



Electronics Materials Information



2020 Corona Virus Supply-Chain Impact Fab Survey-4

Monday, May 4, 2020

Survey Background

- This survey is the 4th survey of a round of several surveys that TECHCET will perform to track the impact of COVID-19 on the semiconductor industry. The industry will be queried every 2-3 weeks
- The first few surveys on the impact of COVID-19 on the materials supply-chain were initially sent to CMC Members and later opened up to non-members in 2020 and March 2020. The results can be found at www.criticalmaterials.org
- Comparison data is
 - Survey 2 – March 18
 - Survey 3—April 6

If you did not have a chance to be included in the survey and are interested in participating in the next round of surveys, please email us at : cmcinfo@techcet.com

Disclaimer

This report represents the interpretation and analysis of information generally available to the public or released by responsible agencies or individuals. Data was obtained from sources considered reliable. However, accuracy or completeness is not guaranteed.

CMC Supplier Survey Demographics-Survey 4

- 12 responses from global fabs with global locations

12

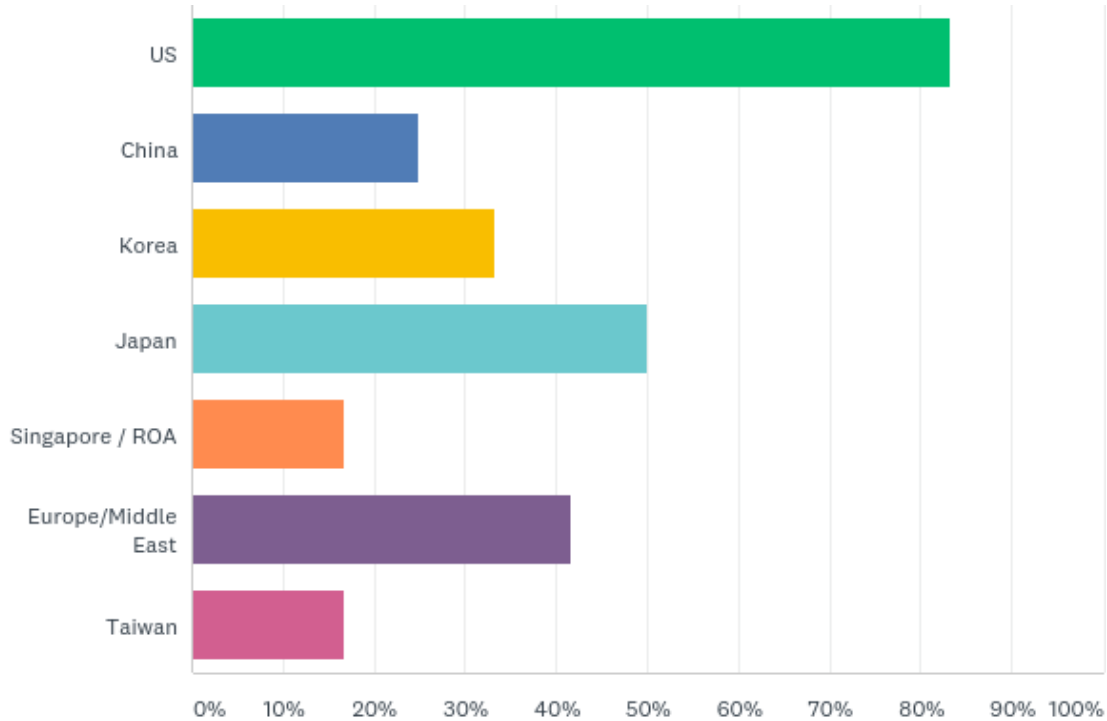
Total Responses

Summary-Survey 4 (May 4th)

- 92% of the respondents have travel restriction in place
- 75% are not allowing suppliers on site for visits
 - A few are allowing visits for urgent operation matters
- 92% are not visiting suppliers
- 17% respondents report loosening of WFH policies
- 33% have seen a decrease in wafer starts
- 42% are seeing supply chain disruption from suppliers
 - Mostly due to logistics
 - Supplier production
- Supplier disruption are in
 - Wet Chems
 - Sputter targets
 - PPE
- 50% are increasing inventory
- 75% are not seeing any reduction in workforce

Q2: What region do you primarily manage? (check all that apply)

