

# CMD24

Introduction .....	2
Financials .....	7
Product .....	14
Fireside chat: Sustainability .....	22
Technology .....	26
Safety .....	34
Q&A – Block 1 and 2 .....	38
Global footprint .....	47
Commercial and Brand .....	55
Final Q&A .....	61
Wrap .....	73

Introduction

SPEAKER:

Jim Rowan, President and Chief Executive Officer

<p>Jim Rowan</p>	<p>That is why I work for this company. That's what gets me out of bed in the morning. And I wanted to start with that film because the financials, the technology, the fantastic cars - of course, they're all majorly important, and we'll get to those. But this is what makes our company different. This is what our company is about. People and keeping them safe. And with that said, good morning everyone, and thank you for coming today. Thank you for joining us here at this very special venue, the World of Volvo which we opened earlier this year. This great building reflects that and displays the rich and long history of our brand. And only a few years from now, we'll celebrate our 100th birthday. But we're not resting on our laurels or basking in past glories. We're looking into the next hundred years. We're putting in the work, and we're laying the foundations for that next century in our existence. And today, we stand at a very pivotal point and exciting milestone in that journey.</p> <p>We've been gearing up for this moment. We've been investing in the future, pushing the boundaries and delivering solid growth. We've grown our sales strongly and taken market share in Europe and the US. 2022 and 2023 were record years in terms of profits and sales growth. And in our latest financial results for Q2 2024 we reported the best-ever quarterly core EBIT and core EBIT margins.</p> <p>But the competition is intensifying. Complexity is increasing. So, we're gearing up for the next phase. Growth alone can never be the goal. So, our focus is on creating value for you, for our customers, for our employees, for our suppliers, for all the stakeholders. And ensuring a long-lasting impact. And you'll hear much more about all of this during the course of today.</p> <p>The key challenge is: how do you create value in a flat market? And more importantly, how can you create value for all of the stakeholders for the long term? Because that's what truly matters in a company like Volvo, which has purpose. And as I see it, we face five major factors that shape the world today. To make this simple, I've called them the five Ds. And these are the things that we need to overcome in order to deliver that value. And they are disruption, derisking, digital &amp; AI, decarbonisation, and ultimately, design.</p> <p>First of all let's start with disruption. We live in a very volatile world. Since we listed the company in 2021. The world has changed tremendously. We went through the Covid-related disruptions, followed by semiconductor shortages, and we're still experiencing ongoing conflicts in the Ukraine and the Middle East. We saw a sharp increase in raw materials. We saw the bankruptcy of some suppliers. And all of this has combined to change critical elements in our</p>
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business, and we've had to change the way in which we operate, not least of all in our supply chains.

And that leads us to the second trend, which is de-risking. The traditional growth dynamics of the car industry are under pressure, and we face what many call a de-risking, or even a decoupling stage. This, of course, is heavily influenced by the complex geopolitics and its impact on supply chains and the global economy. This is where we see the increased tariffs on China built EVs and batteries really come into play. For many years, China was the growth engine of the car industry, with many Western brands and the broader economy as a whole. But now, for the first time, it has a significant used car market. And this, of course, dampens the demand for new cars. Combined with an ongoing market shift towards domestic manufacturers and the introduction of those tariffs on China-built EVs. This changes the narrative around China significantly.

The third element is the rise of digital and AI. More specifically, how we benefit from that in the most meaningful ways. I believe that in many aspects, we've only just started to see the impact of this technology, and therefore, this is an area in which we continue to invest, test, and deploy at speed, but also with clear intention. You'll see that later today. The EX90 exemplifies the future of the software-defined car. With the help of super-powerful computers and in-house developed software, we are now making new strides and world-class infotainment, services, and servicing, over-the-air upgrade capabilities, Increased active safety performance, and most recently, energy management.

And then we have decarbonization. The increased global focus on decarbonization is of course right, and we believe that the mobility industry needs to do its part. That's why we have set out to be leaders in the transition to electrification and to continue to reduce CO2 footprint from our supply chains. But this transition will not be linear. It will move at different speeds in different markets. It's also the reason why we are investing in next-generation electrification Technology, which will underpin the upcoming models, whilst at the same time keeping up investments in our electric hybrid cars. Before the end of this decade, we will have a complete line-up of fully electric cars, allowing us to make the move to full electrification— as and when each market is ready.

And all of this leads to the fifth D, which is design. In order to meet the new world created by these four trends I just described, we need a new approach to design. How we design our products and the experience. How we design the cars, how we design the materials, the talent pool that we use and employ, the supply chains that we create. This really is a paradigm shift that affects the entire value chain. And I think we are making headway on that faster than many of our competitors.

Now before I touch on the approach to creating value with this as a backdrop, I want to talk to you about focus and nimbleness. We have a clear strategy. We know where we are going, but we need to be nimble as the world around us will continue to change and it will continue to change at pace. And this is crucial. As in the new era, size becomes much less important than speed.

Speed will be a key currency of the future. And to be successful, we need to be fast. We need to be agile. We need to be pragmatic in the face of constant changing business conditions. And as the saying goes: It is not the big that eat the small, it is the fast that eat the slow. Geopolitical uncertainties and economic headwinds are the inescapable business realities of today. And we can't control these. But what we can do is navigate them with speed and purpose and perhaps more importantly, with a clear focus. We are building a global, high tempo, nimble organisation that can think fast, adapt quickly and act decisively, all aligned in one direction. Having a laser-sharp focus has increased in importance, and it underpins the choiceful investments that we're making and how we will deploy our resources most effectively. It has also helped us to navigate what we will do and perhaps even more importantly, what we won't do.

Now, we've proven before that we can handle challenges and we will prove it again. Because business is not a game of perfection. It's a game of progress. And at Volvo Cars, we're making progress. This is shown in our results, it's shown in our technology. It's shown in our wonderful talent. Ultimately, it's shown in our cars. So, in the spirit of pragmatism, nimbleness and focus, we have decided to adjust our business ambitions for the coming years. By doing so, we retain our industry-leading position in electrification and sustainability, while remaining resolute on a long-term direction and safeguarding value as a business. But let me be clear: We are committed to our long-term direction on electrification. Electric propulsion is the future of electrical powertrains. They are superior to combustion engines. There's less noise, there's less parts, there's less vibration, and less servicing costs for our customers. And there are zero tailpipe emissions. And eventually, with the investment that is going into these technologies, BEV cars will be cheaper than ICE cars. It also enables a much bigger shift around technology in general. However, as we've said many times, this transition will not be linear. It will take longer in some regions than in others due to variations in customer demand, market incentives and most probably the biggest influence will be infrastructure. So, we're building in flexibility, allowing us to keep serving loyal Volvo customers who are not yet ready or yet able to go full electric.

In practice, these changes come down to the following: By 2025, we aim for between 50 and 60% of all global sales to be electrified. And by that, I mean both fully electric and plug-in electric hybrid cars. Essentially, every car with a cord. By 2030, we aim to be between 90 and 100% electrified. And this continues to keep us in the head position of our peers. And related to this, our CO2 ambitions will also remain industry-leading. Our aim here is to reduce CO2 emissions by between 30 and 35% by 2025. And by 2030, we aim to have CO2 reductions per car to come in between 65 and 75%. Again, that puts us well ahead of the competition and allows us to continue to be pioneers in sustainability. To that end, we will work diligently with the suppliers to bring down those emissions from materials, as well as from our core operations. As I said, we will remain firm on creating value as a business, and that is why we will no longer aim for an absolute specific revenue target, but simply to outgrow the premium car market, as we have done in recent years. This will

allow us to continue to maintain our price discipline and continue to drive value for the long term. In terms of profitability, given the increased complexity, especially in relation to global trade and tariffs, we expect EBIT margins of between 7 and 8% for the full year of 2026.

Finally, there's cash flow. We had a peak investment phase and we have funded all of those investments without the need to issue more equity. Demonstrating the strength of our balance sheet. We foresee that the neutral cash flow will remain for 2024 and for 2025. But from 2026 onwards, we're in the harvest phase, with strong profitability, where we will start to benefit from these investments and we will see strong free cash flow in that period.

These new ambitions are important, but what's equally important is how we deliver in this more complex, competitive, and challenging world. At Volvo Cars, we continually work with five missions to help drive our business, and these missions clarify the most critical deliverables in strategic landscape, and help us to remain competitive. Our missions are product, technology, customer, digital, and people. They're pretty self-explanatory by their names alone. But within these missions, there are 12 strategic imperatives that enable us to create the value that we desire. You'll hear much more about all of those through the course of today as we unpack the whole story for you.

But very quickly, these are: the Superset tech stack and SPA platform evolution, A balanced portfolio in an 8 by 8 manufacturing development cycle, Digital, Data, Connected and Federated, Batteries in Balance, Energy matters, A disciplined cost management and Capital allocation structure. Safety, beyond the stars, Sustainability beyond CO2, Build where we sell, Source where we build. A customer-first ecosystem. The Volvo brand. For life, for lives, for living. And finally, talent, teamwork, and culture.

These 12 points which I've outlined will be the things that allow us to win the decade and set up Volvo Cars for success in the next century to come. But we live in turbulent times and in the mobility industry of tomorrow, you can either compete on price or you can compete on value. In order to compete on value, you need to make the right investments. You need to invest in the right technology. You need to invest in the right talent. And that is exactly what we are doing.

Now, we're looking forward to sharing all that with you today. But let me be clear. We will prioritise value. To compete on value, you must build a premium car with great products, great technologies that provide an enhanced customer experience. You need to provide a car that can be used produced regionally to drive down costs and navigate tariffs. And we hear a lot about this transformation conversation. The problem with this transformation conversation is it assumes a starting point, a change phase, and an endpoint. Caterpillar, cocoon, butterfly. I don't attest to that. I think the industry is now in a phase of continuous metamorphosis. Continuous change. And I think we, more than any of our competitors, are prepared for this. We have the speed, we have the nimbleness, and we have the focus to execute and adapt for the future. We are the only European car company to have successfully harnessed core compute technology. And in so doing, we have crossed the rubicon to the

	<p>next phase of that industry. The importance of that single achievement alone should not be underestimated. It will help us in the quest to unlock tremendous value. And this is as much about mindset as it is about action. I think we have the right mindset. But of course, our actions will speak louder than words. And this is what will take you through the day. What we have done, what we're doing, and what we'll do in the future. Protecting people. Protecting the planet. Now and for the next hundred years. That's what gets me up in the morning, and that is why I work for this company. Thank you.</p>
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Financials

SPEAKERS:

Johan Ekdahl, Chief Financial Officer

Fredrik Hansson, Deputy CFO and Head of Performance Steering

<p>Johan Ekdahl</p>	<p>Good morning, everyone. My name is Johan Ekdahl. I'm the CFO of Volvo Cars. I'm joined here on stage by Fredrik Hansson, Deputy CFO and Head of Performance Steering. These are exciting times for our company. Over the last two years, we have been laying a strong foundation for profitable growth going forward, as Jim mentioned before, we have done all this with one thing in mind: creating shareholder value. And Fredrik and I now have the honour of walking you through the building blocks on our value creation journey ahead. So, let's start with a quick overview of our financial ambitions that Jim walked through here just recently. We should continue to grow as a company. We aim to outgrow the premium car market up until 2026. We have great products with fantastic technologies that will significantly improve customer experience and drive growth. Our ambition on profitability is to reach an EBIT margin of 7 to 8% for the full year '26, pushing for 8%. We also aim to deliver strong free cash flows from 2026 and onwards, as we move out of the peak investment period that we're now in, as well as reaching our profitability and growth ambitions going forward. For '24 and '25, we aim to have neutral free cash flows and remain fully on track towards that. But before I begin to walk you through our blueprint for a profitable future, let me highlight how we performed in the last couple of years. As Jim alluded to, momentum is clearly on our side. Over the last two years, Volvo Cars has grown significantly as a company, we launched great new products across all markets globally. We reported continued and significant growth in terms of sales volumes and revenues during this period, and we reached our highest-ever market share in Europe. And this has also been reflected in our operating profits from 2022 up until the first half of 2024, and therefore we are at a solid starting point now despite multiple headwinds in the form of geopolitics, trade tariffs, macroeconomic challenges, et cetera. Our retail sales have consistently been on the growth trajectory, and we closed 2023 with record growth in vehicle sales. Our continued focus on cost also helped us significantly improve gross margins. And in the second quarter of this year, we reported a solid gross margin of almost 23% and 20.7% for the last 12 months. And with record sales and laser focus on cost, we have consistently improved our profitability, leading to an impressive more than 8% EBIT margin in the second quarter of '24, which was also a record. And at the same time, we managed to improve our cash generation and are on track to report neutral free cash flows for '24 and '25, while expecting to report strong positive free cash flows from 2026 and onwards. And although there are challenges ahead and the journey to our '26, ambitions may not be linear, we are at a very solid starting point. So, let's</p>
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	<p>focus now on how we aim to reach our EBIT of 8%, because that's what we're really pushing for as a company. There are really four areas for us to unpack, which we will do now here today. There's growth. There will be certain market normalisation. We will come back to that. We of course need to continue to work with fixed cost efficiencies. And lastly, we also will see benefits from our investments in new tech, which will significantly outweigh headwinds from depreciation and amortisation. So Fredrik, why don't you start taking us through these different building blocks?</p>
<p>Fredrik Hansson</p>	<p>Sure. Thanks, Johan. Now, let's start with the first building block, growth. And a key thing to note is that growth will be an important lever for us, but it is not the main lever as we push towards 8%. Our focus remains on value creation. But having said that, we will have a lot of growth opportunities, because we are very well-positioned for continued growth. We have an increasingly balanced portfolio of Mild-hybrids, PHEVs, and BEVs. A great example of this already in the market is the EX30. We entered into a new segment in the strong growing premium BEV market, which not only unleashed growth, but as was very evident in our Q2 financials, it created profitable growth, contributing to what was probably the highest BEV margins in the industry, and this is an already challenging market. Now, as will showcase later today, we're also further expanding our product line-up, which will help us cater to even more customer needs and wants. And we are unleashing this portfolio with our strong global presence. We are a truly global company. We have a good track record and starting point across regions. In Europe, we're at a record market share. Helped, of course, by the success of the EX30 and the XC60, which is the best-selling PHEV in the region. We're also very well-positioned for growth in the US. Already today, we're the premium leader in PHEVs by far, and with the EX90 and EX30 coming in the pipeline, they will expand our portfolio, our addressable market and ignite the growth momentum in the US. In China, there's a lot of turbulence. Our main focus there remains to secure value creation and maintain premium pricing as the market unfolds. And then we have APAC and LATAM, where we're really today punching above our weight. We have double-digit market share in most markets. And very importantly, we're leading in the electrified markets in countries like Mexico and Brazil. Now the last part on growth I wanted to mention is aftermarket. Often while talking about growth, we don't talk enough about our aftermarket business. But this is a highly profitable largely non-cyclical business which is growing with our car parc as we grow sales. We also see an opportunity to increase penetration here and expand our service offerings as we focus on this. Basically, making sure that the increasingly large Volvo fleet buys Volvo parts and services and that we have more services to offer. So, with that, we are very well positioned for future growth. But that said, we're also expecting further market normalisation, which Johan will talk a bit about.</p>

