



OESA Automotive Supplier Barometer[™] Q2 2022

Supply Chain, Globalization and Sustainability June 1, 2022

Executive Summary

Supplier Barometer Index[™] (SBI) SBI Score = 40; down from Q1 level of 52



The outlook for the second quarter deteriorated from the first quarter of 2022. Concerns over production shutdowns increased, and new geopolitical risk emerged from the Russia/Ukraine war. Sentiment deteriorated sequentially across firms of all sizes but fell drastically for the largest suppliers, most globally exposed suppliers.



Production shutdowns due to supply chain shortages and labor availability remain the top threats to the 12-month outlook.

Continued shortages of semiconductors and other components and materials continue to place immense cost pressure on the supply base. Labor availability remains scarce, but the risk rating has shown two consecutive quarters of improvement, albeit at a slow rate.



Semiconductor shortages continue to have the most severe impact to the supply base, suppliers do not expect the issue to be resolved in the coming 6-months.



Financially stable suppliers are seeking to take over business from their struggling competitors. Many suppliers expect volume growth from the BEV segment and new customers in addition to recovery in traditional programs. A substantial proportion of suppliers are focusing on cost recovery this year.



Sub-tier supplier distress continues to accelerate.

Responses show that, over the past 3-months, 68% of suppliers have had at least a slight increase in sub-tier supplier distress, following a 78% increase in 2021.

Consequently, the percentage of sub-tier suppliers on "watch" has risen to 6.3% on average, up from 6.1% in 2021.

Executive Summary



Risks associated with meeting customer production requirements include:

Labor availability, inaccurate customer release schedules and lead times and delays are the greatest internal risk factors, while shortages of inputs, logistics delays and freight premiums are the greatest supply chain risk factors.

Sourcing constraints by system area are greatest for electrical/electronics, EV propulsion and internal combustion engine powertrain, with 60%, 55%, and 38% of responses indicating at least moderate concern for sourcing constraints, respectively.



On average, 17.8% of sub-tier suppliers are directed buy as required by customers, up from 13.8% last year. Suppliers are most concerned with supply continuity and pricing/cost control from their directed buy arrangements.



Over the past year, dual or multiple sourcing for components increased on net from supplier customers by 33% and down through the supply chain by 44%, up from 19% and 34%, respectively, from last year.



Localization efforts continue in compliance with USMCA

Suppliers have witnessed a continued effort to localize production from their customers as they attempt to comply with the standards in place from USMCA.

Consequently, suppliers themselves look to localize within their own supply base in order to provide compliance value to their customers and minimize risk exposure from geopolitical events, with 59% of responses showing at least a minimal increase in localization efforts.



Formal sustainability plans have been adopted by 46% of the supply base, while 20% are in progress of developing one.

Publicly held suppliers are concerned over the new reporting requirements and deadlines from the new SEC sustainability reporting requirements, and the new resources needed to ensure compliance.

Most suppliers have received requests for sustainability and ESG metrics or targets from domestic, European and certain Asian OEM customers. Most have agreed to commit to these requests while the remaining require additional information.

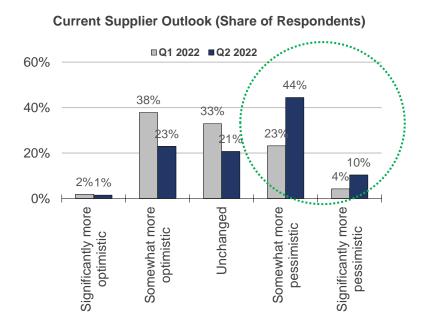
The supply base has responded to the increased focus on sustainability by creating a dedicated team to address the new customer and government requirements, with 43% of respondents having a dedicated team. On average, there are two full-time equivalents responsible for fulfilling the requests.