Answered: 12 Skipped: 0



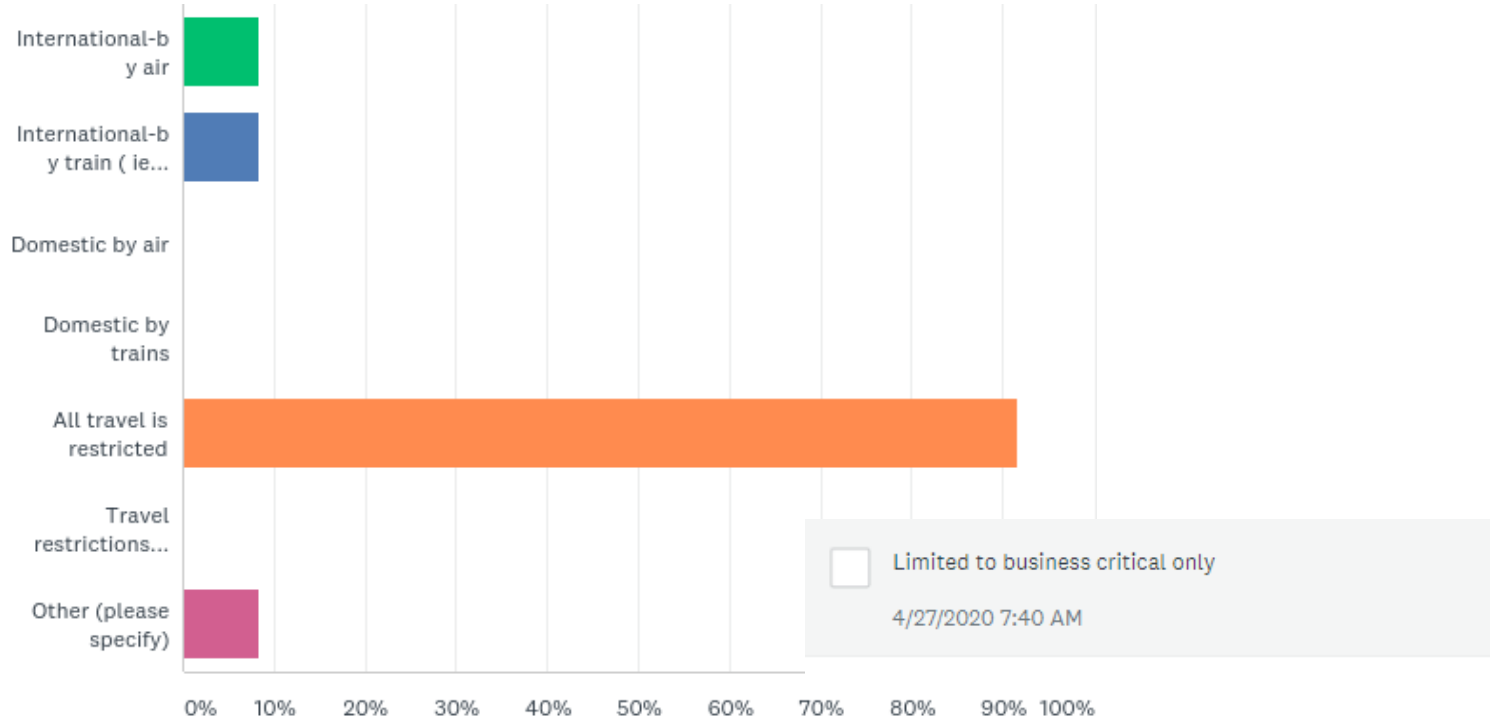
Q2: What region do you primarily manage? (check all that apply)

Answered: 12 Skipped: 0

ANSWER CHOICES	RESPONSES	
US	83%	10
China	25%	3
Korea	33%	4
Japan	50%	6
Singapore / ROA	17%	2
Europe/Middle East	42%	5
Taiwan	17%	2
Total Respondents: 12		

Q3: Is your company continuing to restrict travel? (CHECK ALL THAT APPLY)

Answered: 12 Skipped: 0



Q3: Is your company continuing to restrict travel? (CHECK ALL THAT APPLY)

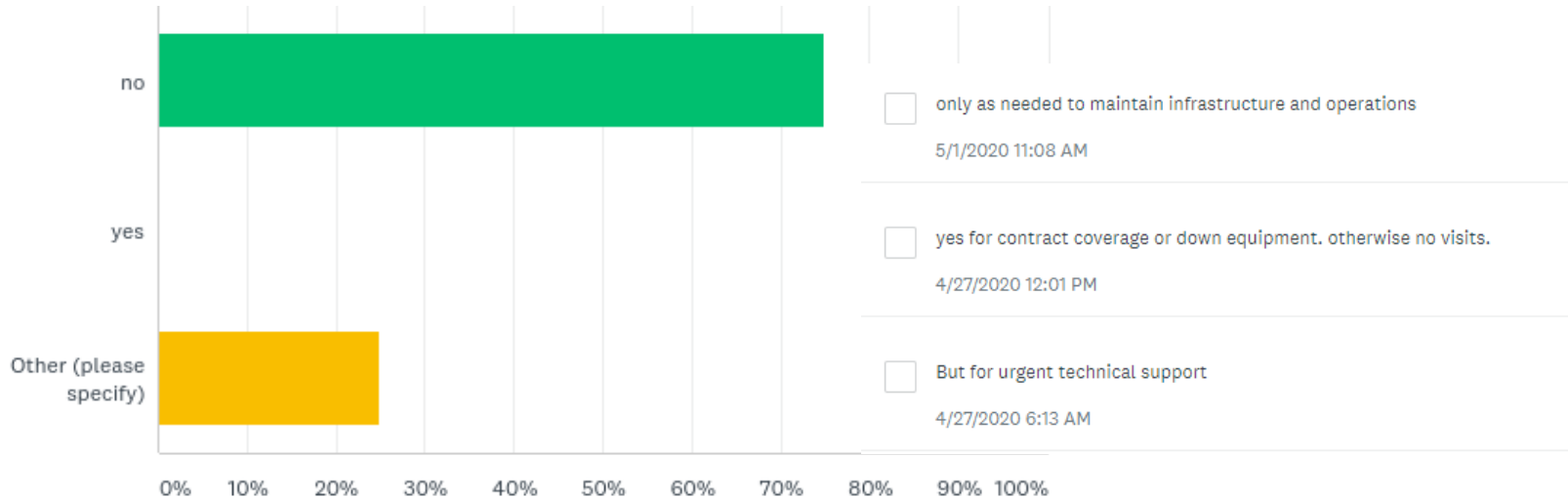
Answered: 12 Skipped: 0

ANSWER CHOICES	RESPONSES	
International-by air	8%	1
International-by train (ie. cross-borders between European countries)	8%	1
Domestic by air	0%	0
Domestic by trains	0%	0
All travel is restricted	92%	11
Travel restrictions are easing	0%	0
Other (please specify)	8%	1
Total Respondents: 12		

Comparison	survey 4	survey 3
I'tl by air	8%	26%
I'tl by train	8%	24%
domestic by air	0%	26%
domestic by train	0%	24%
All travel restricted	92%	90%

Q4: Are you permitting suppliers to visit your company sites?

