



# ACC NEWS



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## YOUR WEEKLY UPDATES

Week 30 of 2021



*Healthcare*



*Ports*



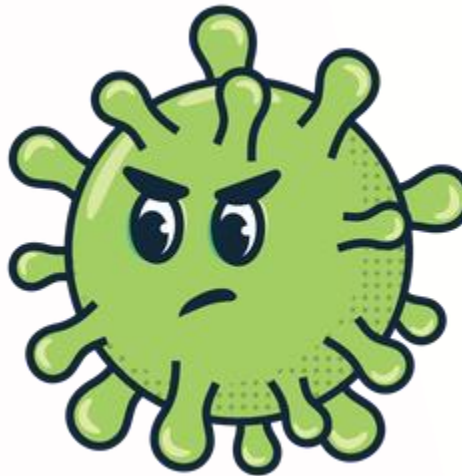
*Shipping*



*Rail*



*Supply Chain*



**Back and getting worse**



*Beverages*



*Retail*



*C-Stores*



*Road*



*Handling*

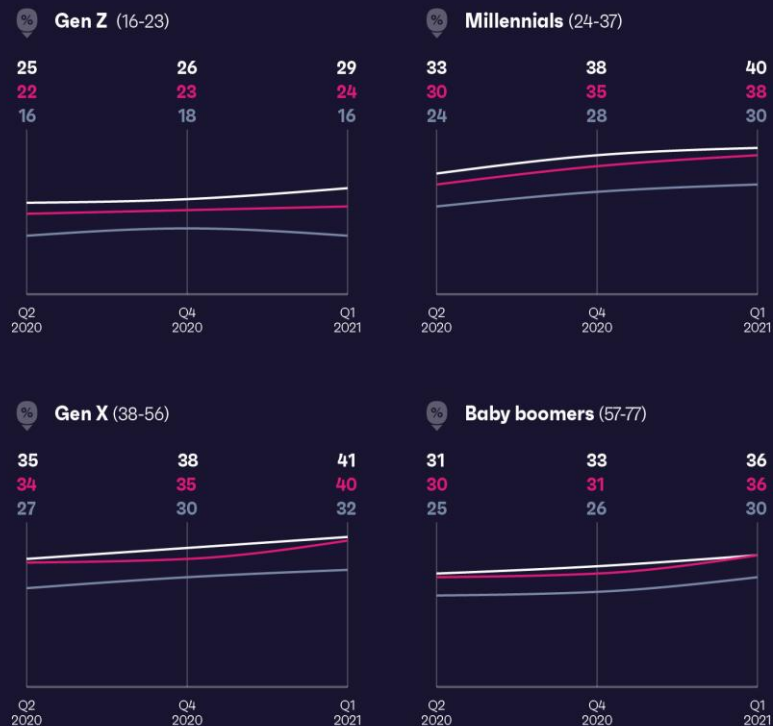
- Slide 3 – COVID-19 Trends Here to Stay
- Slide 4 – Dozens of new viruses discovered in 15,000-year-old glacier ice
- Slide 5 – Top 100 Companies - U.S. vs The World
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- Slide 35 – Each State's Main Export Partner
- Slide 36 – What Would Happen If All Ice On Earth Melted?



## Online shopping continues to flourish

% of the following groups in the U.S. who do these activities at least once a week

● Visit ecommerce sites/apps ● Visit retailer sites/apps ● Purchase products online

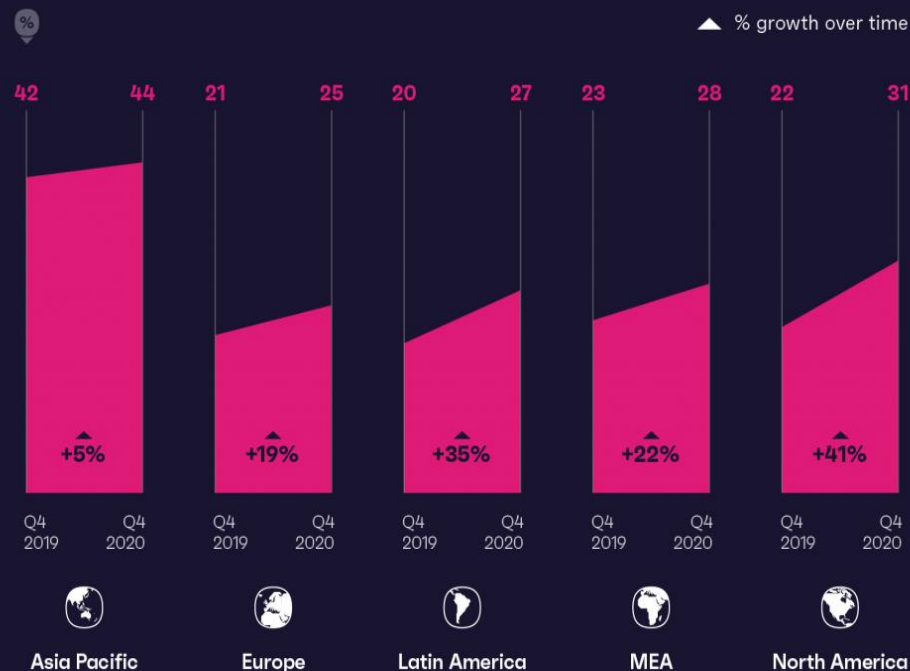


? How often do you do the following? (Daily, weekly)

GW USA Q2 2020-Q1 2021 59,765 U.S. internet users aged 16-77

## Online grocery purchases rise across all regions – biggest growth in NorthAm

% of internet users who have purchased online grocery products in the past month



? In the last month, which of these items did you purchase online?

GW Core Q4 2019 & Q4 2020 83,730 global internet users aged 16-64



- Scientists have collected viruses from almost-15,000-year-old ice samples, taken from glaciers on the Tibetan Plateau. Dozens of species were found to be unknown to science, which could provide an intriguing look back at the history of viral evolution.
- Glaciers are fantastic at preserving deep history, as they trap particles of dust, traces of gas, microbes, and plant matter from different time periods. Since these layers build up over time, scientists can drill and study ice cores to learn a huge amount about ancient climates, what was in the atmosphere, and what kinds of life existed at various points of history.
- In the new study, led by researchers from Ohio State University, ice cores were drilled from the Guliya ice cap on the Tibetan Plateau, which were dated as far back as 14,400 years old. The team then analyzed these cores for what kinds of viruses they contained, and the genetic codes of 33 viruses were identified. Four of these were found to belong to known types of bacteriophage, viruses that prey on bacteria, but at least 28 of them didn't match any known type.
- The team hypothesizes that the viruses probably originated in plants and soil, but they weren't necessarily thwarted by the cold – in fact, around half of them seemed to be well suited to life on the ice.
- “These are viruses that would have thrived in extreme environments,” says Matthew Sullivan, co-author of the study. “These viruses have signatures of genes that help them infect cells in cold environments – just surreal genetic signatures for how a virus is able to survive in extreme conditions.”
- Contamination by modern microbes is a serious problem for this kind of study, so the researchers developed a new method for sterilizing the ice cores. They removed half-centimeter (0.2-in) layers of the outer material with different techniques – first band saw scraping, then an ethanol wash, and finally a sterile water wash. The inner section of the core could then be examined free of contamination.
- The team tested this sterilization process on their own artificial ice cores, which were coated in bacteria, viruses and DNA. After they conducted their three-step process, no traces of these mock contaminants were detected in the inner ice cores.
- The research was published in the journal *Microbiome*.

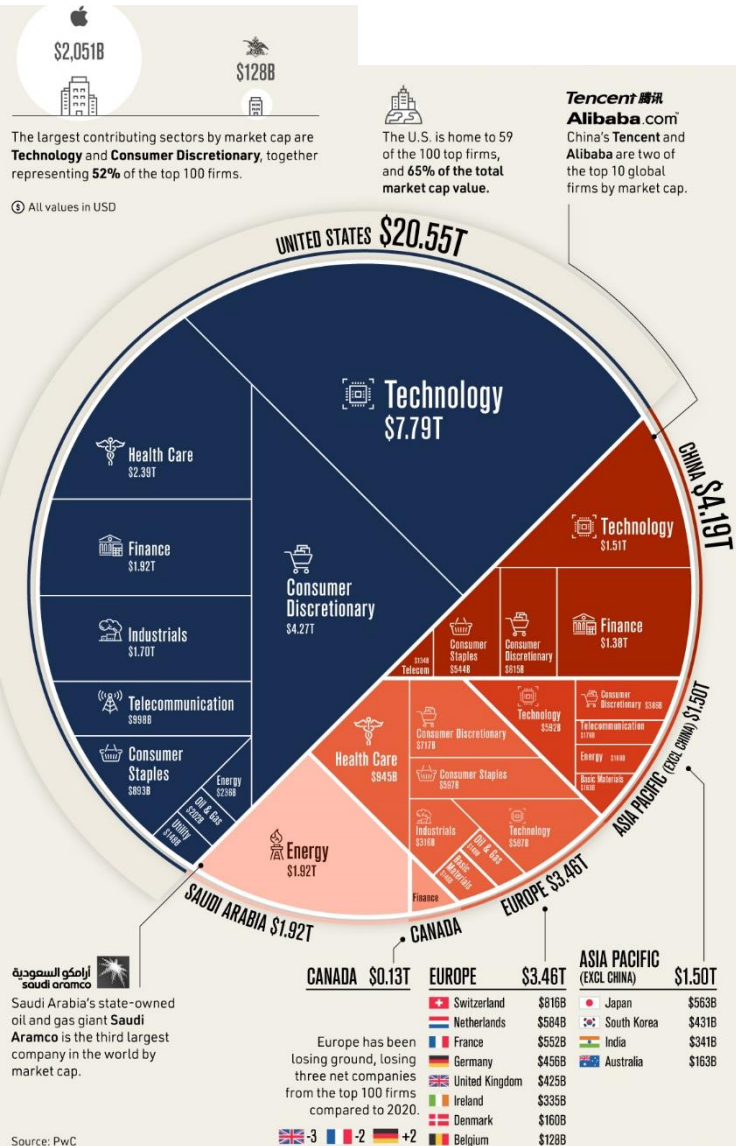
**NEW ATLAS**

***“Without deviations from the norm, progress is not possible” - Frank Zappa.***



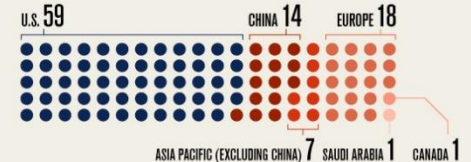
# Top 100 Companies - U.S. vs The World

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Every year, PwC releases a list of the 100 biggest companies in the world by market capitalization. The range between the smallest and largest companies in this year's list (May 2021) was a massive \$1.9 trillion.

