

V O L V O

Global footprint

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Global footprint

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.

As you have seen today – we have a strong line-up, differentiated technology and a strong eco-system to bring our cars to market. But at the same time, there is a lot of disruption in the industry right now.

From geo-political tension, technological innovation and supply chain challenges, to changes in consumer spending. And we don't expect it to be a momentary blip – this is the new normal.



Global footprint

Today, we'll explain how we are strengthening our position to face the new normal. 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.

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.

So, let's get started with a quick snapshot of our global footprint strategy.



Global footprint
Strategic partnerships
End-to-end value chain

Global footprint

We have operations around the globe.
We build and sell cars around the globe.

Our overarching strategy is very simple:
to build where we sell, and source where we build.

We started in Sweden almost 100 years ago and have since built a strong footprint across Europe, Asia and the United States.

Our products are sold in more than 100 countries.

Each part of our global footprint unlocks its own strategic advantages; and collectively, this strong foundation gives us the flexibility to adapt to market forces.

If we consider our SPA1 architecture as one example – we can produce SPA1 cars locally in all three regions.

Our Torslanda plant in Sweden is an example of another kind of flexibility – in this case, we can build five different car models at the same location.

As you learned earlier today, eventually all of our new cars will be built on our upcoming SPA3 scalable platform and tech stack.

And we will produce it in all regions. This will further enhance our flexibility and efficiency.

Let's take a quick look at our footprint, region by region.



Global footprint

Europe is historically one of our most important regions and it remains so.

We're a Swedish company. Born in Sweden. Listed in Sweden and, we're one of the largest employers in Sweden. And we understand what it takes to be successful in Europe.

We have our global HQ 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.

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.

Also in Europe, we have our software development tech hub in Krakow, Poland. And we have our manufacturing plant in Ghent, Belgium, which expands our capacity to produce products for Europe in Europe.

For example, we will start producing the EX30 in Ghent in 2025, which as you heard from Björn earlier today, is one of the top three selling electric cars in Europe right now.

In 2026, our new fully-electric car plant in Slovakia, in the Kosice 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.



Global footprint

Let's look at APAC, particularly China, which is one of the fastest-growing car markets.

Here we have local capabilities, including design, engineering and production.

Our APAC region HQ, R&D and design centres are all based in Shanghai. We also have three car plants in China, supported by assembly factories in India and Malaysia. 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 set-up that caters for our future needs in the Asia Pacific region.

If we focus for a minute on the China market, already today, the large majority of cars we sell in China we produce in China.

We also engineer cars specifically for China – to meet local customer needs and demands from the outset.

Our new fully electric EM90 is an example of a product that caters nicely to local demand.

This ability to produce variants specifically for this unique market highlights our strength and the 'build where we sell' strategy.



Global footprint

Now onto the U.S. The U.S. is one of the largest car markets in the world.

Having manufacturing facilities in the U.S. is critical for us to serve this important market and export into other markets.

We are currently producing our new fully-electric EX90 in our US car production 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.

All combined, our robust global network leaves us very well-placed to manage any changes that lie ahead.



Global footprint

Our flexibility contributes to our resilience.

For example: building the XC60 – one of our most successful models – in both China and Europe, so we can adapt for global export as needed.

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.

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.

What's more: we're boosting the capabilities of our global footprint by our investments in technology.

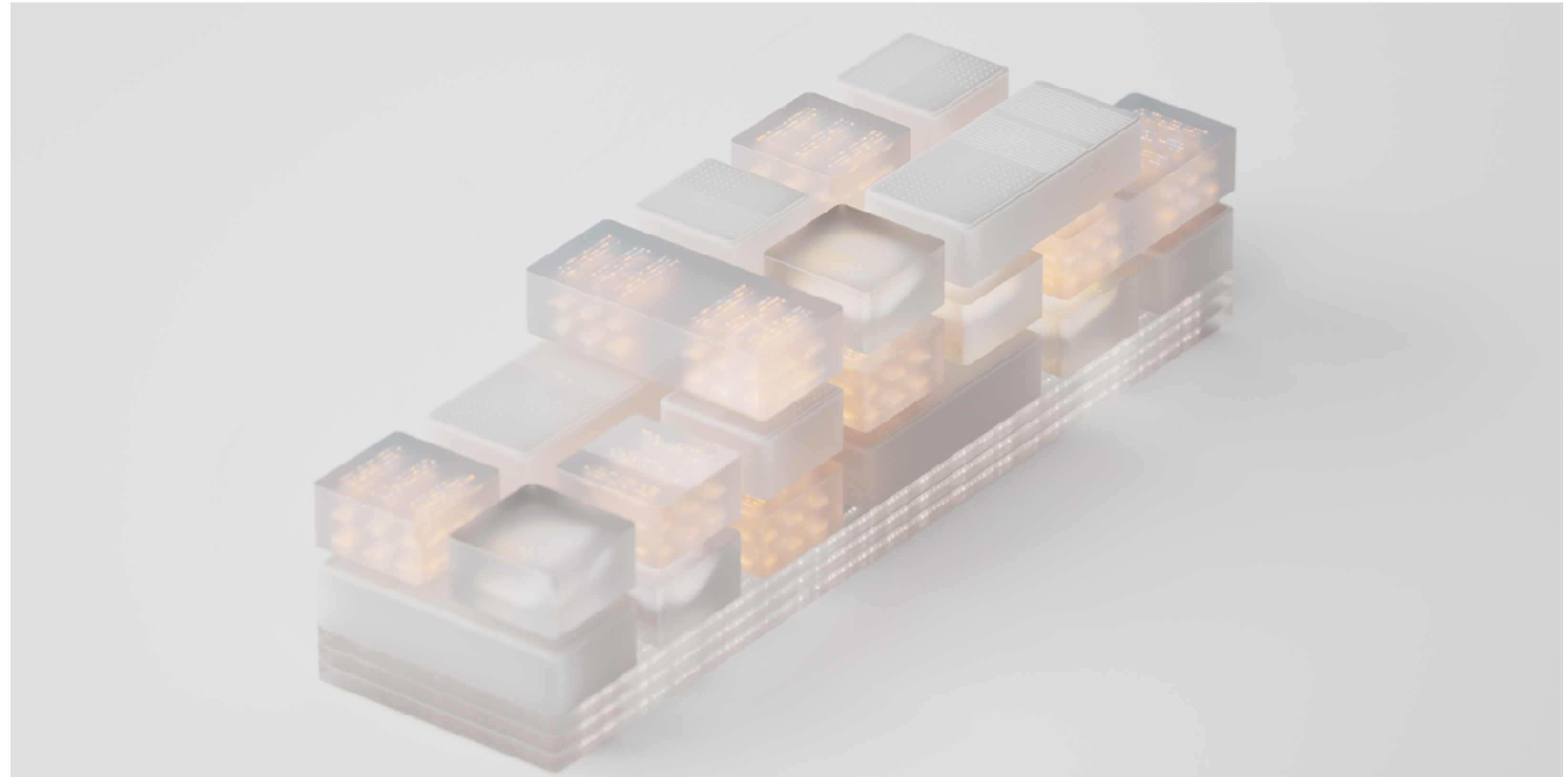


Flexibility = Resilience

Global footprint

All our future products will be based on the same fundamental superset technology stack and updated mechatronic platform.

