US Autos & Industrial Tech

MBLY, RIVN, GM, TSLA, KEYS, FLEX, ST, AUR, CRNC at Communacopia + Technology Conference 2023

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We offer our top overall takeaways from our conference below and also discuss company specific takeaways from our discussions with Mobileye, Rivian, General Motors (Cruise), Tesla, Keysight, Flex, Sensata, Aurora, and Cerence.

Our takeaways include: 1) electrification is a key focus and growing market, both for EVs and industrial applications, despite some traditional OEMs seeing slower EV sell-through in 1H23 and EV market pricing being competitive; 2) companies continue to make progress with autonomous/ADAS technologies and are optimistic on meeting product launch timelines; 3) the demand environment is choppy, with mixed trends by market/geography; and 4) companies believe that AI will help drive sales and product development.

Key Overall Takeaways

1) Electrification a key focus, both for EVs and industrial applications, despite some OEMs having slower 1H23 sales and EV pricing being competitive

Rivian and Tesla continue to see good long-term growth opportunities. Rivian noted that it sees a positive demand backdrop for its EVs, and both Rivian and Tesla spoke about opportunities and good interest for certain models (e.g. R1S and Cybertruck).

However, there are also opportunities beyond the vehicle itself in industrial markets like storage and charging. Tesla for example has been expanding its Megapack capacity.

Sensata continues to believe that it is tracking well to its goal of $2 bn in electrification revenue by 2026 and now expects a bit more than $1.5 bn of the $2 bn will be organic (vs. about $1.5 bn prior). This is despite some EV programs being pushed in 2023. Additionally, Sensata commented that it has 10X higher content per vehicle (CPV) on a BEV Class 8 truck vs. an ICE version. Finally, management spoke about opportunities including in power conversion with Dynapower.

For Keysight, the company commented that its battery test business is not just for EVs but for energy applications more broadly.

Flex commented that its automotive business benefits from EV platforms, although its existing business from ICE vehicles is driven mostly by electronics and thus should also still grow (and electronics are applicable to EVs too). Additionally, Flex noted that while content per vehicle (CPV) comparisons are hard between ICE and EV powertrain vehicles, directionally the CPV for a next-gen vehicle could be more than $1,000 compared to ICE at about $300.

2) Companies continue to make progress with autonomous/ADAS technologies and timelines:

Cruise continues to make progress with deployments and recently began paid operations in San Francisco 24/7. Cruise is currently in 5 markets (San Francisco, Phoenix, Austin, Dallas, and Houston) and testing in 10 more (including in international markets like Japan and Dubai, although the near-term focus remains on the US market). Cruise emphasized that its vehicle performance has been better than human drivers in SF. Importantly, Cruise expects to launch the Origin soon, and its next-gen Origin (planned for 2025) that uses new silicon and hardware should help the company reach its $1 per mile cost target.

Mobileye highlighted progress with ramping its more advanced products and commented that it expects there to be 5 vehicles with SuperVision in the market in the earlier part of 2024 up from 1 last year. In addition, the company is progressing with future products including Chauffeur (a consumer hands-off and eyes-off capable product that adds a redundant radar/lidar perception stack to complement the vision-only SuperVision product which is hands off but eyes on) and eventually Mobileye Drive (the technology to support robotaxis).

On autonomous trucking, Aurora continues to expect the commercial launch of the Aurora Driver platform by the end of 2024. While Aurora remains focused on autonomous trucking in the near-term, the company commented that its technology is designed to work across vehicle types. Aurora plans to enter the ride-hailing market after the trucking market.

Finally, Tesla remains very focused on AI and the development of FSD (including the v12 version).

3) There are mixed demand trends by end-market with overall macroeconomic choppiness:

Companies are seeing good design momentum in some areas like EVs, but demand trends are mixed. Keysight reiterated comments from its recent EPS report about weaker orders in some markets like comms infrastructure and semis which led to a third consecutive quarter of order declines yoy, and also pointed out that past downturns have lasted 4-6 quarters. Sensata also made comments about mixed demand trends that was in line with its prior guidance, including declines in its industrial and its auto business outside of North America in 3Q yoy, and partly offset by growth in HVOR and aerospace.

Flex commented that it is seeing mixed demand trends within its industrial business. For renewables, demand trends are also varied with softer trends in home renewables but stronger investment trends in utility and power products. Flex said demand in autos has been strong, in part on pent-up demand.