Answered: 12 Skipped: 0



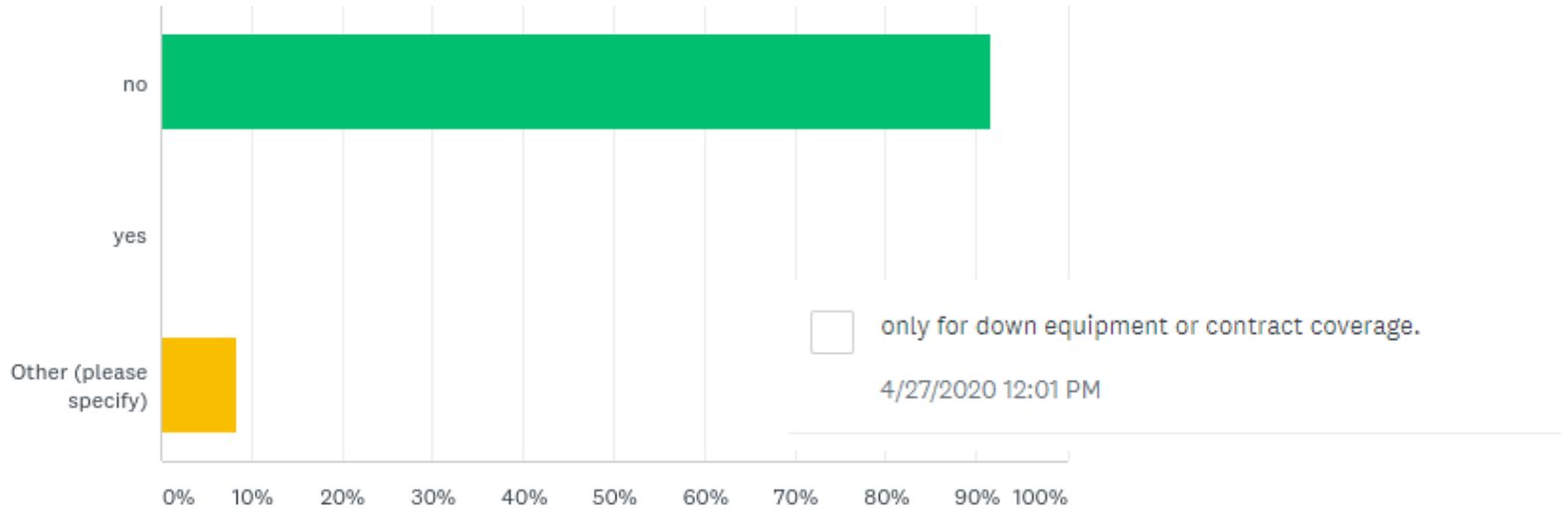
Q4: Are you permitting suppliers to visit your company sites?

Answered: 12 Skipped: 0

ANSWER CHOICES	RESPONSES	
no	75%	9
yes	0%	0
Other (please specify)	25%	3
TOTAL		12

Q5: Are you visiting supplier sites ? (i.e. supplier audits)

Answered: 12 Skipped: 0



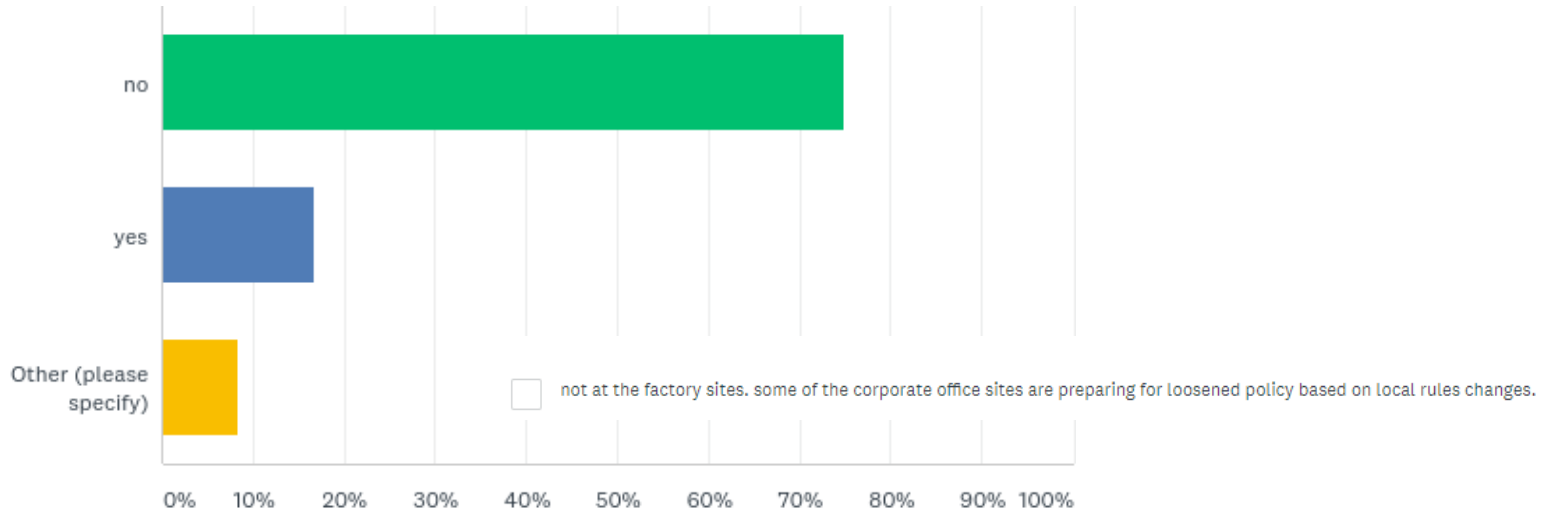
Q5: Are you visiting supplier sites ? (i.e. supplier audits)

