

An aerial photograph of a winding asphalt road that forms a large, stylized 'S' shape through a dense, green forest. A small white car is visible on the road, positioned in the upper loop of the 'S'. The text 'BREAKFAST MEETING' is overlaid in large, white, bold, sans-serif capital letters on the left side of the image.

BREAKFAST MEETING

NOVEMBER 9, 2023



KONGSBERG
AUTOMOTIVE

FORWARD-LOOKING STATEMENTS AND NON-IFRS MEASURES

FORWARD-LOOKING STATEMENTS

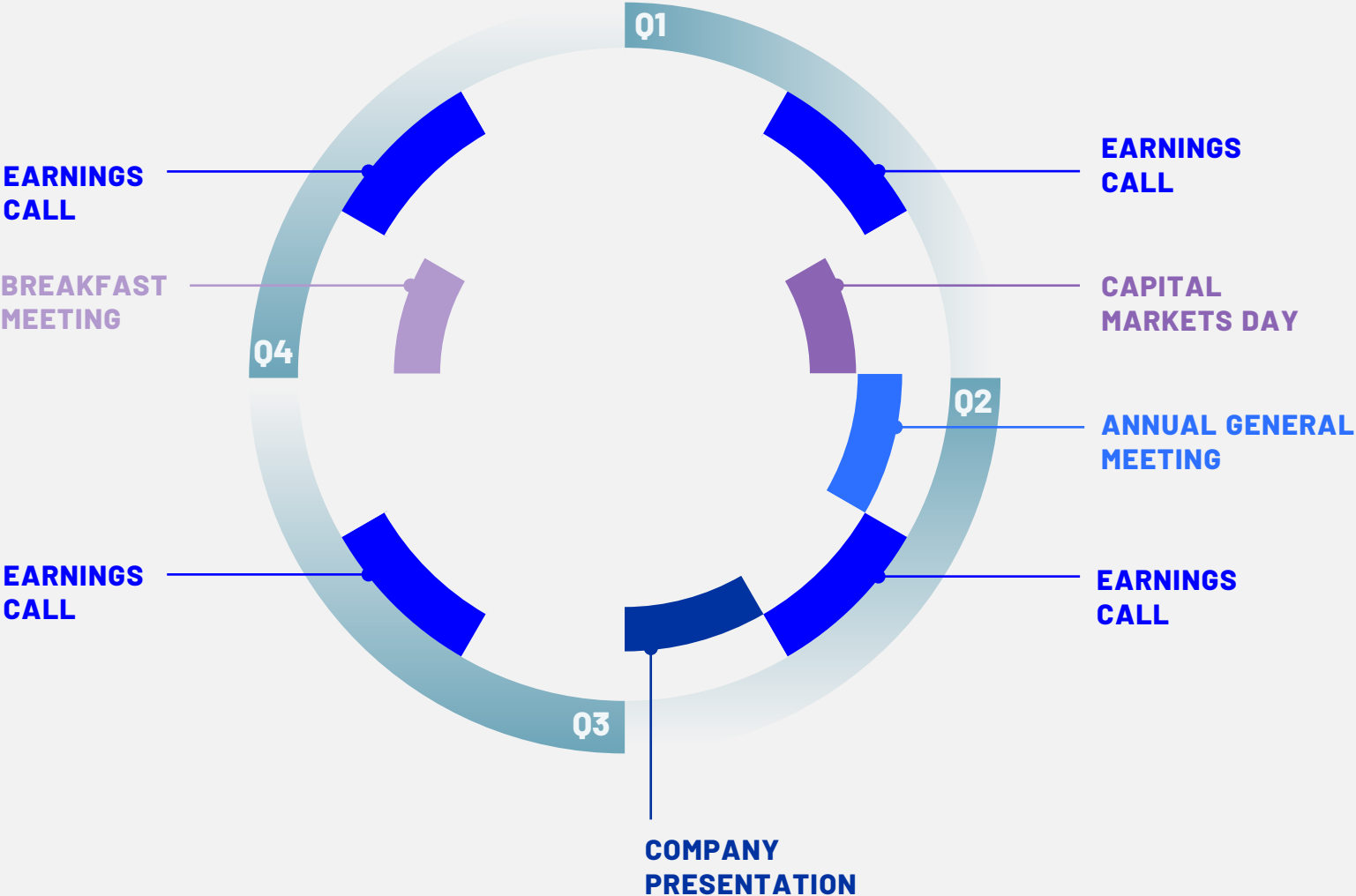
This presentation contains certain “forward-looking statements”. These statements are based on management’s current expectations and are subject to risks, uncertainty and changes in circumstances, which may cause actual results, performance, financial condition or achievements to differ materially from anticipated results, performance, financial condition or achievements. All statements contained herein that are not clearly historical in nature are forward-looking and the words “anticipate,” “believe,” “expect,” “estimate,” “plan,” and similar expressions are generally intended to identify forward-looking statements. We have no intention and are under no obligation to update or alter (and expressly disclaim any such intention or obligation to do so) our forward-looking statements whether as a result of new information, future events or otherwise, except to the extent required by law. The forward-looking statements in this presentation include statements addressing our future financial condition and operating results. Examples of factors that could cause actual results to differ materially from those described in the forward-looking statements include, among others, business, economic, competitive and regulatory risks, such as conditions affecting demand for products, particularly in the automotive industries; competition and pricing pressure; fluctuations in foreign currency exchange rates and commodity prices; natural disasters and political, economic and military instability in countries in which we operate; developments in the credit markets; future goodwill impairment; compliance with current and future environmental and other laws and regulations; and the possible effects on us of changes in tax laws, tax treaties and other legislation. More detailed information about these and other factors is set forth in the 2021 Kongsberg Automotive Annual Report and the Kongsberg Automotive Quarterly Reports.

NON-IFRS MEASURES

Where we have used non-IFRS financial measures, reconciliations to the most comparable IFRS measure are provided, along with a disclosure on the usefulness of the non-IFRS measure, in this presentation.



KA'S EXTERNAL ACTIVITIES



IR POLICY

PURPOSE

KA seeks to engage in an open and continuous dialogue with the financial market.

The company's Investor Relations (IR) Policy covers guidelines for the company's contact with shareholders and the financial community.

This policy can be found [here](#).

All our shareholders are requested to send their enquiries to KA's single point of contact:

Mads Langaard – Head of Investor Relations

email: mads.langaard@ka-group.com

PURPOSE

Kongsberg Automotive (KA) seeks to engage in an open and continuous dialogue with the financial market. The company's Investor Relations (IR) Policy covers guidelines for the company's contact with shareholders and the financial community.

INFORMATION AND COMMUNICATION

According to the Norwegian Securities Trading Act and the rules & procedures of the Oslo Stock Exchange (OSE), KA is obligated to ensure equal treatment of financial market participants and equal opportunities to access relevant information. The main communication channels are stock exchange releases, press releases and the company's website.

KA publishes financial results on a quarterly basis according to its financial calendar which is published annually on the company's website and to the OSE. KA will publish all information that is of significant value to the company as soon as possible, unless publication could damage/harm the company's interests or those of its partners, in which case we should consider whether the conditions for deferred publication may apply.

Daily communication with the financial market is handled by Investor Relations. The dialogue with the market takes form primarily through annual reports, quarterly reports, meetings with investors and analysts, participation in important financial industry conferences, and capital markets events organized by KA, and use of the company's website.

All information will be provided in English.

CONTRACT ANNOUNCEMENTS

When announcing contract awards, the company applies the following rules/threshold:

Contract with an order intake of EUR 3 million or above in estimated annual revenue shall be announced through the OSE.

In special circumstances and, the company holds the right to announce news through OSE notifications even if they do not meet the EUR 3 million in annual revenue threshold.

SILENT PERIOD

KA shall observe a silent period four weeks prior to the publishing of quarterly financial results. KA does not attend any investor- or analyst meetings, or financial conferences during these periods.

POINT OF CONTACT

Head of Investor Relations is responsible for maintaining and communicating with KA's financial stakeholders. Equity investors as well as bond holders. All inquiries from financial stakeholders regarding the company must be directed to KA's Head of Investor Relations.

COMPLIANCE

KA shall comply with applicable legislation and rules for companies listed on the OSE and the Oslo Børs Code of Practice for IR of 2021.

IR PRINCIPLES

Reporting to the market and contact with shareholders, investors and analysts outside general meetings are based on the following principles:

TODAY'S PRESENTERS



LINDA NYQUIST-EVENRUD
INTERIM PRESIDENT & CEO



FRANK HEFFTER
CFO



CHRISTIAN AMSEL
CTO & INTERIM PRESIDENT P&C



THERESE S SKURDAL
COMMUNICATION DIRECTOR



AGENDA



KA IN BRIEF



STRATEGIC REVIEW



FINANCIAL UPDATE



COMMUNICATIONS UPDATE



PRODUCT UPDATE



Q&A SESSION



The image features a background of abstract, layered teal and blue washes. On the right side, there is a prominent graphic element consisting of a grid of white diagonal stripes, creating a sense of depth and movement. The text 'KA IN BRIEF' is positioned on the left side, centered vertically, in a clean, white, sans-serif font.

KA IN BRIEF

AT A GLANCE



ESTABLISHED GLOBAL AUTOMOTIVE SUPPLIER

with a strong focus on commercial vehicles, expertise in off-highway segment, and non-automotive industry.



INNOVATING AND DELIVERING TOP-NOTCH PRODUCTS WHEREVER WE OPERATE

Kongsberg Automotive follows state of the art innovation processes to meet customer needs better and quicker than most in the industry.

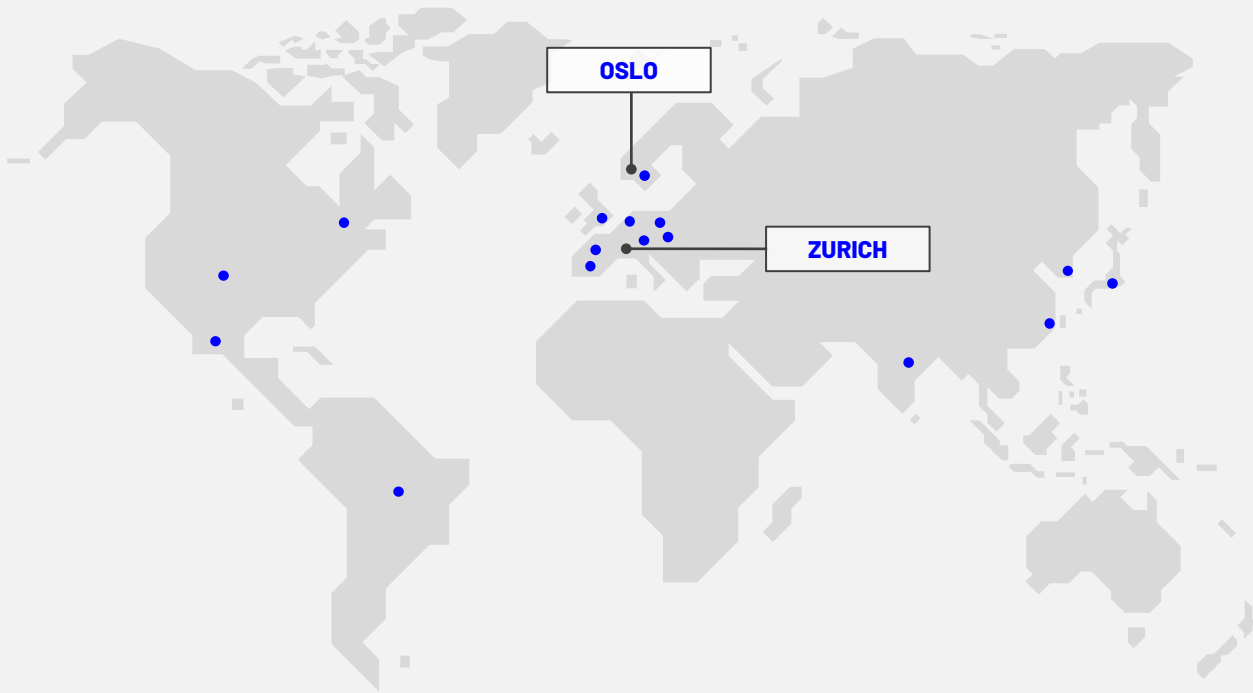


MINIMIZING THE ENVIRONMENTAL IMPACT

we aim to design greener and safer products, and work with supply chains to help them be more sustainable and responsible.



AT A GLANCE



HEADQUARTERED
IN ZURICH



LISTED ON THE
OSLO STOCK
EXCHANGE

2

BUSINESS
SEGMENTS:
**POWERTRAIN
& CHASSIS
SPECIALTY
PRODUCTS**



€906 M

REVENUE, 2022

300

OVER

HIGHLY SKILLED ENGINEERS

18



COUNTRIES



VISION AND MISSION

VISION

**WE DRIVE
THE GLOBAL
TRANSITION
TO SUSTAINABLE
MOBILITY**

MISSION

**ON OUR PATH TO BECOMING A TRUE GLOBAL LEADER, WE PUT
ENGINEERING, SUSTAINABILITY, AND INNOVATION INTO PRACTICE.**

We seek to constantly improve our products, leverage our experience in cutting-edge engineering and widen our scope to find new solutions and technologies that make mobility safer and cleaner.

Our ambition is to be second to none in all we do. This is how we unlock growth potential and create substantial value for our customers, our employees, and shareholders.

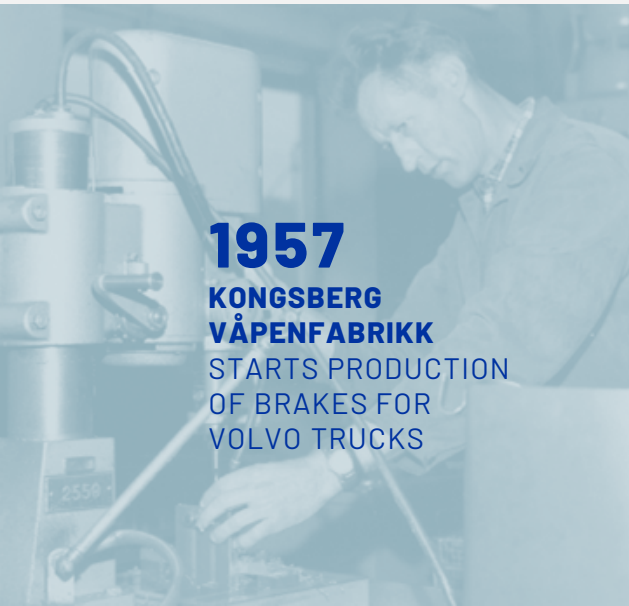
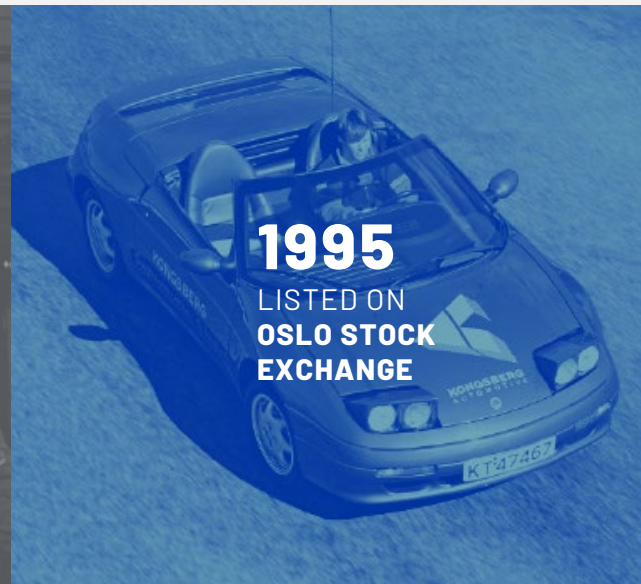
We take responsibility as a strong global team. We are committed to making a difference by developing our skillset and delivering excellent products.