<p>Johan Ekdahl</p>	<p>Yes, that's right. Market normalisation is both a challenge, but also an opportunity for us. We are coming out of abnormal market conditions following Covid and subsequent supply constraints. And as we move toward a fully electric future, it's important to remember that this journey will not be linear across all markets globally. It will play out differently in different regions depending on local government policies, infrastructure and a lot of other factors. But despite that, BEVs will continue to be the growth driver for the premium market compared to the non-BEV market, which is essentially flat or even declining. And we already have five fully electric cars on the road today and another five in active development, which is really a good foundation for benefiting from the strong expected premium BEV market growth. At the same time, for markets that are not yet ready to go full electric, we will continue to have a strong, balanced line-up of premium plug-in hybrids and Mild-hybrids to cater for everyone's needs. And as we mentioned before, BEVs will be the main growth driver in the premium segment. However, with improvements in battery technology and drivetrain and other technology, we expect pricing on BEVs across the market to become more affordable for the customers. And this will also be a driver for growth in the broader BEV segment, which is, of course, also an opportunity for us as a company. And we at Volvo Cars are confident that we will be better positioned to retain our premium pricing position with a better mix relative to the industry. And this is primarily on the back of the significant improvements in the underlying technology that powers these cars, thereby improving their overall value proposition and experience for our customers. And this will counterbalance, let's say, the normalisation in BEV pricing and will enable us to further close the pricing gap with premium competitors. With that said, we do not bank on higher net BEV pricing on a like for like basis. Our investments in technology will ensure that our next generation of competitively priced and even more affordable BEVs will generate significantly improved margins. And the improvement in BEV gross margins, driven by the EX30, a smaller sized car with the latest technologies is really a proof point that we are on the right track. In addition to this, interest rates are also expected to come down, which will of course increase affordability for the consumers. Now let's take a look at our third building block, fixed cost efficiencies. Over the last couple of years, we have taken multiple steps to improve our cost competitiveness. We are securing competitiveness through targeted cost actions and going forward, we need to stay on this path and will remain laser focused on that. Our efforts to improve cost efficiency have already started to materialise, and was one of the drivers of our record profitability in the second quarter of this year. And this cost focus in the business is not a one-off program, but an ongoing and continuous exercise and a core part of how we operate as a company. This will include continued benefits from our global presence. It will, of course, continue to leverage from automation and AI, and also a continued sharp focus on productivity and efficiency. Some areas will have to grow cost-wise, others will decline, but in total our efforts will be focused on keeping our cost base tight relative our revenues, while continuing to grow as a company.</p>
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<p>Fredrik Hansson</p>	<p>One of the specific big improvements we expect on fixed costs will come from R&amp;D, and the expansion of our superset tech stack that we announced earlier today. You will hear a lot more of this from Anders and others throughout the day, but starting with the EX90, all our future BEVs will be based on the superset tech stack. A common fundamental core of systems and modules, with one common Software track. Not only will this be a gamechanger from a technology and customer point of view, but as Jim expressed it, as we've now crossed this Rubicon, it will allow for focus and re-use from a development perspective which drastically reduces development cost for upcoming products in the pipeline. But, even though reducing costs for development of the cars is exciting. What's really game changing is the customer value and reductions in variable cost that the underlying technology unlocks. And this brings me to the next building block, how our investments in new tech and spa 3 will help us improve our underlying profitability. And in this '2026 timeframe' we will start seeing some of the first fruits of SPA 3 technology. So, why we are so excited about our tech approach with spa-3 and the superset tech stack? Because not only will it drive immense customer benefits with latest technologies tailored for their needs, and lower our fixed costs. But it will also drastically reduce variable cost. We will be able to sell a more affordable car for our customer, which is even more affordable for us to produce, drastically increasing our EV gross margins. In other words, we're now unlocking the magic of tech: better performance for a lower cost. That will drive volumes and help us take market share in a flat market, while increasing gross margins.</p> <p>Sounds exciting right, so let us unpack a bit how all this hangs together, starting with variable cost. What you're seeing on the screen here is a variable cost comparison between a current first-generation CMA BEV and a comparable SPA3 successor. And as you can see, we're expecting quite drastic reductions in variable cost. This as we implement our new cell-to-body technology, our third-generation in-house e-motors, mega casting and build them in BEV dedicated factories. So, let's jump into some of the specifics, starting from the left here. First, we have cell-to-body technology - where the battery becomes a structural component of the car. That will not only make the car more sustainable and lighter, and thereby deliver better handling vehicle for our customers, but combined with more efficient battery cells, and also result in 25% cost reduction on the battery pack, which is the most expensive part of the car. Secondly, we continue to invest in in-house development and manufacturing of E-motors. Mastering this ourselves, helps us to drastically improve efficiency. A big step in this we proved, already last year as we introduced generation 2 technology into the EX40 and EC40, where we basically increased range by more than 10% whilst also drastically reducing the component cost of the motor. With the 3rd generation, we expect another step with 40% cost reductions and even higher powertrain efficiencies. As you know, we're also investing in mega casting, where we replace more than 100 components with one single cast. This reduces direct cost by 35%, but importantly it also drastically reduces complexity in logistics and manufacturing which unlocks even further benefits. And beyond this, we're also selectively looking at areas where we can save from vertical</p>
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	<p>integration as we reduce complexity with our superset tech stack. One example of such an area is car seats, where we expect to unlock 15% savings on a quite sizeable chunk of cost. But Johan, to get all these efficiencies we need to make strategic investments, can you share a bit on what we're doing?</p>
<p>Johan Ekdahl</p>	<p>Yes, that's right Fredrik, and many of you have seen this slide before, but I still wanted to bring this back. We are now at the peak of the investment curve, which will come down from 2026 and onwards. And considering the growth even more so relative to revenue, and this coupled with high profitability, will help us deliver on our ambition on strong free cash flow from 2026. This chart also shows that there is not one big capex program, but several building blocks. Blocks that will be completed when we launch this SPA3 platform. And to give you an overview of where we have been making these strategic investments, most of the investments are going into new product development, which is basically geared towards both expanding the product line-up and bringing in meaningful upgrades of the existing ones. And this will result in expanding the overall pie for Volvo Cars. And another two areas where we have been investing have been expanding our capacity, the Košice factory being an example of that, And in vertical integration. And finally, we continue to invest in CO2 reducing and sustainability initiatives across the business, increasing localization to improve variable cost, as well as resilience, and in maintenance and upgrades. So, Fredrik, what does all this combined mean for the profitability of our future BEVs?</p>
<p>Fredrik Hansson</p>	<p>Well, to summarise, we see drastic reductions in variable costs, whilst still building a significantly improved car and wider customer experience. We expect to price this at a premium but very competitive level. And combined, this will on a like-for-like basis bring significantly higher gross margins. Comparing a current CMA car with a comparable SPA3 car, we're talking about an 8 to 10 percentage point increase in gross margins, 8 to 10 percentage points. That's a massive increase. And we can do that because we're one of the very few companies that have truly cracked the code to the software defined vehicle. Unlocking the full potential of our technology with our superset tech stack. Better products, lower cost. Now, let's do a quick recap of the different building blocks. Growth, we talked about growth being important, but not the key lever on profitability. Market normalisation, we clarified that we're not banking on BEV pricing to deliver on our profitability ambitions, even though we remain firm that we will retain our premium pricing position. Fixed cost efficiencies, we continue to work on this across our business, which has already started to deliver results and will continue to do so, and we're investing in new tech that will further position the company to secure better cars at a lower cost. Now, we expect these strategic investments to start paying off already in the '26 time frame, pushing us towards 8% EBIT. But it doesn't have to stop there. And to be very clear, we're not guiding beyond 2026 profits. But that said, as more and more of our product start benefiting from the superset tech</p>

	<p>stack and SPA3 technology, we will have more efficient R&amp;D and an increasingly larger share of our product portfolio, reaping all these cost benefits we talked about. And as the dark blue section of this graph indicates, all else equal, this would mean that our profit opportunities don't stop at 8% as we move past 2026. So, Johan, that was profit. Let's zoom in a bit on cash.</p>
<p>Johan Ekdahl</p>	<p>Thanks, Fredrik. And yes, in addition to the profitability ambitions and the route to 8%, we also need to generate stronger free cash flows over time. And the most important levers for that can be summarised in this picture. As we will be able to harvest from our investments in new technologies, the scalable SPA3 architecture and the one software stack, we will be able to reduce R&amp;D spend as we go into a period of more gradual and continuous development of an existing architecture, and that will take down investment levels and be an important lever for increased cash generation. We will increase profitability and absolute profits as we grow, which is another important driver, of course, for cash flow generation. And these new investments will, as we have shown, also drive improvement in gross margins and reduce investments over time in new products. And this should take us from neutral cash flows in '24 and '25 to strong cash generation in the coming years. As we come out of this peak investment period in 2026 and onwards. And important to note that even though we are in a high-investment phase, all our investments have been funded with our own operational cash flow without any need to issue more equity, demonstrating the strength of our balance sheet. And we also plan to refinance upcoming maturities, but we do not plan to increase gross debt. As we enter the period of strong cash flow generation, on the back of our investments in technology and actions on cost reduction, we will, of course, consider shareholder distributions. However, more information on this will come at a future point in time. So just to summarise, let me come back to this slide. We are investing to future proof our business and it positions us strongly for the coming years. We are now reaching towards the end of that peak investment phase, and will be approaching the harvest period from 2026 and onwards. We have done SPA2 and have the core compute technology. We have solved the software defined vehicle puzzle, whilst many in the industry are still struggling, and our next-generation BEVs based on SPA3 will not only bring a step change in customer benefits, but will also be competitively priced. And this will help us drive growth, take market share in the premium market and we will do so while increasing our profit margins, pushing for 8%, and with even further opportunities beyond that. Although we do not guide beyond '26, the journey towards our '26 ambitions might not be linear. There is a lot of turbulence around us in the world and uncertainties with tariffs, geopolitics, macroeconomics will add short-term challenges. But this is an issue only in the short term. So with that, I will now hand over to Björn, who will speak about our products, and he will be then followed by Erik. Thank you.</p>

V O L V O

Product

SPEAKERS:

Björn Annwall, Deputy CEO and Chief Commercial Officer

Erik Severinson, Chief Product and Strategy Officer

<p>Björn Annwall</p>	<p>Hello, everyone. I'm Björn Annwall, deputy CEO and Chief Commercial Officer. As you heard from Johan and Fredrik, this is a very exciting time for our company. Yesterday, we announced that the first batch of EX90 cars is being shipped to retailers in the US and Europe. And the first customers will get their cars before the end of this month. Yes, it's been a wait, but it's something worth waiting for.</p> <p>We have now officially kicked off a new era for the company. An era of safety, technology and electrification. An era that the EX90 truly represents. The EX90 is not something small. It's the first of a new type of Volvo. Not just electric. So much more. It's designed to be the safest ever Volvo through passive and active safety systems. It's using state-of-the-art sensors connected to the car's core computing that understand you and your surroundings better than ever before.</p> <p>And yes, thanks to the core computing, it can improve over time. The EX90 also reflects our focus on sustainability, not only through zero tailpipe emissions, but also through the use of recycled and progressive materials. It is a highly comfortable, true 7-seater SUV in fantastic Scandinavian design, unlike anything else on the market today. It plays a vital role in reinforcing Volvo Cars leadership in the premium electric car segment.</p> <p>I'm convinced that the EX90 will redefine premium electric SUVs in the same way that the XC90 redefined the large SUV segment more than 20 years ago. And you no longer have to take only my word for it. The EX90 has, in the last few weeks, been driven by global media, and has been very well received, as you can start to see behind me. Lots of quotes. The one that stuck in my mind was this journalist coming out of the car with a big smile and just saying: "You at Volvo have found the magic mute button." And that's the feeling you have when you sit and drive this fantastic car. You should try it.</p> <p>We have very ambitious business expectations for this car, and just as it's designed to improve over time, its sales volume will also grow over time, as BEV penetration increases globally.</p>
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Our market performance has clearly shown that Volvo can sell premium BEVs in a profitable way. Our brand strength, coupled with a very strong product line-up, and a highly competent electrification-focused retail network has been the driver of this success.

In Europe, Volvo Cars grew its absolute BEV volumes, by more than 100% year over year, up until today this year. We have outperformed all competition in Europe. As a result, we have delivered a 3.5 percentage point increase in market share in the BEV market. And electric cars are very much our future. You heard Jim say earlier, we aim for 90 to 100% electrified car mix by 2030, and we're well on our way to achieving that. Last quarter, the number for us was 48%.

And as we said, this journey is not necessarily linear. BEV adoption in the market has generally slowed, and the longer-term projections have been revised downwards. Challenges remain: range, affordability, charging infrastructure, and it always takes time to change consumer behaviour. Yet, electric cars are the future. They're superior in terms of consumer experience, cost efficiency, sustainability. So it is the longer-term answer.

And as the BEV market matures, it becomes a bit oversimplified to talk about "the BEV market". The dynamics vary significantly. If you compare car types, car sizes, different regions and not the least between mass and premium. And as usual, the introduction of new technologies starts from the top. The BEV market for traditional premium BEV continues to grow, and here is where we focus – the premium BEV segment. That's the fastest-growing part of the market, and if you want to be successful as a company, you should focus on the fastest growing part.

We're also a global company – Europe accounting for almost half of our sales, and the US and China accounting for approximately 20% each. And clearly, our transition to electrification will progress at different paces in the different regions around the globe. So that's why we need a balanced and pragmatic approach to our business offering and our product offering. A balanced portfolio of fully electric and hybrid cars, that creates the strategic flexibility to leverage our strengths in each and every region.

The new XC90, unveiled yesterday, and now joining me on the stage clearly exemplifies this approach. It demonstrates our commitment to make meaningful updates to our mild and plug-in hybrid line-up, delivering a customer experience and a product we can be proud of in the long run. It's a fantastic car, right? Thank you. And it's been a fantastic car for us for a long period of time.

We have a very strong position in the large SUV segment around the globe, and we continue to build on that strength. Together with the EX90, the new XC90 strengthens our competitiveness further. We now have great products in BEV, in plug-in hybrid and in mild-hybrid, and that provides the flexibility we need to handle an uncertain environment.

Now let's go back to the electric foundation and look at the cars we already have in the market. First, the EX30. That's our smallest-ever SUV and that has been performing exceptionally well in the market. The car has the lowest carbon footprint of any of our BEVs to date, and it has helped us to conquer a lot of new customers to Volvo. Since deliveries began last year, the EX30 has quickly become a winner. It was among the top three best-selling fully electric models in Europe during the first half of this year. It has also become a key growth driver in Latin America, particularly in Brazil and Mexico, where we are the leader in premium BEVs.

It has also received almost universal acclaim, having won more than 20 awards and still counting. By the end of this year, the EX30 will be available in over 60 markets worldwide. So we have no doubt it will continue to be a success, especially as we plan to start production in Ghent, Belgium in the first half of next year, with volumes ramping up throughout the year.

With production in Europe and China, we'll be able to handle geopolitical turbulence in an effective way. Importantly, this car also takes us closer to the aspired ICE/BEV cost parity, which we are confident that we, as a company will reach later in this decade.

Alongside the EX30, the EX40 and the EC40 have now been delivered to over 250,000 customers since their launch, maintaining a very stable and robust pace. This also demonstrates what Fredrik talks about – how we've been effective in improving our products, not just with a traditional exterior facelift, but with true improvements in range, Android-embedded infotainment, and not the least, cost efficiencies. Better product at a lower cost.

We also began to deliver the new EM90 in China, bringing our unique safety heritage to the new fully electric premium MPV segment. It represents another expansion of the electric line up and demonstrates our ability to meet specific market demands. While the premium MPV segment in China is relatively small, it plays a very important role, with the EM90 reaching more high-end customers in China who are seeking a safe, spacious, and comfortable premium experience. It helps us strengthen our position as a premium electric car brand in China.

It's a very competitive Chinese market, particularly in the full electric segment. And we remain realistic in the short term, but are highly determined for the

	<p>long-term. That's why we focus on the premium electric part of the market, leveraging the profitable position we already have in mild hybrids and plug-in hybrids as a strong foundation, while the electric market unveils its dynamics.</p> <p>So, now we have five fully electric cars on the road, all playing important roles and having great performance. And you're going to soon hear from Erik that many more are in development.</p> <p>In our transition to the fully electric future. I want to stress again, our mild hybrids and plug-in hybrids remain crucial to our business. In fact, the plug-in hybrids are part of what's driving our growth today. They account for more than 20% of our global sales. And many of our customers, they really want to transition to electric, but they aren't quite ready based on factors like range anxiety and lack of infrastructure. And these customers, they truly see plug in hybrid as a very reassuring choice, allowing them to enjoy the electric experience whilst having a combustion engine as a backup plan when needed.</p> <p>We have increased the mix of plug-in hybrid across many of our models and many of our regions. Recently, plug-in hybrid has grown a lot, especially in the US, where we are the leader in premium plug-in hybrids. And in Europe, the XC60 continues to be the best-selling plug-in hybrid model in the whole market. All of this proves that our balanced approach is the right one and plays to our strength.</p> <p>So to sum up, we have set our aim and our ambition very clear and we are moving steadily towards it. We will meet ICE/BEV cost parity. We will continue to strengthen our presence in the growing premium BEV segment. We're leaning in on electrification with a pragmatic and balanced approach that leverages our existing strengths. We will update our already attractive line up of hybrid cars, allowing a little bit more time for the charging infrastructure to be built up and thereby easing the transition to a fully electric world.</p> <p>And Erik, what more is to come? Welcome on stage.</p>
<p>Erik Severinson</p>	<p>Thank you, Björn. I'm Erik Severinson. Chief Product &amp; Strategy Officer. As both Jim and Björn have clearly outlined, We're going electric and we're updating and complementing our offering of hybrid cars. This is to allow a smooth transition into full electrification.</p> <p>So, this decade will therefore see us basically do two things. Most importantly, building a complete line-up of fully electric cars, which will account for the vast majority of our investments. It's worth noting that in those markets where the customers will be ready to go fully electric in 2030, Volvo Cars will also be ready with a complete line-up of highly attractive, fully electric vehicles. We</p>

can already today prove that as eight of our markets have already achieved 100% electrified car share and 19 markets exceed 80%.

And that's why the second thing is, as you heard earlier, continuing to upgrade our current line-up of hybrid cars and complementing them with some new models for selected markets where we see strong business opportunities. Let's now take a look at the cars coming up in the future that will enable Volvo Cars, to meet our long-term growth and profitability ambitions.

First, I'd like to share with you the upgrades planned for our hybrid electric line-up to ensure that they remain up-to-date and attractive to our consumers. Yesterday, we revealed a major design and UX upgrade to our flagship XC90, and this is the starting point for more. We will soon be making similar upgrades to more cars in our line-up, bringing cutting-edge technology from our latest cars to our existing SPA and CMA architectures. This is to deliver a consistent and further improved customer experience to our current cars without major investment needs.

We will also offer long-range plug-in hybrids, essentially electric cars, with an internal combustion engine, as a backup. We see that long-range plug-in hybrids are the perfect bridge to fully electric, because they're the best of both worlds. The extended range will allow our customers to drive the majority of their daily commutes free from tailpipe emissions and at a lower cost, while still having the backup plan to cover occasional longer trips. They will be the primary type of car, other than fully electric ones, that we will have on offer in 2030. And that will be a necessary step on the journey towards our aim of net zero greenhouse gas emissions by 2040. These long-range PHEVs will help the transition for Volvo cars globally, but perhaps are most important in China, where the premium electric car transition is taking longer. We have a solid plan in place to meet the specific car demands, while ensuring cost efficiency by leveraging know-how in both electric and ICE powertrains.

