



Stellantis Investor Day – June 13, 2024 Transcript

Tech and Operations

Speaker 1:

Please welcome Ned Curic, Chief Engineering and Technology Officer.

Ned Curic:

Good morning. Good morning. Some of you had the privilege to drive some of our cars, have been driven in our cars and hopefully you enjoyed that yesterday. Today, I'm excited to tell you a little bit about technology, what we do on the technology side, but I will be also joined by my counterparts on purchasing, supply chain and manufacturing to tell us a little bit about the synergies between engineering, purchasing, supply chain and manufacturing. I'll come back for a little bit of right up on the end.

At Stellantis on the technology side, we believe that our technology should be designed around the people and their needs. We are not building technology for technology's sake. We are committed to creating technologies that seamlessly integrates in people's lives. The automotive industry for a long time has been building the bolt-on features that often generate unnecessary complexity and creates lots of customer frustration, lots of friction in a way that technology sometimes use.

At Stellantis, we keep things simple and efficient to ensure that every interaction with the technology is intuitive, it's fluid and it's customer-friendly. Our goal is to provide an exciting and personalized experience, technology that delights, entertains and positively surprises our customers. Whether it's used through advanced entertainment systems or driver assistance feature, tech is designed to make every journey enjoyable, fun, productive, and safe.

We have embraced flexibility as the core principle to answer to the challenges of next-generation vehicles and platforms. Our multi-energy platform can easily adjust to market demands, eliminating the need to precisely predict the adoption rate of different technologies. These platforms are future-proofed and with the software-over-the-air update, we ensure that our vehicles are always fresh and updated.

Scalability is the key feature to this strategy. Our platforms can support up to two million vehicles per year, enabling us to achieve optimal efficiency in economies of scale. They have a high level of commonality, intelligent modularity, component sharing, which further enhances our operational efficiency. In addition to our four BEV platforms, STLA Small, STLA Medium, large in frame, we have

developed smart car platform and a light commercial vehicle platform, which are also multi-energy platforms.

Let's dive deep a little bit in STLA Medium and STLA Large platforms. These two platforms are already paving the way for Stellantis future. STLA Medium platform is engineered for C&D segments and it is designed to accommodate both front-wheel drive and all-wheel drive configuration, ensuring optimal performance in any terrain and condition. It comes with a 400-volt architecture. It's designed so we can build traditional sedans, crossovers, SUVs, but also LCVs.

It's embedded energy of 98 kilowatt-hour, we can deliver the range of more than 700 kilometers. It's industry-setting. STLA Large platform is engineered for D&D segment. It's embracing a wide range of powertrains and drivetrain configurations. It's available in both 400 and 800 volt BEV architecture and it's one of the most flexible BEV native platforms in the industry. It underpins cars, crossovers, as well as SUVs.

STLA Lodge comes with segment-leading capabilities. With embedded energy of 108 kilowatt-hour, it delivers an overall range of 800 kilometers, 500 mile range, and zero to 60 acceleration in a two-second range. Across these two platforms, we have planned 16 launches over the next couple of years. On a STLA Medium for example, we have eight launches through 2026.

3008, some of you have experienced driving yesterday, Peugeot 3008, but also we have launch year Fastback coming in few years. On a STLA Large platform, we also see eight new models across four brands in various different applications. This year alone, we'll be shipping to customers as you saw, Jeep Wagoneer S, Dodge Charger, a performance muscle car. Then early next year, Jeep Recon, which is a highly capable off-road, midsize SUV in BEV configuration.

STLA Frame is our body and frame platform, which we will launch later this year. It's also engineered for a diverse range of vehicles, including pickups like commercial vehicles and SUVs. Again, it's a BEV native compatible with multiple portion systems, including hydrogen fuel cell. STLA Frame delivers world-class capabilities like a payload and towing capacity of 14,000 pounds, which are the key factors for pickups and SUV owners. Long-range BEV version of STLA Frame has a 229 kilowatt-hour battery pack, which delivers impressive 500 mile range. STLA Frame once again represents our commitment to meeting evolving customer needs while addressing environmental concerns and staying competitive.