Answered: 12 Skipped: 0

ANSWER CHOICES	RESPONSES	
no	92%	11
yes	0%	0
Other (please specify)	8%	1
TOTAL		12

Q6: Is your company loosening the work from home policy?

Answered: 12 Skipped: 0



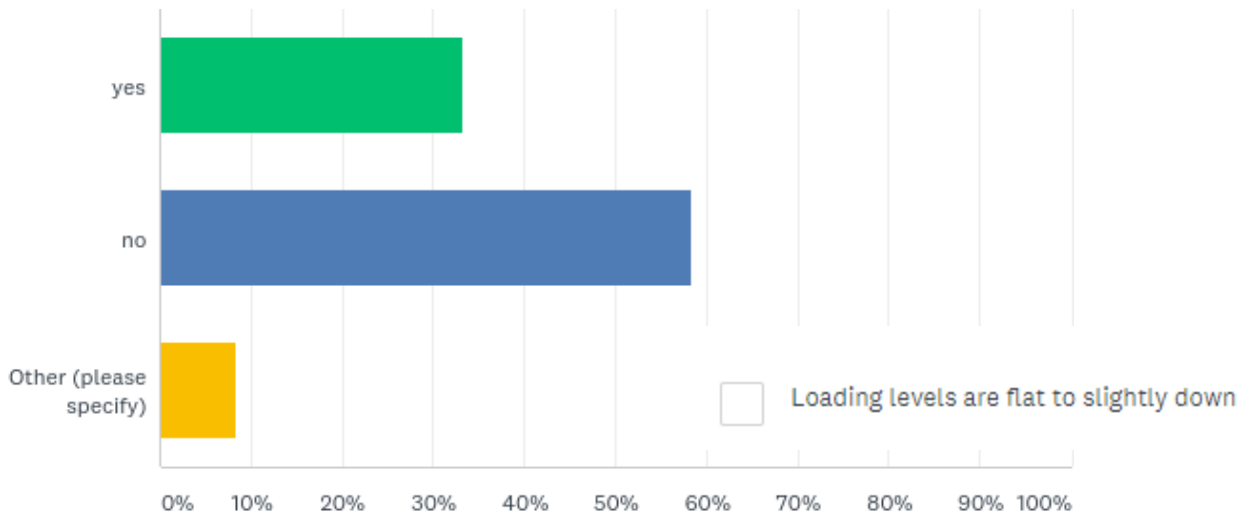
Q6: Is your company loosening the work from home policy?

Answered: 12 Skipped: 0

ANSWER CHOICES	RESPONSES	
no	75%	9
yes	17%	2
Other (please specify)	8%	1
TOTAL		12

Q7: Have you experienced any changes in wafer starts production over the past month?