In addition to our plan to upgrade our current hybrid models and introduce a new long range plug-in hybrids, we also have five new fully electric models in various stages of active development – not only covering our needs and helping us to continue to grow profitably, but also ensuring that we remain a leader in the transition to zero tailpipe emission mobility.

Our next fully electric model is the ES90, which will be revealed in a few months. We were able to show you a sneak peak of this car yesterday for the first time. And while we are sure you are all very curious to hear everything about the ES90, I'm afraid that the details will have to wait just a little bit longer. But what I will say is this: it is a fantastic product. It's our first low electric car and it is in a class of its own, designed for a life in balance. It will be built on our state-of-the-art SPA2 architecture, and the ES90 is a product

designed for global audiences. Europe, US, and Asia. But is perhaps in China, where it has its biggest opportunity. We'd love to share more details already now, but please be patient until it's revealed in March next year.

Now, the ES90 is of course not the only car we have coming. And today I'm also happy to be able to share that the EX60 is our next one coming after the ES90. As the fully electric successor to our current bestseller, the mid-size SUV XC60, the EX60 is expected to be the next key volume driver for Volvo Cars. The EX60 will also be our first car based on the SPA3 architecture, which is the next-generation and a step function change from SPA2. It will first be built for global consumers in our manufacturing facility here in Gothenburg. The EX60 will clearly mark another major step in our technology iteration that will both benefit the customers and bring shareholder value.

The remaining three cars in active development – we won't be sharing any details on today, but it is important for you to know that all of these five new, fully electric car models will be based on the same superset technology stack from Volvo Cars. The same systems and modules, hardware and software, and that will bring our industry-leading safety expertise, the latest technologies and continuously improved customer experience faster to a wider group of customers, while allowing us to capitalise on the investments already made into the electric infrastructure built up for the EX90. You will hear much more on the technology underpinning our next generation of cars shortly from Anders.

So, in just a few years we will have two complete line-ups of cars for the period of transition towards becoming fully electric: hybrid and fully electric. And there are more coming beyond the immediate five new fully electric models, of course, that will allow Volvo Cars to explore new market opportunities.

So when these five are out on the market, we have completed our core electric portfolio, and we will then be moving to an 8 by 8 cycle. Just as you've heard from Jim. And that means eight core products that will stay on the market for eight years. Every year we will have a new model and a major refresh of an existing one. By doing so, we will focus on continuous improvement over variant complexity. We may do additional explorations, but this would be the core.

We see that we can keep cars on the road longer than the industry standard, by extending the life cycle because of our capability to continuously update over the air, at least four times per year. And this is a core compatibility differentiator for us.

This will ensure our full product line-up is well positioned to meet customer needs and market demand in the future, while using our investments efficiently.

While our cars are, of course, the most important part of our business, we have in recent times also launched an energy business, which I'd like to give you an update on today.

We are working towards holistic and seamless EV use, to help the transition to a future of more sustainable energy ecosystems, and the step in this is continuously improving the public charging experience for EV customers, making the access to many large public charging networks easily accessible via the Volvo app, building on our collaboration with charging point operators. This helps to reduce range anxiety and hassle for EV customers.

But beyond easily charging on the go, another step is, of course, the larger role the electric car can play in a more sustainable ecosystem. In 2023 alone, the global EV fleet consumed about 130 Terawatt hours of electricity. Roughly the same as Sweden's total electricity demand in the same year.

The amount of energy is not the only factor, it's also when we use it. We are addressing this with our new smart charging functionality in the Volvo Cars app. Our cars can automatically get charged at the optimal time and at the lowest cost for the customers, which also helps balance the grid and reduce the CO2 intensity. This offer is currently live in a pilot for 250 people and will soon expand.

The cars and their batteries can and will do more than eliminating tailpipe emissions, once plugged in and being part of a larger energy ecosystem. When they're stationary, they can power your house, your appliances, or even return power to the energy grid through bi-directional charging. And by helping balance the grid during the peak hours, it also encourages the use of electricity from renewable sources, whilst reducing the total cost of ownership for our customers. These features are coming first to the EX90 from the first half of next year, and they will come in all new electric models available after it as well.

To make good use of this capability, we are now also launching a bi-directional home charger in Europe, by the end of this year. Complementing the car's ability to be a battery for your home, we are going to offer home energy storage systems in the beginning of next year. This will help EV drivers build a more self-sufficient and sustainable home energy ecosystem by reducing both their electricity bills and their dependency on the electricity grid.

We are also exploring larger systems to help businesses decarbonise and transition to electric mobility, offering value-adding solutions to cover retail

	<p>and industrial needs for charging, as well as battery energy storage. For example, you could take one of these industrial-sized batteries to power a temporary charging station during peak charging time for high-traffic areas during vacations.</p> <p>With this new business area, we are strengthening our position and our capability to lead the fully electrified future, positioning us as a sustainable energy partner. We believe that these energy solutions will become a significant product addition to our growing portfolio of cars, services and products, to help meet the future needs of our customers and our business partners. We also see that this is a logical step for us, that we can be a leader in this field through leveraging our technology know-how, as well as our purchasing power and supply relationships from electric cars into the energy business, as we buy many Gigawatt hours of battery every year.</p> <p>So, let's recap.</p> <p>In the years to come, we will further strengthen our product portfolio with five new fully electric car models. We will move into an 8 by 8 cycle to focus on eight core products to stay on the market for eight years. We will have a new long-range plug-in hybrid, some major upgrades to our current line-up, on top of regular over-the-air updates, as well as our own energy solutions. We're confident that our balanced approach will ensure a smooth and successful transition on our journey to electrification. We will also continue to strive towards our sustainability and climate ambitions, helping protect both the people and the planet.</p> <p>Thank you.</p>
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Fireside chat: Sustainability

SPEAKERS:

Vanessa Butani, Head of Global Sustainability

MODERATOR:

Olivia Ross-Wilson, Chief Communications Officer

<p>Olivia Ross-Wilson</p>	<p>I'd like to welcome to the stage our new Head of Global Sustainability, Vanessa Butani, who joined us earlier in the year to lead our very important sustainability agenda. We're going to have a short fireside chat and then we're going to move straight into break. So Vanessa, welcome.</p>
<p>Vanessa Butani</p>	<p>Thank you.</p>
<p>Olivia Ross-Wilson</p>	<p>So great to have you with us today. And again, welcome to Volvo Cars. As we heard from Jim earlier today, we also communicated yesterday about the adjustments that we're making to our electrification ambitions. Now, how do you see this from your perspective in impacting both long-term, but also maybe in a mid-term climate ambitions and the targets that we have set ourselves?</p>
<p>Vanessa Butani</p>	<p>Thank you. Our long-term ambition to reach net zero greenhouse gas emissions by 2040 remains. What we're doing now is just adjusting our near-term ambitions. So for 2025, we're going to a 30 to 35% emission reduction per car, from a 2018 baseline. And for 2030, we're looking at a 65 to 75% reduction. This is a reduction of about 5 to 10 percentage points.</p> <p>What remains, though, and what we're not changing, is the fact that we, with the progress that we have made and the ambitions that we have, are still leading the industry when it comes to sustainability. And you don't have to just take it from me. We've been recognized by internationally well respected media and ratings agencies.</p> <p>For example, Time magazine, S&amp;P and Sustainalytics, and CDP has recently given Volvo cars an 'A' rating on Climate, which is a rating only achieved by 1.7% of the 21,000 companies in that rating. Our</p>

	<p>focus on climate action and electrification has really helped us move the needle. Since 2018, we've reduced our tailpipe emissions by almost half and our overall emissions by 25%.</p> <p>So electrification really is the future here. And we are quickly moving away from ICE technology. We're no longer investing in pure ICE technology and R&amp;D. And this year we stopped producing diesel engine vehicles.</p>
<p>Olivia Ross-Wilson</p>	<p>Okay. So then the future is clear. And our ambitions, as you rightly point out as well, remain very bold which is inspiring. Now in the context of today, and today's capital market day: how do you see this from a cost perspective? We've spoken about that today. Jim, of course, reinforced the importance of value creation, and that being a big area that we are doubling down on from a Volvo Cars perspective. So do you see that sustainability needs to come at a cost, or how do you see that?</p>
<p>Vanessa Butani</p>	<p>Well, sustainability is one of the reasons that our customers buy into us, where they like Volvo Cars. And you can see that through the demand for our electrified vehicles, right? And it really does strengthen our brand. We're going to talk more about that later today.</p> <p>But if we look at the other side, sustainable options don't always have to cost more. I can take the example of the way that we've worked with energy efficiencies in our operations, where we've been able to become more efficient and reduce costs, of course.</p> <p>If we look at the circular economy here, when we look at the remanufacturing of parts, using recycled materials and things like that, there we can see that we use less resources, we use less virgin resources, and we also find efficiencies in doing that.</p> <p>Some sustainable materials, and solutions do cost more, but those are also an investment in sort of future-proofing us for what's coming. We see regulations coming. For example, in the European Union, you've got the Carbon Border Adjustment Mechanism, the CBAM, and that will add a cost to carbon intensive materials that come across the border into the EU.</p> <p>So yes, we see both. We see sustainability as a business opportunity and we also see it as an opportunity to save costs in several areas.</p>
	<p>Very good. One last question - if we can take it before we're going</p>

<p>Olivia Ross-Wilson</p>	<p>to break - is we talked earlier today, and Jim also mentioned, about moving beyond CO2. So, of course, CO2 being incredibly important, and we remain very fixed and firm on the goals and the ambitions that we're setting.</p> <p>We also released earlier in the year an updated sustainability strategy, which I know you've discussed with many people in the room, since you joined. In that strategy we actually introduced for the first time the notion of nature, of biodiversity, and signaling a greater importance and a greater focus on that area.</p> <p>Can you explain a little bit more what the motivation was for doing that, why you feel that it's important, or why we as Volvo Cars are looking more at nature and biodiversity, and maybe a bit of an example of what that means?</p>
<p>Vanessa Butani</p>	<p>Yeah, sure. With the current situation and the triple planetary crisis that we find ourselves in, right, with climate change, with pollution, with biodiversity loss, we need to act now. Even if we don't have all the data in place, all the right methodologies, and it's all still under development in the biodiversity space. We need to come together collectively as NGOs, as businesses, as researchers and other stakeholders to work on those and to push the needle to really move ahead, so we can address this together.</p> <p>At Volvo Cars, our long-term ambition is to be net positive across the value chain and also contribute to a nature-positive future. What we've done is work together with well-renowned researchers and companies to help us set this baseline. To understand what is our starting point, what is our impact on nature, and where can we move forward to actually lessen our impact and get to a positive space. We've worked then using the TNFD-lead methodology and with the LCIA approach, looking at the 'species.year' and our impact there.</p> <p>And it's really important that we work in the same way as we have with climate change. So, looking at targets for our car programs, how we can reduce, our impact on nature, choosing materials and looking at the processes that will help us to do that in the best way.</p>
<p>Olivia Ross-Wilson</p>	<p>Speaking of those examples, is there anything that you've seen recently since you've joined that really amplifies this focus, and what does it mean in reality?</p>

<p>Vanessa Butani</p>	<p>Yeah, sure. Here I think here we've sort of started at home, in our own house. And a great example is the new Košice plant that we're working on where biodiversity and nature has been a key factor that's been taken into account in the planning of that plant. For example, we worked to set up new habitats for birds in that area as well.</p> <p>And in our current operations, we're looking at understanding where we can work to regenerate nature and support the nature where we already are today. But we're not just looking at home, we are also trying to go beyond our own boundaries and working addressing, ocean health and coastal health as well.</p> <p>So here last year, we signed the, a WWF moratorium on deep-sea mining, and we've just extended our partnership with the Ocean Race to help their work in raising awareness, and driving change, in oceans and coastal areas. Our For Life Fund is another avenue that we have that can help us to work with supporting partners and projects, and protecting natural ecosystems.</p> <p>We don't have all the answers, right? But we are trying to get together and be part of the solution together with stakeholders, and our business partners. I joined Volvo Cars just recently because this is a company that really is committed to sustainability, and we want to be pioneers for the future. Like Jim said, it's not about perfection. It's about making progress, pushing that needle ahead. So my plan is to continue working with my colleagues, working with like-minded business partners, and making sure that we do continue on our important journey to get to net zero greenhouse gas emissions by 2040.</p>
<p>Olivia Ross-Wilson</p>	<p>Thank you so much, Vanessa. Thank you for joining me today. And thank you also for joining Volvo Cars, once more.</p>

## Technology

**SPEAKERS:**

Jim Rowan, President and Chief Executive Officer

Anders Bell, Chief Engineering and Technology Officer

<p>Jim Rowan</p>	<p>What a great t-up. Nvidia, one of the technology leaders of today. And we're going to speak now about technology. Soon you will hear from our Chief Technology and Engineering Officer, Anders Bell about our Superset tech stack, one single technology stack that will power our future.</p> <p>But before that, let me briefly highlight our general approach to technology and development. That approach has been very deliberate and purposeful. We create technology that matters to us, and how we couple our in-house development with strategic partners will take us to global tech leadership.</p> <p>The idea is always to do what we know is best for our customers, and we do that in-house. So, there are certain things that we can do better than anyone else. For example, we know the vehicle dynamics, we know the right performance that our customers want, and we take full ownership of that. And that means controlling our e-motors in detail, and we develop these now purely in-house. Anders will talk more about that in a second.</p> <p>We also develop our passive and active safety tech in-house. We have done that for almost 100 years. We have the competency that we need to do that, and we have the industry-leading safety centre that helps us to understand that better and to gather the data we need in order to continue to make those improvements.</p> <p>For some other things, however, we work with global tech leaders around the world. And we're very proud of those partnerships with technology leaders such as Google, Qualcomm, Nvidia and Luminar – some of whom are actually here today. So thank you for joining us.</p> <p>We are also the first to introduce Android Auto, or Automotive OS, to those customers and to bring embedded Google Services such as Maps and Assistant to those customers. This allows us to operate on the very cutting edge, delivering great customer experience, and we will continue to do that. We will continue to work closely with Google to always improve that experience.</p> <p>Our partnership with Qualcomm and the low latency, truly seamless and responsive experience that we can deliver together with rich visualisation is another fantastic example of using that technology from Qualcomm and the Snapdragon processor.</p> <p>We are the first legacy car maker to move to an AI-enabled core compute architecture with Nvidia, which will improve the customers' experience</p>
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	<p>immensely and enable us to improve our cars through software over time and OTA.</p> <p>We were an early investor in Luminar and the first to introduce its lidar technology at scale, taking the safety of our cars to an even higher level and improving driver assistance functionality on the way.</p> <p>But don't take my word for this. Let's hear from one of those great tech partners that I mentioned earlier. Let's hear from Cristiano, the CEO of Qualcomm.</p>
<p>FILM</p>	<p>Hello everyone. I'm Cristiano Amon, President and CEO of Qualcomm. It's an honour to be joining you at Volvo Cars Capital Markets Day. Qualcomm and Volvo Cars have a strong history of collaboration. We share Volvo's vision for the central compute architecture and how it can enable premium in-vehicle experiences. They are personalised, more entertaining and continuously upgradeable. That means your experiences will get better over time.</p> <p>We're so excited to see this come to life in the EX90. I had the opportunity to experience this new, fully electric SUV first-hand and it was incredible. The EX90's digital cockpit, powered by our Snapdragon Digital Chassis, enhances the users' digital experience inside the vehicle today and into the future. With reliable connective, captivating graphics and highly responsive voice controls, drivers and passengers will get the right information at the right time. Thanks to its software-defined architecture, the experience will only get better and better.</p> <p>I can't wait to see the EX90 on the road. Congratulations to the team at Volvo Cars and we look forward to continuing to work with you. Thank you.</p>
<p>Jim Rowan</p>	<p>This is how we work with vertical integration. We do what we do best, and we enable others to do what they do best. It's all put into the superset tech stack for the benefit of our customers. This brings speed. It brings nimbleness. It brings focus. All the work that we do goes into that Superset tech stack so we not only use it on one car, but on our complete line-up going forward.</p> <p>This approach is a true game changer. It will help us to improve safety for people in and around our cars. It will allow us to create truly stunning customer experiences that improve over time. For the EX90. For the ES90. For the EX60, and the cars beyond.</p> <p>With that, let's now welcome Anders on stage to take us into more detail on how that will actually work.</p>
<p>Anders Bell</p>	<p>Alright, thank you Jim. Let's have a look under the hood, shall we? I'm here today to share some big ideas we have with technology.</p> <p>We are moving from cars to take you from A to B, powered by internal combustion engines, to truly global cars that are endlessly integrated into society, ecosystems and people's lives. Technology that enables us to continue</p>

to lead in safety and sustainability. Technology that delivers a stunning customer experience. Cars powered by electricity and a single superset technology stack that delivers one brand in many different product flavours.

We all know that the EX90 is coming later than what was initially planned, but it is here now. Being shipped to retailers, starting to reach customers later this month. I personally drove the EX90 across the United States just two weeks ago. East Coast to West Coast. It is the best car we have ever made, and I could not be prouder.

We have successfully made the shift to software-defined vehicles powered by a core computing system. We have taken the leap. We have climbed the hill, if you will. And it's a hill we do not need to climb again. We are about to reap the benefits with the EX90 and all cars after it.

Now let me share with you four of the key building blocks for our software-defined vehicles: core computing, 5G connection and integration to our federated cloud, the data centre, and ecosystem integration. Let's look at them one by one.