This is more scalable – both up and down in model size. It enables us to offer more types of cars on the same base, improved margins and customer experiences. It's an important investment with significant rewards.



Global footprint

As you heard from our colleagues earlier, we are also investing in battery technology – from battery cells to battery assembly shops in our plants.

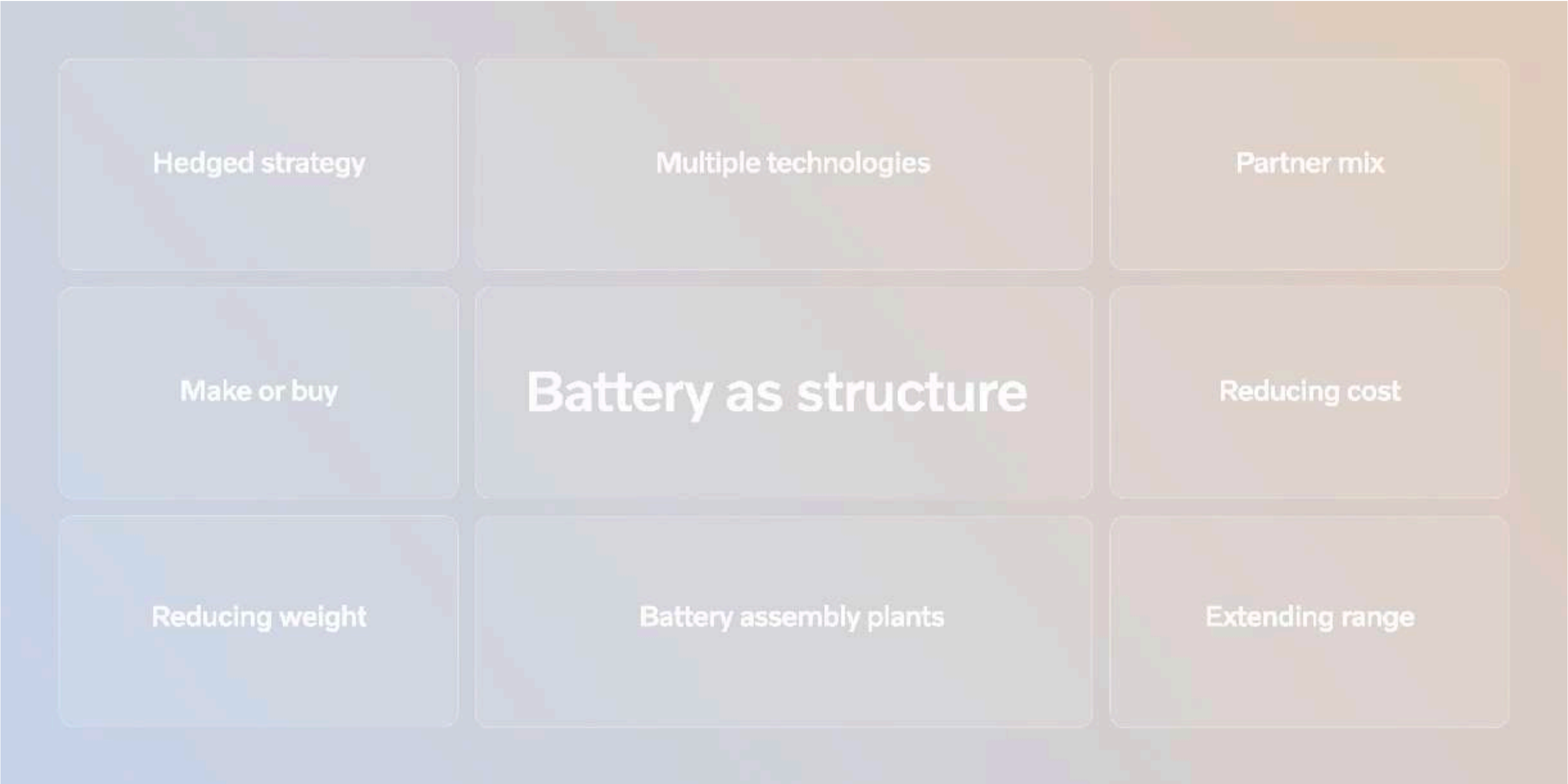
We have a hedged battery strategy – which is both long-term and geographically spread. We’re utilising a mix of partners and multiple technologies.

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 – utilising strategic partnerships to source cells closer to where we build.

As our battery partners align further with our geographical operations, we can achieve our ambition to source our battery cells in all our key regions – Asia, Europe and the U.S.

And our batteries are more than just energy. As you saw when Anders presented, we are integrating batteries into the body structure of our future cars.