Answered: 12 Skipped: 0



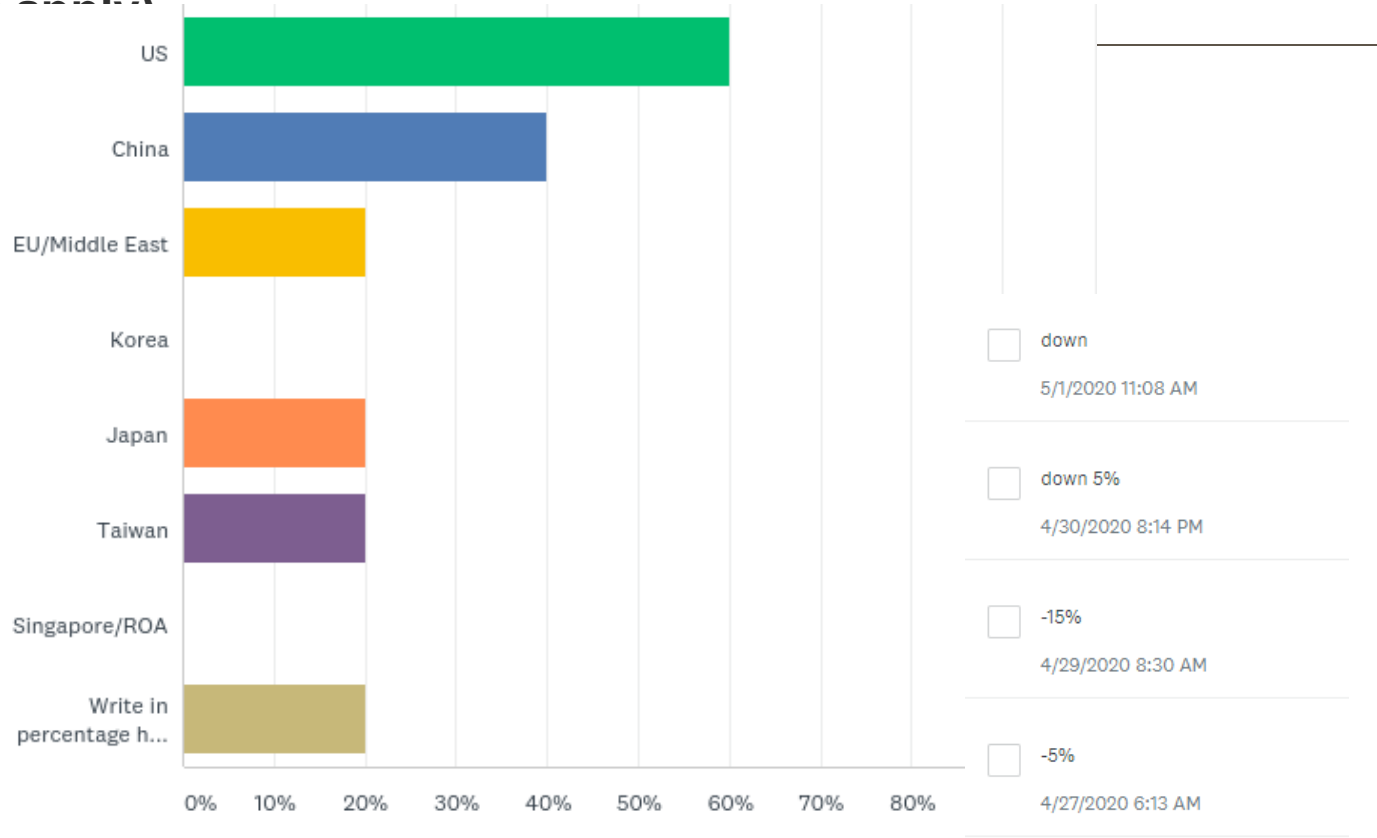
Q7: Have you experienced any changes in wafer starts production over the past month?

Answered: 12 Skipped: 0

		Survey 4	Survey 3
ANSWER CHOICES	RESPONSES		RESPONSES
yes	33% 4	20%	
no	58% 7	70%	
Other (please specify)	8% 1	10%	
TOTAL	12		

Q9: Please specify the region where the wafer starts are changing (check all that apply)

Answered: 5 Skipped



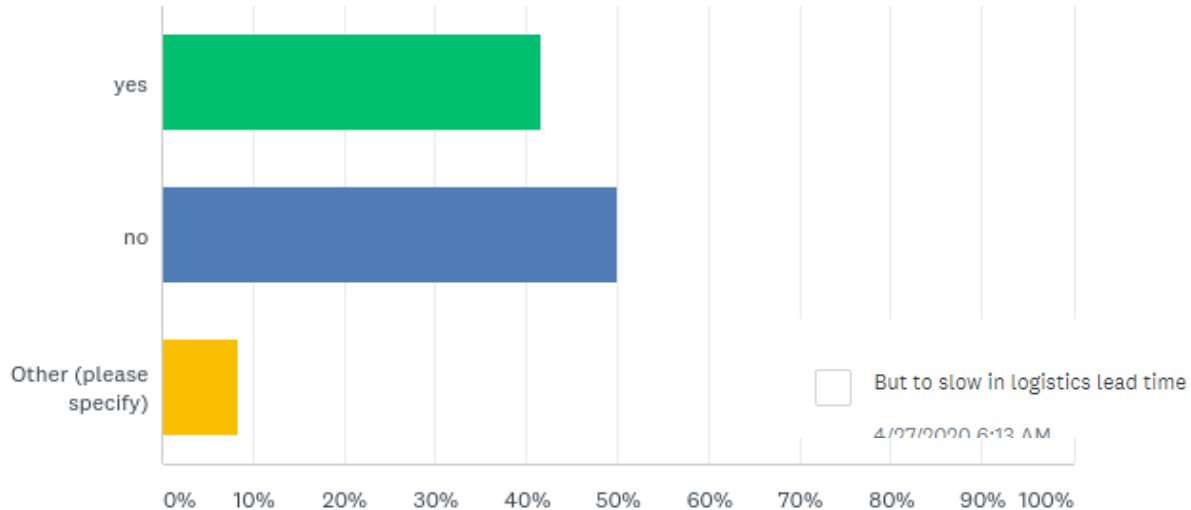
Q9: Please specify the region where the wafer starts are changing (check all that apply)

Answered: 5 Skipped: 7

ANSWER CHOICES	Survey 4		Survey 3	
	RESPONSES		RESPONSES	
US	60%	3	33%	1
China	40%	2	67%	2
EU/Middle East	20%	1	0%	0
Korea	0%	0	0%	0
Japan	20%	1	0%	0
Taiwan	20%	1	33%	1
Singapore/ROA	0%	0	33%	1
Write in percentage here (please specify if the change is up or down)	20%	1	33%	1
Total Respondents: 5				

Q10: Are you experiencing any material supply-chain disruptions from your suppliers due to the corona virus?

Answered: 12 Skipped: 0



Q10: Are you experiencing any material supply-chain disruptions from your suppliers due to the corona virus?

