2020 INDUSTRY OUTLOOK REPORT

February 2020

CONDUCTED BY

Logistics Management

Modern Materials Handling

Introduction

- To better understand current market conditions, trends and best practices in manufacturing, warehousing and distribution operations, *Peerless Research Group*, in conjunction with ***Modern Materials Handling and Logistics Management***, completed its 2020 Industry Outlook study.
- The survey was further designed to track any changes that may have occurred during the last 12 months as well as over the past few years in materials handling environments.
- Specific areas of investigation include:

  1. **Economic impact on materials handling operations**
  2. **Usage of and investments in technology and materials handling solutions**
  3. **Utilization and optimization of manufacturing and warehousing operations**
  4. **Best Practices employed in materials handling organizations**
  5. **The purchase decision process for materials handling solutions**

Methodology

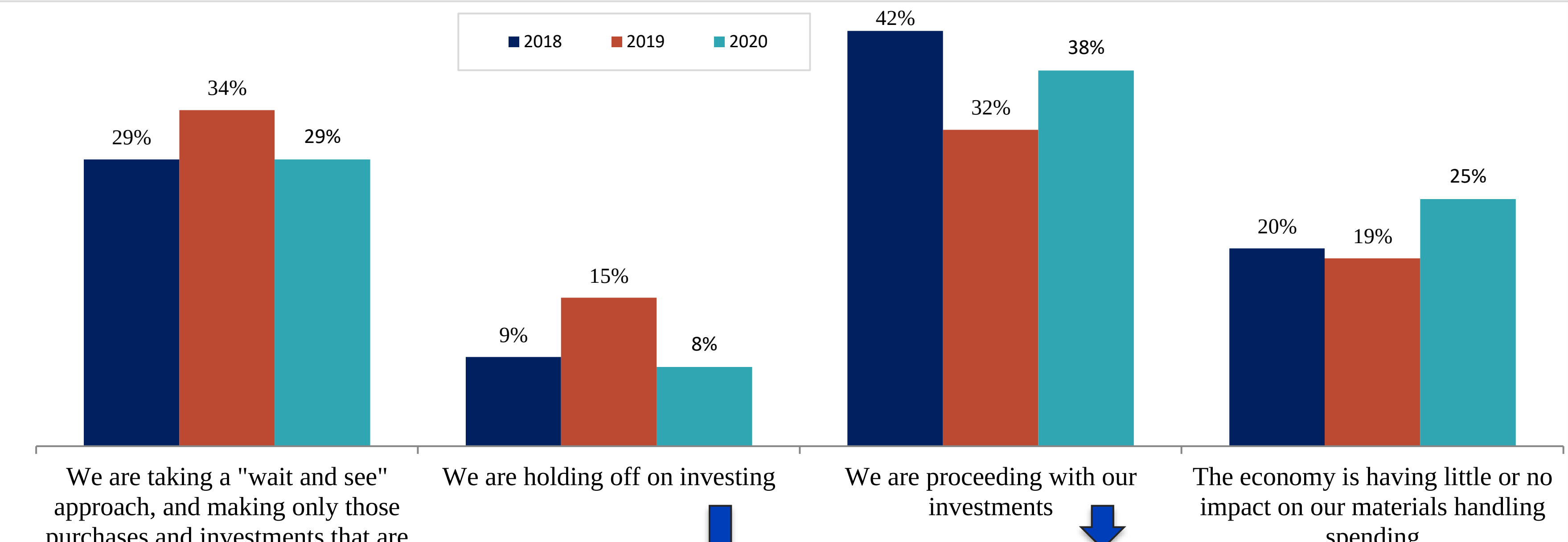
- Sample: Random selection of subscribers from ***MMH*** and ***LM*** magazines
- Survey method: E-mail
- Field: January and February, 2020
- Respondent qualifications: Involved in the purchase decision process for materials handling solutions
- Response:

Date	# of returns	Margin of error at 95% confidence level	When comparing years
2018	315	+/- 5.6%	
2019	245	+/- 6.4%	2018/2019: +/-8.5%
2020	145	+/- 8.5%	2019/2020: +/-9.8%

The Economy &

Spending on Materials Handling Solutions

Q. How is the present state of the economy impacting your spending on materials handling equipment technologies services and solutions?



On what? (We are holding off on investing)

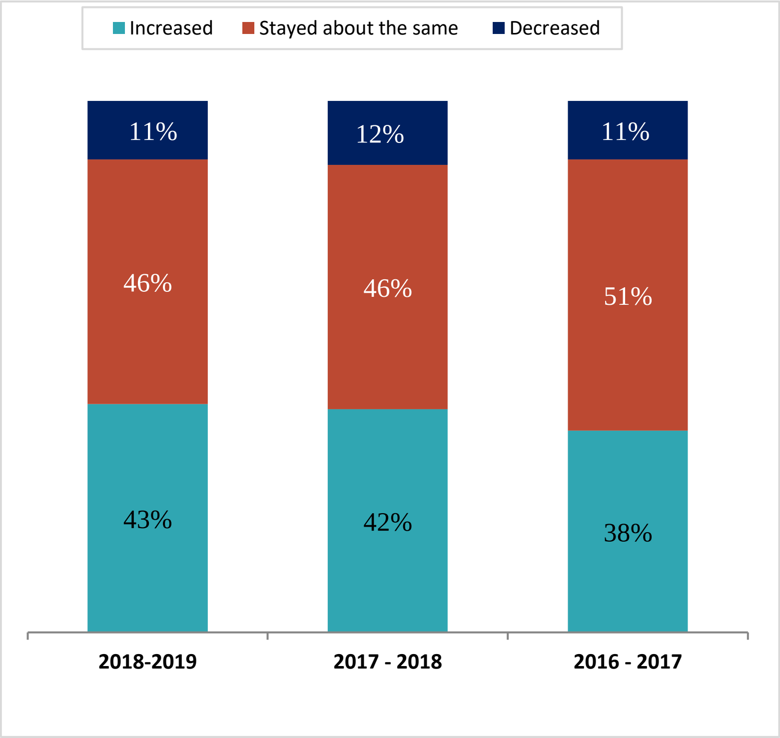
	2018	2019	2020*
All major capital purchases	61%	53%	54%
Capital equipment	23%	18%	36%
Technology/Software	10%	24%	27%
Fork lifts/Lift trucks	20%	9%	27%
Storage equipment	16%	9%	18%

* Due to the small number of cases, these data are unstable and any projections based on this information may be unreliable. Figures should be used with caution.

On what? (We are proceeding with our investments)

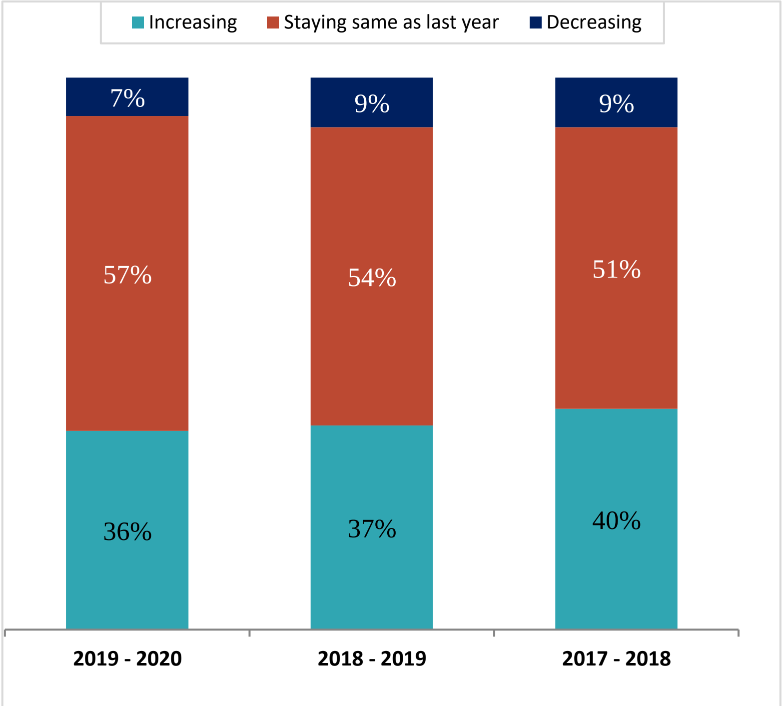
	2018	2019	2020
Material handling equipment	64%	71%	61%
Fork lifts & lift trucks	56%	58%	50%
Technology Information systems (WMS, ERP, etc.)	49%	55%	43%
Conveyors & sortation equipment	40%	32%	24%
Robotics	25%	40%	22%
AGVs	14%	10%	17%
Other (Trucks, racking, facility expansion)	--	--	11%

Q. How did your company's spending on materials handling solutions in *2019* compare with *2018*? And, by what percentage?



	2018– 2019 Increase	2018– 2019 Decrease
Average %	27%	26%
Median %	20%	20%

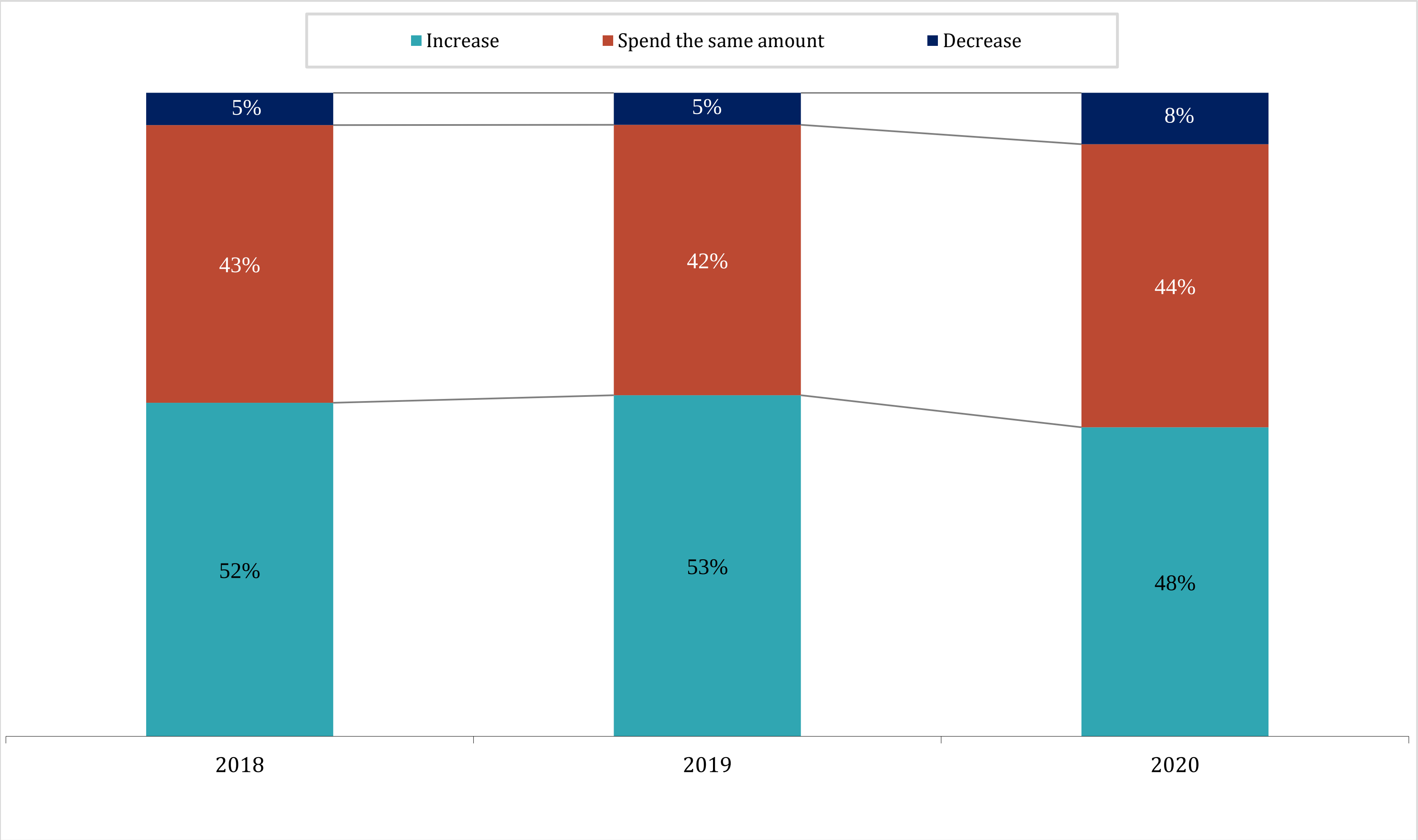
Q. How do you expect your company's spending on materials handling solutions in *2020* to compare with *2019*? And, by what percentage?



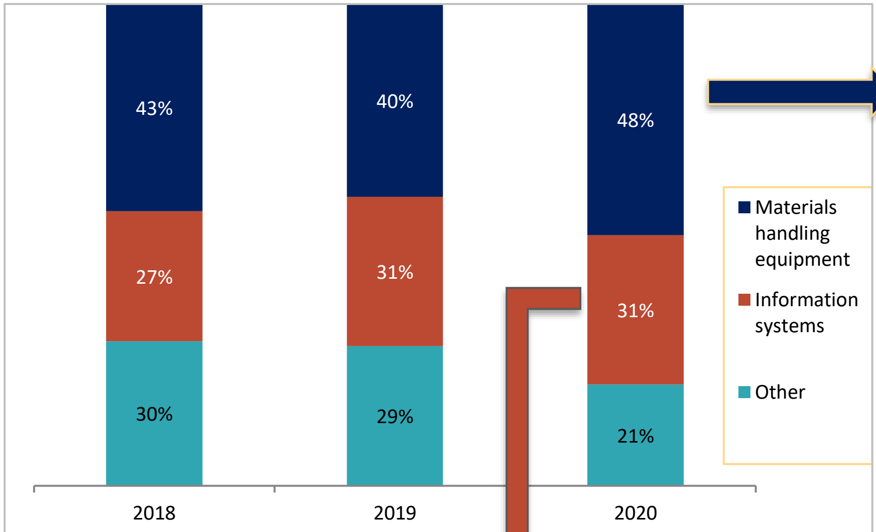
Projected	2019– 2020 Increase	2019– 2020 Decrease*
Average %	23%	37%
Median %	15%	30%

* 2020 results are based on a small number of cases,; data are unstable and any projections based on this information may be unreliable. Figures should be used with caution.