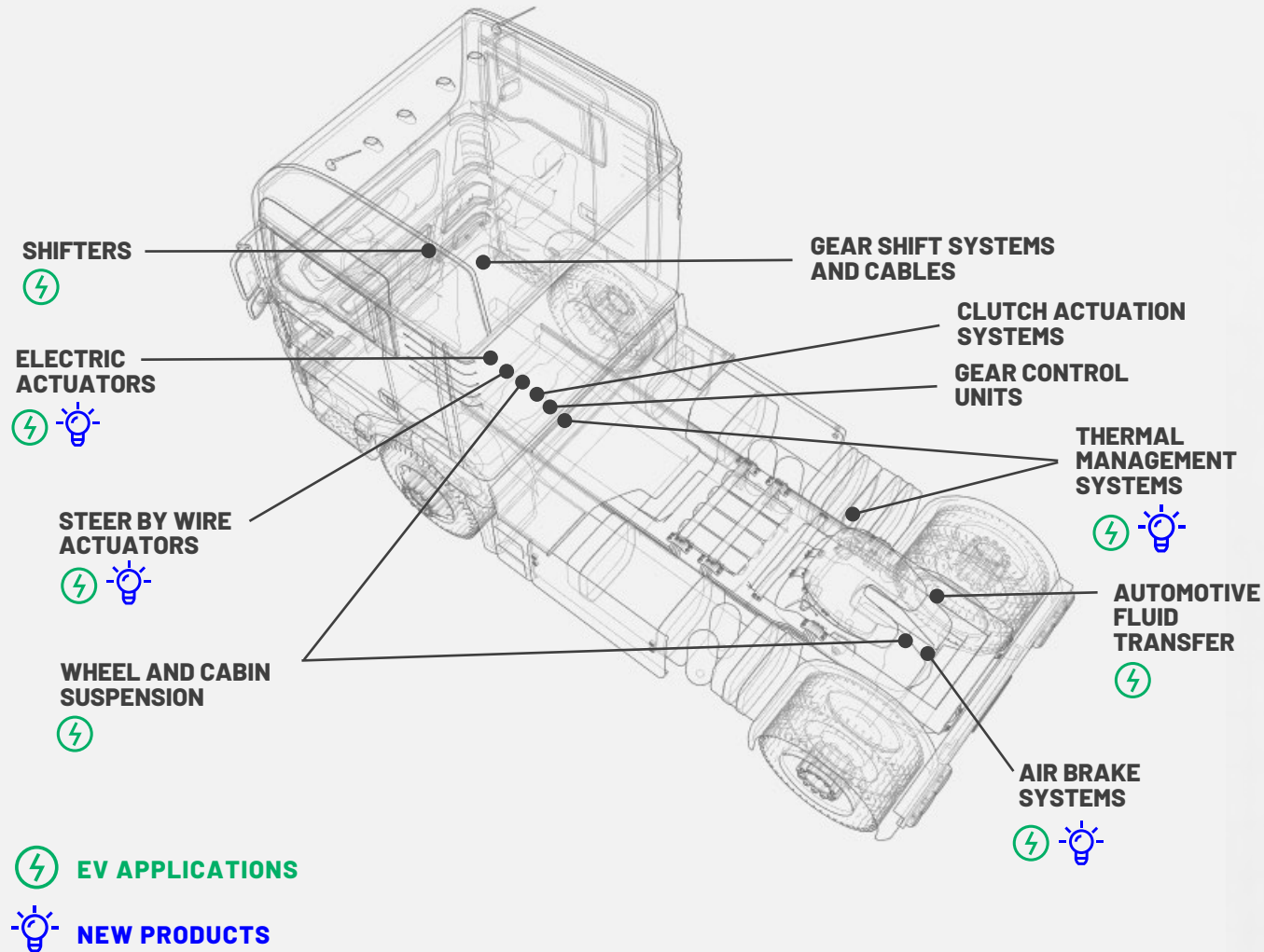
KA in brief

MADE IN NORWAY

**OVER 65 YEARS
OF ENGINEERING
EXCELLENCE**



FOCUS ON ELECTRIC COMMERCIAL VEHICLES



KEY PRODUCTS



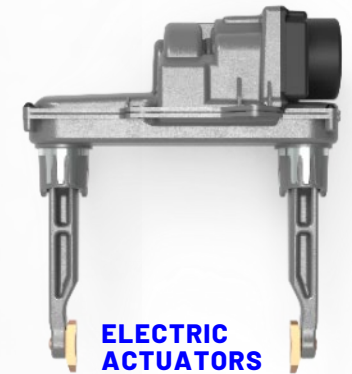
STEER BY WIRE ACTUATORS



AIR BRAKE SYSTEMS



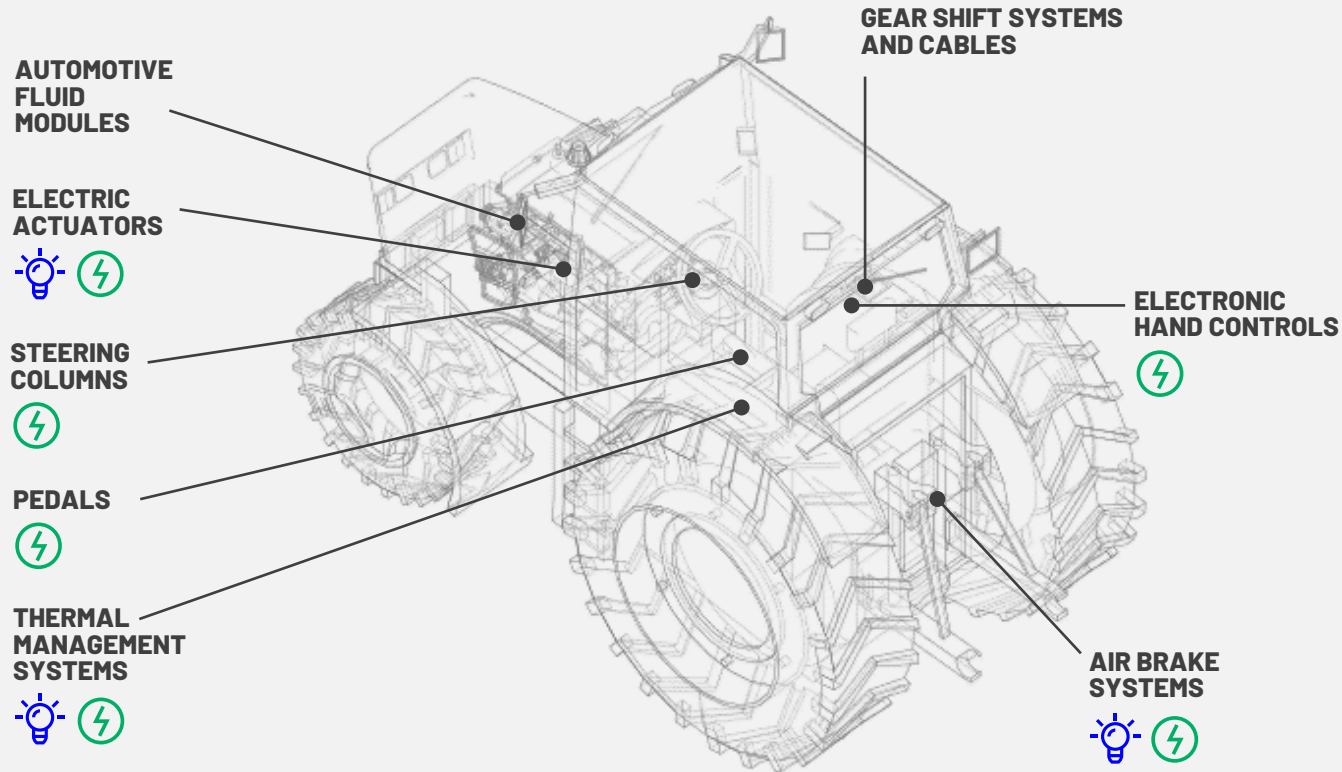
THERMAL MANAGEMENT SYSTEMS



ELECTRIC ACTUATORS

KA in brief

FOCUS ON OFF-HIGHWAY VEHICLES



 EV APPLICATIONS

 NEW PRODUCTS

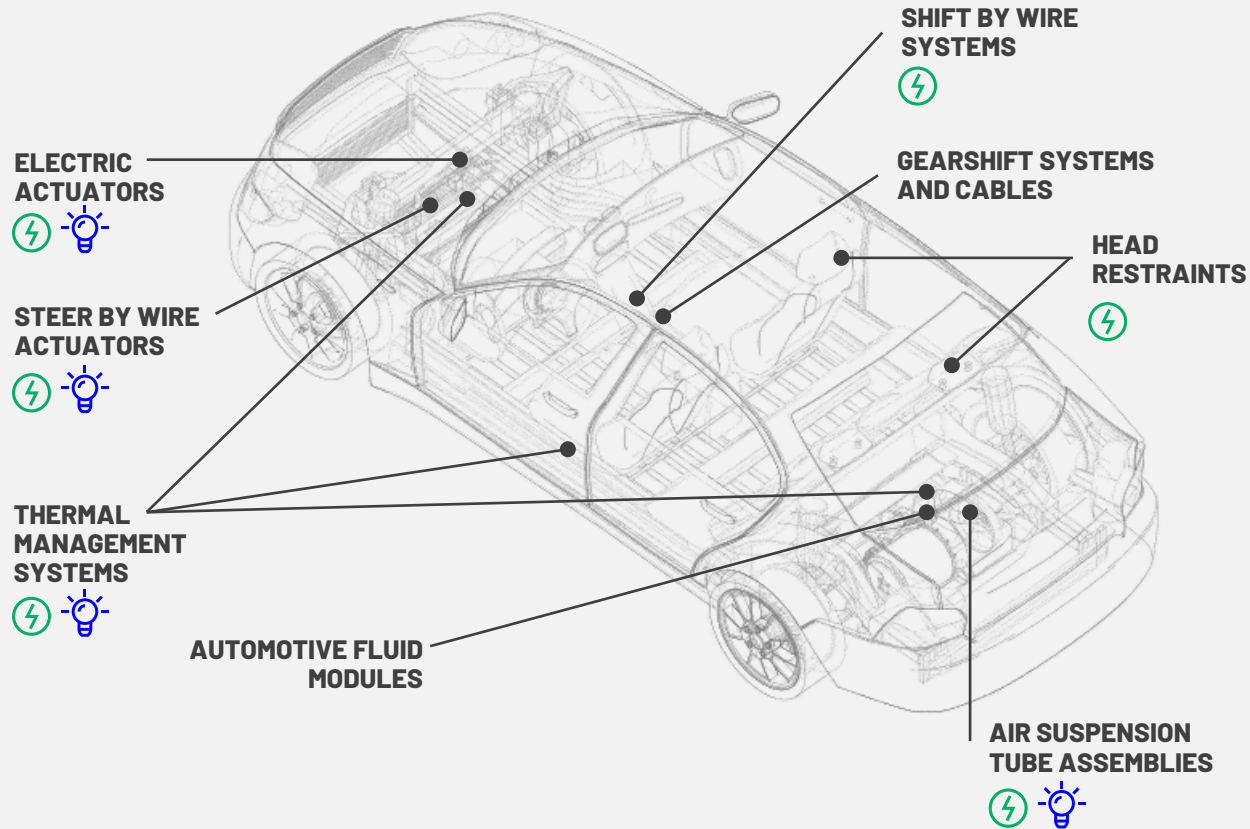
PRODUCTS ALSO SUITABLE FOR OTHER OFF-HIGHWAY APPLICATIONS



KEY PRODUCTS



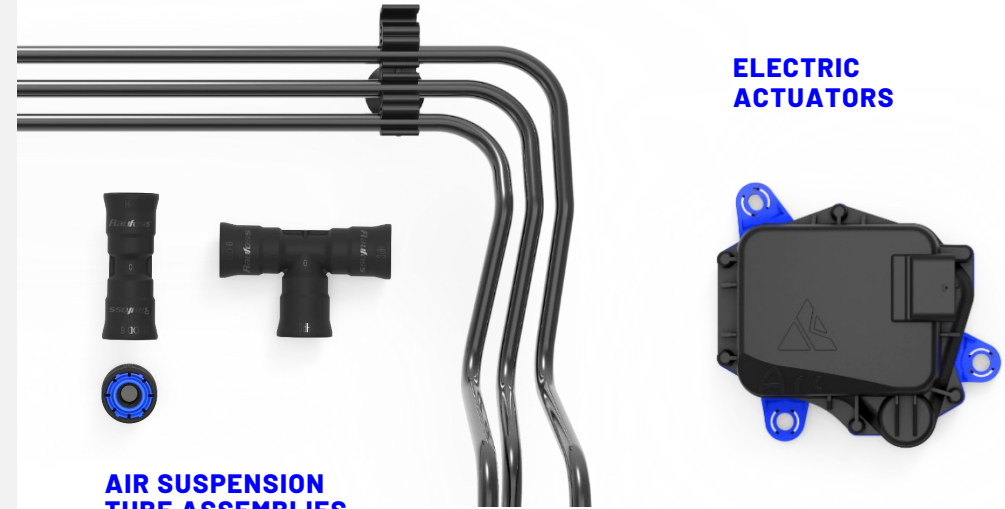
FOCUS ON ELECTRIC PASSENGER CARS



⚡ EV APPLICATIONS

💡 NEW PRODUCTS

KEY PRODUCTS



FOCUS ON INDUSTRIAL APPLICATIONS



PTFE HOSES



KA in brief

OUR CUSTOMERS



STELLANTIS



PREVOST

SCANIA

NAVISTAR



IVECO GROUP



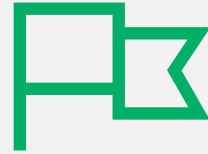
ISUZU



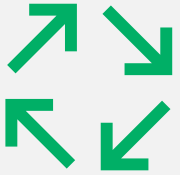
WE ARE A GLOBAL PROVIDER SERVING OUR CUSTOMERS LOCALLY



We leverage our local position at global OEMs to create and win new business opportunities on all continents.



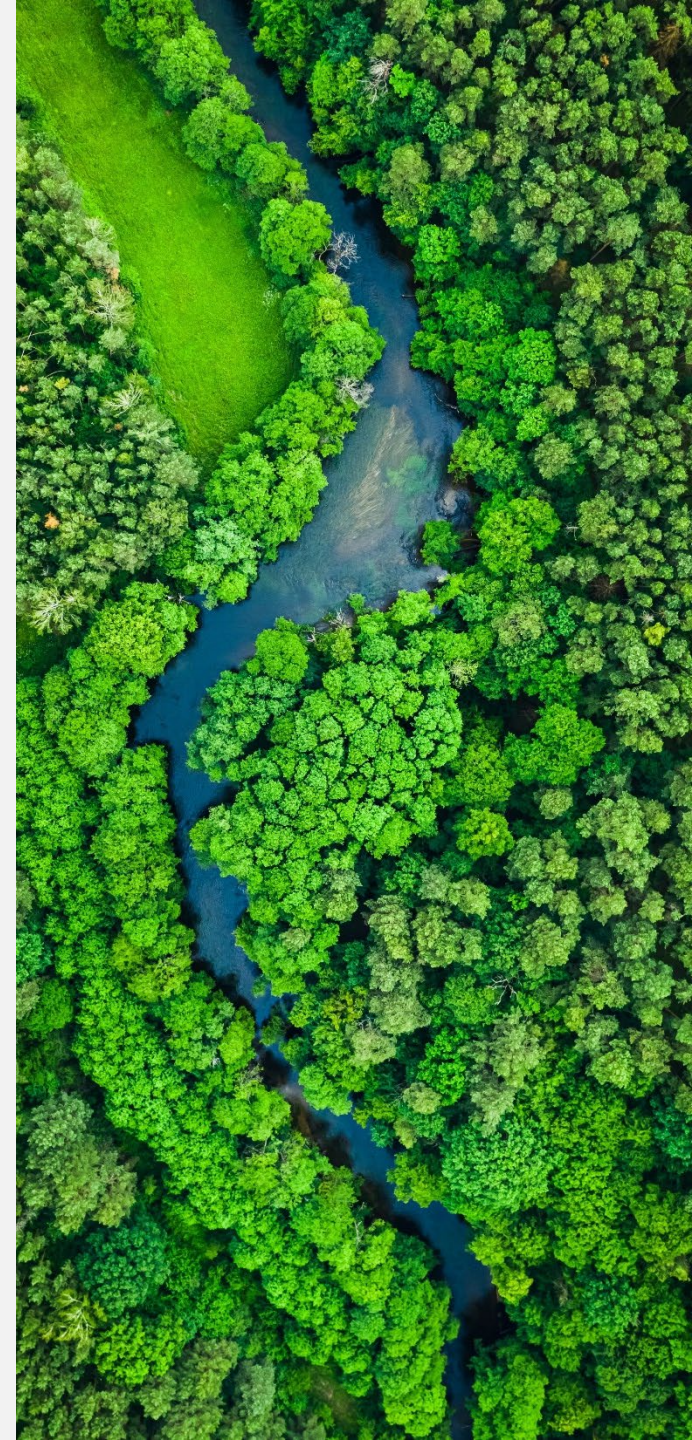
"Glocalization" focus (globalization and localization)