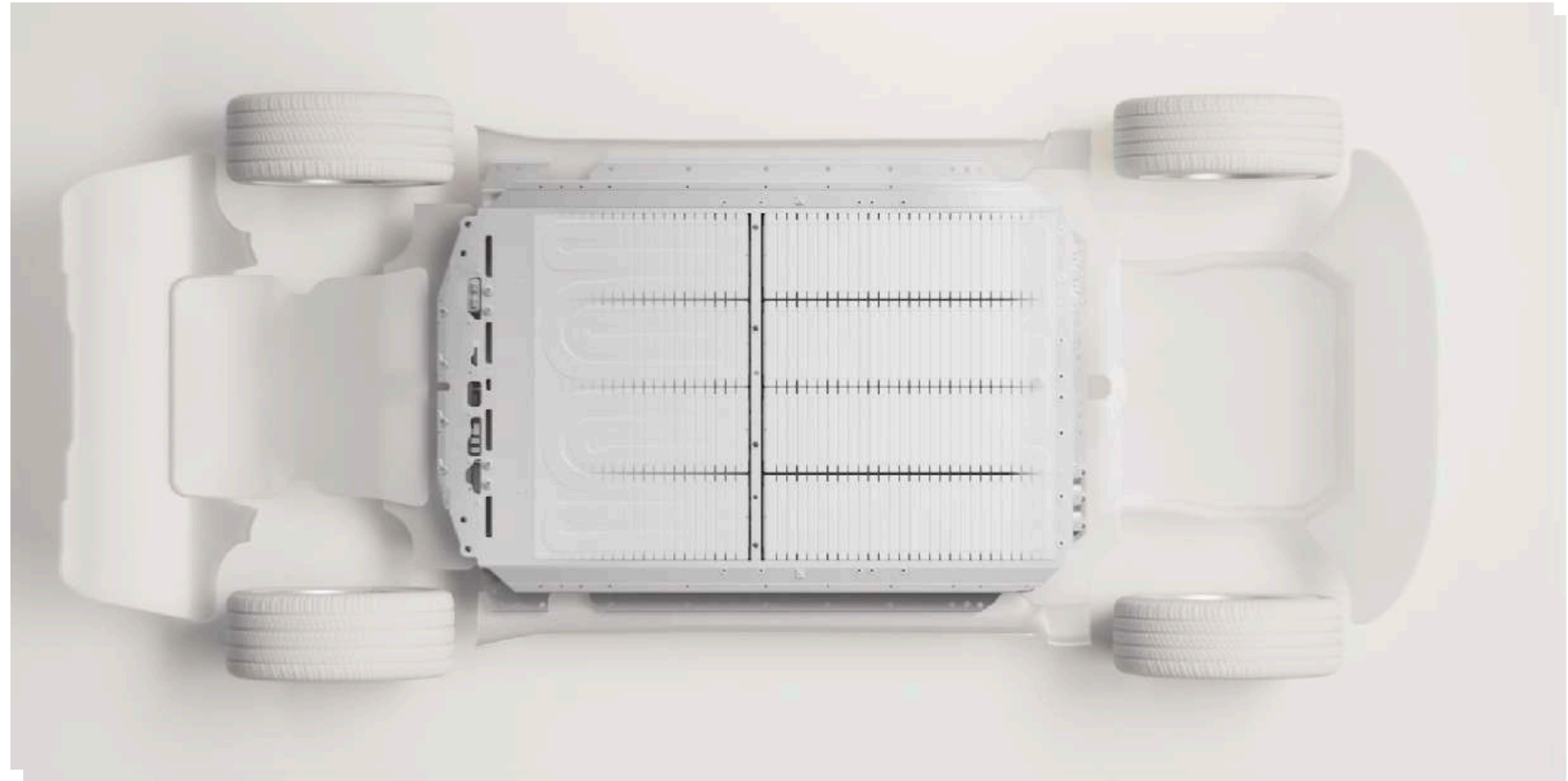
Global footprint

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 it reduces cost, significantly. This is great outcome for our products and our customers. It also demonstrates our ability to quickly industrialise it and deliver it across the globe.

We recently opened our brand-new battery assembly shop in Torlanda. It's set-up specifically for this integration of battery floor structure into our future cars.



Global footprint

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.

By using fewer parts we can lower our costs, reduce manufacturing complexity, improve sustainability across our supply chain and create lighter cars.

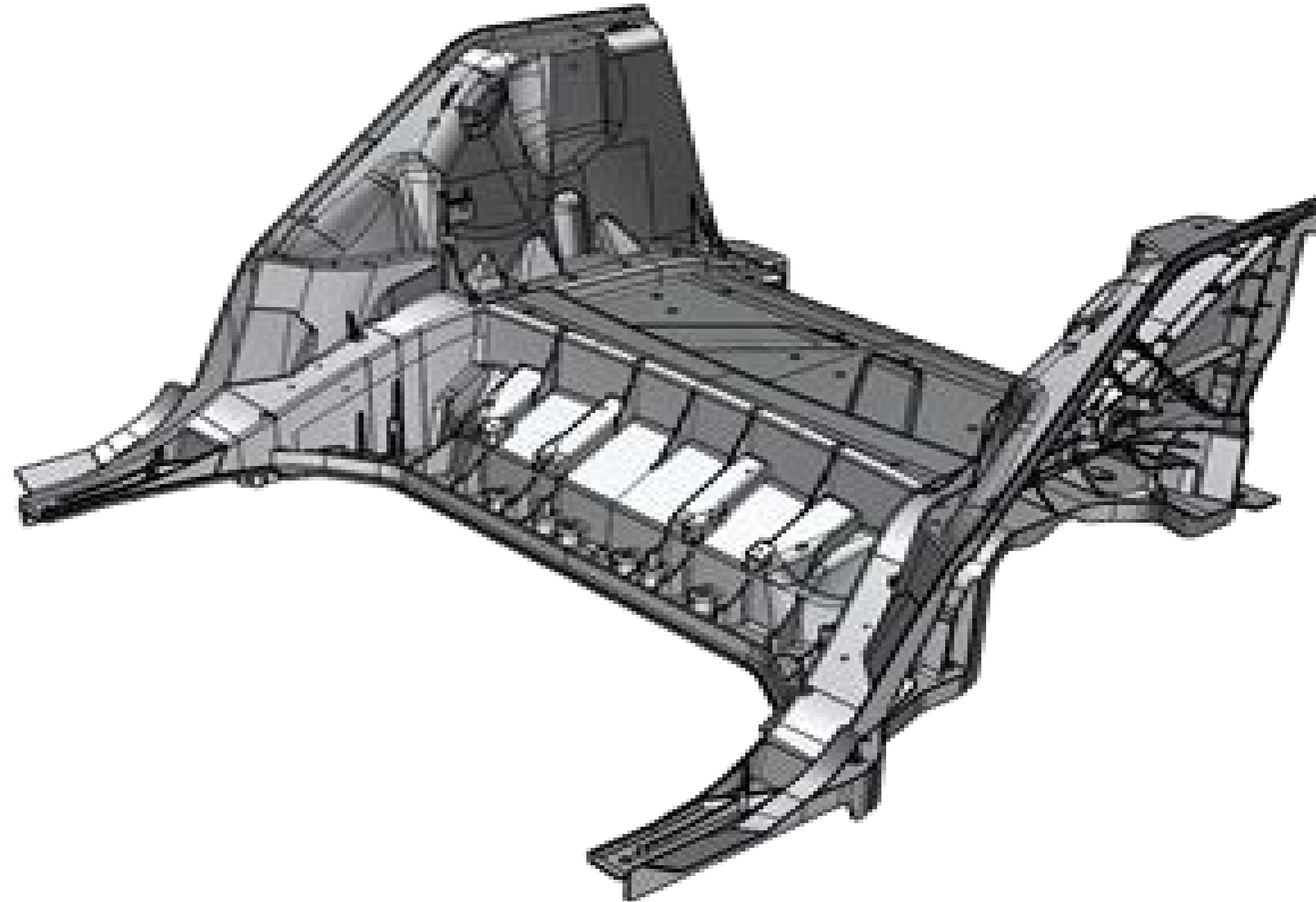
Landed cost for a mega cast structure is up to 35% below a mixed steel-aluminium structure.

