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# OESA AUTOMOTIVE SUPPLIER BAROMETER™ Q1 2020

## PRODUCTION, PLANNING & ELECTRIFICATION

MARCH 3, 2020

# Executive Summary



## Supplier Barometer Index™ (SBI) SBI Score = 47; up from Q4 level of 37

The outlook is much improved from the past 6 quarters, jumping 10 points from the prior reading. Despite a dramatic jump, the supply base remains pessimistic on net, with the SBI 3 points below the neutral threshold of 50. Passage of USMCA has fueled net optimism, especially in firms with revenue below \$150 million as they are less exposed to global trade disruptions. Larger firms remain pessimistic on net.



**Poor vehicle sales in programs supplied overtook changes to government trade policy as the leading threat to the industry for the first time since Q4 2017**

Results show a less threatening outlook for the next 12 months in areas of poor vehicle sales, changes in trade policy and weakness in the U.S. economy

The spread of coronavirus in China caused a large increase in risks from an international event



**Production breakeven level rises to 15.0m units:**

Suppliers hold a buffer between production and an estimated breakeven point, yet the gap continues to tighten



**The median 'all-in' capacity utilization rate is unchanged from a year ago at 80% with the range of responses tightening a bit compared to last year**

Over the past 6 years, utilization rates have remained stable, fluctuating between 80 and 85%



**Suppliers running over 90% utilization are taking the following actions to balance production requirements:**

- New capital investment
- Outsourcing
- Flexible manufacturing
- Scheduling / Overtime
- Operating at high utilization rates

# Executive Summary



## The primary internal and external production issues are a shortage of skilled labor

The top three internal and external issues are all related to a tight labor market

As the economy is expected to remain strong for the foreseeable future, there is little relief in sight for talent acquisition



## Suppliers are confident their customers' production releases are aligned to their sales and inventory requirements overall

Uncertainty is most apparent in programs to support car production as well as programs that support HEV/PHEV and BEV production



## R&D spending is unchanged from last year; remaining at 4% of total sales

From the R&D budget, approximately one-fifth goes to research while four-fifths is allocated to development. The advanced material technologies category remains the top priority for investments

Despite economic and political uncertainty, suppliers feel committed to R&D investment in the near-term



## Inventories increased in 2019

Nearly half of all suppliers reported increased inventories compared to last year, however this occurred at a slower rate as compared to 2018



## Suppliers are already benefitting from the drive to a Battery Electric Vehicle future

Innovation is being driven by new customers and technologies despite potential concern over program profitability, changing the way suppliers do business

Suppliers expect it will take 5-10 years for BEV production to reach 10% of global vehicle output

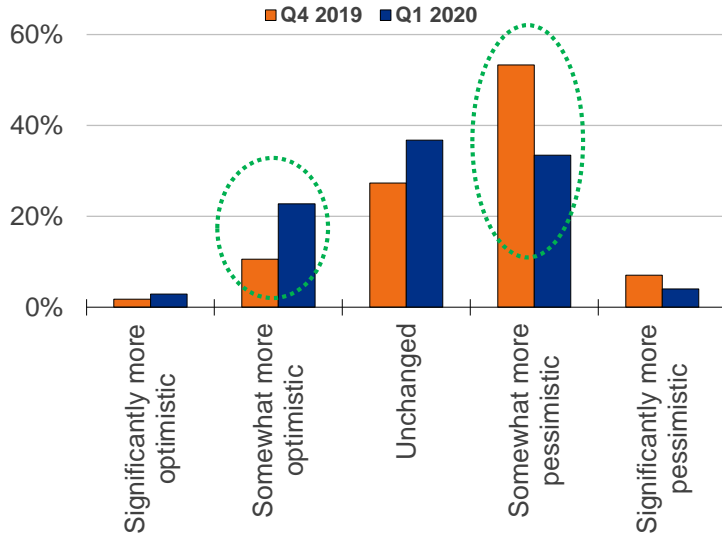
Regionally speaking, suppliers expect a 10% share of BEV production to occur first in China, followed by Europe, with North America taking an estimated 9 years to reach that threshold

# SUPPLIER OUTLOOK

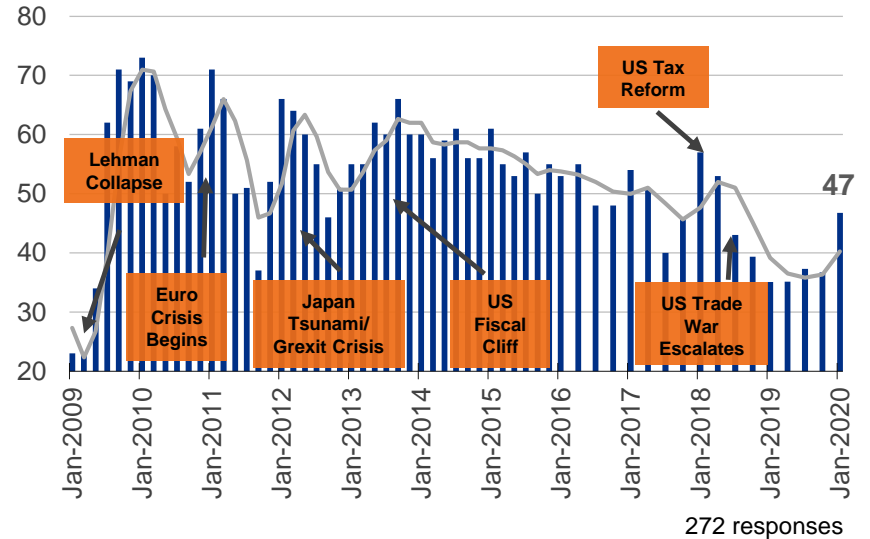
# OESA Supplier Barometer: Q1 2020 Results

*Describe the general twelve month outlook for your business. Over the past three months, has your opinion become...?*

Current Supplier Outlook (Share of Respondents)