Covid triggered supply chain disruptions resulting in a higher focus on local sourcing



Positive impact on sustainability and our set targets





STRATEGIC REVIEW

STRATEGIC REVIEW OVERVIEW

INITATED BY: FORMER BOARD OF DIRECTORS AND FORMER CEO/MANAGEMENT

INITATED IN: MARCH 2023

ADVISORS: ROTHSCHILD AND ABG SUNDAL COLLIER (STRUCTURAL CONSIDERATIONS)

PURPOSE:

- > EVALUATE OPTIONS TO MAXIMIZE FUTURE SHAREHOLDER VALUE
- > UNLOCK THE FULL POTENTIAL OF KA BEYOND THE CURRENT PERFORMANCE
- > RIGHTSIZING, IMPROVING ORGANIZATIONAL AND OPERATIONAL EFFICIENCY

AREAS OF FOCUS

**ACQUISITIONS
PARTNERSHIPS &
COLLABORATIONS**

DIVESTMENTS

**CAPITAL
MEASURES**

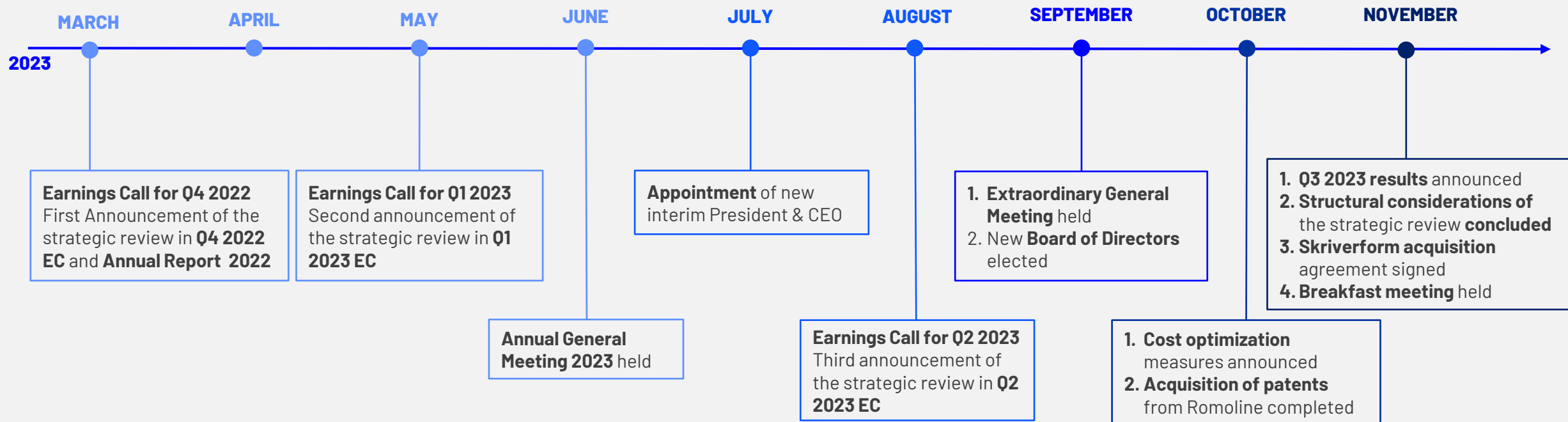
**COST
OPTIMIZATION
MEASURES**

STRUCTURAL CONSIDERATIONS



TIMELINE

STRATEGIC REVIEW MARCH - NOVEMBER



MARCH - OCTOBER 2023 DISCUSSIONS AND ACTIVITIES ON KA'S STRATEGIC REVIEW CONTINUED WITH ROTHSCHILD AND ABG SUNDAL COLLIER



CONCLUSIONS

THE BOARD OF DIRECTORS AND KA MANAGEMENT ARRIVED AT THE FOLLOWING CONCLUSIONS:

- > **Retaining and developing the current activities would create the highest value** for KA and its shareholders
- > **Focus on growth areas** where KA is well-positioned
- > Focus on the next year's main **effort on regaining** acceptable levels of **profitability and securing a positive cash flow**
- > Continue to **explore options** for mitigating the earnings pressure deriving from the business units in the declining segments
- > **Allow for bolt-on acquisitions** in the coming year, so KA can **strengthen businesses** in areas where the company is well-positioned



KA'S BOARD OF DIRECTORS AND MANAGEMENT HAVE DECIDED TO CONCLUDE THE STRUCTURAL CONSIDERATION OF THE STRATEGIC REVIEW.



KA'S SECOND INVESTMENT INTO AUTONOMOUS DRIVING TECHNOLOGY



- KA has acquired **innovative patents** from Romoline, for camera cleaners, developed in Norway
- This is KA's **second investment** into a technology that will be used in **autonomous driving** and is also used in **present day vehicles**
- Unlike traditional nozzle cleaners, this technology uses less fluid and sprays **away from the camera lens** leading to optimal cleaning. The product's intention is to improve **functionality, quality, environmental impact, customer satisfaction, and cost of use**
- Next steps for KA to **expand** in this product area will be to develop the product into complete systems and sensor cleaning solutions
- KA expects **revenues in a 2-3 years time frame**

With this acquisition, KA now directly and indirectly **controls 28 patents** for technologies relevant to autonomous vehicles.



KA ACQUIRES SKRIVERFORM



- On November 8, 2023, KA signed an agreement to purchase **100% of the share capital of Skriverform AS**
- Skriverform **is based in Norway** and designs and manufactures tools for **injection molding (IM)**
- The acquisition is motivated by KA's desire to achieve **vertical integration** and gain a better control of **our supply chain**
- With this acquisition, KA's can **streamline operations** and **optimize efficiency** benefiting KA's bottom line, and the company's customers
- **12 highly skilled employees** who are experts on IM will join KA





FINANCIAL UPDATE

FRANK HEFFTER

EXECUTIVE SUMMARY – Q3 2023

STABLE REVENUES AND STRONG EARNINGS

CASH FLOW DEVELOPMENT IMPACTED BY NWC INCREASE

<p>€220.6M REVENUES</p> <p>Decrease of 10.3% vs. Q3 2022</p>	<p>€14.3M ADJ. EBIT</p> <p>Increase by MEUR 1.4 vs. Q3 2022</p>	<p>€-13.4M FREE CASH FLOW</p> <p>Decrease from the FCF of MEUR -1.4 in Q3 2022</p>
<p>1.4x LEVERAGE RATIO^{1,2}</p> <p>Improved from 2.0x in Q3 2022</p>	<p>€89.2M NIBD⁴</p> <p>Improved from MEUR 132.6 as of 30/09/2022</p>	<p>€207.1M NEW BUSINESS³</p> <p>Increase from MEUR 128.9 in Q3 2022</p>

¹ Includes IFRS 16; excluding IFRS 16, leverage ratio is equal to 0.6x in Q3 2023 compared to 1.1x in Q3 2022

² NIBD / Adjusted EBITDA (LTM)

³ Lifetime revenue of business wins during the quarter

⁴ Net Interest-Bearing Debt

REVENUES

- > Excluding revenues of MEUR 40.2 divested to BRP from Q3 2022, quarterly revenues grew by 14.8% at constant currency rates

ADJUSTED EBIT

- > Supported by positive operational effects of MEUR 5.7, partly related to retroactive price increases and one-time compensations from customers
- > In Q3 2022, the divested business to BRP amounted to MEUR 12.6

FREE CASH FLOW

- > Impacted by increase in NWC to support future growth and to facilitate footprint optimization

LEVERAGE RATIO / NIBD

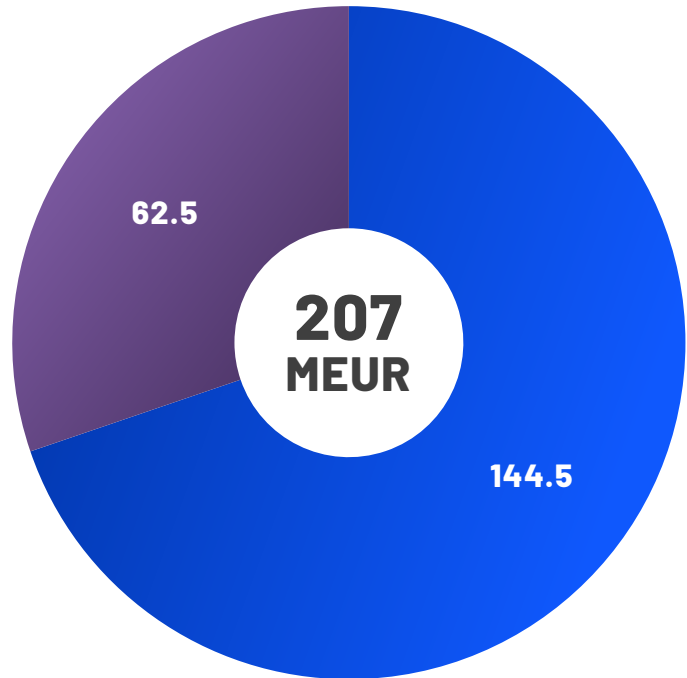
- > Improved due to the proceeds received from the divestment to BRP in Q4 2022

NEW BUSINESS WINS

- > Significant increase especially due to substantial contracts being awarded to P&C

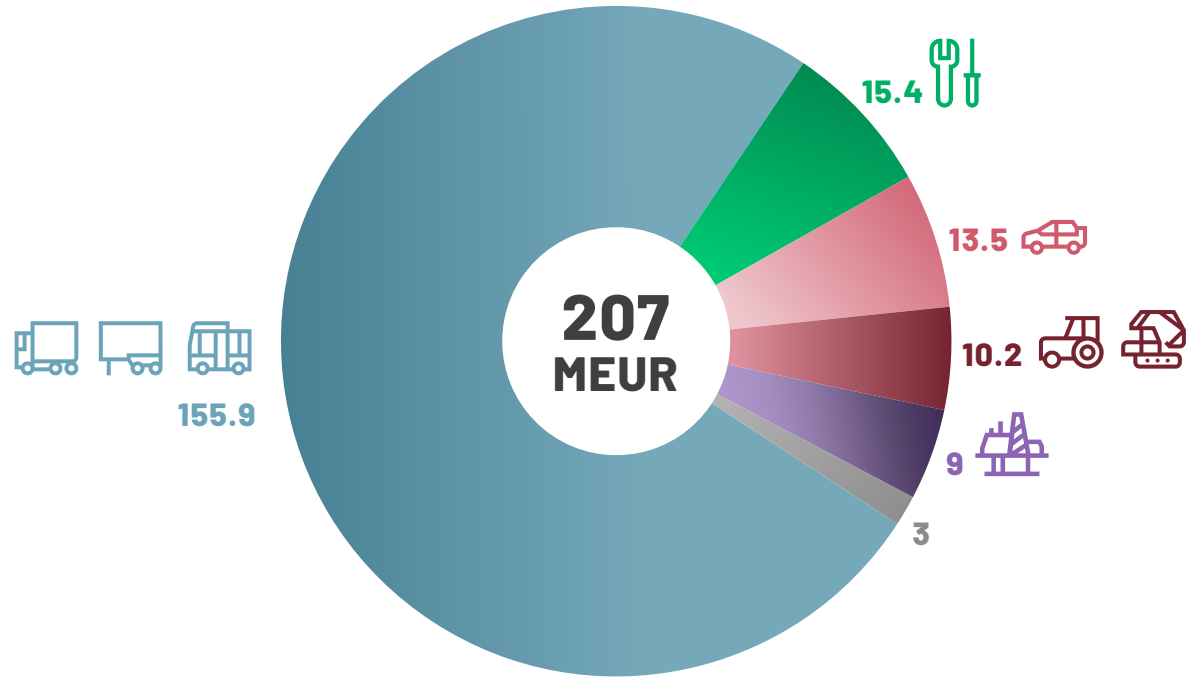
NEW BUSINESS WINS Q3 LIFETIME REVENUES, MEUR

PER BUSINESS SEGMENT



- POWERTRAIN & CHASSIS
- SPECIALTY PRODUCTS

PER AREA

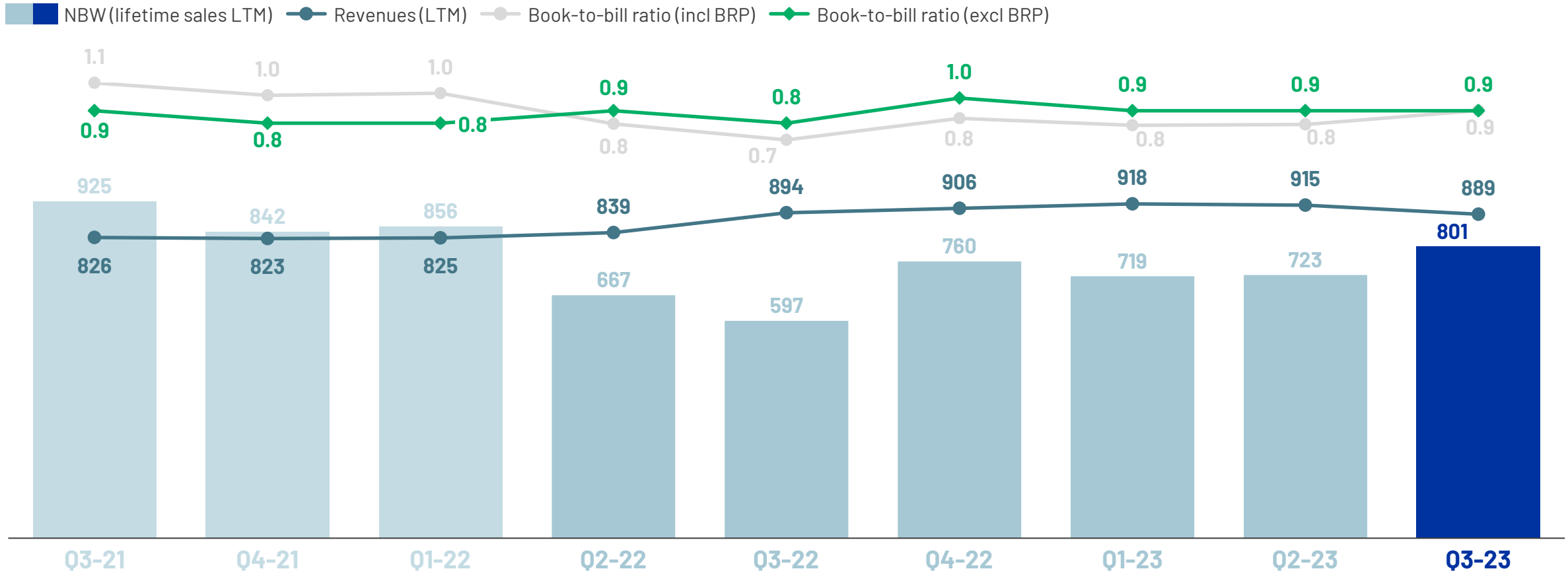


- TRUCK, TRAILER, BUS & COACHES
- AFTERMARKET
- PASSENGER CARS
- AGRICULTURE & CONSTRUCTION
- INDUSTRIAL
- NEW GROWTH MARKETS

