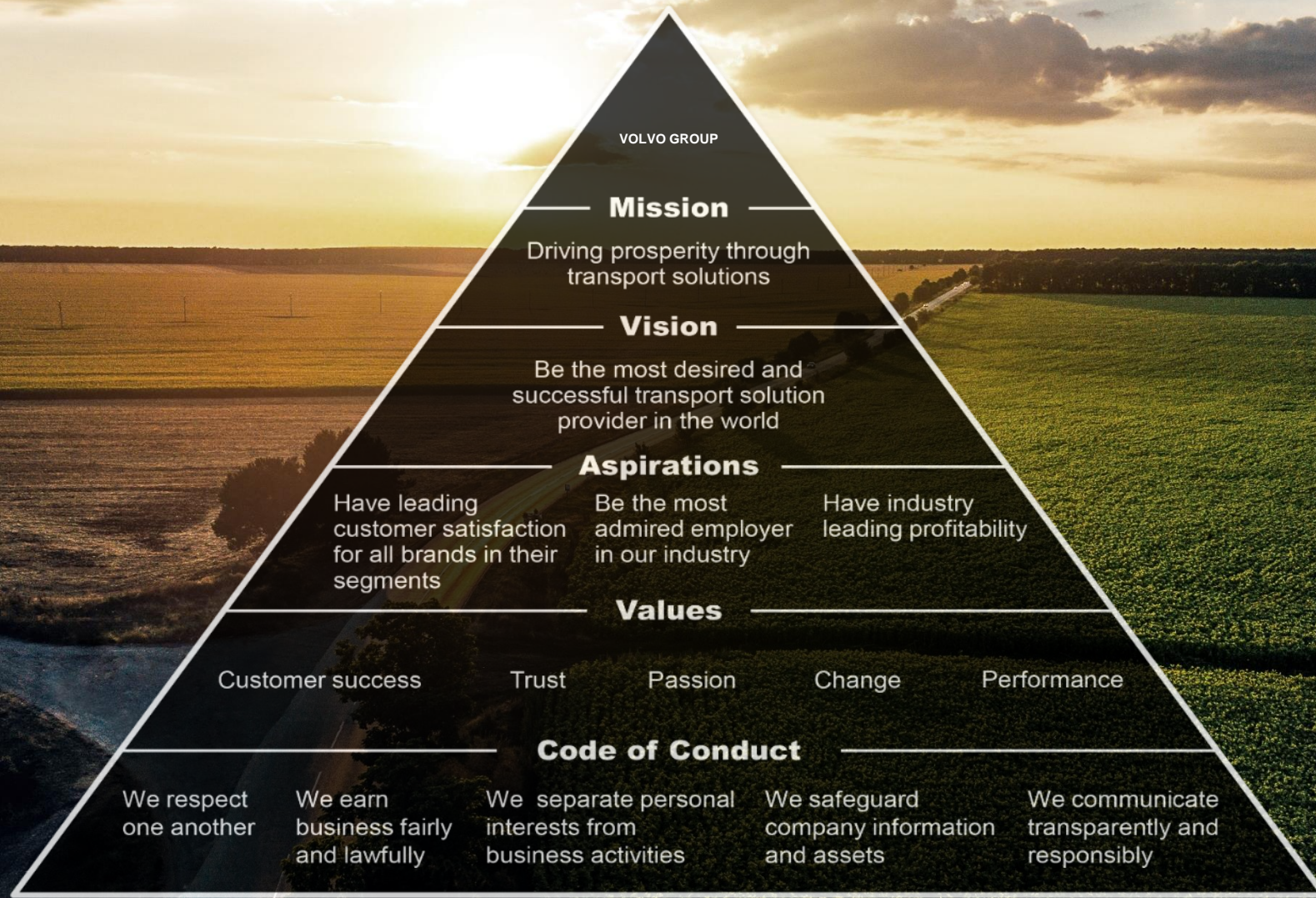
Product renewal, brand
positioning & cost efficiency



2016 → IMPROVED PERFORMANCE

Customer focus,
simplicity, speed,
continuous improvements,
organic growth





Improving performance

STRATEGIC PRIORITIES

- 1** Reinforce **Volvo** as a global premium HD truck brand and **regain position and market shares of Renault Trucks, Mack and UD** as regional high-end truck brands
- 2** **Capture Asia growth** through JV's and Group Trucks Asia in a separate value chain – and leverage in other emerging markets
- 3** Create the most desirable **HD product and service portfolio** tailored to selected premium, high-end and value segments
- 4** Secure robust profitability through leading R&D, quality, purchasing and manufacturing operations using **Volvo Production System**
- 5** Establish brand specific sales operations with focus on **retail excellence** and a **growing service business**
- 6** **Leverage Group assets in our non-truck Business Areas**, creating additional profits, synergies and technology leadership
- 7** **Revitalize the Volvo Group culture** with focus on Customer Success, Trust, Passion, Change and Performance

- 
- **Opportunities to improve performance in existing business**
 - **Profit and cash generation funding:**
 - Business and technological **transformation**
 - Good **shareholder returns**

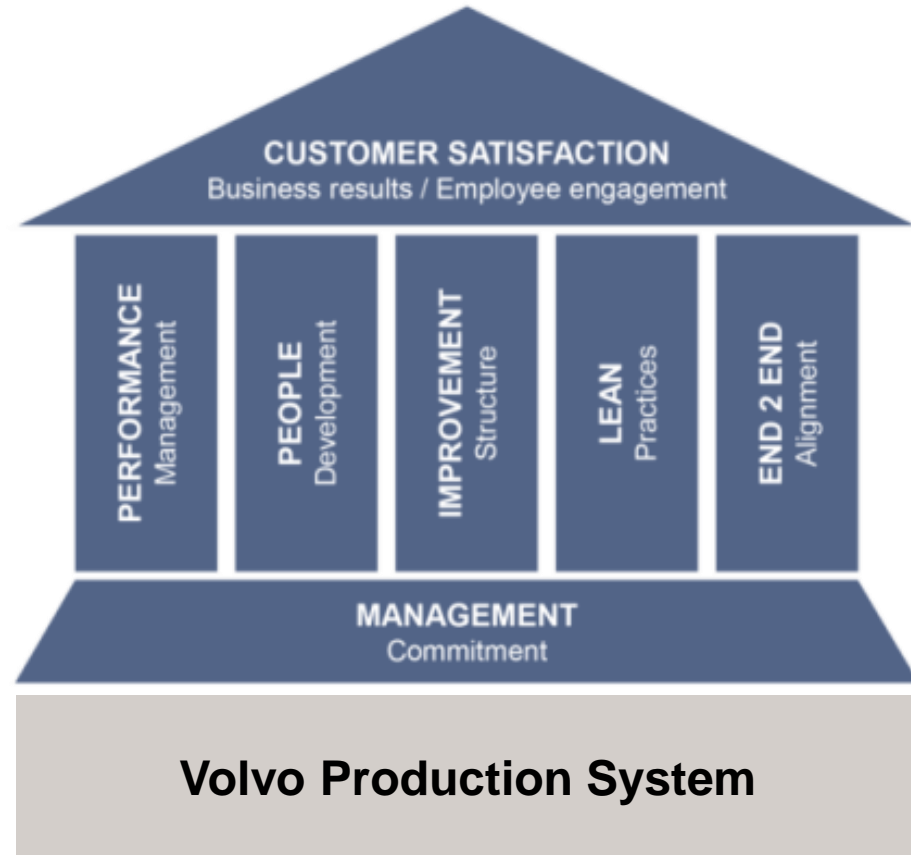


The image shows a blue Volvo Globetrotter truck equipped with a large hydraulic crane. The crane is in the process of lifting a massive, dark-colored metal pipe. Two workers in high-visibility yellow and blue gear are standing near the pipe, observing the operation. The scene is set at a construction or industrial site, with other large pipes lying on the ground and various pieces of heavy machinery in the background. The sky is overcast with grey clouds, and the overall atmosphere is industrial and powerful. A semi-transparent dark red banner is overlaid across the middle of the image, containing the word "Perform" in white.

Perform

Improving performance

EXCEL ON THE BASICS



Agility and flexibility in production volumes



Common Architecture and Shared Technology



Continuous introductions



Quality



Brand and regionalized value chains

Improving performance

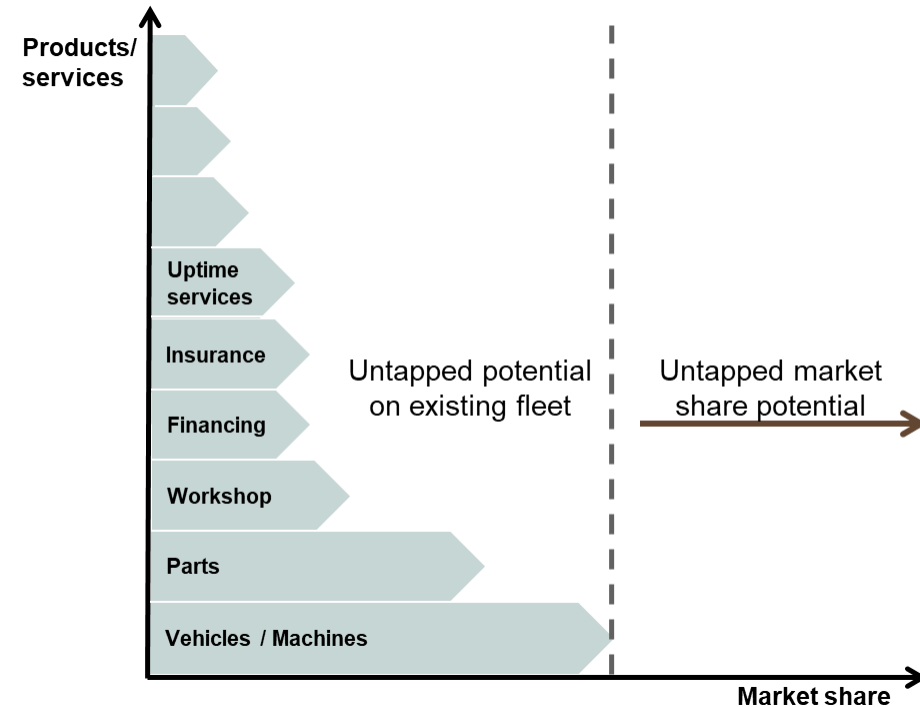
BUILDING RESILIENCE

INSTALLED POPULATION

2.8_M

TRUCKS, BUSES AND MACHINES

Service business potential



Improving performance

DRIVERS FOR SERVICE GROWTH

SERVICE ENABLERS



Network



Population



Penetration



Proprietary drivelines



Availability



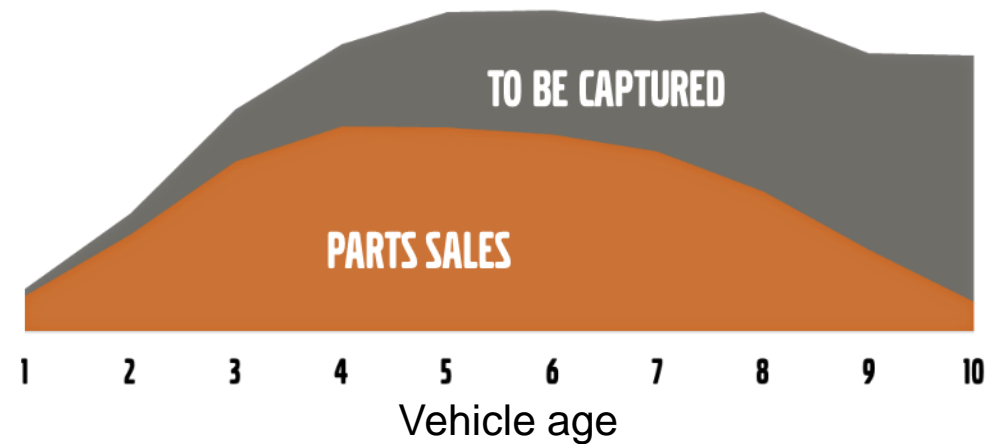
Segment



Service contracts

PARTS SALES POTENTIAL

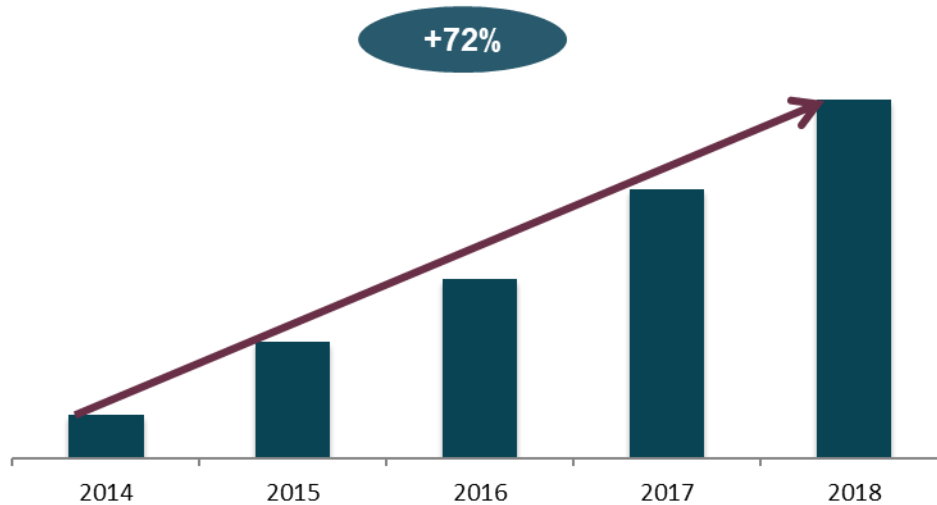
Illustrative



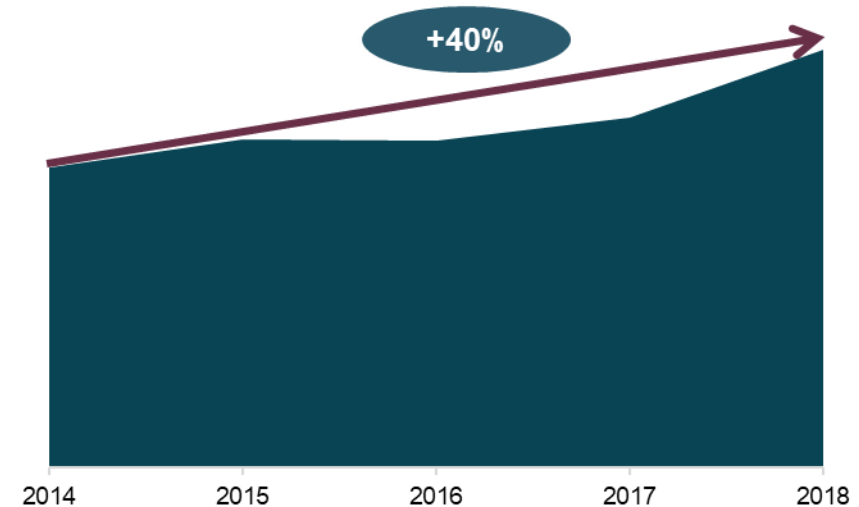
Improving performance

EUROPE: SERVICE CONTRACTS AS A KEY ENabler TO PARTS SALES AND WORKSHOP HOURS

GROWING SERVICE CONTRACT PORTFOLIO VALUE

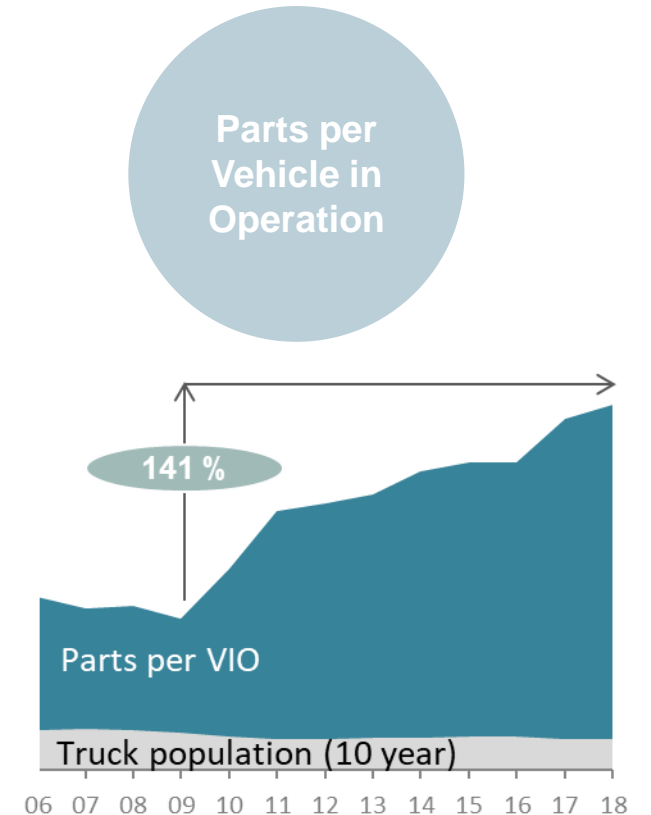
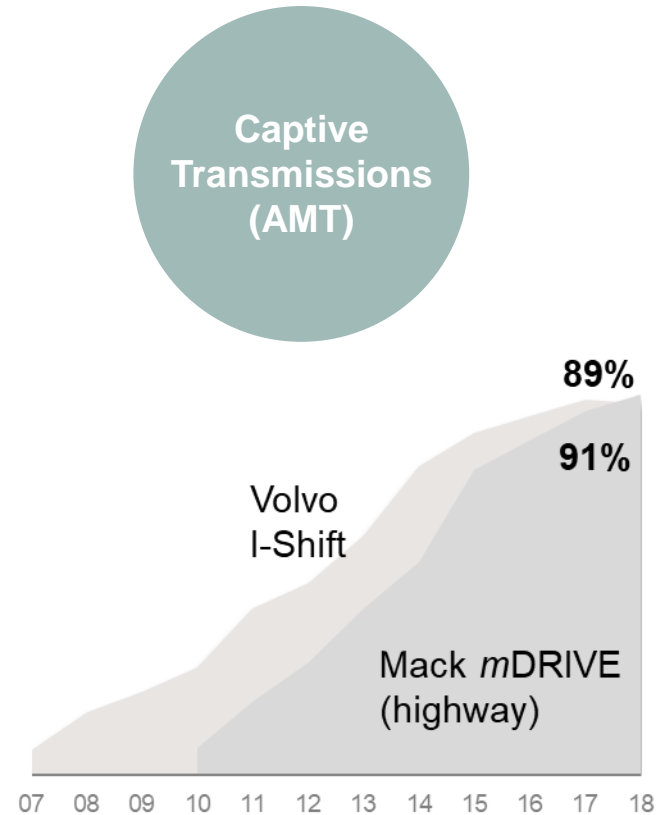
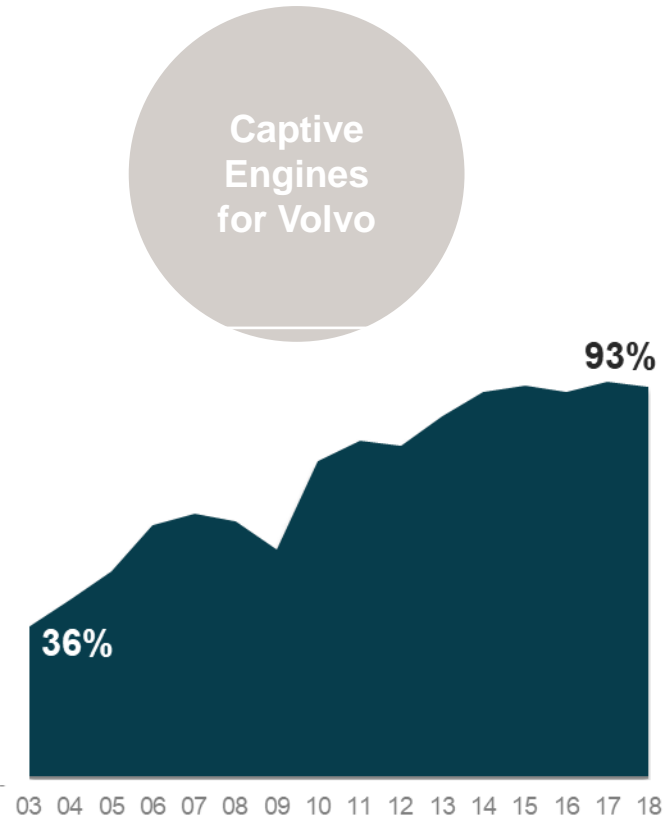