4) Companies believe that AI will help drive sales and product development:

For instance, Keysight commented that on the networking side of its business, it believes that AI is a long-term growth driver. The company commented that AI/ML is largely starting in datacenter and cloud networks, which is driving growth in 400 and 800 Gb, and Keysight believes this will expand in time to the edge of the network and enterprise AI for on-premise datacenters. Additionally, Keysight participates in silicon and chipset technology, and Keysight believes AI/ML will help drive new solutions in these areas.

Flex believes that it has incremental opportunities as AI investment grows. Flex addresses the cloud market through both its CEC business (in Agility) and power (in Reliability). The company highlighted that within CEC for AI it has integrated cloud solutions, which includes building a complete solution including the rack for a customer. Flex can also do power products (aided by the Anord acquisition). Flex is seeing AI work driven by cloud customers, but in time this could impact enterprise too.

Aurora commented that it utilizes AI with transformers (which are at the heart of large language models) to help predict traffic patterns and motion planning.

Separately, Cerence leverages AI technologies for its voice products, and it believes AI will help drive higher price per unit (PPU) with new more advanced products like Cerence Assistant.

Day 1 Company-Specific Key Takeaways

KEYS

Presenters: Keysight's Satish Dhanasekaran (President & CEO) and Kailash Narayanan (SVP, President, Comms. Solutions Group) presented at the Communacopia + Technology Conference.

Bottom line: Management discussed 1) the order cycle; 2) its commercial communications business and longer-term growth tailwinds such as 800 Gb, AI, and 6G; 3) ongoing strength in AD&G and automotive end markets; 4) the capabilities of its semiconductor business; and 5) margin expansion through increasing its software and services mix.

Keysight noted that past order corrections lasted roughly 4-6 quarters: Keysight commented that the recent pullback in orders follows a strong upturn and said that past downturns lasted roughly 4-6 quarters (consistent with what we wrote in our 9/4/23 note). Keysight reported total orders down 15% yoy last quarter, has seen 3 consecutive quarters of order decline yoy, and commented on its last EPS call that order weakness could last through 1H24. Importantly, Keysight commented that customers are still committing to longer-term strategic projects.

Keysight discussed its commercial communication business segment and some of its longer-term growth drivers including 800Gb, datacenter, Open-RAN, and 6G: On the 5G/6G transition, Keysight commented that ~250 networks are 5G-ready, and 5G covers about 30% of the world's population, so 5G is still in its early stages. Keysight believes that deployment is still under way with AI/ML becoming part of the network in the 2025 timeframe. Keysight said that it is already seeing early investment in 6G research. Keysight commented that 6G could have a broad scope across satellite, cyber security, etc. Keysight commented that the O-RAN business is now a tailwind and believes it will be a secular growth driver throughout the rest of the decade.

Management commented that it is split about evenly between wireline and wireless in its commercial communication business segment. On the networking piece of the business, the company commented that AI is a longer-term growth driver for Keysight. The company commented that this is starting mostly in datacenter and cloud networks, which is driving investment in 400 Gb and 800 Gb. Keysight believes that this will expand more into on-premise and edge solutions longer-term. For instance, with AI/ML, Keysight has exposure to sub 5 nm technologies to its wafer acceptance test. Furthermore, silicon photonics capabilities provides opportunities to drive new solutions, per the company.

Keysight believes its AD&G and automotive businesses have strong outlooks with increasing defense budgets and the ongoing transition to EVs/AVs: Keysight highlighted that 50-60% of the AD&G business comes from direct government spend and prime contractors and that the business is broadly exposed to programs. The remaining 40-50% of the business is exposed to supply chain and research activity. Keysight commented that space & satellite has historically been a stable part of the business and it has seen increased interest in this area recently. Separately, management noted that 5G/6G technology can also be applied to AD&G applications. A&D accounts for about 20-25% of company revenue.

In automotive, Keysight commented that about 1/3 of the business is in manufacturing as electronic components continue to grow with the other 2/3 of the business focused on enabling the electric and autonomous transitions. The company commented that it had a couple of key wins this year with OEMs in battery test. As software and electronics becomes more critical, Keysight expects its test solutions will grow as well. Separately, Keysight believes that its continued expansion into secularly growing end markets such as medical will be a positive for the company.

Keysight highlighted its semiconductor capabilities: Keysight has exposure to key chip technologies including 7 nm/5 nm and beyond that will benefit from future investments and Moore's law.

Keysight expects to expand margins in part through an ongoing mix shift to software and services: Recall that Keysight targets a 31-32% EBIT margin by FY26. The company commented that it believes its growing SAM and mix shift towards R&D test and software-centric solutions will help drive margin expansion. The company commented that about a third of its revenue comes from software and services (with ~20% of revenue from software). The company commented that it continues to focus on growing its software and services mix, which will help drive margin expansion. Furthermore, R&D test is now roughly 60% of the company's mix (up from 40%).