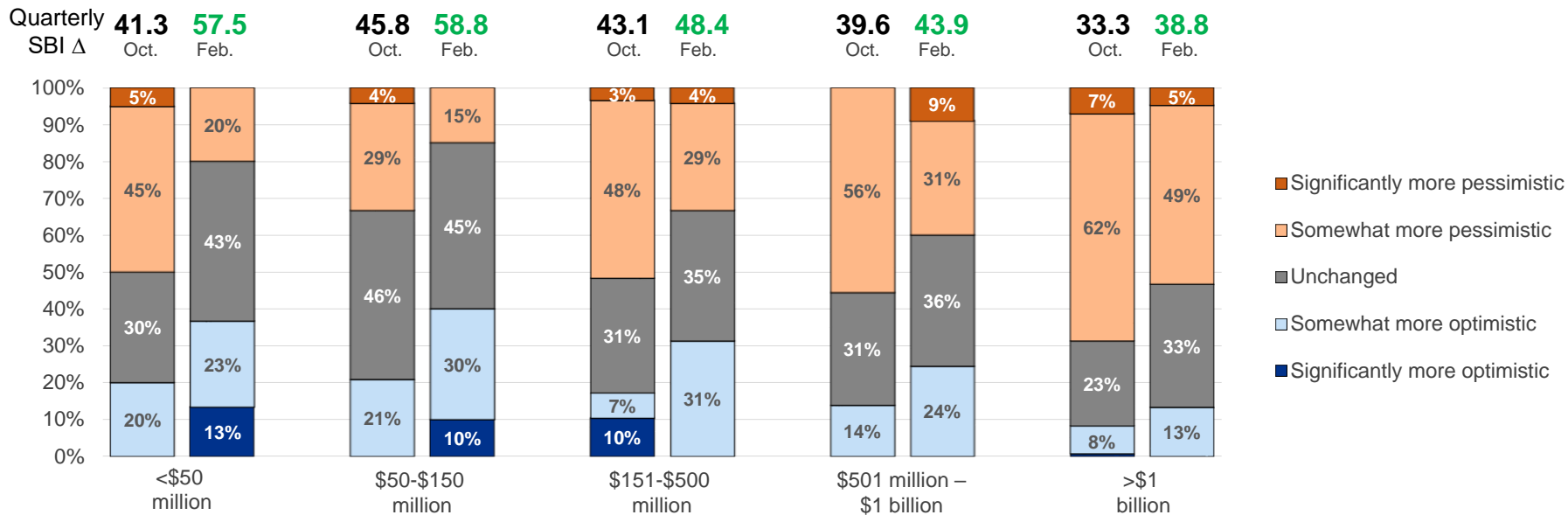
Supplier Barometer Index: (SBI and 6m Average)



Passage of USMCA and a trade deal with China pushed the SBI up 10 points to 47 from the prior quarter. Volume concerns in the U.S. and China kept the SBI in pessimistic territory on net.

# OESA Supplier Barometer: Q1 2020 Results By Revenue

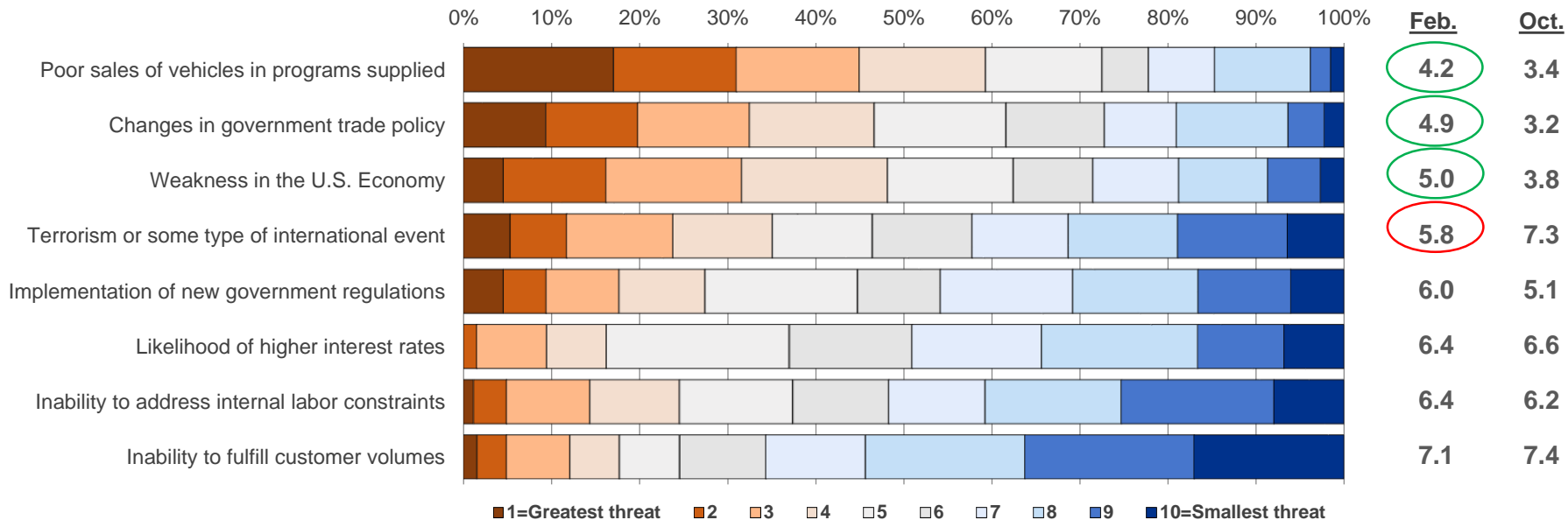
*Describe the general twelve month outlook for your business. Over the past three months, has your opinion become...?*



Regardless of revenue size, responses improved from prior quarter.  
Larger, more globally exposed firms continue to show strong levels of pessimism.

# OESA Supplier Barometer: Industry Threats

What are the greatest threats to the industry over the next 12 months?



Poor sales in programs supplied overtook changes in government trade policy as the top industry threat, yet both improved sequentially. The coronavirus outbreak in China fueled higher international event risk.