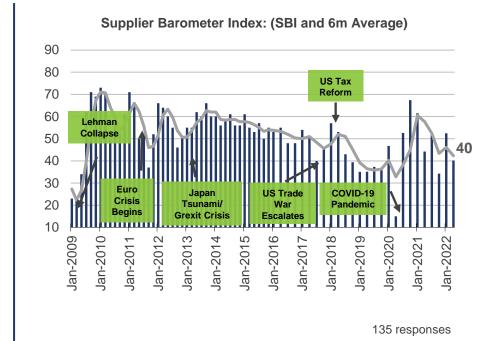
Supplier Outlook



OESA Supplier Barometer: Q2 2022 Results

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

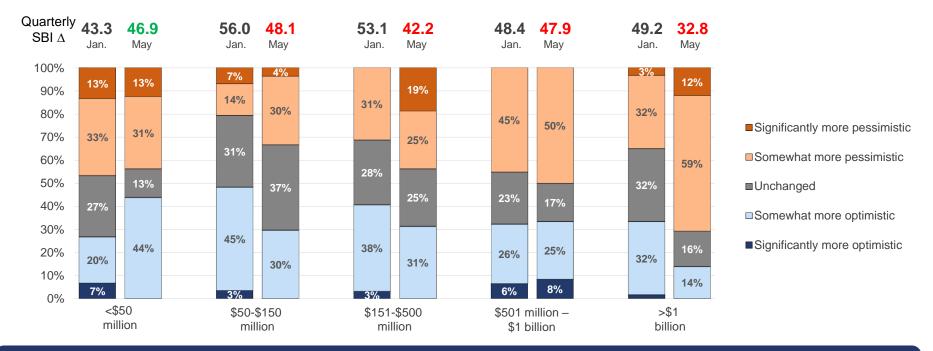




The 12-month outlook for the second quarter fell back into pessimistic territory as concerns over production shutdowns increased, and new geopolitical risk from the Russia/Ukraine war.

OESA Supplier Barometer: Q2 2022 Results By Revenue

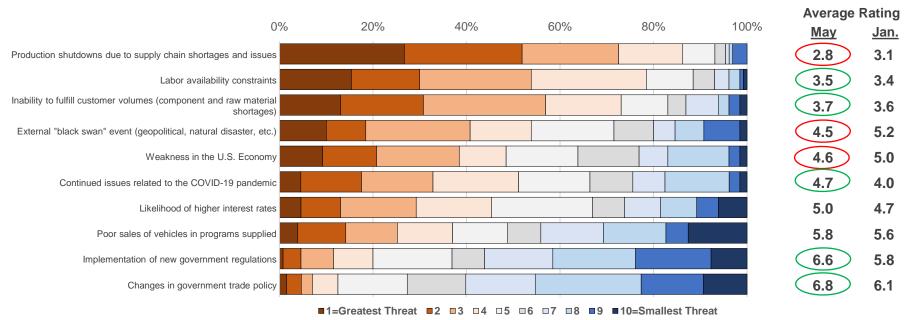
Describe the general twelve-month outlook for your business. Over the past three months, has your opinion become...?



The outlook is pessimistic for firms of all sizes. Sentiment dropped drastically for the largest, most globally exposed suppliers.

OESA Supplier Barometer: Industry Threats

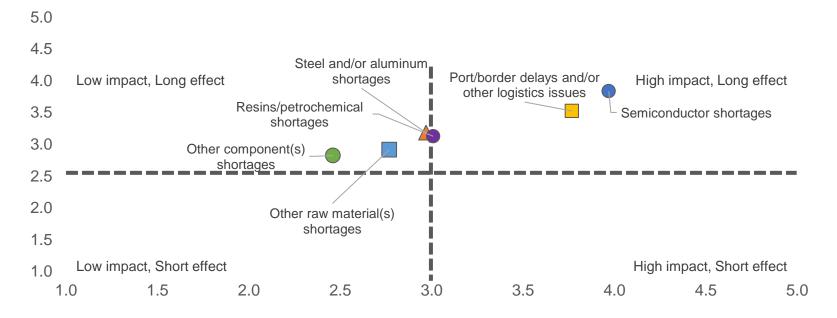
What are the greatest threats to the industry over the next 12 months?



Production shutdowns due to supply chain shortages and issues, labor availability, and the inability to fulfill customer volumes remain as the top threats to the 12-month industry outlook.

OESA Supplier Barometer: Component and Raw Material Shortages

Please indicate the level of severity the following input shortages and logistics challenges have had on your business and the likelihood the issues will be resolved within the next 6-months. (1=No impact/Highly likely, 5=Severe impact/Highly unlikely)



Semiconductor shortages have had the most severe impact to the supply base, and are the least likely to be resolved within the next 6-months.

OESA Supplier Barometer: Current Opportunities

Based on the current business environment, what do you believe your biggest opportunities are at the moment?