GROWING PARTS SALES PER VEHICLE IN OPERATION



Improving performance

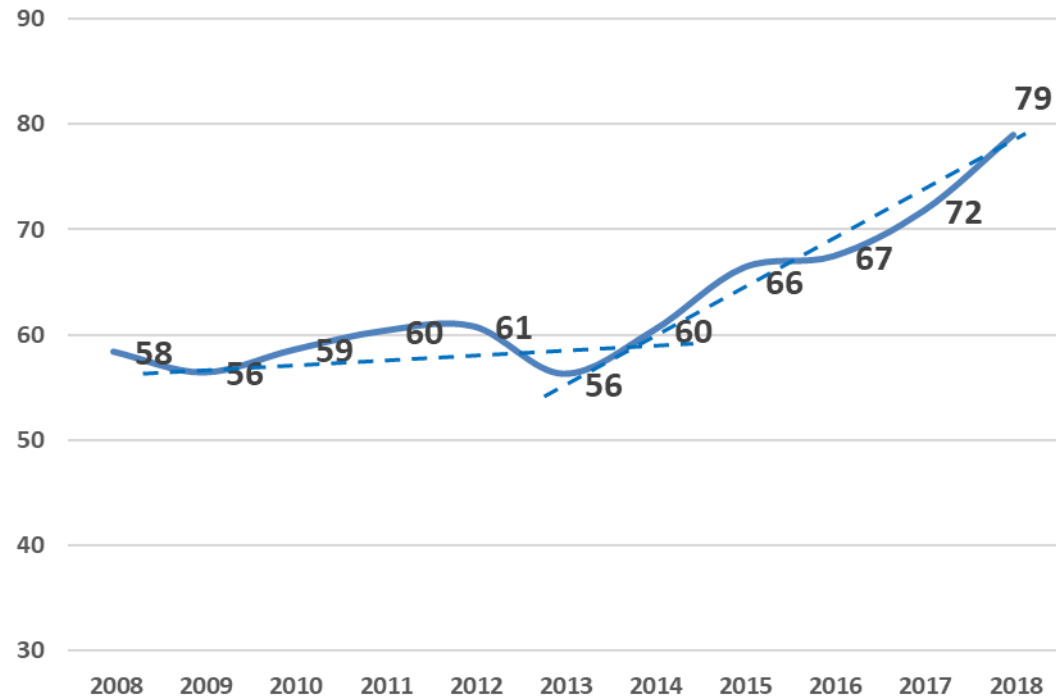
NORTH AMERICA: PROPRIETARY DRIVELINE PENETRATION GROWTH



Improving performance

STRONGER CYCLE RESILIENCE IN SERVICE BUSINESS

Group service net sales
(SEK bn.)



- Service excellence drives customer satisfaction and uptime
- Service business improves resilience across cycles
- Further service growth opportunities



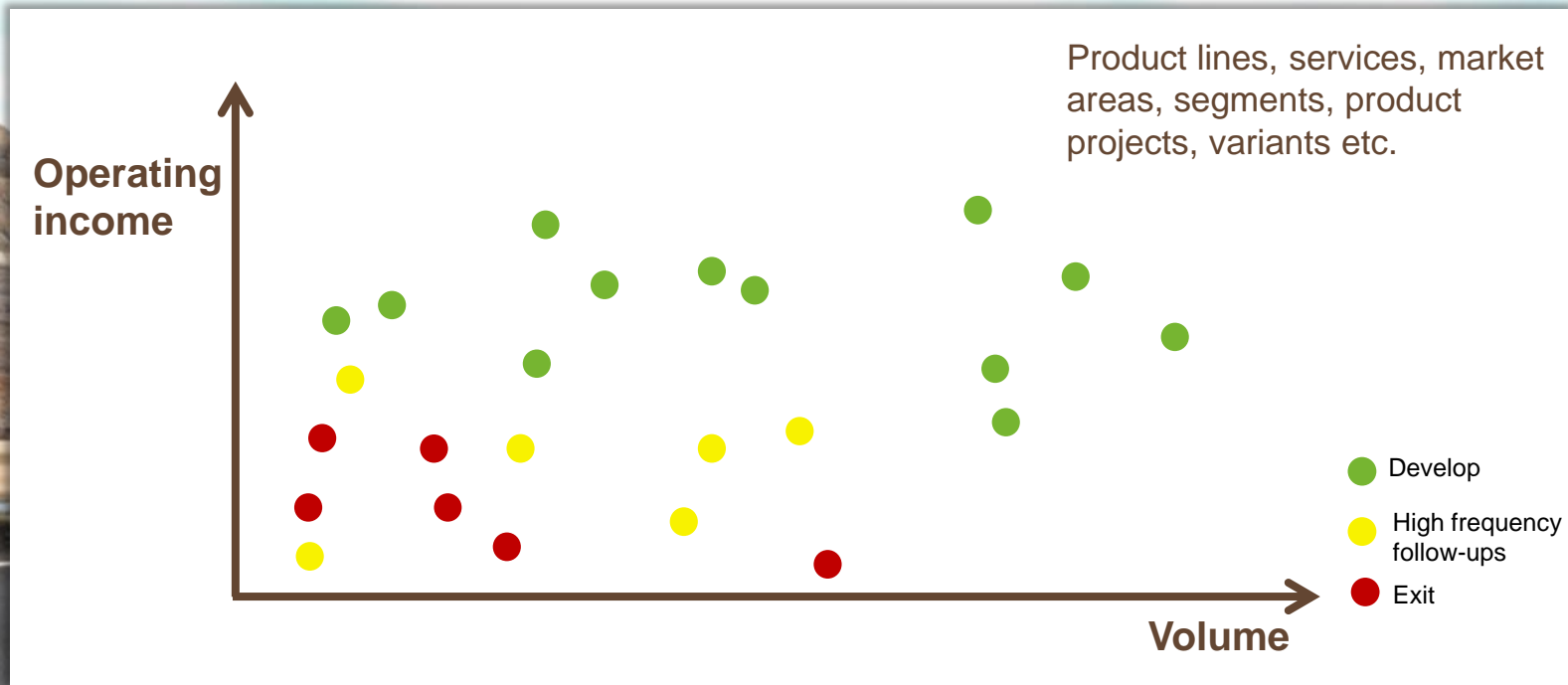
Improving performance

STRENGTHENED PROFITABILITY PER TRUCK BRAND AND REGION



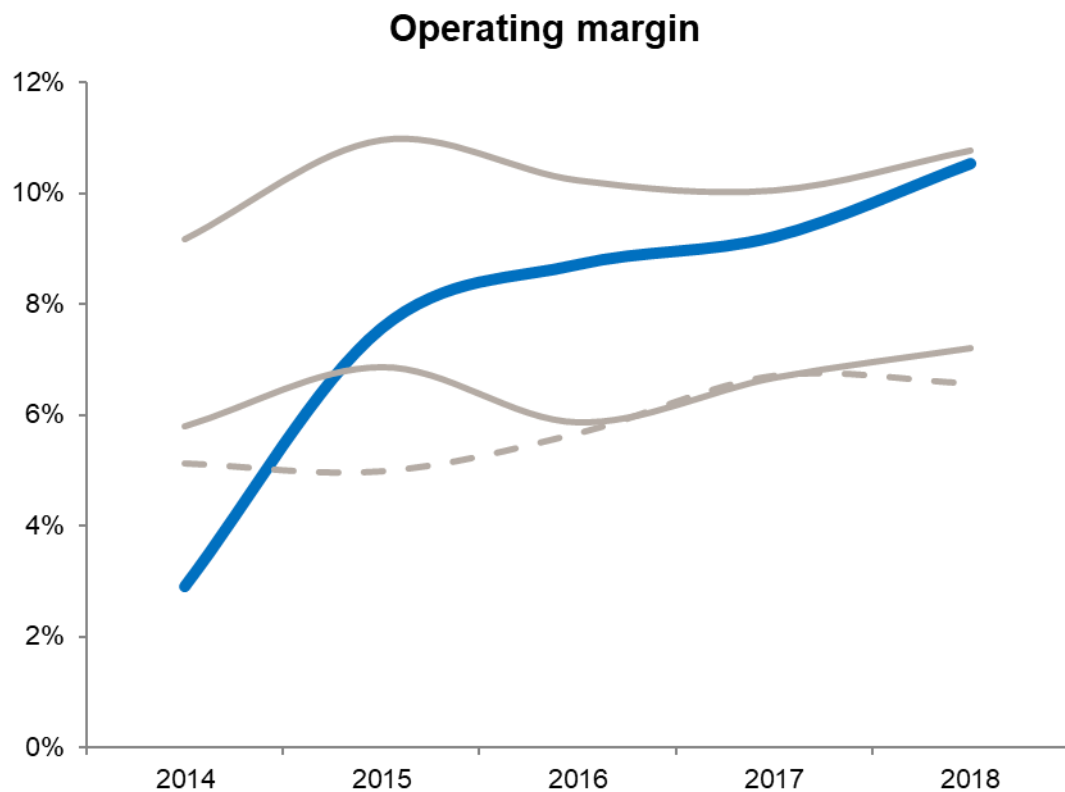
Improving performance

WE CONTINUE TO REVIEW PERFORMANCE AND TAKE ACTION



Improving performance

TRUCKS PROFITABILITY AMONG THE TOP IN THE INDUSTRY



Transform

Drivers for industry transformation

Used ~25% of the time over the life cycle



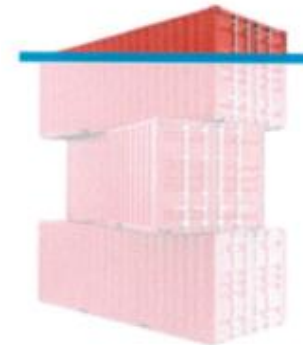
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~7% of all accidents in Europe involve trucks: ~17% for fatal accidents

New technologies transforming the transport system



Electrification



Autonomous



Connectivity





Recent Volvo Group announcements



Giant leap in productivity and sustainability

ELECTRIC SITE

Results | November 21

-40%
Operator
Cost

-70%
Energy
Cost

Increased
Safety

-98%
Carbon
Emission

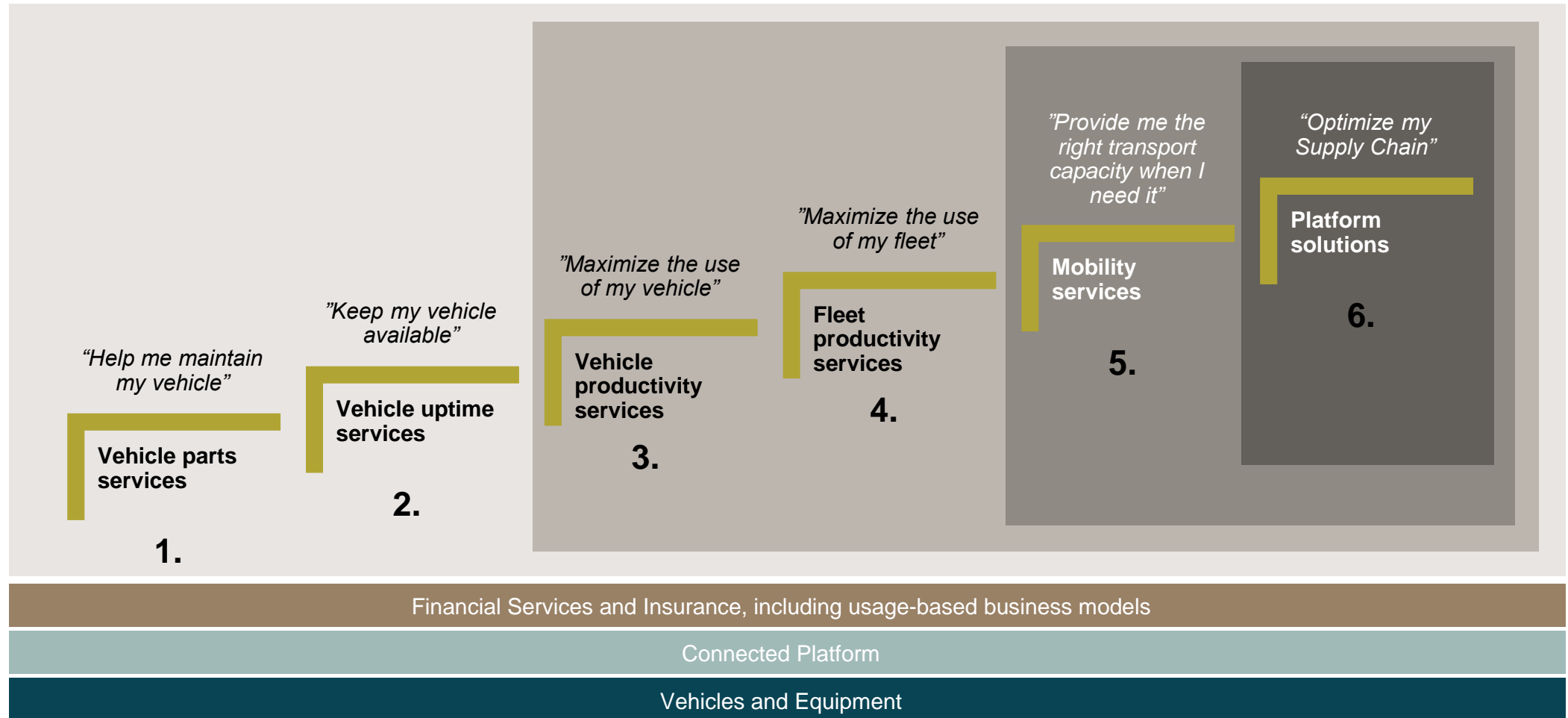


Autonomous ✓

Electrified ✓

Connected ✓

Driving the industry transformation - THE ROAD AHEAD





**Accelerating execution of new technologies
and business models
- moving from pilots to commercialization**

Jan Ytterberg

CFO

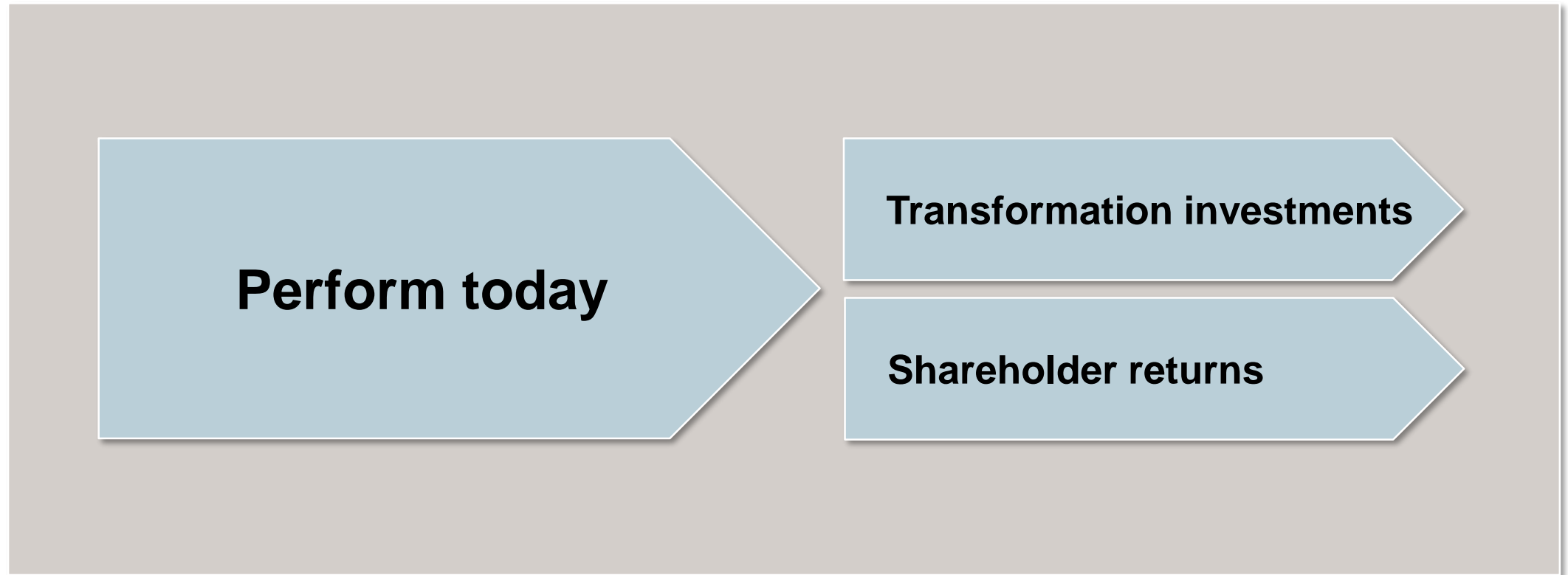


Financial performance update



What we want to achieve

IMPROVE PERFORMANCE AND INVEST FOR THE FUTURE



What we want to achieve

IMPROVE PERFORMANCE AND INVEST FOR THE FUTURE

Gradual and
consistent
earnings
improvement

Reduced
volatility
in earnings and
cash flow

Discipline
in capital
allocation/
investments

Continuous
investments in new
business models
by **innovation** and
new technologies