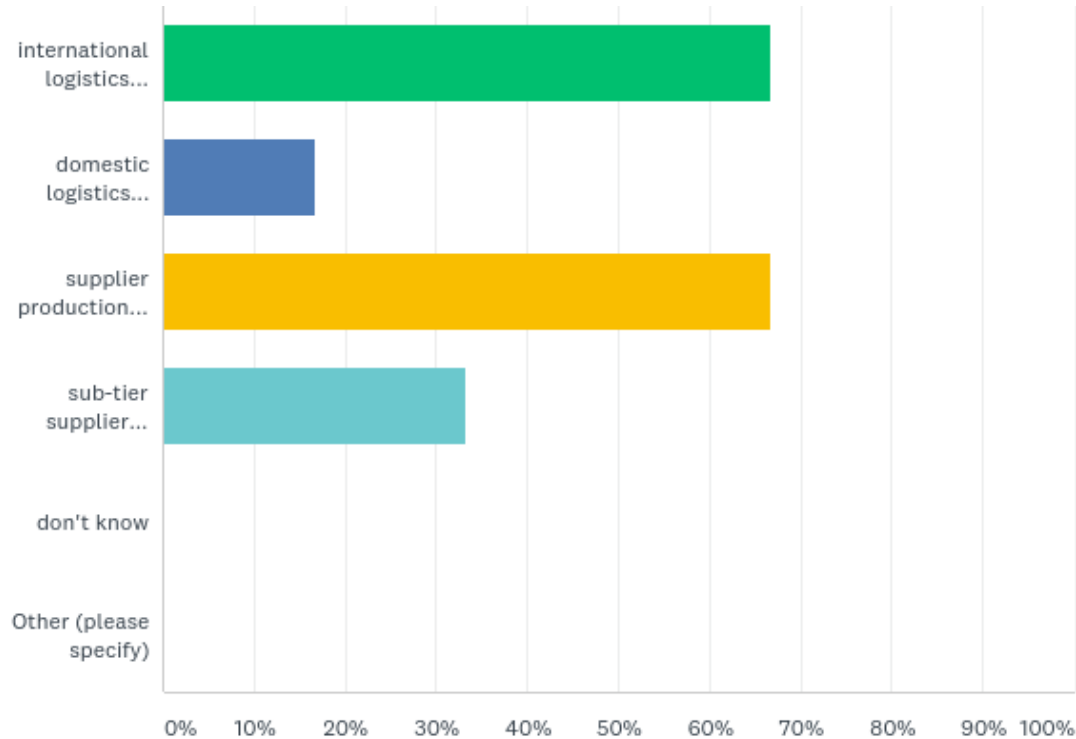
Answered: 12 Skipped: 0

ANSWER CHOICES	RESPONSES	
yes	42%	5
no	50%	6
Other (please specify)	8%	1
TOTAL		12

Supply Disruption	survey 4	survey 3	survey 2	
yes	42%	50%	29%	
no	50%	30%	47%	
other	8%	20%	25%	

Q11: Relating to the above question, what is the reason for the supply-chain disruption? (skip if you answered "no" above) CHECK ALL THAT APPLY

Answered: 6 Skipped: 6



Q11: Relating to the above question, what is the reason for the supply-chain disruption? (skip if you answered "no" above) CHECK ALL THAT APPLY

Answered: 6 Skipped: 6

Survey 4

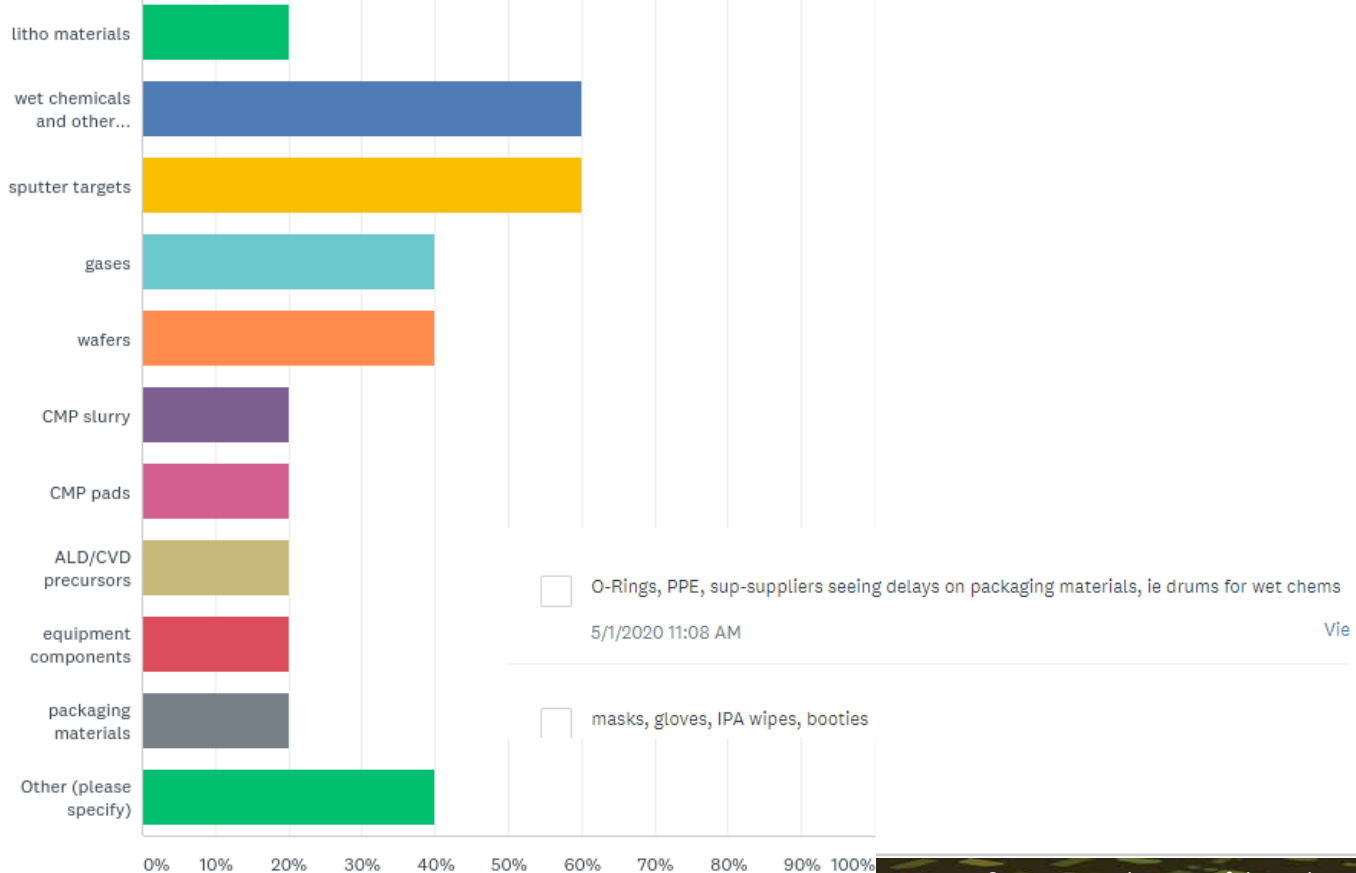
ANSWER CHOICES	RESPONSES	
international logistics issues	67%	4
domestic logistics issues	17%	1
supplier production delays	67%	4
sub-tier supplier materials delays	33%	2
don't know	0%	0
Other (please specify)	0%	0
Total Respondents: 6		