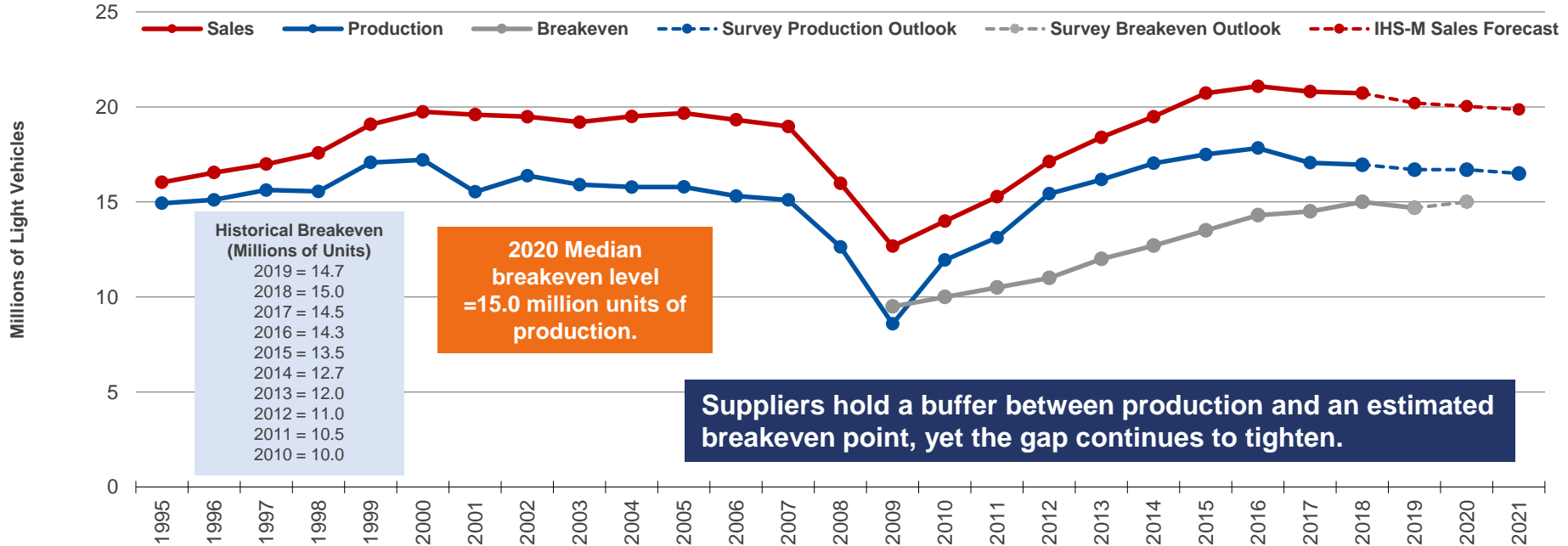
# PRODUCTION, PLANNING & ELECTRIFICATION





# Production Planning: Breakeven and Year-End Estimates

Considering North America light duty vehicle production, estimate the required 2020 industry volume needed to achieve breakeven in your North American operations?



Source: IHS Markit (History, Sales and Production); IHS Markit (Sales Forecast)

# Production Planning: Capacity Utilization

**Please estimate your 'all-in' capacity utilization levels (in percent)**

'All-in' capacity is the total of your current capacity utilization (current workforce levels and operating plant and equipment assuming 270 working days and 3 shifts)  
 plus warm-idled capacity (idled capacity but being able to ramp up production within 3 months with minor capital needed)  
 plus cold-idled capacity (idled but being able to ramp up production after 3 months with moderate levels of capital required).

February 2020		
Lower Quartile Value	Median Value	Upper Quartile Value
70%	80%	85%

The median 'all-in' capacity utilization rate unchanged at 80% with the range of responses tightening marginally compared to last year.

January 2019			January 2018			January 2017		
Lower Quartile Value	Median Value	Upper Quartile Value	Lower Quartile Value	Median Value	Upper Quartile Value	Lower Quartile Value	Median Value	Upper Quartile Value
70%	80%	87%	75%	85%	87%	74%	85%	90%

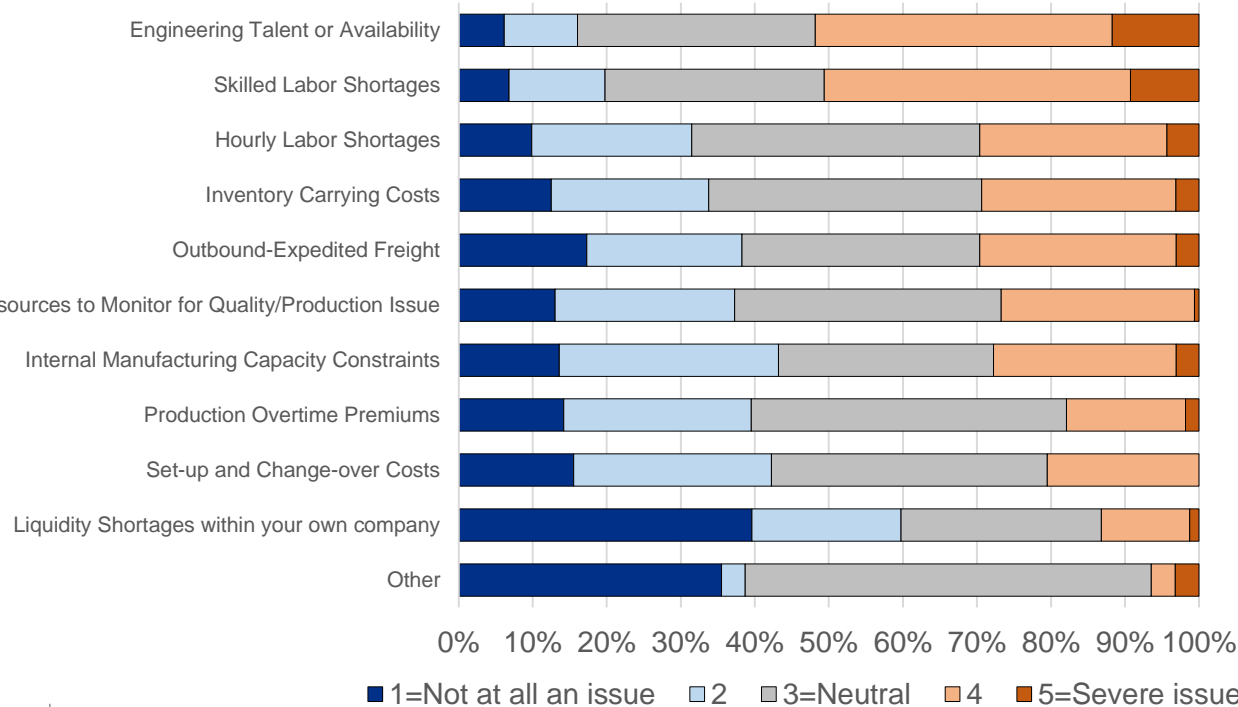
January 2016			January 2015			May 2014		
Lower Quartile Value	Median Value	Upper Quartile Value	Lower Quartile Value	Median Value	Upper Quartile Value	Lower Quartile Value	Median Value	Upper Quartile Value
75%	85%	90%	66%	80%	86%	70%	80%	90%