ST

Presenters: Sensata's Jeff Cote (CEO & President) and Jacob Sayer (VP Finance, IR) presented at the Communacopia + Technology Conference.

Bottom line: Management discussed 1) Its progress towards its electrification targets, where it remains on track to reach $2 bn of revenue by 2026; 2) Content per vehicle growth and the path to doubling content on an EV vs. an ICE vehicle; 3) demand trends by end market; 4) margin expansion drivers over time including improved volumes and productivity.

Sensata believes it is on track to reach its target of $2 bn in total electrification revenue by 2026: Sensata believes it is on track to reach $2 bn in total electrification revenue by 2026. However, management now believes that a little more than $1.5 bn of the 2026 electrification revenue target will come from organic opportunities, compared to $1.5 bn being from organic growth when it initially gave the forecast.

Moreover, the company commented that while it has seen some auto EV timelines shift out in 2023 consistent with OEM announcements, Sensata still sees favorable electrification trends in autos longer-term. To highlight the electrification trend Sensata commented that about 70% of its wins in 2022 were from electrification, or about $700 mn, and up meaningfully from about $270 mn the year prior.

Sensata believes that based on its current new bookings it is on track to reach 2X the CPV for EVs compared to ICE vehicles by 2026: Sensata commented that currently its content per vehicle (CPV) for an EV compared to an ICE vehicle is similar at ~$25 on a global scale (looking at its revenue relative to production). However, the company commented that the business wins it has booked implies that its EV CPV would be closer to $50. Sensata noted it has being doing less well in China for EVs driven by BYD (which currently does its own contactors), but BYD is a customer more broadly and Sensata hopes to improve going forward in powertrain there (and it is focused on doing well with market leaders).

Separately management commented that while heavy vehicles are electrifying slower than light vehicles, longer term it believes the CPV can be up to 10X on a class 8 vehicle.

Insights remains a growth area, albeit more targeted: Sensata believes that Insights remains a growth area by enabling telematics and data to help fleets manage assets in a more effective/safe way. However, management is focusing resources and targeting select markets in HVOR, in order to prioritize growth in electrification.

Sensata believes the business environment has some select headwinds, as previously stated: Similar to comments on its last earnings call, Sensata is seeing headwinds in certain end markets such as industrial, and automotive for some geographies. Other end markets like HVOR and aerospace are stronger.

Separately, the company commented that it has not seen any changes in auto order patterns due to the UAW negotiations, but it has plans in place if there is a stoppage. The company said its revenue exposure to the Detroit 3 in North America is about 9% (similar to what we highlighted in our recent UAW note).

Sensata expects improvement in margins as volumes and productivity improve: Recall that Sensata reported a sequential and yoy increase in operating margins in its latest earnings report. Furthermore, Sensata targets a 21% operating margin longer-term, and believes some key drivers to achieving its margin target include improved volumes and productivity. Importantly, the company commented that many of its electrified programs have seen improved gross margins over the last year and are now in a similar range to other product families (although EBIT margins are lower due to higher investment levels).

AUR

Presenters: Chris Urmson, Aurora's co-founder and CEO, presented at the Communacopia + Technology Conference.

Bottom line: Management discussed 1) its development and commercialization timeline, and the company continues to target a commercial launch of the Aurora Driver by the end of 2024; 2) key advantages of Aurora's technology, including its FMCW lidar; 3) the company's partnerships including with trucking companies and Continental as a tier 1 supplier; 4) the company's plan to continue to focus on the trucking market before entering ride-hailing; and 5) the company's balance sheet.

Aurora continues to make progress on its timeline to commercial launch: Recall that the company reached feature complete in 1Q. Aurora reiterated its roadmap to commercial launch, and continues to expect the Aurora Driver platform to be ready by the end of 2023 with the commercial launch expected by the end of 2024. The company also commented on its internal safety metrics, and its Autonomous Readiness Measure (ARM), which is a weighted measure of completeness across all claims of the Safety Case for the launch lane, reached about 65% at the end of 2Q.

Separately, with regard to the regulatory landscape, on a federal level, Aurora does not see any particular regulatory constraints on building and delivering the product. State-by-state regulations vary, and Aurora stated that it believes it can launch in 40+ states today.