Time from raw material to ready product 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.

This rollout at Torslanda provides a great base for scaling – both for other mega casted parts and for how we use mega casting in our other plants around the globe.

We will add mega casting capabilities to our new Kosice plant in Slovakia and in the Daqing plant in China.



Global footprint

Our new fully-electric state-of-the-art car factory in Kosice, Slovakia, will bring other new opportunities as well.

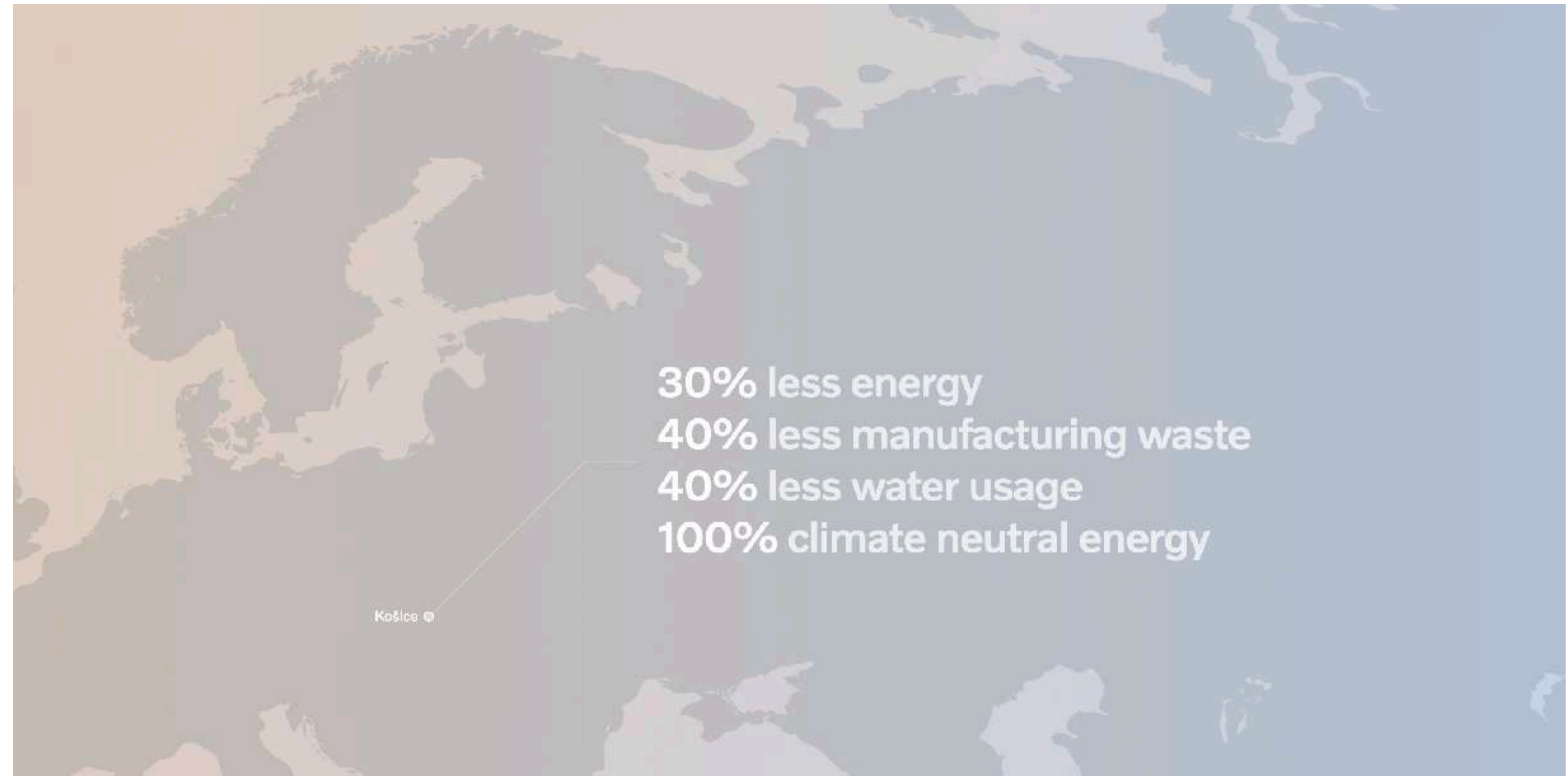
On a per-vehicle basis, it is expected to use 30% less energy in production, 40% less manufacturing waste and 40% less water usage, compared to our current operations.

It will also use 100% climate neutral energy in the manufacturing operations.

Our Kosice plant will also introduce new efficiencies in painting and stamping.

All of our plants stand to gain from these advances in our manufacturing set-up as we share knowledge across our teams and strive towards our efficiency and sustainability ambitions.

We're proud of our global footprint and unique in-house capabilities. But we also know that collaborators win in such unpredictable times.



Global footprint

Let's explore how we're building strategic partnerships with selected suppliers to help push the boundaries on technology, cost, resilience and sustainability.

Our Supplier Segmentation Strategy guides us in defining who we want to team up with, why and how.

The way we collaborate with our tier-one suppliers is fundamentally changing in the future.

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.

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.