Comments (Selected):

- Our diversified supply base has allowed us to maintain strong lead-times against our competitors.
- Agility to adapt the operation/business to the new dynamic of customers. Minimize the impact due to plant shutdown, release change in quantity / mix. Etc.
- Diversification of products, customers and geographical territories, to become less likely to have a severe negative impact due to one or a few specific issues.
- To remain a key supplier, fulfill our commitments, and to gain business and momentum by remaining viable.

Financially stable suppliers are seeking to take over business from their struggling competitors. Many suppliers expect volume growth from the BEV segment and new customers in addition to recovery in traditional programs.

Supply Chain



Sub-tier Supplier Distress

Over the following periods, have you witnessed an increase in distress within your supply base?



■5=Significant Increase in Supplier Distress

■4=Slight Increase in Supplier Distress

■3=No Change

□2=Slight Decrease in Supplier Distress

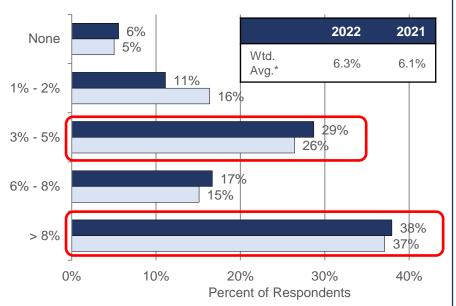
■1=Significant Decrease in Supplier Distress

Comments (selected):

- · OEMS only paying material increases and not inflationary or energy will continue to stress suppliers
- Different suppliers (Tier II's / III's) survived to the Covid and Chip crisis which is positive.
- · Seeing more and more payment issues within terms and having to put customers on prepay status
- Mainly due to supply chain issues including freight and logistics, labor supply etc.
 - Supplier price change requests have greatly picked up speed during 2022
- Customer dynamics coupled with shortage of labor and raw material price increases coupled with increased interest rates and black swan occurrences in China and Ukraine
- International supply chain remains very high risk due to Covid lockdowns in Asia Pac (China)
 Impact on domestic traffic much less so...
- 1Q22 has been the worst so far.
- All suppliers based in China are having varying issues with Covid lockdowns
- Higher tier, larger companies have ability to manage bigger picture. Smaller tiers do not have capability nor balance sheet to weather storms
- No change as many suppliers continue to struggle with labor issues.
- Raw material and supply chain continue to be an issue across many of our main suppliers. COVID shut down in China and war in Ukraine has not helped.
- Some OEMs are not supporting the supply base with recovery for material economics, fuel cost
 increases, unabsorbed fixed costs from lower production volumes and demand continued
 contractual performance even when parts (i.e. semiconductors) are constrained. This is driving
 suppliers to expedite freight and absorb significant costs.
- Tier 2 and 3's are aggressively increasing costs, continue to issue FM letters. Some tiers
 completely exited automotive and ask will arrange pick-up of our tool
- Moved away for distressed suppliers
- Situation seems to be getting worse
- · Smaller suppliers are getting out of the business.

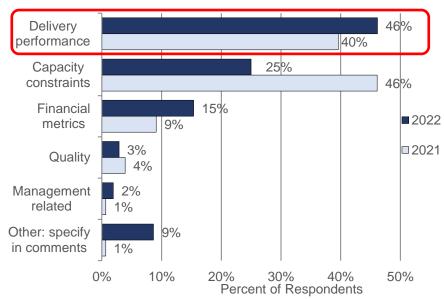
Direct Supplier Risk

What percent of your North American direct material suppliers are currently on your "watch list?"



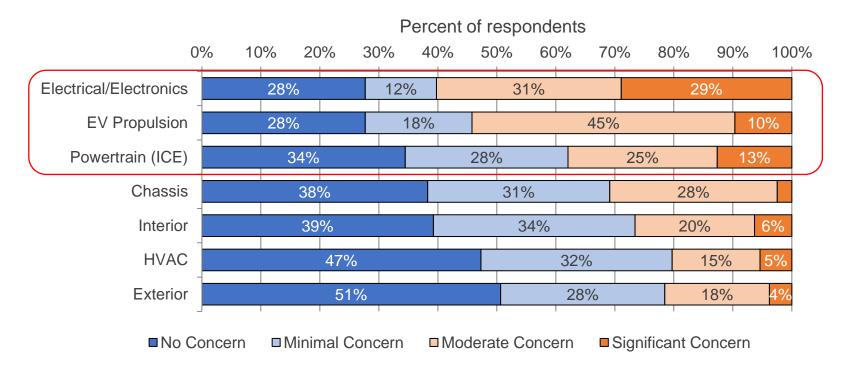
^{*}Assumes mid-point of each range, greater than 8% equals 10%

What is the primary reason companies are being added to or continuing on the supplier "watch list?"