In addition to these platforms, STLA Car Platform complements our four BEV native multi-energy platform, and it's a good example of Stellantis agility and innovation. With STLA Car, with Smart Car Platform, we compete with aggressive offerings by leveraging technical expertise to create a modern yet competitive B&C segment vehicles. It was born with flexible DNA to support various propulsion systems and ensure cost efficiency and scalability.

Smart Car platform is designed for a high ground clearance, better visibility, seating up to seven passengers, and a spacious trunk capacity, seamless connectivity and affordability. As you heard earlier, Citroen EC-III is our first model on this platform built in Europe for the European market. It's competitively priced at 23,000 Euros, and offers a solid 300 kilometer range on a single charge, making electromobility very affordable.

Smart Car Project launch plan is super exciting. From the first application in 2022 through 2026, Smart Car will serve as the base for 13 models around the world in three regions. We started in India and South America with Citroen, and this year we'll continue with the European launches, including a Fiat and Opel brands. Its high industrial flexibility allows easy installation of the platform in the different planes around the world.

Commercial vehicles are a highly strategic market for Stellantis as well, as Carlos pointed out. In 2023, we have launched 12 new LCVs. As with other Stellantis platforms, we offer a wide range of powertrains

giving us flexibility to build multi-energy LCVs from ICE to BEV to fuel cell. When it comes to powertrains, we are exceptionally customer-focused. We offer an extensive line-up of proportional systems to meet diverse customer needs from ICE, various levels of electrification, including a mild hybrid, plug-in hybrid, range-extended technologies, but we also added hydrogen fuel cell technology to our portfolio to support additional zero-emission workloads in our LCV segments.

Technology is evolving really, really fast. No-

PART 4 OF 7 ENDS [02:20:04]

Ned Curic:

-evolving really, really fast in all areas of development. But we believe it's a truly day one for battery technologies and some of the elements of EV technologies. Today we employ dual chemistry in our systems, NMC and LFP options. However, in parallel, we are working and exploring innovative battery technologies and self-packed technologies including solid-state batteries, sodium ion batteries, and lithium sulfide batteries.

We are also working on very innovative EV systems that blends power electronics together with the batteries. For example, we integrate the charger modules with inverter function inside the battery system, battery modules, simplifying the system while reducing the cost and maximizing the packaging and the space efficiency. Stay tuned on this particular technology. We believe that this technology has a breakthrough potential.

In summary, we know that this technology will change and we have opportunity really in many ways to leapfrog what industry has done thus far. What we don't know exactly how it will change, so this is real opportunity for Stellantis. So we are working around the clock and placing multiple bets on various different technologies internally, but we are also investing and working very closely with number of laboratories, universities and the technology startups around the world chasing that leapfrog technology. When it comes to software, Stellantis is making significant progress. In fact, we are redefining how software is built for automotive industry with our virtual engineering workbench.

Software is hard to build, as many companies in automotive world are finding out. It's very complex process to engineer software. So give an example: instead of pooling, compiling and integrating, testing code from hundreds of suppliers in internal development teams, which is a sort of a standard way of building software, and trying to get a complex tool chain to work, we have actually built an innovative developer-friendly systems that allows engineers from all over the world to use this virtual workbench and deploy their features and integrated features 24/7.

Virtual cockpit that we are building on a workbench is industry first. With industry high-performance compute that the workbench provides in realistic simulation, we speed up development time to 100 times. Our three software platforms, Brain, Cockpit and STLA AutoDrive will be technology ready for integration by end of the year. The first vehicles equipped with this technology will come next year. This marks very significant milestone in our transformation. These new software platforms give a significant advantage in our customer experience while enhancing vehicle longevity across our lineup.