Survey 3

RESPONSES	
57%	4
14%	1
57%	4
29%	2
0%	0
43%	3

Q12: If you answered yes to questions above, please indicate the material area being impacted. (CHECK ALL THAT APPLY)

Answered: 5 Skipp



Q12: If you answered yes to questions above, please indicate the material area being impacted. (CHECK ALL THAT APPLY)

Answered: 5 Skipped: 7

ANSWER CHOICES	RESPONSES	
litho materials	20%	1
wet chemicals and other solvents	60%	3
sputter targets	60%	3
gases	40%	2
wafers	40%	2
CMP slurry	20%	1
CMP pads	20%	1
ALD/CVD precursors	20%	1
equipment components	20%	1
packaging materials	20%	1
Other (please specify)	40%	2
Total Respondents: 5		

Q12: If you answered yes to questions above, please indicate the material area being impacted. (CHECK ALL THAT APPLY)

Answered: 5 Skipped: 7

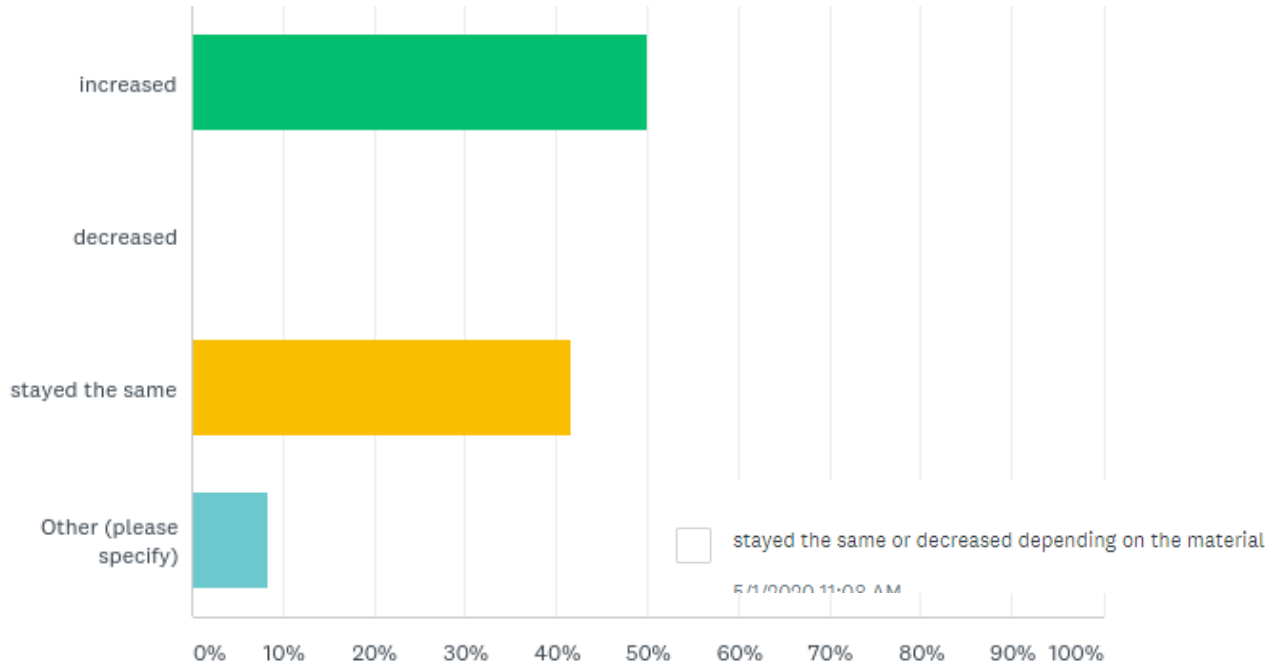
Trend Data: Survey 3/March and Survey 4/May 4th