**Supplier efforts if over 90% capacity utilization:**  
 13% of responding suppliers

- New Capital Investment (5)
- Outsourcing (3)
- Flexible Manufacturing (2)
- Scheduling/OT (2)
- Continuing to run at High Utilization (2)

# Production Planning: Internal Issues

Over the next 12 months, identify which of the following internal issues you will face as you meet required levels of production?

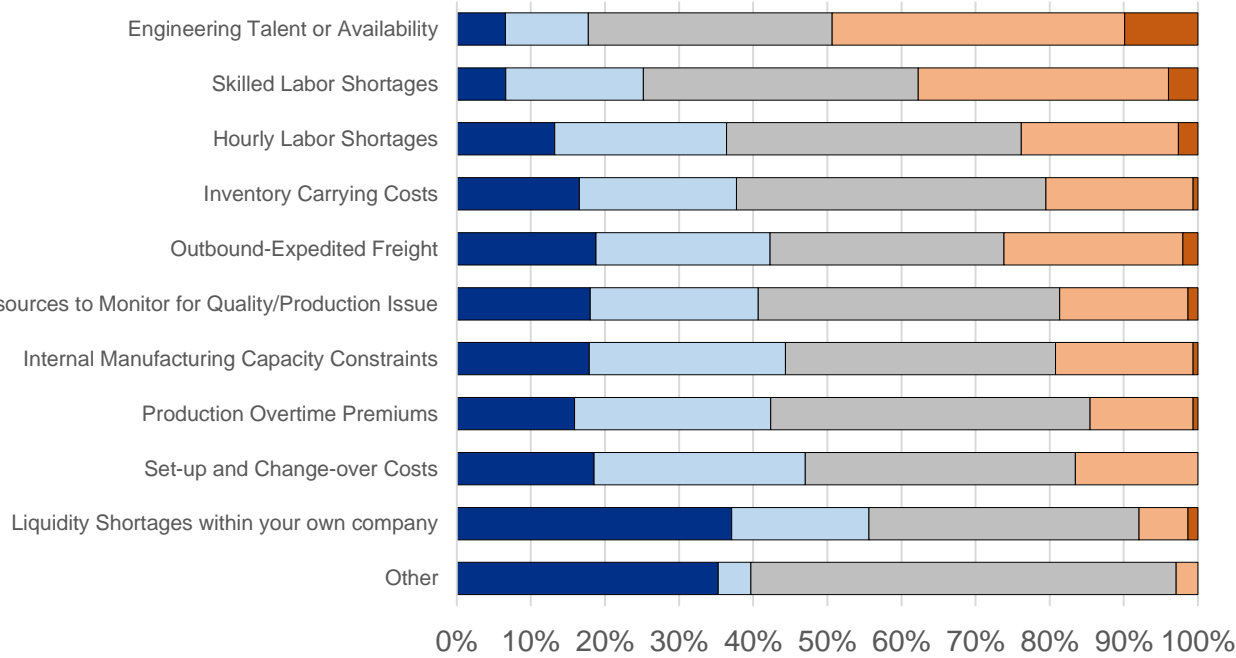


## Other Issues and Comments:

- Supplier performance and capacity is our biggest concern
- Steady as she goes for now. Planning for the future in new technology
- Skilled labor continues to be the biggest challenge in our industry / region.
- A number of new launches this year as we increase production in NA to reduce exposure to any trade policy uncertainty.
- Changing focus on electrification will require change in engineering talent required.
- We are currently fairly well situated to meet demand in the near term.
- We import from China, Germany, France and Brazil. Unsure of how long China will be impacted. Air freight costs may be required, and air freight costs are already increasing.

# Production Planning: External Issues

Over the next 12 months, identify which of the following external issues you will face as you meet required levels of production?



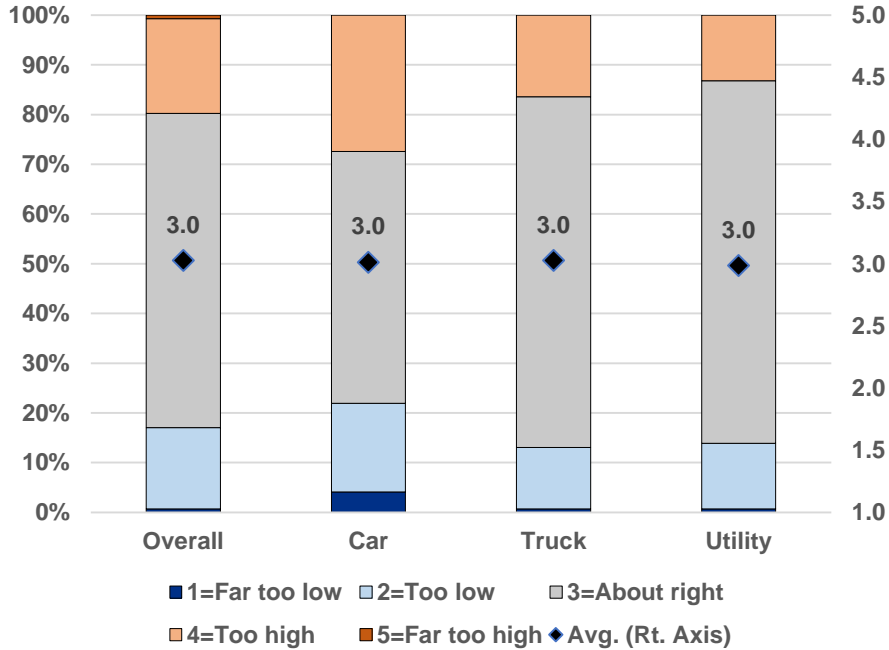
### Other Issues and Comments:

- Coronavirus may impact supply chains
- Raw material increases

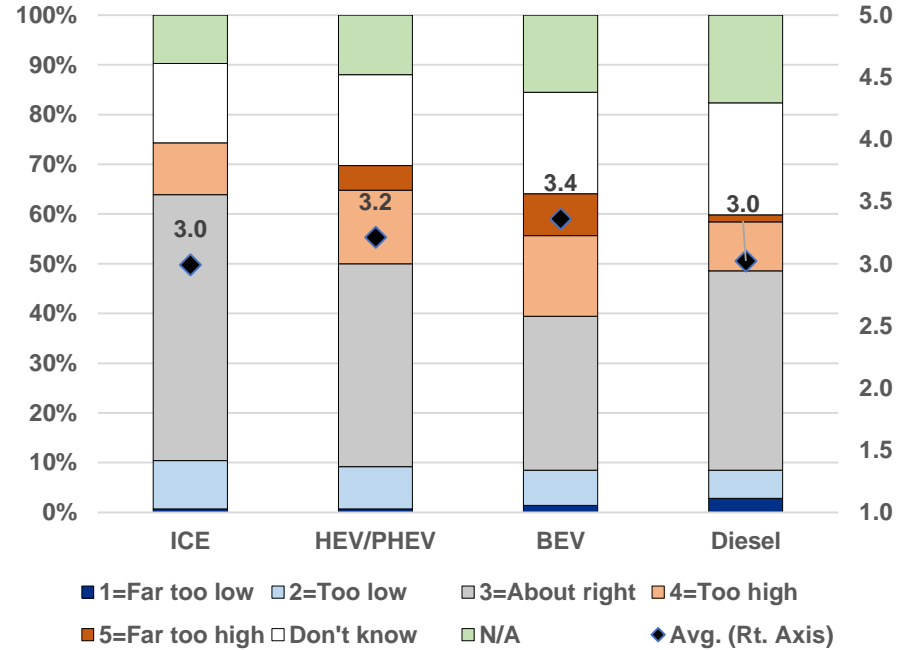
■ 1=Not at all an issue ■ 2 ■ 3=Neutral ■ 4 ■ 5=Severe issue

# Production Planning: Confidence in Customer Releases

Are your customers' 2020 production releases aligned to their 2020 sales and inventory requirements?

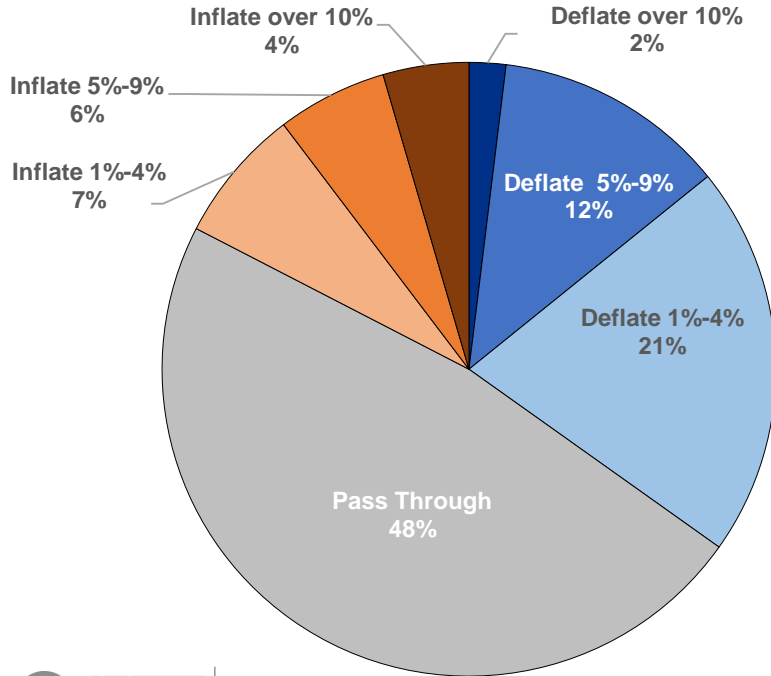


Are your customers' 2020 production releases aligned to their 2020 sales and inventory requirements by powertrain platform?



# Production Planning: Releases to Supply Chain

Generally, across customers and programs, are you currently tending to inflate or deflate your releases down through your supply chain?



## Comments:

### Deflate

- This depends on the customer
- Planned very conservatively for 2019, so deflating 5 - 9 % is still above planning volumes and sales.

### Pass Through

- We analyze both historical and forecast to ID anomalies and make adjustments down through the supply chain.
- We ship from Asia so try to build based on releases and modify accordingly.
- With things flat, we just pass through

