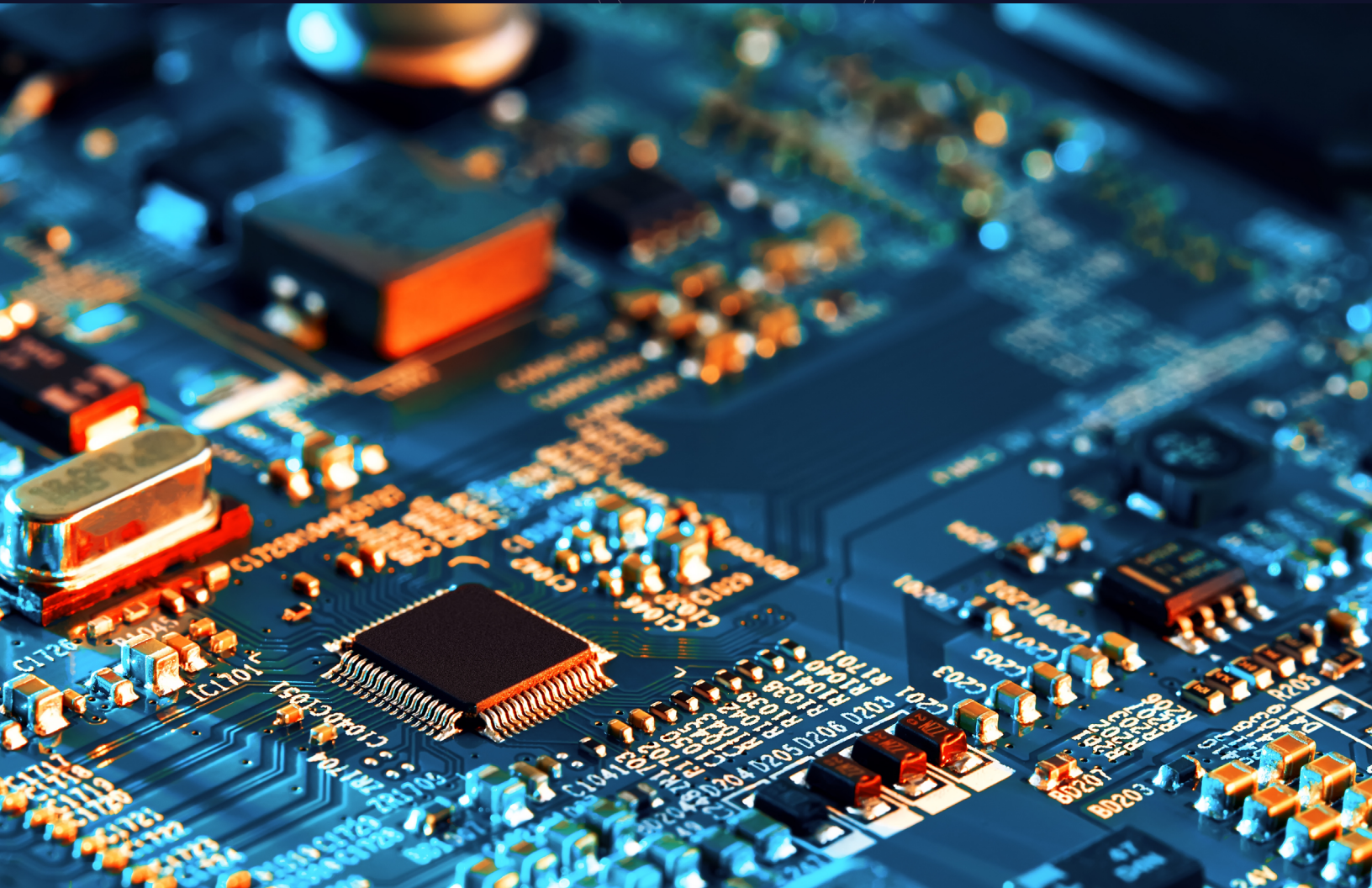


# MARKET INSIGHTS

## Global Surveys of Industry Trends

Semiconductor Industry, Impact of Green Regulations,  
Petrochemical Market, Airline Industry, ESG Investing,  
Higher Education, Edtech





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# INTRODUCTION

In June 2020, GLG launched its syndicated survey series to deliver our clients fresh insights on trending topics. Since then, our team has produced more than 200 surveys across more than 60 industries, including European airlines, luxury fashion retailers, sportswear retailers, edtech, and hotel operators.

Called *Network Surveys*, all surveys start with a rigorous selection process, finding the right matches for every niche sector. We look for the most knowledgeable experts in the industry and go through an iterative process of outlining and polishing the most compelling survey questions. This process produces fresh sets of questions for each topic, adapted to the latest news, trends, and regulations that impact each market.