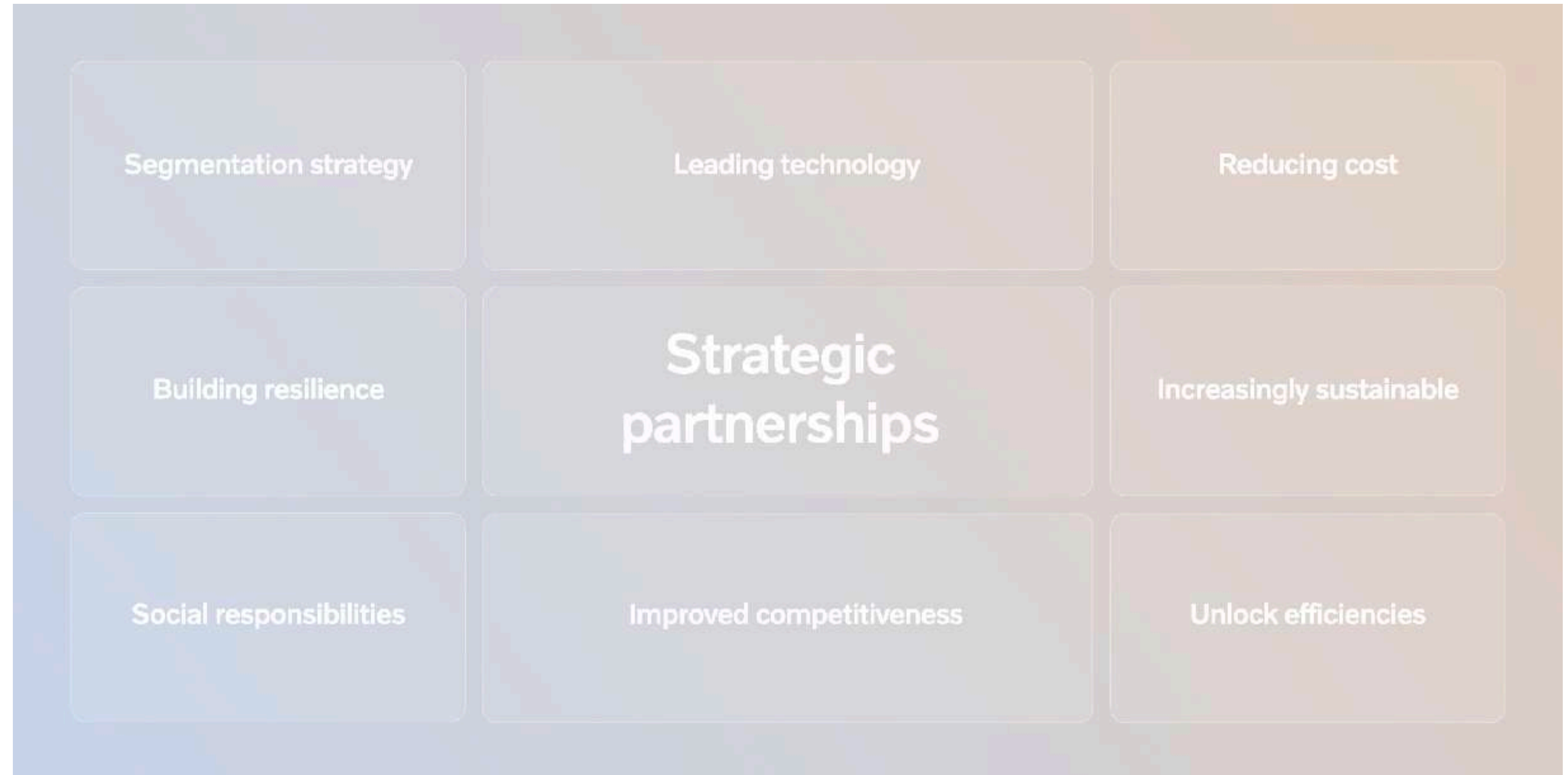
One example of strategic partnerships is how we work closely with Bosch on developing technology and solutions.

We are focused on creating 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.

One example, is an initiative with a supplier that switched to biofuel and reduced inbound ocean container freight carbon emissions by up to 87 per cent. At the same time, it generated over a billion SEK in cost savings for us.

Another example of collaboration is on supply chain traceability. We're partnering with Circular on supply chain traceability for future Battery Passports – so customers can understand their car battery's origin.

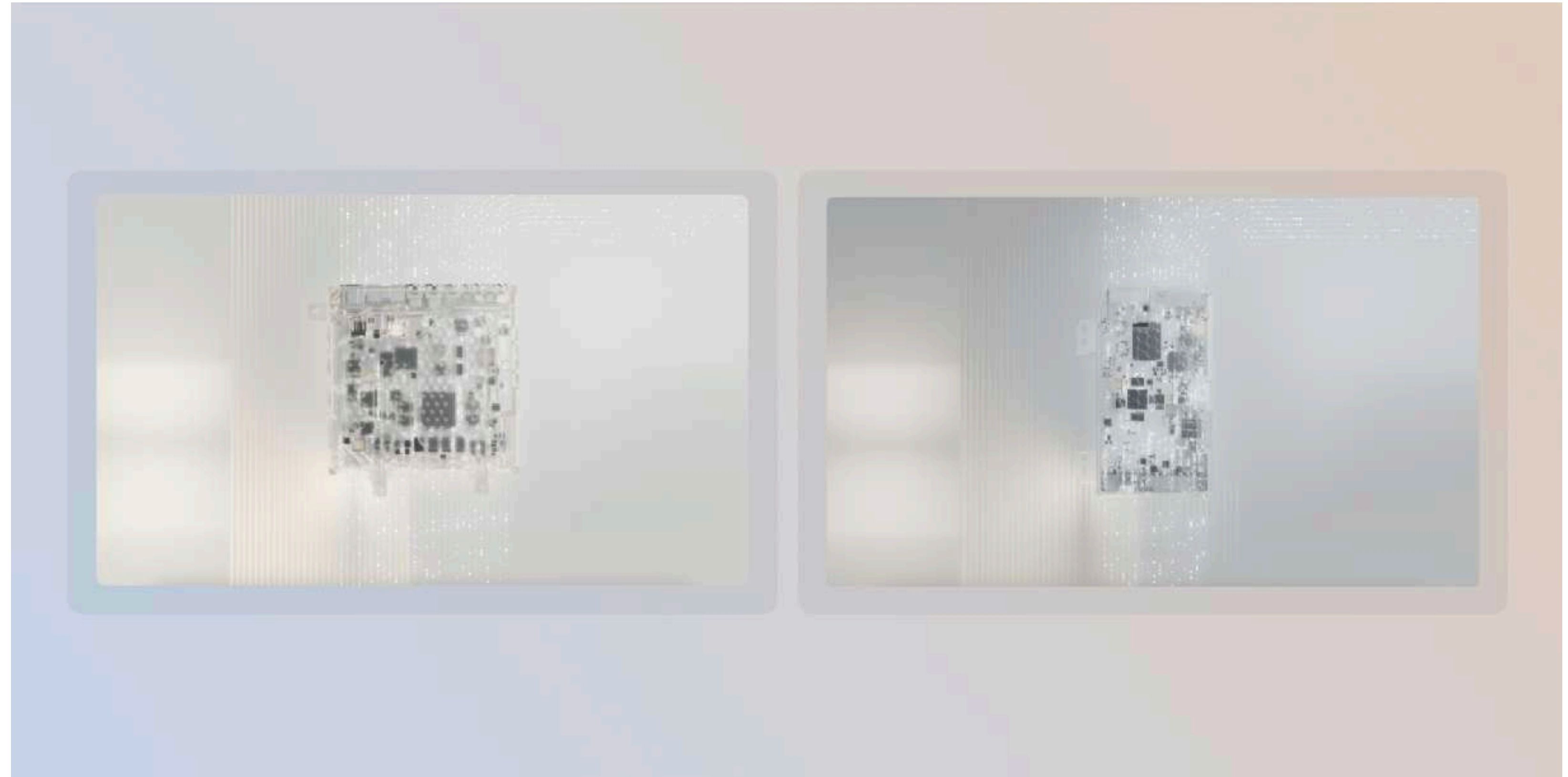
Also, through our work with Breathe – which is a start-up with expertise in physics-based battery management software – we can then develop our in-house battery management system and adaptive fast charging that aims to improve charging speed by as much as 30% for future car models.