But when it comes to location, that value is concentrated in just a handful of countries.



*“Without deviations from the norm, progress is not possible” - Frank Zappa.*





## Jollibee plans to reach 500 stores in North America in 5-7 years RESTAURANT DIVE

- Jollibee is planning to open 500 stores in the next five to seven years in the U.S. and Canada, the company confirmed in an email. Ernesto Tanmantiong, Jollibee Foods Corp. president and CEO, originally shared these plans in June during a virtual event.
- The Filipino fast-food chain currently has 69 stores in North America.
- This latest expansion strategy is an update from its plans shared in December, when the company said it would open 28 stores in the U.S. and Canada in 2021 with plans to have a total of 300 in the markets by 2024.
- Encouraging customers to use call-ahead pickup, takeout and drive-thru also helped Jollibee's growth during the pandemic. Last April, it launched nationwide delivery with DoorDash. The company rolled out a new online ordering app in January, as well. It also opened its first ghost kitchen in Chicago last year, which will be among the company's new stores in North America, Maribeth Dela Cruz, President of Jollibee Group North America, Philippine Brands, said in a Q&A with Eatery Pulse.

## Retail Trade Groups, Law Enforcement Target Black Market

- A coalition of retail trade associations, manufacturers and other public and private groups launched a new public education initiative aimed at combating black market trade.
- Entitled "United to Safeguard America from Illegal Trade (USA-IT)," the campaign will run through 2021 and provide local officials, law enforcement and thought leaders with information and training programs to help tackle illegal trade and raise public awareness of the depth of the problem, as well as the severe consequences inflicted on states and municipalities by black market profiteers.
- According to USA-IT, the black market is a \$509 billion-per-year business and growing. Criminals get rich from illegal trade by robbing revenues meant to provide essential services to Americans. Instead of helping taxpayers, that money is used to fund those who illegally traffic in drugs, tobacco, wildlife and even people, the coalition reported. These groups exploit governments and citizens, manipulate financial systems, spur corruption and cultivate instability and violence. State and local legislation designed to restrict smoking has often had the effect of spurring black market activities.

***“Without deviations from the norm, progress is not possible” - Frank Zappa.***





# Retail Update

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## US ECONOMY: Coronavirus Predictive Indicators for Economic Impact

prevedere

**All Categories:** Look at these indicators to understand how they are placing upward or downward pressure on the economy.

Last Refresh: 07-19-2021

Category	Indicator	Relationship	Next Update	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021
Business Investment	Average Weekly Hours - Retail	Procyclic	08-04-2021	-0.55%	-0.33%	0.22%	0.00%	
	Small Business Sentiment	Procyclic	08-14-2021	-5.31%	0.69%	5.64%	5.60%	
	Weekly Economic Index	Procyclic	07-23-2021	2.90%	11.41%	11.45%	10.16%	9.45%
	Weekly Jobless Claims	Countercyclic	07-23-2021	-36.54%	-86.92%	-81.08%	-74.26%	-73.16%
Transportation and Tourism	Google Search "Travel Cancellation"	Countercyclic	08-05-2021	-83.80%	-80.56%	-76.52%	-27.91%	
	ISM Services Index	Procyclic	08-07-2021	7.50%	19.85%	36.29%	29.45%	
	Restaurant and Bar Sales	Procyclic	08-17-2021	-2.17%	30.14%	70.69%	71.28%	
	Sentiment: Vacation Travel Next 6 Months	Procyclic	08-12-2021	-33.02%	-14.64%	7.77%	25.41%	31.70%
Consumer Big Ticket Purchases	Auto Sales	Procyclic	08-07-2021	-3.40%	25.74%	59.56%	55.26%	
	Consumer Sentiment - Discretionary Spend	Procyclic	08-12-2021	-8.65%	8.04%	23.59%	35.45%	27.61%
	Global Luxury Index	Procyclic	08-12-2021	63.25%	82.77%	91.98%	83.08%	73.95%
	Home Building Permits Issued	Procyclic	07-25-2021	21.63%	31.87%	38.93%		
Logistics and Manufacturing	Economic Policy Uncertainty	Countercyclic	07-20-2021	-50.04%	-77.14%	-73.50%	-67.15%	-63.76%
	Industrial Production	Procyclic	08-16-2021	-1.72%	3.99%	11.24%	14.36%	
	Overtime for Hourly Mfg Workers	Procyclic	08-03-2021	4.20%	15.89%	26.53%	33.70%	
	Purchasing Managers Index - Mfg	Procyclic	08-01-2021	22.72%	32.34%	39.57%	33.02%	
Financial	Financial Stress Index	Countercyclic	07-23-2021	-117.07%	-143.11%	-308.10%	-2992.10%	494.64%
	S&P 500	Procyclic	07-20-2021	46.85%	50.73%	42.86%	36.08%	36.62%
	US High Yield Index Option - Adjusted Spread	Countercyclic	07-20-2021	-54.01%	-60.18%	-55.24%	-47.05%	-48.31%
	VIX Volatility Index	Countercyclic	07-20-2021	-61.83%	-60.13%	-37.81%	-44.91%	-41.69%

### NOTES

Values represent the percentage change from the previous year.

In July, 9 out of 10 indicators are signaling economic improvement from the previous year.

In June, 19 out of 19 indicators are signaling economic improvement from the previous year.

Look to subsequent pages for monthly trend analysis.

Upward pressure on economy

Downward pressure on economy





## Retail sales solid in June **CSA**

- Retail sales edged up in most categories in June and were up across the board on a yearly basis.
- That's according to the National Retail Federation, which reported that June retail sales were up 0.8% from May and 12.1% year-over-year. (NRF's calculation of retail sales which excludes automobile dealers, gasoline stations and restaurants to focus on core retail.)
- The June reading compared with a month-over-month decline of 1.9% and a year-over-year increase of 16.5% in May.
  - Clothing and clothing accessory stores were up 2.6% month-over-month seasonally adjusted and up 49.4% unadjusted year-over-year.
  - Electronics and appliance stores were up 3.3% month-over-month seasonally adjusted and up 36.5% unadjusted year-over-year.
  - Furniture and home furnishings stores were down 3.6% month-over-month seasonally adjusted but up 17.5% unadjusted year-over-year.
  - Health and personal care stores were up 1.6% month-over-month seasonally adjusted and up 13.5% unadjusted year-over-year.
  - Online and other non-store sales were up 1.2% month-over-month seasonally adjusted and up 12% unadjusted year-over-year.
  - Sporting goods stores were down 1.7% month-over-month seasonally adjusted but up 11% unadjusted year-over-year.
  - General merchandise stores were up 1.9% month-over-month seasonally adjusted and up 10.7% unadjusted year-over-year.
  - Building materials and garden supply stores were down 1.6% month-over-month seasonally adjusted but up 7% unadjusted year-over-year.
  - Grocery and beverage stores were up 0.6% month-over-month seasonally adjusted and up 3.7% unadjusted year-over-year.





## Online shopping trends are here to stay CSCMP's Supply Chain (QUARTERLY)

The pandemic has raised the bar for retailers, who need to satisfy lasting demand for free shipping and make strides toward sustainability goals, consumer survey shows.

- Americans plan to continue doing most of their shopping online, even as pandemic restrictions have eased and brick-and-mortar stores have reopened, according to a survey by fulfillment services company Ware2Go.
- The survey of more than 1,000 U.S. adults showed that most plan to continue the online buying habits they adopted during the pandemic, and that free shipping and a brand's commitment to sustainability are powerful incentives in a competitive e-commerce environment.
- Among the findings, 79% of respondents said they increased their online shopping due to the pandemic, and 89% said they plan to do as much or more of their shopping online, even as restrictions on in-person shopping ease. What's more, almost a third (31%) say they have an urge to spend now that Covid-19 restrictions are easing. As they do so, shoppers will prioritize retailers that offer free shipping: A third of respondents said the pandemic raised their expectations for timely shipping, and 40% said it increased their expectations for free shipping.
- In addition, 80% said they are more likely to make a purchase online if the brand offers free shipping, and 75% said they are more likely to purchase if the brand offers shipping in two days or less. Nearly 80% said they are more likely to purchase from a brand again if the shipping was fast, and 69% said they are more likely to click on an ad that offers fast, free shipping.
- Sustainability is also a consumer priority, with 88% of respondents listing it as an important consideration for purchasing decisions and 66% saying it has become more important since the pandemic. More than half (55%) of respondents said they are willing to pay extra for sustainable shipping and 66% said they are more likely to purchase from a brand with carbon-neutral shipping if the product and shipping costs are the same.
- "When asked about what sustainable practices are most important in retailers, almost half (47%) said recycled packaging. This was followed by eco-friendly shipping protocols (41%), carrying green brands (30%), promoting conversations about sustainability on social media (30%), and partnerships with green organizations (27%)," according to the report.





COVID has highlighted the strength of three ruling retail giants: Walmart, Target and Costco, shedding light on rising competition from smaller players who showed impressive resilience during the pandemic and are now having an even stronger recovery.