Move fast and keep it simple is the absolutely best way to innovate and yet it's absolutely the hardest thing to do. At Stellantis, this is still a work in progress, I have to admit. But we have done so much to increase our engineering velocity and to simplify. I'll give you a few examples. We eliminated 100 plus not-so-used feature inside digital cabin. The customers just don't use it, why have it? So we just focus our effort on the things that matter for the customers and they love that. We have simplified silicon devices in vehicles and decreased from 270 devices to 70, massive simplifications on the silicon. We

were very super quick, in fact, I'm very proud of this to adopt generative AI technology, and we have a 50, over 50 in fact, active generative AI projects and over 100 projects on the backlog.

A few notable examples in this space, we are using generative AI in a software development to generate test cases, an application test code which cuts time for test routines development by 90%. We also deploy generative AI in the design and engineering simulations, cutting simulations times from three, four days to few minutes and slashing simulation costs to 85%. Now in this case, this is really, really impressive. When designers simulate a vehicle, engineers provide engineering designs, that would typically take a four or five days to do. Now that happens in minutes. And so engineers and designs working together is a massive acceleration.

As you can see, Carlos always reminds us we are racers, we race fast and furious and R&D side. But I'm going to also turn it over to my companion and partner in crime Maxim to tell us what we do on a supply chain and purchasing side.

Speaker 2:

Please welcome Maxim Picat, Chief Purchasing and Supply Chain Officer.

Maxim Picat:

Good morning to all of you. I hope you are enjoying the presentation so far. So let's talk about purchasing and supply chain. Two years ago, our industry have experienced major crisis, semiconductor crisis. That crisis has proven to us that vehicle we are not any more only about steel plastic casting, and that new industries like electronics, like chemistry have gradually entered our vehicle without really OEM noticing it and without our Tier 1 suppliers taking good care of it. We have learned from it. We have adapted our strategy.

Purchase parts represent 84% of the total production cost of our vehicles for an equivalent of 132 billion euros. We're continuously screening those 132 million euros, screening the whole supply chain in the full depth from tier 1 to Tier N to identify potential risk in term of scarcity, in term of oligopoly, acting, fixing.

I will present to you two examples about it, battery and raw materials and semiconductor. When it comes to quality and costs, the strategy is absolutely simple. Continuous benchmark of all our competitors, all the supplier base and targeting the best costs through working with Ned for best design and best cost country sourcing. I will explain to you how. And even if you've got great sourcing, you still need to have efficient logistic operation. And the reality that the recent years inbound operations, outbound logistic operation have been strongly perturbed, we will not wait for the next crisis to come. We will act to prevent it.

Let's start with batteries. We have secured 100% of our needs of batteries up to 2027 thanks to three joint venture that we have developed, two in North America, one in Europe. This is done. But we go that. We have secured 100% of the raw materials needed for those batteries. And you've got here a list of the deals that we have set. Injecting equity to secure volumes. Flexibility, we have the capacity to reduce by 30% the offtake without any impact, allowing us to adapt to the moving electrification pace of the region of the world. And cost, double-digit cost saving with the upside to be sure of those mining operations and to get potential dividends out of it.

Second good example, semiconductors who have been hit hard. We have learned and we have put in place a five layers action plan. I will not detail it, just focus on two very important steps. The first one we call green list, meaning that any part I source to my suppliers today, I impose to them a very short list of chips they're authorized to use and that has two very strong advantage. First one, strong reduction of

the diversity of chips that we have in our vehicles. Best for cost, best for control. Second semiconductor players understand that Stellantis is deciding which semiconductor are on the vehicle. And that has helped us to have better connection, relation, get access to the innovation faster, and definitely leading to the fifth step, which is direct purchasing. And we have already decided and sourced more than 10 billion future silicon carbide offsets MCU system on chips with those players covering 100% of our needs on Brain and that will allow us to have direct securitization of innovation and capacity with semiconductor

As promised, let's talk about cost. Starting first with what we have experienced in the merger. You know the inflationary environment that we have been through. We had made an assessment that our purchase part costs should have increased on the accumulated more than 10% in the merger, not excluding raw material only due to labor cost, energy cost, logistic cost, you name it. We have been able to control it significantly below 1%, which is strongly supporting the group here now.