Financial targets

>10%

Operating margin over a business cycle

**Net
cash**

Industrial Operations, excluding pensions
& leasing liabilities

12-15%

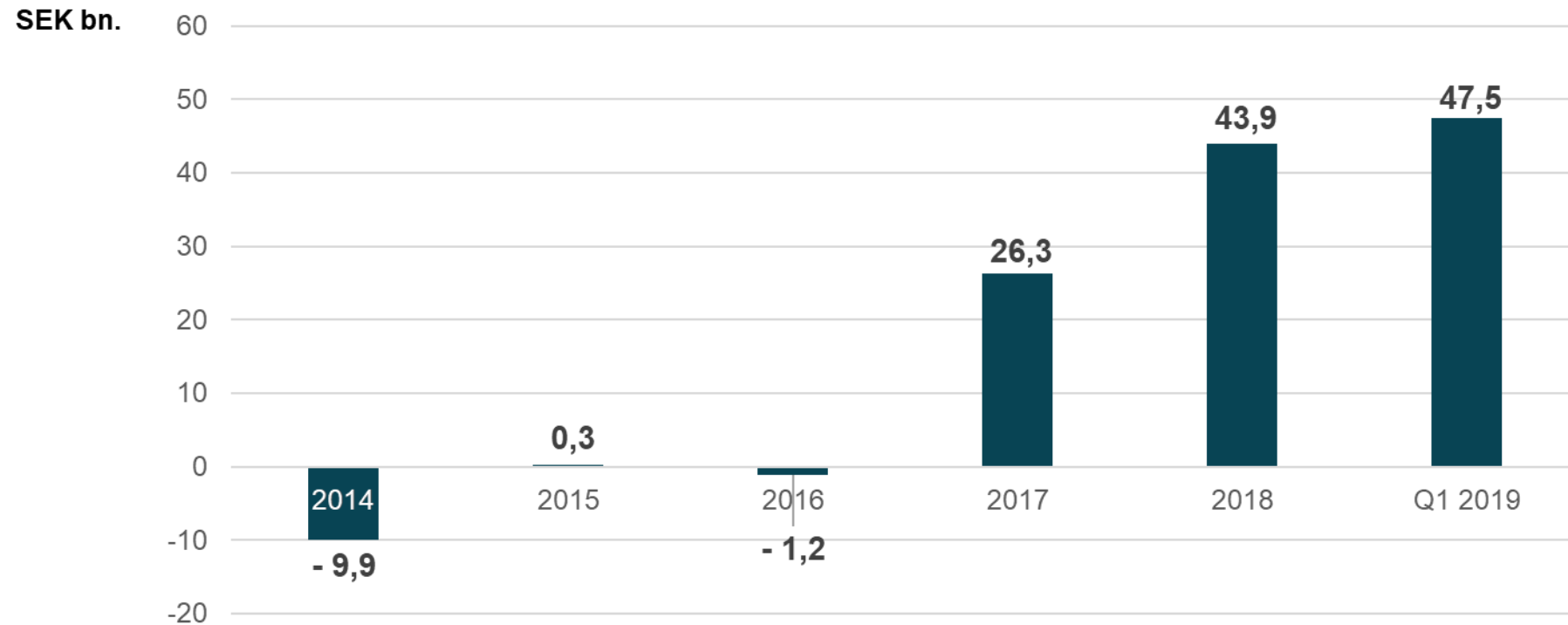
RoE in Financial Services



**Net
cash**

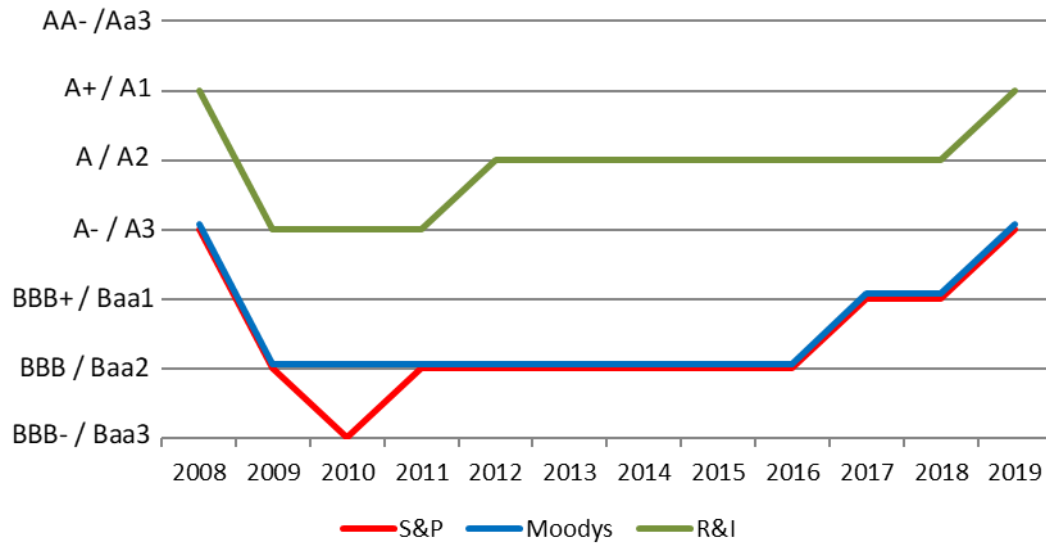
Industrial Operations, excluding pensions & leasing liabilities

STATUS



Improving credit rating

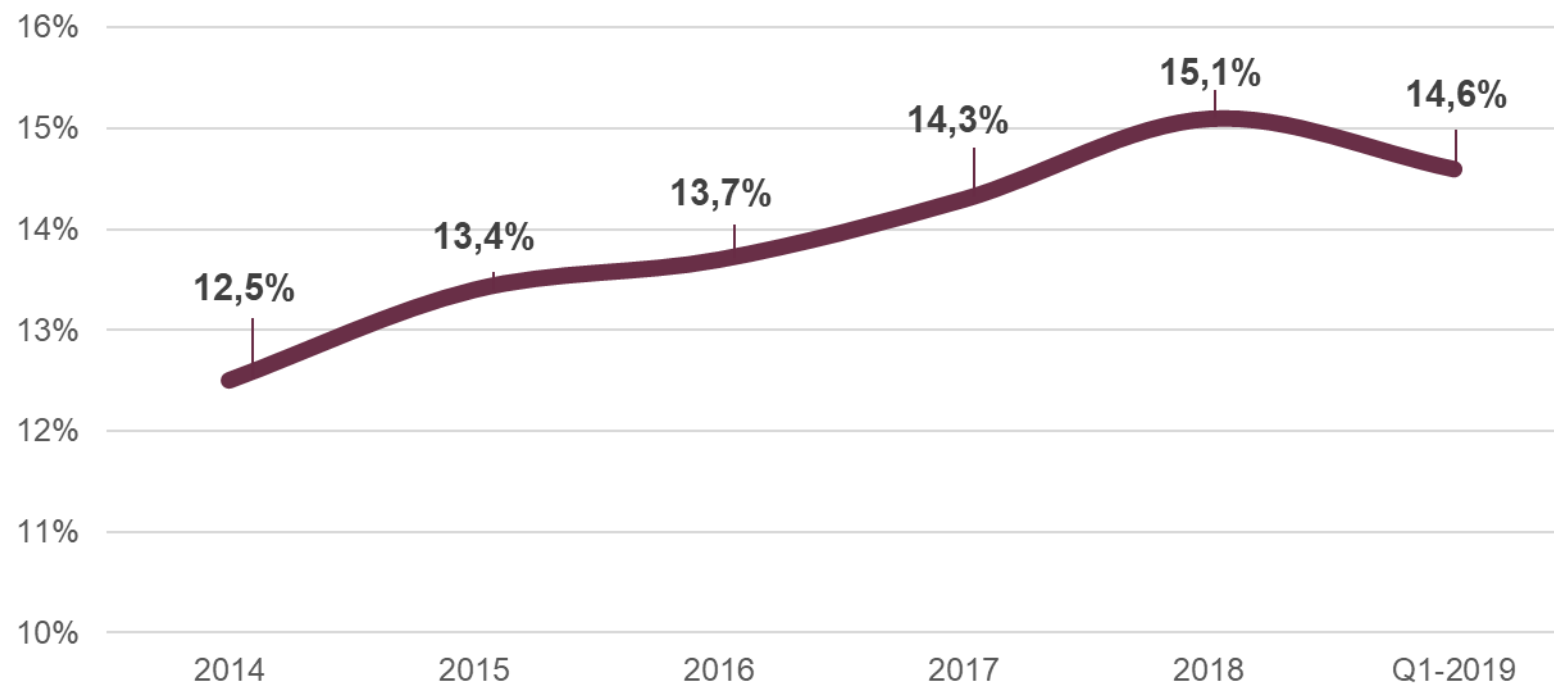
LONG TERM RATING DEVELOPMENT



12-15%

RoE in Financial Services

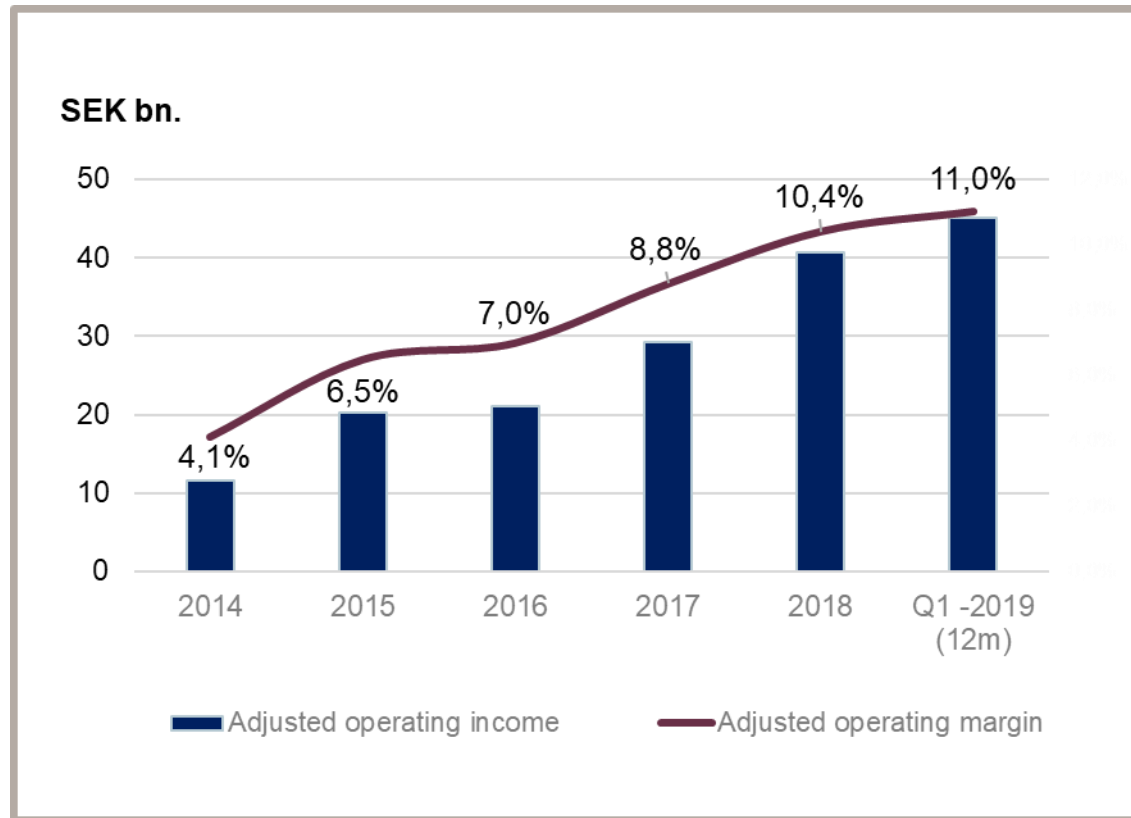
STATUS



>10%

Operating margin over a business cycle

STATUS: More to do!



- Excel on the basics
- Building resilience

Excel on the basics

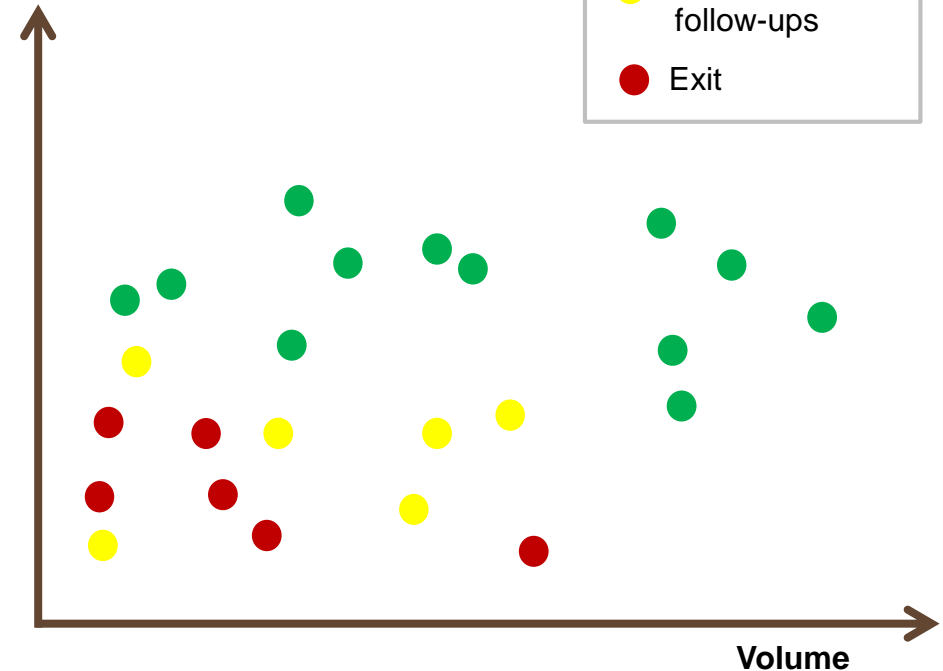
CONTINUOUS IMPROVEMENTS IN FOCUS

Continuous operational improvements

- **Product mix**
 - More construction trucks and large machines
 - Continuous product renewals
- **Service sales**
 - Vehicle population and engine penetration
 - Parts sales and service contracts
- **Cost per unit**
 - Regaining productivity on stable volumes
 - Leverage JV's
 - Leverage CAST
 - Reducing product variants
 - Quality improvements
 - Working cross functional
- **S&A:**
 - Selling
 - R&D / Net sales
- **R&D spend**
 - Continuous product introductions
 - Performance steps