- ***The Superstore Landscape - Stable Through the Storm*** - Comparing year-over-two-year visit rates at superstores with visits in other retail categories highlights the sector's unique strength. During the pandemic, changes to foot traffic patterns at superstores most resembled changes in the grocery space. Both sectors experienced minimal foot traffic declines, and in some cases, growth. Big-box stores even experienced a slight increase in year-over-two-year visits during October's pre-holiday shopping season and in January 2021.
- ***Wholesale Differentiation - A Focus on Different Customer Segments*** - Costco is the biggest player in the membership-based wholesale space, and Walmart leads the discount superstore category. Target competes in a more "difficult to define" middle ground. While the brand certainly has elements of a classic department store, Target's grocery and pharmacy departments push it into a different area. It might be more accurate, then, to say that the pandemic solidified Target's spot in a category of its own as the mid-range superstore.
- ***Discount Superstores - Rising Competition for Walmart*** - The pandemic strengthened the discount superstore sub-sector significantly. Monthly foot traffic for the first half of 2021 to the same period in 2019 shows significant growth in visits across discount brands, generating potentially long-term competition for Walmart. In April 2021, for example, while Walmart saw a year-over-two-year decline in visits of nearly 7%, chains like Big Lots, Dollar General, and Five Below saw their year-over-two-year visits grow by 9.8%, 22.8%, and 32.5%, respectively.
- ***Target - the "Mid-Range" Dominator*** - Target has been eating into department stores' market share, but its diverse product offerings allow the brand to compete with virtually any large mid-range retailer, including specialty retailers such as Best Buy. As department stores shuttered to stop the spread of the virus, Target was allowed to continue its operations thanks to its grocery and pharmacy offering – giving it a leg up over the other mid-range big-box retailers.
- ***Costco and the Wholesale Race*** - Costco leads the entirely different superstore category of wholesale retailers, with BJ's Wholesale Club and Sam's Club as its main competitors. Comparing visits in January through June to visits during the same period in 2019 reveals impressive growth rates for all three wholesale retailers.





## Should retailers reconsider and bring HQ staff back to work? **RetailWire.**

- Apple is pushing back the expected return timeline for its headquarters personnel from September to October in response to the growing number of COVID-19 cases across most of the U.S.
- The consumer technology giant has promised employees at its Cupertino, CA, headquarters that it will provide them with at least a month's advance notice before they are asked to return to work on the company's campus.
- The news on Apple's current plan comes at a time when employers are determining how to organize their workforces as state and local health authorities have lifted many of the mask and social distancing measures that had been in place to prevent the spread of COVID-19 and its variants. Some companies have been insistent on workers returning to their offices while others have either chosen to go the hybrid route or, in some cases, allow employees to continue working remotely.

## Costco testing same-day grocery delivery in Texas **RetailWire.**

- Uber's grocery deliveries will soon include Costco's bulk-sized foodstuffs, provided you live in the right state. The internet giant is launching a pilot that will deliver Costco groceries from 25 warehouses in Texas, with seven more locations available in the "coming weeks." Uber and Uber Eats app users will initially find the option available in Austin, Dallas and Houston.
- You'll need to place at least a \$35 order, and you'll have to pay for delivery unless you're an Uber Pass or Eats Pass member. A virtual storefront in the Uber and Uber Eats apps will focus on your "favorite" essential items.
- This is Uber's first experiment with an American food wholesaler. It's not certain if the pilot will translate to a full-fledged expansion, but it would represent a major move if so. While Uber recently doubled the scale of its US grocery deliveries with over 400 new cities, a larger team-up with Costco would improve the depth of that service — you'd have more shopping choices, particularly if you need to make large orders.

## U.S. Tobacco Cooperative Files Chapter 11 in Reorganization Move **ConvenienceStore**

U.S. Tobacco Cooperative Inc. (USTC) filed for Chapter 11 protection in federal court for to meet short-term contractual obligations to member-growers during crop season 2021.

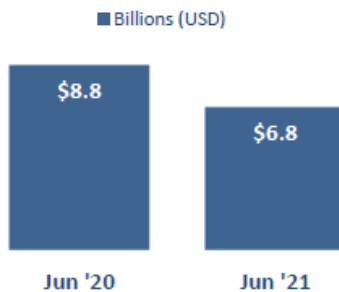
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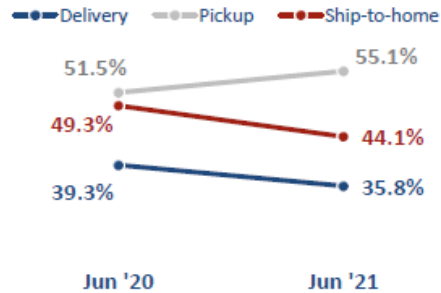


## eGrocery Dashboard | Total U.S. (June YOY)

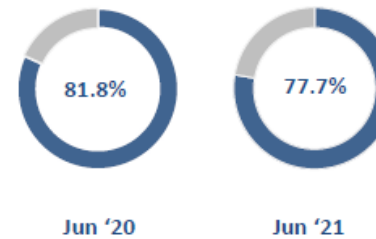
Monthly Online Spending for Groceries  
All Retail Formats and Receiving Methods



Methods Used to Receive Online Orders  
Percent of Monthly Active Users



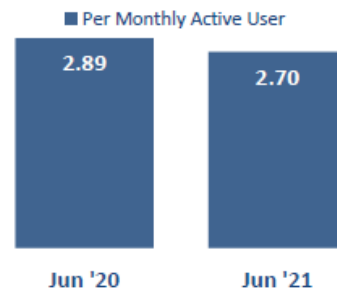
Combined Pickup & Delivery Sales Share  
All Retail Formats



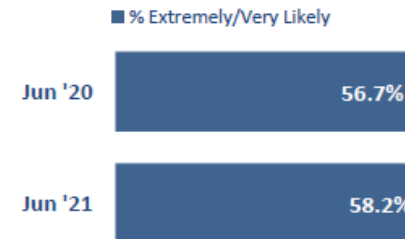
Percent of 1<sup>st</sup> & 4<sup>th</sup> Time Customers  
All Retail Formats and Receiving Methods

Order	Jun '20	Jun '21
1 <sup>st</sup>	23.0%	20.2%
≥ 4 <sup>th</sup>	45.1%	43.2%

Average # of Monthly Online Orders  
All Retail Formats and Receiving Methods



Likelihood to Use Grocery Service Again  
All Retail Formats and Receiving Methods



Source: Brick Meets Click/Mercatus Grocery Shopping Survey

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### "Grocery" Definition

- Comprises product categories typically found in a conventional supermarket
- Includes food (UPC & PLU), beverages, HBC, nonfood, general merchandise, and alcohol

### Online Order Receiving Methods

- Pickup, e.g., curbside, in-store, or locker at store or designated location
- Delivery, e.g., attended or unattended drop-off via 1P or 3P provider
- Ship-to-home, e.g., distributed by common or contact carrier

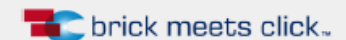
### Retail Formats

- Grocery, e.g., Kroger, FreshDirect, Aldi
- Mass, e.g., Meijer, Target, Walmart
- Club, e.g., BJ's, Costco, Sam's Club
- Amazon pure-play, e.g., Subscribe & Save
- Meal Kits, e.g., Blue Apron, Hello Fresh
- Other, e.g., Beauty, Drug, Dollar, Pet

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US eGrocery Dashboard v071921

*"Without deviations from the norm, progress is not possible" - Frank Zappa.*



## Magic Quadrant for Warehouse Management Systems

- Conquering your warehouse complexity with a warehouse management system (WMS) is one thing, finding the right fit for your business the other. For this reason, analysts like Gartner give insights into evaluated solutions in its “Magic Quadrant” market research reports.
- All solutions in the Magic Quadrant for Warehouse Management Systems support basic core WMS capabilities. Many also support various levels of extended WMSs. Core WMS capabilities are the basic functions of receiving, put-away, storing, counting and picking, packing, and shipping goods. Extended WMS capabilities are value-added capabilities that supplement core functions, such as labor management, slotting, yard management and dock scheduling.
- Despite being a very mature market, WMS offerings continue to differ in areas like usability, adaptability, decision support, scalability both up and down market, and life cycle costs. Furthermore, customers increasingly favor supply chain suites that can support end-to-end supply chain and logistics process orchestration. Gartner refers to these areas as supply chain (SC) convergence

## Gartner



## DHL to deploy 4,000 cargo drones in Europe

- DHL said it will use more than 4,000 heavy-cargo drones provided by Dronamics for its logistics and parcel network in Europe. The Black Swan unmanned aircraft can carry 770 pounds up to 1,500 miles.
- It's the second large customer Dronamics has signed in three weeks after announcing a partnership with Hellmann Logistics to develop a cross-border cargo delivery service by early next year.
- DHL said Dronamics would support same-day cargo delivery by covering the middle mile of a shipment's journey in select industries and markets with time-critical requirements, such as e-commerce and pharmaceuticals. The companies will work together to establish the dedicated drone-delivery network.
- The partnership includes mutual exclusivity in selected industries, a joint announcement said. DHL, one of the Big Three integrated logistics companies, will handle the first- and last-mile connections.
- Dronamics plans to build and operate over 4,000 cargo drones by 2030 to support the partnership. The contract has the potential to generate \$2.1 billion in revenue for Dronamics, the company said.

## Amazon secures patent for delivery van-controlled drone technology MODERNSHIPPER

Vans could be equipped with drones that deliver packages

- Amazon secured a patent for drone technology that can be paired directly with delivery vans. The system, if it comes to fruition, could enable Amazon to optimize its last-mile delivery services by outsourcing much of the work to its automated drones.
- As described in the text of the patent, "Primary vehicles having cameras or other sensors generate or transmit instructions for causing secondary vehicles, such as personal delivery devices, to travel on selected courses and speeds."
- In other words, recipients of Amazon packages could one day see delivery vans directly deploying and controlling drones that drop off orders. What's more, these drones wouldn't have to be decked out with expensive sensors and cameras. Rather, all of that information-gathering technology would be centralized in the van, able to be transmitted to a fleet of drones via a WiFi or other network.