Q. Overall, how do you expect your spending on materials handling equipment and related information systems to change in the next two – three years?



Q. And, what percent of your overall spending during the next 12 months will be on…

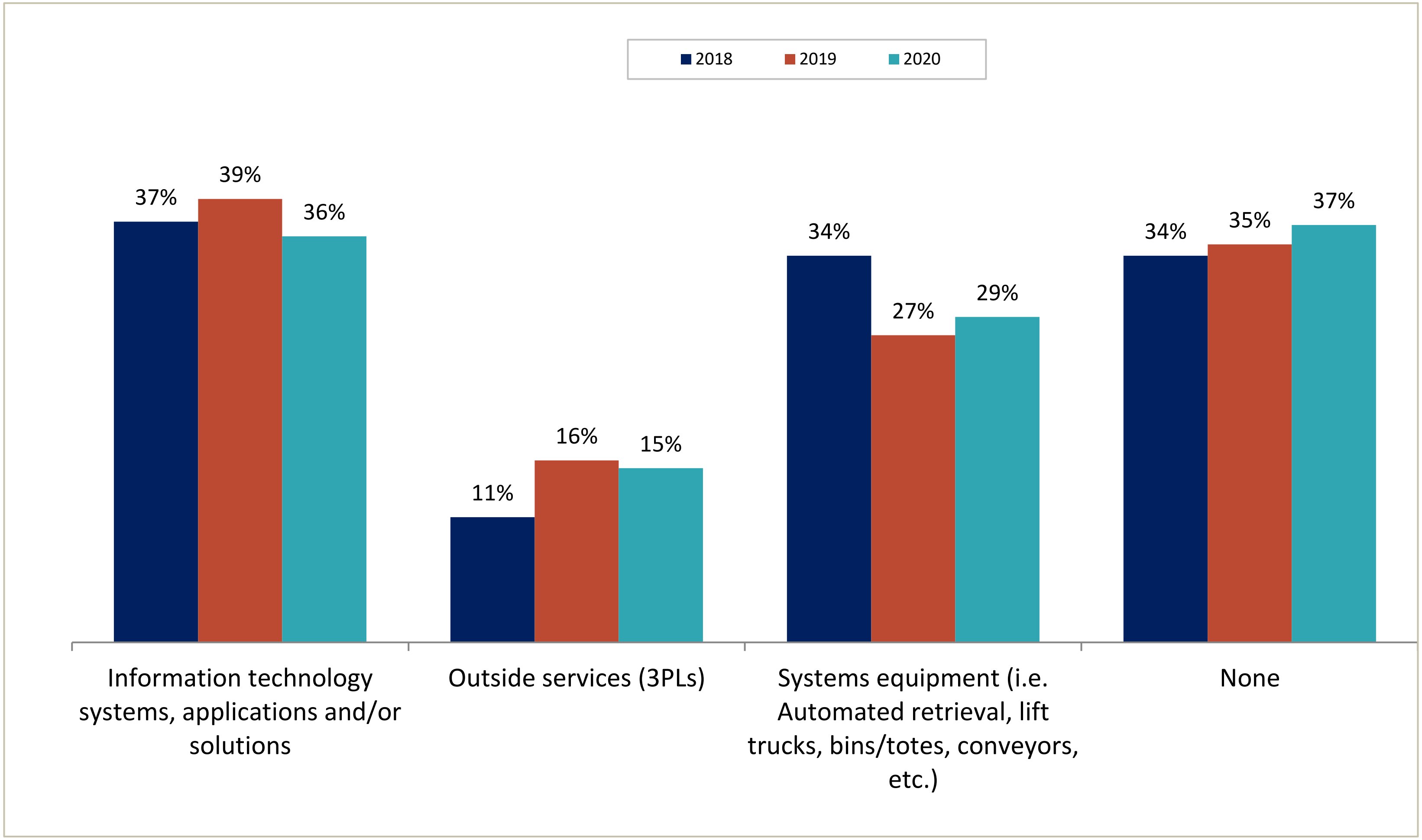


Information Management Systems			
	2018	*2019*	***2020***
Bar coding & automated data capture	48%	44%	**32%**
Asset Management Systems	26%	20%	**26%**
ERP	22%	25%	**23%**
WMS	24%	22%	**21%**
WCS (Warehouse Control Systems)	18%	18%	**14%**
TMS	13%	13%	**13%**
WES (Warehouse Execution System)	16%	13%	**12%**
Distributed order management (DOM)	8%	13%	**8%**
Voice Recognition Picking	10%	13%	**5%**
LMS (Labor Management Systems)	6%	7%	**3%**
Other supply chain related software	3%	3%	**5%**

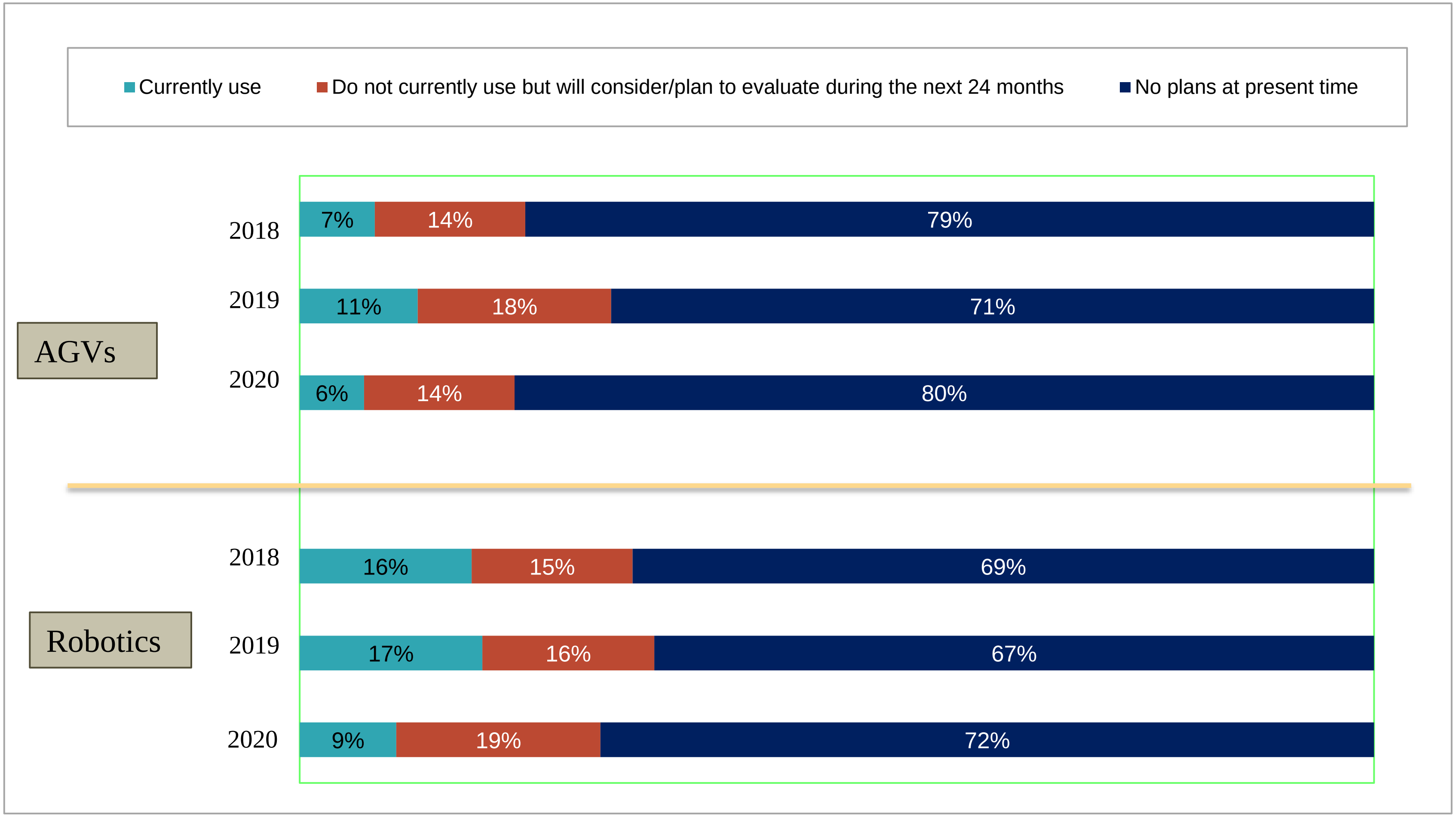
Q. Which systems and equipment are you likely to evaluate or consider during the next 12 months?

Materials Handling Equipment			
	2018	*2019*	***2020***
Lift trucks & accessories	48%	48%	**46%**
Racks & shelving	44%	41%	**35%**
Mobile & wireless	29%	27%	**28%**
Dock equipment	29%	24%	**27%**
Bar Coding	33%	29%	**26%**
Packaging including palletizers, pallets & dunnage	33%	30%	**25%**
Totes, bins & containers	29%	26%	**24%**
Conveyors including sortation equipment	27%	21%	**20%**
3PL services	10%	16%	**16%**
Order picking & fulfillment	17%	15%	**16%**
RFID Solutions/Products	20%	23%	**14%**
Controls	15%	16%	**14%**
Automated storage including carousels & vertical lift modules	14%	12%	**14%**
Systems solutions	18%	21%	**13%**
Hoists, cranes, & monorails	16%	15%	**13%**
Power transmission including motors and belts	12%	11%	**13%**
AGVs	NA	9%	**8%**
Mezzanines	12%	9%	**6%**

Q. Thinking about any new purchases, in which of the following areas were any the first deployment of a new solution, or a substantial change in processes or historical practices?

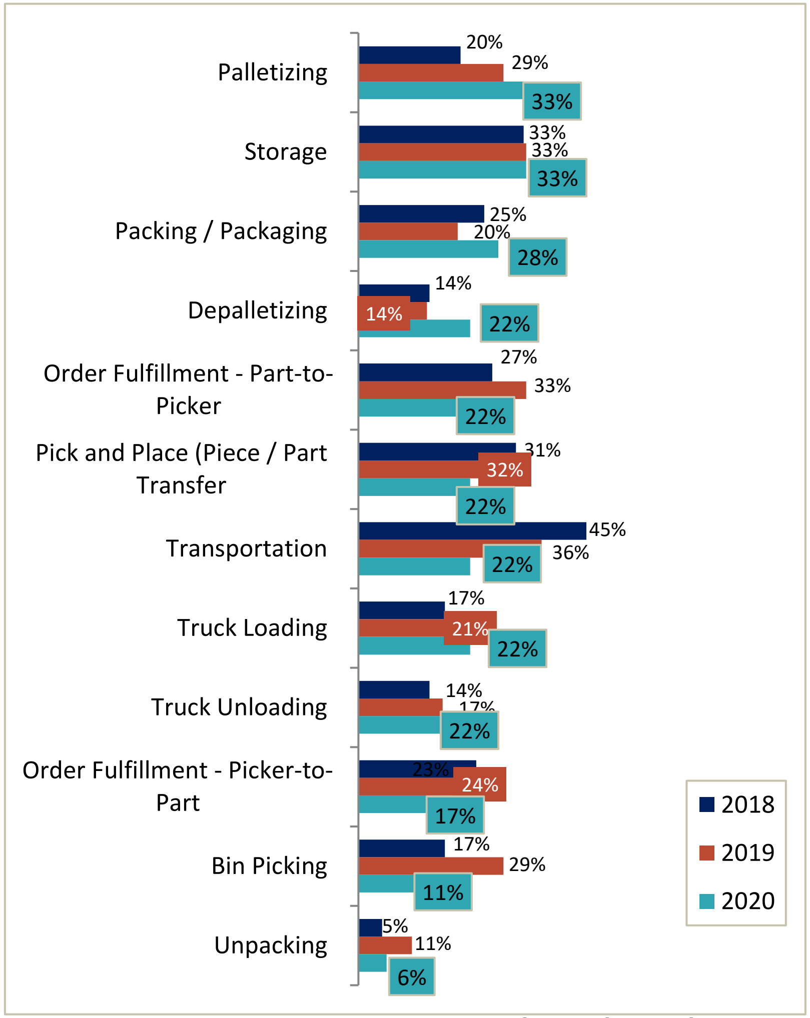


Q. Does your company currently use, or are you considering automated guide vehicles and/or robotics technologies for material handling applications?