BOOK-TO-BILL

MAINTAINING STABLE BOOK TO BILL RATIO
TARGET RATIO ABOVE 1 FOR FY2023

BOOK-TO-BILL PERFORMANCE, MEUR

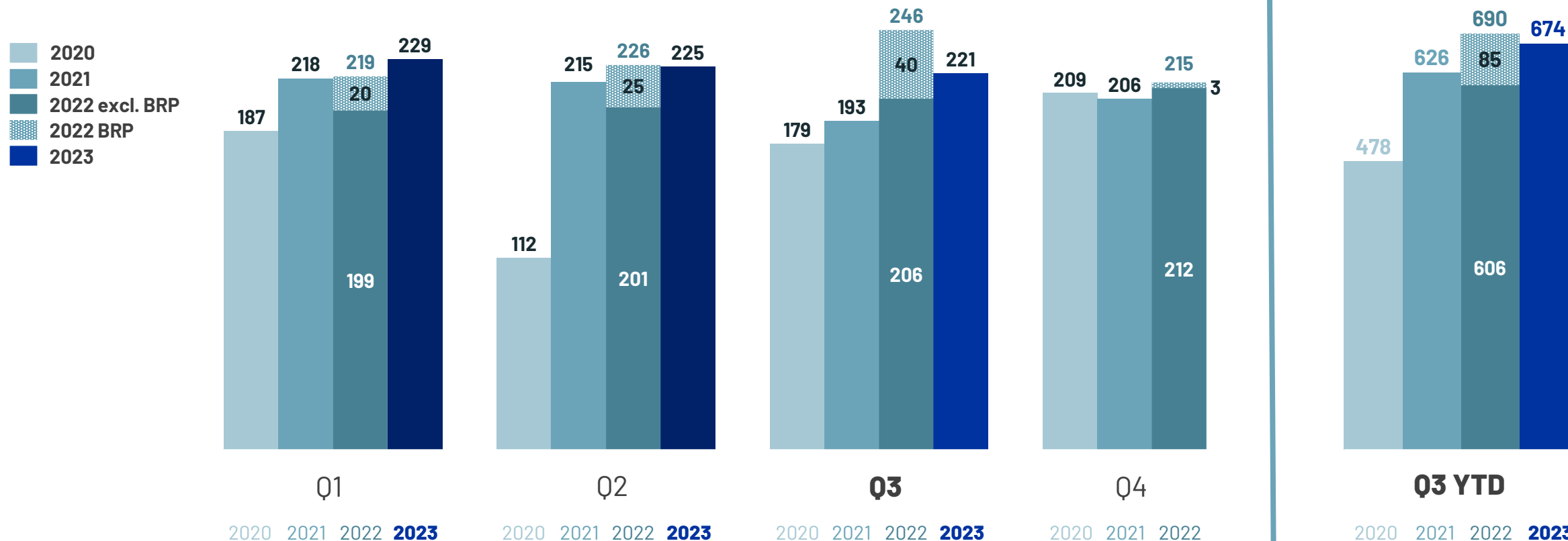


1. Lifetime sales assumptions are based on IHS and LMC production estimates at the time of the booking

REVENUES

SOLID REVENUES DRIVEN BY SEASONALITY AND EXTRAORDINARY ITEMS

REVENUES (continuing operations), MEUR



Quarterly revenues in 2023 include significant negative translation effects. On the current currency basis, quarterly revenues are as follows:

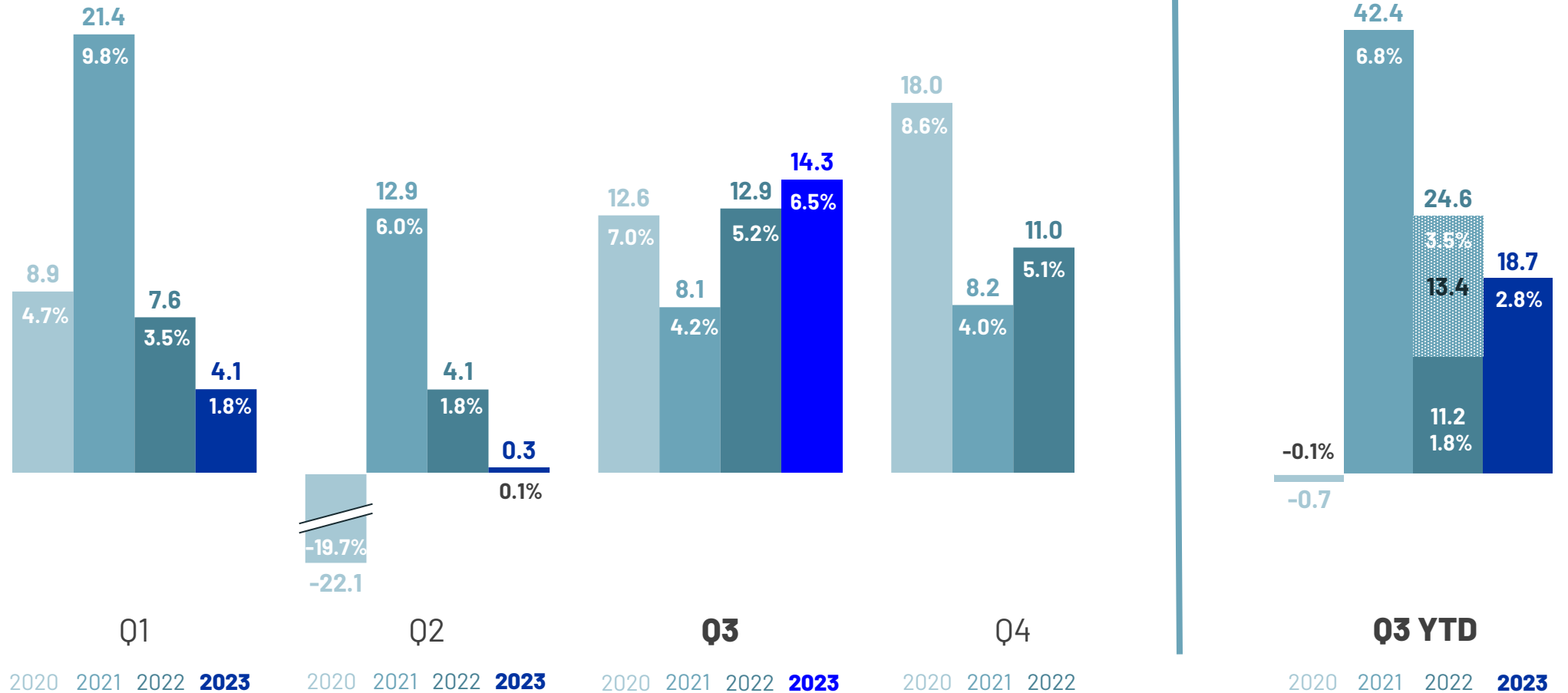
- Q1 2023: MEUR 226 (positive translation effects of MEUR 3)
- Q2 2023: MEUR 235 (negative translation effects of MEUR 10)
- Q3 2023: MEUR 236 (negative translation effects of MEUR 15)

ADJUSTED EBIT

POSITIVE EARNINGS PARTIALLY DRIVEN BY OPERATIONAL ONE-TIME EFFECTS

ADJ. EBIT (continuing operations), MEUR and % of revenues

- 2020
- 2021
- 2022 excl. BRP
- 2022 BRP
- 2023

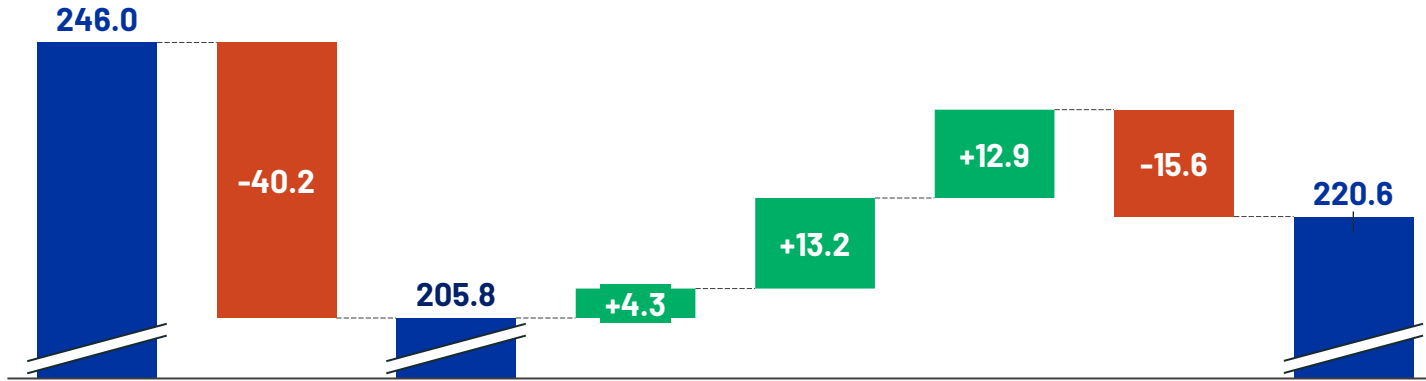


REVENUE AND ADJUSTED EBIT BRIDGE

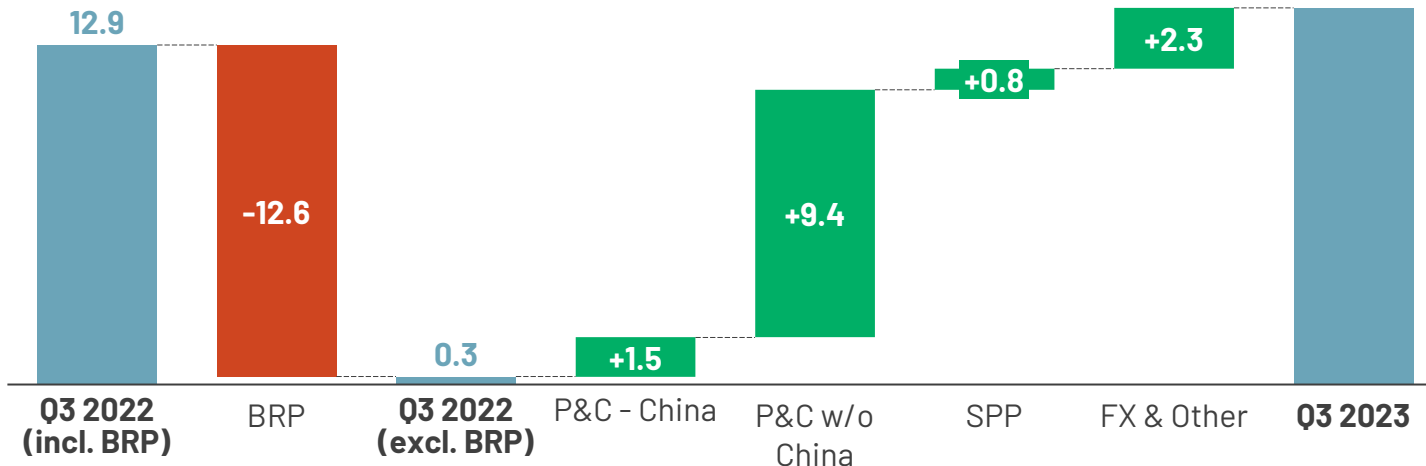
POSITIVELY DRIVEN BY ONE-TIME EFFECTS

NEGATIVELY IMPACTED BY UNFAVOURABLE REGIONAL PRODUCT MIX

REVENUES (continuing operations), MEUR



ADJUSTED EBIT (continuing operations), MEUR



P&C

- > Sales in Europe and the Americas increased by MEUR 12.2; adj. EBIT grew by MEUR 9.0. This was mainly driven by the positive one-time effects of MEUR 4.0, predominantly related to one-time reimbursements from customers and release of provision for customer claims
- > Sales and adj. EBIT in APAC (excl. China) grew by MEUR 1.0 and MEUR 0.4, respectively
- > Sales in China increased by MEUR 4.3, and adj. EBIT increased by MEUR 1.5, mainly in the commercial vehicles market

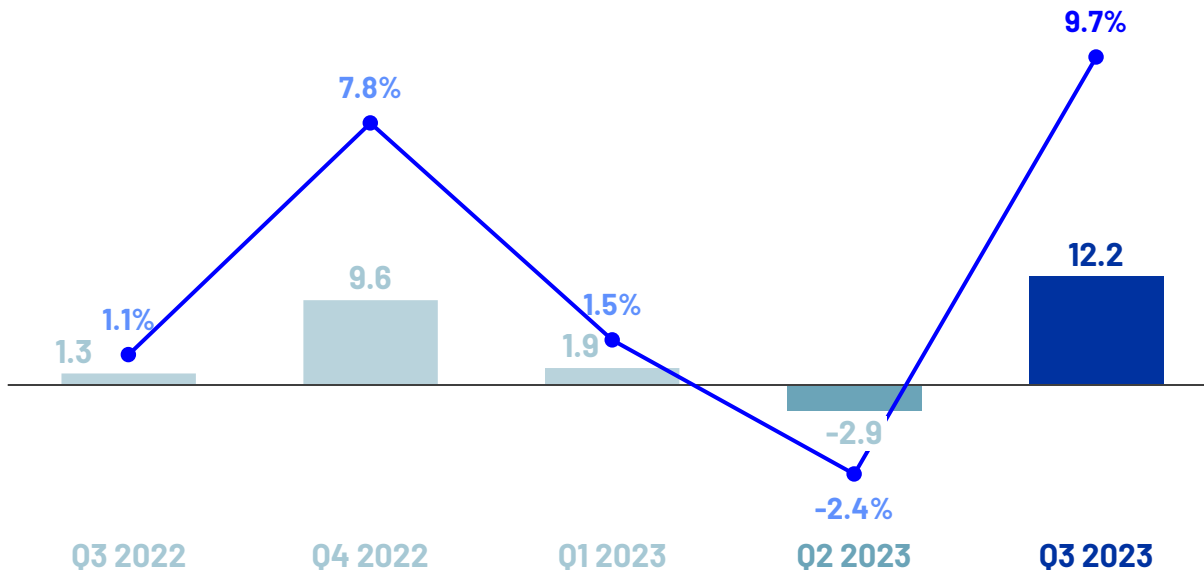
SPP

- > Sales of FCS grew by MEUR 8.6; adj. EBIT decreased by MEUR 0.3, mainly due to less favorable product mix in the fluid transfer systems business
- > Excluding the sales from the business divested to BRP (MEUR 40.2 with adj. EBIT of MEUR 12.6), OFH sales grew by MEUR 4.3, of which MEUR 1.7 related to retroactive price increases and one-time reimbursements from customers

POWERTRAIN & CHASSIS

BUSINESS SEGMENTS UPDATE

ADJUSTED EBIT MARGIN, %
ADJUSTED EBIT, MEUR



Q3 2023

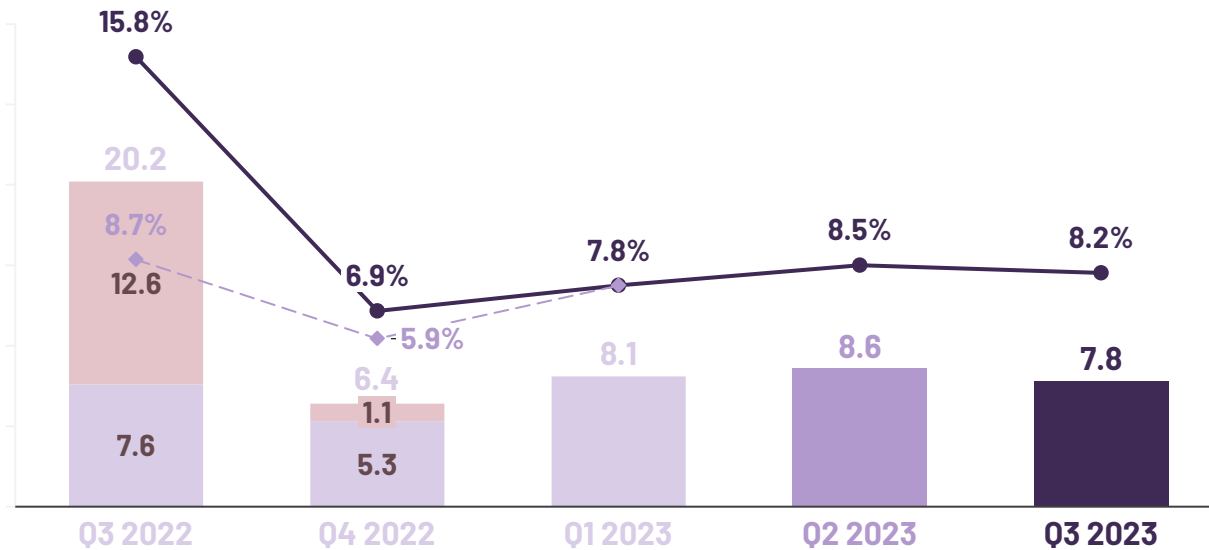
- Growing business in the commercial vehicles market in all regions (Europe, the Americas and China) with relatively low margins
- Declining sales in the Chinese and European passenger car markets were positively offset by the growing sales in the passenger car market in the Americas
- One-time net effects of MEUR 4.0 positively contributed to the adj. EBIT, mainly related to retroactive price increase, one-time reimbursements from customers, release of provision for customer claims, and others