Continuous portfolio review

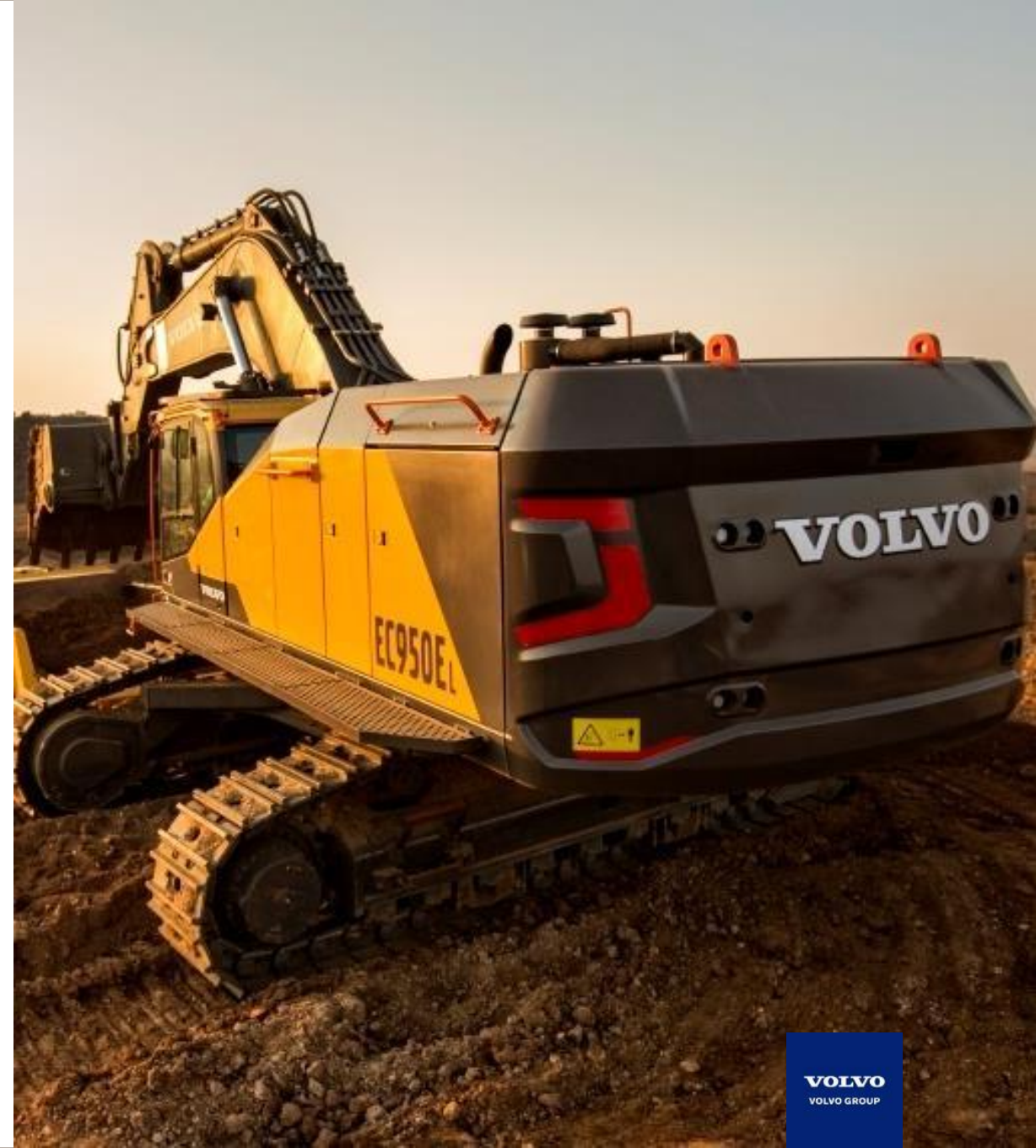
Operating
income



Building resilience

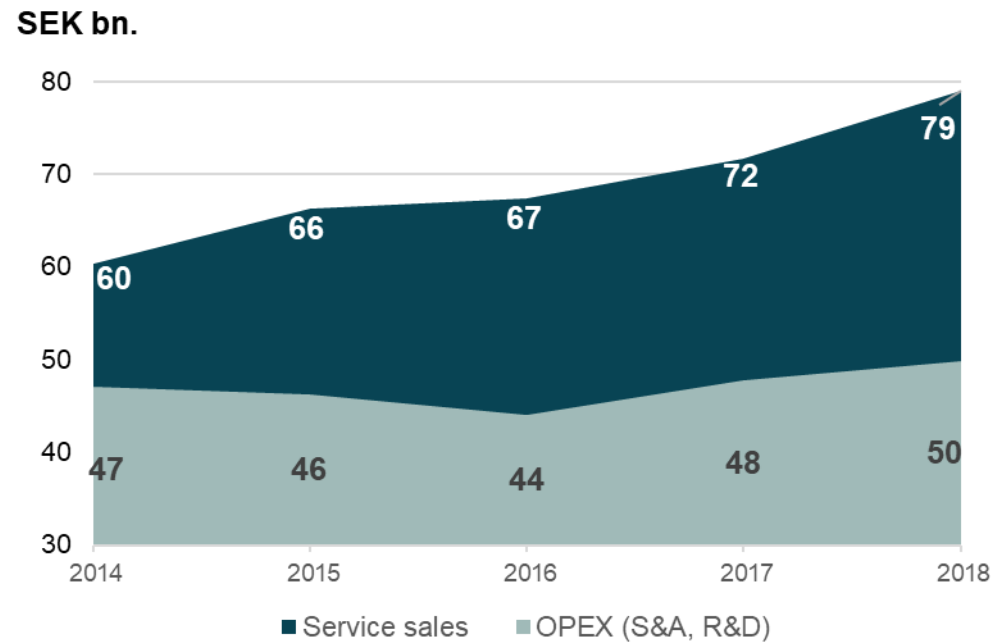
ADDRESSING SALES AND COST

- **Increasing service sales**
 - Building vehicle population
 - Parts and service contracts
- **Cost improvements**
 - Increased flexibility in supply chain
 - manning
 - leveraging industrial structure
 - Sales & order planning on top management's agenda
 - Flexibility scenario planning / execution
- **Financial Services**
 - Larger credit portfolio
 - Syndications



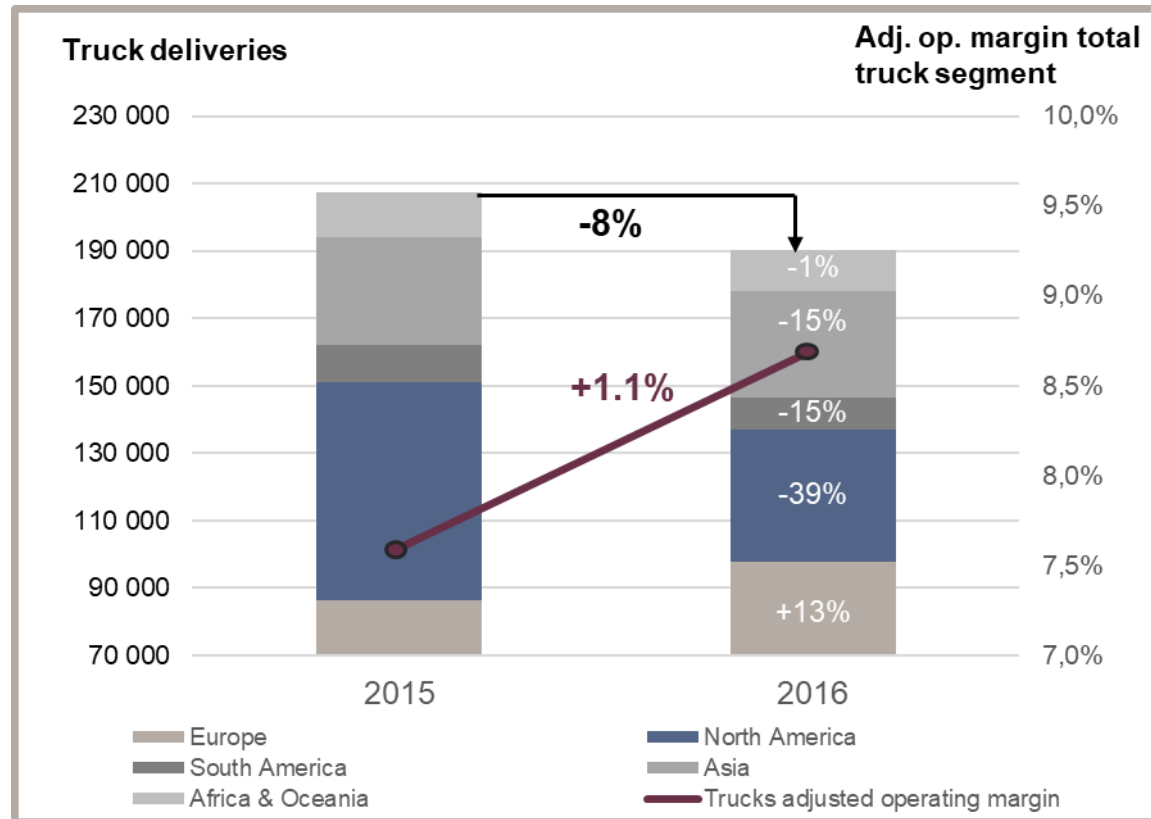
Building resilience

GROWING SERVICE SALES IMPROVING
OPEX ABSORPTION IN INDUSTRIAL
OPERATIONS



Building resilience

NORTH AMERICAN TRUCK BUSINESS PERFORMING ALSO IN WEAK MARKET CONDITIONS

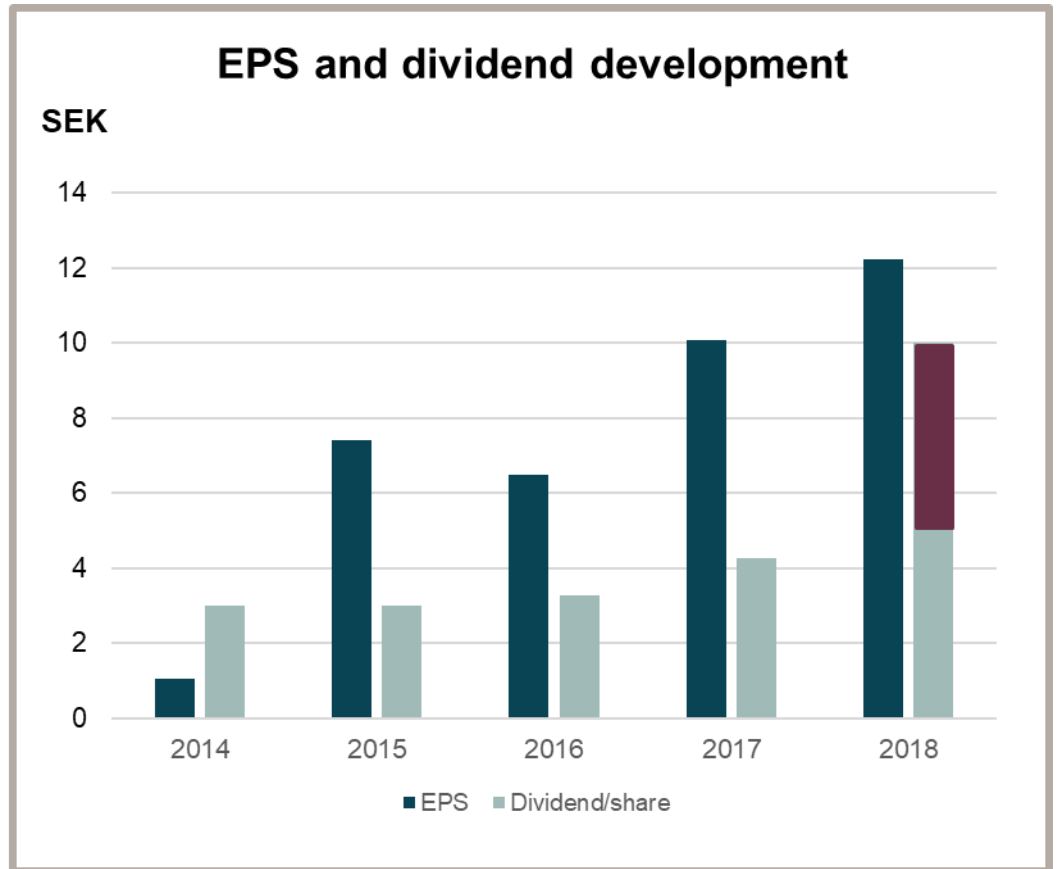
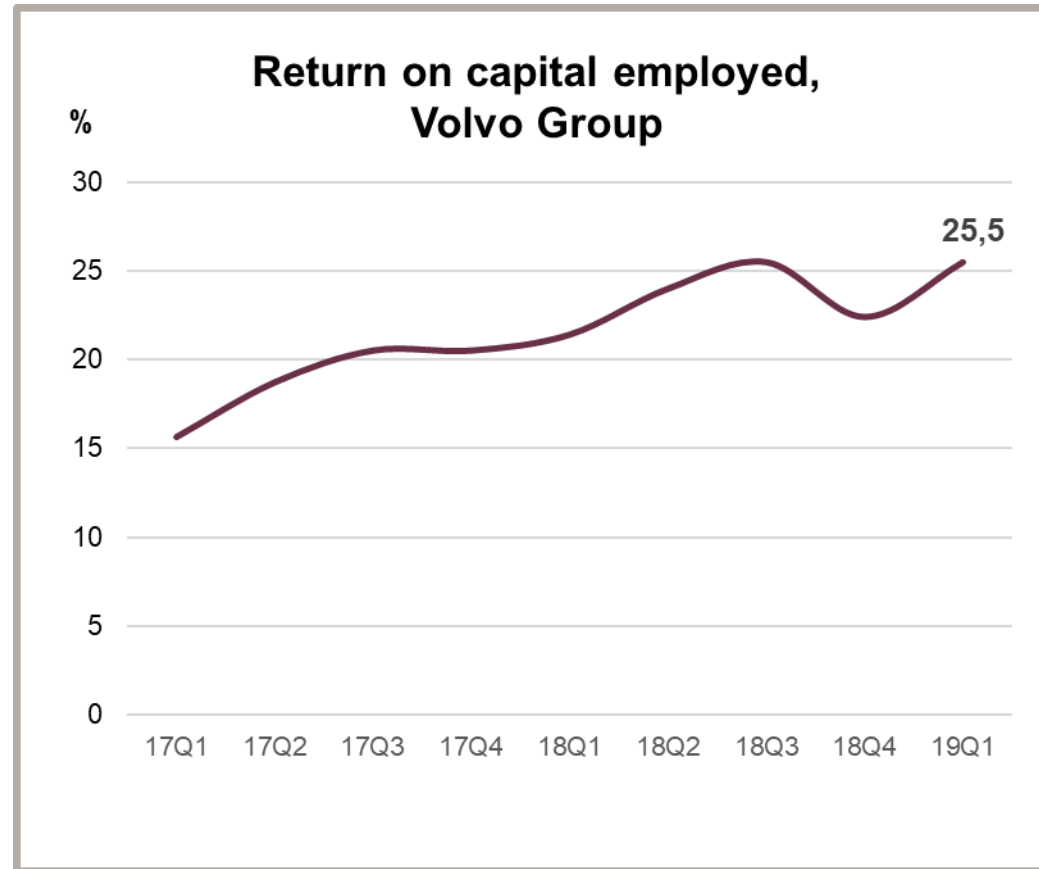


Truck deliveries and margin

- Global deliveries -8%
- North America deliveries -39%
- Adjusted op. margin: +1.1pp.