Aurora discussed the competitive environment in the autonomous landscape, and its technology differentiation: The company commented that it has a proprietary FMCW lidar as part of its hardware kit, and it believes its offering has longer-range visibility than a conventional lidar. Aurora also utilizes AI in its operations (e.g. transformers help the company predict traffic patterns and improve the safety case). On the competitive landscape, Aurora commented that it believes it is ahead of competitors as other companies focus on ride-hailing AVs rather than trucking in addition to some industry consolidation.

Aurora partners with Volvo and PACCAR and continues trial work with its fleets (Fedex, Werner, Uber Freight and Schneider, among others): Aurora commented that it continues to work with its truck partners on a daily basis to help them prepare for the Aurora Driver. On pricing, Aurora believes that customers can realize improved fuel economy, lower cost of insurance, and some reduction in personnel costs (e.g. recruitment) over time. Aurora also believes that autonomous trucking will help drive top-line growth for its customers as autonomous trucks can operate for more hours than human-driven trucks.

Aurora commented on its partnership with Continental: Recall that in April, Aurora announced a long-term partnership with Continental to develop, manufacture, and service a commercially-scalable future generation of the Aurora Driver's hardware kit. Aurora commented that it believes its partnership with Continental will help Aurora scale its technology as Continental is investing about $300-$350 mn upfront, and Aurora will pay on a per mile basis in a hardware-as-a-service model. Long-term, Aurora expects to be an asset-light business and provide driver-as-a-service through a subscription model while Aurora owns and operate the trucks for customers in the near-term.

Aurora plans to focus on the trucking market before entering the ride-hailing market: While Aurora remains focused on autonomous trucking in the near-term, the company commented that its technology is designed to work across vehicle types. Aurora plans to enter the ride-hailing market after the trucking market, and Aurora has partnerships with Uber and Toyota on this front as well.

Aurora believes that its liquidity will extend into 2H25: Aurora recently raised ~$850 mn from a public offering and a private placement bringing its total liquidity to ~$1.6 bn. The company believes that the capital raised reflects roughly half of the capital it needs to become FCF positive by the end of 2027, and cash on hand should fund the company into 2H25. The company commented that it would be opportunistic when evaluating future capital raises.

Day 2 Company-Specific Key Takeaways

FLEX

Presenters: Flex CEO Revathi Advaithi presented at the Communacopia + Technology Conference.

Bottom line: Management discussed 1) demand trends in autos, cloud, and renewables, which are positive long-term drivers for the company; 2) the opportunity from AI which lends itself to higher margins; 3) how Flex benefits from the ongoing shift to more regionalized manufacturing including in North America; 4) supply chain constraints, which have eased, but there is still some tightness for select chip types; 5)

Flex believe its FY25 EPS target ex. Nextracker of $2.65 is still achievable.

Flex highlighted end-market trends in Reliability with a focus on EVs, renewables, and healthcare: Flex commented that automotive benefits from EV platforms and ADAS applications and that its existing business from ICE vehicles is driven by electronics and thus still offers growth. Moreover, the auto business is still catching up from past supply chain issues, which is helping demand. Finally, management described how apples-to-apples content per vehicle (CPV) comparisons are hard between ICE and EV powertrain vehicles, but directionally the CPV for a next-gen vehicle could be more than $1,000 compared to ICE at about $300.

Flex commented that within its industrial business it is seeing mixed demand trends. For renewables, demand trends are also varied with softer trends in home renewables but stronger investment trends in utility and power products.

Flex believes that it is has incremental opportunities as AI investments grows: Flex addresses the cloud market through both its CEC business (in Agility) and power (in Reliability). The company highlighted that within CEC for AI it has integrated cloud solutions, which includes building a complete solution including the rack for a customer. Flex can also do power products (aided by the Anord acquisition).

AI is a high margin potential product area. The company highlighted that within its embedded power business they design and co-design with customers and that the Anord business has a different margin profile. Flex said that capacity is the limiting factor for growth in power products.

Currently AI investment is being driven by cloud companies, but eventually it could impact enterprise too.

Flex spoke to generally weaker end-market trends in Agility, similar to past comments: The company stated that its consumer and CEC-related businesses are softer, similar to comments on the earnings call. Management said it was not going to try to call a bottom, as that is hard to predict, although it has seen some signs of stability in consumer relative to a year ago. Overall the company is structured to be nimble in the agility segment given the fluctuations that can occur in this business.

Flex spoke to the longer-term trend toward regionalization of manufacturing and the impacts of new legislation such as the CHIPS Act and Inflation Reduction Act: Given the multi-year period of supply chain stress and geopolitical tension, in addition to programs like Inflation Reduction Act and CHIPS Act, Flex discussed how some of its customers are looking for more regional manufacturing as evidenced by a 30% growth rate in North America. Flex has seen a more regional approach used internationally too.