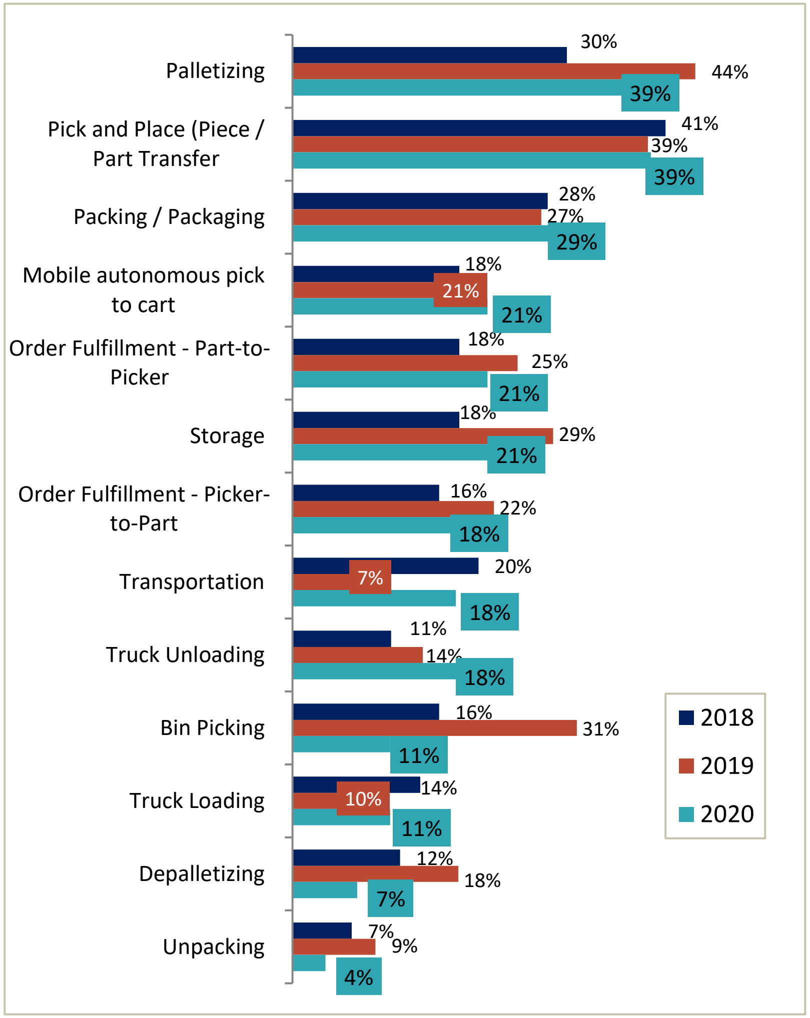
Q. For which applications are you/will you employ . . . .

AGVs



Based on use/plan to evaluate AGVs

Robotics



Based on use/plan to evaluate Robotics

PRG PEERLESS RESEARCH GROUP

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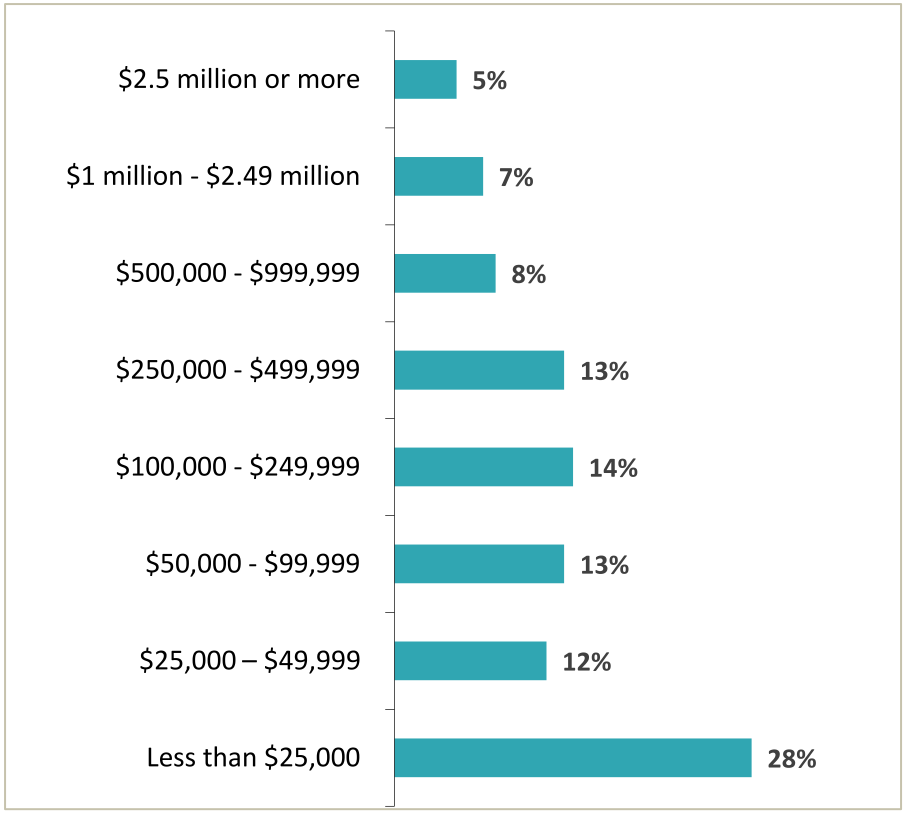
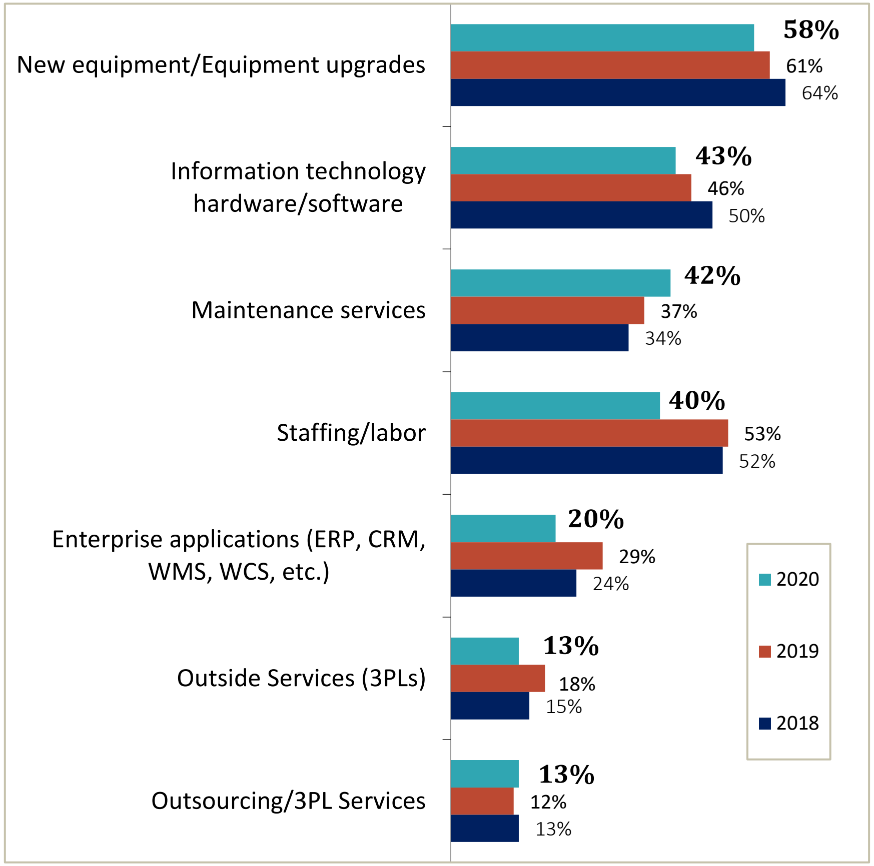
Q. In total, over the next 12 months, approximately how much do you expect to spend on materials handling equipment and information systems solutions?

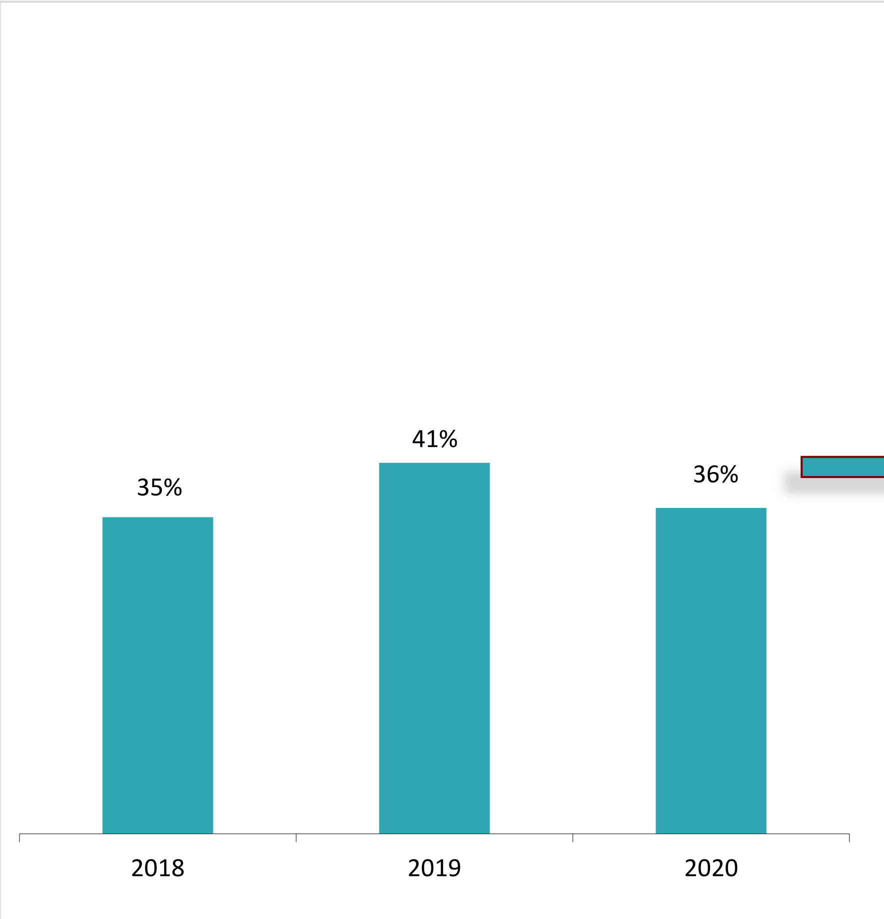


	2018	2019	2020
Average anticipated spending	$350,000	$400,000	$355,175
Median anticipated spending	$68,750	$82,435	$97,905

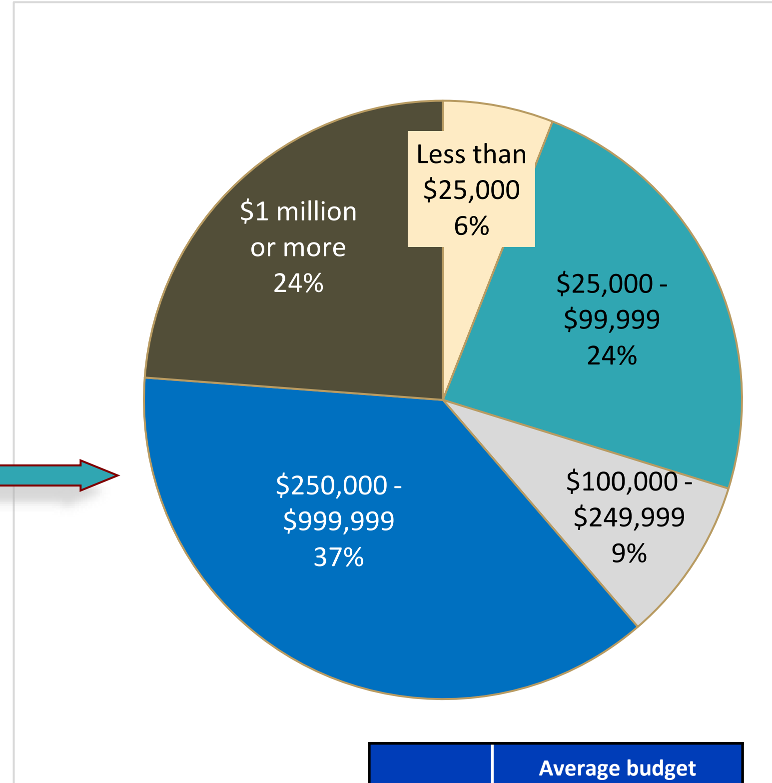
Q. In which areas will you be investing over the next 18 months?