Sourcing Constraints

For each of the following system areas, select your level of concern in having future sourcing constraints:

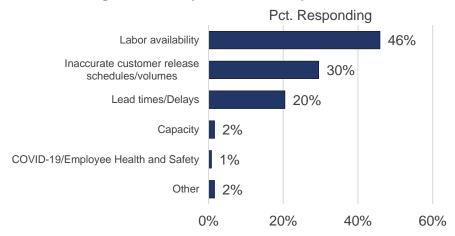






Production Risk

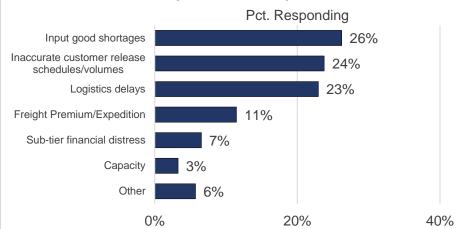
What is your greatest <u>internal (non-supply chain)</u> risk in meeting customer production requirements?



Other:

Unanticipated raw material shortages and logistics concerns coupled with inaccurate forecasting

What is your greatest <u>supply chain</u> risk in meeting customer production requirements?



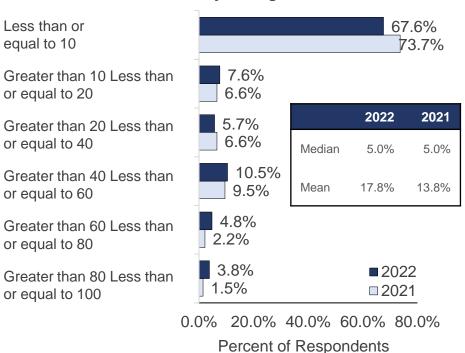
Other:

- COST!!!!
- All of the above
- · China lockdown
- · Component shortage
- Labor

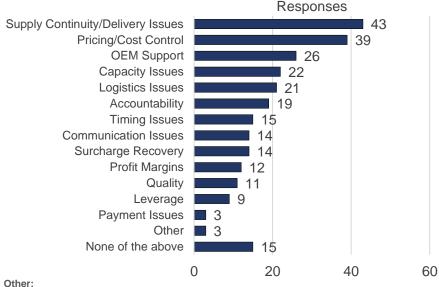


Directed Buy

What percent of your suppliers are customer required directed buy arrangements?



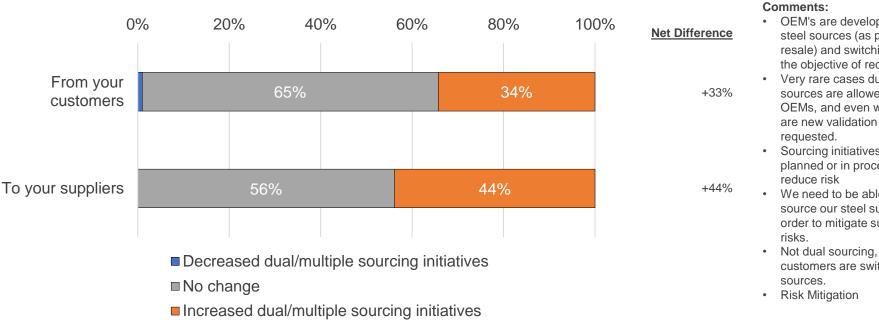
What are your biggest issues with your directed buy arrangements?



- otner:
- Lack of clearly documented directed buy agreements stating R&R of each party
- Responsibility for expedited freight

Directed Buy

Over the past year in North America, has your company experienced a change in dual/multiple sourcing initiatives from your customers or implemented dual/multiple sourcing initiatives with your suppliers?