## Pressure for Supply Chain Sustainability Continues

Last year, when the impact of the Covid-19 pandemic was still escalating, CSCMP expected the crisis to dampen companies' enthusiasm for investing in supply chain sustainability (SCS). Enterprises would surely divert all their attention to combating the pandemic. Remarkably, the survey results suggest that Covid-19 did not significantly slow the push to make supply chains more sustainable. More than 80% of survey respondents in this year's report claimed the crisis had no impact or increased their firm's commitments to SCS.



SCS practices and correlation-based groupings

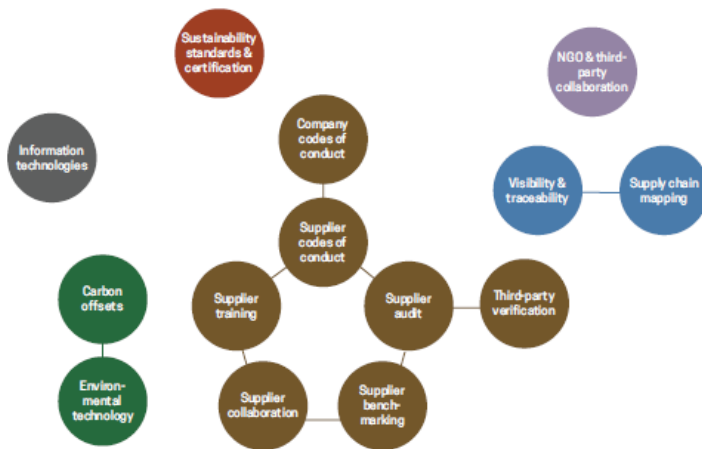
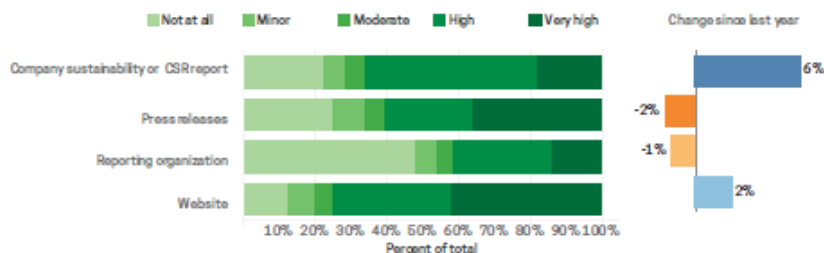


Table 2: Firm typology clusters: Heatmap showing average scores for each firm typology based on the clustering of results. Scores are color coded and categorized as Low, Moderate, or High for simplicity. N = 1,223. See more detailed heatmap of clustering results in Table 5 in Appendix A.

	Low Effort	Dreamer	Compliant	Standard	High Effort	Leader
Pressure to act	Low	Low	Moderate	Moderate	Low	High
Commitment	Low	Moderate	Low	Moderate	High	High
Investment	Low	Low	Moderate	Moderate	High	High
Employee engagement	Low	Low	Moderate	Moderate	High	High
Practice application	Low	Moderate	Moderate	Moderate	High	High
Disclosure	Low	Low	Low	Moderate	High	High
Company size	Small & medium	Sm., med., lg., very large	Sm., med., lg., very large	Large & very large	Lg. & very large (½ sm. & med.)	Very large

How often does your firm disclose about its supply chain sustainability practices using each of the following channels?



Since the start of Covid-19, my firm's commitment to supply chain sustainability has...

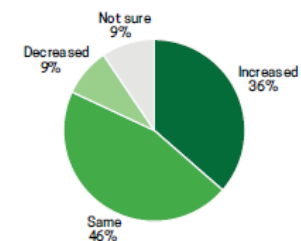


Figure 4: Breakdown of respondents by how their firm's commitment to SCS has changed since the start of the pandemic. N = 1,557.

**"Without deviations from the norm, progress is not possible" - Frank Zappa.**



## Belgium-Germany: estimated costs for flood damage repairs reach billions



- Belgium and Germany are heavily impacted by the floods that took place last week. Their rail networks have suffered substantial damage that will need time and high costs to be repaired. In Belgium, these costs are estimated between 30 and 50 million euros, while in Germany, road and rail network restoration expenses could reach the amount of €2b.
- As a result of the continuously rising waters, trains in northwest Germany are almost unable to move. Consequently, DB Cargo has parked them to enable them to restart quickly after the main routes are operational again. “We are also in contact with all customers to individually coordinate order acceptance, push-through procedures or the prioritization of supply-relevant trains”, commented a spokesperson.



## UP temporarily stopping eastbound container service to Chicago FREIGHTWAVES

- Union Pacific is temporarily suspending eastbound service from West Coast port terminals to its Global IV intermodal facility in Chicago to help ease “significant congestion” at inland terminals, especially Chicago, and at the ports. The suspension is aimed at helping ocean carriers reduce backlogs. UP hopes this suspension, which started July 18<sup>th</sup> and will last for about seven days, will not only help relieve port backlogs for Chicago-bound container traffic but also ultimately help address backlogs for containers destined to other markets.
- The suspension applies to UP-served terminals at the ports of Los Angeles, Long Beach and Oakland, California, and Tacoma, Washington. FreightWaves has been told that the suspension reportedly entails customers shipping IPI 20-foot or 40-foot equipment, not customers using domestic 53-foot equipment.
- UP, along with other supply chain partners including Class I railroads, have been grappling with congestion at the West Coast ports as the economic recovery and robust e-commerce activity have kept U.S. import levels brisk.
- Container processing at Southern California port terminals has increased while UP’s rail shipments to and from the ports “are near record highs,” UP said.



## From Automation to Autonomy: The Supply Chain 2035 Roadmap **Gartner**

To corroborate and help CSCOs establish the right path forward, Gartner collected research findings.

### **Step 1: Automation by 2025**

For 40 years, companies invested to automate routine administrative tasks through ERP implementation with substantial investments in industrial automation and robotics to streamline operations. There remains a great number of tasks and processes that can be further automated, especially across transactional processes and decision making. RPA is rapidly emerging as a low-hanging fruit, especially to streamline processes such as procure to pay, order management and customer claim management. Gartner estimates that more than 70% of commercial enterprises have dozens of hyperautomation initiatives underway. These initiatives are too often disparate or siloed, and they are either not aligned to business outcomes or not coordinated with business objectives across functions.

### **Step 2: Augmentation by 2030**

Over the following five years, a range of technologies are expected to reach the Plateau of Productivity, making hyperautomation capable of automating more complex tasks and decisions with increasing intelligence. Hyperautomation will help automate complex tasks and decisions that have typically required human judgment (e.g., selecting across multiple planning scenarios), significantly expanding human capabilities, and increasing the accuracy and speed of decision making (e.g., finding insights into terabytes of real-time data). Companies at this level will employ humans to control and orchestrate the automated supply chain, leaving technology to do most of the heavy lifting.

### **Step 3: Autonomy in 10+ Years**

The final is Supply chain autonomy, when all traditional human low-value activities in the supply chain will be fully automated. Perhaps sometime after 2030, when AI, maturing along with “human augmentation” provides the prospect of a fully automated supply chain. This will have minimal direct human involvement and interference from a traditional work perspective, suiting expectations of digitally native Gen Z employees very well. All supply chain leaders we interviewed agree that, sometime after 2030, a large majority of their sc activities will most likely become fully autonomous and self-healing. However, they don’t expect a lights-off supply chain, with no people at all. They all agree that hyperautomation supplies an opportunity to free up people’s time for the value-added work that only humans can perform.



## Brexit: worst-case avoided – for now?



- It has been more than six months since the EU and the UK have officially parted ways and the Trade and Cooperation Agreement came into effect on January 1, 2021. Despite some dire warnings and worst-case scenarios, such as up to 7,000 trucks being stuck in Kent, these have not materialised so far. Even though disruptions still happened, stockpiling and certain preparations helped alleviate some of the major pressures during this period that also coincided with unprecedented COVID-19 restrictions.
- **Stockpiling** - As many businesses feared the repercussions of Brexit, they started stockpiling to create a buffer for the first few months until rules had been more settled, and processes become clearer. During November 2020, as many as 230,000 trucks drove through Dover, the highest tally of the year. This helped reduce the number of lorries crossing after January 1, 2021, as only 130,000 lorries crossed the channel that month compared to the seasonal average of about 200,000. Lorry traffic between Ireland and Britain fell 50% in the early stages of 2021, as many businesses avoided initial post-Brexit border checks at Dublin Port in January and February, according to Simon Carswell, writing for the Irish Times. Many could do this because they had been stockpiling before Brexit.
- **Compliance** - Many suppliers were backing off from the bureaucracy around Brexit and COVID-19 and many trucks showed a much higher level of compliance with the required paperwork, avoiding complications and being turned away. According to the Financial Times, in early January 2021, only 8% of trucks were turned away, which fell further to 2% the following month. The UK government attributed this to the £800m investments in border jobs, technology and infrastructure.
- **Kent Access Permit discontinued** - Even though officials also credit the Kent Access Permit for its effectiveness, an online registration portal threatening to fine drivers £300 if they failed to pre-declare their paperwork before driving into Kent, it was discontinued in April 2021. The news was generally reported to have been received positively, particularly by the UK haulage industry.
- **Communication** - Alex Veitch, Policy Chief at Logistics UK, and reported by the Financial Times, said that the UK government also applied a “90-10 rule” to its preparation, meaning that it focused hardest on the 10,000 or so largest UK businesses who account for about 90% of UK trade with the EU.