SPECIALTY PRODUCTS

BUSINESS SEGMENTS UPDATE

ADJUSTED EBIT MARGIN, %
ADJUSTED EBIT, MEUR

—●— Adj. EBIT margin (incl. BRP)
 -◇- Adj. EBIT margin (excl. BRP)
 ■ Adj. EBIT (BRP)
 ■ Adj. EBIT (excl. BRP)



Q3 2023

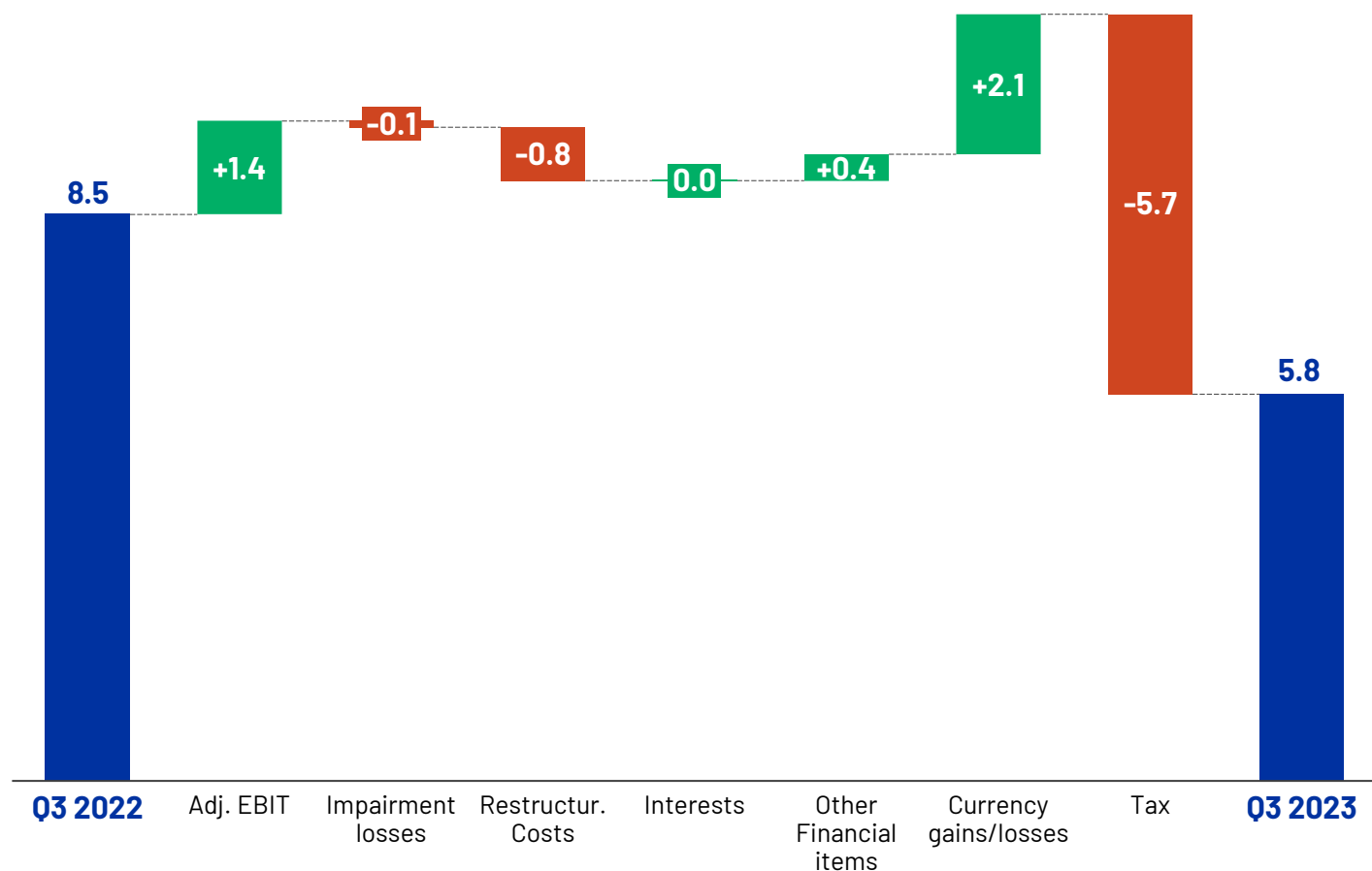
Decline Quarter over Quarter was mainly attributable to:

- Less favorable product mix
- Lost earnings related to the business divested to BRP (Q3 2022 at MEUR 12.6 including the reimbursement of MEUR 8.2 for spot-buy costs incurred in prior periods)
- In Q3 2023, adjusted EBIT benefitted from retroactive price increases and one-time reimbursements from customers of MEUR 1.7

NET INCOME BRIDGE

HIGHER TAX EXPENSE OFFSET POSITIVE DEVELOPMENT

NET INCOME (continuing operations), MEUR



NET INTERESTS AND OTHER FINANCIAL ITEMS

- Net interests remained stable compared to Q3 2022
- Other financial items in Q3 2023 include the change in expenses related to the securitization of MEUR 0.1 and other financial items of MEUR 0.3

CURRENCY GAINS

- Currency gains amounted to MEUR 5.6 in Q3 2023 vs. MEUR 3.5 in Q3 2022
- Currency translation effects are made up of realized currency loss of MEUR 0.1 and unrealized currency gains of MEUR 5.7 in Q3 2023 (Q3 2022: realized gains of MEUR 1.6 and unrealized gains of MEUR 1.9)

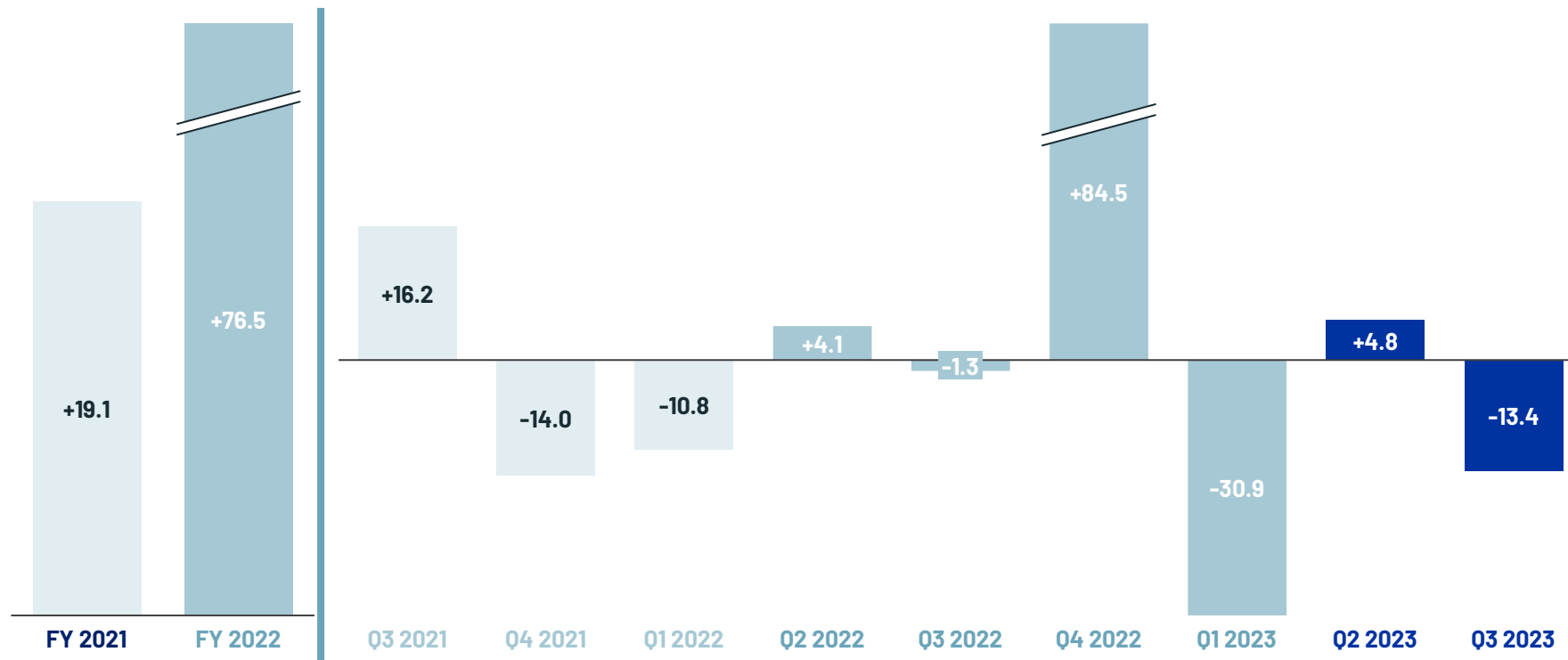
TAX

- Change in tax expenses was predominantly impacted by the losses considered not to be usable in the foreseeable future and therefore not capitalizable as DTA in Q3 2023 as well as prior year tax effects

FREE CASH FLOW

DECLINE IN FREE CASH FLOW DUE TO NWC INCREASE

FREE CASH FLOW¹, MEUR



Q3 2023 FCF DETAILS

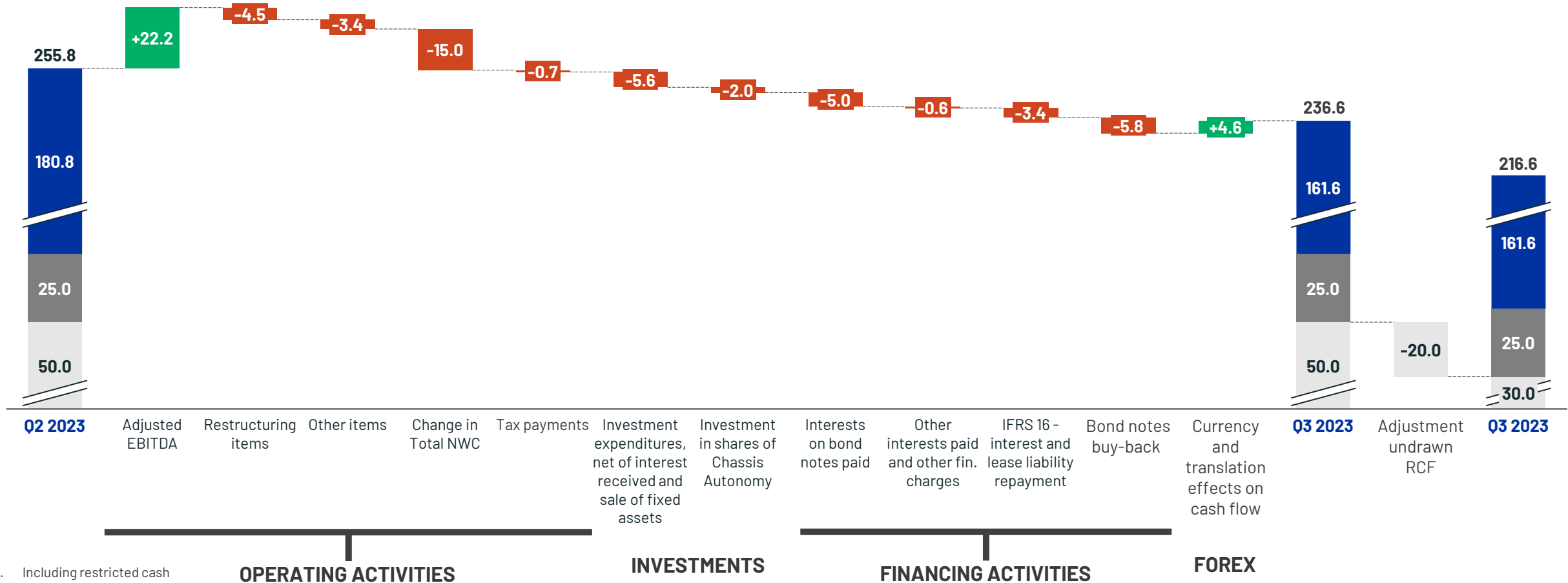
Operating activities	-1.4
Investing activities	-7.6
Financing activities	-14.8
Currency and translation effects on cash flow	+4.6
Total	-19.2
excluding repurchase of own bond notes	+5.8
FCF	-13.4

1. Free Cash Flow is measured based on sum of cash flow from operating activities, investing activities, financial activities and currency effects on cash (together described as change in cash), excluding net draw-down/repayment of debt and proceeds received from capital increase/purchase of treasury shares.