Global footprint

Our collaborations with leading technology partners, such as Nvidia and Qualcomm, are integral to our future technology roadmap.

As Francesca said, by combining strengths with the right suppliers, we will continue to create opportunities to improve technology, cost, resilience and sustainability.



Global footprint

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.

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.

That's why our teams have total-value-chain responsibility, accountability and visibility.



Global footprint

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.

We reduced variants, changed the industrial setup, reduced product complexity and lowered the weight.

As well as the cost saving, the solution also reduced the CO₂ footprint and paved the way for further efficiencies in the industrial setup.

This is just one example from over 100 commodities that we are examining for each of our future car models.



Global footprint

Discovering these opportunities that multiply across hundreds of thousands of cars sold each year, unlocks millions of Euros in cost savings – and it also reduces carbon emissions.

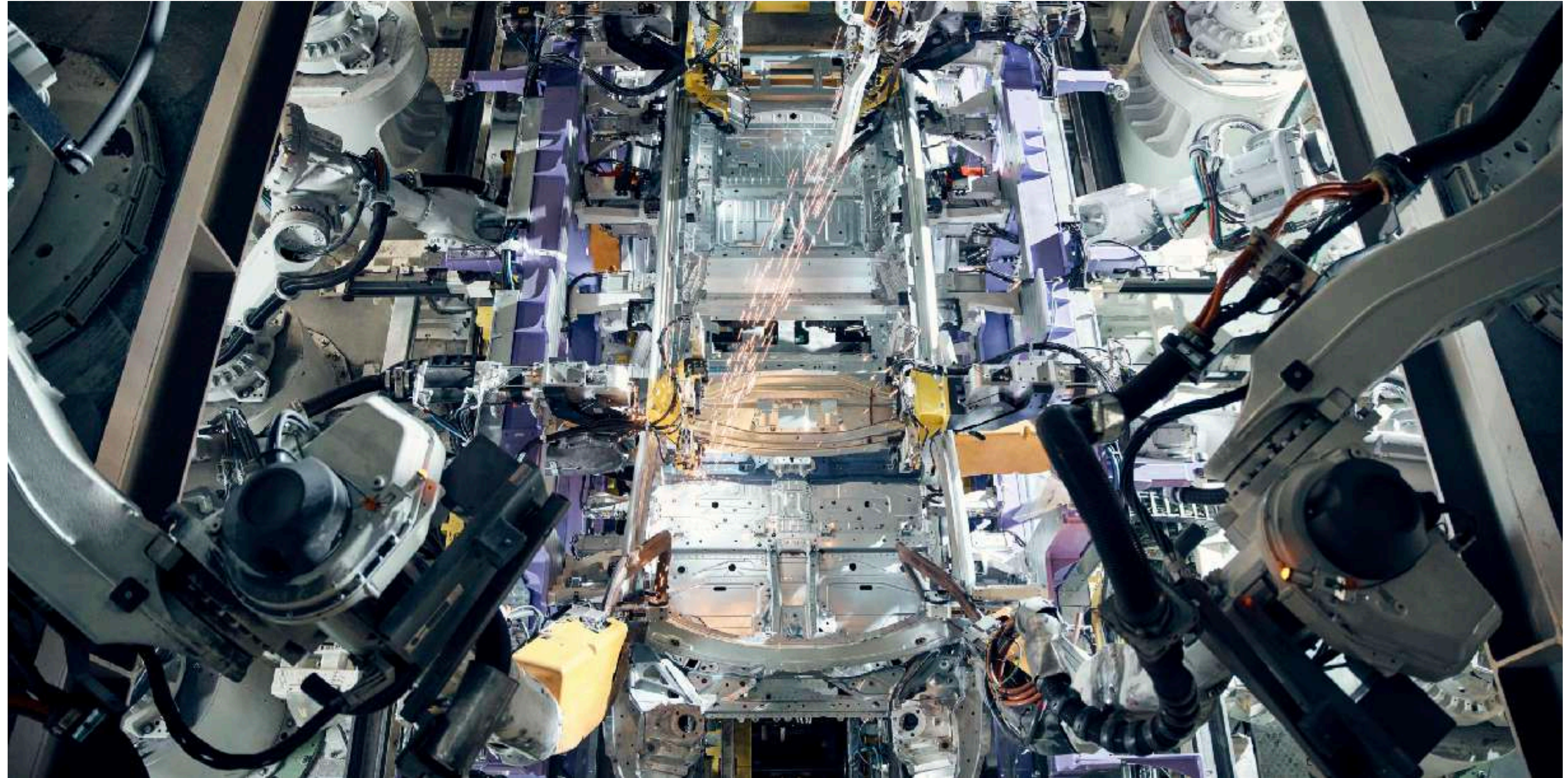
This examination of our value chain is reducing the number of parts and variants we use.

And it's creating opportunities to use more off-the-shelf non-critical components where it makes business sense.

But of course, there is no one-size-fits-all approach – where it makes business sense, we're also finding opportunities to own more of the value-adding process when we consider our 'make or buy' strategy.

So, what we end up with is a balance of complexity reduction, smart solutions for non-critical parts, either insourcing or outsourcing to our partners, depending on what makes business sense.