## Kuehne + Nagel delivers record results in volatile market

- Global freight transport markets are still overheated, with rocketing prices and continuing outbreaks of congestion, but the latest half-year results from Kuehne + Nagel illustrate freight forwarders continue to be able to exploit the situation and increase their profits.
- Looking at K+N's core business of ocean freight-forwarding, it appears that demand has returned roughly to the level seen before the COVID crisis. K+N handled 2.2m TEU, a 3% increase on the, admittedly turbulent first half of 2020. However, for the same period sales (Net Turnover) were up 55%, to CHF\*5.2bn whilst Earnings Before Interest & Tax (EBIT) leapt 202% over the admittedly depressed H1-20 numbers, to CHF504m. Dr. Detlef Trefzger, CEO of K+N explained that "in the second quarter of 2021, the trend towards transporting higher value products in Sea Logistics continued. This, coupled with limited container capacity and reduced productivity across the supply chain, required a very high and sustained level of service intensity." It appears that this service intensity is the key to profits.

## Logistics' wild ride to continue

The annual Supply Chain Quarterly State of Logistics Report shows that a chaotic and unpredictable 2020 led to logistics cost dropping by 4%. Expect this trend of constant change to continue, authors say.

- The past few years have been turbulent ones for the logistics industry.
- 2020 was a chaotic year of sudden stops, stuttering starts, dips, drips, and explosive rises and, as a result of this unpredictable, pandemic-driven year, U.S. business logistics costs fell 4.0% to \$1.56T, 7.4% of 2020's \$20.94T U.S. GDP, according to the 32nd Annual Council of Supply Chain Management Professionals (CSCMP) State of Logistics Report.
- The main driver of that drop was the decrease in inventory carrying costs, which fell 15%, due to the sudden drop in manufacturing and commerce early in the year caused by pandemic shutdowns.
- The 2020 upheaval of supply chains created chaos that placed gigantic demand on logistics, resulting in higher prices for logistics services despite a shrinking economy," said Michael Zimmerman, one of the authors of the report and a partner with the consulting company Kearney at a press conference. "At the same time, due to halted economic activities during lockdowns and decreases in financial costs, logistics costs account for a lower percentage of GDP at 7.4% compared to the 7.6% in 2019.

***"Without deviations from the norm, progress is not possible" - Frank Zappa.***



## Uber Freight to acquire Transplace for \$2.25 billion FREIGHTWAVES

- Transplace is upstream, Uber Freight is downstream, and now they're getting married.
- A united transportation platform with 2 companies focused on either side of the carrier/shipper divide is seen as driving \$2.25B acquisition of Transplace
- The word that keeps coming up in discussions about Uber Freight's acquisition of logistics platform provider Transplace is "customer."
- Transplace, as a provider of managed transportation services through its transportation management systems, is viewed as a "shipper down" operation, providing services to companies looking to move freight to market and having decided to turn over that task to a company like Transplace.
- Uber Freight, in contrast, is seen as a company that comes to market with a platform primarily aimed at carriers looking to more efficiently find trucks that can move freight.
- Combining the two, according to a presentation by Uber Freight, allows for "customer-first solutions."
- Merging the companies in the \$2.25 billion acquisition by Uber Freight announced Thursday morning is considered unusual in the logistics field, where the two sides of the normal divide do interact on platforms but where those platforms are mostly targeted at "either/or."
- The seller of Transplace is TPG Capital, a private equity firm.
- With three different PE companies already having been owners, getting flipped to a fourth had limited appeal, said the CEO of Transplace.

DAILY INFOGRAPHIC

### Uber rolling out same-day, on-demand grocery delivery in 400 cities

Company joins DoorDash and Instacart as biggest players in online grocery

**UBER'S 1ST MAJOR GROCERY EXPANSION IN THE US**

On Monday announced its largest grocery expansion since launching in July 2020, with the company's same-day and on-demand scheduled grocery delivery now being offered in over 400 U.S. cities and towns.

**2X**

THE AVAILABILITY OF ITS GROCERY DELIVERY SERVICE

The expansion will cover several major markets from coast to coast, including

SAN FRANCISCO	NEW YORK CITY	WASHINGTON	MIAMI	DALLAS	PHOENIX

with several more locations still to come in 2021.

**PARTNERS**

To accelerate the rollout of its expanded services, Uber is partnering with Albertsons Co. Inc. (NYSE: ACI) and 1,200 of its grocery stores, including familiar names like:

- Safeway
- Jewel-Osco
- ACME
- Tom Thumb
- Randalls

"Today nearly 3 million consumers order groceries and other essentials each month through Uber and **we're just getting started.**"

Raj Beri,  
Uber's global head of grocery & new verticals

**COVID-19**

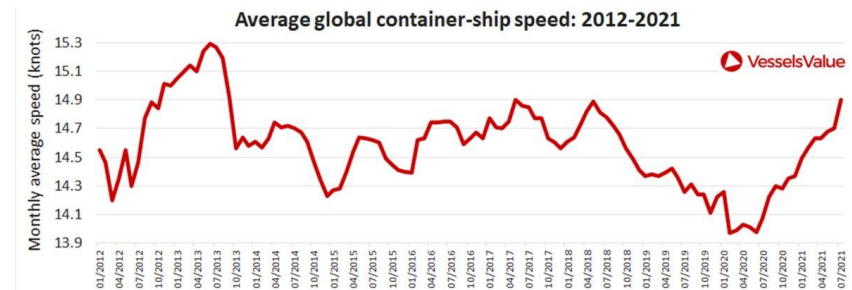
It's unclear whether shoppers will continue to have their groceries delivered after COVID-19 conditions subside.

ONLINE GROCERY DELIVERY & PICKUP SALES  
**JUNE 2020 - \$7.2 BILLION**  
**MAY 2021 - \$5.3 BILLION**



## Full steam ahead: Why container ships are racing across the Pacific

- There are almost no container ships in the world left for liners to charter. Secondhand purchase prices are through the roof. It takes two years or more to get a newly built ship. How can liners find more capacity?
- There is a way — without adding ships — for liners to move more cargo and take even greater advantage of today's stratospheric rates: speed up.
- That's exactly what they're doing, according to new data from VesselsValue and MarineTraffic. Container ships are moving faster, despite that fuel consumption, and thus marine bunker fuel costs, rise exponentially with speed. Carbon emissions also surge, a politically sensitive side effect.
- Carriers are stepping on the gas despite spending the last decade focused on the opposite strategy, “slow steaming,” and despite container ships built in recent years being specifically designed for slower speeds.
- Just one of many examples of container ships recently sailing westbound at 20 knots or more: Automatic Identification System (AIS) vessel-position system data from MarineTraffic shows that the 4,253-twenty-foot equivalent unit (TEU) Seaspan Melbourne hit nearly 24 knots this month in the eastern Pacific on the backhaul from Los Angeles to China.
- “Under normal circumstances, carriers would never do this, because bunker consumption is such a major cost factor,” said Simon Sundboell, CEO of shipping data provider eeSea. “But if you're talking about rates of \$12,000 [per forty-foot equivalent unit], you will do it.
- According to U.K.-based data provider VesselsValue, the global average speed of container ships has risen to 14.9 knots this month, matching highs in 2017-18 and verging on the highest monthly average since 2012. Speed is up 6% year on year.
- The caveat is that higher speeds may allow carriers to claw back some of the capacity they lost to port congestion, but there are limitations to how far this can go, so it won't be a game-changer for cargo shippers.
- Recently, ships were steaming slowly in order to save cost.



*“Without deviations from the norm, progress is not possible” - Frank Zappa.*





## Time Containerships Spent Waiting for Berths Doubled in Two Years The Maritime Executive

- Port congestion and the resulting decline in liners' schedule performance has been a persistent story in 2021 as the global supply chains worked to absorb the surge in trade after the first wave of the pandemic. Southern California's ports experienced a record number of vessels waiting for terminal space early in the year and the disruptions at the Suez Canal and later China's Yantian port were also causing backlogs.
- Market analytics firm IHS Markit analyzed the time containerships are spending waiting for berths reporting that it has more than doubled since 2019. They attributed the increased port delays to surging demand, equipment shortages, and other effects of the pandemic, saying that they believe these issues are persisting as the global trade recovery is becoming more sustained and broader.
- According to IHS Markit's Port Performance Data, North America saw the biggest deterioration with vessels spending on average 33 hours on anchor in May 2021 compared with average of just eight hours in May 2019. While the ports of Long Beach and Los Angeles were the most visible with their delays, the data indicates that containerships were experiencing increased wait times at many of the major seaports.
- The data also illustrates that the congestion issues spread across the global supply chain impacting many seaports. For Northern European ports, IHS Markit says the average wait jumped to 30 hours in May 2021 compared to 13 hours in 2019, while at East Asian ports the wait time increased to 15 hours from 10 hours two years earlier.
- The congestion and bottlenecks not only slowed ships' ability to reach the ports but also in many cases extended the time spent in port. Containerships were frequently required to wait in anchorages or slow steam to ports due to a lack of berths. IHS Markit says the average hours containerships spent in port in May 2021 increases to 92 hours for North America and while shorter still required 69 hours on average in Northern European ports and 40 hours on average in East Asia.
- Some ports have been especially hard hit with an increased number of vessels and volume causing congestion and backlogs. IHS Markit highlights that in Los Angeles containerships spent an average 215 hours in port in May 2021, of which 89 hours was at anchor. The COVID-19 outbreak in southern China in May similarly resulted in a significant deterioration from 22 to 62 port hours between March to May 2021 at the port of Yantian.





## Salvors Free Grounded River Cruise Ship on Kentucky's Lake Barkley The Maritime Executive

- On Friday afternoon, salvors with Donjon-SMIT freed the river cruise ship American Jazz from a muddy shoal on Lake Barkley, a reservoir on the Cumberland River in Kentucky.
- At 1520 hours, the salvage crew and the vessel's crew were able to free the ship from its perch using a combination of a tug and barge arrangement and the ship's own propulsion.
- On July 7, while on a seven-night cruise from Memphis to Nashville, the American Jazz ran aground near the town of Cadiz at a position outside of the navigation channel. The operator, American Cruise Lines, notified Coast Guard Sector Ohio Valley on the following morning, initiating a salvage response.
- All 120 passengers and a cohort of nonessential crewmembers were transferred off the ship by tender last Friday, and 27 crewmembers remained on board.
- The cause of the incident is under investigation.
- The recently-built American Jazz is the third in a series of five modern riverboats ordered by family-owned American Cruise Lines. She completed her trials at Chesapeake Shipbuilding and was delivered to the company last September.