Flex believes that the supply chain has improved but there are select pockets of tightness for mature nodes: Flex commented that semi supply constraints have eased, but 45 nm and higher node chips are still more difficult to procure in some cases. The company also commented that inventory will trend lower as supply chains improve, and Flex targets 80% FCF conversion.

Flex has margin opportunities: Management commented that positive drivers to its margins include mix shift, end market growth, and pricing. Moreover, management commented that there is a long tail from automation and productivity.

FY25 EPS target is achievable: Flex believes that its longer-term EPS target of $2.65 in FY2025 (ex. Nextracker) is achievable, although it noted there are macro headwinds in some end markets.

CRNC

Presenters: Stefan Ortmanns, Ph.D. (CEO & Director) and Rich Yerganian (SVP, IR) presented at the Communacopia + Technology Conference.

Bottom line: Management discussed 1) its plan to increase price per unit (PPU) driven by product innovation; 2) growth driven by AI; 3) the company's market share and key win-backs from big-tech; and 4) its prior FY24 revenue target, and headwinds relative to its initial view from inventory digestion and customer new vehicle launch timing.

Cerence discussed its plan to increase price per unit (PPU): Recall that the company articulated a plan to reach a PPU of $4.80 per unit in FY24, up from $3.80 in FY23 at its most recent investor day. The company believes that it can grow its PPU driven by new programs and features. Some of these relate to things like AI and Cerence Assistant, wellness sensing, exterior vehicle communication, and face biometrics.

Cerence discussed its market share and highlighted some key win-backs from big-tech: On the competitive landscape, the company commented that it won back some business from larger tech companies such as Google. Cerence commented that it has important wins with key OEMs such as BYD and NIO in China and as well as Mercedes.

Cerence technology was on about 54% of new vehicles produced over the last 12 months.

Adjacent markets opportunity: Cerence commented that it signed 7 two-wheelers in the last few quarters across multiple geographies. Separately, Cerence believes there will be significant opportunities in the industrial and home markets following the field of use (FOU) restriction expiration from the spin-off of Nuance.

Cerence discussed its fixed contract inventory digestion: Recall that Cerence previously commented that it believes limiting the annual contribution of fixed contracts to within the historical range of ~$40 mn per year will allow its license business to more closely track production. Cerence expects that fixed license inventory will normalize in the FY25 timeframe.

FY24 revenue impacted by a few headwinds: Cerence expects about a $10 mn headwind based on inventory digestion timeframes compared to its initial $385 mn target. In addition, some customer new vehicle launches with higher Cerence content have been delayed driven by software development issues (this is related to OEM internal software programs and not something that is caused by Cerence).

MBLY

Presenters: Dan Galves, Mobileye's Chief Communications Officer, presented at the Communacopia + Technology Conference.

Bottom line: Management discussed topics including: 1) its product development and ramp timelines, with the company progressing with its more advanced product launches; 2) its market share position and the competitive landscape of the ADAS/AV industry, with Mobileye positive on its potential to win additional business; 3) the production environment for 2023, and Mobileye is tracking to double digit growth this year (consistent with its guidance).

Mobileye highlighted progress with ramping more advanced products: Recall that 6 OEMs are signed up for Mobileye's higher level solutions (e.g. SuperVision and Chauffeur), including the recent news from Porsche and Polestar. Mobileye commented that it expects there to be 5 vehicles with SuperVision in the market in the earlier part of 2024 up from 1 last year. In addition, the company is progressing with future products including Chauffeur (a consumer hands-off and eyes-off capable product that adds a redundant radar/lidar perception stack to complement the vision-only SuperVision product which is hands off but eyes on) and eventually Mobileye Drive (the technology to support robotaxis).

For instance, it expects Polestar to launch a Chauffeur capable vehicle in the 2025 timeframe. Additionally, Mobileye believes its chip development is on track with the EyeQ 6 Low chip planned for high volume ADAS programs in 2024, and the EyeQ 6 High chip planned to ship first on production vehicles from Porsche in mid 2025.

Mobileye is positive on its market share and design win outlook: Mobileye is engaged with 9 brands for potential new wins for its advanced products, and believes the ability for customers to see its products on roads (including SuperVision), semi-customization, and its access to data/maps are positive factors.

With respect to Tesla potentially licensing FSD to other OEMs and being a competitor, Mobileye believes it is well positioned with its approach and views what companies like Tesla are doing internally with ADAS/AVs as a positive overall as it can help catalyze other OEMs to look to Mobileye to support their own ADAS/AV products.