LIQUIDITY DEVELOPMENT

LIQUIDITY DEVELOPMENT¹, MEUR

■ CASH ■ UNUTILIZED SECURITIZATION FACILITY ■ UNDRAWN RCF



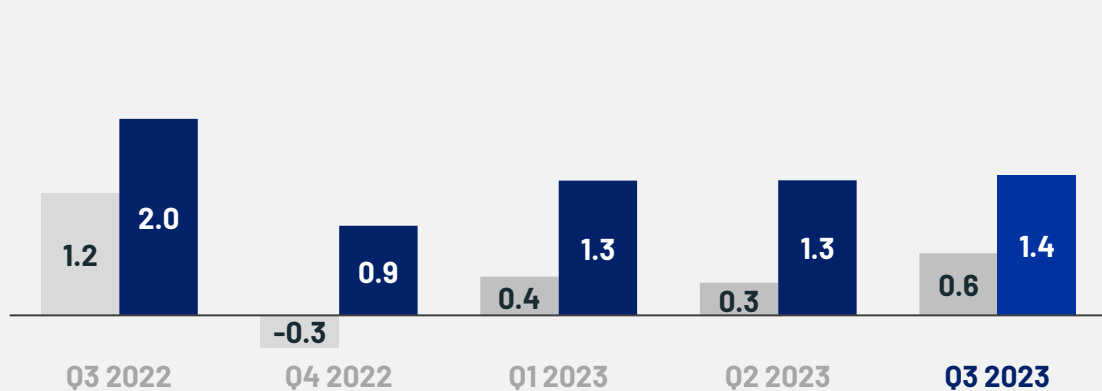
1. Including restricted cash

FINANCIAL RATIOS

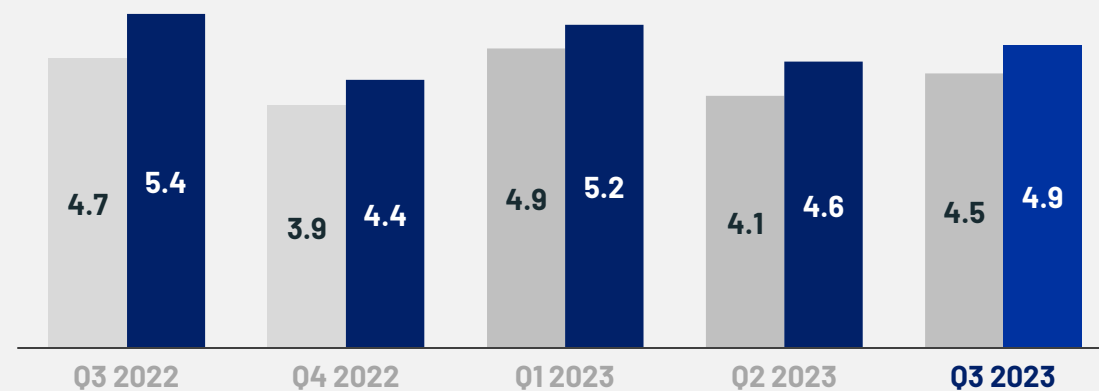
CONTINUING AND DISCONTINUED OPERATIONS

■ EXCLUDING IFRS16
■ INCL. IFRS 16 EFFECT

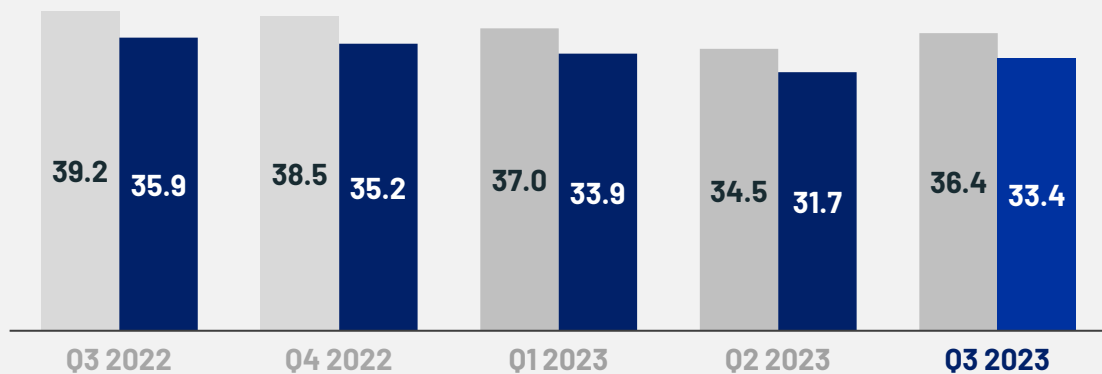
ADJUSTED GEARING RATIO^{1,2}, NIBD³/ADJUSTED EBITDA, LTM



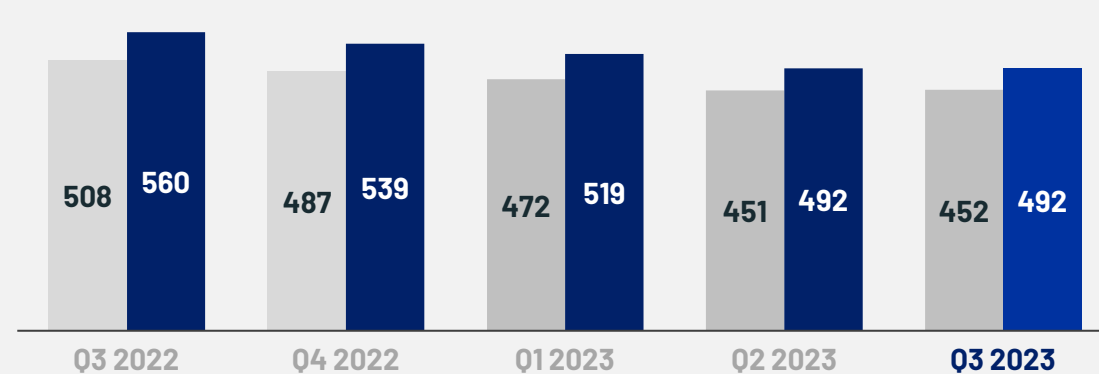
ADJUSTED ROCE², %, LTM



EQUITY RATIO, %



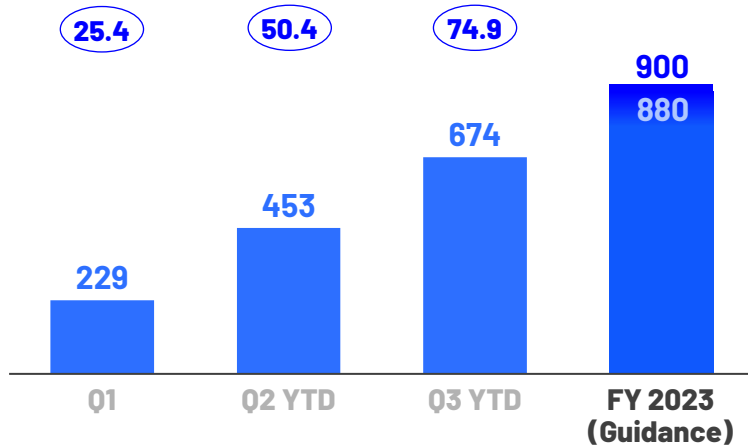
CAPITAL EMPLOYED³, MEUR



1. Adjusted EBITDA refers to continuing operation only 2. Excluding restructuring costs 3. Net interest-bearing debt
3. Capital employed at quarter end; as the indices are calculated based on the figures from last 12 months

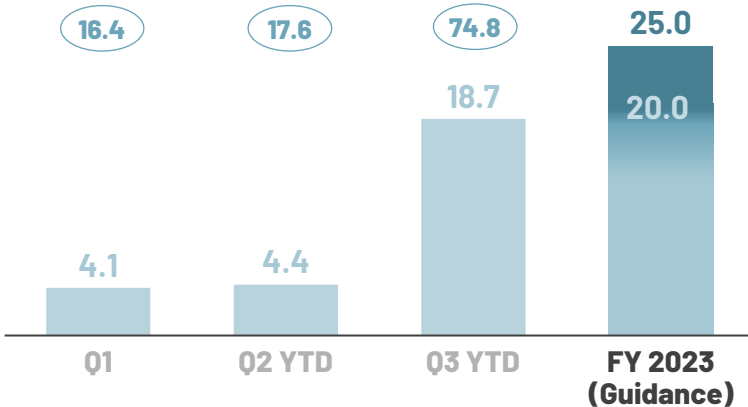
ON TRACK TO DELIVER ON GUIDANCE

REVENUES, MEUR % DELIVERY OF FY GUIDANCE (%)



**FY 2023 GUIDANCE
MEUR 880-900**

ADJ. EBIT, MEUR % DELIVERY OF FY GUIDANCE (%)



**FY 2023 GUIDANCE
MEUR 20-25**

Based on YTD Q3 2023, KA maintains the full year 2023 guidance for both revenues and adjusted EBIT.





COMMUNICATIONS UPDATE

THERESE SKURDAL

EXTERNAL COMMUNICATION



EXTERNAL COMMUNICATION CHANNELS

SOCIAL MEDIA



INSTAGRAM



LINKEDIN



FACEBOOK



TWITTER

OSE ANNOUNCEMENTS



OFFICIAL
WEBSITE



NEWSWEB



OSE ANNOUNCEMENTS



LEGAL CONSIDERATIONS



While publishing news, we have to consider:

- As a stock listed company, we are obliged to **follow the Oslo Stock Exchange** regulations
- Not disclosing customer names, volumes – this is based on **contractual obligations**
- Not disclosing **information on new/ patented technology** to keep to patents and ensuring that competitors are **not alerted**



KA ensures that **the flow of information** from the company **is factual and not misleading**. The information **should not be seen as an attempt to manipulate** the market.



Information flow from listed companies are monitored by the **Financial Supervisory Authority**. **Any violations to the regulations are subject to penalty** - hefty fines, as well as reputational risk.



EXTERNAL COMMUNICATION CHANNELS

SOCIAL MEDIA



INSTAGRAM



LINKEDIN



FACEBOOK



TWITTER

OSE ANNOUNCEMENTS



OFFICIAL
WEBSITE



NEWSWEB



SOCIAL MEDIA



- > **Spread news and information**
- > **Engage** and **inform** about company's products, initiatives, and other positive stories
- > **Share** small and big wins from all our locations and **create brand awareness**
- > **Engage with our employees** and attract new talent
- > **Target posts** to engage better with the selected audiences, **generating new leads/ sales**
- > **Showcase our products** to partners, suppliers, customers and investors
- > **Educate** about our products





NEW MEASURES

PROCESS FOR NEW BUSINESS WINS ANNOUNCEMENTS



THRESHOLD

FOR OSE REGULATORY
ANNOUNCEMENTS

FINANCIAL:

EUR 3 MILLION ANNUAL REVENUE

OTHER:

**NEW PRODUCT OR OTHER
INNOVATIVE TECHNOLOGY**



QUARTERLY

- > **QUARTERLY SALES REPORT TO BE PUBLISHED TOGETHER WITH THE QUARTERLY PRESENTATION**
- > **FURTHER DETAILS IN THE QUARTERLY PRESENTATION**

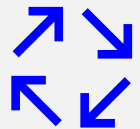


COMMUNICATION

- > **OSE ANNOUNCEMENT**
- > **SOCIAL MEDIA POST**
- > **PRESS RELEASE TRANSLATED IN NORWEGIAN**
- > **ADDITIONAL VISUALS**



MARKETING ACTIVATION ON SOCIAL MEDIA



We **add variety to the content mix with product-oriented posts**, targeting different stakeholder groups.



We create **engaging stories with definite call to action** to generate new business leads.



We **tell our stakeholders about the technologies and innovations** developed at KA.



01 EARNINGS CALL

MAY 09, 2023 8:00 CET

See insights and ads

Boost post

Like Comment Share

HAPPY SPRING SEASON!

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Boost post

Like Comment Share

NEW BUSINESS WINS

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Boost post

Like Comment Share

NEW BUSINESS WIN

See insights and ads

Boost post

Like Comment Share

BCA DOG CLUTCH ACTUATOR

See insights and ads

Boost post

Like Comment Share

WORLD ENVIRONMENT DAY 05.06.2023

See insights and ads

Boost post

Like Comment Share

WORLD HEALTH AND SAFETY DAY 16.04.2023

See insights and ads

Boost post

Like Comment Share

LJUNGSARP IS KA'S FIRST PLANT OPERATING WITH ZERO CO₂e

See insights and ads

Boost post

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WORLD WATER DAY 22.03.2023

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CELEBRATING 2 YEARS WITHOUT AN ACCIDENT

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Like Comment Share

WHAT DRIVES ME

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Boost post

Like Comment Share

SAFETY DAYS AT KA POLAND AND GRAND RIVER JULY 2023

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Like Comment Share

WELCOME TO AA MOBILITY 2023

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Like Comment Share

Meet Sverre Eide

See insights and ads

Boost post

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MOBILITY SOLUTIONS FOR THE FUTURE

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KONGSBERG AUTOMOTIVE INVITES YOU TO LogiMAT

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LogiMAT

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KA's Top Sustainability Manufacturing Engineering Managers, Give One

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2.8% INCREASE IN ENERGY EFFICIENCY

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KA secures its first contract for the newly developed Dog Clutch Actuator (DCA)

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ELECTRIC PASSENGER CARS PRODUCT RANGE

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Boost post

Like Comment Share

Meet Sverre Eide

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Boost post

Like Comment Share

WHAT DRIVES ME

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2.1% INCREASE IN ENERGY EFFICIENCY

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KA secures its first contract for the newly developed Dog Clutch Actuator (DCA)

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Kongsberg Automotive

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WE HAVE BIG AMBITIONS ON BEHALF OF THE SHAREHOLDERS AND WILL WORK CLOSELY WITH KA'S MANAGEMENT AND EMPLOYEES.

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WHAT DRIVES ME

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2.1% INCREASE IN ENERGY EFFICIENCY

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KA secures its first contract for the newly developed Dog Clutch Actuator (DCA)

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KONGSBERG AUTOMOTIVE INVITES YOU TO NAHAT 2023

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THERE ARE AT LEAST 330 RAUFOSS COUPLINGS IN YOUR TRUCK AND TRAILER

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02 EARNINGS CALL AUGUST 02, 2023 8:00 CET

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CHASSIS AUTONOMY

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Like Comment Share

Kongsberg Automotive Aftermarket

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Boost post

Like Comment Share

Kongsberg Automotive Aftermarket

See insights and ads

Boost post

Like Comment Share

KA AND CHASSIS AUTONOMY

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Boost post

Like Comment Share

WHAT DRIVES ME

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GENERAL MOTORS SUPPLIER QUALITY EXCELLENCE AWARD 2022

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WE TEST PRODUCTS UNDER HIGH VIBRATION TO SIMULATE THE WEAR OVER LONGER TIME

See insights and ads

Boost post

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Kongsberg Automotive Aftermarket

See insights and ads

Boost post

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ENGAGEMENT

You and 198 others

3 comments · 5 reposts

You and 249 others

1 comment · 14 reposts

Pascal Tousignant · 2nd
Advanced Project Engineer, Global Electronics Competence Center
9h ...
Very good news! The need is definitely there and increasing.
Like | Reply

Kent Hall · 2nd
Co-Founder at IPOceans AS
5h ...
Very cool to see this happening, congratulations to Rolf Monrad for being able to get this idea out, and to Kongsberg Automotive for taking on this amazing product.
Like | Reply

Revolve NTNU
2,387 followers
1mo ...
Great initiative! ❤️
Like · 1 | Reply

Roberto Dal Corso · 2nd
Leadership Excellence - Equipping leaders at every level in the organization t...
4w ...
It's really heartwarming to see such dedication to supporting the local community. Little acts of kindness can make a big splash...keep up with the great work!

Torbjørn Pedersen · 3rd+
Oppfinner · Tidligere test- og driftsingeniør
1mo ...
👏 Very good explanation about how important weight reduction is in the automotive industry and in virtually all products, but first people need to understand, for example, the phenomenal properties of used aluminium. 👍
Like · 1 | Reply

Roberto Dal Corso · 2nd
Leadership Excellence - Equipping leaders at every level in the organization t...
2w ...
It's always inspiring to see leadership taking the time to visit different facilities and engage directly with the staff. Linda's personal involvement surely must have sparked fruitful discussions. This hands-on approach will certainly drive the team forward.
Like · 4 | Reply

Maria Carrizales · 2nd
Sr HR Manager
2w ...
leaving a mark... and making a difference! 😊
Like · 3 | Reply

Christophe Chatillon · 2nd
Technicien Commercial France et Afrique Francophone
5mo ...
It's true Raufoss fittings have no equal.
In 2022 all customers in France use Raufoss ABC fittings.
Like · 1 | Reply

Roberto Dal Corso · 2nd
Leadership Excellence - Equipping leaders at every level in the organization t...
5mo ...
Impressive technology! The lightweight and easy assembly features of the Raufoss Couplings® make them a game-changer in the commercial vehicle market. The integrated safety aspect is crucial for maintaining high standards in the industry.

Tomas Henrique S. · 2nd
Especialista em sistema de gestão da qualidade, consultor do SGI nas normas...
4mo ...
Congratulations Ka.. team
It was a pleasure to have participated with you in this project. Everyone is

Sarah O'Connor (She/Her) · 2nd
Building communities and empowering youth voice within sustainability educ...
3mo ...
It's been a pleasure partnering with you for all these years - and it looks like the school you work with [Outwood Academy Freeston, Normanton](#) are back in again for next year, so we look forward to working with you again and training up some more of your fantastic employees as mentors!
Like | Reply

Javier Lopez Perez · 3rd+
Supply Chain Manager automotive industry
8mo ...
It is a good example of good practices and great safety culture. Go ahead for one year more.
Like | Reply

Quan Nguyen · 3rd+
General Director at vinasora
1mo ...
i'm very interested in this products to sell in vietnam.May you give me contact for vietnam market
Like · 1 | Reply · 2 Replies

Kongsberg Automotive Author
44,735 followers
1mo ...
Hello, thank you for your comment. Please write to post.raufoss@ka-group-com regarding your enquiry and our team will be able to provide some information.
Like | Reply

Quan Nguyen · 3rd+
General Director at vinasora
1mo ...

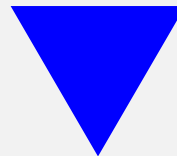
MEDIA ACTIVITIES



Stay ahead by distributing the press package and have a **touchpoint with journalists** when news is announced




Focus on **sharing news about our products and our achievements** in local and national media



Finansavisen

Reduserer i arbeidsstyrken

Kongsberg Automotive reduserer arbeidsstyrken med 150-200 ansatte. I tillegg stenges et kontor i Dortmund.



Industri

Kongsberg Automotive reduserer arbeidsstyrken med 150-200 ansatte. I tillegg stenges et kontor i Dortmund.




abc/nyheter

Kongsberg Automotive nedbemanner med 150-200 ansatte

Kongsberg Automotive (KA) skal gjennomføre innsparinger på 15-20 millioner euro i 2024, og reduserer dermed arbeidsstokken med 150-200 ansatte globalt.

DN

Kongsberg Automotive vil reduserer antall ansatte med 150-200



Kongsberg Automotive vil reduserer antall ansatte med 150-200.

BRUKSMÅD: Akkurat (under) og DCA-erhøvelse over girkassa i midten.

Mer på gang

Kongsberg Automotive vil reduserer antall ansatte med 150-200.



TU

Ledige stillinger Nyhetsbrev Video Nyhetsstudio

TIDSBEGRENSET TILBUD: HALV PRIS PÅ ÅRSABONNEMENT

06 DAGER 05 TIMER 56 MIN 28 SEK

Bestill nå

March 2023.