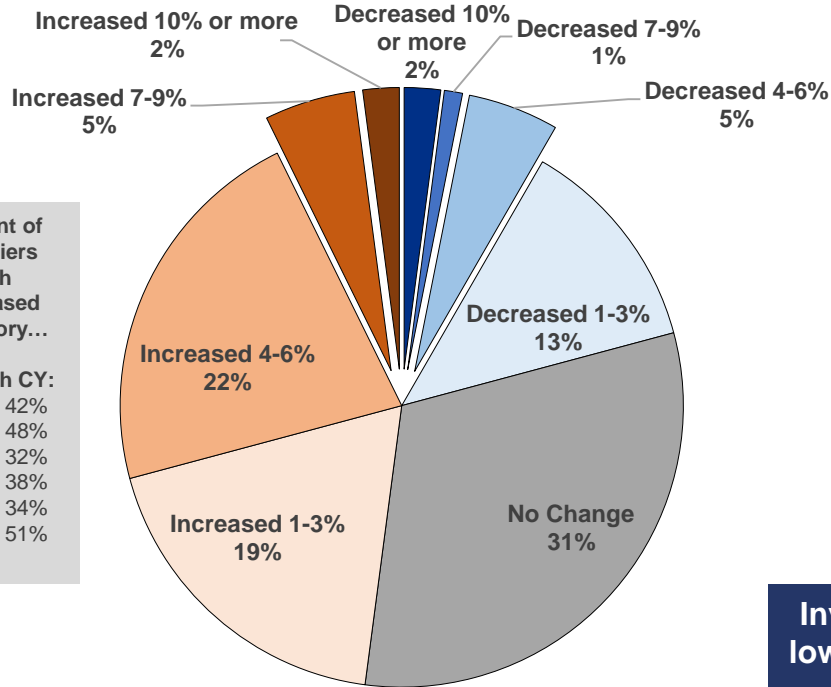
### Inflate

- Due to risk of electronic component shortages / allocations and long corresponding lead times

Suppliers are generally deflating their releases down through their supply chain more frequently compared to last year, with 35% indicating deflation in 2020 down 3 ppts. from 2019

# Production Planning: Finished Goods Inventory

Compared to average 2018 levels, how did your average 2019 finished goods inventory levels change?



Percent of suppliers with increased inventory...

Through CY:  
2019 = 42%  
2018 = 48%  
2017 = 32%  
2016 = 38%  
2015 = 34%  
2013 = 51%

## Comments:

### Decreased

- Lack of orders from customer
- Based on TTI actions to improve turns, not due to customer requirements
- Change of incoterms; consignment
- Trying to keep lower inventory at our warehouse
- Cost management
- Internal efforts to actively manage inventory levels
- 2018 levels were too high and consumed too much cash

### Unchanged

- As a Tier-I supplier, we only keep 1-2 days of finished goods inventory

### Increased

- Increased due to new program launch significantly growing our business
- Capacity, Labor as related to Overtime, Supplier issues.
- Primarily due to the GM strike
- Less frequent turnover of certain inventory, results in higher avg carry levels
- 1) Customers ordering more than they are pulling. 2) Program cancellations.
- GM Strike skewed numbers
- Inflated customer schedules
- Delivery issues caused significant premium freight in late 2018 and early 2019. Conscious effort to raise inventory levels slightly to help avoid premium freight
- Reliance on passenger cars and older models that are well past their prime.
- strategic bank builds required due to minimal customer and mfg. flexibility

**Inventories increased on net across the supply base but at a lower rate compared to 2018, with the percentage of suppliers reporting an increase down 6 pts. to 42%**

# Production Planning: Research & Development Spending

*For 2020, estimate your R&D spending as a percent of total sales.*

	Lower Quartile	Median Value	Upper Quartile
<b>R&amp;D Share of Total Sales</b>			
<b>2020</b>	<b>2%</b>	<b>4%</b>	<b>7%</b>
2019	2%	4%	6%
2018	3%	4%	5%
2017	2%	4%	6%
2015	2%	3%	5%
2014	2%	3%	5%

**R&D Spending is essentially unchanged from last year, around 4% of total sales. Approximately 78% of the R&D budget is allocated towards the development of specific programs, while 25% is allocated to researching future technologies, weighted slightly more towards future technologies compared to last year**

*For 2020 R&D budget, estimate the percent allocated to research and percent allocated to development.*

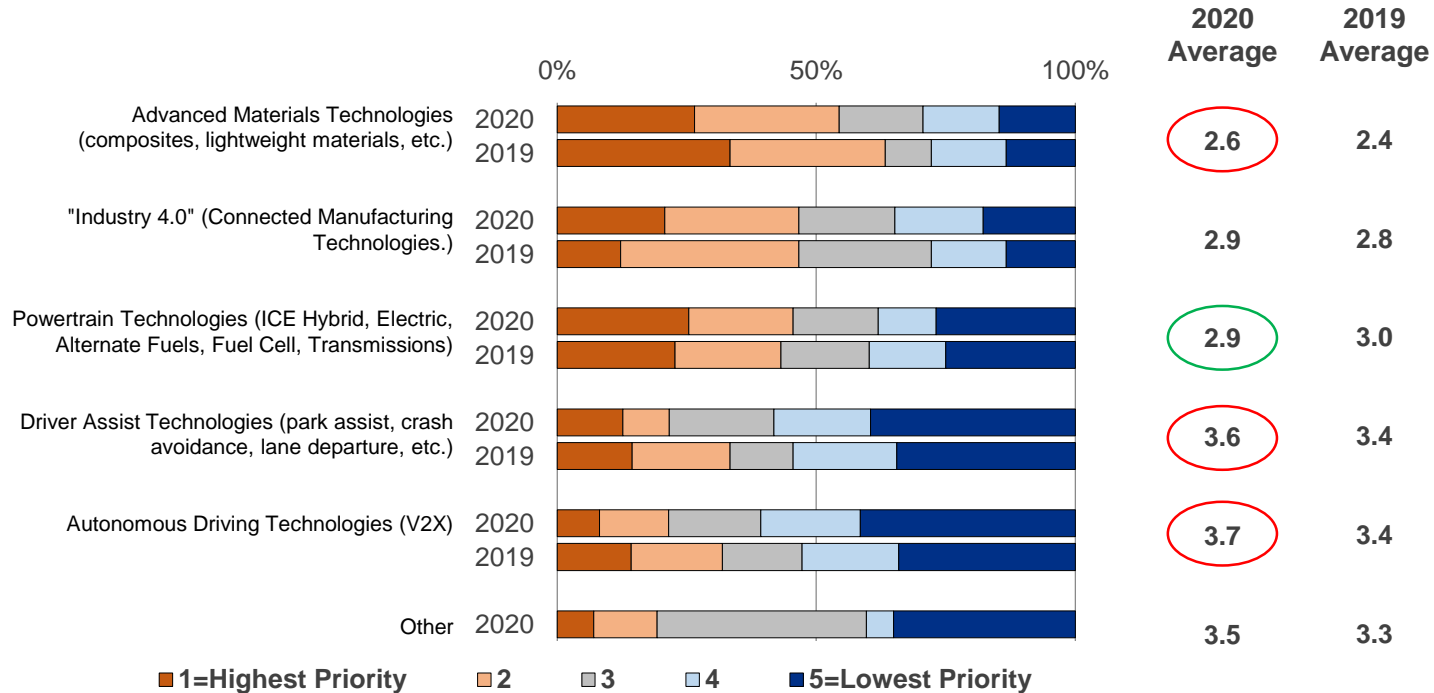
	Lower Quartile	Median Value	Upper Quartile
<b>Research budget (for future technologies)</b>			
<b>2020</b>	<b>10%</b>	<b>25%</b>	<b>40%</b>
2019	10%	20%	30%
2018	20%	32%	44%
2017	10%	20%	40%
2015	20%	30%	50%
2014	16%	30%	50%