Specifically in China, Mobileye is seeing the market move quickly, and Mobileye believes it has industry-leading performance with cost effectiveness. Mobileye also noted that while it was a bit late to enter the China market, it believes its market share has grown to 60%+ up from 25-30% at the time it was acquired by Intel. Additionally, Mobileye stated that mapping is a constraint in China but it has a local partner to help it manage this situation.

Mobileye believes global production trends are solid: Mobileye expects double digit volume growth for the year, consistent with the outlook it gave on its last earnings call. Management commented that in the spring timeframe there had been some talk of rescheduling from certain customers, but this is no longer the case and the year is shaping up well.

Day 3 Company-Specific Key Takeaways

TSLA

We met with Martin Viecha (VP, IR) during the Communacopia + Technology Conference, and have the following key points:

Cybertruck: There has been strong media and consumer interest in the unique product. Tesla is focused on quality control as it prepares to start shipments later this year.

Model 3 Highland: Tesla recently unveiled the refreshed Model 3 (Highland). Typically the company aims for similar to lower cost with new model introductions, even when adding new features (and we believe there are several interesting additions on the new Model 3 including the rear screen and lighting).

Production / Deliveries: Tesla guided 3Q production to be lower qoq on its last earnings call. While inventory can cause variation in deliveries vs. production, Tesla has stated that inventory is often in-transit to smooth deliveries out over the course of a quarter, and therefore deliveries could also be lower in 3Q23 vs. 2Q23.

FSD / AI: The company is focused on AI and sees this as a key engineering focus. Although Tesla has substantial business opportunities with AI on its own, the company could license FSD and/or find commercial opportunities for its AI training hardware (Dojo) over time. However, it would take some time to include FSD on any vehicle if another OEM did decide to license this given the deep integration work that is required.

Megapack: Tesla's Energy business has significant growth potential as the company ramps new capacity in California and eventually China. Tesla's value proposition with Megapack includes the safety, ease of installation, power electronics, and software.

We believe key investor debates on Tesla relate to how fast it can grow (and at what pricing and automotive non-GAAP margin) prior to the third generation vehicle shipping (where Tesla is aiming to reduce costs by 50%), and also the opportunity from AI (including Dojo and FSD v12).

RIVN

Presenters: Claire McDonough, Rivian's CFO, presented at the Communacopia + Technology Conference.

Bottom line: Management discussed 1) its production outlook and product/capability set, and how the company is scaling operationally; 2) the path to profitability and expectation to reach a positive gross margin at some point in 2024; 3) its backlog and how it believes there is good demand; 4) software and services margin opportunities at scale; 5) capex and capital allocation.

Rivian reiterated its 2023 production outlook: Recall that Rivian raised its 2023 production guidance during its last earnings call to 52K vehicles up from 50K prior. The company commented the growth in production is enabled by factors including the ramp of the Enduro drive unit. Moreover, the company added another power semi supplier, which has also helped with the ramp.

Rivian provided updates and discussed drivers on its path to profitability: Recall on the last earnings call Rivian commented that it has a clear line of sight to reaching its 25% gross margin target and high teens adjusted EBITDA margin. The company commented that a key driver to reach its target is the continued ramp of the R1 and EDV platforms. Other key factors are the introduction of new technologies like the Enduro motor and LFP battery (the LFP battery pack and Enduro helped reduce material cost of the EDV by 35%). Additionally, Rivian believes its next gen architecture will help the company move from a domain control to a zonal control architecture, which can reduce the number of ECUs by 60% and the wire harness length by 25%. Furthermore, the company highlighted commercial negotiations with suppliers as a contributing factor to reach profitability as the company scales. Finally, pricing and mix should improve over time.

Similar to previous comments, Rivian believes that it will reach positive contribution margin by year-end for the R1 platform and commented that it believes it will reach a positive overall gross margin at some point in 2024 driven by factors such as higher volumes, new materials/parts such as the Enduro drive unit and LFP batteries, and higher ASPs. The full effect of these factors will be later in 2024.

Additionally, the company commented that LCNRV charges will likely trend lower in 2024, but will still be present until the company has a positive overall gross margin.

Rivian discussed the demand backdrop, which is positive: The company commented that backlog has held up well even as production has ramped.

On pricing, the company commented that it sets pricing based on a range of factors including the strong value proposition of its products. Rivian has positive drivers to price from new features like its Max Pack offering.