As a part of this action, KA will reduce its workforce by an estimated 150-200 employees globally.

Additionally, effective January 1, 2024, KA will close its Dortmund, Germany site and will continue to optimize its global footprint.

KA expects annualized savings of EUR 15-20 million during 2024 by these measures.

The initiatives taken will not change the guidance given for the fiscal year

Kongsberg Automotive nedbemanner med 150-200 tilsette

Kongsberg Automotive (KA) skal gjennomføre innsparinger på 15-20 millioner euro i 2024, og reduserer dermed arbeidsstokken med 150-200 tilsette globalt.

Publisert: 23.10.2023 kl 14:46

Ein annan del av dei såkalla kostnadsoptimaliseringstiltaka er stenging av anlegget til selskapet i Dortmund i Tyskland ved nyttår, skriv Kongsberg Automotive i ei pressemelding.

I pressemeldinga kallar Kongsberg Automotive innsparingane, som svarer litt over til 175-230 millionar kroner, eit «nødvendig skritt for å gjenopprette lønnsomheten til KA i vanskelige verdensøkonomiske tider».

(©NPK)

oa.no

Kutter 200 ansatte - dette sier de om ansatte på Raufoss



NEDBEMANNER: Kongsberg Automotive sier mandag at de skal nedbemanne med rundt 200 personer. Foto: Kongsberg Automotive

Kongsberg Automotive har mandag gått offentlig ut og sagt at de må kutte 150-200 ansatte.


For abonnenter

Nyheten kom i form av en pressemelding mandag.

Kongsberg Automotive (KA) skal gjennomføre innsparinger på 15-20 millioner euro i 2024, og reduserer dermed arbeidsstokken med 150-200 ansatte globalt, skrev NTB tidlig mandag.

Langdalsposten

Kongsberg Automotive kutter ansatte



Kongsberg Automotive (KA) presenterer i dag flere kostnadsopptimaliserende tiltak for å styrke selskapets konkurransekraft.

For abonnenter

Kongsberg Automotive bestemte i dag med meldingen om at de nedbemanner mellom 150-200 personer globalt.

Flere tiltaksopptimaliseringer i Kongsberg Automotive, Norges ledende bilprodusent, er dekke feris og fremme av nedbemanning i forbindelse med nye prosjekter.

«Vi er nødt til å redusere kostnader og kostnadsopptimalisere for å øke vår konkurransekraft, noe industrien legger til at de gjerne tenner på i Norge».

Norge

Arbeidstakerne vil være fornøyd på bedriftens tre lokasjoner i Norge. Nå har nedbemanning på Raufoss, i tillegg til Kongsberg, allerede startet. Selskapet vil ikke si hvor mange Kongsberg derfor eventuelt vil ramme, men at

INDUSTRI

Kongsberg Automotive nedbemanner

Dårlige tider i bilindustrien rammer Kongsberg Automotive.



Kongsberg Automotives fabrikk på Raufoss har rundt 250 ansatte. Pressemeldingen sier ikke hvor mange som eventuelt mistar jobben her. Fabrikken nedbemannes med 20 personer i 2019. Foto: Kongsberg Automotive/Leiv Ølsvat

Del Kommenter

Marius Valle Journalist

NTB

23. okt. 2023 - 16:01

Kongsberg Automotive (KA) skal gjennomføre innsparinger på 15-20 millioner euro i 2024, og reduserer dermed arbeidsstokken med 150-200 ansatte globalt. Hvor mange som eventuelt rammes i Norge er ikke kjent.

NYHETER24

NYHETER NØJE SPORT ØKONOMI TV

ØKONOMI | Börsen Idag | Näringsliv | Fonder | Insider | Analyser

JUST NU Miljardsmäll för norska oljefonden

Kategori / Bil

Kongsberg Automotive minskar med 150-200 jobb - stänger anläggning i Dortmund

Norska Kongsberg Automotive genomför en global anpassning av personalstyrkan och omstrukturering av verksamheten för att optimera kostnaderna samt öka konkurrenskraften. Det framgår av ett pressmeddelande. Bolaget kommer minska personalstyrkan med omkring 150-200 personer globalt.

MEDIA COVERAGE FROM ROMOLINE ACQUISITION

Bil24 ADVERTISEMENT ADVERTISER CONTENT CAR TESTS ELECTRIC CARS CONSUMER MOTORSPORTS MOTORCYCLE THE SUPERCARS + BECOM

Norwegian Romoline has developed a special technology that cleans the camera lenses of vehicles. (Photo: Kongsberg Automotive)

Norwegian camera cleaning technology can solve challenges

A major problem with rear view cameras is that the lens gets dirty, and in the future it will become an even bigger problem when the cars are self-driving. A Norwegian solution can solve this.

Written by THOMAS HELDØEN Editor-in-chief

Published: 01.11.2023 06:55 AM

We've been waiting for years for the self-driving cars, the ones where you can simply park yourself in the back seat and let the car do all the driving.

The technology itself is in place, and we are now working on both solutions related to the actual driving job and a regulatory framework that allows for self-driving cars. One challenge, for example, is how to apportion blame if self-driving cars cause an accident. An important part of the self-driving cars will be the cameras that are mounted around the car, and there are more and more of them. But it doesn't help much if there are a lot of lenses if these are so dirty that the video stream becomes blurry. The lenses must be clean, but it is a challenge when there is slush and dirt. Not to mention snow and ice. Romoline knows all about this, this Norwegian company based in Oppdal. They have spent six years developing a technology that keeps lenses clean, and filed their patent applications in 2018. This is a camera cleaning technology that has been tested in extreme Norwegian weather conditions. Unlike traditional solutions, this one uses less

Laagendalsposten

Advertising Obituaries (+) People The LP debate It happens

NEWS KONGSBERG AUTOMOTIVE BUSINESS

Kongsberg Automotive signs agreement on brand new technology



DN Investor

08.38 Havila sells Fjord1 08.32 Havila Shipping wins new Equinox contract 08.03 Airthings Chief Financial Officer Jeremy Gerst resigns

06.56 a.m. Kimmo Räsänen

Kongsberg Automotive acquires patents from Romoline

Kongsberg Automotive acquires patents from Romoline, a small technology company in Oppdal.

The patents are developed for camera technology, to be able to clean cameras for self-propelled vehicles.

The purchase price is not disclosed. Romoline had a turnover of zero NOK the previous three years.

Dagens industri START STOCK EXCHANGE MARKET NEWS ALERTS LEADER DI TV JO

KONGSBERG AUTOMOTIVE ASA: KONGSBERG AUTOMOTIVE TO ACQUIRE INNOVATIVE PATENTS FOR CAMERA CLEANERS DEVELOPED IN NORWAY

Zurich, October 31, 2023: Kongsberg Automotive (KA) and Romoline have entered into a definitive agreement to purchase patents related to camera washing technology intended for vehicles. This is KA's second investment in technology that will be used in vehicles that are on the road today, as well as in autonomous vehicles.

Based in Oppdal, Norway, Romoline is a company focused on research and technology development.

According to the agreement, the parties have decided on a license fee based on KA's gross profit on the product. KA will share portions of its gross profits with Romoline. Meanwhile, Romoline will continue its partnership with KA, providing services to facilitate the technology's commercialization and further development.

Developed in Norway, Romoline's technology is a modern camera cleaning technology. Unlike traditional nozzle cleaners, this technology uses less fluid

Norway News Today HOME WORLD BUSINESS TECH ENTERTAINMENT JOBS TRAVEL FASHION HOROSCOPE FITNESS SHOPPING INFRA SPORTS GAMBLING

LATEST NEWS Coco Gauff and Iga Swiatek win their WTA Finals opening matches in straight sets

Kongsberg Automotive to acquire innovative patents for camera cleaners developed in Norway

October 31, 2023 Updated 2 hours ago

By Admin

MarketScreener.com

Zurich, October 31, 2023 Kongsberg Automotive (KA) and Romoline have entered into a definitive agreement to purchase patents related to camera washing technology intended for vehicles. This is KA's second investment in technology that will be used in vehicles that are on the road today, as well as in autonomous vehicles.

LATEST NEWS

- Tennis: Coco Gauff and Iga Swiatek win their WTA Finals opening matches in straight sets
- Basketball: MEN'S BASKETBALL: Yale picked first in preseason poll
- Cricket: Emirates D20 2023 - Fantasy Cricket Predictions and Betting Tips: Sharjah vs Abu Dhabi, Final - 31st Oct
- Tennis: WTA Finals: Iga Swiatek overcomes slow start to beat Wimbledon champion Marketa



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Kongsberg Automotive to acquire innovative patents for camera cleaners developed in Norway

Kongsberg Automotive (KA) and Romoline have entered into a definitive agreement to purchase patents related to camera washing technology intended for vehicles

October 31, 2023

Kongsberg Automotive (KA) and Romoline have entered into a definitive agreement to purchase patents related to camera washing technology intended for vehicles. This is KA's second investment in technology that will be used in vehicles that are on the road today, as well as in autonomous vehicles.

INTEGRATING SOCIAL MEDIA FEED TO OUR WEBSITE

PRODUCTS AND SERVICES
Experience our innovative products that drive the global transition to sustainable mobility.

SUSTAINABILITY **INNOVATION**
AFTERMARKET **CAREERS**

Kongsberg Automotive 47h
KONGSBERG AUTOMOTIVE Q3 2023
Kongsberg Automotive has published its results for Q3, 2023. The results show underlying solid revenue growth at constant currency, and the strongest third quarter adjusted EBIT in the last three years.
Key highlights:
▶ Strong underlying revenue growth of 14.8% at constant currency
▶ Solid ...[Read More](#)

Kongsberg Automotive 2d
Q3 EARNINGS CALL
NOVEMBER 7, 2023 8:00 CET
Join our Q3, 2023 Earnings Call at 09:00 CET on November 7, 2023. To participate and access the recording of the meeting please visit:
https://channel.royalcast.com/hegnarmedia/#!/hegnarmedia/20231107_4
#KongsbergAutomotive #KATogether #AutomotiveIndustry #Q3 #EarningsCall #QuarterlyReports
22


kongsbergautomotive 5d
Health & Safety is KA's priority
On October 24, 2023, our team at the KA Bizesc Kujawski, Poland, organized a fire safety training session together with State Fire Service.
This training was organized to prepare employees for responding to possible incidents within the company's premises. It ...[Read More](#)

Kongsberg Automotive 7d
Save the date
KA is participating in Agritechnica, the world's leading trade fair for agricultural machinery, in Hanover, Germany from November 12-18, 2023.
We are showcasing our exclusive range of steering columns, pedal systems, gear shift systems, air couplings and hand controls for the ...[Read More](#)