## FMC to audit container lines' detention, demurrage billing JOC.com

US maritime regulators have told the top container lines operating in the United States to open up their books for an audit of how they assess storage charges amid increased pressure from Congress and the White House to crack down on unreasonable detention and demurrage fees.

## Vietnam port congestion growing as COVID outbreak closes factories JOC.com

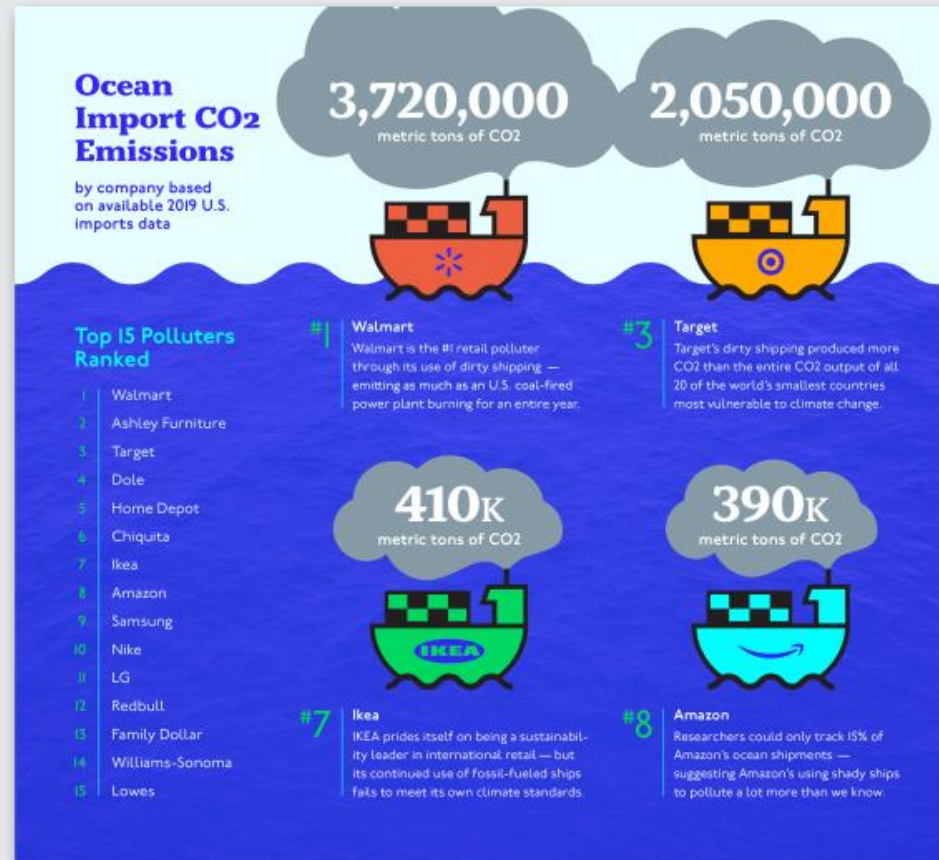
The shipping industry is closely watching COVID developments in Vietnam that have closed factories there, given the recent Yantian outbreak that spiraled into months of congestion in Southern China.





## These 15 companies have the biggest footprint from cargo shipping

- Cargo ships carrying truckloads of clothing, cheap furniture, toys, and other goods destined for Walmart stores in the U.S. emitted an estimated 3.7 million tons of carbon dioxide in 2019—more than a coal-fired power plant running for a year, according to a new report. The report, from the nonprofits Pacific Environment and Stand.earth, calculates the carbon footprint and air pollution from fossil-fueled ships for the top U.S. importers.
- The world's shipping fleet has quadrupled since the 1980s as manufacturing moved overseas. Outsourcing “is predicated on a reliance on fossil-fueled maritime shipping,” says Madeline Rose, climate campaign director at Pacific Environment. “It’s intrinsic to the business model of manufacturing overseas. And we felt like there has never been a legitimate public accounting of the public health and environmental externalities of that decision.”
- Walmart tops the list in the report, followed by the furniture retailer Ashley, Target, Dole, Home Depot, Chiquita, Ikea, Amazon, Samsung, Nike, LG, Redbull, Family Dollar, Williams-Sonoma, and Lowes.
- Collectively, the report found, the companies were responsible for as much climate pollution from shipping imports to the U.S. as the energy used by 1.5 million homes. Cargo ships are also a major source of air pollution, including sulfur oxide, which is linked to asthma and an increased risk of cancer in the low-income communities living near ports.





## Average container rail dwells at Vancouver rise above 10 days JOC.com

Canadian National Railway services to Vancouver are sporadic as wildfires slow trains and imports pile up at Port of Vancouver docks. 3 out of 4 marine terminals are reporting container dwell times that are on average 10 days or more.

## LA-LB terminals cast wary eye on intermodal rail cutbacks JOC.com

Terminal operators in Los Angeles–Long Beach expect UP and BNSF restrictions on eastbound intermodal services to Chicago will further stress an inland supply chain that is already stretched thin.

## Regulator wants more ‘enforcement capacity’ against container lines American Shipper

- The Federal Maritime Commission asked lawmakers to boost its budget to help enforce Shipping Act regulations governing detention and demurrage practices as the agency intensifies its oversight of container lines.
- Testifying on his agency’s FY2022 budget before the House Transportation & Infrastructure Committee on Wednesday, FMC Chairman Daniel Maffei said it is seeking \$30.8 million — \$1 million more than authorized for FY2021 — to bolster resources dedicated to the agency’s Bureau of Enforcement and Office of Consumer Affairs and Dispute Resolution Services. The money would fund a new export advocate position for a person solely responsible for helping export shippers move cargo.
- FMC’s stepped-up oversight of the container lines has come as spiking demand for imports has pushed cargo rates to record highs. The U.S. imported more containers in the first five months of 2021 than any previous entire year, with July spot rates to move a container from Shanghai to Los Angeles approaching \$10,000 compared with a pre-pandemic \$2,000 in July 2019.
- “Rates only tell part of the story. There is not enough space on ships for all the shippers that want space, so some are having to wait for a future sailing.” It can be a delay of days or weeks before cargo on a ship reaches its destination, he said.
- Exporters are frustrated that carriers are making much more money on a container full of imports than exports that it is often in the carrier’s best short-term economic interest to get more empty containers back to Asian factories faster rather than carrying more export containers





## SEKO Logistics chartering vessels for clients American Shipper

- SEKO Logistics tells American Shipper it is expanding its logistics footprint by chartering vessels. The logistics provider began chartering the box ships in July. “We are looking to charter one or two vessels a month,” explained Brian Bourke, the company’s chief growth officer. “The vessels are carrying in upwards of 1,000 TEUs. We are offering this service to make sure our clients have the capacity to import their products to avoid any additional backlogs.”
- Bourke says the decision to start chartering vessels did not come lightly.
- “This is not what we typically do,” he said. “We work well with the ocean carriers, but this market has created a lot of unique situations. We decided to test the market with one vessel and the space was gobbled up within hours.”
- Additional Asia schedules are being added throughout the rest of 2021 and into early 2022, with 90% of the bookings going to existing clients.
- “This situation will not get better until well after Lunar New Year,” said Bourke. “The inventory-to-sales ratio is still going down. Until you see that creep back up, this demand will continue.” SEKO’s announcement comes after the news of other shippers like Home Depot that have chartered vessels in an effort to circumvent the logistics congestion.

## Shipping container shortage is getting worse Fresh Plaza

- Concerns that the international shipping crisis will get worse for US agricultural exports before it gets better are pertinent again, as shipping container costs continue to rise. Also, incentives to "dead-head" empty containers to Asia for quicker turnaround are at the root of these concerns.
- Jim Zion, managing partner of Meridian Nut Growers in California, said he recently had a load of tree nuts take 77 days to get to Spain, while a more typical transit time was 35 days earlier.
- A Rabobank report points to the consolidation of maritime carriers from 18 companies to an alliance of three. This consolidation was done to improve efficiencies. Shipping container fees that once were \$2,500 pre-covid are now much higher. A shipping container from Hong Kong to Los Angeles now costs over \$7,600. That doesn't include shipping costs on the vessel and other assorted costs. Spot market container costs are said to run between \$12,000 and \$15,000 per container.

***“Without deviations from the norm, progress is not possible” - Frank Zappa.***





**Saputo**  
Foodservice

WHAT THE  
AMERICAN CHEESE SOCIETY'S  
2020 SURVEY TELLS US ABOUT  
TODAY'S CHEESEMAKERS

Most worry about profitability, but they also see room to reach new customers.

## WHERE THEY'RE SELLING

In 2019, cheesemakers' biggest distribution channels included **direct to retailers**, **direct to restaurants**, and **distributors and wholesalers**.<sup>1</sup>

81%

76%

72%

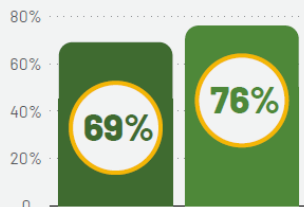


Fewer cheesemakers (58%) relied on farmers' markets for sales in 2019, down from 70% in 2015.<sup>1</sup>

57.5% of cheesemakers found new distribution methods for their products as a result of COVID-19<sup>2</sup>

## ENVIRONMENTAL IMPACT

The push to make cheesemaking more environmentally friendly isn't coming from politicians or lenders, respondents said. Instead, **69% said consumers** are the ones calling for change; **76% said their own values** are driving change.<sup>1</sup>



**45%** of cheesemakers said they have a sustainability plan in place

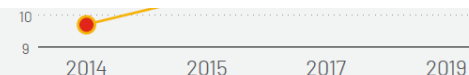
**26%** are working on one<sup>1</sup>

## LOOKING TO THE FUTURE

The pandemic negatively impacted sales for **58%** of surveyed cheesemakers. But **73%** agreed that COVID-19 offered a chance to improve their business, and **73.5%** saw it as a way to reach new customers.<sup>2</sup>



**63%** of cheesemakers use milk sourced from their own animals



## MILKING IT FOR ALL IT'S WORTH

Milk used in cheesemaking in 2019 came from a variety of sources.<sup>1</sup>



Cow's milk was by far the most common, used by **76%** of respondents. (It also had the highest average profit margin, at 20%.)