First, core computing. EX90 marks the launch of Volvo Cars' software-defined vehicles. The powerful computing inside our car represents a fundamental shift in how we design and improve our cars through software over time.

This is because we now do closed-loop development based on data, connectivity, software and core computing. If moving to electric was big, the shift to truly software-defined and a core compute system is even more massive.

Every part of the car, how it functions, what information it provides, the ability to receive new instruction is designed centrally through software. Our capable core computing allows us to have this fast-paced, software-driven development process, and we will be able to relentlessly improve every aspect of our cars, fuelled by real-time insight and run by our talented engineers in our development centres and tech hubs around the globe.

To fully benefit from this approach – designed to give the customers a fantastic experience and help keep them safe – we have decided what we want to do and we go all in. That's why electrification is so important, and that's why all our future electric cars will have core computing at their centre, enabling them to be truly software-defined.

Starting with the EX90, all our electric cars will be based on the same fundamental core of systems modules, scalable in performance, size and cost – from B to F. This fundamental core of systems, modules, software, and hardware – the scalable vehicle architecture, the propulsion and energy systems, the electrical and computer architecture, the integration to the cloud and ecosystem, the software that encompasses everything and all building blocks, across all engineering disciplines. All this together is the Volvo Cars Superset tech stack.

The EX90 is a subset of this tech stack. A choice of software, modules, and hardware systems taken from the superset. The ES90 will be as well. Not the

same choice of software modules and systems as the EX90. The same goes for the S60 and every new electric model after it.

The superset is like a set of building blocks that can be configured in many different ways. The animation behind me represents the superset. Building blocks of software and hardware – large blocks like vehicle architecture, electric and electronic systems, and smaller blocks of individual software and AI applications, as well as mechanical components.

So, why is the convergence to a single tech stack a game changer? Because it allows all our engineering efforts towards new cars to be channelled into one single direction. We put all our focus to relentlessly progress and enhance one tech stack where everything is fuelled by the same software where all the mechanical and electrical interfaces are defined. Improving it. Growing it. Expanding capabilities.

This is a recipe to combine the necessary discipline of mass production of the world's most complex consumer product, with the desire to create a supremely powerful platform for innovation. That means the EX90 – and its customers – will benefit from our ongoing development efforts for the future cars like ES90 and EX60.

We are converging our technology to one stack. To allow us to move at the speed of technology. To create one fantastic, uniform experience for all our customers across all our cars and to be efficient and deliver greatness. Let's zoom out a bit.

All our efforts are going into the superset tech stack, but how do we know what to improve and what additional features to develop? We believe insights from real-world, real-time data are the answer.

For that, all our upcoming electric cars are capable of 5G connectivity and continuous data transmission to the Volvo Cars Cloud. So, instead of developing features based on data from hundreds of test vehicles and – to be honest, opinions, we can now continue improving them based on insights from millions of cars on the roads. The connectivity and the flat topology – everything connected to one central hub – and the core computing architecture of our cars enable this.

We can learn about and improve every aspect of the car. Because we can not only comprehend all the input from sensors, we can also write new instructions to the actuators – improve the car and how it operates. Over the air. We already do this today. 3 million over-the-air updates in 85 countries last year. With our tech stack, starting with the EX90, we are taking it to the next level.

The best, and of course most important application is safety.

Real time data; translating to insight allowing us to improve the safety levels of our cars tremendously. Of course, with adequate safeguards for data privacy. Because data safety is also safety. But more on that in a bit.<sup>[1]</sup><sup>[SEP]</sup>

So, I've shared two of the major building blocks for the software defined vehicle. The core computer in our cars is the first. The car's 5G connectivity and integration to our federated cloud is the second. The third is our data centre. Safety data from our fleet will be processed and stored securely in Oden - our data warehouse, equipped with one of the largest AI super computers in Europe.

Oden's AI infrastructure is powered by NVIDIA DGX H100 – the latest generation of AI compute by NVIDIA. This enables our talented software engineers to facilitate the continuous learning loop based on data and allows us to use AI and machine learning capabilities to train our algorithms. Improving the car's capabilities in short development loops, benefitting customers today and tomorrow. AI is obviously a big thing right now. We apply AI where it matters the most – improving safety and saving lives.<sup>[1]</sup><sup>[SEP]</sup>

But there is of course massive potential in other areas. The core computer in our next-generation cars is powered by the same core architecture from NVIDIA, that is used to develop and run generative AI applications like GPT-4.<sup>[1]</sup><sup>[SEP]</sup> That means it is possible for us to run generative AI directly in the car's computer – dramatically reducing latency. This is called edge computing. We will come back to you at a later stage on how we will use it.

Before we look closer at our next-generation cars, let's zoom out once more for the final building block, which is ecosystem integration. For over a century, cars have taken you from A to B as a stand-alone device, isolated from rest of the world. Today, people are integrated into a myriad of different ecosystems, owned by Google, Apple, Amazon, Huawei in China, SK in South Korea – you name it. But no one wants to have as many ecosystems as devices. Our approach is to support the choices made by customers. We aim to create APIs that third-party developers can use to build apps and services for.<sup>[1]</sup><sup>[SEP]</sup> We do this to improve customer experience – and we know that this will contribute to customer loyalty in an increasingly connected world. We want to be part of your ecosystem and integrate into it. The car will become more and more integrated into your life and into society. We are just at the beginning.

The beginning of a new era. We have built the foundational superset tech stack. And we have built the infrastructure to support the superset tech stack. These are investments made that we do not have to make again. Now we 'just' continue building, relentlessly iterating. Operating more efficiently, and delivering more value over time.

Now – let's dive into some key tech details for SPA3. The next evolution of our

electric technology base. SPA3 is a part of the superset technology stack. The same as SPA2 is for EX90 and ES90. With SPA3 we are essentially just expanding the bandwidth of the continuously evolving mechanical and hardware tech stack. All kept under the umbrella of the same software stack. What we are doing with SPA3 is making some key upgrades to further improve customer and shareholder value. To be clear. This is not another hill to climb – like SPA2 was from SPA1. It's a step and a continuation of all the work done for SPA2.

Now, let's have a look at core computing, batteries, e-motors, mega casting, and modularity.

We're introducing the EX90 with a core system based on NVIDIA DRIVE Orin – a compute platform that secures high performance to improve features and build customer functionality over time. The same core system based on Orin will also power the cars on SPA3. And we are proud that we could announce today that we are continuing and deepening our partnership with NVIDIA.

Later this decade, we will introduce core computers based on Thor – to enable the next generation of computing for our next generation cars.

Thor is capable of up to 4 times as many operations per second as Orin, while significantly reducing the energy consumption and improve the efficiency of the vehicle.

We will offer Thor in different versions – lower performance versions for the base needs and higher performance for customers that want more advanced driver assistance systems, and eventually autonomous driving. This shift to Thor is the next step in streamlining our offering, to improve customer experience and margins for the company.

Now let's talk a bit about our approach to the electric powertrain.

Our first generation of electrified cars came with off-the-shelf e-motors and bought battery packs.

But to be truly competitive as an EV maker, we need to optimise end to end and obsess about efficiency.

In the latest EX40 and EX90 for example – we take things to another level. We have gone from 85% efficiency on the first generation, bought motors, to a very competitive 91% on our in-house designed, generation 2, already in production.

All while going down in cost, size and weight. We embrace technology, improve performance, and go down in cost. We have moved from buying entire battery packs on specification, to working closely with partners in developing modules to go into our in-house designed and manufactured battery pack for the EX90. With this we have taken a huge step forward. Making cars more efficient and competitive, enabling them to go longer with less – and making the ride more 'Volvo'. Comfortable, responsive. With SPA3 we are taking a further step forward. Looking for the next few per cents of

efficiency, range and performance, we are introducing our third generation of e-motors.

Designed and built in-house. With higher efficiency and performance. Aiming to reach 93% efficiency. And at a lower cost.

With SPA3, we are also introducing a brand-new battery concept.

We are fusing the battery cells to the body of the car, letting the batteries become part of the body structure. In a smart way, with serviceability in mind. This reduces weight which enables more range, more space inside the car for the passengers, and a better experience – and of course it reduces cost.

Significantly. We are also introducing the next generation of battery cells. The batteries in SPA3 have an even higher energy density than SPA2 – delivering longer range at lower weight and with fewer cells.

Finally on scalability – another key benefit of our next generation architectures.

As part of the superset tech stack, the SPA3 architecture is designed to be upgraded over time and scalable in every dimension. Size, price, performance and adaptable to region. Software which unlocks the capabilities of the hardware. Hardware which integrates, evolves and becomes ever more capable. All with standardised interfaces, allowing parallel development and high-quality launches.

This means instead of large gaps between generations, we can continuously develop and build cars of all sizes on the same technology base with an ever-evolving tech stack. And we will continuously update the cars in production with better and more efficient designs. As well, of course, as updating the fleet on the road with the latest software.

The EX60 will make a fantastic entry in the premium electric C/D segment, but SPA3 can also create cars in many other segments – should the company decide to do. Larger than the EX90 and smaller than the EX30 – using the same scalable tech stack with supreme integration and the possibility of providing great margins.

So, recap on the key takeaways: We already today do truly global products. Not many carmakers do. We already today do complete and deep over-the-air updates on these products, in more countries than any other carmaker, as far as I'm aware. Now add these two existing capabilities to our shift towards one single technology stack that will power all our cars going forward.

This allows us to channel all our efforts into one flow, designed for scale, that is optimised continuously over time. This cuts through engineering, manufacturing, data management, and more. We see this position as unique in the market. We will be able to deliver more customer value across the complete line-up, and we will be able to build shareholder value through scalability, efficiency, optimization and globalisation.

Last, but perhaps most important, we have a fantastic talent base to make all these things happen. Not only here in Sweden, but also in our engineering centres and tech hubs around the globe. Kudos to the team.

	<p>Now I'd like to invite my colleague Åsa to join me on stage. We will walk you through how our unique approach and future technologies will continue to reinforce our safety leadership.</p> <p>Thank you and welcome Åsa.</p>
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## Safety

**SPEAKERS:**

Åsa Haglund, Head of Safety Centre

Anders Bell, Chief Engineering and Technology Officer

<p>Åsa Haglund</p>	<p>Thank you, Anders.</p> <p>Hi everyone, I am Åsa Haglund and I am the head of Volvo Cars Safety Centre. At Volvo Cars, safety is all about people. It's about protecting people in and around our cars, their lives and the lives they are living. And Volvo Cars is a legend for its safety reputation.</p> <p>By sharing our patent for the three-point safety belts with the industry, we have contributed to saving more than a million lives. In fact, many of our innovations are widely adopted by the industry, from rearward-facing child seats, the inflatable curtains, the auto brake and blind spot information system, just to name a few.</p> <p>But let's take a step back now to look at how we achieved this, because that is key to our ambitions going forward. We believe the secret behind our safety innovations is our unique approach to how we build our safety knowledge through research in the real world.</p> <p>Since the 1970s, we have been collecting data and analysing data from over 50,000 accidents, all involving more than 80,000 people in Volvo cars. This helps us understand the real-world exposure and accidents – because in the real world, there are no agreed crash angles or impact speeds. The real-world situations are far more complex than standardised testing.</p> <p>Initially, we collected this data with measuring tapes, hand calculations and by assessments of the scene. As technology evolves, so do we. So nowadays we are learning even more by pulling data from the vehicles and using computer simulations, including human body models, to reconstruct and analyse accidents.</p> <p>So today, when everyone else starts to talk about collecting data on the roads, we've been doing exactly that for half a century. And most importantly, we've been analysing the data and applying the insights to our safety development to continue improving safety in every generation of Volvo cars, all with the aim to make our cars equally safe for everyone in real life, regardless of their gender, height, body shape or where they sit in the car. That is unique in the industry.</p> <p>Based on our knowledge from real-world accidents, we managed to set our very own safety standard. We call it the Volvo Cars safety standard. We test and validate our cars in a wider spectrum of crash test scenarios. Not only by</p>
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	<p>impact energy, but also by considering variation in scenarios, conditions and people. Basically, to cover the complexity of the real world.</p> <p>For example, we perform frontal crash tests against the full-width barrier at 30% higher energy impact energy than standardised testing. Following our own standard, we have also pioneered in introducing more types of crashes into our testing. For instance, run-off-road collisions, rollovers, large animal crashes, and multiple collisions.</p> <p>We have also included some of the world's first crash test dummies to represent people of different genders and body shapes. To reach our stringent safety standard for occupant protection, every component in the car, whether it's part of the safety cage, the deformation zone or the restraint system, is designed to contribute to the robust performance of the car, with the aim to help avoid and reduce injuries for everyone in the car. This is the art our safety experts have been mastering for decades, and yet we continue evolving it with each generation of our cars.</p> <p>Based on our new technology stack, we will be able to build our high level of safety even more efficiently into a wider range of cars on SPA2 and SPA3. Adopting technologies with maximum efficiency in protecting people, while being optimised for the everyday use of the car.</p> <p>For instance, the battery pack, that has been mentioned several times – it is not only an efficient energy storage, it can also help protect people, as it reinforces the structure of the car and allows it to absorb even more energy, to improve robustness and compatibility.</p> <p>So, building on our expertise in protecting people, we are now accelerating towards our ambition of zero collisions because sometimes the moments that never happen matter the most.</p> <p>With our EX90 reaching customers later this month and the ES90 soon to be revealed, we are embarking on a new era of safety. And I'd like to invite Anders back on stage to talk more about this.</p>
<p>Anders Bell</p>	<p>Thank you, Åsa. With Safe Space Technology, our next generation cars are designed to not only help protect people in case of accidents, but also to look out for people and help them prevent it from happening in the first place.</p> <p>In the new era of safety, we aim to make everyone feel safe and cared for in their everyday journey, so they can live their life to the fullest. To that end, we develop our technologies around people – embracing the fact that we're all human beings and we can be tired or distracted at times.</p> <p>Our EX90 is designed to help the driver avoid collisions – using automatic emergency steering or braking, for instance. As you can see on the screen, from our testing. Going forward, we will be able to continuously grow and</p>

	<p>improve safety features in our cars by leveraging cutting-edge sensors, artificial intelligence, and real-time data.</p> <p>Let's look at how these technologies work to help make people's journey safer and more enjoyable.</p>
<p>Åsa Haglund</p>	<p>With state-of-the-art sensing technologies, our cars are designed to understand the driver's state, the environment around the car, as well as the cabin inside. With the driver understanding in EX90, the car can identify if the driver is in a challenging state, for example due to distraction, drowsiness or even intoxication.</p> <p>The occupant sensing technology can help figure out the number of occupants in the car, whether the safety belt is being used, and if there's a child or pet left behind. The advanced exterior sensor setup is designed to build a precise understanding of the surroundings in various conditions and detect potential threats that the driver may have missed.</p> <p>By integrating data from multiple sensors, the car will be able to build more accurate information and handle much more complex situations. So the car can nudge the driver with a gentle reminder or step in to support if needed.</p> <p>And now, let's dive into how AI can help to improve safety.</p>
<p>Anders Bell</p>	<p>The safety performance and capabilities of the car can be further improved by learning more from what happens in the real world. It would not be wrong to say that data is the new safety belt, to us and to everyone.</p> <p>By moving from a single patent of the three-point safety belt to billions of data points, we see the potential of saving another million lives. Because with deep insights from real-time data, we will be able to take another leap in safety performance.</p> <p>This will give us the superpower – all building on our existing expertise to comprehend real-world safety. With our EX90 capable of collecting real-time data points on the road, we will be able to validate and continuously improve the active safety systems faster than ever before.</p> <p>Thanks to AI and machine learning, our engineers can better analyse how the active systems are engaged in real-life use cases and identify potential areas to train and optimise the systems, for example, to learn and differentiate the intention of other road users around the car in order to prevent and mitigate accidents.</p> <p>The restraint systems in the cabin can also be prepared better to protect occupants in more active and individualised ways, based on predictions of potential collisions. All the insights gained from the real-time data will be built into the superset tech stack, which will benefit all our future cars on SPA2 and SPA3.</p>

	<p>And it will also accelerate our capabilities dramatically to apply the learning from the real world into our cars – not only to new cars, but those already on the road, thanks to over-the-air updates. So, our customers can enjoy continuously improved cars with the latest safety features and better performance over time.</p>
<p>Åsa Haglund</p>	<p>As the pioneers of automotive safety, we've never stopped pushing the boundaries - not only for ourselves but for the industry, with the aim to make roads safer for all. And we are proud to be sharing our 50 years of research in the real world.</p> <p>We have made hundreds of research papers available online, giving free access to everyone, including other carmakers, road authorities and researchers. And we are committed to continue sharing our safety knowledge and insights from the real world – because as proud and confident as we are in being the leaders in safety innovations, we believe that in the competition for safety, there should be only winners. And most importantly, because every life matters.</p> <p>So to sum up, our unique safety approach in real-world accidents and our stringent safety standard are the foundation of our safety leadership.</p> <p>Building on our strong heritage in protecting people, we are now accelerating towards the ambition of zero collisions with our tech stack approach and Safe Space Technology – powered by intelligent algorithms, AI and insights from real-time data - we are moving faster than ever in our safety development.</p> <p>We are on our way to saving another million lives and helping everyone feel safe in their everyday journeys. So, just as outlined by our founders almost 100 years ago, the care for people is at the centre of everything we do at Volvo Cars, and it will continue guiding Volvo Cars to lead in automotive safety for the 100 years to come.</p> <p>Thank you.</p>

Q&A – Block 1 and 2

SPEAKERS:

Jim Rowan, President and Chief Executive Officer

Johan Ekdahl, Chief Financial Officer

Björn Annwall, Deputy CEO and Chief Commercial Officer

Erik Severinson, Chief Product and Strategy Officer

Anders Bell, Chief Engineering and Technology Officer

MODERATOR:

Olivia Ross-Wilson, Chief Communications Officer

<p>Olivia Ross-Wilson</p>	<p>Thank you, Åsa. Thank you, Anders. And is now it's time to move into our first Q&amp;A session of the day. and I'd like to invite in a few moments, some of our speakers from this morning onto the stage. Jim, Johan, Björn, Anders and Erik. Before we get started, we can just go through a few practicalities. If you'd like to ask a question, we have roaming mics in the room. Please just raise your hand and the microphone will come to you. Please wait your turn and then when the microphone reaches you, just introduce yourself where you're from. If possible, we would like to get through as many questions as possible in the time that we have. So if we can keep it super brief, that would be really appreciated. Okay. And with that, please to the stage.</p> <p>As we get settled, Jim, I thought maybe we could start with you warming us up. We talked earlier today. We announced yesterday, ambitions around electrification and how we're adjusting them in light of pragmatism. You talked a little bit about the context of the why in your opening remarks this morning, which was very clear. Now, when it comes to the investment curve and the capital allocation that we've talked about, do you see that this new ambition - these new adjusted ambitions that we've laid out - do you think that this will affect our, investment curve and capital intensity? How do you look at the question?</p>
<p>Jim Rowan</p>	<p>So, it's baked in, everything we showed today - the investment curve is baked in. So you see that we're at the peak of our investment curve - everything going forward, everything that we'll bring out - is all baked into that reduction and that investment</p>

	<p>curve. One of the biggest benefits that we have as a company is we have fantastic PHEV technology, but we took our ICE assets, and we moved them outside of the company into a company called Aurobay many years ago. That gives us access to that ICE technology without the fixed costs. And Aurobay will continue to - that is now HORSE, because that company is now developed as well - will continue to invest in that ICE technology and we have access to that, but we have it on a variable cost basis. And that again, allows us to focus on the superset tech stack that Anders went through today. So that we're all in on that future and all the benefits that full electrification brings. But there's another big benefit to that. We really believe that PHEV, and long-range PHEV will be a fantastic bridge to the future for those areas, those regions, those people that are not quite ready to go fully electric. The investments that we make in inverter modules, the investments that we make in e-motors, the investments that we make in batteries, the BMS system, the investment we make in power electronics, silicon carbide, gallium nitride - all of these great investments, and our superset tech stack - we can take those back and put them back into the PHEVs for the electric drivetrain. And that gives us range, it gives us cost benefit, it gives is charging speeds. So, we're in this really unique position where we don't have a high investment curve, and the investments that we're making for future electrification pour all the way back into hybrids - long-range PHEVs, specifically. And that's a big story that I don't think is really being unfolded at this point in time. I'm very pleased you asked that question.</p>
<p>Olivia Ross-Wilson</p>	<p>Very good. Maybe just as a follow-up then, so we complete the ambitions side of things. We talked about electrification, also very clear. We also said earlier today some adjustments are making to our financial ambitions. Within that, we talked about, our ambitions to outgrow the market. Maybe you could just elaborate a little bit on that. How do you look upon that, and where do you see that taking us?</p>
<p>Jim Rowan</p>	<p>I said this morning that the market is going to be flat. Everybody in this room knows that the auto market is going to be flat. We did have a bit of an empty vessel for four, five, six years as China came up into that, and many, many Western brands were selling into that new car market. That's now developed. They now have a second-hand car market which tapers off the need for new cars, and then we see the rise of the local Chinese car manufacturers taking a big bite out of that. So, the only way that you can continue to grow and outgrow the market in a flat market - premium, I'm talking premium here, that's important - is that you take market share. The only way to take market share is to add more value to the customer. Back to the superset tech stack, you've got to offer</p>

	<p>really good cars, a very competitive price, yet still maintain your margin structure. And that's exactly what we're building. The big bridge of course for us - back to PHEV, long-range PHEV, our ability to get those ICE engines without having a fixed cost. The ability to take the investments we're making with full BEV and put that back into PHEV. So, this whole thing is symbiotically connected together, and we think we've unlocked a formula to provide growth, outperform the premium market for the next year, while also adding value at the same time. But we'll get that growth through taking market share, not because the market's going to grow.</p>
<p>Olivia Ross-Wilson</p>	<p>Got it. All right. Thank you so much. So over to the room. Let's take our first question. Please raise your hand. We have one at the front.</p>
<p>Question from audience</p>	<p>Thank you. I'm not sure how to phrase it exactly, but not sure how many times we heard the word premium you just said just now. Premium is very important. And some feel that what's premium is a bit up in the air at the moment for technology changes. It used to be that it started with the product and technology, and then after a while you build the premium position around that. It's rarely the opposite, right? You say "we are premium", then you fill it with content afterward. And now we have the EX90 in front of us and you are super focused on the core compute message, which no doubt sounds very impressive, but at the same time, I think for consumers, premium for BEVs is still range and charging capabilities - that's still what we have top of mind. And from that standpoint, the EX90 is not premium, at least from the charging. We have had competitors for several years with more sophisticated charging capability. So how do you, maybe that's not exactly the question, But what really builds premium do you think, over the next five year period, is my question?</p>
<p>Jim Rowan</p>	<p>I would respectfully disagree that the EX90 is not premium. Back into that rationale in a second. If you're in the premium sector... First of all, within the auto industry, and one of the things that became apparent to me very early on when I joined the auto industry, is there's two industries within the industry. One is premium and one is mass. Mass market is completely on price. Premium is on features and brand, and that brand attachment. All the premium players - we all end up in this arena of 'premiumness' let's call it - but people enter through a different door. Some people enter through the door of performance, some people enter through the door of comfort and luxury, and ride quality. Some people enter through the door of tech, but we all end up in the same arena, competing for those premium customers. Okay, our superpower is safety and we enter through the door of safety,</p>

	<p>sustainability, human-centric technology, and Scandinavian design. That's what our customers see as premium. That's what they've seen as premium for 100 years. That's why I think they'll continue to see this premium. So if you want a car which has got the latest technologies that can connect to Apple and Google, has great technology around batteries and range and charging speed and all that, that's great. You need that. It almost becomes a hygiene factor, but what are the premium attributes that attract your customers? We think those premium attributes are safety, sustainability, human-centric technology, and beautiful Scandinavian design. And remember, we have 1% of the car industry, so we're not chasing mass. We know our tribe, we know our customers, and we know what they want, and we're moving them on to the next phase. And now we're giving them all that safety - in fact, enhanced safety. Over-the-air updates, so, enhanced capability. And we're giving them all that in a new package with the superset tech stack. And the magic happens in tech when you get more functionality for less cost. And that's what SPA3 brings. I think we bring that to the marketplace in a premium package, let's call it.</p>
<p>Question from audience</p>	<p>Okay, thank you. And I want to follow up if I can. Johan, you talked about from 7 to 8% for 2026, and how there's going to be fluctuations in between. You said, 'We don't know what happens'. What's the base case for how much worse, before it gets better?</p>
<p>Johan Ekdahl</p>	<p>Well, we don't guide on specific margins. I mean were on 8.1% in the second quarter of this year, which was a very good quarter. I think it shows that we have a strong starting point from a brand perspective and from a demand perspective, et cetera. Now we are going into a period where there are trade tariffs and macroeconomics that, of course, make this journey not fully linear. We aim, as you said, for a span of 7 to 8% for the full year '26, pushing towards 8%. But I will not say anything more in detail, and it will not be a necessarily linear journey there, of course, But we don't guide on specific margins in '24 or '25.</p>
<p>Jim Rowan</p>	<p>I'll just fill in on that. So, there is a reason that we waited for the EX - we just announced the EX60 today - there is a reason we waited for the EX60 to come out on the SPA3 platform. It's a volume car. You get the benefits of having volume and price reduction, and of course, that's a magic formula in itself. So when we get the EX60 the value release that's when you get that SPA3 architecture, a massively reduced cost and a high-volume car in a BEV format.</p>
<p>Question from audience</p>	<p>Coming back to the question on growth and market: I always struggle a bit when I talk premium, and it would be interesting to hear your guys view on how you define the premium market, and</p>

	<p>also what type of expectations you have for that market since you're benchmarking against it?</p>
<p>Johan Ekdahl</p>	<p>Yeah, I mean, the premium market has a predefined set of competitors, of course. And what's important, I think, to mention is that while we mentioned we would outgrow the premium market, over time the premium market will outgrow the mass market. And as such, we are clear that we will take market share and outgrow the premium market. Then, of course, you could probably define it in a few different ways, so I will not go into the specifics. What's important is that we will clearly define that the premium market is expected to outgrow the mass market - and we will outgrow the premium market by taking market share on the back of new products coming up.</p>
<p>Jim Rowan</p>	<p>We don't define the premium market. The data available in the premium market is defined for us. If you look at the industry, data says, "This is premium growth." - "This non premium growth." So, I guess I would push the question back and say how does the industry define premium? But premium is a subset of benefits to a customer. What are you willing to pay more for, because what a product does more than a mass-market product? Why do people buy an iPhone, rather than a cheaper phone? Would you agree that the iPhone is a premium product? So, what are the attributes? The ecosystem, the screen, the build quality? And for us, as I said before, the premiumness of our products is safety. People rely on having a car. They want to get into a car where they feel safe. You have your first child, you come home from the hospital. You start thinking about safety in a much more visceral way. So back to that. Safety is our superpower and it's a massive value added for us in terms of how we premium our product - and the perception of premium within our customer base. And of course, there's a whole bunch of stuff that wraps around that. Technology has become part of that premium. It's the connectivity to Apple and Android that is becoming part of that premium. It's the latency of the screen. The big screen is becoming part of that. It's the seat quality. The ride quality, the comfort, the sound system. I'm just describing, incidentally, the EX90. But that's it. It's the whole package. You don't get that in a mass-market car. Because quite simply, you can't afford to put that in and make a profit if you do.</p>
<p>Question from audience</p>	<p>Can I ask another question, more on the tech side? Now you are centralising the core compute. When do you think, or will we get to a point, when you will do the core compute in the cloud? That is for example, for cost savings.</p>
<p>Anders Bell</p>	<p>That's a good question, but it's kind of out of our hands. That's infrastructure development and a lot of other factors playing in.</p>

	<p>But by putting the core computer in the car, we can unlock the capabilities at zero latency in immediate response to the car. I mean, look at the chassis system, adapting 500 times per second. These things can never really go into the cloud in a reliable way. So while it's an interesting idea, I think we're focusing right now on getting the power into the cars to really secure that low-latency and immediate response.</p>
<p>Question from audience</p>	<p>So it seems to me that you're increasing your vertical integration, especially with the SPA3 platform. You invest a lot on your own and also, you are cooperating with external partners. But my question is, does this mean that you will draw less benefit from being a part of the Geely sphere, or is Geely in that calculation?</p>
<p>Anders Bell</p>	<p>So on the technology collaborations, we're not dogmatic. As we covered before, we do what we do best and then we find partners and allow them to do what they do best. So, there is no dogmatism in what we choose to buy versus make. It's always a business and a customer decision at its core. It's obviously something we discuss thoroughly with the Finance and everybody else before we commit. Right. I think over time on the technology side, if I cover that first, as we are launching these automotive emerging technologies in our car, we are encouraging standardisation of emerging technologies. The base technologies that will eventually be in every car, we really want those to work with the industry to standardise partners - two-tier partners, over time. And we strongly encourage also open-source collaborations in the realm of software. Just to be able to standardise these things that have no direct consumer impact. It basically runs the car in a very efficient manner, and then we tailor whatever is important to create our unique brand.</p>
<p>Jim Rowan</p>	<p>Plus there's some tactical pieces and there's some strategic. In terms of the strategic pieces, maybe we can develop e-motors together, maybe we can develop some technology that would be more on the strategic spectrum. But there's also some tactical stuff which releases tremendous value. If we look at the EX30, it is a great example of that. That's built on an SEA platform, which is a Geely platform. We saw that platform. It was a perfect size. We wanted to be in the small SUV segment, fully electric. We looked at that platform, and said let's reposition that, and make that a Volvo car. We did all the safety on that. We did the top part. We did all the design. Boom! We were in production, far, far quicker than we would have been if we developed a brand new platform. It has allowed us to take massive market share in that segment as it evolves. So within four months, the X30 is now the third best-selling electric car in Europe. So that's how we release value from the wider group. The second part, and I guess Francesca will</p>

	<p>maybe talk about this a little bit later, as how we release value from the supply chain. When you can leverage over that bigger spend, or when you can leverage all of that bigger volume, when they have some technology partnerships that we don't see - that is when you start to unlock a lot more value from the wider ecosystem of the of the Geely Group, if you will. So some of that is tactical, some it is very strategic.</p>
Olivia Ross-Wilson	<p>We have run out of time for today for this first session of Q&amp;A. We will have a second session of Q&amp;A at the end with all of our speakers on the stage.</p>
Jim Rowan	<p>Can we have one more? Sorry, I know I'm breaking tradition here, But I know he was one of the first with his hand up. So I just want to be respectful of that.</p>
Question from audience	<p>Thank you, Jim. Much appreciated. And thank you for the presentations over the last, the last two days. Just a couple of topics, please. If you could maybe elaborate a little bit more on the strategy to grow in China and maybe in reinvigorating the brand a bit more in the region? And then second on SPA3, will all the vehicles have access to mega casting? And you mentioned in one of the slides some efficiency, some seats, can you maybe elaborate a little bit more there about what that means for the group?</p>
Jim Rowan	<p>Sure. I will let Anders take the conversation on seats and SPA3, of the expansion. On China, again our understanding of China is quite profound. And we're seeing that it has taken a very different route from the past. We have seen, I'm going to say, probably 100, 120, new EV competitors. Most of the competitors have come into the market at the sub 200, 250 renminbi price points. So that's mass market. We don't play in that market, so we are largely unaffected. There's a lot of turmoil in that. There's a lot of young companies in China that have borrowed money. They have one car on the market. Very, very few of those companies are making money. A lot of those companies are selling at zero gross margins or below to stay alive, because they need to keep bringing cash into the business. And that creates a very turbulent environment in the low-end EV space. But we are actually still growing in China, but we're pushing up towards the premium end with the EM90 and EX90. So, we are entering the EV space within China very, very specifically on what we see as premium. Again, you get back to what is premium and then China is different again. But we have a very strong PHEV and we have a very strong MHEV reputation or let's say brand strength. That's what is allowing us to grow, and that's what is allowing us to hold the margin structure within China. But China is flat. We know that. China is going to be a flat market and it's going to be — you see the numbers - 50% of what</p>

	<p>we sell in the rest of the world is either BEV or PHEV. In China, I think it is 10 or 11%. The rest of that is MHEV. That's where the strength is right now for us. And it's back to that pragmatic approach and making sure that we don't try to force something into the market that would reduce value for the company.</p>
<p>Anders Bell</p>	<p>Yeah. Two questions, right. The first one was 'Will SPA3 be based on mega castings?' And the answer is yes, all cars.</p> <p>The second question is around vertical integration. Specifically, you mentioned seats, which is one of those topics where we are not dogmatic. We are building a new factory in Košice. Around our factories, around the world, we have, extremely valuable and appreciated sequencing suppliers, tier-one suppliers that have provided the factory with parts, modules and systems - including seats, right? Infrastructure in Košice is a bit of a different story. So, we need to get supply. That's why we look holistically overall at what is best for the company, and what creates the most value. Seats being one example: Could we move that in-house? Yes, but we cannot move it in its current complexity. So this is combined with a different approach to how many variants we can allow, what is the variant offering on the car models we are talking about, to really smash the variant complexity down to a minimal, while providing the maximum customer selection. To get down to a complexity level where the CapEx is so low that it is actually pretty easy to fit it into our existing factory, and run it as part of ours. I mean, what we do best in our factories is to assemble components, right? So it's not only just moving it in-house with the current complexity, because again, current tier-ones are doing a fantastic job — but slashing that complexity so that it's a much smaller chunk to digest — much smaller CapEx, and then moving it in-house in an area where there is no source to be found anyway — is proving to be an extremely good approach to still deliver fantastic products, but significantly reducing cost on what is effective, but doesn't affect the customer value of the product.</p>
<p>Olivia Ross-Wilson</p>	<p>And Erik, you might want to add...</p>
<p>Erik Severinson</p>	<p>I think Anders covered it mostly but also, it is a way we can smartly use the investments we're making. When we're building a new plant in Košice we can evaluate what is the best way of setting up the supply chain for seats, for example — and utilise the investment in the new plant to unlock, you know, major values in the variable cost side as well.</p>
<p>Olivia Ross-Wilson</p>	<p>Okay, good. So with that, we will now go for a break. Thank you so much for your questions and engagement. We will have a second Q&amp;A panel.</p>