Rivian provided a charging network update: Recall that Rivian announced this year that its drivers will gain access to some of the Tesla charging network starting in 2024. The company commented that a key reason to allow its vehicles to use Tesla charging network is to help mitigate customer range anxiety. In addition, management commented that it remains committed to building its own network enabled in part by government programs such as NEVI (which can cover up to 80% of the cost). Rivian has more than 40 live sites and is working on hundreds of additional locations.

R2 could expand the TAM: Rivian commented that the R2 platform could address a larger market compared to the R1 platform as the starting price of the R2 platform (likely in the $40-60K range) is below the R1 platform ($70-$80K starting price range). Management stated that R2 production could start in 2026 once its Georgia facility is completed.

Rivian believes that software and services at scale could be accretive to margins: Rivian commented that it believes its software opportunity could be an amplifier to its longer term margin potential and could be a 500 bp uplift.

Rivian discusses product expansion in Europe: The company commented that it has been building out its support and service network in Europe for the EDV, which it currently supplies to Amazon. Moreover, the company commented that it plans to leverage its learnings from its EDV launch in Europe to help bring its consumer vehicles to Europe as well.

Rivian discussed its balance sheet and capital allocation: Recall that the company commented that its average capex per year in 2023 and 2024 will be in the low $2 bn range. Management commented that with the launch of the R2 platform which includes building the Georgia facility, Rivian will likely see higher capex in 2025 and 2026.

GM

Presenters: Kyle Vogt (Cruise Co-Founder and CEO) presented at the Communacopia + Technology Conference.

Bottom line: Management discussed 1) Cruise deployment timelines, with the company operating in 5 cities and testing in 10 others; 2) an update on the safety of its fleet, and the company commented that its AVs are safer than human drivers; 3) cost reduction drivers including the purpose built Origin made by GM, and the second generation Origin that management expects will eventually allow cost to reach $1 per mile; 4) its target of ~$1 bn in revenue by 2025, which is on track.

Cruise continues to make progress with deployments: Recall that Cruise recently began paid operations in San Francisco 24/7. Cruise is currently in 5 markets (San Francisco, Phoenix, Austin, Dallas, and Houston) and testing in 10 more (including in international markets like Japan and Dubai, although the near-term focus remains on the US market). Cruise believes this expansion is enabled by its approach to start in the complex San Francisco market and scale its generalizable technology to other cities. Cruise commented that it reached over 1 mn miles per month and is seeing strong customer stickiness and retention rates.

Performance on a safety basis is strong: Importantly, on the safety case for AVs, Cruise noted that it is working closely with regulators and remains confident in the performance of its technology. Moreover, management pointed out that vs. human-driven vehicles in San Francisco, its fleet had half as many collisions, a 75% reduction in severe crashes that could cause injuries, and the AV was not at fault in 91% of collisions that the Cruise fleet had across the first million miles driven.

On the regulatory approval landscape, Cruise noted that it has seen faster processes in new geographies (e.g. 3 days in Texas) than in California, which contributes to its ability to scale rapidly into new locations.

Cruise believes the purpose built Origin will help reduce costs: Management commented that the Origin is the first time an OEM has made a vehicle specifically for the AV use case (e.g. the Origin doesn’t have a steering wheel). On the Origin timeline, Cruise commented that it has completed engineering and has worked closely with GM to integrate the vehicle form factor. Cruise expects final regulatory approval in the coming days. Moreover, Cruise commented that the Origin lifespan is designed to last 1 mn miles and has a lower upfront cost than the Bolt.

Recall that Cruise is targeting a cost of $1 per mile, and with the second generation Origin (targeted for 2025) that features custom silicon, Cruise believes it can reach this level of cost.

Cruise continues to target roughly $1 bn in revenue by 2025: Management believes that Cruise continues to make progress towards this goal and noted that a key driver to reach this target is the production ramp, and Cruise believes it can achieve this through its partnership with GM. Furthermore, Cruise believes there is flexibility on pricing as its AVs are a premium offering and will have an attractive cost structure at scale. Cruise remains focused on the customer experience and this is a priority, but it would be open to partnerships (e.g. Cruise has a delivery partnership with Walmart) to help gain scale and be prudent with capital.

Valuation/Risks

We are Buy rated on KEYS shares. Our 12-month price target is $164 which is based on 21X applied to our normalized EPS (including SBC) estimate of $7.80. Key downside risks to our view relate to: 1) Our revenue outlook, especially in 5G/6G, EVs/AVs and 800Gb which could be lower than we estimate due to weaker end-market trends and/or share-shift; 2) Margins (we expect software mix shift to help drive margins higher, but there could be downside risk from pricing pressure and/or from the shift to production test); 3) The impact of industry demand and production capability; 4) Keysight's ability to continue to innovate and be an industry leader through R&D and M&A; and 5) The impact of the trade war between the US and China on fundamentals.