Improving financial performance

HIGHER CASH RETURNS TO SHAREHOLDERS



Lars Stenqvist

CHIEF TECHNOLOGY OFFICER



Group innovation road map





Growing transports - more sustainable with new technology



Electrification has started in all product areas

Volvo Buses



Trucks



Volvo CE



Volvo Penta

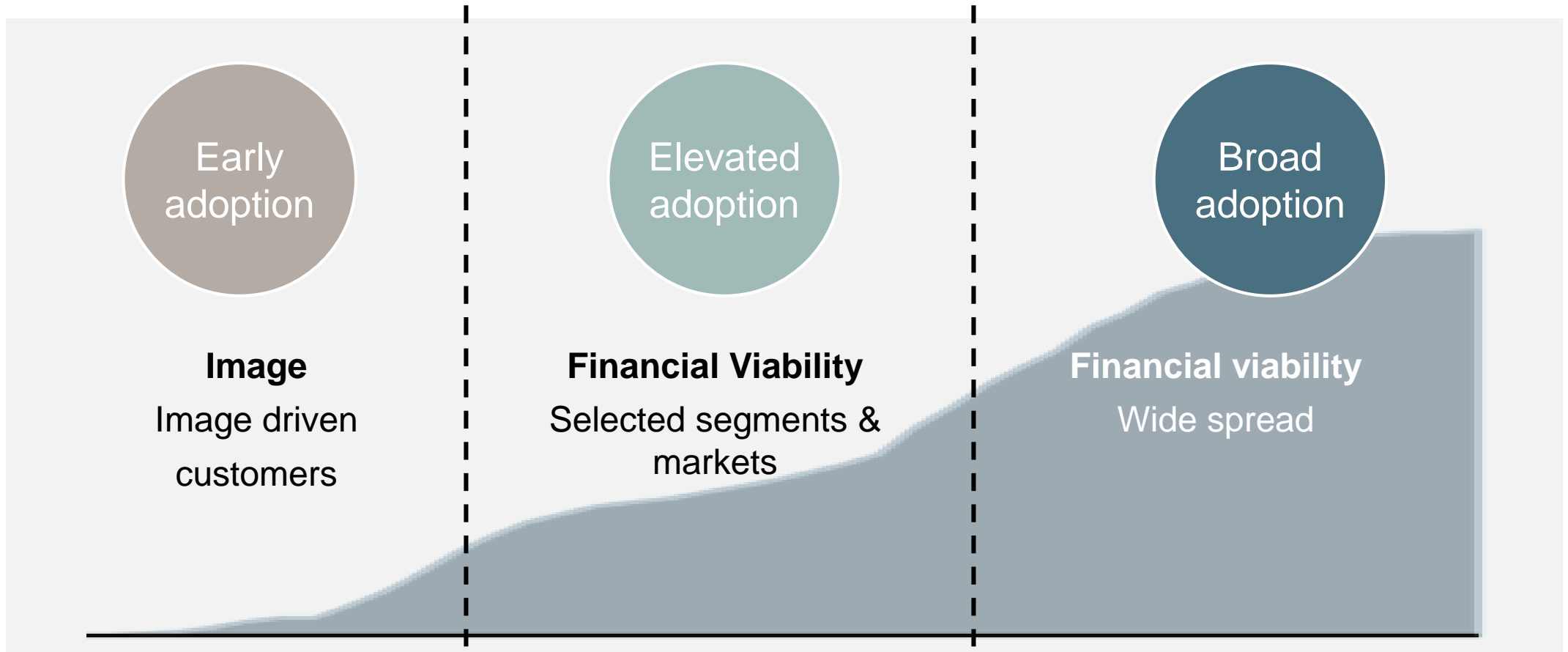


Modular electrification approach

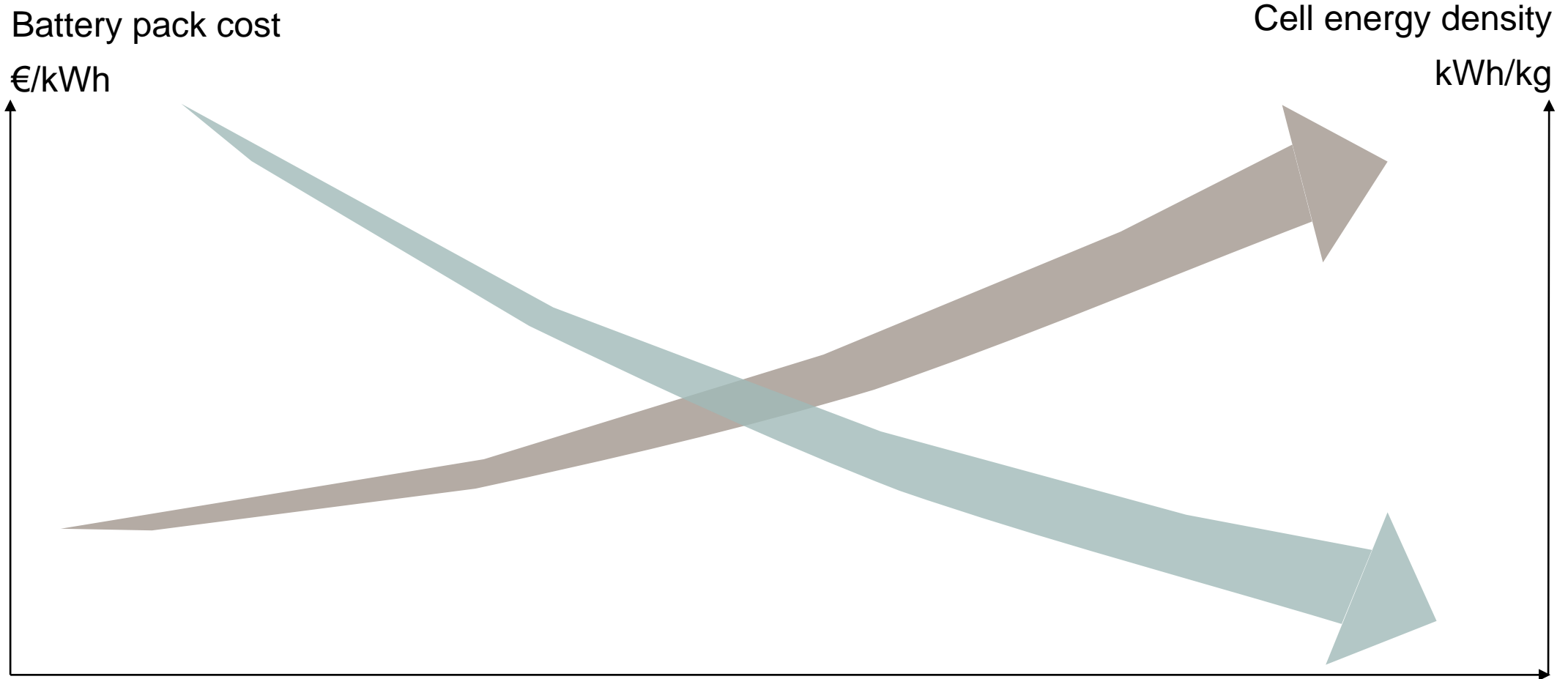
COMMON ARCHITECTURE AND SHARED TECHNOLOGIES (CAST)



Three phases of battery electric vehicle adoption



Battery price/performance will improve



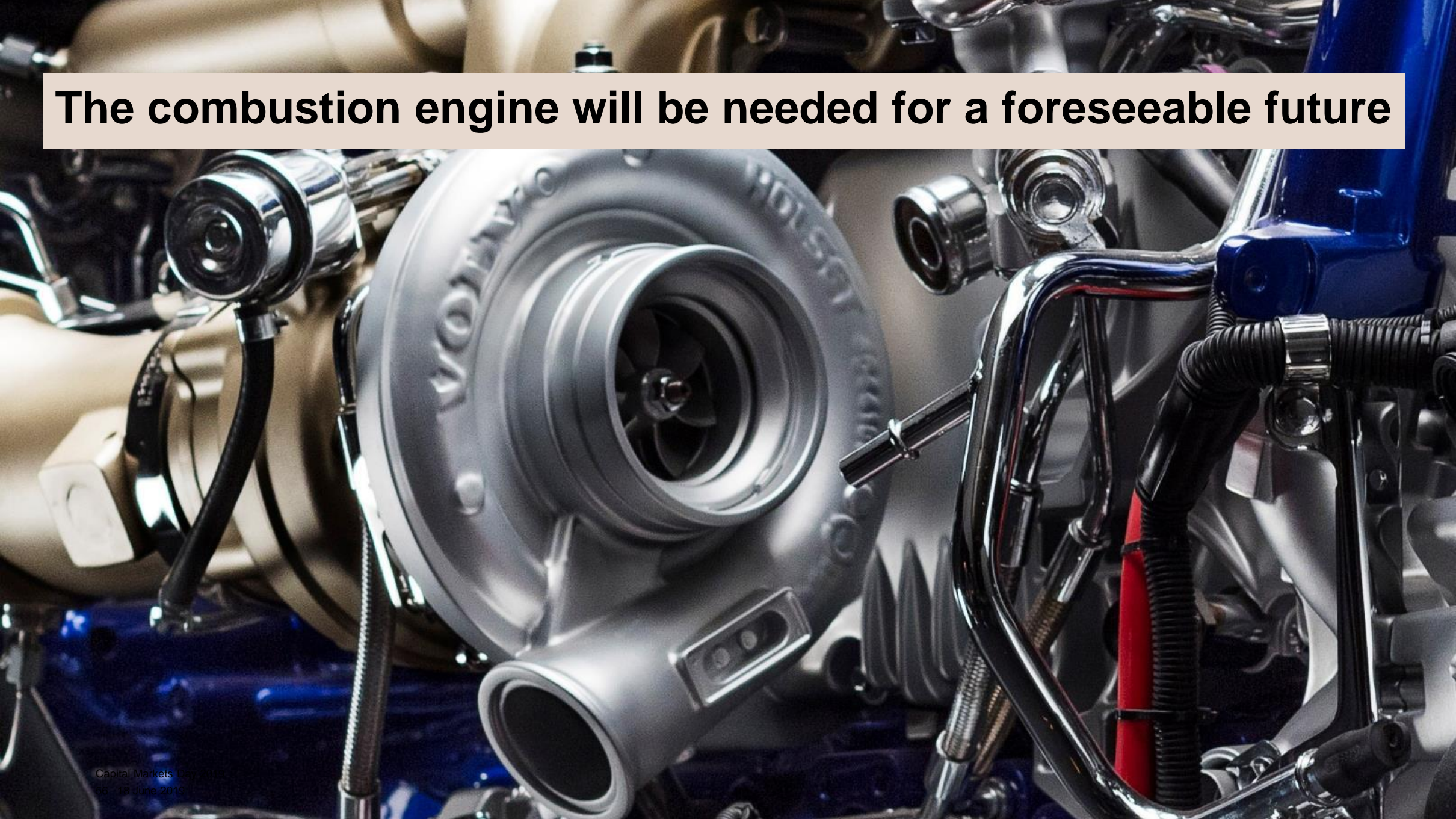
Infrastructure development needed for fast deployment



Electric driveline can be used with different energy sources



The combustion engine will be needed for a foreseeable future



Supported by the versatility of the combustion engine

ALTERNATIVE FUELS



HYBRIDIZATION



High potential with autonomous solutions

Safety

**Energy
efficiency**

Productivity



Driver assist with Volvo Dynamic Steering

REMOTE CONTROL



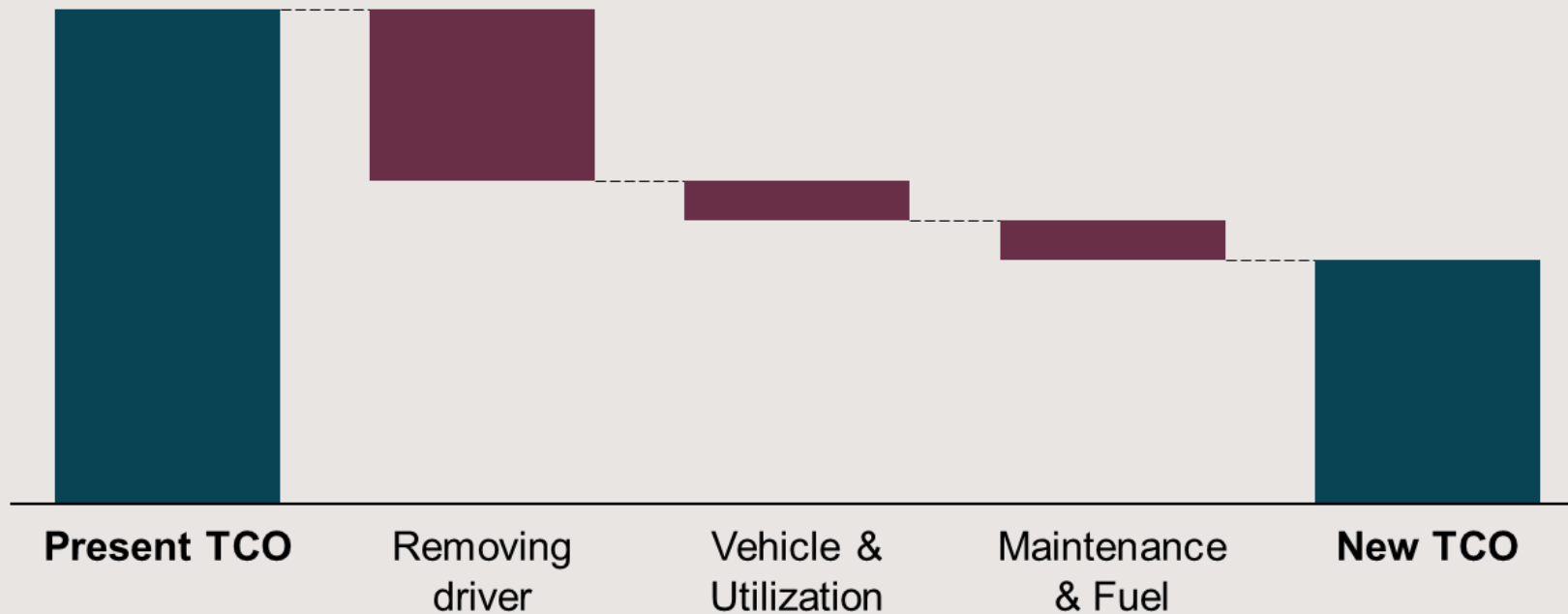
LANE KEEPING ASSIST



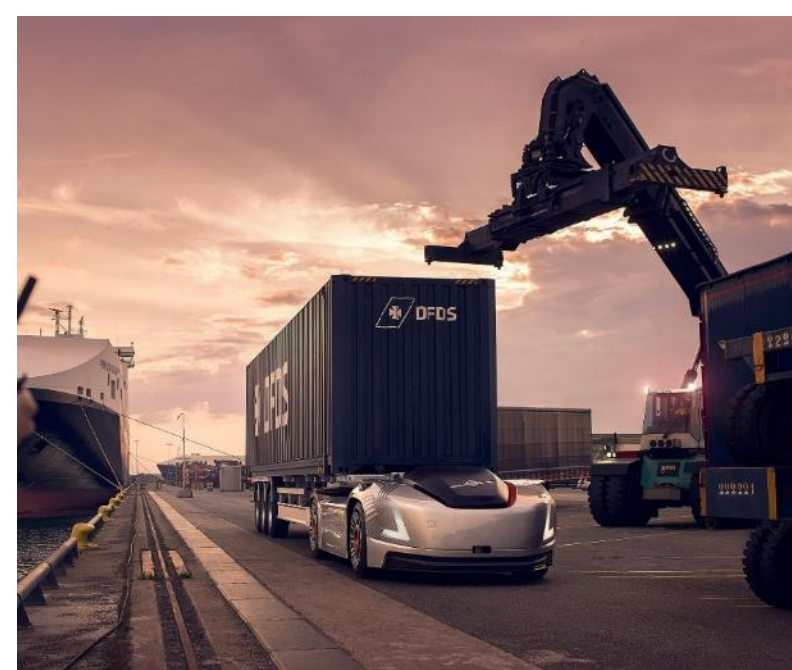
STABILITY ASSIST



High efficiency potential with fully autonomous vehicles



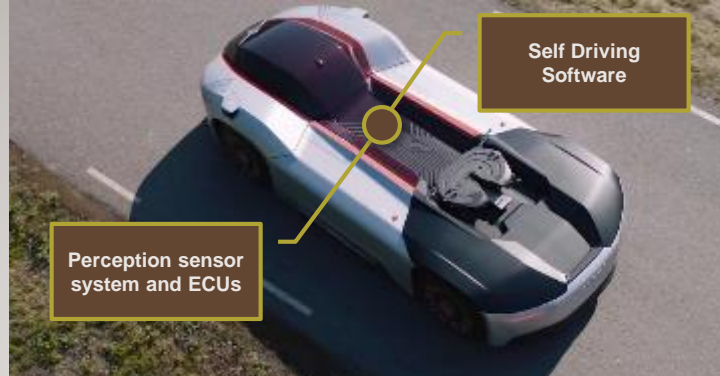
TCO: Total cost of ownership



Volvo Group & NVIDIA - industry leading partners



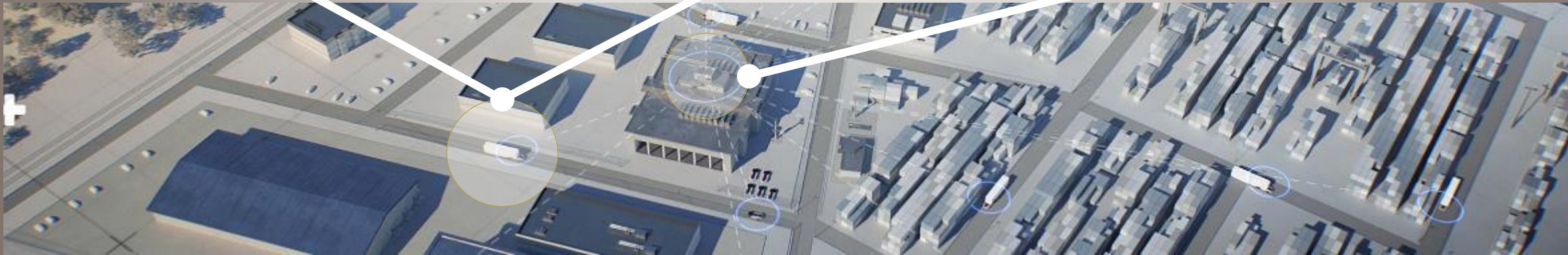
Redundant Base Vehicle



Automated Driving System (ADS)



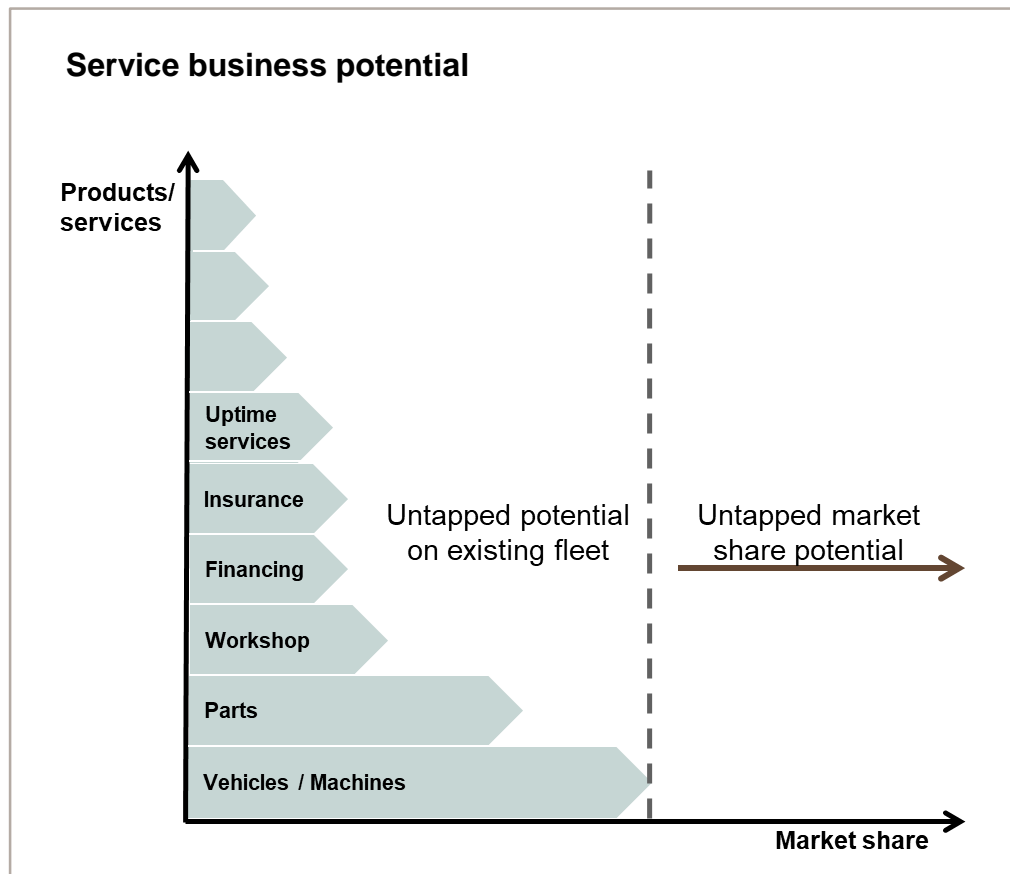
Autonomous Transport Mission Management System (ATMMS)



Huge potential with growing digitalization



Strengthen our service business with connected solutions



UPTIME CENTER

VOLVO ACTION SERVICE

Atendimento em andamento



Tempo médio de
atendimento do mecânico (min)