For insourcing, it's a case of owning the most value-adding processes for selected



Global footprint

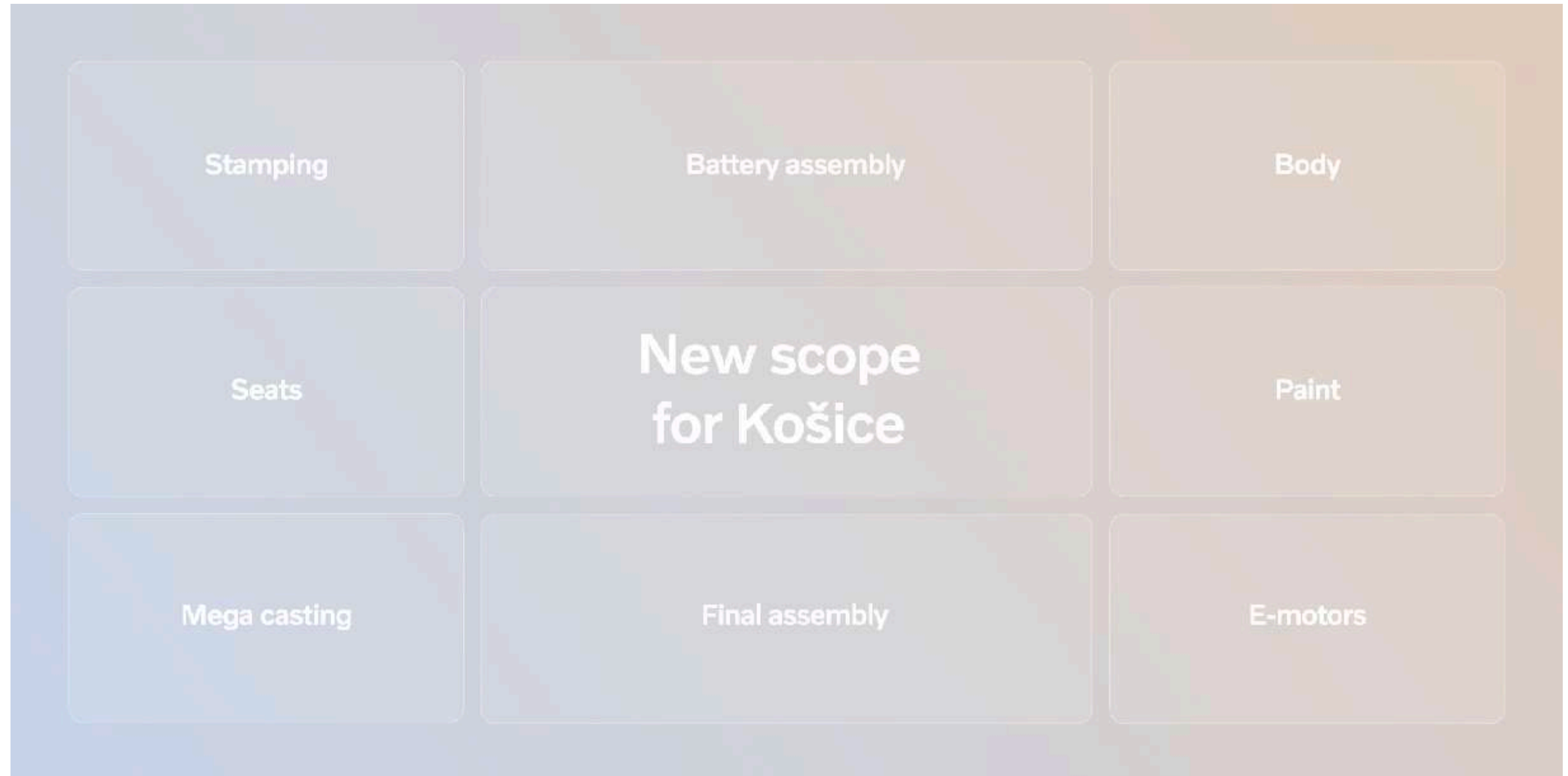
We will apply this thinking to our factory in Kosice, Slovakia.

It will be the first Volvo Cars plant to have all the major production shops established including, stamping, mega casting, body, paint, e-motors, battery assembly and final assembly.

Kosice'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 strategic value-adding processes in-house.

So as you can see, we strive for flexibility in our make-or-buy strategy, to create opportunities and ensure we can adapt to market and global forces as needed.