Kongsberg Automotive 8d
22

Kongsberg Automotive 8d

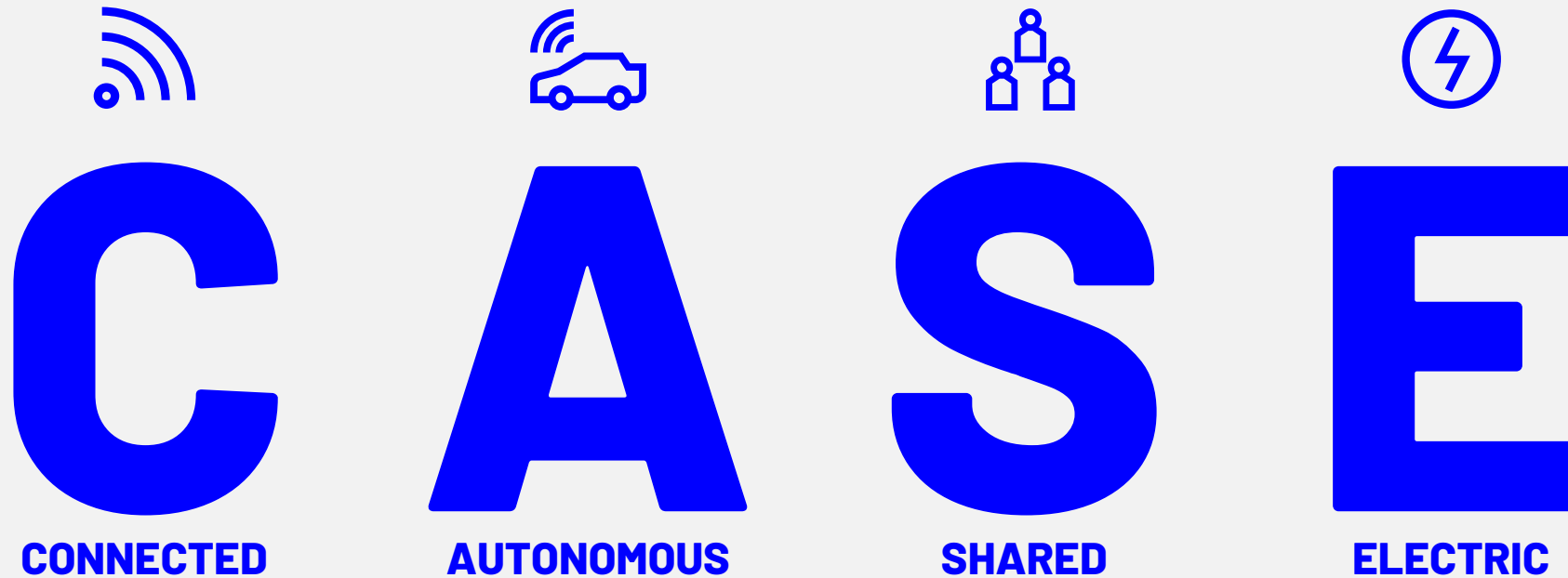




PRODUCT UPDATE

CHRISTIAN AMSEL

DRIVER FOR THE AUTOMOTIVE TRANSFORMATION



MAIN STRATEGIC AREAS OF FOCUS FOR THE AUTOMOTIVE INDUSTRY



DRIVER FOR THE AUTOMOTIVE TRANSFORMATION


C
CONNECTED


A
AUTONOMOUS


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SHARED

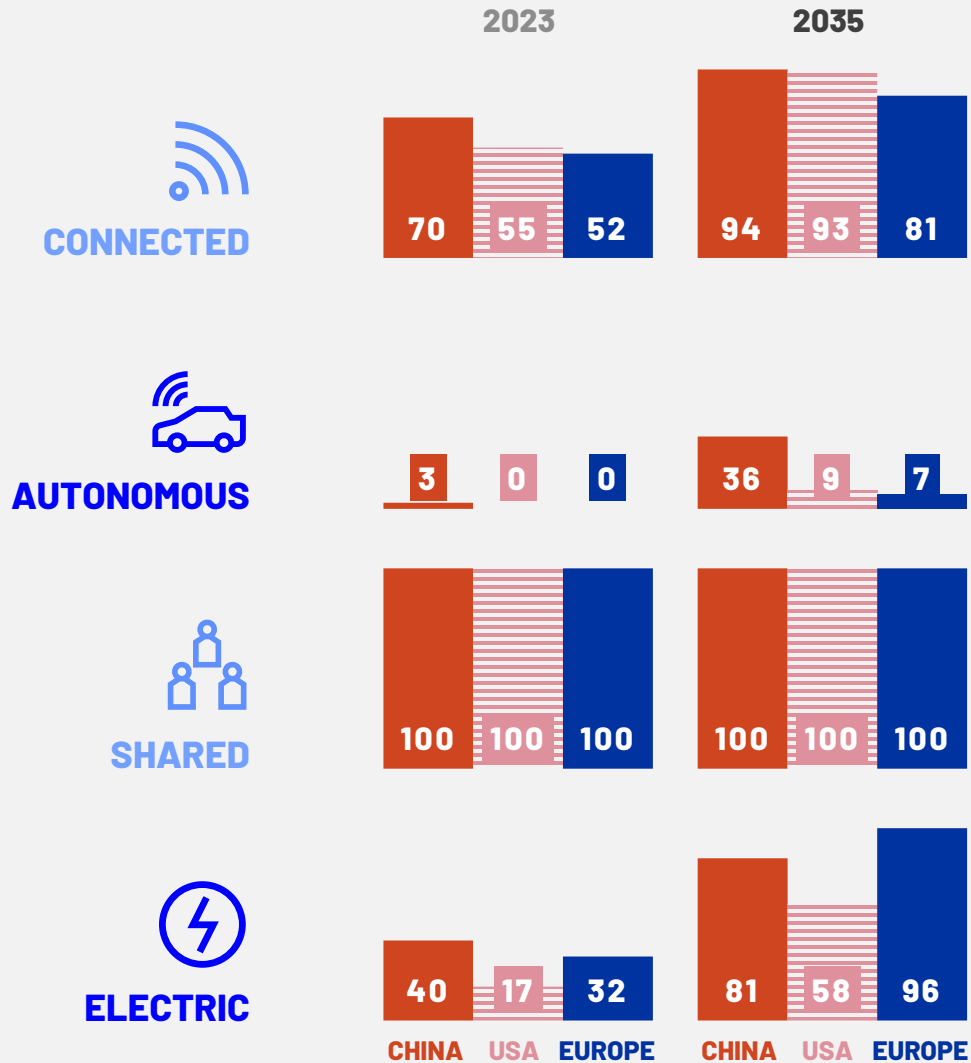

E
ELECTRIC

COMING INTO PLAY

GREATEST IMPACT



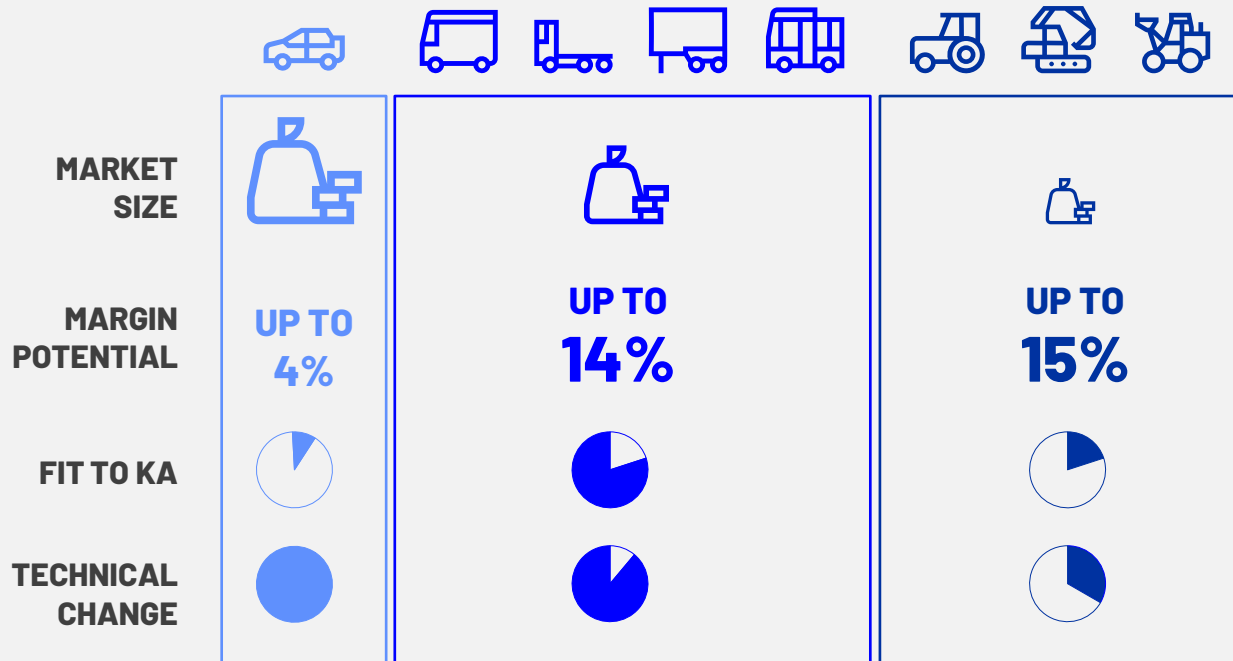
TRANSFORMATION OF THE AUTOMOTIVE SECTOR IS HAPPENING EVERYWHERE, BUT AT DIFFERENT SPEEDS



- > **Vehicle advanced connectivity (3G/4G)** is advancing quickly, 5G expected uptake with Automated Driving (AD)
- > **OEMs** have **reached a critical size** and **provide global services**
- > Rise of **e-mobility** drives demand for further **digital services**
- > **AD** is moving from **trial** to **commercial** modes
- > Mercedes with **first hand-off autobahn pilot (L3)** in production
- > Waymo and Cruise with first licenses in San Francisco for **Robotaxi**
- > **AD legislation** evolving very differently across regions
- > **Shared** modes **beyond vehicle ownership** are expected to **grow in the long term.**
- > **Autonomous Driving** will be a **boost.**
- > **E-mobility** in **EU** driven by **regulation, ICE ban** by 2035; **China, the US** provide incentives to promote sales and local production, no ICE ban
- > **Charging infrastructure** evolves differently but a bottle neck rurally



AS A PART OF OUR PORTFOLIO MODERNIZATION, WE MADE A STRUCTURED ASSESSMENT OF DIFFERENT SEGMENTS



- > **Innovation involves uncertainty** – we are managing our risks using a **structured methodology**, ensuring a cost-efficient development processes
- > We have identified areas where there will be:
 - » **High margin potential**
 - » **Good fit** to our **existing technology, production and customer base**
 - » **High degree of technical change**
- > Major disruptions act as **door openers for suppliers** to access new clients and segments



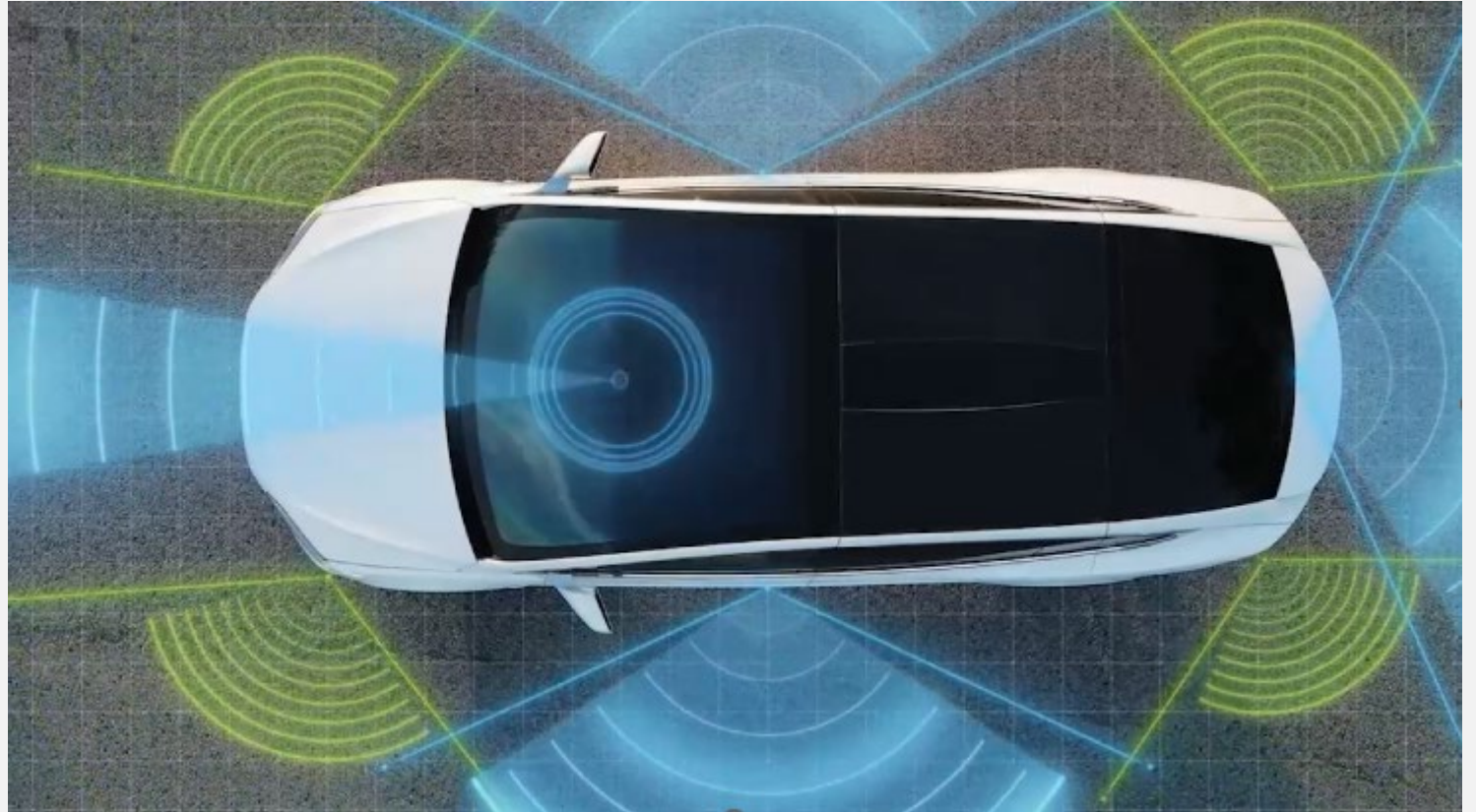


Product Update

AUTONOMOUS

AUTOMATED DRIVING

- 0**  DRIVER
No driving automation
- 1**  FEET OFF
Driver assistance
- 2**  HANDS OFF
Partial driving automation
- 3**  EYES OFF
Conditional autonomy
- 4**  ATTENTION OFF
High driving automation
- 5**  DRIVERLESS
Full automation



ISSUES IN TODAY'S VEHICLES WITH L1/L2 DRIVER ASSISTANCE SYSTEMS



> **Electrical sensors and actuators are sensitive to cyber attacks** and need to comply with cybersecurity legislation. **Cybersecurity will be mandatory** as part of homologation of vehicles



> **Optical sensors are sensitive to environmental influences like dirt, dust, snow etc.**, which reduces or loses its functionality causing the AD vehicle to stop driving



> **Steering and braking systems need to be upgraded to provide full redundancy.** This **secures steering and braking functionality** even after severe system or vehicle fault



KA'S APPROACH

KA PROVIDES ENABLING TECHNOLOGY FOR AUTONOMOUS DRIVING AND WILL PROVIDE MODULAR PLATFORMS TO SCALE THE TECHNOLOGY TO DIFFERENT MARKETS

For example:

- > **First to market to comply with cybersecurity and functional safety (ASIL-C) standards in truck segment (100% in-house development)**
- > Provide **Steer-by-Wire technology platform with fail operational performance** in the event of severe system or vehicle fault
- > Introduce **Camera Washer technology** to secure **proper cleaning of camera lenses** to eliminate dirt and improve availability of camera functions even under bad weather conditions





Product Update

AUTONOMOUS **STEER-BY-WIRE** WITH CHASSIS AUTONOMY



L3 L4 L5



L4 L5

CURRENT STATUS

- > **KA signed an agreement to acquire 20% of Chassis Autonomy on July 19, 2023**
- > Chassis Autonomy specializes in design and development of **steer-by-wire and brake-by-wire systems** for use in highly automated (L3) and fully autonomous (L4 and L5) vehicles
- > Competitive **advantage** both in terms of **technology and time**
- > **5 customers** already working with us on advanced development projects and business case evaluations
- > **Similarities and synergies with our ECA** product - technologies and know-how that can be used to further develop the steer-by-wire actuators

KEY BENEFITS

- > **Modular product family** for **passenger cars** (10-17,5kN) and **people movers** (17,5-22kN)
- > **Fail operational performance** in the event of severe system or vehicle fault
- > **Dynamic performance** even in fail operational mode





Product Update

AUTONOMOUS

CAMERA CLEANER L2 - L5

CURRENT STATUS

- > **Can be used for most cars and trucks**, but availability of cameras **even more important in AD vehicles**
- > Next steps for KA to **expand** in this product area will be to develop the product into complete systems and sensor cleaning solutions
- > KA expects **revenues in a 2-3 years time frame**

KEY BENEFITS

- > **Best cost - benefit ratio**
- > **Minimized package** to secure vehicle integration
- > **Highly efficient system** in terms of water consumption and cleaning performance



E-MOBILITY EVOLUTION OF POWERTRAIN PORTFOLIO



- > Since 2020, the powertrain portfolio **has moved** from technology openness **towards a BEV-centric powertrain** portfolio.
- > **Plug-in hybrid and fuel cell vehicles have declined** in significance.

TECHNOLOGICAL DEVELOPMENT UNTIL 2030

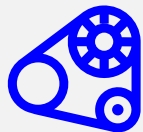


- > **Battery and cell chemistry** are expected to be far from a commodity, but the key **brand differentiator and competitive driver**.



- > Vehicle range, charging speeds and vehicle costs are key factors in the differentiation. **Enhanced cooling allows brand differentiation in fast-charging solutions.**

PLATFORM CHARACTERISTICS AND SPECIFICATIONS



- > To meet differentiated customer needs, **tailor-made product platforms need to be developed.**



KA'S APPROACH

KA PROVIDES ENABLING TECHNOLOGY FOR E-MOBILITY AND WILL PROVIDE MODULAR PLATFORMS TO SCALE THE TECHNOLOGY TO DIFFERENT MARKETS

For example:

- > Focus on **Electric Actuator Platforms** for **clutch and gear shift actuation** systems in **new electric powertrain** applications of the future
- > Focus on **Thermal Management Systems** to enhance **vehicle and battery cooling** systems achieving longer lifetime of batteries, **enhanced cooling** for fast charging, higher efficiency and longer range





ELECTRIC ACTUATORS

- > KA developed a **scalable product platform** of **electric actuators**. All products are developed **100% in-house** (electronics, software, functional safety, cybersecurity).
- > The products **meet the customer requirements** for **different drivetrain types** (multi-speed e-axle, multi-speed central drive, e-axle for low floor applications like busses) and comply with **functional safety** and **cybersecurity**.
- > KA offers **electric Dog Clutch Actuators** as single and dual eDCA and received already the 1st nomination.
- > The **electric Gear Shift Actuator** (eGSA) is offering different kind of gear shift and decoupling features. KA delivered prototypes to several global customers. Up to **3 actuators** in one e-axle.





Product Update

ELECTRIC ACTUATORS

DCA DOG CLUTCH ACTUATOR

FOR APPLICATIONS SUCH AS:

- > GEARSHIFTING
- > DECOUPLING



UNIQUE CAM AND SPRING DESIGN
FOR EFFICIENT HANDLING
OF DOG-TO-DOG ALIGNMENT
IN THE CLUTCH

**INTEGRATED
SHIFT FORK**



THERMAL MANAGEMENT SYSTEMS

- > KA is among the top 3 market leaders providing efficient **Air Brake Solutions** for Trucks/Busses and Trailers as well as **Cooling solutions** for water and oil cooling systems.
- > We aim to deliver **the world most sustainable, cost effective and advanced Thermal Management System** for future powertrain platforms
- > KA is offering a **scalable product family** for **electric and fuel cell powertrains** covering all kind of **cooling systems outside and inside of the battery**. KA has been **nominated for selected applications** and is involved in **several prototype phases** for future electric and fuel cell vehicles.

EXAMPLES OF COOLING SYSTEMS

- > Battery cooling **inside and outside of batteries** (25°C)
- > **Powertrain:** E-axle or traditional e-motor and gear system (55°C)
- > **HVAC** cooling loops (75°C)
- > **Fuel cell** high temperature cooling loop





Product Update

THERMAL MANAGEMENT SYSTEMS

EV THERMAL MANAGEMENT SYSTEMS

SAFETY

- > BEST-IN-CLASS TECHNOLOGY
- > LIFETIME DURABILITY

EFFICIENCY

- > SIMPLIFIED ASSEMBLY AND DISASSEMBLY



SUMMARY AND OUTLOOK

KA IS ON THE RIGHT TRACK AND IS PURSUING 2 DIRECTIONS:

- > **Scaling of existing technology** in all Business Units to current and emerging markets. We still see strong growth potential as all markets develop differently!
- > Offering new technology platforms to follow the Mega Trends in E-Mobility and Autonomous Driving, KA is focusing **on growth areas** where KA is well-positioned and which fits well to KA's competencies. **Allow for bolt-on acquisitions** in the coming year, so KA can **strengthen businesses** in core areas.







KONGSBERG
AUTOMOTIVE

MOBILITY SOLUTIONS FOR THE FUTURE