V O L V O

## Global footprint

### SPEAKERS:

Francesca Gamboni, Chief Manufacturing and Supply Chain Officer

Erik Severinsson, Chief Product and Strategy Officer

<p>Francesca Gamboni</p>	<p>Hello.</p> <p>I'm Francesca Gamboni, Chief Manufacturing and Supply Chain Officer.</p> <p>Together with Erik, we'll share insights into how we turn change into opportunity through our global footprint, use of strategic partnerships, and optimising our end-to-end value chain.</p>
<p>Erik Severinsson</p>	<p>Hello again.</p> <p>As you've seen today, we have a strong line-up, differentiated technology and a strong eco-system to bring our cars to market.</p> <p>But at the same time, there is a lot of disruption in the industry right now. From geopolitical tension, technological innovation and supply chain challenges, to the changes in consumer spending.</p> <p>And we don't expect this to be a momentary blip. This is the new normal.</p>
<p>Francesca Gamboni</p>	<p>So, today we will explain how we are strengthening our position to face this new normal.</p> <p>We'll take you through our global footprint, how we utilise strategic partnerships with selected suppliers and how we optimise our end-to-end value chain.</p> <p>Our focus on these areas leaves us better placed than ever before to quickly adapt to market changes, to boost our resilience, competitiveness and efficiency.</p> <p>Let's get started with a quick snapshot of our global footprint strategy.</p>
<p>Erik Severinsson</p>	<p>We have operations around the globe.</p> <p>We build and sell cars around the globe.</p> <p>Our overarching strategy is very simple: to build where we sell and source what we build.</p>

	<p>We started in Sweden almost a hundred years ago and have since been building a strong footprint across Europe, Asia, and the United States.</p> <p>Our products are sold in more than 100 countries.</p> <p>Each part of the global footprint unlocks its own strategic advantages; and collectively, this strong foundation gives us the flexibility to adapt to market forces.</p> <p>If we consider our SPA1 architecture as an example - we can produce this locally in all three regions.</p> <p>Our Torslanda plant here in Sweden is an example of another kind of flexibility. In this case, we can build five different car models at the same location.</p> <p>And as you learned earlier today, eventually all of our new cars will be built on our upcoming SPA3 scalable platform and tech stack.</p> <p>We will produce it in all regions, which will further enhance our flexibility and our efficiency.</p> <p>So let's take a quick look at the footprint region by region.</p>
<p>Francesca Gamboni</p>	<p>Let's start with Europe.</p> <p>Europe is historically one of our most important regions, and it remains so.</p> <p>We are a Swedish company. Born in Sweden, listed in Sweden, and we are one of the largest employers in Sweden - we understand what it takes to be successful in Europe.</p> <p>We have our global headquarters in Sweden. This includes our largest engineering hub and design centre, as well as our Torslanda plant, component production and our own e-motor production.</p> <p>We also have tech hubs in Stockholm and Lund. Having this collection of resources in one country benefits technology development. It enables greater levels of cross-functional collaboration and aids speed, quality, and innovation.</p> <p>Also in Europe, we have our software development tech hub in Kraków, Poland, and we have our manufacturing plant in Ghent, Belgium - which expands our capacity to produce products for Europe in Europe.</p> <p>For example, we start producing the EX30 in Ghent during 2025, which, as you heard earlier from Björn, is one of the top three selling electric cars in Europe right now.</p> <p>And in 2026, our new fully electric car plant in Slovakia, in the Košice region, will be operational. This will be our most advanced plant to date and will pioneer new efficiency initiatives in our manufacturing operations, applying all of our operational learnings to date.</p> <p>We'll talk more about these efficiencies soon.</p>

<p>Erik Severinson</p>	<p>Let's take a look at APAC, particularly China, which is one of the fastest growing car markets. Here we have local capabilities, including design, engineering, and production.</p> <p>Our APAC region HQ, R&amp;D and design centres are all based in Shanghai; but we also have three car plants in China, supported by assembly factories in both India and Malaysia.</p> <p>And we have our own Tech Hubs in Singapore, and in Bangalore, India. Combined with our partners in the Geely Group, we have a complete setup that caters to future needs in the Asia Pacific region.</p> <p>If we focus for a minute on the China market: Already today, the large majority of the cars we sell in China are produced in China. But we also engineer cars specifically for China to meet the local customer needs and demands from the outset.</p> <p>Our new fully electric EM90 is an example of such a product that caters nicely to the local demands in China. This ability to produce variants specifically for unique markets highlights our strength and the 'build where we sell' strategy.</p>
<p>Francesca Gamboni</p>	<p>Okay, let's go onto the US.</p> <p>The US, as you know, is one of the largest car markets in the world. Having manufacturing facilities in the US is critical for us to serve this important market and export into other markets.</p> <p>We are currently producing our new fully-electric EX90 in our US car production plant in South Carolina. Again, building where we sell. This location has the flexibility to produce both SPA1 and SPA2 products, such as S60 and the EX90.</p>
<p>Erik Severinson</p>	<p>All combined, our robust global network leaves us very well placed to manage any changes that lie ahead. Our flexibility contributes to our resilience: for example, building the XC60 - one of our most successful models - both in China and in Europe, so that we can adapt for global export as needed;</p> <p>And our move to produce EX30 in Europe as well as in China, and how we can adjust our manufacturing capabilities accordingly, should consumer appetites shift in any region, or for other strategic choices we might need to make.</p> <p>This flexibility is important to highlight because it frames one of our strengths: our access to an existing global footprint that enables growth in premium markets all over the world.</p> <p>And what's more: we're boosting the capabilities of our global footprint by our investments in technology.</p>

<p>Francesca Gamboni</p>	<p>As Anders spoke about earlier, all our future products will be based on the same fundamental superset technology stack and updated mechatronic platform.</p> <p>This is more scalable, both up and down in model size. It enables us to offer more types of cars on the same base, to improve margin and customer experiences. It's an important investment with significant rewards.</p>
<p>Erik Severinsson</p>	<p>And, as you heard from our colleagues earlier, we're also investing in battery technology - from battery cells to battery assembly shops in our plants.</p> <p>We have a hedged battery strategy, which is both long-term and geographically spread, and we're using a mix of partners with multiple technologies.</p> <p>We have flexibility in our make or buy choices, combining our in-house efforts with collaborations with selected suppliers. It's all anchored in our 'build where we sell' global approach, aiming for strategic partnerships to source cells closer to where we build.</p> <p>As our battery partners align further with our own geographical operations, we can achieve our ambition to source our battery cells in all key regions - Asia, Europe, and the US.</p> <p>And our batteries are more than just energy. As you heard when Anders presented earlier, we are integrating the batteries into the body structure of our future cars.</p> <p>This significantly reduces the material that doesn't contribute to energy storage. This means less weight, more range, more space inside, and an overall better experience. Plus, it enables better thermal management of the battery and reduces costs, significantly.</p> <p>This is a great outcome for our future products and our customers. It also demonstrates our ability to quickly industrialise it and deliver it across the globe.</p> <p>We recently opened our brand-new battery assembly shop in Torslanda, and it's set up specifically for this integration of battery floor structure into our future cars.</p>
<p>Francesca Gamboni</p>	<p>Our Torslanda plant is also introducing mega casting, another example of a strategic investment we have made into our future. With mega casting, large aluminium casted parts replace in some cases more than 100 smaller parts.</p> <p>By using less parts, we can lower our costs, reduce manufacturing complexity, improve sustainability across our supply chain, and obviously, create lighter</p>

	<p>cars. Landed cost for a mega cast structure is up to 35% below a steel-aluminium structure.</p> <p>Time from raw material to ready products is reduced from months to days, and the upstream value chain is replaced by raw material input directly to our plants, which gives us greater control over the costs.</p> <p>This roll-out at Torslanda provides a great base for scaling - both for other future mega casted parts and for how we could use mega casting in our other plants around the globe.</p> <p>We will add mega casting capabilities to our new Košice plant in Slovakia and in the Daqing plant in China.</p>
<p>Erik Severinson</p>	<p>And our new fully electric, state-of-the-art car factory in Košice, Slovakia, will bring other new opportunities as well.</p> <p>On a per vehicle basis, compared to our current operations, it is expected to use 30% less energy in and production, 40% less manufacturing waste and 40% less water usage. .</p> <p>It will also use 100% climate neutral energy in manufacturing operations. In our Košice plant, we will also introduce new efficiencies in painting and stamping,</p> <p>All of our plants stand to gain from these advances in our manufacturing setup as we share knowledge across our teams and strive towards our efficiency and sustainability ambitions.</p>
<p>Francesca Gamboni</p>	<p>As you can see, we are proud of our global footprint and unique in-house capabilities, but we also know that collaborators win in such unpredictable times.</p> <p>So let's explore how we are building strategic partnerships with selected suppliers to help push the boundaries on technology, cost, resilience and sustainability.</p> <p>Our Supplier Segmentation Strategy guides us on defining who we want to team up with, why and how. The way we collaborate with our tier one suppliers is fundamentally changing into the future.</p> <p>For example, this week we host our first Automotive Technology Leaders' Roundtable, where we bring together CEOs from key Volvo Cars' supply chain partners to discuss the global landscape and collaboration opportunities.</p> <p>We are carefully selecting the right partners to co-create with, to develop new ideas, to share risks, find synergies, improve competitiveness, and unlock greater efficiencies.</p> <p>One example of strategic partnership is how we work closely with Bosch on developing technology and solutions.</p>

	<p>We are focused on creating the solutions that are cost-competitive, at the leading edge of technology, increasingly more sustainable, and delivered in line with our values and our approach towards social responsibility.</p> <p>One example is an initiative with a supplier that switched to biofuel and reduced inbound ocean container freight carbon emissions by up to 87%. At the same time, it generated significant cost savings for us.</p>
<p>Erik Severinsson</p>	<p>That is a great outcome, Francesca.</p> <p>Another example of collaboration is on supply chain traceability. We are partnering with Circular on supply chain traceability for future battery passports - so customers can understand their car battery's origin.</p> <p>And also, through our work with Breathe - which is a start-up with expertise in physics-based battery management software - we are able to develop our in-house battery management system and adaptive fast charging that aims to improve our charging speed by as much as 30% for future car models.</p> <p>And as you saw from us earlier today, our collaborations with our leading technology partners such as Nvidia and Qualcomm, are integral to our future technology roadmap.</p> <p>As Francesca said, by combining the strengths with the right suppliers, we will continue to create opportunities to improve technology, cost, resilience, and sustainability.</p>
<p>Francesca Gamboni</p>	<p>So, you've heard about our global footprint and how we strategically partner with our ecosystem. All of this is part of how we are fine-tuning our complete end-to-end value chain approach. Through our total-cost perspective, enabled by systems that allow end-to-end decision-making and greater visibility, we can unlock opportunities across the entire value chain.</p> <p>It's about seeking out opportunities in our 'make or buy' strategy, in complexity reduction, and in our overall cost optimisation efforts. We are systematically examining all the commodities with a Total Value approach to find opportunities.</p> <p>That's why our teams have total-value-chain responsibility and accountability and visibility. But let's take a concrete example.</p> <p>Let's take the example of our wire harness, which is a system designed to efficiently group multiple wires or cables together. Applying the total-cost perspective, we achieved a 25% cost reduction on this commodity.</p> <p>We reduce variants, change the industrial setup, reduce product complexity, and lower the weight. As well as the cost savings, the solution also reduced the CO2 footprint and paved the way for further efficiencies in the industrial setup.</p> <p>And this is just one example, from over 100 commodities that we are examining for each of our future car models. It's good, no?</p>

<p>Erik Severinsson</p>	<p>Yeah, it's great. Discovering these opportunities that multiply across hundreds of thousands of cars sold each year, unlocks millions of euros of cost savings, while also reducing carbon emissions.</p> <p>This examination of our value chain is reducing the number of parts and variants we use - and it's creating opportunities to use more off-the-shelf non-critical components, where it makes business sense.</p>
<p>Francesca Gamboni</p>	<p>But of course, there is no one-size-fits all approach. Where it makes business sense, we are also finding opportunities to own more of the value-adding processes when we consider our 'make or buy' strategy.</p> <p>So, what we end up with is a balance of complexity reduction; smart solutions for non-critical parts; and either insourcing, or outsourcing to our partners, depending on what makes business sense.</p> <p>For insourcing, it's a case of owning the most value-adding processes for selected components and materials, to unlock significant cost benefits. Like, for example, e-motors and seats.</p>
<p>Erik Severinsson</p>	<p>And we will apply this thinking to our factory in Košice, Slovakia. It will be the first Volvo Cars plant to have all the major production shops established; including stamping, mega casting, body paint, e-motors, assembly and final assembly.</p> <p>Our Košice plant's in-house e-motor production complements our existing in-house e-motor production in Sweden. It will be the first of our plants that produce the seats on site; and, as we touched on earlier, with mega casting, we have strategically value-adding processes in-house.</p> <p>So as you can see, we strive for flexibility in our make or buy strategy, to create opportunities and ensure that we can adapt to market and global forces as needed.</p>
<p>Francesca Gamboni</p>	<p>Tools such as AI can also improve and increase flexibility and efficiency. Earlier, Anders touched on using AI to manage energy in our cars. Of course, we also use AI to manage energy in our plants.</p> <p>In manufacturing, we use virtual reality for plant modelling, and patented in-house AI products for energy management. These solutions deliver significant cost savings and other efficiencies.</p> <p>We are also embracing AI in various domains across our business, such as supplier contract management, web scraping for supplier discovery, supplier history analysis, and to identify cost-saving opportunities.</p> <p>And we see this landscape evolving with a mix of in-house and off-the-shelf solutions to create a wide array of efficiency opportunities.</p>

<p>Erik Severinson</p>	<p>So, as you can see at Volvo Cars, we are better placed than we have ever been to navigate what lies ahead.</p> <p>The companies that excel in the future will be the ones who recognise the opportunities and maximise the benefits of emerging technologies — and most importantly, adapt quickly.</p> <p>We believe that one of our greatest strengths throughout our 97-year history is our ability to turn change into opportunity.</p> <p>And this is how we will deliver on our ambitions and create a meaningful change.</p>
<p>Francesca Gamboni</p>	<p>You're right, Erik, and this is why we are building on the strong foundation of our existing footprint, continually improving our end-to-end value chain, finding opportunities with our flexible make or buy strategy, and forming strategic partnerships that are mutually beneficial with select suppliers.</p> <p>And we are doing all this to ensure our future success in a complex, ever-changing global environment.</p> <p>Thank you.</p>

Commercial and Brand

SPEAKERS:

Gretchen Saegh-Fleming, Head of Global Marketing

Susanne Hägglund, Head of Global Offer

<p>Gretchen Saegh-Fleming</p>	<p>Hello, everyone. I'm Gretchen Saegh-Fleming, Head of Global Marketing.</p>
<p>Susanne Hägglund</p>	<p>And I'm Susanne Hägglund, Head of Global Offer. We have the privilege to talk with you about the Volvo Cars brand, its strength, and its potential to build further on our offer for the future. Together, we would like to share three facts with you. Our brand is strong, is growing, and has the potential to grow even further beyond cars.</p>
<p>Gretchen Saegh-Fleming</p>	<p>So let's dive right into the first point, the strength of our brand. Our brand is strongly connected to our purpose; For Life. To give people the freedom to move in a personal, sustainable and safe way. This purpose serves as our Volvo compass, differentiating us, defining who we are and guiding us into the future. And perhaps more than anything, our brand is connected to safety. For close to 100 years, we've focused on keeping people safe, and continually innovating to be at the forefront of safety technology.</p>
<p>Susanne Hägglund</p>	<p>And in today's very competitive market, we know that consumers have so many choices on how to spend their money and where to spend their money. Increasingly, they prefer to purchase from brands that share their core values – not only buying products from us, but also buying into who we are and what we stand for.</p>
<p>Gretchen Saegh-Fleming</p>	<p>And as you heard, with the Safe Space Technology, our next generation cars are designed to not only help protect people in the case of accidents, but also with the aim to prevent those accidents from happening in the first place. This provides our customers with a peace of mind and improves their everyday quality of life. And echoing Jim, we remain resolute on safeguarding our brand value. A key component in that is retaining our industry leading position on electrification</p>

	<p>and sustainability. And this is evident in our EX30, which has the lowest carbon footprint of any fully electric Volvo car to date.</p> <p>Our brand ambition is to be the pioneer in the protection of people and planet, and we continue to focus on three key areas to further premiumise our brand.</p> <p>The first is marketing and communication. As we evolve our leading safety position even further with our investments in core computing and safety technology - expanding not only from rational, but also psychological safety - we will mirror this in our communications to drive emotional connection and closeness with our consumers. Because, when you feel safe, you're free to live your life to the fullest.</p> <p>We're also making a continued investment in premium, not only premium brand storytelling, but what we like to call "story-doing", which continues on our tradition of social, environmental and community engagement through initiatives like the recent launch of our Volvo For Life Fund.</p> <p>We believe this approach will invite even more consumers into the brand, enhance their willingness to pay, and our ability to drive premium pricing.</p> <p>Now, when it comes to products, our consumer research tells us that our new electric vehicles improve the consumer's perception of Volvo to be more premium, sleek and technologically innovative, elevating our brand from admired to desired.</p>
<p>Susanne Hägglund</p>	<p>Second, speaking about our offer with our core computing and safe technology, we have heard during the day we drive continuous improvements of quality of life for consumers and their families.</p> <p>And as I will touch on in just a while, our expanded and elevated offer structure with richer product mix and upselling opportunities will help us to further grow together with the customers.</p>
<p>Gretchen Saegh-Fleming</p>	<p>Third, of course, is our consumer experience. Together with our retailers, we aim to provide a seamless omnichannel consumer experience in a personalised way that's fueled by our investments in consumer data and CRM capabilities.</p> <p>This is complemented, of course, by a consistently high level of service and every touchpoint that consumers have with the brand.</p>
<p>Susanne Hägglund</p>	<p>Just as Gretchen said, leveraging our brand strength is essential and critical for us to differentiate ourselves, stay relevant to our customers, and to further grow our business.</p>