- OEM's are developing new steel sources (as part of the resale) and switching with the objective of reduce cost.
- Very rare cases dual sources are allowed by OEMs, and even when they are new validation are
- Sourcing initiatives are planned or in process to
- We need to be able to dual source our steel suppliers in order to mitigate supply
- customers are switching

Globalization

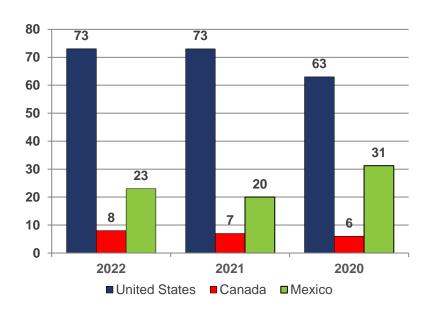




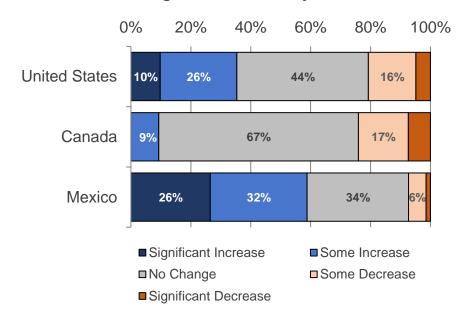


North American Production

For your products produced in North America, identify the percent manufactured in each of the following countries

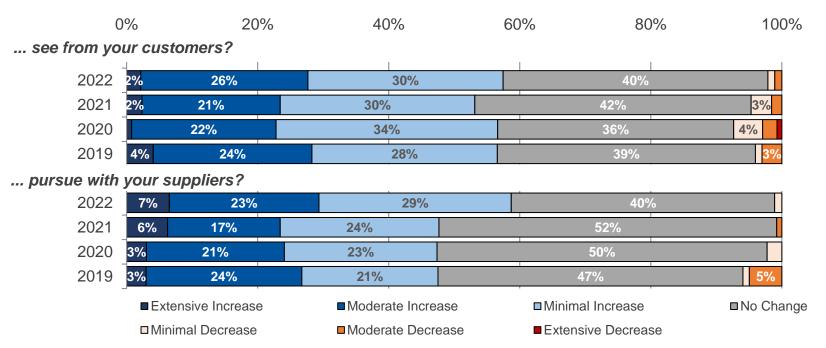


How do you expect that these percentages will change over the next 5 years?



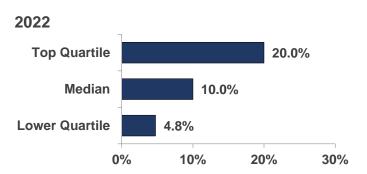
Localization Efforts

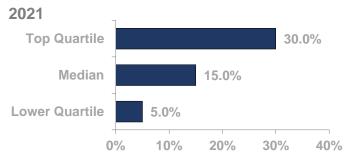
Over the past year, what level of manufacturing localization activity/effort did you...



U.S. Exports

Estimate the percent of your current U.S. production that is exported outside of the United States.





What is the estimated split of these exports (in percent) to each of the following regions?

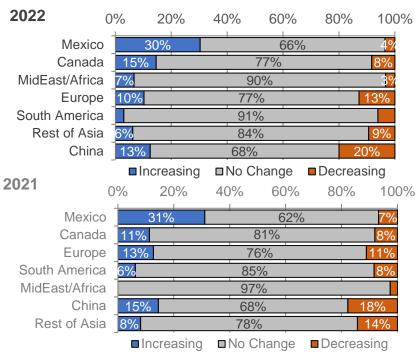
2022	Lower Quartile	Median	Upper Quartile	Number of respondent companies exporting to each region
Canada	3%	10%	28%	48
Mexico	5%	20%	50%	58
Europe	0%	5%	10%	37
China	0%	2%	15%	30
Rest of Asia	0%	0%	5%	16
S. America	0%	0%	2%	15
Mid-East/Africa	0%	0%	0%	7

2021	Lower Quartile	Median	Upper Quartile	Number of respondent companies exporting to each region
Canada	5%	15%	30%	42
Mexico	10%	20%	51%	39
Europe	0%	2%	10%	24
China	0%	2%	10%	23
Rest of Asia	0%	0%	5%	19
S. America	0%	0%	4%	15
Mid-East/Africa	0%	0%	0%	9



U.S. Exports

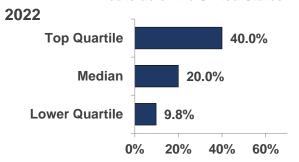
For each region, please describe the direction of your export plan over the next 5 years.