	Lower Quartile	Median Value	Upper Quartile
<b>Development budget (for specific programs)</b>			
<b>2020</b>	<b>60%</b>	<b>78%</b>	<b>90%</b>
2019	70%	80%	90%
2018	50%	67%	80%
2017	58%	75%	85%
2015	35%	67%	80%
2014	50%	70%	84%



# Research & Development Technology Investments

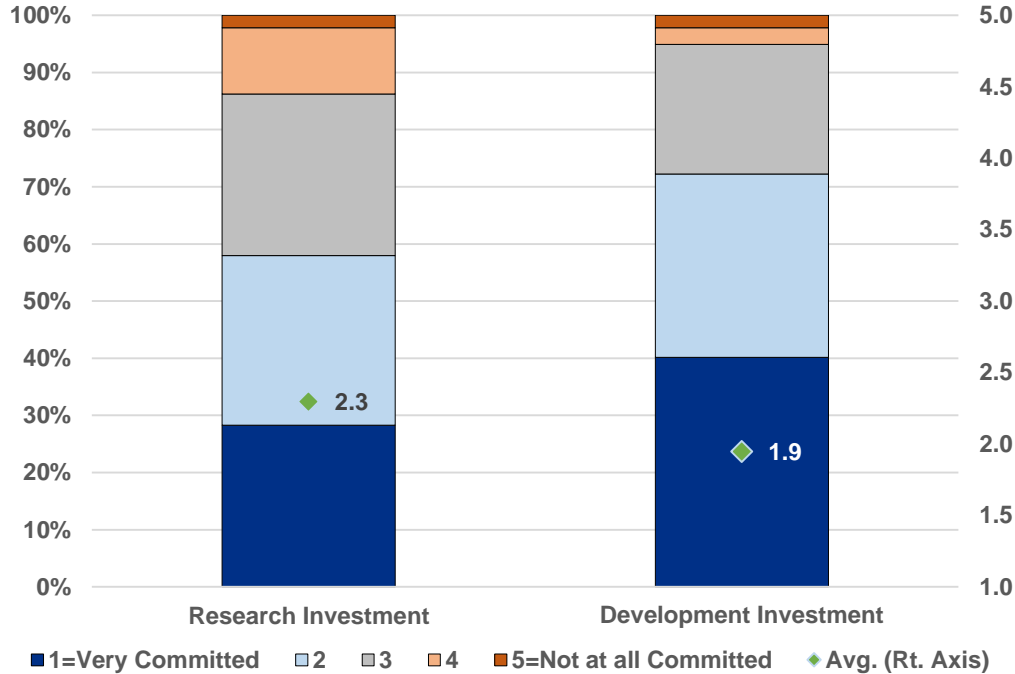
If you had additional dollars for R&D investment, rating in terms of importance, how would you allocate it across the following technology areas?



The order of top supplier R&D priorities remains consistent with last year. Emphasis on AV technology development fell drastically from prior year

# Research & Development Technology Investments

*How committed is your organization to its R&D spending over a 2-3 year time horizon in the face of economic uncertainty?*