Q. Do you have a pre-approved annual capital expenditures budget for materials handling solutions?

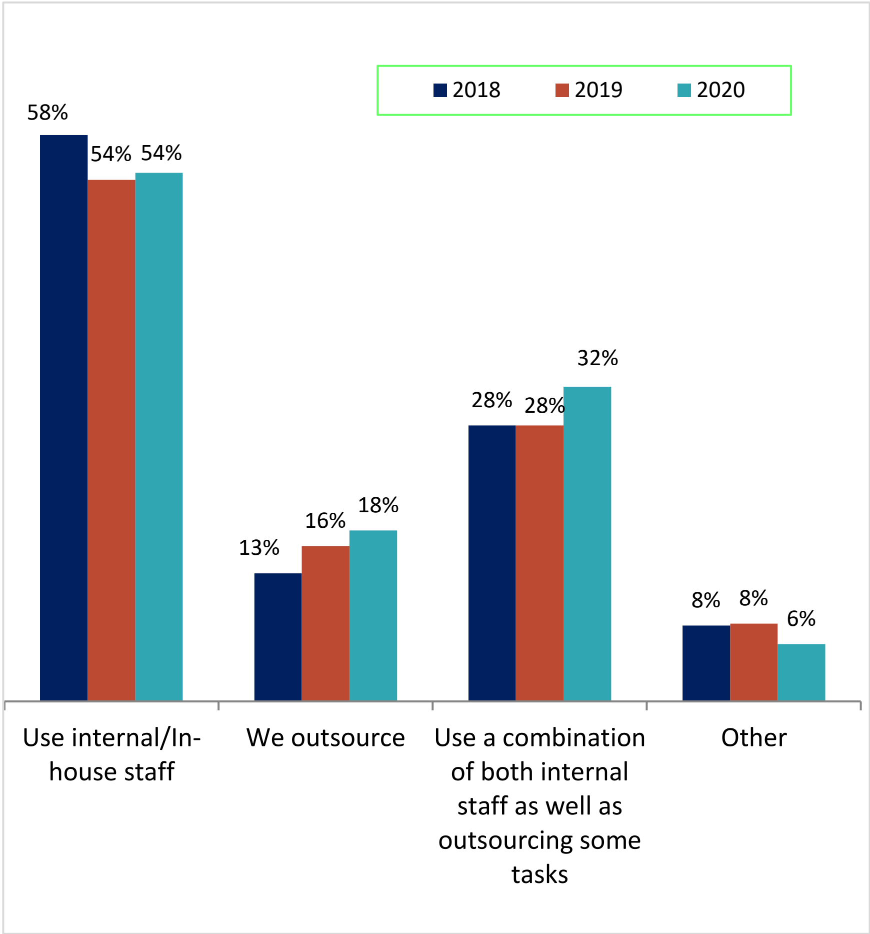


Q. What is the amount?

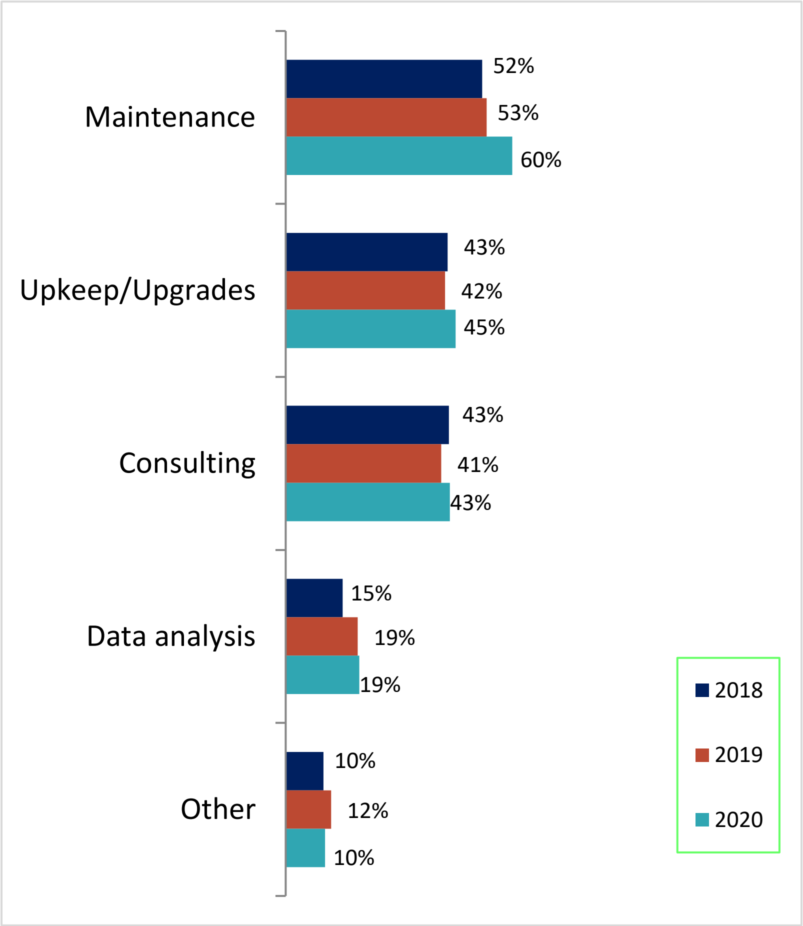


	Average budget
2018	$457,640
2019	$462,115
2020	$505,880

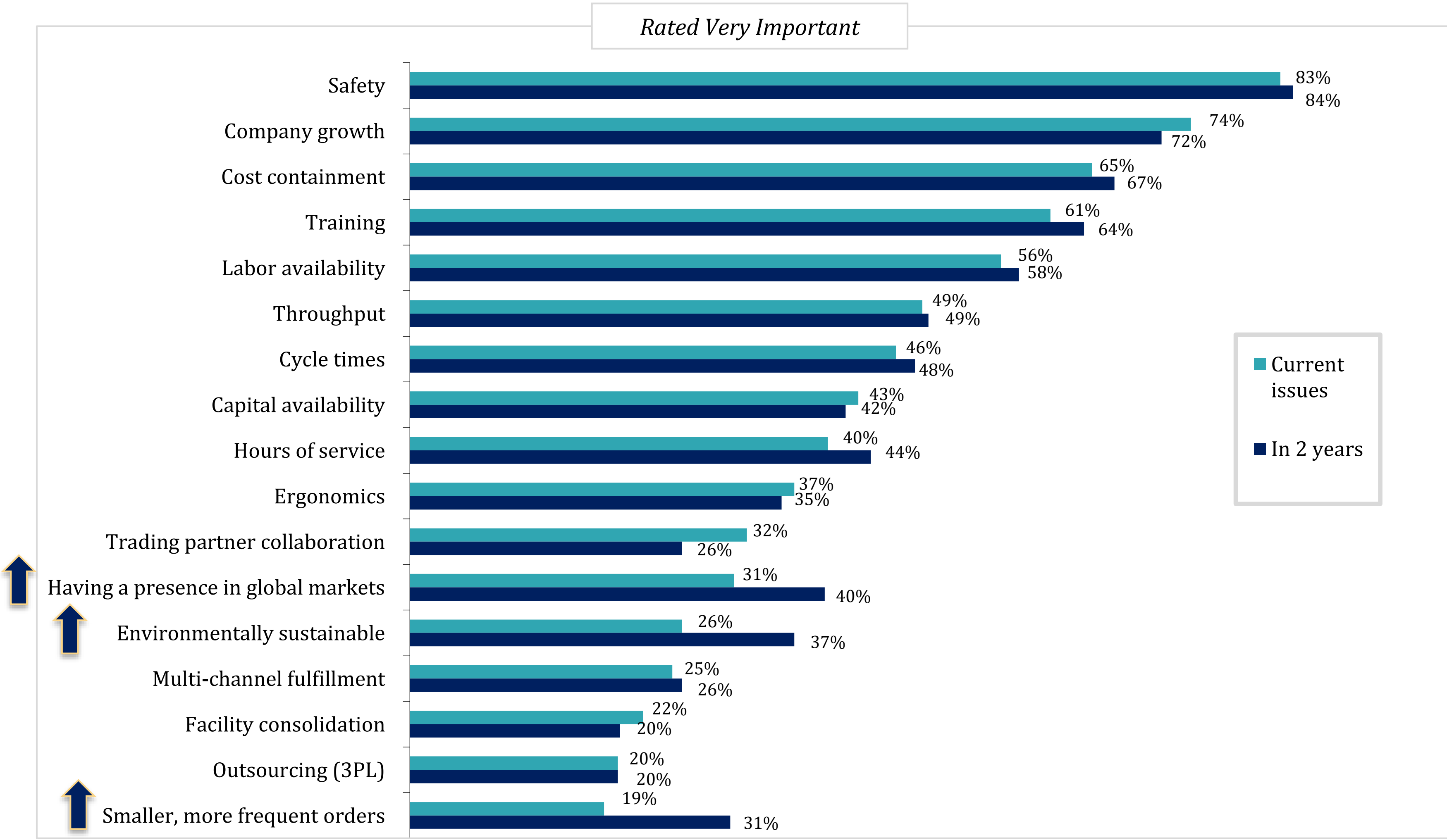
Q. How are you currently maintaining your automated materials handling systems?



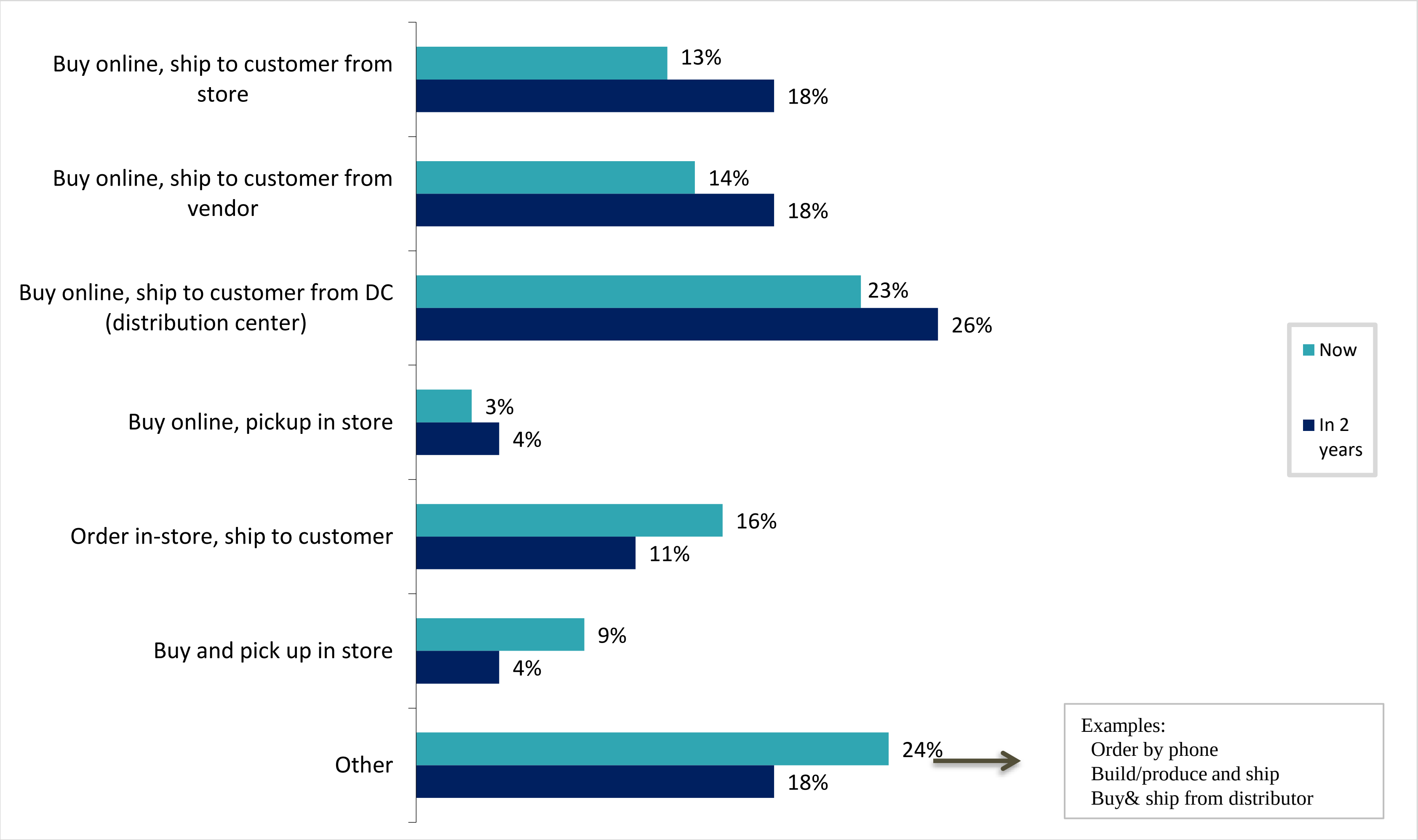
Q. What role are your vendors and maintenance suppliers playing in maintaining your automated systems?



Q. How important are each of these issues today?
Q. Two years from now, how important do you expect these issues to be?



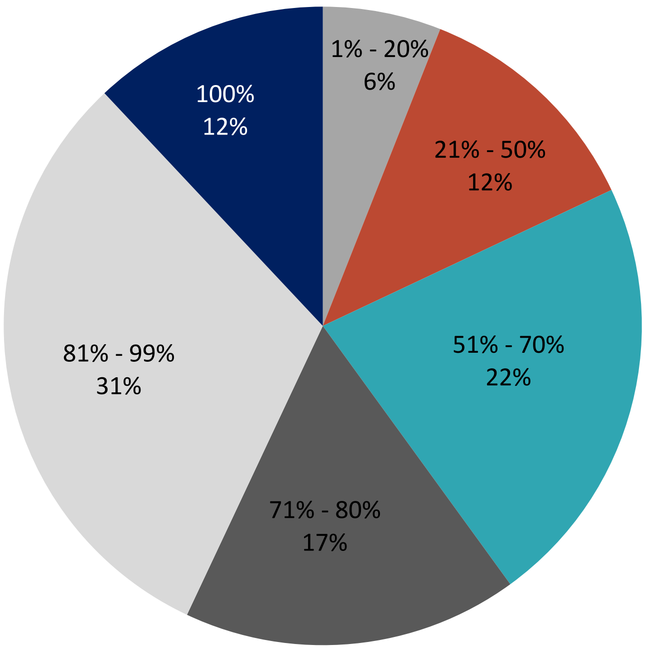
Q In your operation, which is now most common?
Q Which do you believe will be most common in 2 years?



Utilization of *Manufacturing, Warehousing and Distribution Facilities*

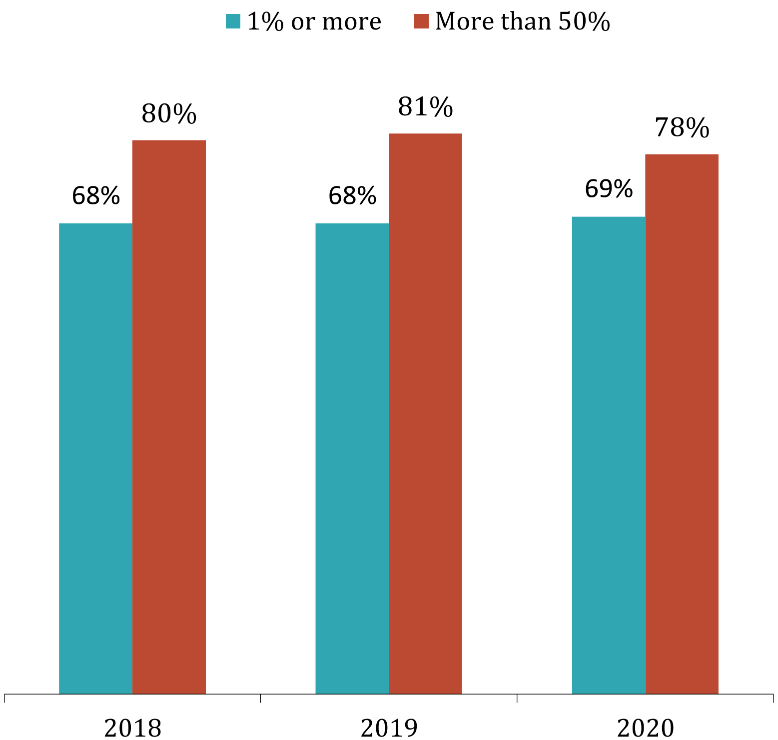
Q. What is your current activity level for: *MANUFACTURING*?