	<p>This takes us to the second point that we would like to share with you here today: We are a growing brand with great potential. Our strong and balanced portfolio enables us to meet a wide range of consumers. We have offers for those who are ready to go electric and for those who are not yet there.</p> <p>This way, we are creating the flexibility to navigate in an uncertain macroeconomic environment and geopolitical landscape, and we can also manage the different paces of electrification that we see happening across the globe.</p> <p>Coupled with our value-over-volume approach, we are performing well. We continue to have a high share of plug-in hybrids, together with fully electric vehicle. And in the first half of this year, we had 44% in the world of this mix, with the EV accounting for 23%.</p> <p>And the gross margin of our EVs is also improving.</p>
<p>Gretchen Saegh-Fleming</p>	<p>Eight of our markets have achieved 100% electrified car share and 19 markets exceed 80%. I'm sure you'll agree, this is an impressive performance.</p> <p>The growth of our electrified segment has driven us to a new sales record for the first half of this year, with almost 390,000 cars sold; a 14% increase year-on-year.</p>
<p>Susanne Hägglund</p>	<p>The EX30 has been instrumental in this growth, ranking the top three bestselling EVs in Europe in the first half year, and the car is performing well around the globe, especially in countries like Japan and Brazil.</p> <p>The EX30 is attracting customers in a broader range. We see young singles to families purchasing a second or third car. From our studies in the Netherlands, UK and Germany, which are top three markets for the EX30, we can see that more than 50% on average are new to the Volvo Cars brand.</p> <p>The EX30 is undeniably a leader in the premium B-SUV segment, holding a 30% market share globally and 36% market share in Europe.</p> <p>I was a managing director in one of our markets when this car was launched, and I must say it was a great experience to see another winner being born.</p> <p>But it's not only the EX30 that is performing well. Also, our BEV cars on the CMA platform, the EX40 and the EC40, have been delivered to over a quarter of a million consumers to date and continue to sell well.</p> <p>There is a lot of excitement about the EX90 - and rightly so, it marks the beginning of a new era for Volvo Cars. The initial (EX90) cars are being shipped today as we speak to the US and European retailers, and the first customers will get their cars before the end of this month.</p>

<p>Gretchen Saegh-Fleming</p>	<p>I had the privilege to be part of the team that drove this car across the United States two weeks ago, and I can tell you it was the most quiet, smooth ride.</p> <p>And inside; the spaciousness, the clean lines, the technology, the sound system give it a really premium feel. Someone was asking about the premium feel - I challenge you to go drive the car. It's an amazing experience and it's an incredible winning flagship for us.</p>
<p>Susanne Hägglund</p>	<p>We can't wait to get more customers into this car.</p> <p>In addition to our electric vehicles, we also have the plug-in hybrids that continue to perform well in our markets.</p> <p>The XC90, which we revealed a new version of yesterday, has sold to almost a million customers since it was launched. It marks one of the most successful car lines to date, accounting for about 14% of our total sales this year.</p> <p>The XC60 is crucial for us, being the best-selling PHEV in Europe and the top seller in our portfolio. It offers a competitive electric range and generous space to meet customer needs.</p> <p>These drivelines play a very important role for us in bridging the transformation towards a fully electric future. We are continuously upgrading our models to make sure that we have appealing choices for all customers.</p> <p>Our commercial performance is strong; it shows that our brand values centred around safety, sustainability, human-centric technology, and Scandinavian design - continue to resonate with customers.</p>
<p>Gretchen Saegh-Fleming</p>	<p>Our ambition is to meet those customers wherever they want to be. Creating an omnichannel experience and meeting those customers digitally, with our retailers, or in our studios. Making sure that we bring them on the journey of Volvo Cars together.</p> <p>We transitioned our UK market to a direct-to-consumer model last year, in order to provide transparent pricing and simplified options, through both digital and physical retail channels. As of June this year, we've achieved our best-ever UK market share and our sales are up 22% year on year.</p> <p>This project has been highly valuable to us since day one. We recognise the importance of having the omnichannel presence, the value of gaining direct access to consumer data, and our retail partners' ability to handle the flexibility that consumers demand has also delivered significant value for us.</p> <p>These learnings will be harmonised across our markets, not converting complete markets, but working to digitise our business, and thereby taking a more pragmatic approach in collaboration with our strong retailer network and partner ecosystem that we've built over the past many decades.</p> <p>And we will continue to enhance the collaboration with those partners even further.</p>

<p>Susanne Hägglund</p>	<p>Today, we have about 2,200 retail partners around the world, with around 65,000 brand ambassadors working together with us. Collaborating with them to harness our collective strength and also proximity to customers will continue to be very important to lift our brand to the premium level we spoke about before.</p> <p>This journey is an evolution, not a revolution. Delivering a strong omnichannel consumer experience at a lower cost, remains the guiding principle for us.</p>
<p>Gretchen Saegh-Fleming</p>	<p>We have ambitions to expand our brand and our offer above and beyond cars, which is the third point that we'd like to share together with you today.</p>
<p>Susanne Hägglund</p>	<p>Our offer beyond the car is an important part of our For Life ecosystem. By this, we focus on targeting values for our customers, such as lower cost of ownership, hassle-free experiences, and also ensuring that customers can connect easier with us throughout the life-cycle so that we can give them what they need, when they need it.</p> <p>For us, it means new revenue streams, strengthened profitability, stronger connections with customers, so that we can reach more customers and conquer new customers.</p> <p>To further describe this, we would like to provide a couple of examples of the beyond car offer:</p> <p>The first one is Volvo Car service plans. Today, customer loyalty when servicing a car is high when the car is new, then it tends to decline as the car is ageing. This is a trend coming across all automotive brands.</p> <p>Retaining these customers is important not only because it generates parts revenue, but also because it makes sure that we can give a high quality of our services and ensure that we give them the premium experience that they deserve.</p> <p>Our service plans are designed to offer appealing scheduled maintenance packages that can be acquired at the retailer, or via our Volvo Car app. And since we started to sell this through the app in August 2023, we can see a clear increase of retention of older vehicles, improved brand loyalty, and increased revenues.</p> <p>Now we focus on expanding our service plans to more markets, which we anticipate will further increase revenues.</p>
<p>Gretchen Saegh-Fleming</p>	<p>The second example is Volvo Car Insurance. Today this is a small yet profitable business that involves no capital investment or financial risk. Our primary role is to facilitate the insurance distribution through our retailer network. And in</p>

	<p>partnership, we direct repairs to our retailers, thereby supporting the sales of original spare parts.</p> <p>Insurance presents a significant opportunity to leverage volume effects and address our used cars, as well as our growing car park. Insurance products from our partners are now available in 28 markets worldwide and we will continue to grow this business to achieve even greater profitability.</p>
<p>Susanne Hägglund</p>	<p>These are just a few examples, together with the example that you also heard about - Energy Solutions, that you can see outside here and Erik also talked about before. We will continue to expand our offering to create value to our customer beyond the vehicle itself.</p>
<p>Gretchen Saegh-Fleming</p>	<p>As we conclude, we want to emphasise our focus and our priorities ahead:</p> <p>One, we are a strong brand and will leverage the benefits of being a truly purpose-driven company with a strong and premium brand position: For Life.</p> <p>Two, we are a growing brand, and we are committed to meeting our customers where they want to be, through our seamless omnichannel setup and our balanced product portfolio.</p>
<p>Susanne Hägglund</p>	<p>And three, to further expand our brand, we will go above and beyond cars. By unlocking the full potential of our For Life ecosystem, we generate more value.</p>

## Final Q&A

### SPEAKERS:

Jim Rowan, President and Chief Executive Officer

Johan Ekdahl, Chief Financial Officer

Fredrik Hansson, Deputy CFO and Head of Performance Steering

Björn Annwall, Deputy CEO and Chief Commercial Officer

Erik Severinson, Chief Product and Strategy Officer

Vanessa Butani, Head of Global Sustainability

Anders Bell, Chief Engineering and Technology Officer

Åsa Haglund, Head of Safety Centre

Francesca Gamboni, Chief Manufacturing and Supply Chain Officer

Gretchen Saegh-Fleming, Head of Global Marketing

Susanne Hägglund, Head of Global Offer

### MODERATOR:

Olivia Ross-Wilson, Chief Communications Officer

<p>Olivia Ross-Wilson</p>	<p>Thank you, Gretchen. And thank you, Susanne.</p> <p>Now it is time to move to our final Q&amp;A session of the day. And with that, I would like to welcome all of our speakers that have been here with us today on stage to join me in the chairs.</p> <p>Now, we will go through as many questions as we possibly can. And we have added a little bit of time, based on the energy from before. But again, if we don't get through to all of your questions, we do have all of our speakers here. We also have additional members of the team that are really willing and able to take your questions answered in our event space immediately following.</p> <p>So with that, please welcome all of our speakers back to the stage.</p>
<p>Question from audience</p>	<p>I wanted to start off just on the product side. Obviously, you gave us some insights into what's coming next on the battery electric vehicle front. But with respect to the plug-in hybrids and mild-hybrids: Can you give us any insights into what we should expect above and beyond the new XC90 that you've shown?</p>

	<p>And in terms of the sort of magnitude of the update, is what we're seeing with the XC90 what we should expect, or could some of the cars see more radical changes?</p> <p>Also related to the product side: as we think about the future, and obviously EV demand is difficult to predict, Anders spoke about the flexibility of the new platform SPA3. Is there any scope for that to be used as a range extender platform in the 2030s, if that's where the market sits?</p> <p>Then finally, just with respect to the financials, I noticed on the cash flow, very good to hear that you expect to be positive in 2026, but you didn't have a huge amount in there for negative working capital. Given the vertical integration direct sales model, and that you expect volumes to grow; I would have anticipated that there would be a larger working capital outflow. Is there something we're missing there? Thank you.</p>
<p>Olivia Ross-Wilson</p>	<p>Okay. So, I'm going to break those into three parts. Let's start first with Erik to talk us through how we're going to continue to develop our PHEV offer. Then over to you, Anders, to look at the SPA3 range opportunities with Johan, who will then take us through working capital. So, Erik.</p>
<p>Erik Severinson</p>	<p>Thank you. It's a great question. Or three great questions, actually.</p> <p>When it comes to the PHEVs, what we have communicated today is that we are taking a pragmatic approach in how to create a balanced portfolio. We have said that we will continue to invest in our very successful PHEVs that we have today and also, continue to upgrade with long-range versions of those.</p> <p>We're not going into detail about what car at what time. But I think what you can see on the XC90, here on the stage today, is that with the SPA1 architecture - a very successful plug-in hybrid platform - with relatively small efforts, we can keep those cars very competitive for a long time to come.</p>
<p>Olivia Ross-Wilson</p>	<p>Anything you would like to add Anders on the SPA3 range - on the range?</p>
<p>Anders Bell</p>	<p>On the range extender topic? So, SPA3 is designed to be a fully bespoke battery electric vehicle. That's why we can achieve the efficiency and really focus on eliminating all the constraints from the old combustion engine technology.</p> <p>This is not just introducing new technology, and new technical challenges around the battery electric vehicle, it is actively removing the constraints of the combustion engine to create that</p>

	<p>gap between the awesomeness of the product and the efficiency of which we can make it.</p> <p>And of course, as an engineering organisation, we can do anything.</p>
<p>Jim Rowan</p>	<p>I would pivot on that to say that the point is to drive maximum efficiency. And when you start to fudge that architecture, you lose that efficiency.</p> <p>And so, you have got to be pretty focused on where you're taking the company. We have options to put in range extenders, our extended PHEVs, in the SPA1 and even in the SPA2 architecture. By the time you get to SPA3, you've got to be designing for the future.</p> <p>You've got to lean into that, and you've got to be confident that where you're taking the business in the SPA3 architecture, and beyond, is about full electrification. I just want to be clear on that.</p>
<p>Olivia Ross-Wilson</p>	<p>Thank you. And Johan, on the question on working capital.</p>
<p>Johan Ekdahl</p>	<p>We absolutely expect strong free cash flows from 2026. And, I mean, the biggest lever is probably lower R&amp;D spend and, lower investments going forward; coming down from the levels we are on now in '24, '25. Short comments specifically on working capital: I mean, there are a few levers.</p> <p>First, we'll have different off-balance sheet solutions for cars that are in subscription, for instance. We also have this, let's say slightly changed, more omnichannel model versus completely direct sales, as one lever as well.</p> <p>So, I don't expect working capital to be an obstacle for generating high free cash flows from '26.</p>
<p>Olivia Ross-Wilson</p>	<p>Okay. We'll take one more question from this corner and then we'll move over here.</p>
<p>Question from audience</p>	<p>First question perhaps for Björn or Johan, if you prefer. Björn, you talked about cost parity of ICE and BEV, and still having the aspiration of achieving that later in the decade. You're obviously not going to show us the EV gross margin anymore, yet you made great progress in Q2. I think part of that was thanks to the China dynamics - that's going to change a little bit. Could you just talk about the 'puts and takes' as you transition the EX30, for example, to Belgium? How are you going to be able to compensate for the</p>

	<p>production cost advantage that you have been enjoying in China, as you're not going to have that anymore?</p> <p>And then, the second question, I don't know, maybe for Jim: in the context of the volume ambitions, right? I mean, this has been a bit of a moving target over recent years. You have now shown us how you have a pricing opportunity, or currently you are priced below your premium competitors. Can we just talk about that dynamic a little bit? How you already sort of had to reduce your volume ambitions, and at the same time, you're trying to raise pricing? I appreciate thanks to some of the great content you're putting on the cars, but just sort of talk about that balance a little bit.</p>
<p>Olivia Ross-Wilson</p>	<p>Okay. I'm actually going to give Björn the opportunity and then, feel free to build on the first question around ICE/BEV cost parity.</p>
<p>Björn Annwall</p>	<p>Well, let's start with the here and now on the EX30. Bottom line there that the gross margin we want to get out of that landing in Ghent is very similar to what we have from the China-produced cars.</p> <p>Yes, you have higher labour costs in Belgium than we have in China. But you take away tariff, you take away shipping. You have less capital tied up. So economically, it's pretty much the same. So for that car, that change does not materially change anything.</p> <p>And then when it comes to the longer term, having a technology to deliver ICE - that cost parity - that's what Anders has been talking about. That is the Superset tech stack and the SPA3 architecture that will deliver against that.</p>
<p>Olivia Ross-Wilson</p>	<p>Okay, good. And then to Jim on the volume balance.</p>
<p>Jim Rowan</p>	<p>Yeah, I think we're pretty much by and large, we're on price parity right now with the EX30. That's a BEV where you get 400 km of range for an entry price of \$35,000; with a gross margin of, we said, between 15 and 20%. And in the last quarter, we showed that we were in the upper range of that. That pretty much gets you close to ICE/BEV parity right there. And it's harder to do that in a small car than it is a big car, quite frankly. So, what I think we'll see will be that - the investments that we'll see, not by us, but by the, the automotive industry in general - in terms of technology, is around batteries, inverters, power electronics, and so on. You're going to see that drive down the cost of ICE. There's not so many people investing in ICE technology these days. So, you'll see a less pronounced reduction in carbon. And of course, the ICE part will lose volume and lose leverage, whereas the BEV part will gain volume and gain leverage. So, all those dynamics are work towards</p>

	ICE/BEV parity - and we see that coming. So that's on that, the ICE/BEV parity. What was the second question, sorry?
Olivia Ross-Wilson	The second one was around balancing the volume, and also contributing -
Jim Rowan	Ah, the premiumness? Back to premiumness. Okay. So, it is, I mean - you hit the nail on the head - it is about putting features into the car that people see as premium and are willing to pay for. And the gap, we sell in the marketplace, from a price perspective, I do not think exists. Especially in new products on a features and performance basis. So, that allows us - you know, you guys do the math as well as we do - we sell a price on a like-for-like car. We sell a price discount to some of our key premium competitors of 20%. If I can get 10% of that back, that's pretty meaningful. As we put more and more content, as our safety features develop, as our sound systems and ride comfort, and the core compute technology adds more value to those customers. I would hope that we can start to see that price discount, if you will, to those compared to us, start to erode, and people will start making the choice: Hey, I'm going to buy - I'm going to buy a Volvo rather than one of those other competitors. To be fair, that is part of the whole value equation that we're trying to create here. For the simple reason I'm saying: if it's a flat market and you can only grow by taking market share, I've got to go take market share from these premium competitors. And the way in which to do that is to offer more value, for slightly less cost.
Question from audience	But just to be clear, if you don't mind. We're still talking about a clear volume growth ambition, right? Even though you've now rephrased it to outperforming a flat market, you want to grow, right?
Jim Rowan	We want to take market share in that premium market, and outgrow the premium market growth. So yes, we want to grow. It's very difficult right now with the turbulences in the industry to see what that growth rate is going to be, but I'm confident with the products that we can bring into the market. And remember, we are in the 30, 40, 60 90 size class with the SUVs, sedans, wagons and MPVs; we're in MHEV, PHEV, and BEVs. We're in 85 countries around the world. We have 2200 dealership networks, 60,000 brand evangelists. We have access to 10,000 service bays and 15,000 service technicians. All of that adds premiumness to the brand. And that's part of the problem. If you can buy a car, if you don't have access to a really good dealership network that's going to take care of you afterwards, you don't have access to good service and genuine spare parts, you don't have access to those service technicians that have been highly trained by us, then