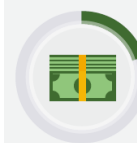
Goat's milk-based cheese was next, at **38%**, with a profit margin of 18%.



Just **14%** of respondents used sheep's milk, which also had the lowest profit margin at 12%.

**63%** of cheesemakers use milk sourced from their own animals

## ARE CHEESEMAKERS BRINGING HOME THE CHEDDAR?



**20%**

of cheesemakers surveyed in 2020 said they weren't profitable in 2019. Year-over-year revenue in the first two quarters also was down for **70%** of cheesemakers.<sup>1</sup>

**ON A BRIGHTER NOTE: 21% of cheesemakers increased or kept sales steady.<sup>1</sup>**

*"Without deviations from the norm, progress is not possible" - Frank Zappa.*





## Association Of American Medical Colleges Pushes For Vaccine Mandate **Modern Healthcare**

Medical schools and teaching hospitals should require their workers to get the COVID-19 vaccine, the Association of American Medical Colleges told its members Friday. Unvaccinated Americans account for an overwhelming majority of new COVID-19 hospitalizations, said Dr. David Skorton, CEO of the association, adding that the virus continues to mutate. States with the highest spikes in new cases also have some of the country's lowest vaccination rates, according to data from Johns Hopkins University School of Medicine's Coronavirus Tracking Center.

## Surgeon General Vivek Murthy Backs Localized Mask Mandates As Delta Variant Drives Rise In Covid Cases **abc 7 EYEWITNESS NEWS**

U.S. Surgeon General Vivek H. Murthy said Sunday that he supports individual counties reinstating mask mandates to combat local surges of the coronavirus among unvaccinated people — like Los Angeles County did last week — as the pathogen's highly contagious delta variant drives a spike in infections and the Biden administration seeks to project a sense of cautious optimism about the country's return to normalcy. "It's very reasonable for counties to take more mitigation measures like the mask rules you see coming out in L.A., and I anticipate that will happen in other parts of the country too," Murthy said on ABC News's "This Week."

## Delta Changes the Covid Conversation **KHN** Kaiser Health News

- The resurgence of covid cases in the U.S. — largely attributable to the much more contagious delta variant — has given policymakers the jitters. The Biden administration is redoubling efforts to get people vaccinated, and even some Republicans who had been silent or skeptical of the vaccines are encouraging the unvaccinated to change their status.
- The momentum toward vaccinating the public has stalled abruptly in the past month or so, and reports of rising cases is causing concern among conservatives. Some high-profile Republicans — including Senate Minority Leader Mitch McConnell, Rep. Steve Scalise (La.) and Florida Gov. Ron DeSantis — have been out during the past week touting the vaccines' successes.
- If lawmakers fail to craft a bipartisan deal on Capitol Hill on traditional infrastructure spending, Democrats' plans for a second bill that incorporates significant health care programs may need to be scaled back.

***"Without deviations from the norm, progress is not possible" - Frank Zappa.***





## 2 COVID Vaccine Doses Much More Effective Than 1 Against Delta CIDRAP

COVID-19 vaccine effectiveness for one dose of the Pfizer/BioNTech or the AstraZeneca/Oxford vaccine against the Delta variant (B1617.2) was much lower compared with one-dose effectiveness against the Alpha variant (B117), according to a UK study yesterday in the New England Journal of Medicine. Two doses, however, narrowed the gap. People are generally considered fully vaccinated with the Pfizer and the AstraZeneca vaccines 14 and 15 days after the second dose, respectively.

## Medical Debt Soars To \$140B; States Without Medicaid Expansion Hit Hard AXIOS

Americans' medical debt added up to about \$140 billion last year, according to new research published Tuesday in JAMA. Americans owe debt collectors more medical debt than any other source of debt. Looking at 10% of all credit reports from credit rating agency TransUnion, researchers said they found nearly one in five Americans had medical debt in collections in June 2020.

## Olympic Organizers Report Highest Single-Day Total Of COVID Cases USA TODAY

Olympic organizers reported their largest single-day total of COVID-19 cases on Friday, just as the Games were set to officially begin with the opening ceremony Friday evening (morning in U.S.). Tokyo organizers announced 19 new cases, including three athletes and three residents of the Olympic Village. Among the cases, four are residents of Japan while the remaining 15 are non-residents. The total included three contractors, 10 games-concerned personnel and three media. All the non-residents are under a 14-day quarantine. The update brings the total cases to 106 since July 1.

## Walmart files to provide healthcare in 37 states as it pushes deeper into telehealth BECKER'S HOSPITAL REVIEW

- Walmart has filed paperwork to operate its healthcare business in 37 states, Insider reported July 19.
- A Walmart spokesperson told Insider in June that the filings are to operate its telehealth services after it completes its acquisition of virtual care provider MeMD.
- In April and May, Walmart filed to conduct its healthcare business in 16 states. In June and July, the retail giant added another 17 states, according to public documents.





## Medical Debt Soars To \$140B; States Without Medicaid Expansion Hit Hard KHN

KAISER HEALTH NEWS

Americans' medical debt added up to about \$140 billion last year, according to new research published Tuesday in JAMA. Americans owe debt collectors more medical debt than any other source of debt. Looking at 10% of all credit reports from credit rating agency TransUnion, researchers said they found nearly one in five Americans had medical debt in collections in June 2020.

## 5 healthcare innovation trends to keep a close eye on BECKER'S **HEALTH IT**

As healthcare's digital transformation continues, new trends arise each year. Below are five innovation trends to which health systems' innovation leaders have been paying especially close attention in 2021:

1. **Investments in digital health startups** - The five categories that received the most funding during this period were telemedicine, wellness, mHealth apps, analytics and clinical decision support.
2. **AI for clinical decision support** - Hospitals are increasingly adopting artificial intelligence-powered tools to support clinical decision making. Digital health startups focusing on clinical decision support raised \$1.1 billion in the first half of 2021.
3. **Health data-sharing** - Health data-sharing has gained prominence as an innovation trend because of its potential to support healthcare workflows, data acquisition, patient records interoperability and patient identity and control over data.
4. **Hospital at home** - The pandemic accelerated "hospital at home" programs, which use remote monitoring and telehealth technologies to provide patients with hospital-level care without the risks and costs associated with hospital stays.
5. **Wearable monitoring devices** - Hospitals have been paying more attention to wearable health devices, as they can collect real-time patient data. Such devices' remote monitoring capabilities can help track patients' recovery, keep symptoms in check and/or point toward a diagnosis. A key example of health wearables' advancement came in December when Amazon made its Halo device available to the general public. Halo uses sensors to collect health data including temperature, heart rate, sleep and fitness activity. It is integrated with Cerner's EHR solutions, which allows device users to opt in to directly share their health data.

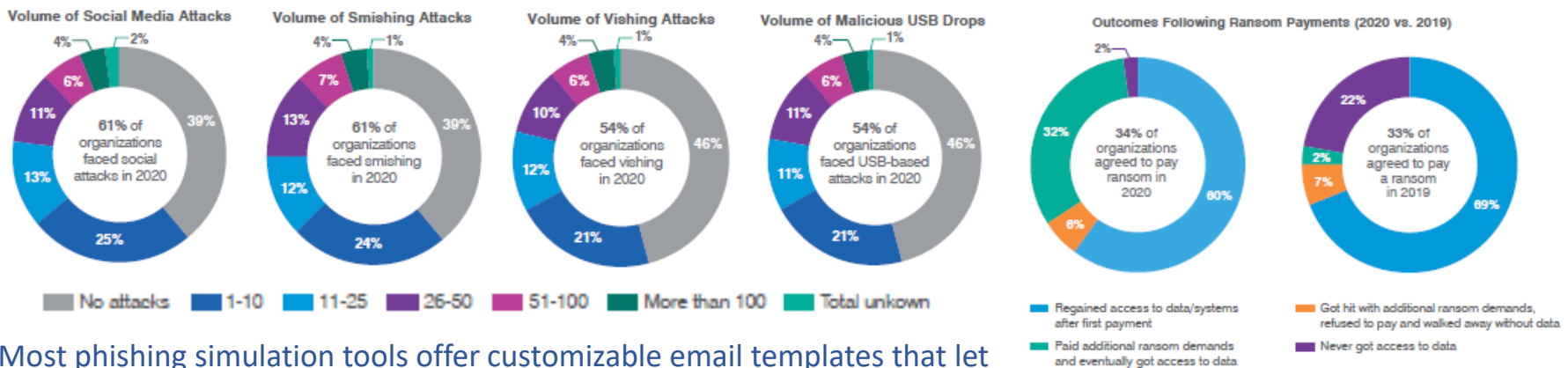
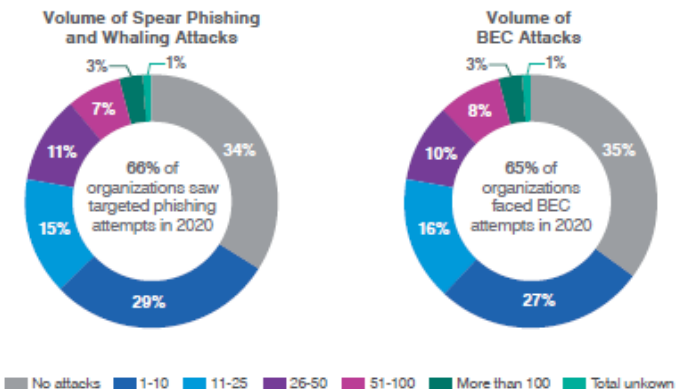
*“Without deviations from the norm, progress is not possible” - Frank Zappa.*





## The shifting nature of targeted phishing attacks **proofpoint**

- For every successful attack, many more phishing attempts are thwarted. More than 75% of organizations said they faced broad-based phishing attacks — both successful and unsuccessful—in 2020. This wide-net approach, in which the same phishing email is sent to multiple people, was the most common across all the regions we surveyed.
- But that doesn't mean spear phishing, whaling and business email compromise (BEC) should be regarded as “lesser” threats than bulk campaigns. These types of attacks reach fewer people, but their level of focus and sophistication make them more difficult for users to spot and for technical tools to block. Attackers are adept at researching and targeting specific roles and people, which means spear phishing, whaling and BEC should remain firmly on everyone's radar.