Nível de Serviço



Percentual de Chamadas
Atendidas



Resolução na primeira
chamada

38,3%

Chamadas
Atendidas por país



Chamadas Atendidas x Atendimentos Abertos



Building revenue streams with connected solutions



REMOTE PROGRAMMING
DOWNLOADING

67%



VOLVO
VOLVO GROUP

Data analytics, AI and machine learning are strengthening our R&D capabilities



New agile ways of working – innovation labs and partners





THIS TRUCK IS THE LEADER

THE FUTURE IS AHEAD OF YOU

THIS TRUCK IS CONNECTED TO THE NEXT TRUCK

A FUTURE TRANSPORT CONCEPT BY VOLVO GROUP

THE FUTURE IS AHEAD OF YOU

Learn more at
Volvogroup.com

VOLVO

TLG 256

PNO

KRONE

AGENDA

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Summing up and Q&A

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Mingle dinner



Martin Lundstedt

PRESIDENT AND CEO



Building new businesses through new technologies



Building new businesses through new technologies

KEY PRINCIPLES

- Application knowledge
- Best partnerships in the industry
- CAST for new technologies
- Iterative development with customers
- Commercial pilot approach
- Speed in time to market



Case study Electric city buses

Jan Kilström

CEO Keolis Sweden

&

Håkan Agnevall

President Volvo Buses









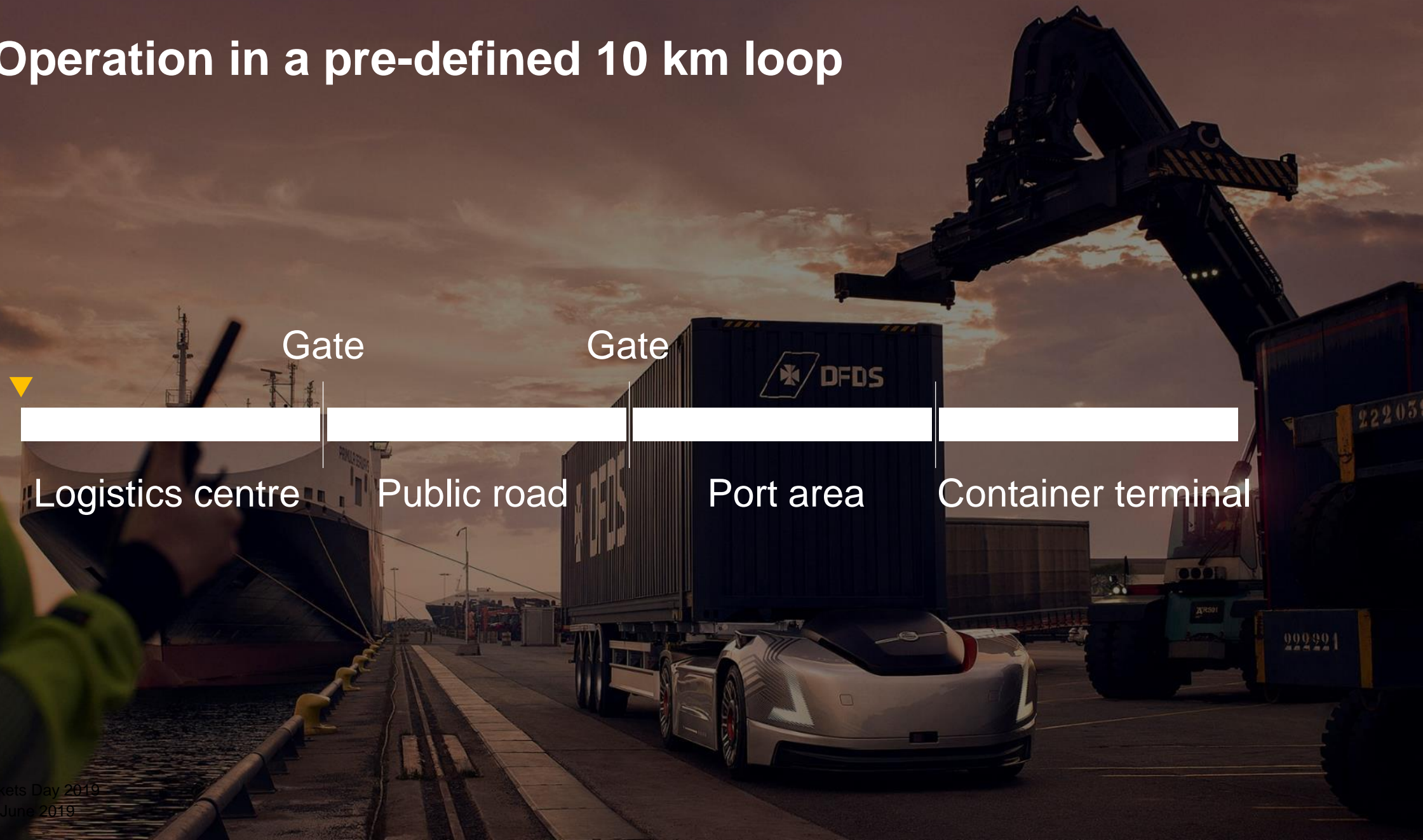


Case study Vera

Mikael Karlsson

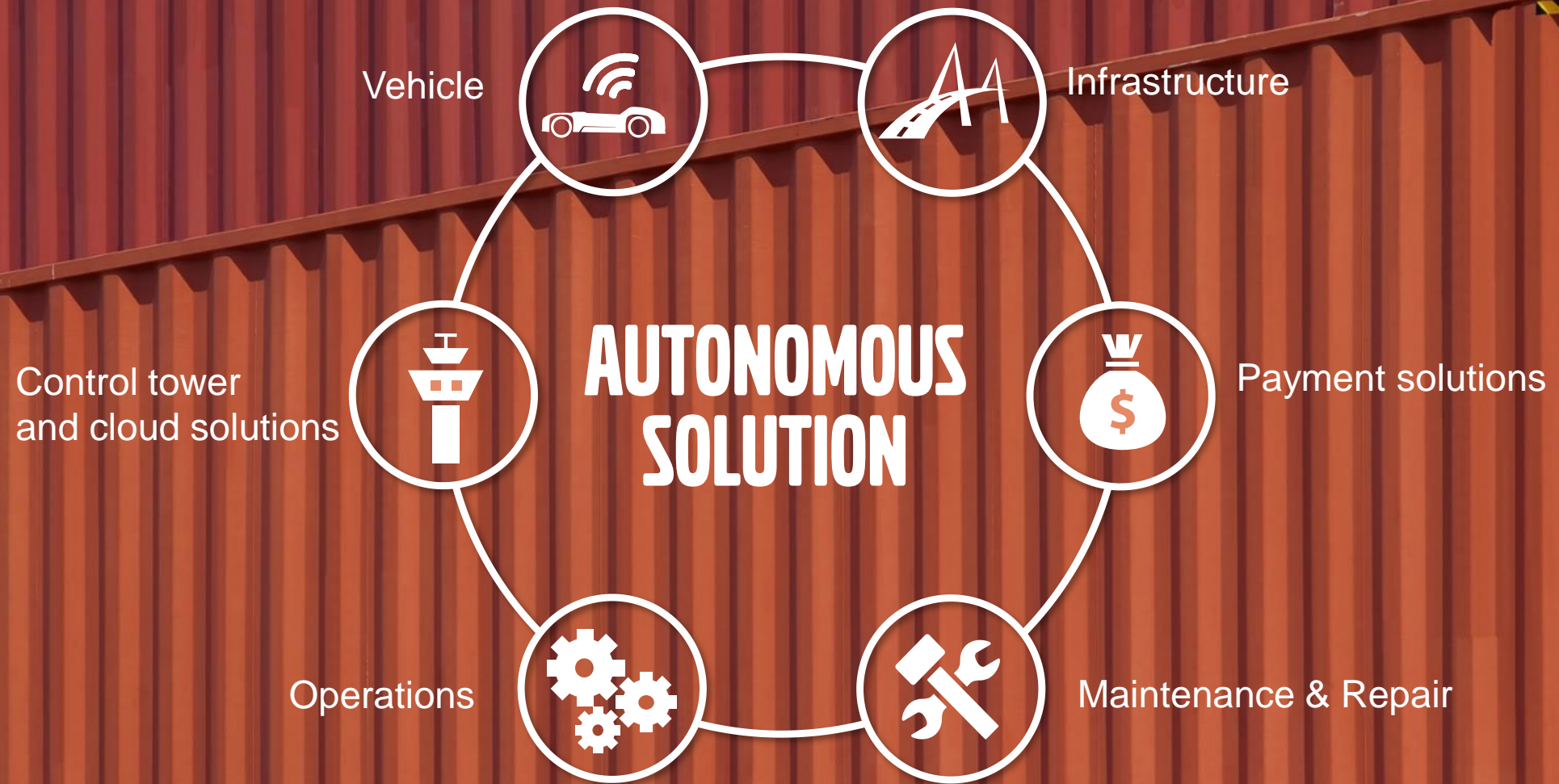
Vice President, Autonomous Solutions, Volvo Trucks

Operation in a pre-defined 10 km loop



Driving prosperity through collaboration





Case study Electric Site

Gustaf Werner

Head of Nordics, Skanska Industrial Solutions

&

Per-Erik Lindström

Senior Vice President, Volvo Trucks

THE CLASSIC QUARRY APPROACH

CO2
emissions

Diesel
consumption

3x40 tonne rigid
trucks (diesel)

Mobile crusher
(diesel)

70 tonne
excavator (diesel)

Safety

50 tonne wheel
loader (diesel)

Noisy
environment

THE ELECTRIC SITE WAY

Reduced diesel
consumption

Cable electric
Excavator EX1

Cable electric
Crusher

Cable electric
Belt Conveyor

8 electric &
autonomous
Dump Trucks HX2

Reduced CO2
emissions

Direct loading

Increased
safety

Hybrid Wheel
Loader LX1

Better work
environment



THE **ELECTRIC SITE**

Results of pilot test - November 21, 2018

**CARBON
EMISSION**

98%

**ENERGY
COST**

70%

**OPERATORS
COST**

40%

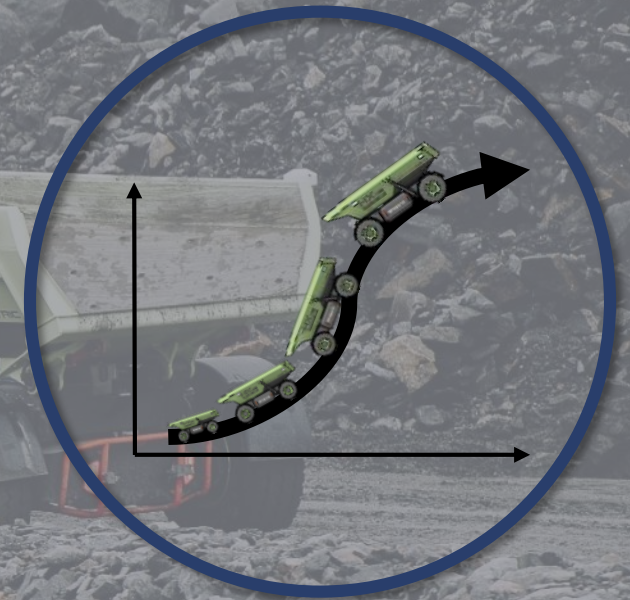
The journey continues



Breaking Electric site
into pieces...
(HX, EX, LX)



Explore and learn
from partnerships
and research



Ramp up with
customers in different
applications &
segments...

Case study Brönnöy Kalk

Raymond Langfjord

Managing Director Brönnöy Kalk

&

Sasko Cuklev

Director Autonomous Solutions, Volvo Trucks

Breaking new ground





Our pilot approach – true partnership in real applications

Brønnøy Kalk



A man wearing a white hard hat with a name tag that reads "Raymond Langford" and a high-visibility yellow jacket is smiling. He is standing in front of a red Volvo truck at a quarry or construction site. The background shows large piles of rocks and a clear sky.

“Going autonomous
will greatly increase
our competitiveness
in a tough global market”

A relation built on trust



Melker Jernberg

President

Volvo Construction Equipment

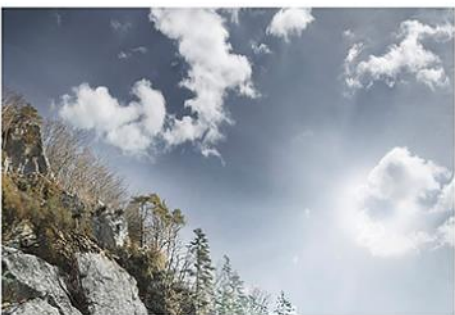


Capital Markets Day 2019
94 18 June 2019

Building tomorrow



VOLVO
VOLVO GROUP

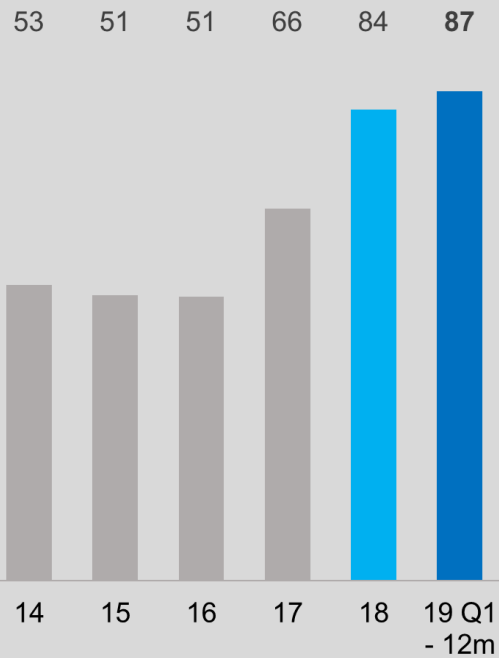


Improving performance

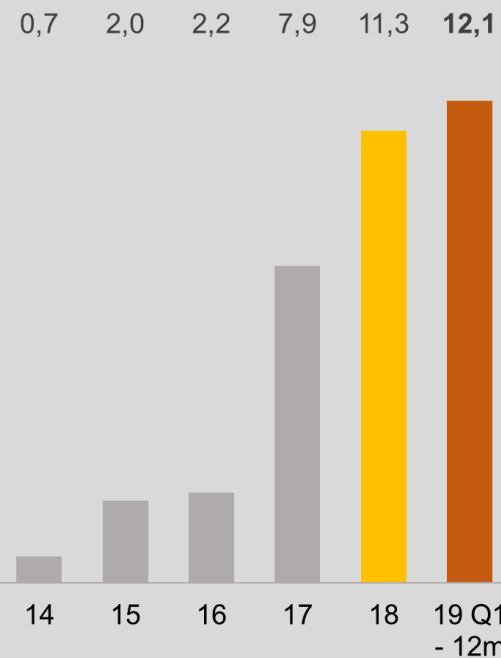
FINANCIAL PERFORMANCE 2014–Q1 2019

SEK bn

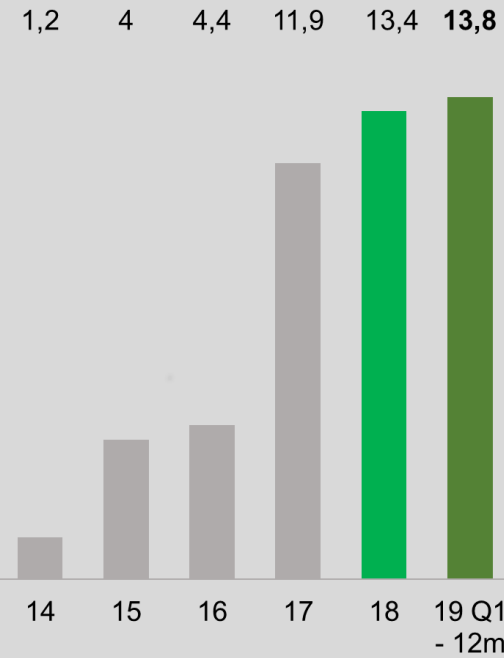
NET SALES



ADJUSTED OPERATING INCOME



ADJUSTED OPERATING MARGIN (%)



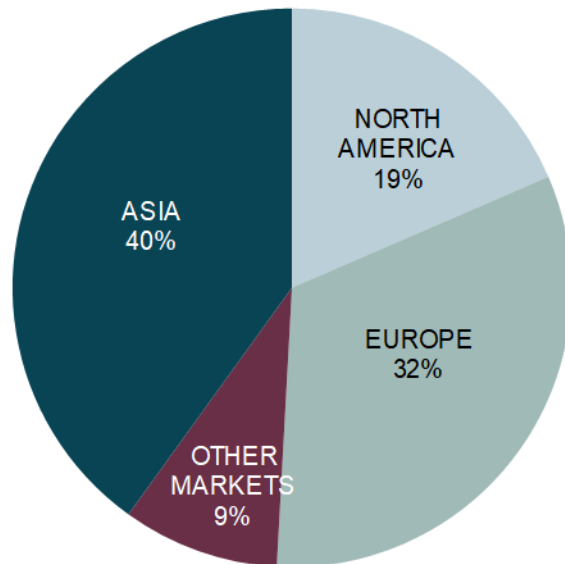
Improving performance

PROFITABILITY IN VOLVO CE WELL BALANCED

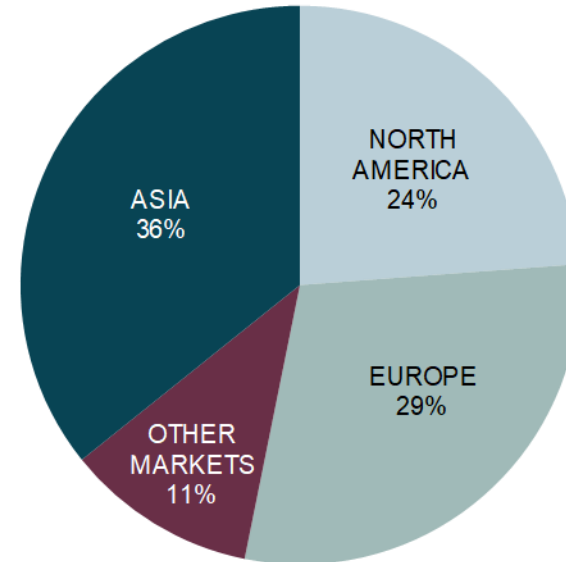
2018



Net sales



Operating income



Our history defines who we are today

1998–2006



Industry consolidation
ACQUISITIONS

“One company vision”

2007–2012



Emerging market growth
DUAL BRAND STRATEGY

“Two brands. One goal.”