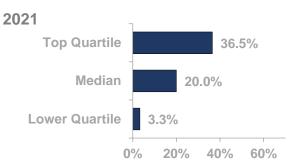


V	What major factors drive this regional export plan?
Canada	 We do not directly export. It is through our customers. Market trend to increase OEM demand
Mexico	 USMCA Our production site in Mexico is our largest globally. No need to export from the US. Market trend to increase Location of customer's assembly plant
Europe	 We have extensive production sites in Europe. No need to export from the US. Regulations
China	 We have extensive production sites/JVs in China. No need to export from the US. OEM has sister plant in China to a plant we supply in the US.
Rest of Asia	We have extensive production sites in SE Asia. No need to export from the US.
S. America	We have a major production site in Brazil. No need to export from the US.
Mid-East/ Africa	We have extensive production sites in Europe to support what little business we have in ME/Africa. No need to export from the US.

U.S. Imports

Estimate the percent of your current material costs for U.S. production (by dollar value) that is purchased outside of the United States.





What is the regional split of your total (by dollar value) of materials/components purchased for U.S. production?

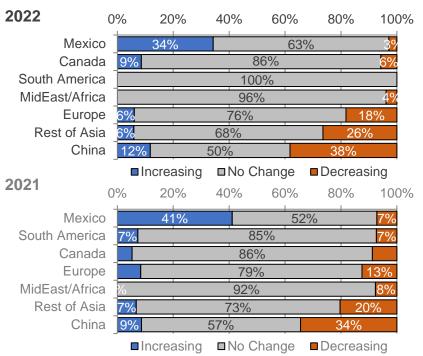
2022	Lower Quartile	Median	Upper Quartile	Number of respondent companies exporting to each region
Canada	0%	5%	25%	26
Mexico	0%	10%	30%	32
Europe	0%	5%	30%	27
China	5%	15%	38%	46
Rest of Asia	0%	13%	50%	30
S. America	0%	0%	0%	4
Mid-East/Africa	0%	0%	0%	4

2021	Lower Quartile	Median	Upper Quartile	Number of respondent companies exporting to each region
Canada	0%	0%	10%	34
Mexico	0%	0%	10%	39
Europe	0%	0%	10%	31
China	0%	10%	30%	49
Rest of Asia	0%	0%	15%	37
S. America	0%	0%	0%	8
Mid-East/Africa	0%	0%	0%	3



U.S. Imports

For each region, please describe the direction of your purchase plan over the next 5 years.



What major factors drive this regional import plan?			
Canada	Vendor availabilityAvailability of steel		
Mexico	No comments provided		
Europe	No comments provided		
China	Vendor sourcing decision		
Rest of Asia	 Vendor sourcing decision Integrate to US China/Taiwan issue Cost, but this is a diminishing factor 		
S. America	No comments provided		
Mid-East/ Africa	No comments provided		

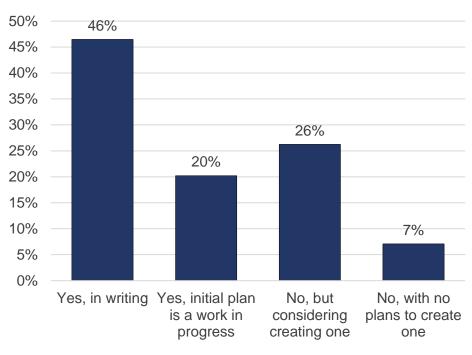


Sustainability

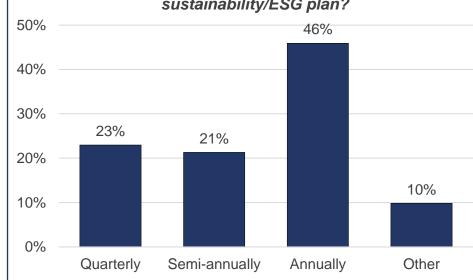


Sustainability Plans

Does your company have a formal sustainability plan?



If yes, what is the frequency of updates for your sustainability/ESG plan?