We are Buy rated on ST shares. Our 12-month price target is $52, which is based on 13X applied to our normalized EPS estimate of $4.00. Key risks relate to auto production, supply and demand trends, Sensata's ability to increase content per vehicle especially in EVs and hybrids, margins, leverage, tax rate, and FX.

We are Neutral rated on AUR shares. Our 12-month price target is $3.00 which is based on 1) a 90% weight of our base case valuation of $3 using 4X EV/2027E revenue discounted back; 2) 5% weight of our bull case valuation of $5 using a 5X multiple on the company's 2027 revenue target and discounted back; and 3) 5% weight of our bear case valuation of $1 using 3X a downside case 2027E revenue view of half of our base case view discounted back.

Key upside/downside risks to our view include: 1) Acceleration or delay in time to market - With a number of regulatory/technological hurdles outstanding before Aurora's solution can be commercially deployed, there is uncertainty on the timeline of its launch. If Aurora is able to bring its solution to market faster/slower than we anticipate, there could be upside/downside to the stock. 2) Upside or downside to industry pricing - Given the significant amount of competition in autonomous driving for both passenger and commercial vehicles, and some peers anticipating AV pricing per mile lower than what we believe is implied in Aurora's financial projections, we model pricing lower than Aurora's forecast. If pricing falls less/more materially than we anticipate, this could make us more or less constructive on the stock. 3) Ability to expand the geographic reach of its autonomous system - With Aurora targeting specific highways with the roll-out of its autonomous system before expanding, the number of highways it can operate on is key to its ability to generate revenue. If the company can operate more widely/narrowly than we anticipate, this could positively or negatively impact the stock.

We are Buy rated on FLEX shares. Our 12-month price target is $31. Our price target is based on 13X applied to our Q5-Q8 EPS estimate inc. SBC. Key risks to our view relate to macroeconomic demand, supply/demand dynamics, Flex's ability to expand margins, geopolitical uncertainty, and FCF.

We are Neutral rated on CRNC shares. Our 12-month price target is $28 which is based 3.5X our Q5-Q8 revenue estimate. Key upside/downside risks to our view relate to: 1) the industry and macro environment (e.g., auto production), 2) competition, including from big tech voice AI solutions, 3) content per vehicle, including the potential for ASP degradation (due to competition/customer negotiations) as well as content uplift (from the introduction of new products/features), 4) inventory of fixed license revenue, 5) its mature contract with Toyota, and 6) the ability to expand product features and into new markets (e.g., elevators, two-wheelers, fitness).

We are Buy rated on MBLY shares. Our 12-month price target is $44 which is based on 35X applied to our Q5-Q8 EBITDA estimate (ex. SBC).

Key downside risks to our Buy thesis include: 1) Market share as the industry is extremely competitive with key players including Qualcomm, Nvidia, and in house tech; 2) China/geopolitical risks given significant business restrictions and geopolitical tensions between the US and China, there is the risk that new policies could limit the amount of business that Mobileye could do in China; 3) Mobileye's driving policy depends in part on the upkeep of its HD maps and these maps are crowdsourced from participating OEMs' vehicles. If OEMs were to no longer share this data with Mobileye, or if there were other new challenges around data privacy and/or storage, it could be a risk; 4) AV launch timing and performance; 5) Supply constraints and supplier/partner readiness; 6) Macroeconomic risk on auto demand.

We are Neutral rated on TSLA shares. Our 12-month price target of $275 is based on 55X Q5-Q8 EPS including SBC. Key risks to our thesis relate to the rate of EV adoption, auto demand and the auto cycle, market share, FSD, key person risk, margins, and operational risks and opportunities associated with Tesla's high degree of vertical integration.

We are Neutral rated on RIVN shares. Our 12-month price target is $23, which is based on 2X applied to our Q5-Q8 revenue estimate. Key upside/downside risks to our view relate to volumes, the production ramp, the competitive landscape, Rivian's high degree of vertical integration, cash burn, and the supply chain.

We are Buy-rated on GM shares. Our 12-month price target is $49, which is based on 7X applied to our normalized EPS estimate of $7.00. Key risks to our view relate to the auto cycle, market share, margins, FCF, and GM's ability to profitably pivot to growth areas such as EVs and AVs.

Disclosure Appendix

Reg AC

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