2013–2017



Transformation
MARKET DOWNTURN

“Higher performance”

2018–



Strategic Priorities
PURPOSE DRIVEN

“Building Tomorrow”

Together we build the world we want to live in.

Volvo CE – 7 strategic priorities



People & Culture

Products

China

Distribution

Profitability

Technology

Purpose

Volvo CE – 7 strategic priorities



People & Culture

Products

China

Distribution

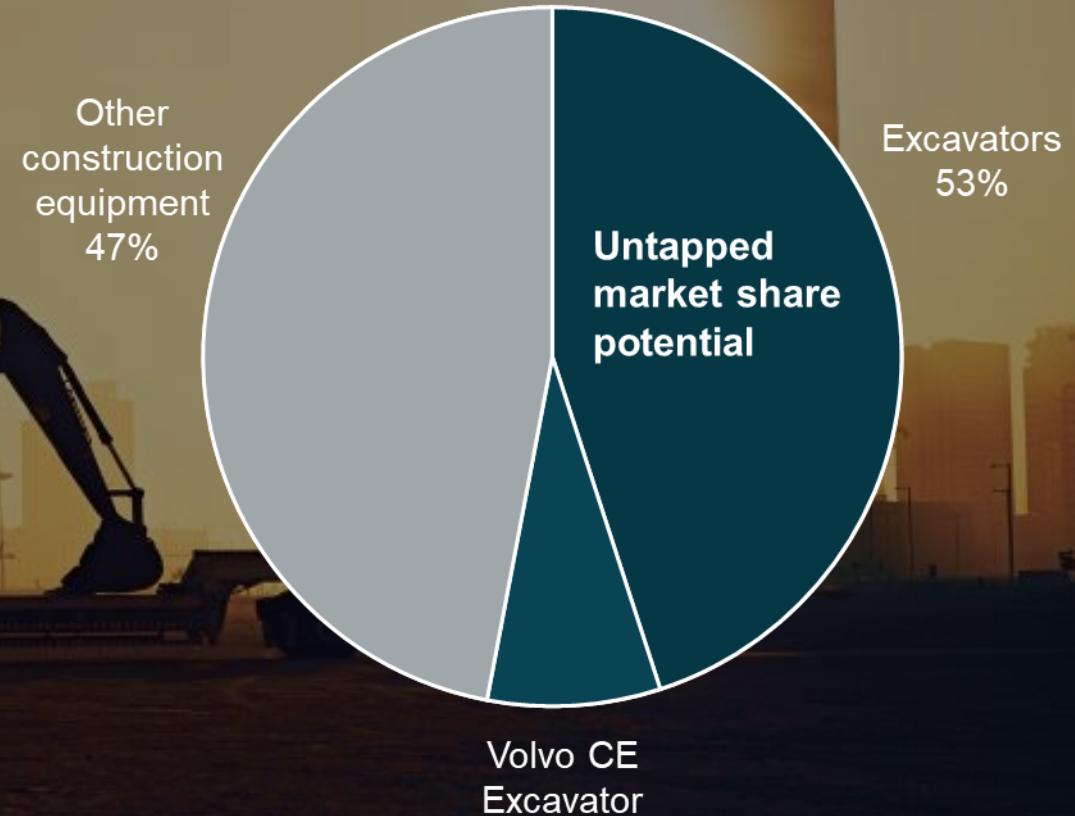
Profitability

Technology

Purpose

Taking a larger share of the excavator market

Global market for construction equipment



**Potential to grow global
Excavator market position**

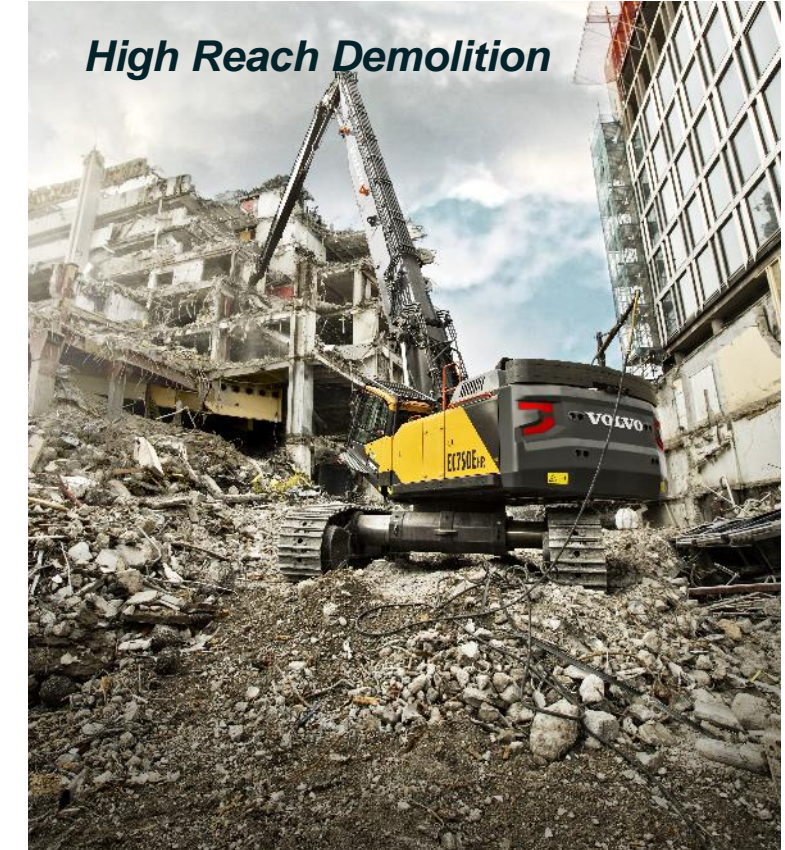
Strong line-up introduced to capitalize on excavator segment opportunities



Hybrid



High Reach Demolition



VOLVO CE GROWTH IN THE 20 TON RANGE - *NEW EC200E EXCAVATOR*



- 20 ton market is biggest volume size for excavators.
- 20 ton size are not pushed to its limit
- Machine fits medium/light duty applications
- Launch of attractive 20T offering
- Good fit for dealer network

Volvo CE – 7 strategic priorities



People & Culture

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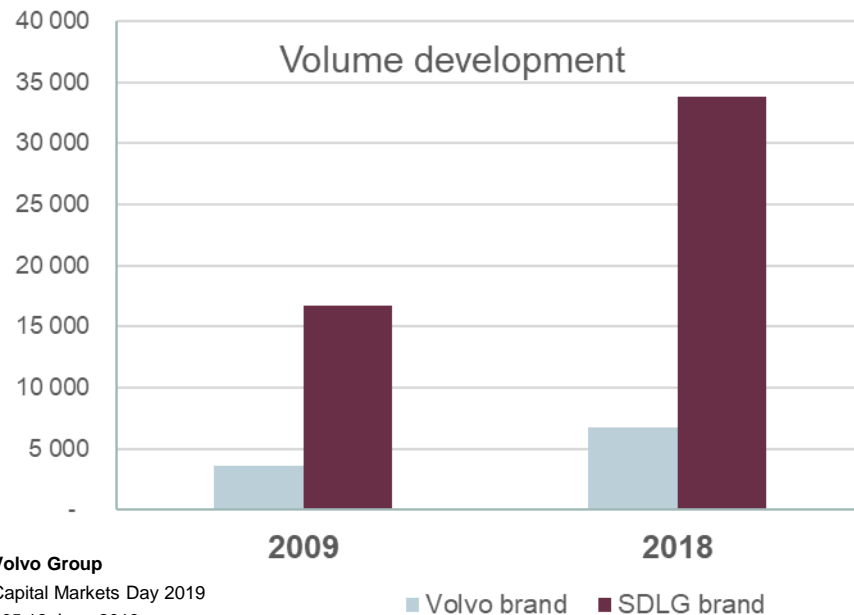
Successful growth of both Volvo CE and SDLG in China



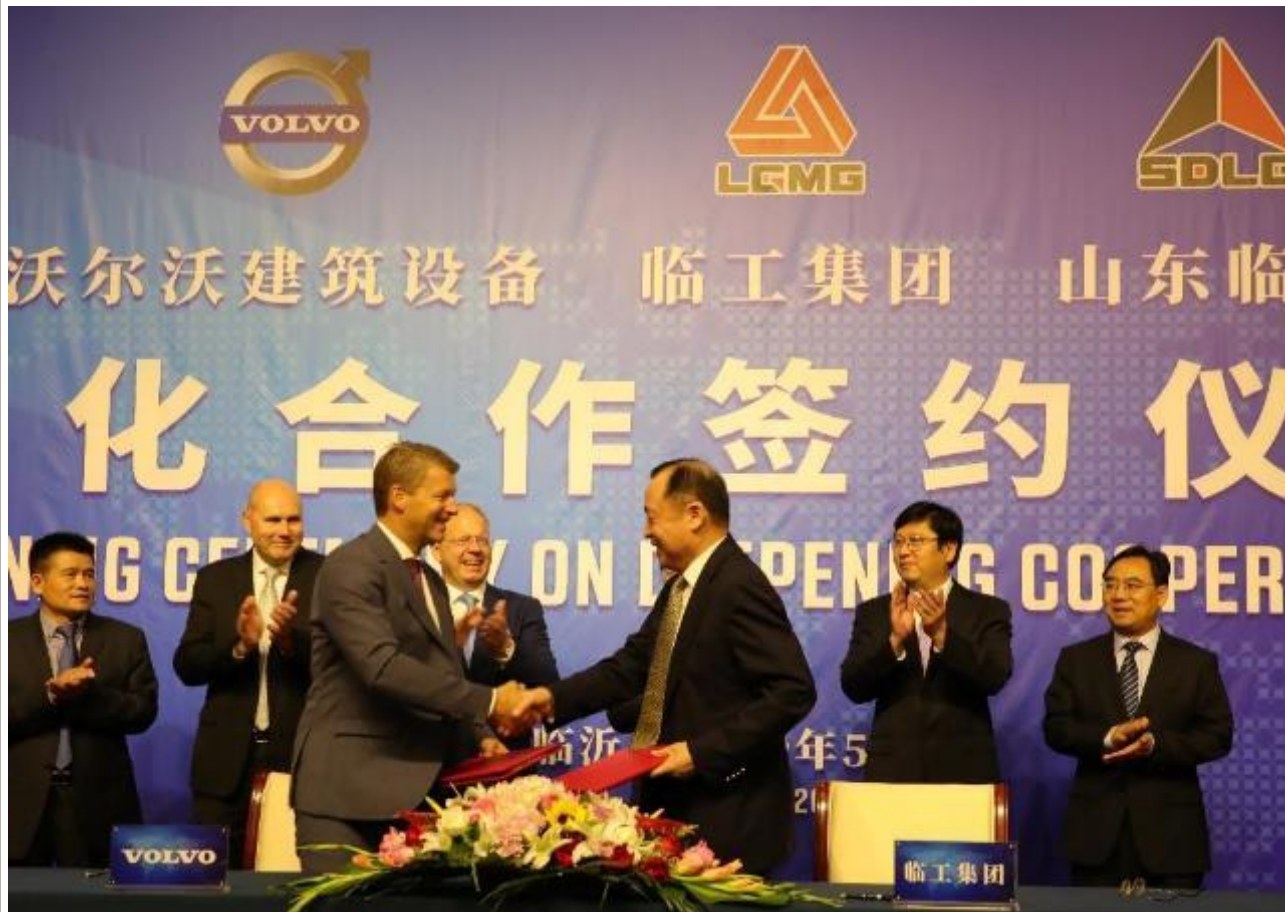
Volvo dealers: 47
Locations: 405



SDLG dealers: 113
Locations: 820



Volvo CE and SDLG take next step in China



Maintain leading SDLG wheel loaders position



Wheel Loaders, full range

Reinforce Volvo excavator position



Excavators > 15 ton

Volvo CE – 7 strategic priorities



People & Culture

Products

China

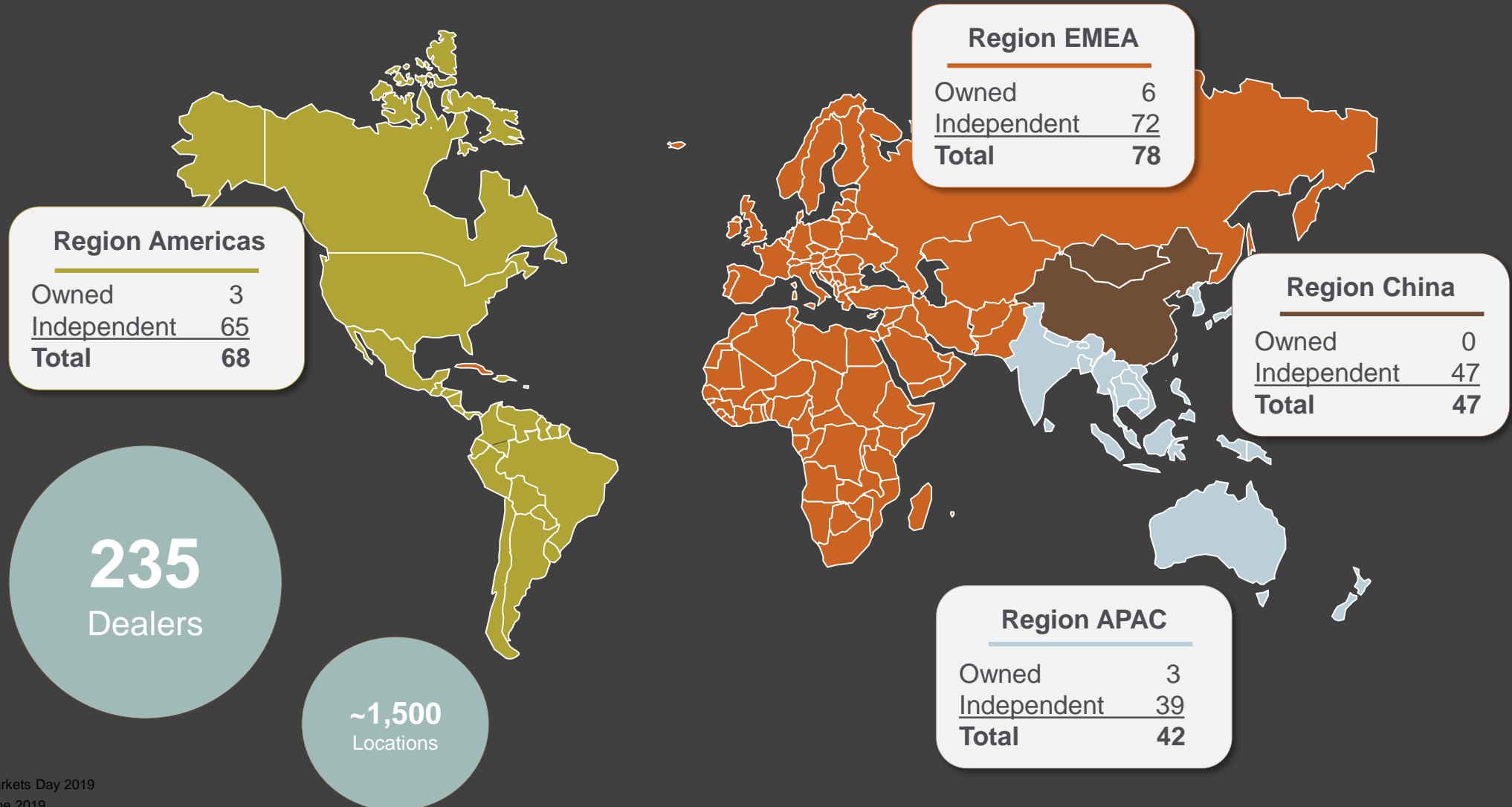
Distribution

Profitability

Technology

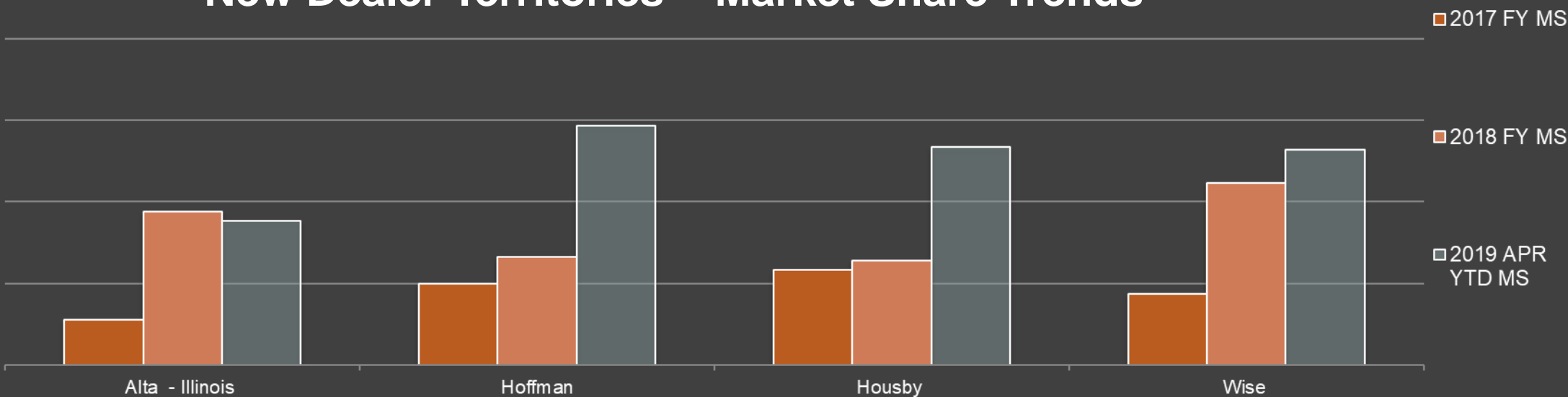
Purpose

Distribution is key to get closer to the customers



Distribution improvement program in North America driving market share gains

New Dealer Territories - Market Share Trends



44	2	6,063	501	1,424	233
DEALERS	MARKETS SERVED	DEALER EMPLOYEES	DEALER SALESPeOPLE	DEALER SERVICE TECHNICIANS	DEALER SERVICE OUTLETS