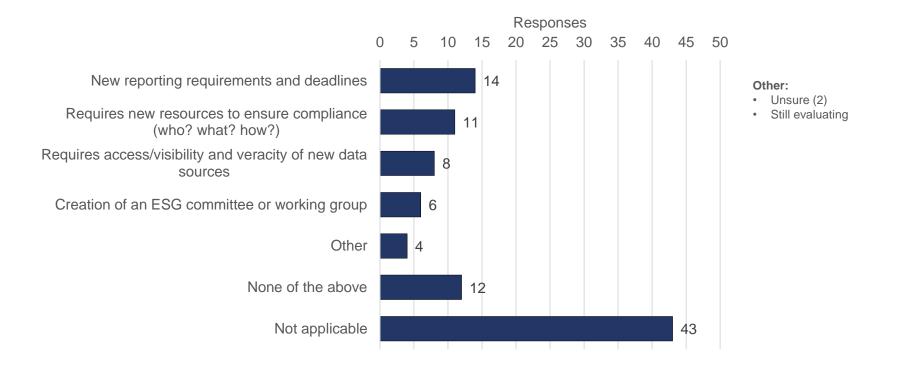


Other:

- As needed/appropriate (3)
- Monthly
- As needed. Last updated within the last 6 months.
 - Fluid

SEC Sustainability Requirements

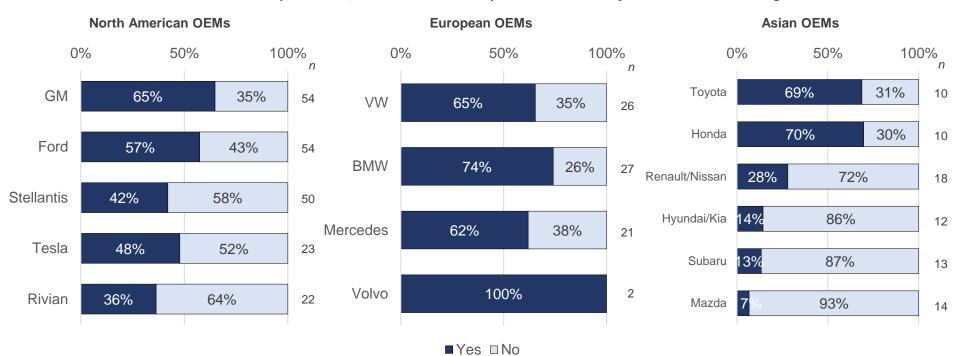
What is the impact to your company resulting from the new Securities and Exchange Commission sustainability requirements?





OEM Sustainability Requirements

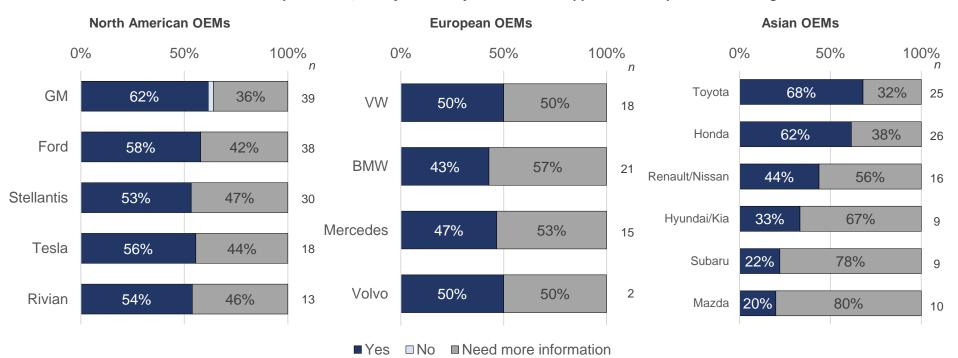
For North American production, which OEMs have requested sustainability/ESG metrics and or targets?





OEM Sustainability Requirements

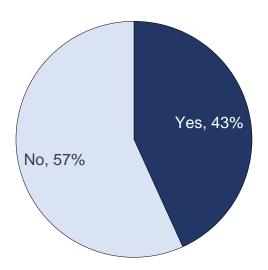
For North American production, have you or will you commit to support these requests and or targets?





Dedicated ESG Resources

Does your organization have dedicated resources for the purpose of addressing the preceding customer and government requirements?



How many full-time equivalent employees do you require to address the preceding customer and government requirements?

	Full-time Equivalents
Lower Quartile	1
Median	2
Upper Quartile	3

Comments:

- · This is done at the corporate level.
- On-going development for ESG issues.
- Services from parent company

Appendix





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.

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Survey Methodology

- Data collected Apr. 21 May 11 via invitation to online survey.
- Executives of OESA supplier companies.
- 101 complete survey responses were received, with 135 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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