Current Activity/Capacity Level



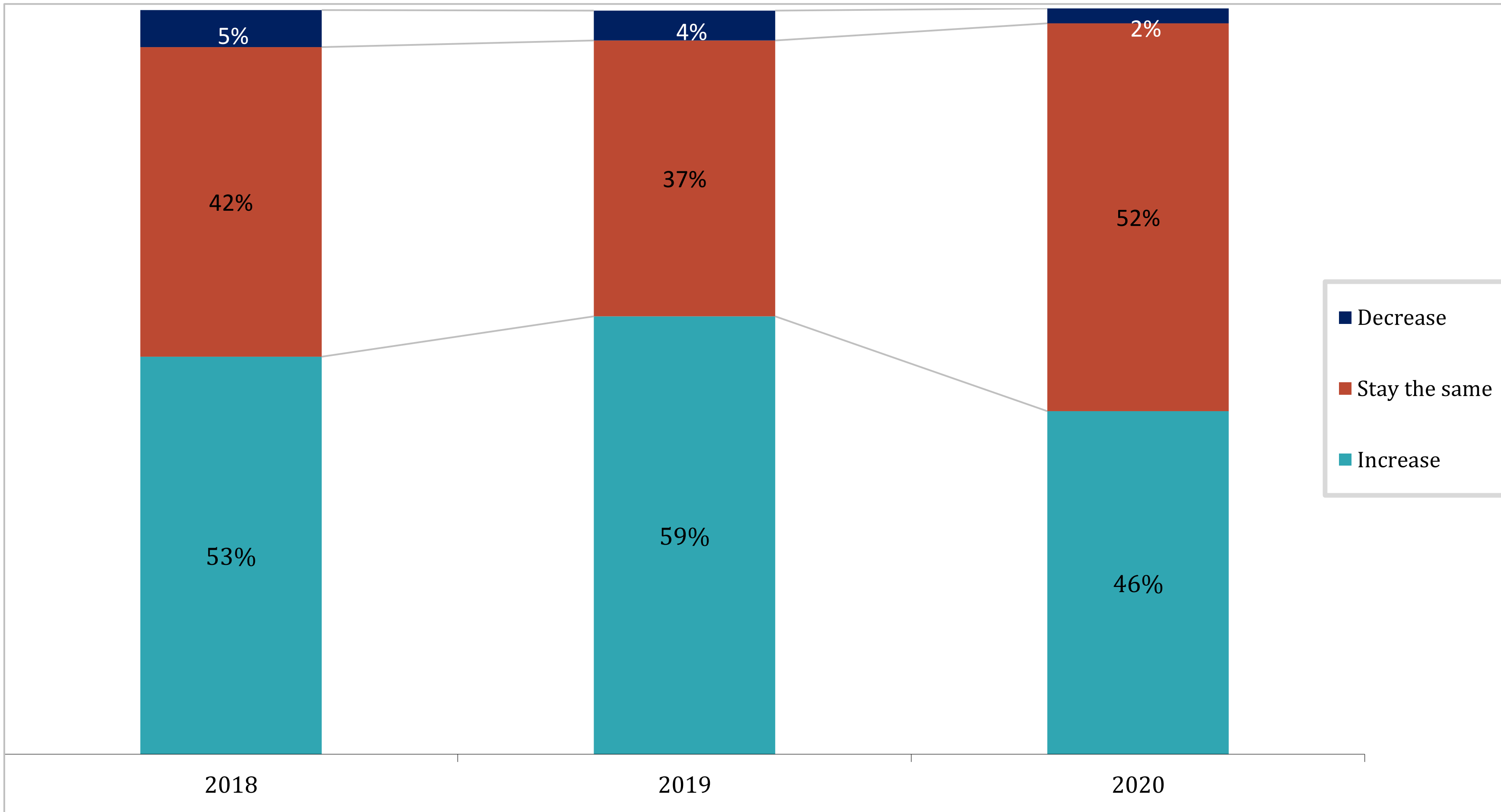
Annual trending

Average % capacity utilization



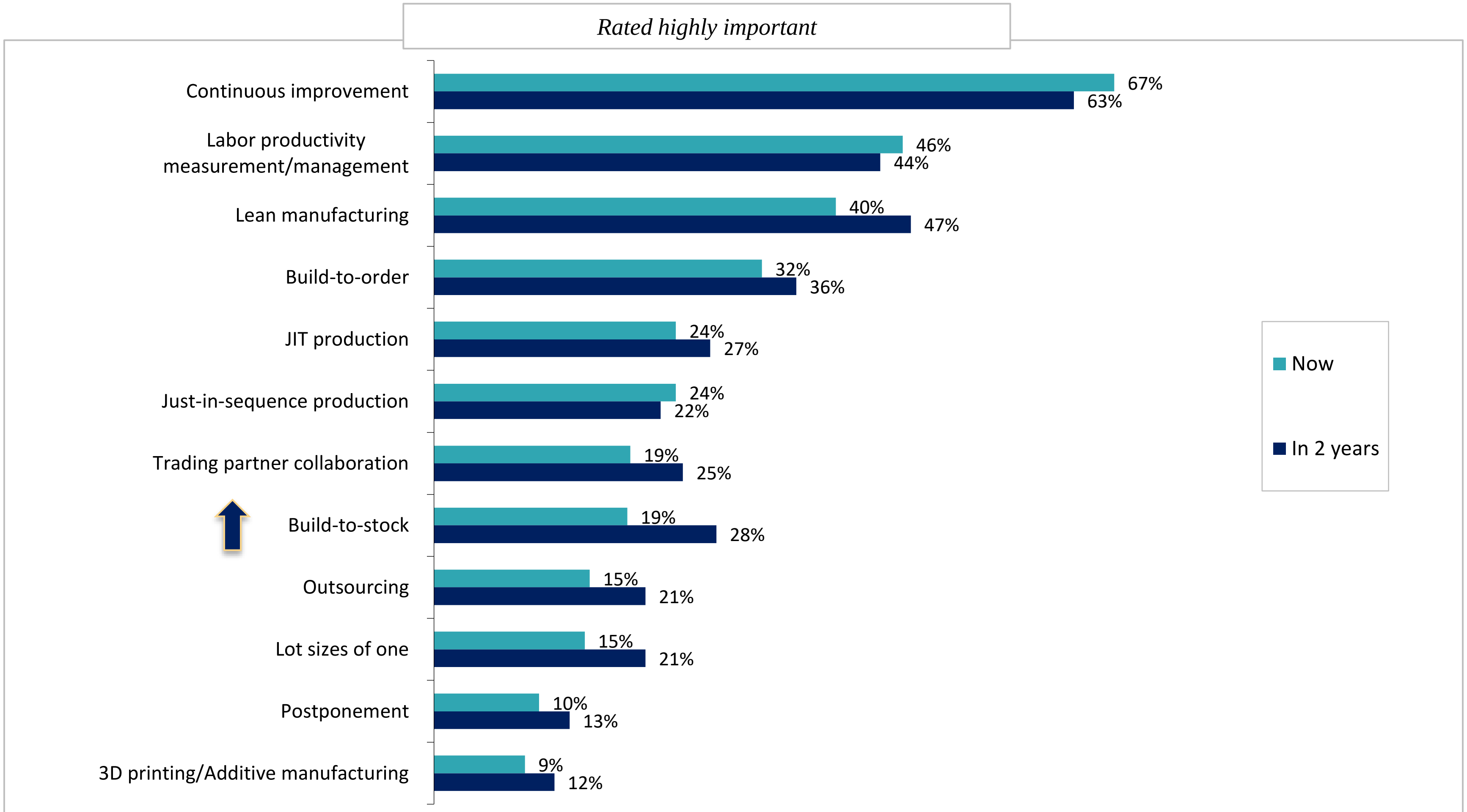
Among those reporting at least 1% capacity, the average capacity level is 69% (in 2020). Similarly, of those reporting 50% + capacity, the average capacity level is 78%.

Q. In the next two years, how do you expect your activity level to change for *MANUFACTURING*?



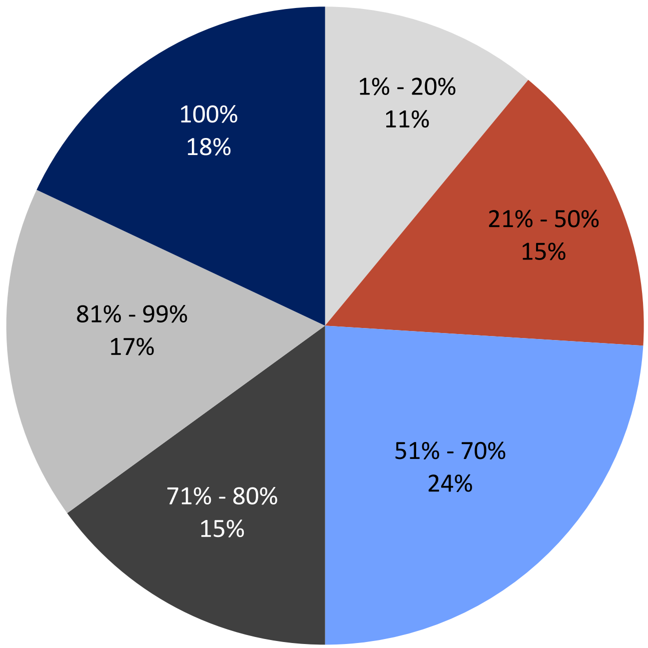
Q. Please rate the importance of the practices shown below to your current operations.

2020 Study Data: *Now vs. 2 years from now*
Manufacturing



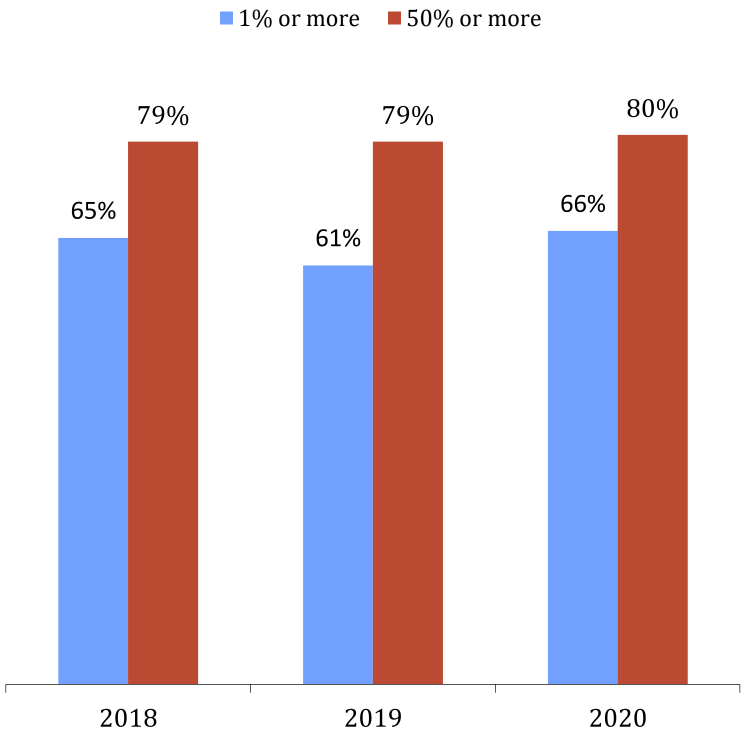
Q. What is your current activity level for WAREHOUSING SUPPORTING MANUFACTURING?