But that inflation has an impact on the worldwide competition. Not all the countries are fighting in the same category. And we're absolutely determined to source from the best cost country in the world. We have seen the merger source more than 41 billion euros from those best cost country. And this year only, 2024, all the decision of future sourcing that we have taken, 80% of them will be sourced from those best cost country with a cost as an advantage that you can imagine, which is a double-digit as minimum.

That obviously is leading to consequences on our supplier panel. 15% of them all size are out. 180 brand new suppliers are already embodied in our panel coming from those best cost country. And we're improving the partnership with the most competitive and most innovative of our existing supplier panel. That transformation to best cost countries, shifting the outbound logistics, we're not sourcing and shipping the part from the same place in the world and we're taking control of it. We have created 13 consolidation center to massify the sourcing and the logistics of those parts in those best cost country regions and take control of it. That consolidation help us to make 18% saving on logistics compared to when it was run by our suppliers.

On the outbound logistics side, we have in-sourced the three control tower operation that we add, directly controlling it and making a nice 15% reduction cost at the same time. And a very bold move, we are buying more 1000 trucks in Europe to control the distribution of the vehicles between our plants and the final customer. Addition to the increase of 50% of the rail capacity, we will have in the H2 this year our outbound logistics costs in Europe down 25% compare to the H2 2023. All those action are leading to Stellantis supply chain new paradigm: flexibility, resilience, cost, competitiveness. Thank you very much.

Speaker 3:

Please welcome Arnaud Deboeuf, Chief Manufacturing Officer.

Arnaud Deboeuf:

Thank you Maxim and Ned. So let's see together how we transform this multi-energy strategy in our plants in order to deliver a real breakthrough in cost and a high level of agility. Our context in manufacturing is a deep transformation. All our plants are impacted to face electrification and to face carbon neutrality and a very strong cost offensive. At Stellantis, we levelized this transformation to reach a new level of performance. As stated in Dare Forward, we want to reach -40% in transformation cost -40% for our BEV total production cost. And we want to reach Number 1 position in quality.

We know what an efficient plant mean. We need to reach 96% of overall efficiency. We want to reduce our fixed cost below 30% to protect the plant of fluctuation, to protect the plants of cost depreciation

impact like we've seen during the ship shortage. And we want measure the quality through the result vis-a-vis our customer, direct result. So we measure the defect after three months of usage or 12 months of usage. We need to have compact plants in order to reduce energy consumption, taxes and logistics. Each plant has built or want to be and we are already on track to deliver the commitment we have taken in Dare Forward. Today, we have already -11% on our transformation cost. The energy consumption has reduced by -24%. And when you take the defect that we are created vis-a-vis our customer, after three months, we have already reduced by 40%.

To reach this, of course, we are using all the common tools that we know in process development and sorry... All the common tools that we know in the manufacturing and process development. Upstream we're working with engineering and purchasing in order to reduce the technical cost, the diversity, the complexity of our product. We are introducing in the plant up-to-date hard process and solve data management, the so-called Industry 4.0. With clear attention to asset utilization and a broad understanding of what manufacturing means. We constantly challenge the perimeter of make or buy, and we are insourcing in our plants some technologies that used to be outside in order to reduce the total landed cost of the parts in the plant. We address all the component of the cost, fixed and variable. Of course, depreciation, tax, but also headcount reduction, energy consumption.

But on top of all these common tools that you can see in all OEM, we add our unique touch, the Stellantis specificities that I suggest introducing to you by a short video.