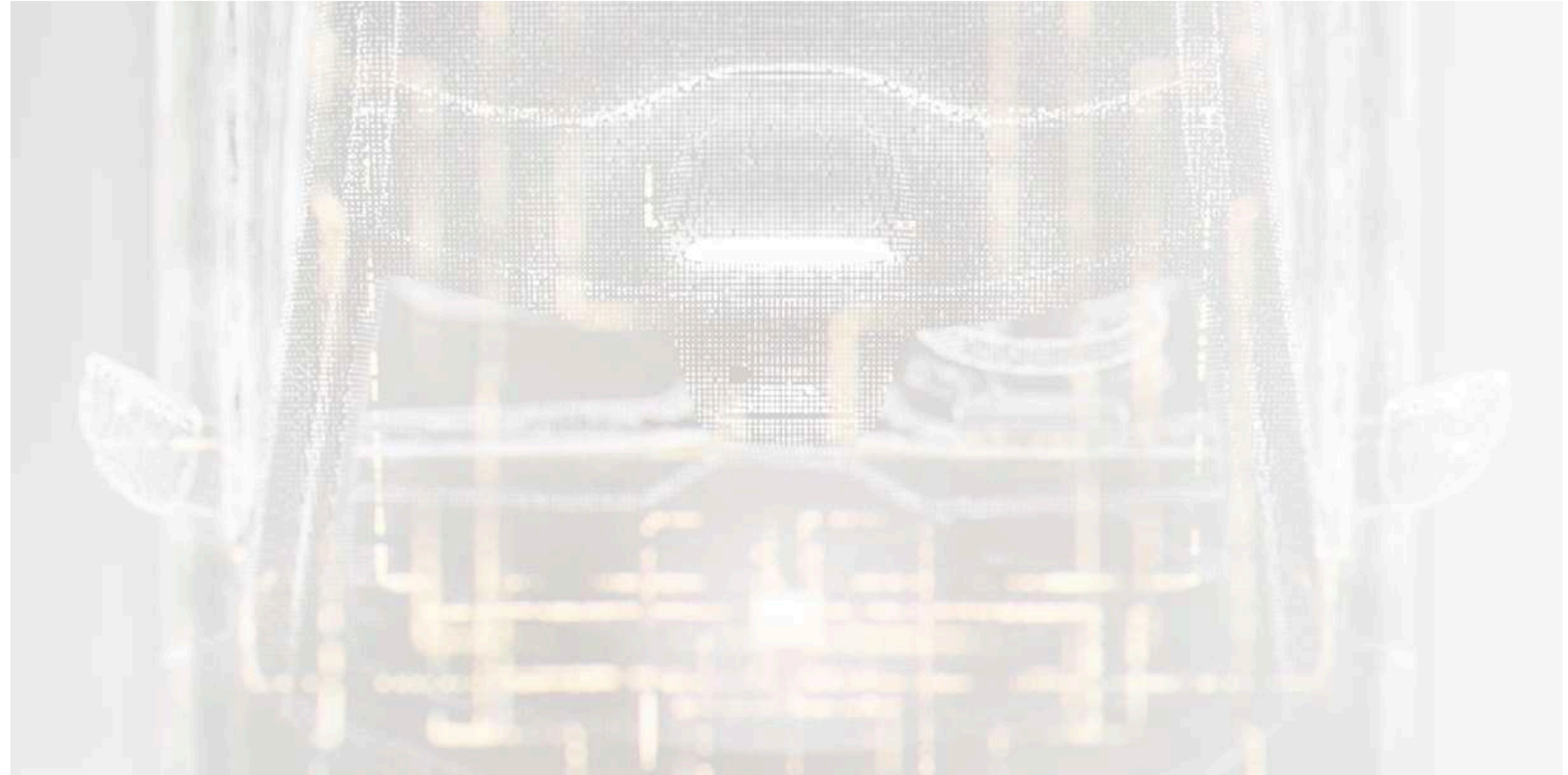
Global footprint

Tools such as AI can also improve and increase flexibility and efficiency. Earlier, Anders touched on using AI to manage energy in our cars. We also use AI to manage energy in our plants.

In manufacturing, we use virtual reality for plant modelling and patented in-house AI products for energy management that deliver significant cost savings and other efficiencies.

We're also embracing AI and GenAI 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.

We see this landscape evolving with a mix of in-house and off-the-shelf solutions to create a wide array of efficiency opportunities.



Global footprint

At Volvo Cars, we are better placed than we have ever been to navigate what lies ahead.

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.

We believe that one of our greatest strengths throughout our 97-year history is our ability to turn change into opportunity.

This is how we will deliver on our ambitions and create meaningful change.

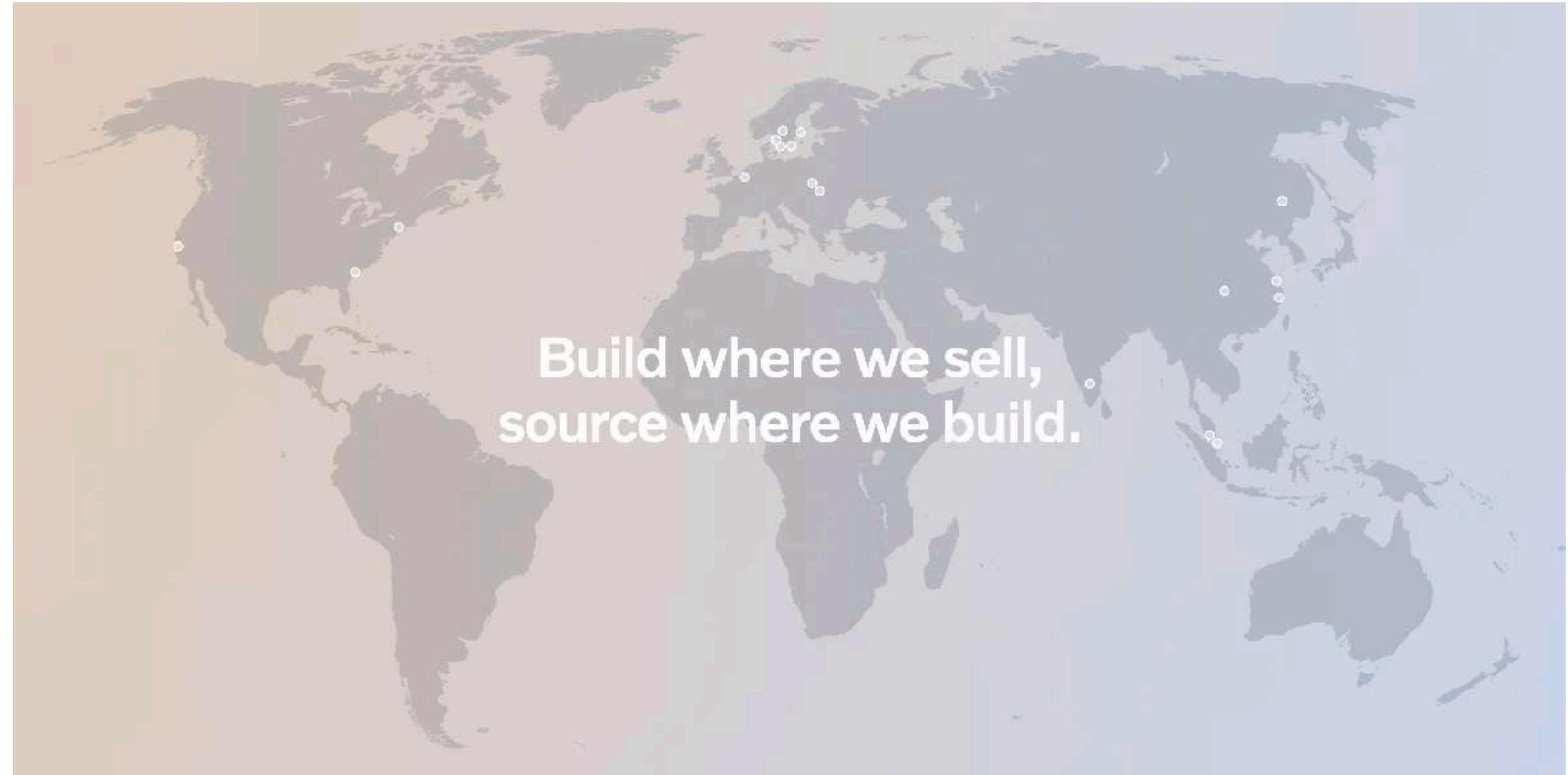


Change = Opportunity

Global footprint

We are: building on the strong foundation of our existing global 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.

And we're doing all this to ensure our future success in a complex, ever-changing global environment.



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