Current Activity/Capacity Level



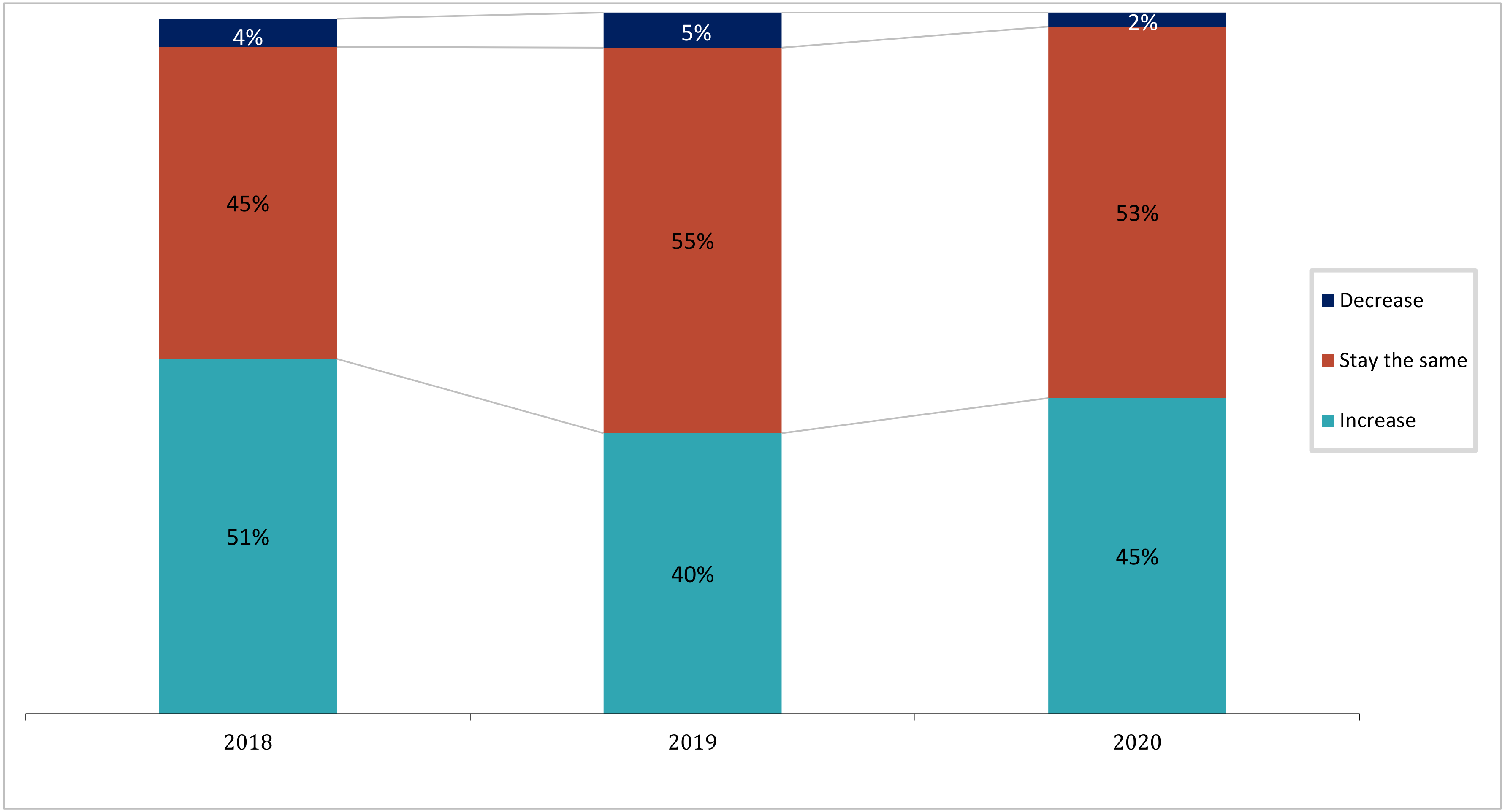
Annual trending

Average % capacity utilization



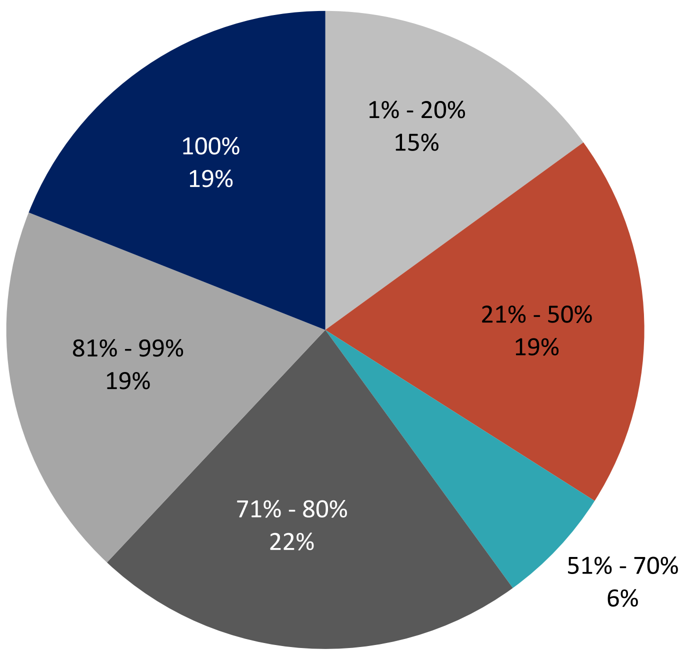
Among those reporting at least 1% capacity, the average capacity level is 66% (in 2020). Similarly, of those reporting 50% + capacity, the average capacity level is 80%.

Q. In the next two years, how do you expect your activity level to change for *WAREHOUSING SUPPORTING MANUFACTURING*?



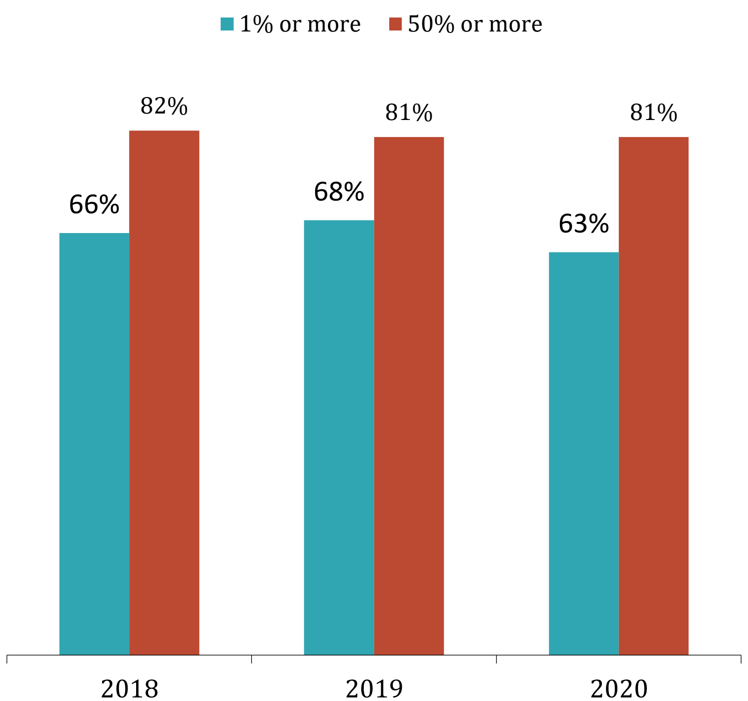
Q. What is your current activity level for STANDALONE WAREHOUSES/DISTRIBUTION CENTERS?

Current Activity/Capacity Level



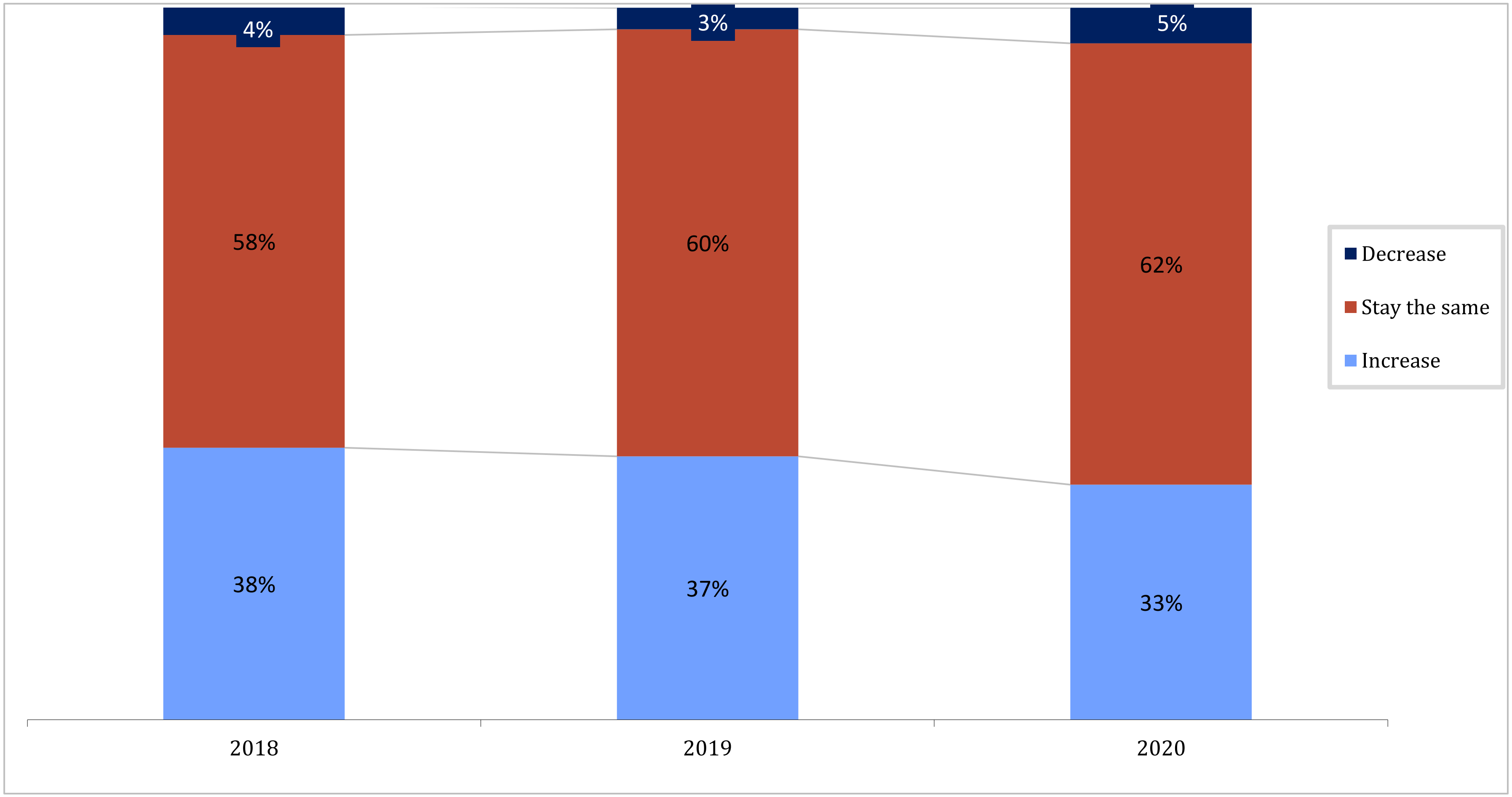
Annual trending

Average % capacity utilization



Among those reporting at least 1% capacity, the average capacity level is 63% (in 2020). Similarly, of those reporting 50% + capacity, the average capacity level is 81%.

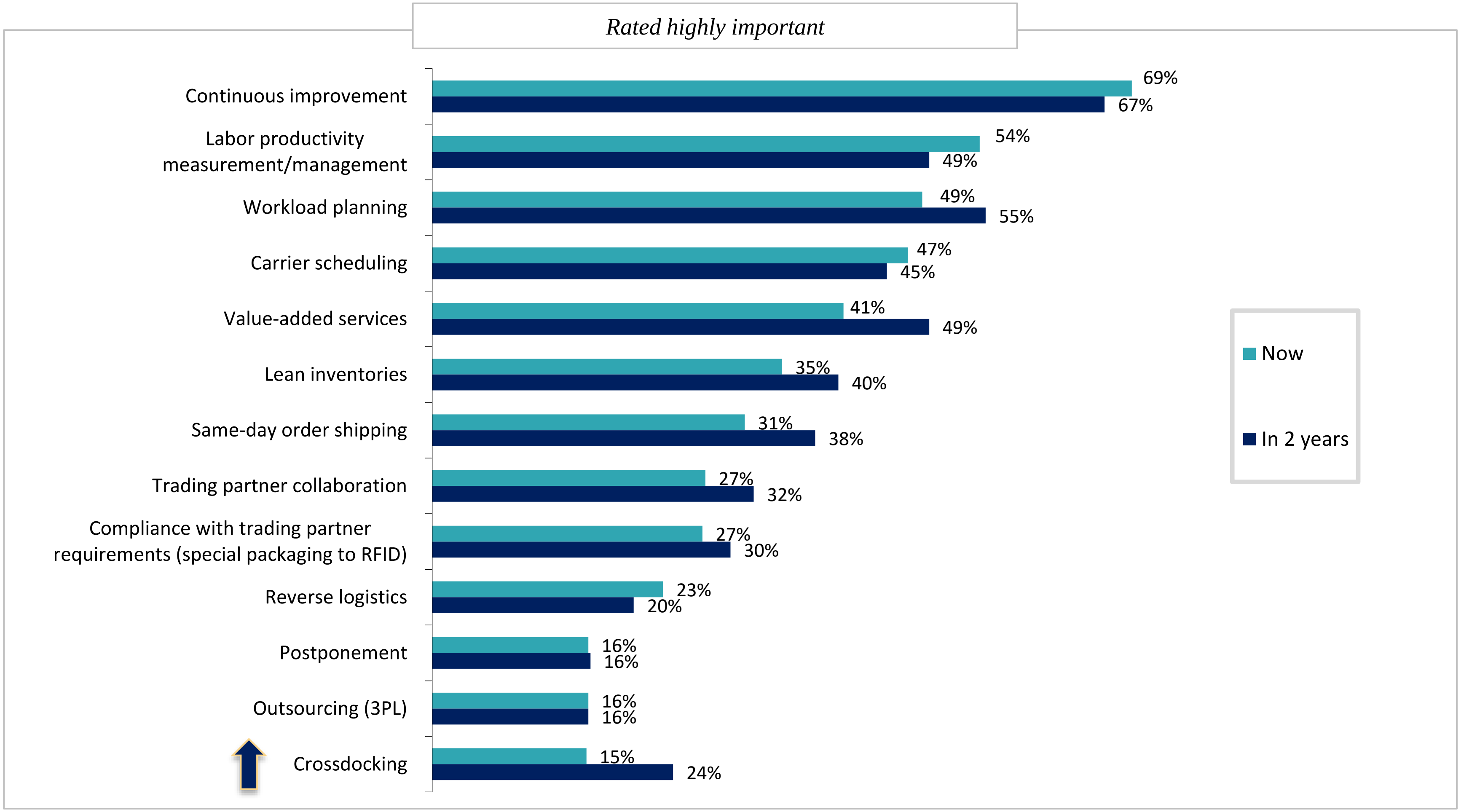
Q. In the next two years, how do you expect your activity level to change for *STANDALONE WAREHOUSES/DCS*?