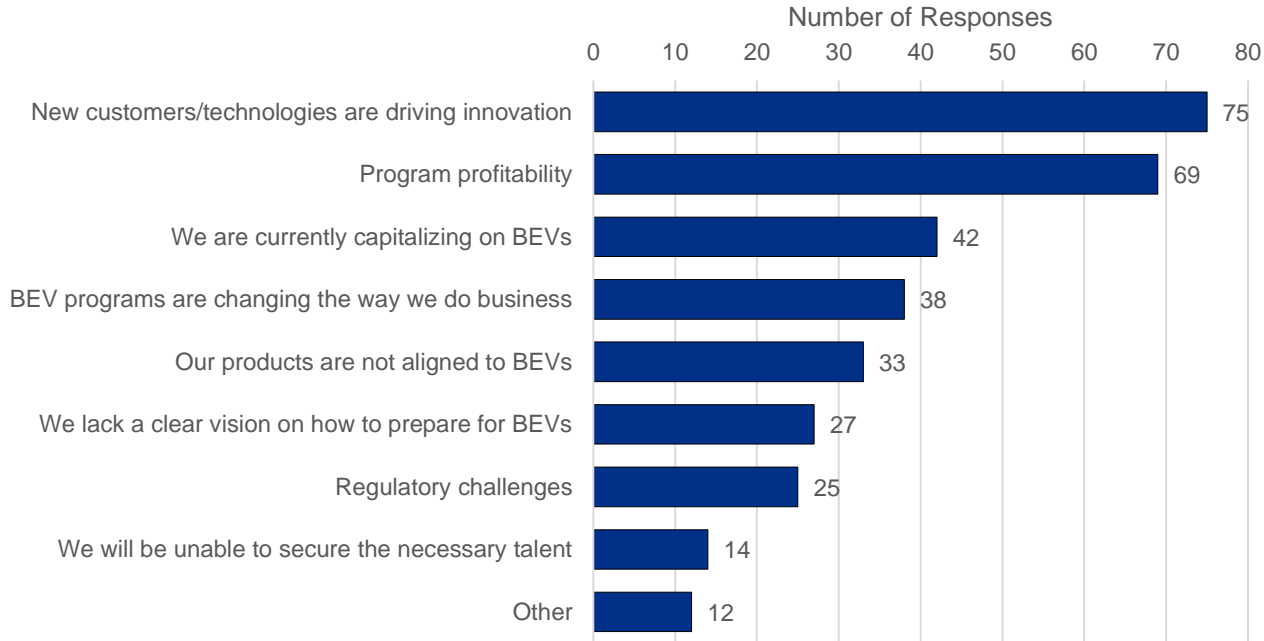


## Comments:

- More inclined to develop or tweak products, as opposed to doing pure research.
- Making significant investments globally to align with growth in the electric vehicle market. These investments are focused in Europe and Asia as the market is developing much slower in NA.
- This will drop fast if the economy takes a bad turn
- Continuously investigating ways to mitigate short term margin impacts due to significant growth and leverage.
- The development of products for non-OEM vehicle markets is our top priority.
- Customer satisfaction and development support must be maintained through tough times.

# Electrification: Risks and Opportunities

*What are your biggest challenges/opportunities as the industry prepares for a Battery Electric Vehicle (BEV) future?*

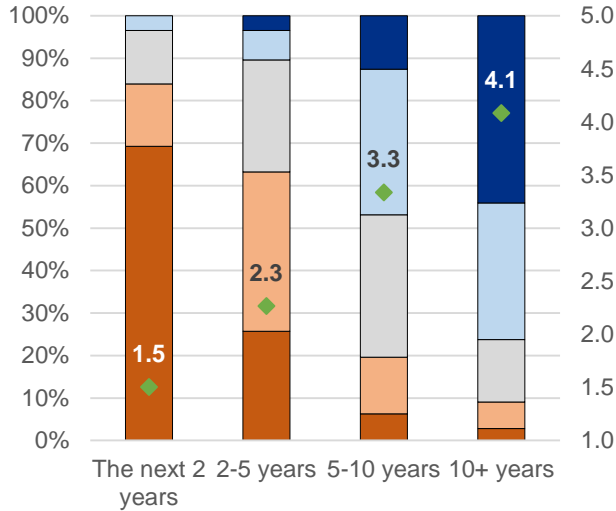


## Other Issues and Comments:

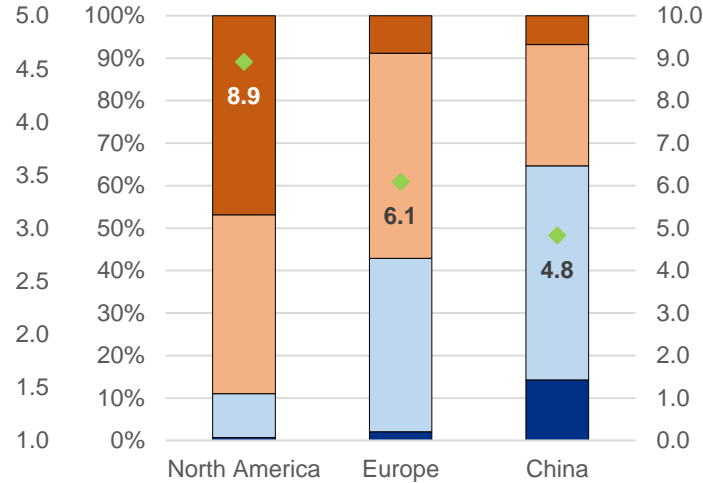
- Growing our knowledge of BEV vehicle to prepare for the new opportunities.
- Uncertain how it will affect our product line
- Customer acceptance of our solutions
- Capacitizing for low volume vehicles
- Market penetration of new, innovative product
- Neutral impact so far
- No clear direction by some of the OEM's
- Over capacity vs. market demand
- Volume Uncertainty
- Infrastructure for BEV adoption, incentives for BEVs, consumer acceptance, battery costs
- Low Volume Offerings

# Electrification: Supplier Outlook

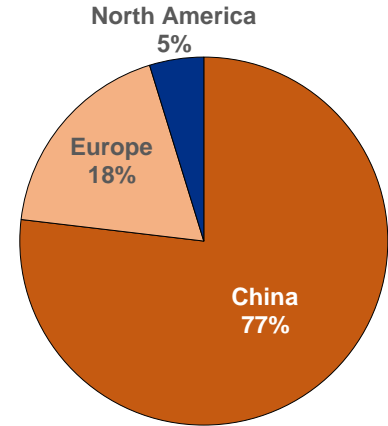
How confident are you that global BEV production will reach a substantial portion (10% of total production) within...



How confident are you that global BEV production will reach a substantial portion (10% of total production) within...



Regionally speaking, where do you believe a substantial level of BEV production (10% of total production) will first occur?



- 1=Not at all confident
- 2
- 3=Neutral
- 4
- 5=Very confident
- ◆ Wtd. Avg. (Rt. Scale)

- Within the next 2 years
- 2-5 years
- 5-10 years
- 10+ years
- ◆ Wtd. Avg. (Rt. Scale)\*

# Appendix



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**OESA Automotive Supplier Barometer** is a survey of the top executives of OESA regular member companies. The OESA Automotive Supplier Barometer takes the pulse of the suppliers' twelve month business sentiment. In addition, it provides a snapshot of the industry commercial issues, business environment and business strategies that influence the supplier industry. [www.oesa.org](http://www.oesa.org).

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## Survey Methodology

- Data collected Jan. 28 – Feb. 12 via invitation to online survey.
- Executives of OESA supplier companies.
- 156 complete survey responses were received, with 272 responses total.

The information and opinions contained in this report are for general information purposes. Comments are edited only for spelling and may contain grammatical errors due to their verbatim nature. Responses to this survey are confidential. Therefore, only aggregated results will be reported and individual responses will not be released or shared.

### Antitrust Statement:

Respondents/participants should not contact competitors to discuss responses, or to discuss the issues dealt with in the survey. It is an absolute imperative to consult legal counsel about any contacts with competitors. All pricing and other terms of sale decisions and negotiating strategies should be handled on an individual company basis.

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