Speaker 3:

Stellantis is building the future in more than 30 countries around the world. Our highly capable assembly lines can accommodate up to six top hats on a single line to produce a spectrum of models tailored to customer desires with outstanding efficiency and quality. Platforms engineered for flexibility can seamlessly switch between internal combustion, hybrid, battery electric and hydrogen fuel cell powertrains.

Multi-brand, multi-energy plants are agile, able to quickly adapt to customer and market demands worldwide. Another competitive edge: joint ventures with best-in-class partners. We will build EV batteries in enlarged Europe and North America for more than 40% of our production needs and produce electrified transmissions and electric drive modules. Our manufacturing agility is rooted in proven expertise and a drive to always innovate, boosted by strong partnerships. At Stellantis, we are one highly skilled team sharing key technical expertise and best practices around the world to upgrade our network and achieve best-in-class products in quality and cost. Powered by our diversity, we lead the way the world moves.

Arnaud Deboeuf:

We are uniquely flexible. As you have seen, all our plants are totally flexible. They are Stellantis, they are not branded. We are completely agnostic. We can assemble all the brands in each plant. We are completely flexible to the power train assembling on the same assembly line, ice hybrid, mild hybrid and even fuel sales. This protects us against any customer demand or market fluctuations. We take full benefit of the strategy of multi-energy to protect and maximize the plant utilization rate.

Second big differentiator. We are truly worldwide global. We build cars in more than 30 countries and more than 60 vehicle plants in all the regions. We have a unique access to benchmarks including in all the best cost countries of the world. And these scales brought us a large diversity of know-how in all the technologies from plastic injection to hot stamping, seat assembly, wire harness, and even electronics. We can do in-house and we can together with Maxim compete with the supplier to make sure we've got the best cost.

Finally, we also developed a vertical integration of strategic component, especially in the field of electrification. Through the joint venture we have created with the leading partners. We are producing in our plants, battery cells, battery packs, e-motors, electrified transmissions.

Finally differentiation. We have a truly sporting spirit. We are focused on four main KPIs only, but every month we issue a ranking of all our plants in the world. Each plant management knows exactly where they stand, how they've progressed, and who is leading the pack. This makes sense only if you can share the best practice, if you have open book discussion, if we have a strong networking and if each management can have access to the best practice of the others in order to raise the bar. All the plant managers know that the competition is outside and that they have to work together to reach the better level.

And this is key because we are asking our plant manager to lead the total production cost battle. Of course everybody contributes, but the plant managers are leading the battle. They can address the inborn cost, the diversity, the resourcing necessity, the product change, the insourcing, the re-engineering. They address it in the plant, in our TPC war room where the suppliers are more than welcome. At Stellantis, the total production cost focus goes from the top management to the game bar, the shop floor. Thank you.

Speaker 2:

Please welcome back Ned Curic.

Ned Curic:

So just to simply wrap up. On engineering side, we told you that in the technology we are flexible. We are absolutely, absolutely flexible. We are fast. We bring multi-energy technology to every platform, to every vehicle. And as a key takeaway, we are making significant progress. Although I'm personally not happy with all the things we do because I think we can go faster better. I do believe strongly believe we are much faster and much better than our competition because of just the energy and the customer focus and the speed and the different mental models we are deploying at Stellantis on the R&D side.

We heard from Maxim that on a purchasing side that the focus on the cost, focus on the securitization and all the things that Maxim told us about is the key to have that competitive edge. We believe that no one in the industry... Actually we're leading, when Maxim talked about this green list approach and ability to secure our supply chain is the first in the industry. Now we see others are actually copying, trying to copy that, but we are years ahead of it.

And then with Arnaud on the manufacturing side, you just saw the sheer volume in our ability to industrialize at a scale that no other company can bring together from a vertical integration, vertical design on an engineering side to making the best possible deals on a supply chain side and securing the supply chain, to then turning that into this phenomenal engine that we have on the manufacturing side. It's industrialized around the world. With that kind of flexibility that we have, there is nothing like Stellantis. So with that, thank you all for your attention in this session.