- Most phishing simulation tools offer customizable email templates that let organizations test different phishing tactics. Our customers can choose a from variety of themes and lures among three primary template types: link-based, data entry-based and attachment-based. As in the prior two years, organizations heavily favored simulated attack templates that use URL hyperlinks in 2020.





## Five Lessons to Learn on Hydrogen as a Ship Fuel The Maritime Executive

Green hydrogen could play a crucial role in the maritime industry's journey towards decarbonization. Produced through electrolysis, H<sub>2</sub> is free of carbon emissions and could be widely available across the globe in the future – as a marine fuel or a key enabler for synthetic fuels. Many in shipping recognize hydrogen's potential, but the barriers to implementing H<sub>2</sub> technology are substantial.

1. **Knowledge gaps: More testing needed on the safety aspects of handling, storage and bunkering hydrogen** - Testing and modelling needs to be fine-tuned to hydrogen's unique properties and safety considerations. There are uncertainties about the behaviour of cryogenic hydrogen (LH<sub>2</sub>), as well as thresholds when detonations occur.
2. **Safety: Hydrogen's unique properties make it very different from natural gas** - Experience of working with natural gas can be very useful for starting hydrogen operations in shipping. But there are considerable differences between these different fuel types, and on-board configurations that work for natural gas may become dangerous to use for hydrogen. This is because of hydrogen's unique properties: H<sub>2</sub> is the lightest of all atoms, making it harder to contain, and it can embrittle materials that would be safe to use with natural gas.
3. **Fuel system: Use hydrogen in its pure form when possible** - Powering vessels with hydrogen can be done via combustion engines, blending hydrogen in with other fuels, or storing it in a liquid organic solution or as ammonia. The most common and greenest way of generating power from H<sub>2</sub> is using hydrogen fuel cells.
4. **Framework: The Alternative Design process is currently the best approach** - The Alternative Design process is a risk-based approval process for novel ship designs that cannot be approved with the current prescriptive regulations and need safety optimization. The process is in line with SOLAS Chapter II-2 and is described in the IMO Guidelines for the Approval of Alternatives and Equivalents (MSC.1/Circ. 1455).
5. **Implementation: Scaling up hydrogen operations will be a challenge** - Moving hydrogen as a fuel from land-based applications to maritime is no small feat. With the IMO's regulatory framework, class rules and different interpretations from Flag States and ports to consider, navigating the regulatory landscape is challenging to say the least. The MarHySafe handbook offers a comprehensive overview of the regulatory environment. "In the absence of definitive rules, it is all the more important for the industry to come together and learn from existing projects.





### Freight rail electrification can exist in North America FREIGHTWAVES

- It is not expected to see a big return on investment because the capital costs for electrification of the infrastructure are big. And if you run the math, it doesn't really make much sense. But there may be some exceptions for specific tracks that are shorter and have a good potential for electrification.
- Since the capital costs are high, it is thought the second partner would be the government with some incentive for electrification. There should be some policy objective that could try to push the market towards some percentage of electrification. That would help a lot — to say that, maybe, private companies should be at 10% of electrification by a certain date. I think that would help a lot.
- The third partner would be power utilities. ... There could be some interesting discussions between power utilities and freight rail companies, which own some corridors, interesting discussions between public and private entities — maybe, for example, sharing some corridors where electric utilities could use electricity transmission. There would need to be a collaboration here, because at the end of the day, the world is moving to electric power. And the grid is decarbonizing, and so this is another way to bring about decarbonization.
- These three elements are important. And then you have the fourth element, which is us, the manufacturer of technology. We have great technology that we can offer to solve this issue.
- The electrification of a train is not anymore just a question of putting a catenary wire on top of the line and then you run an electric train. Today, because of battery improvements, we are seeing applications where vehicles can recharge: the buses, the big Class 8 trucks. We see companies looking at battery trains, so we can see a mix of solutions, where a short line can even run battery trains and recharge on some portion of the line or at the end of the line. These are the types of solutions that exist today that have been in pilot for different applications.
- Infrastructure can accept both battery technology that already exists and new technology being developed in pilot programs. You probably can't use electrification between large cities that have some distance between them, but you can use battery-powered trains from a port or an airport facility to an industrial area. The industry needs some new momentum to start moving toward electrification. ... That means collaboration. It means also breaking the silo where you have the power utility, the private and the government putting forth efforts together to make it happen.



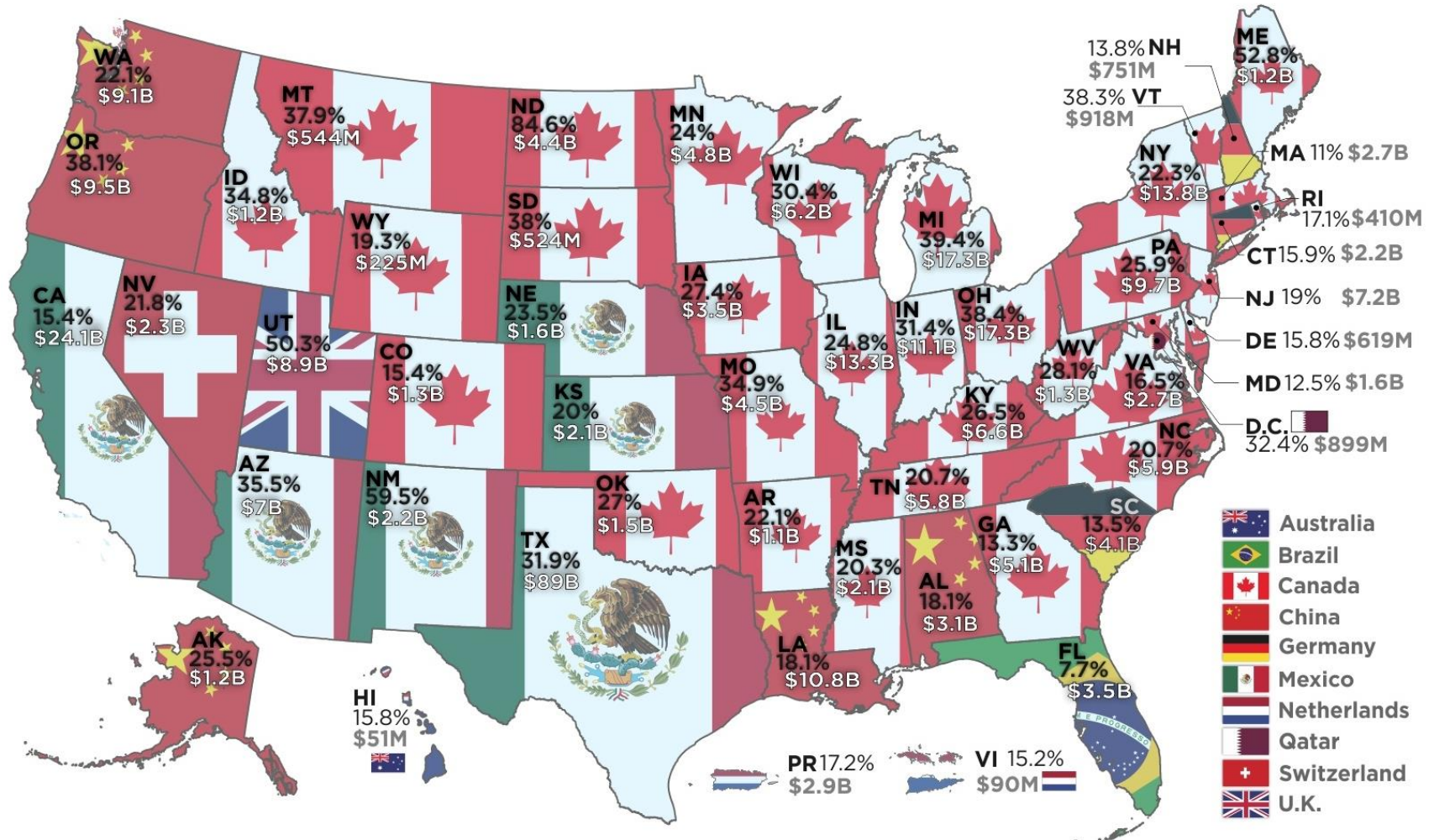




# Each State's Main Export Partner

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## Export Value & Percentage of Total State Exports in 2020



Article & Sources:  
<https://howmuch.net/articles/each-states-main-export-partner>  
United States Census Bureau - <https://www.census.gov/>

howmuch.net


*"Without deviations from the norm, progress is not possible" - Frank Zappa.*





# What Would Happen If All Ice On Earth Melted?

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Many people have wondered what would happen if all the glacial ice on the planet melted. Some believe that it would be a water world with no land in sight, while others think that could never happen. But the Earth is changing in more ways than you might think on its own. Many might wonder how much of the Earth's current global warming trend is affected by humans. Regardless of who is to blame, whether the planet is just going through a natural phase in its evolution, or if we are responsible, the evidence shows that the planet is getting warmer and warmer every year. But just how much of the planet could end up covered in water if all the glacial ice melted? 



*“Without deviations from the norm, progress is not possible” - Frank Zappa.*