Volvo CE – 7 strategic priorities



People & Culture

Products

China

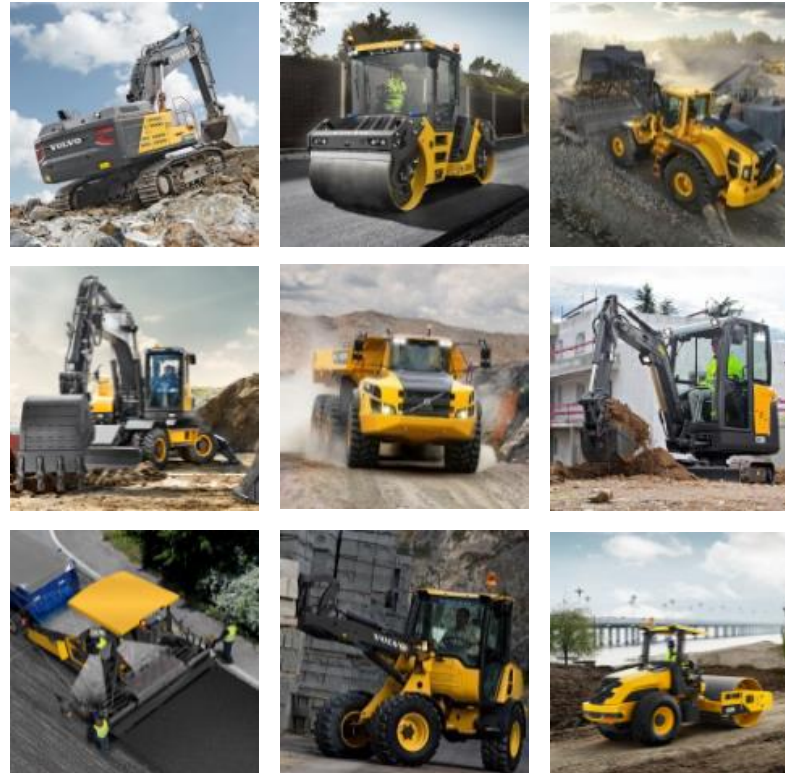
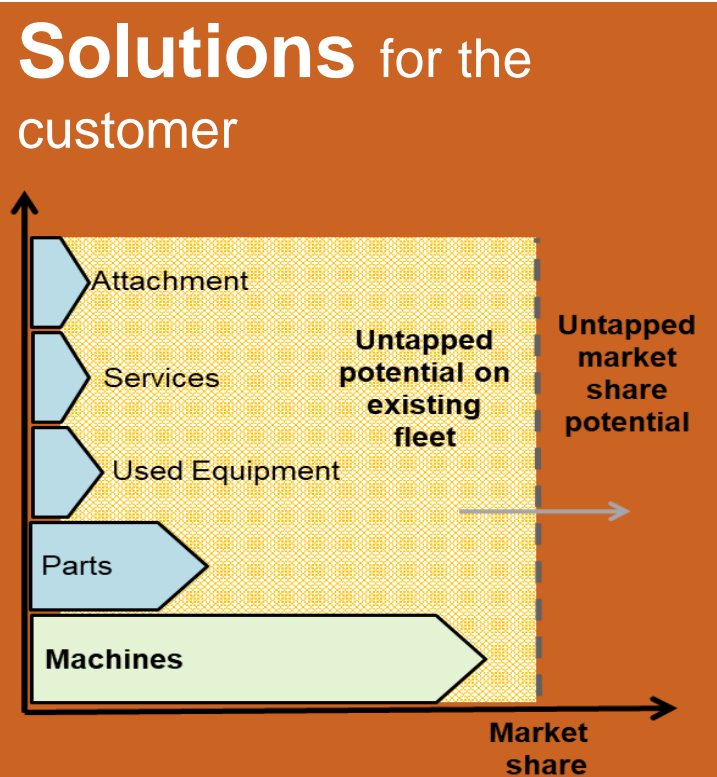
Distribution

Profitability

Technology

Purpose

Greater potential to create added value for our customers with solutions growth



Enablers: Connected Machines



Enablers: Uptime center and Volvo ACTIVE CARE

Service growth driving resilience over the business cycle

Business cycle management

Upturn

Peak

Downturn

Bottom

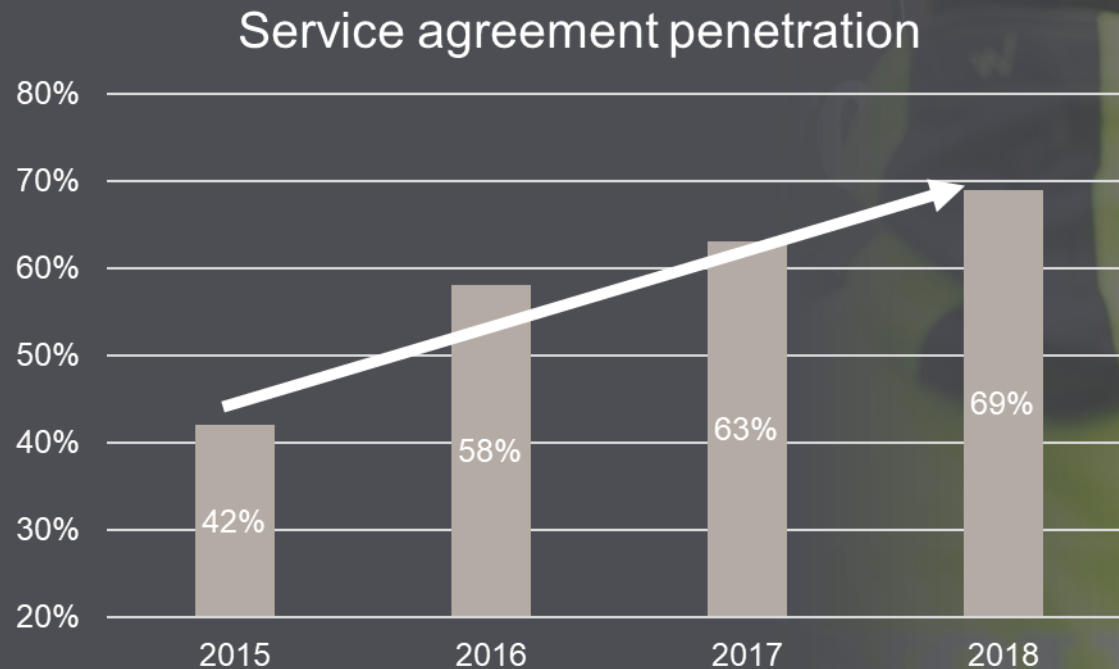
Service agreements

Parts sales/ penetration

Uptime

Machine Population

Service growth driving resilience over the business cycle



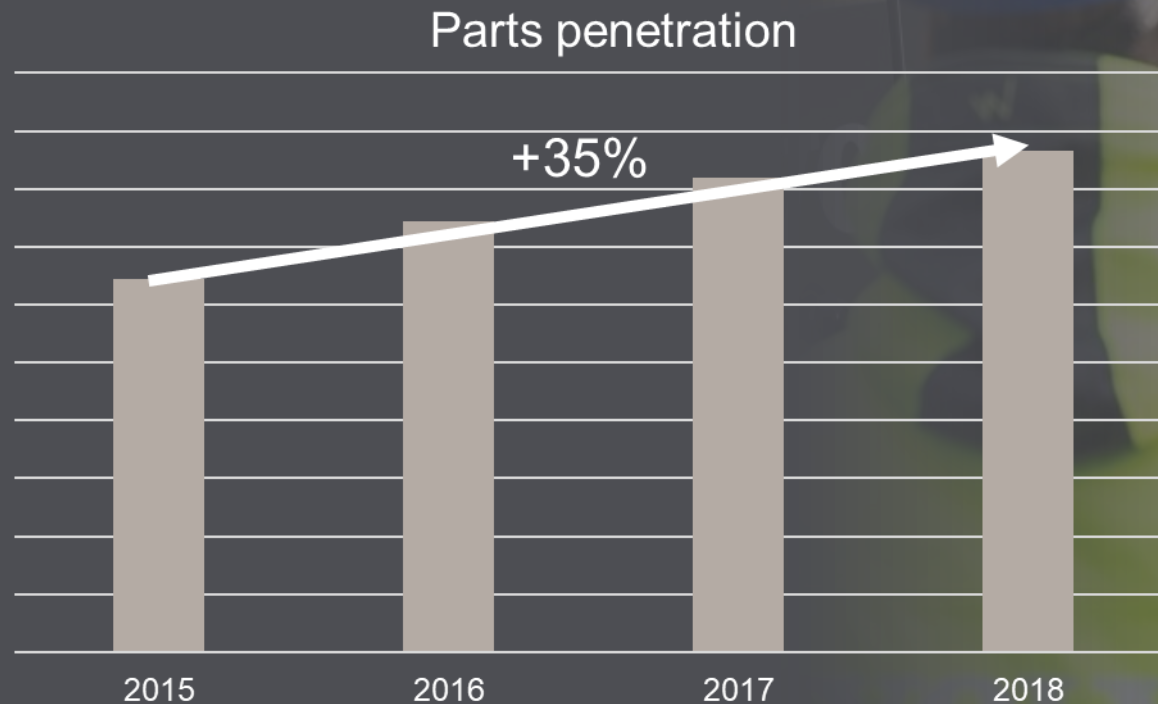
Service agreements

Parts sales/ penetration

Uptime

Machine Population

Service growth driving resilience over the business cycle



Service agreements

Parts sales/ penetration

Uptime

Machine Population

Service growth driving resilience over the business cycle

- Uptime centers – to fully utilize connectivity and support customers in the best way
- Volvo ACTIVE CARE – monitor machines proactively
- Connected vehicles in Volvo CE, 140,000 units

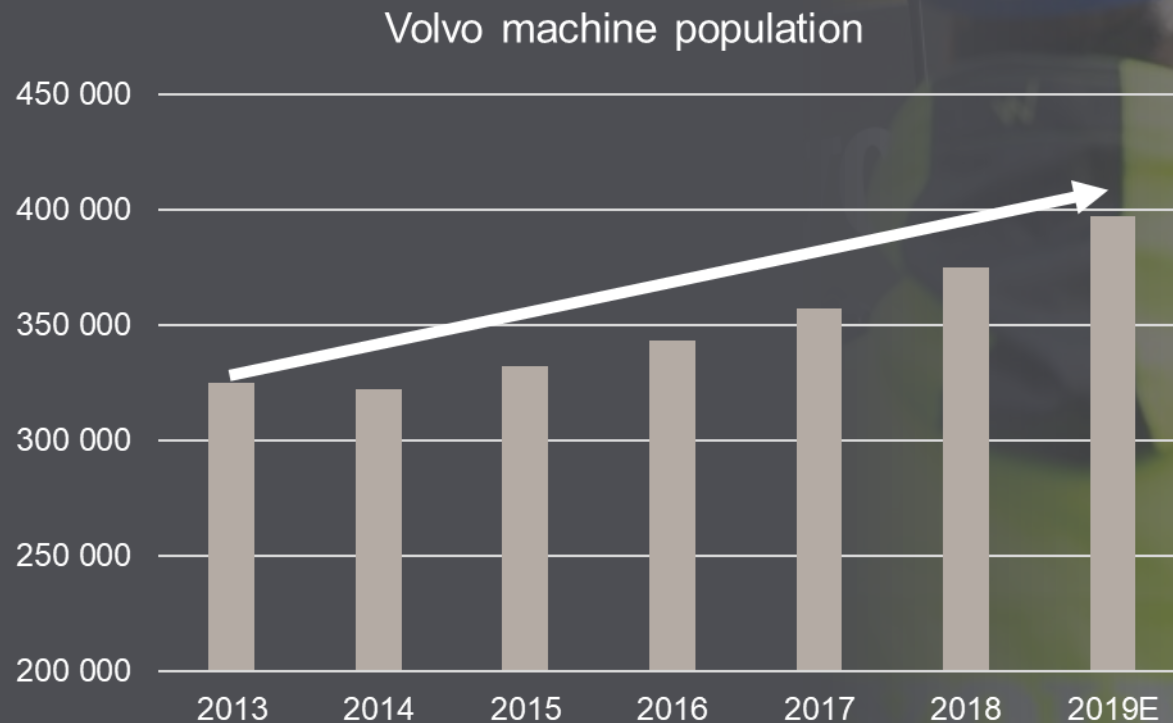
Service agreements

Parts sales/ penetration

Uptime

Machine Population

Service growth driving resilience over the business cycle



Service agreements

Parts sales/ penetration

Uptime

Machine Population

Volvo CE – 7 strategic priorities



People & Culture

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Purpose

Transforming for the future



ELECTROMOBILITY



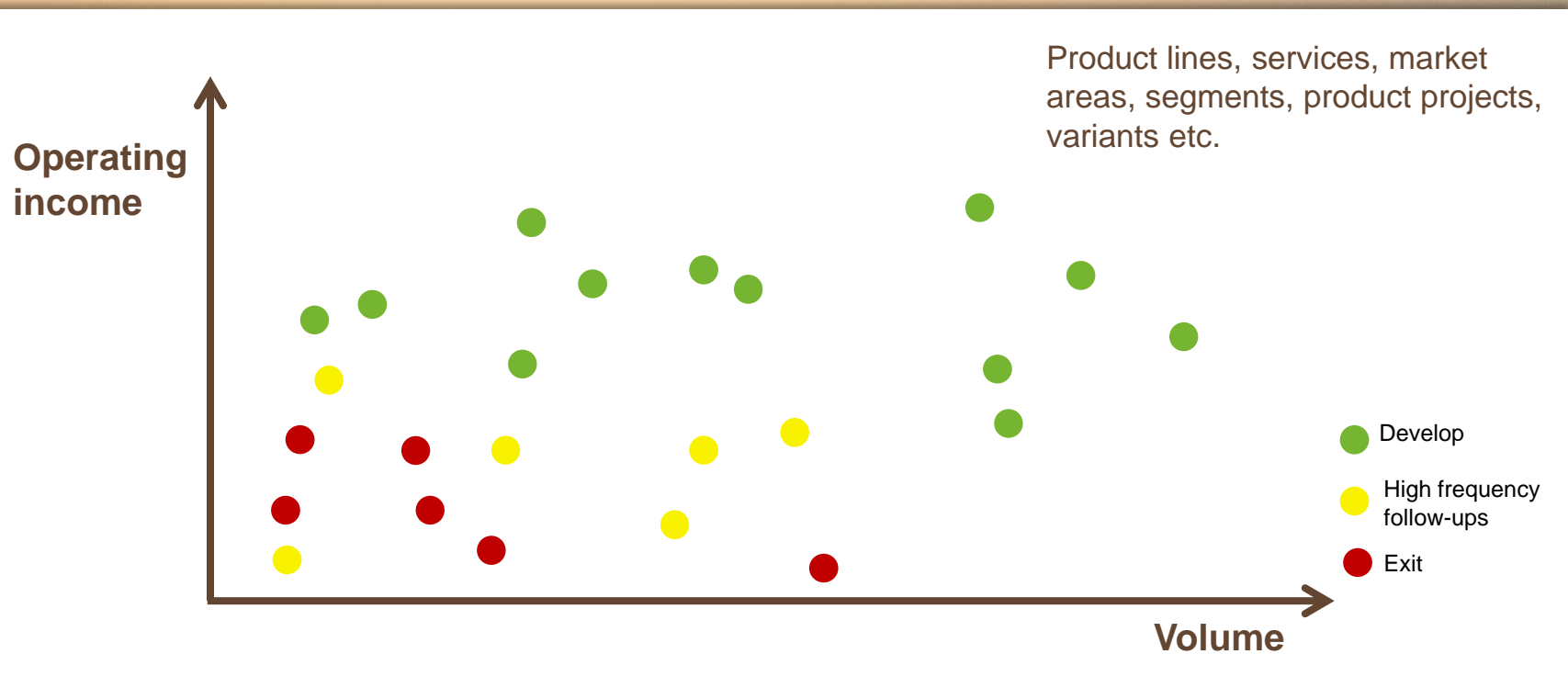
AUTOMATION



CONNECTIVITY

Improving performance

WE CONTINUE TO REVIEW PERFORMANCE AND TAKE ACTION



Compact equipment range



Taking industry leadership in electromobility



An aerial photograph of a wind farm under construction at sunset. The sky is a warm orange and yellow. In the foreground, a large herd of cows grazes in a field. A dirt road runs along the left side. In the middle ground, a large wind turbine stands prominently, with its three blades visible. To the right, another turbine is under construction, with a yellow excavator and a yellow truck working on its base. A small blue building is visible in the bottom center. The text "BUILDING A BETTER TOMORROW FOR ALL STAKEHOLDERS" is overlaid in white, bold, sans-serif font across the center of the image.

**BUILDING A BETTER TOMORROW
FOR ALL STAKEHOLDERS**

The Volvo Group logo is centered in the upper half of the image. It consists of the word "VOLVO" in a large, bold, white sans-serif font, with "VOLVO GROUP" in a smaller, all-caps, white sans-serif font directly below it. The text is set against a solid dark blue rectangular background.

VOLVO
VOLVO GROUP

The background is a collage of three images. On the left, a coastal scene with a lighthouse on a rocky shore and a wind turbine in the distance under a cloudy sky. On the right, a large blue Volvo truck parked on a rocky hill with a person standing next to it. The bottom center features the event title and date.

Capital Markets Day

Gothenburg June 18, 2019