Q. Please rate the importance of the practices shown below to your current operations.

2019 Study Data: ***Now vs. 2 years from now***

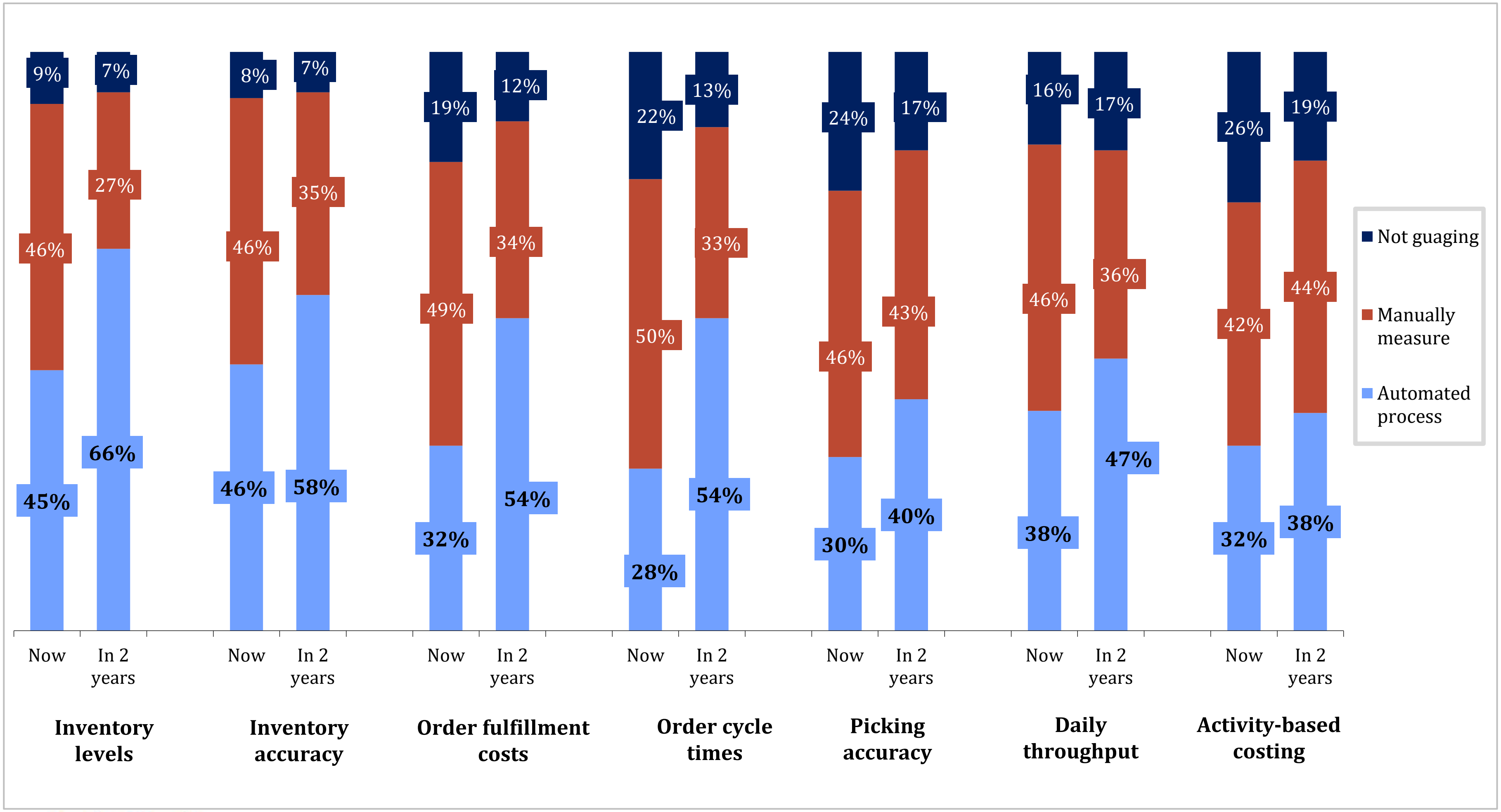
Warehouse/DC Facilities



Best Practices

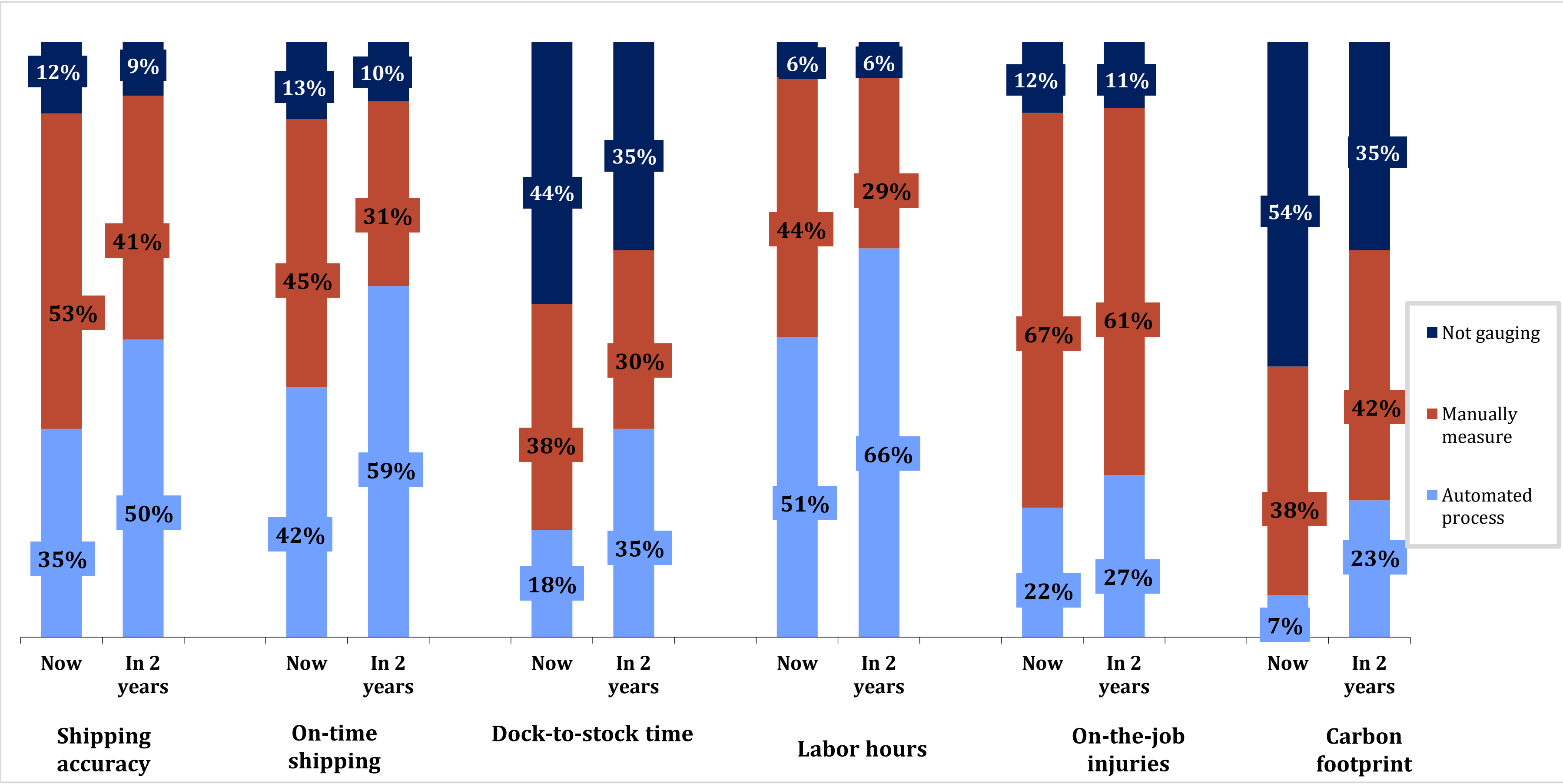
Q. What method does your organization use to gauge or evaluate productivity in each of the following areas?

Q. In two years, how do you anticipate you will be gauging or evaluating productivity in each of the following?



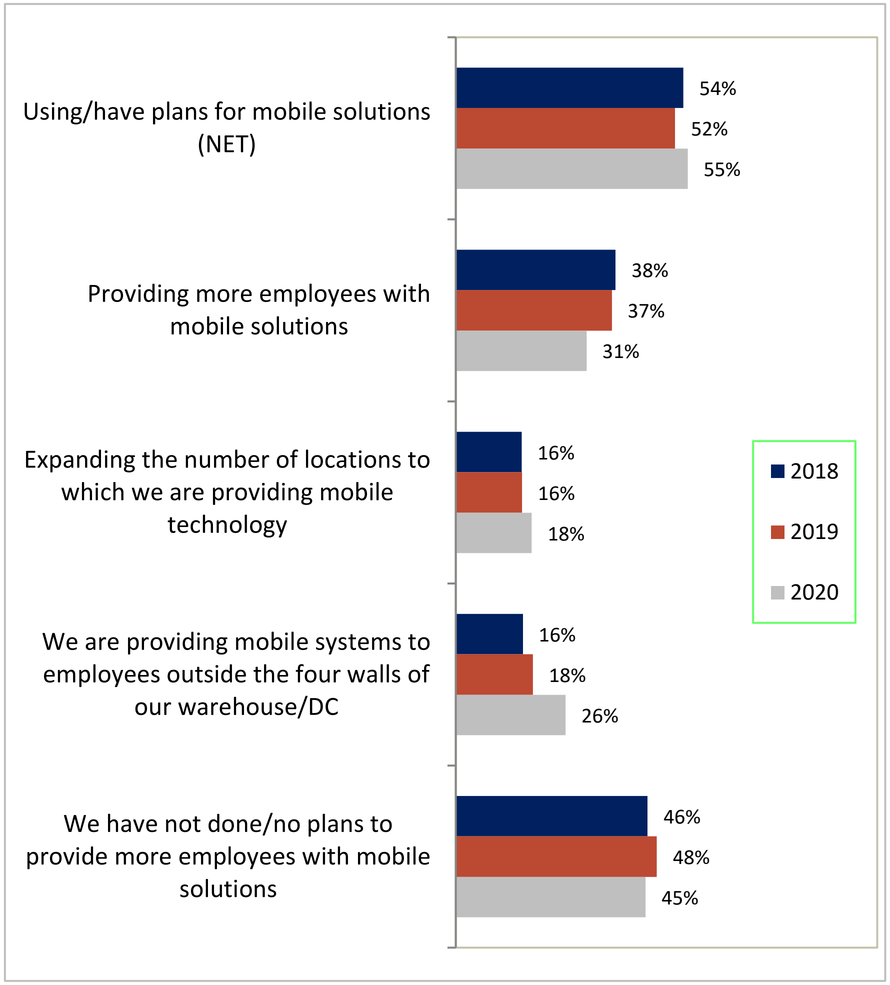
Q. What method does your organization use to gauge or evaluate productivity in each of the following areas?