ANSWER CHOICES	Survey 4		Survey -3		Survey -2	
	RESPONSES		RESPONSES		RESPONSES	
litho materials	20%		0%	0	0.00%	
wet chemicals and other solvents	60%		29%	2	11.11%	
sputter targets	60%		29%	2	33.33%	
gases	40%		14%	1	0.00%	
wafers	40%		43%	3	11.11%	
CMP slurry	20%		14%	1	0.00%	
CMP pads	20%		0%	0	0.00%	
ALD/CVD precursors	20%		0%	0	0.00%	
equipment components	20%		29%	2	11.11%	
packaging materials	20%		0%	0	11.11%	
Other (please specify)	40%		14%	1	77.78%	
Total Respondents: 5						



Q13: Over the past month, have your buying volume of materials:

Answered: 12 Skipped: 0



Q13: Over the past month, have your buying volume of materials:

Answered: 12 Skipped: 0

Survey 4

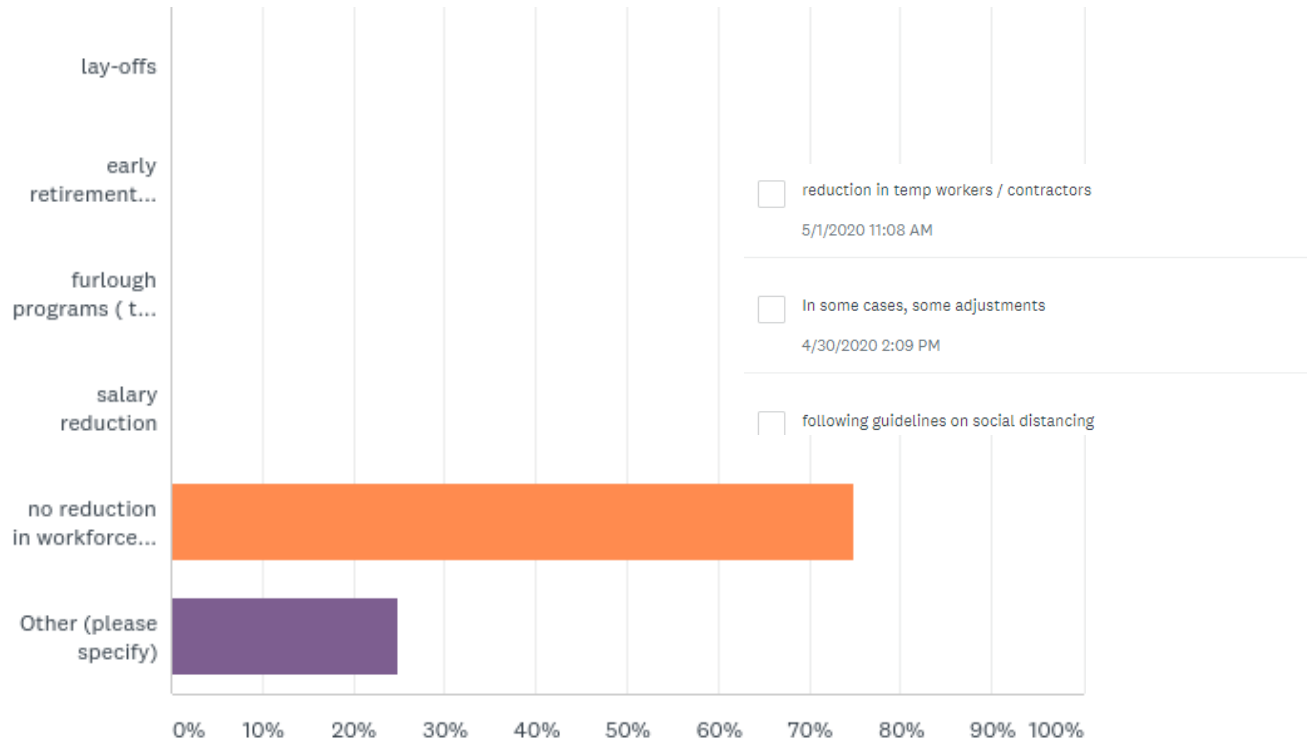
ANSWER CHOICES	RESPONSES	
increased	50%	6
decreased	0%	0
stayed the same	42%	5
Other (please specify)	8%	1
TOTAL		12

Survey 3

RESPONSES
40%
20%
40%
0%

Q14: Is your company having any reduction in workforce (check all that apply)

Answered: 12 Skipped: 0



- reduction in temp workers / contractors
5/1/2020 11:08 AM
- In some cases, some adjustments
4/30/2020 2:09 PM
- following guidelines on social distancing

Q14: Is your company having any reduction in workforce (check all that apply)

Answered: 12 Skipped: 0

ANSWER CHOICES	RESPONSES	
lay-offs	0%	0
early retirement packages	0%	0
furlough programs (time off without pay, but get benefits)	0%	0
salary reduction	0%	0
no reduction in workforce at this time	75%	9
Other (please specify)	25%	3
Total Respondents: 12		

General Feedback

Logistics (especially international) sometimes experiencing delays, more inventory monitoring and buy-ahead to keep safety stock.

5/1/2020 6:32 AM

[View respondent's answers](#) Ad

Domestic and International logistics bring impact slightly

4/30/2020 8:14 PM

[View respondent's answers](#) Ad

nothing different than the new normal

4/29/2020 8:30 AM

[View respondent's answers](#) Ad

We can hear easily we can not go back to before covid-19 any more even though it comes to an end. I wanna know what's going to be changed, how?