	<p>that starts to erode the premiumness of those brands. And a lot of our competitors don't have that infrastructure. They don't have that access to those, to that global network of brand evangelists and service bays. And all of that is now coming together. And we see that in different industries as well. If you look at why Apple have gone to the expense and the trouble to have their stores around the world, why do they have their Genius Bars? I think the Apple Genius Bars are akin to our service bay technicians, It is meaningful and it is brand additive. And, you know, people expect that of a premium brand.</p>
Olivia Ross-Wilson	<p>Okay. Thank you so much. We're going to move over to this corner of the world. Any questions? I saw some hands earlier. No?</p>
Jim Rowan	<p>Wow, first time ever I think.</p>
Olivia Ross-Wilson	<p>Austin, hello!</p>
Question from audience	<p>I'd say, with all the...</p>
Jim Rowan	<p>Don't dare ask me a question on Lidar!</p>
Question from audience	<p>I won't, don't worry. Exactly, um - What do you think about the indium gallium arsenide band gap in the Lid- no, I'm just kidding. No, but a genuine question around - if no one else had one - is with all the updates that you have, how much today would you consider Volvo an auto manufacturer versus a tech company? Now, and then for the 100-year vision that you have going forward; what do you see that looks like?</p>
Jim Rowan	<p>Well first of all, I don't have a 100-year vision, so I'll put that to one side. But listen, I think that the technology that we're building up, it's my personal assertion, that we are having to deal with so much technology that's coming into the automotive industry. I don't even call it automotive, I call it next-generation mobility, because really, that's what it is: next-generation mobility. And look at what we're bringing, and we're bringing in core compute technology, high computational computing, massive amounts of software, on six different software strands from, you know, connectivity software to iOS and Android software, to embedded software up to safety software, to the safety kernel and QNX. And all of those things are blending in together. That's just the software stack. Then we've got the application layer of ultrasonics and cameras, and radars and Lidars, and then we've got the connectivity out to the customer and building that whole ecosystem. And there's a</p>

	<p>whole bunch of new stuff that we're putting in as well from the mechanical side and actuators and, and so on. It is my assertion that and you need to do this at the same time. It's not like you can say, "Well, we will just do this bit for now." It doesn't work like that. So bringing all that together and us being able to cross the Rubicon to a core compute architecture that very few people have done forces us - has forced us - to become a technology company. It's not that we were trying to say "Let's not be an automotive company, let's be a tech company." If you want to be an automotive company that's successful in the future, you need to harness the technologies that are relevant for the future. And that pushes you to be a tech company yourself. And just as importantly, it pushes you to connect with like-minded tech companies and make versus buy decisions. So, I don't know when we're on the spectrum we are in terms of tech versus automotive, but I know we're harnessing the right technologies for the future. Super hard question. I really appreciate that one.</p>
<p>Anders Bell</p>	<p>Yeah. And if I may add. I mean, one thing which is common - whatever we define ourselves to become, maybe we're both at this moment in time. There are two concepts that we need to get used to: One is that we are looking at our cars and our future products, equipping them with powerful hardware, future proof that we can unlock over time with software. I think for automotive, that's a new kind of thinking. Not in the world of consumer electronics or computers, for sure, but for us. The second aspect is that we need to get used to the fact that our product has never finished, because we still have more power in the hardware that we can harness through software and reach it over the air. And these are kind of fundamental, almost quasi-philosophical ideas for a traditional car industry to move into. The fact that you can always do better, you can always improve, and the fact you need to look at your hardware choices, your compute choices, your mechatronic choices, your actuated choices as potentials to unlock over time. I mean, like, I'm sure you all have a smartphone in your pocket. I'm sure it's much better today than it was three years ago. And that's the thing, the thing with cars going forward, as well. We will be able to always do more. There are like 200 ideas up here that we want to do, that we know we can do in the future. It's not a question of if - it's just a question of gathering the data, the understanding, and then it's just work. So it's going to be a lot of fun.</p>
<p>Olivia Ross-Wilson</p>	<p>Very good. Back over to this side of the room.</p>
<p>Question from audience</p>	<p>Thank you. I have a question for Francesca. If you could please maybe share the first impressions of the first six months when you joined the group. You come from companies that have done very</p>

	<p>large reduction of platforms. They have basically done a huge reduction of component diversity and have achieved very large cost savings. So when you landed at Volvo, what did you see, and what do you think is the opportunity for momentum from a purchasing perspective to tighten the bolts and get those cost savings? Thank you.</p>
<p>Francesca Gamboni</p>	<p>So, I will not talk about other car companies. I will talk about Volvo. I think one of the greatest and the key, let's say, success factors and opportunity that Volvo has is again, its agility. It's cross-functional, cross-functional in collaboration and total cost approach. As I explained before. So, the fact of seeing holistically all the costs and really going for the, let's say, the solution that would optimise the total, the total cost, instead of going with solutions which optimise the super assemblies, I would say. It is something that is very powerful, which obviously, means that we have a lot of opportunities and a lot of, let's say commodities that we can evaluate with this approach, in finding other opportunities. I explained when I was talking before about one opportunity, but there are many other opportunities that we can unlock. And again, the key success factor is this this holistic view, this total cost approach, this cross-functional, which is also, let's say, which is also helped by the the agility that the company has, and its lean structure and management, which allows really to go faster, to go deeper and to get really great opportunities.</p>
<p>Question from audience</p>	<p>Yeah, thank you. So I had two follow-ups, please. The first was on the upgradability in the car, being able to get better by putting all this content in upfront. Can you talk a little bit about the financials of that? Because we know that one of your competitors has like a revenue-sharing agreement where they get subsidised hardware upfront and then they monetize later on. And it's a bit of risk sharing, of course, in that respect as well. So could you maybe remind us how that works in your case, in the example of Nvidia and Qualcomm in your case? And the other question was for Jim, actually: one of the last statements you made in response to my earlier question was about the brand ambassadors and the dealerships in the ecosystem and how that enables a lot of what you're doing. There was a bit of an absence of the direct distribution model in the presentation today, which took more air time and prominence in previous events and presentations. Can you just clarify if there's been any kind of pivot away from that, or was there just no time in the schedule today? Just clarify that, please.</p>
<p>Jim Rowan</p>	<p>So, in terms of the relationship with our key suppliers, we won't go into the details of that. What those purchase arrangements are and all that stuff. So, I need to push that one to the side. I'm afraid.</p>

	<p>In terms of the commercial, let's say strategy, what we'll find as we've gone through this and Björn can speak a little bit more in the details of if we have time, but basically what we've found is that there's a pragmatic approach that you need to find that works well with the dealership network and us. Do we want direct connection to the customer? Absolutely. Do we want to be able to influence that customer and keep that customer loyal and bring that back? Absolutely. What's the best way to do that? And what we'll find through the course of the journey is that the dealerships play up a big part of that post-sales, but we need to be engaged with every sale. We need to know which customers are coming into the brand and which customers are staying in the brand. The Volvo app has become a massive portal towards that customer. We don't need to do the change order management with those customers. The dealerships are set up to do that. The dealerships are set up to do servicing. We give the dealerships access to our spare parts library, and so they can order directly without the need to get us involved. So that takes out cost. We make money when they use genuine spare parts. They make money when they service the customers' parts. So it's a little bit more of a pragmatic approach. And what we've found is that, okay, you guys keep doing this because you're good at it, but we're going to do this. So we still have the direct customer engagement through the app specifically or through the website. And then we allow the dealership network to take care of that customer post-sales. So it's basically the digitization of wholesale to some extent. If you're looking for a tagline on that, hopefully, that answers the question.</p>
<p>Olivia Ross-Wilson</p>	<p>Björn, anything you wanted to add?</p>
<p>Björn Annwall</p>	<p>I think Jim covered it well. So net, that means that we have a direct model in the UK, and it works well. I think the key learning there is that for the normal consumer using the normal flow, we have set up a fantastic machine to handle it. But the other learning is that the normal consumer doesn't behave in a normal way. There are so many different ways the consumer can behave and the retailer has an unmatched opportunity to handle that flexibility. So not all segments are due to be direct based on the platform we have put in place, at least not across many markets. We're going to keep on being direct in the UK, but for the rest of Europe, we focus on what Jim talked about, making sure we stitch together the consumer data between us and the retailers, having stronger marketing, CRM functionality together with the retailer, working with customer care afterward. We get much more bang for our digital bucks through that method.</p>

<p>Olivia Ross-Wilson</p>	<p>And also in one of the presentations, I think it was also quite clear that the objective or the ambition remains in the commercial strategy, which is a better customer experience at a lower cost.</p>
<p>Johan Ekdahl</p>	<p>And that is still one building block for sure. For our profitability ambitions, if we call it operational efficiency and have a, as you said, customer experience base at a lower cost, is still a part of the increased operational efficiencies going forward, even if it was not as outspoken on the wall.</p>
<p>Jim Rowan</p>	<p>Can I just come back on your earlier question. I won't go into the details, the agreements between suppliers and stuff, but we don't want to mortgage ourselves to the future. We need to be able to afford the technology that we've put into the car as part of the bill of materials. As soon as you start to do that, or start even relying on government subsidies, then you have you don't have a robust enough business model, in my opinion. We should be able to make sure that the components that we're putting in the cars, that we can afford to pay for them, and then we can afford to charge them in the price. In the same way we need to make sure that we're building products that can be sold to the public without the need for government subsidies. Governments have got more things to spend their money on - they shouldn't need to subsidise businesses. What they should do is help the transition to electrification through making sure there's enough green energy and making sure there is good charging infrastructure. And I'm just going to take a second to talk about that. There's five, basically five, friction factors towards full-scale adoption of BEV. One is cost. The second one is energy density, the third is the speed. Those three are on us. We are driving down the cost. We are increasing the energy density of batteries. And we are increasing the charge speed. The new technologies will be able to cushion 200 km of range in probably six minutes. So we're already - with the new power electronics, all of that. So we're working hard. The fourth is infrastructure. That's where governments, I think, can help. That's where I think fast-charging infrastructure makes a huge difference. Access to green energy makes a huge difference. And the first one is just change, right? People have been driving internal combustion engines for a long time. They need to get used to a new technology. We went through the same thing with feature phones. Everybody loved the feature phones. You know, people thought, 'Oh, BlackBerry, I love my keyboard', and all of a sudden, boom, everybody's on glass. But it took a little bit of time, and that's the transition we're going through. So, I just wanted to unpack that for you a little bit more.</p>

<p>Olivia Ross-Wilson</p>	<p>Alright. Good. We probably have time for - this is our last question I believe.</p>
<p>Question from audience</p>	<p>Okay. Big expectations. No, I wanted to come back to used cars etc., because most people buy a used car and a lot of people feel unsure about residual value, battery status, etc.. So, my question to you is: what are you doing as an OEM to be more transparent on the status of a battery during its lifetime, for a second hand buyers? And also secondly, are you looking into having a subscription service for, let's say, 4 or 5, six seven-year-old battery electric vehicles? Thank you.</p>
<p>Jim Rowan</p>	<p>I'll take the first part, then hand back over to Anders in terms of the tech piece - but it rolls back into the tech stack effectively. Ultimately, it goes back into the tech stack. So when you've got an internal combustion engine and you look at the servicing cost of that internal combustion engine, you know, when you've got lots of moving parts, roughly 2500 parts and then internal combustion, rotating that well over five, 6000 rpm and mainly mechanical structures. You've got petrol in there, you've got, you know, you've got lots of the combustion activities; vibration, noise, everything that can go wrong, blowing cylinder head gaskets, all that stuff. Don't have any of that. So, when you look at the data over core computer architecture, we will see every single cell. The performance of every single cell and that battery structure. And what we see right now and what's encouraging is the integrity and the robustness of battery chemistry and where that's going. I can't see every single screw, bolt or washer that's in an internal combustion engine. That's impossible. But I can see every cell. So there's a path for us to be able to say, I can guarantee that battery because I know everything that's happening inside. I know when it's been charged and if it's been undercharged or overcharged. I know exactly how many miles it's been given, that's all part of the connectivity in the superset tech stack. That's going to give then us the opportunity to say, okay, to your point, I can guarantee that battery within that car for another five years on a secondhand market, very, very comfortably without putting ourselves at risk. That's what's available towards us in the future. Is that available now? No, but that's what's coming. And that's another massive, massive benefit because if you can do that residual values stay high. The other thing is, as we get to 2030 and the ICE band comes into act, especially here in Europe, one of our biggest markets, the residual value of the ICE machines are going to go down, and people will not make that decision in December 2034. They'll make that - because it's a big purchase - they'll make that decision a couple of years earlier. So you'll start to see the reduction of residual values in ICE machines happen around the early part, if</p>

	<p>not before 2030. So everything is moving towards BEV in terms of the superset tech stack and the information in the data that you get moving in the right direction, residuals going up and on ICE, things are moving down.</p>
<p>Anders Bell</p>	<p>I think you covered it well. And I know, of course, we have been working on a lot of different improvements and trajectories on battery health: shortening the charge times while improving the number of discharge cycles, et cetera. The battery passport we will be introducing, so that you can have full transparency on battery health. And we're going to keep on expanding that as part of the tech stack in our federated cloud, being able to provide more and more digital twin data, if you like, on the health and the state of the car. Plus, the other aspect is - and I think the announcement yesterday on the one HMI is a very good example of where we are. Although we are progressing and developing, the hardware, we always consider backward porting on all the software, right? So, I think that's a prime example where we keep the cars - the car as a static object, those days are over. So if you buy a used car, you will still get to continue to get the upgrades and enjoy the benefits of the functionality we develop today. So that's that. Residual market dynamics, that's more of a Björn topic.</p>
<p>Björn Annwall</p>	<p>But rest assured, we will package that into a fantastic pre-owned subscription or operational lease, because it's going to be very important to get Volvo consumer into second-used Volvos.</p>
<p>Olivia Ross-Wilson</p>	<p>Okay. Thank you very much. We extended this Q&amp;A time, I realise that there are probably some questions that we haven't managed to get through to you, but as I said, we'll have our speakers and additional leaders, from Volvo Cars are with us here today. So please do make sure we get your questions answered during the end of today's session. All of our speakers, thank you so much for joining me on stage. Please now join the audience as we enter into the very final part of our day. Thank you for leading us through your great content and all the fantastic sessions. It's been rewarding, it's been enlightening, and it's been a genuine pleasure to be a moderator here today. With that, I would like, to hand over, to one of our partners, before Jim will take us home. Thank you so much.</p>

Wrap

SPEAKER:

Jim Rowan, President and Chief Executive Officer

<p>Jim Rowan</p>	<p>Okay. We need to get back to work now, so we have a lot to deliver on what we've told you today. So you've heard from us today, you've also heard from some of our tech partners. Thanks for that great collaboration, especially to those who joined us today.</p> <p>Let's wrap up and let's go back to where we started today, which was creating value. We have an illustrious history, and in recent years we've delivered robust financial performance. We've developed leading technologies and introduced core compute technology. We've launched several new iconic models, which has allowed us to increase our market share in the premium market. And we've done all of this in a very, very turbulent environment. However, we're not done yet. Instead, we're going to lay the foundations for the next 100 years. Our focus is on value creation. It will remain so. And there are several ways in which we're planning to do that. As we've laid out today, you've heard about our financial ambitions and our committed value-creation for our shareholders or investors, and we're on track to deliver core EBIT ambitions and generate strong positive cash flow from 2026 onwards. We have even more exciting products on the way as part of our transition to full electrification. Value creation will be underpinned by two complete line-ups of fully electric vehicles and our investment, our continued investment and our hybrid models. These products will contain state-of-the-art technology powered by our superset tech stack, our software, our core computing, our AI-enabled data loop, and our data centre. Our generation of cars, our next-generation of cars will deliver a stunning experience for our customers, and we will deliver significant cost reductions for Volvo Cars. And then you heard about our brand and our consumer. We are a consumer-centric company that will focus on delivering premium experiences for our customers and continue to strengthen an already strong brand, which is based on safety, sustainability, human-centric technology, and beautiful Scandinavian design. But safety is our superpower. We're going to build products that develop a commercial structure where everything is interconnected. It's a living organism evolves, that evolves, develops and strengthens over time. The big organs in this organism are industrial, technology, product, and commercial. Data is the connective tissue that holds it all together. This is the powerful combination and it results in faster, more effective product development, quicker reaction to market needs, better product insights coming from data. But let's not forget that achieving all of this and the ambitions rely on great people and a great culture. I've said this before and I'll say it again at the end of the day, companies are differentiated by people. Technologies and services, and ideas</p>
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	<p>are developed by people. They are provided by the people within our company, Pricing strategies, marketing campaigns, and everything in between. We have fantastic people in our company, and what you've seen and heard today are the fruits of their labour, their hard work and their commitment. So, while we're on stage, while we have, an open forum here - I would like to take a moment just to say my heartfelt thanks to all of the employees within Volvo for their hard work, their dedication and their energy. Our people are the beating heart of our company. I also want to say a big thanks to everybody here who made this happen. Most people do this on top of their day job. We have a fantastic crew of people here. Again, partnerships are very important. We have some fantastic partners that have helped us pull all this together. It's a lot of work and I'd like to just say thanks. Now really, to end of the day, I will leave you with a final thought. It's all about Volvo's cars and Volvo's culture. It's about what defines us. At Volvo, we believe in making an impact and having the courage to challenge how things have always been done, because only through new ways of seeing and new ways of doing can we truly make things better. It takes courage. It takes curiosity. It takes pioneers. That's what defines us. This defines us: The spirit of the pioneer. Thank you.</p>
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