Q. In two years, how do you anticipate you will be gauging or evaluating productivity in each of the following?

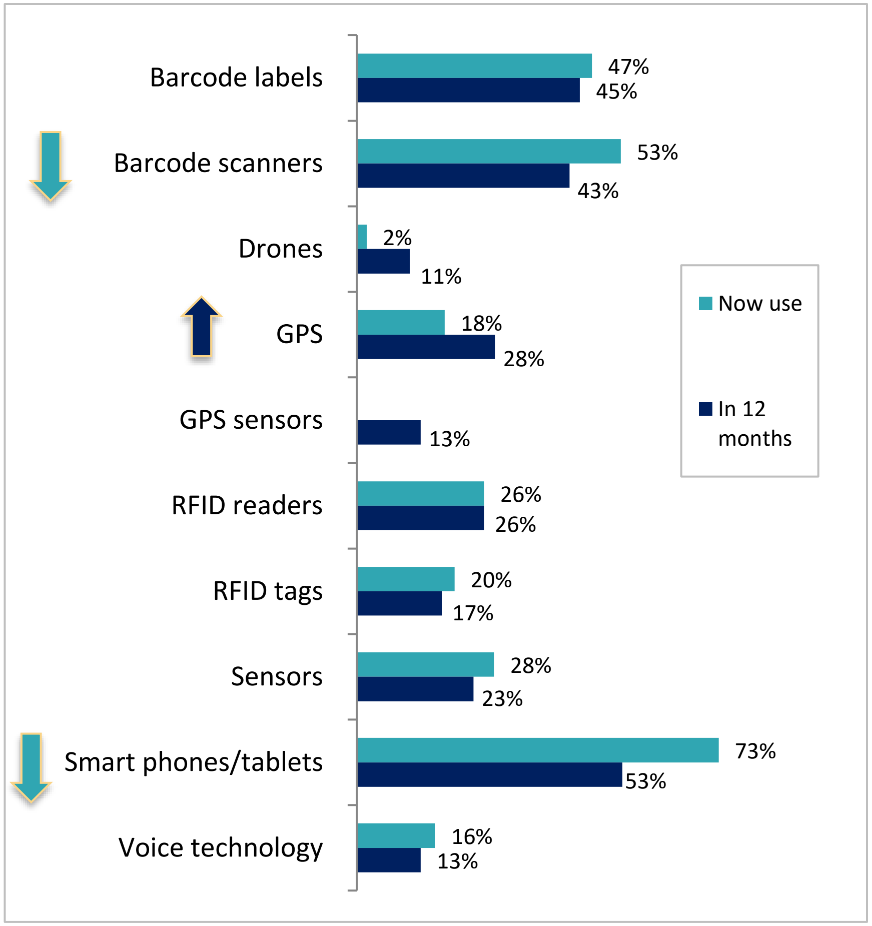


Mobile Computing

Q. Which of the following best applies to your use/future use of mobile technologies?

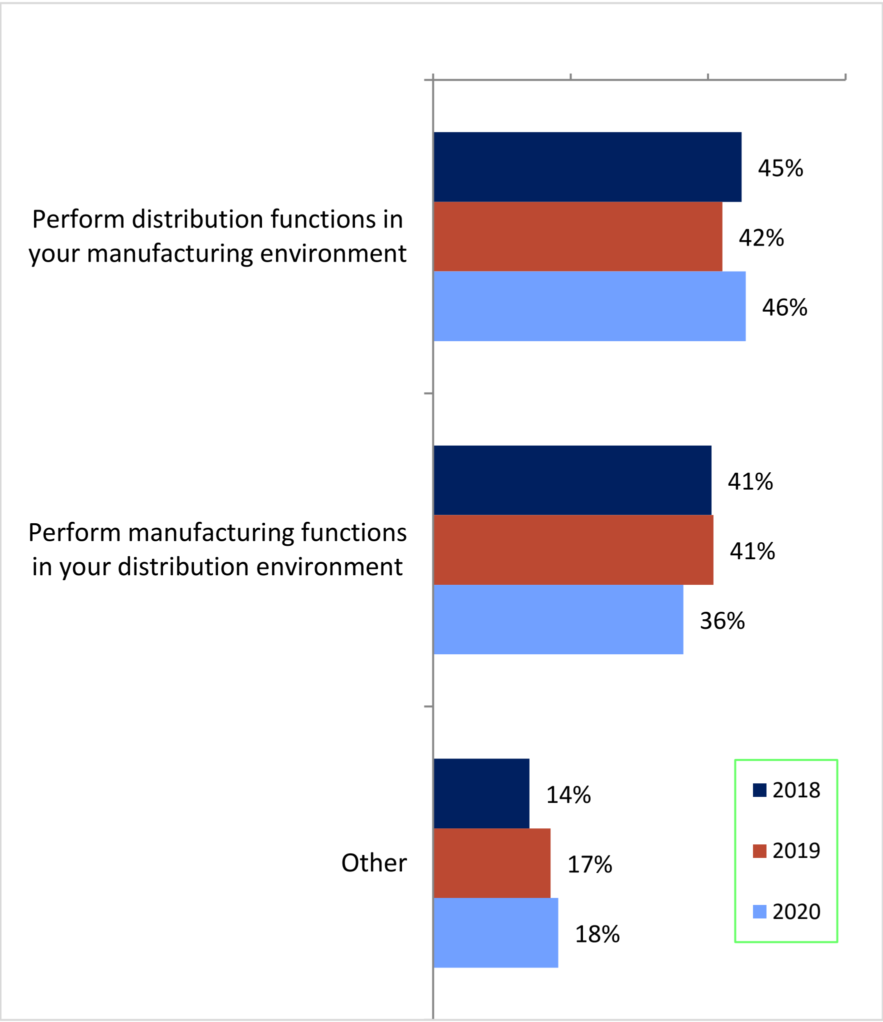


Q. Which of the following devices/technologies are you now utilizing? And, which of the following devices/technologies are you now utilizing/planning to deploy during the next 12 months?

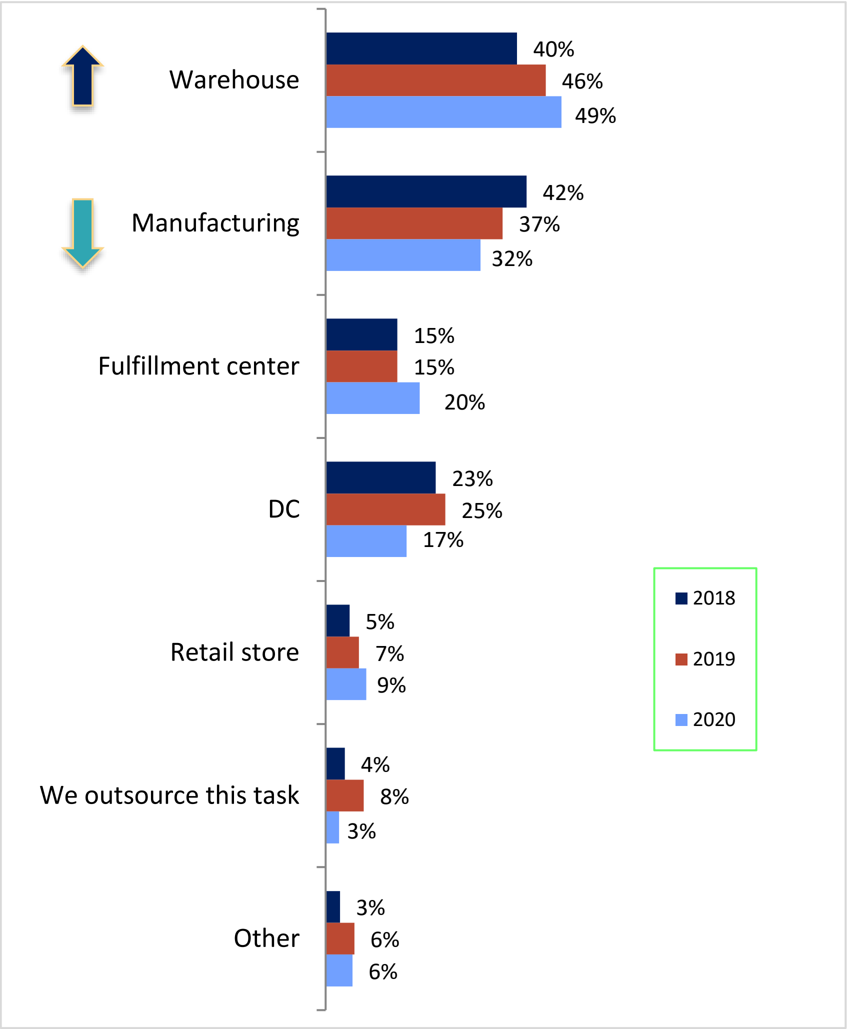


E-Commerce & Fulfillment

Q. Is your/will your e-commerce activity prompt you to . . .

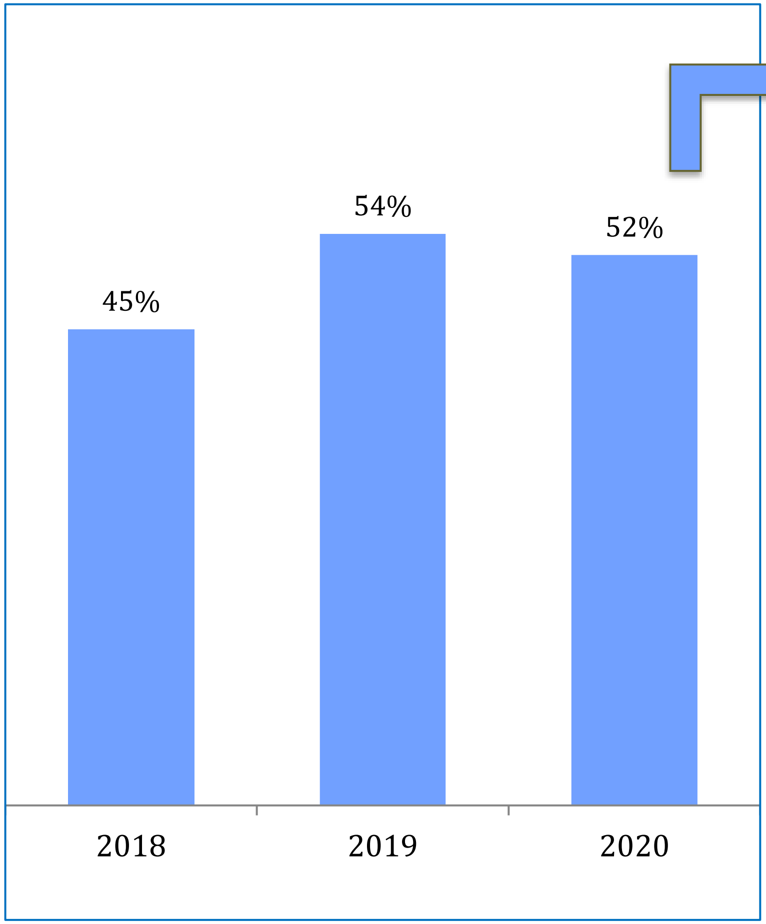


Q. Where does your packaging and fulfillment processing occur?

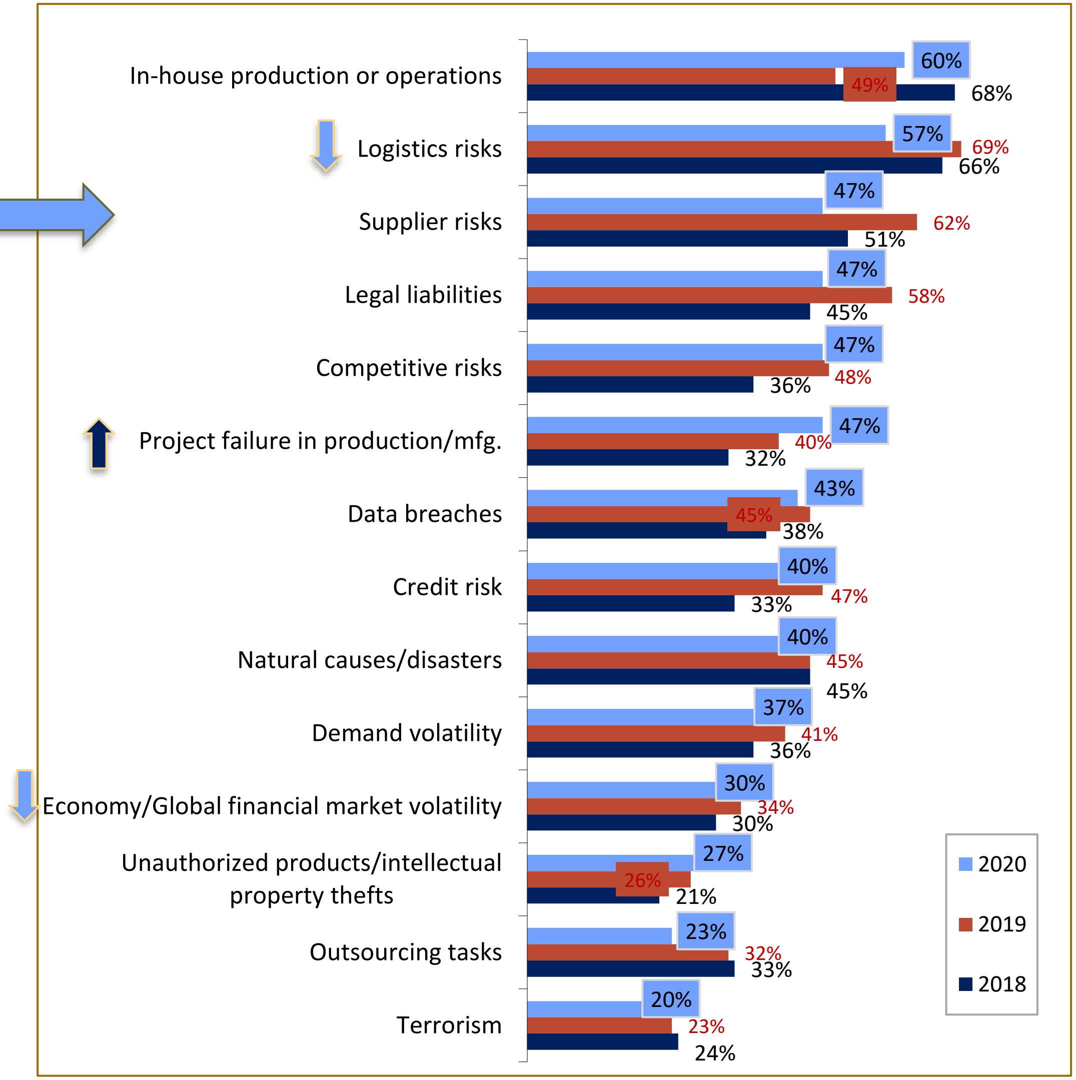


Security and Risk

Q. Do you have a plan for identifying, analyzing, and reducing or eliminating exposures to risks in your materials handling , transportation and/or logistics operations?



Q. In which areas?



Demographics

Demographics

Job Title	*2018*	*2019*	*2020*
Company Management	34%	29%	29%
Warehousing, Distribution, Logistics	21%	19%	29%
Engineering	17%	19%	13%
Plant Management	17%	19%	14%
Purchasing	6%	7%	8%
Other	5%	7%	7%
Respondents' level of involvement			
Suggest/determine the need	60%	64%	60%
Evaluate suppliers	47%	51%	53%
Recommend vendors	49%	50%	49%
Select/recommend suppliers	38%	42%	48%
Authorize/Approve purchase	48%	46%	44%
Average sq. footage of warehouse/DC influence	131,675	130,335	125,350

Demographics

	2018	2019	2020
Annual revenues: Average	$271.5M	$324.3M	$268.1M
Median	$67M	$84M	$58M
Activity at location			
Manufacturing	36%	32%	24%
Warehouse/Distribution	24%	30%	26%
Corporate HQ	28%	27%	38%
Warehouse supporting mfg.	6%	5%	10%
Other	6%	6%	2%
Region			
New England	6%	7%	8%
Mid-Atlantic	18%	21%	17%
Southeast	11%	7%	19%
Midwest	31%	40%	28%
South	11%	4%	7%
Mountain	5%	3%	4%
West	16%	16%	15%
Outside US (Canada, Mexico, Asia, etc.)	2%	2%	1%

Demographics

	2018	2019	2020
Manufacturing	70%	72%	43%
Wholesale Trade	8%	5%	8%
Retail Trade	2%	5%	14%
Transportation/Warehousing Services	6%	5%	15%
3rd Party Logistics Provider	3%	5%	7%
Business/Consulting Services	3%	1%	7%
Other	8%	7%	6%