Once a survey is complete, GLG's Survey Team fields the survey, collecting data either online or directly through phone calls. Most of our surveys cover the U.S. and Europe, with some also targeting experts based in Asia-Pacific, the Middle East, and Latin America. Surveys fielded in non-English-speaking countries are translated into local languages by GLG's professional partners. GLG applies a battery of proprietary tools to help with quality validation.

This eBook highlights a sample of surveys, each one a summary from the robust research in our collection. In these pages you'll find an examination of the latest trends in various markets:

- How will Net Zero impact businesses across the globe?
- How are companies thinking about ESG investments?
- In what ways has the pandemic impacted the semiconductor supply chain?
- When will the airline industry recover?
- What are the latest trends in the edtech space?

We hope you enjoy reading this eBook as much we enjoyed conducting the research and bringing the answers to these questions into the light. Please feel free to reach out to a GLG representative to receive a full copy of these results.

**GLG Network Surveys Team**

# SEMICONDUCTORS SUPPLY CHAIN

In early 2020, COVID-19 took the world by surprise. The resulting lockdowns caused demand for new automobiles to collapse, which in turn drastically reduced orders for semiconductors from the auto sector. Other semiconductor sectors related to home office, high-bandwidth networking, and gaming surged in demand and consumed the available semiconductor capacity. When automotive semiconductor demand stepped back up in late Q4 2020, the industry got a wake-up call and experienced unprecedented interruption in the supply chain.

### Survey and Panel Demographics

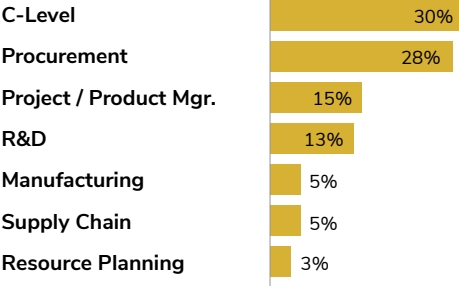
To understand more about the current market dynamics within the semiconductors supply chain space, GLG conducted a survey of 60 senior executives across the U.S. (33%), UK (17%), France (17%), Germany (17%), Taiwan (8%), and South Korea (8%). Of those surveyed, 30% were C-suite executives, 28% procurement professionals, 15% project/product managers, 13% R&D professionals, 5% manufacturing professionals, 5% supply chain professionals, and 3% resource planning professionals.

These respondents work at a variety of company types, including semiconductor equipment manufacturers (38%), wafer suppliers (18%), foundries (12%), semiconductor IDMs (10%), OEMs (10%), OSATs (8%), tier 1 (2%), and distributors (2%). All of these respondents were knowledgeable and able to discuss the strategic changes businesses are making to manage potential shortages going forward, including expectations for inventory levels.

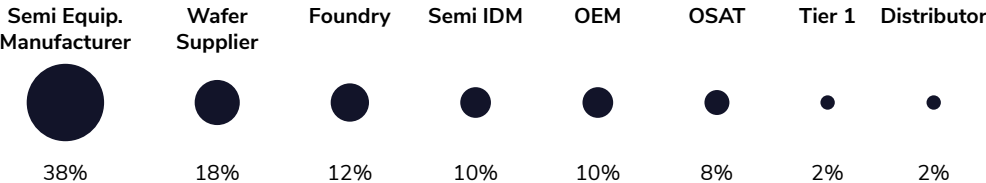
### Geography

Country	Respondent Location	Company Headquarters
US	33%	33%
UK	17%	15%
France	17%	17%
Germany	17%	15%
Taiwan	8%	8%
S. Korea	8%	8%

### Role



### Company Type

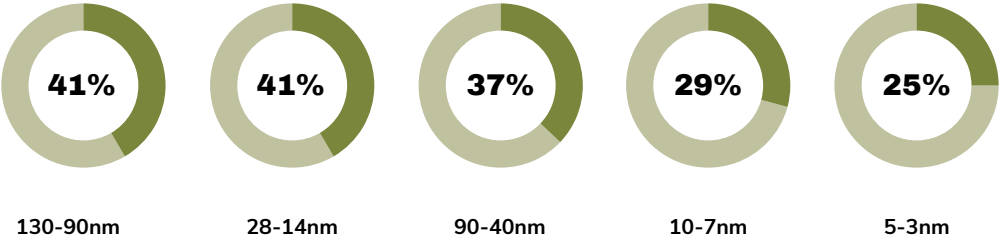


### Different Semiconductor Nodes, Different Supply Chain Impact

The supply shortage appears not to affect all semiconductor products to the same extent. The more mature nodes are reported to suffer most (with over 4 in 10 respondents indicating the shortage has had a major or severe impact on 130-90nm and 90-40nm nodes), indicating that the mitigation efforts across the industry are mainly focused on the more advanced nodes.

### Impact of Chip Shortage on Technology Nodes

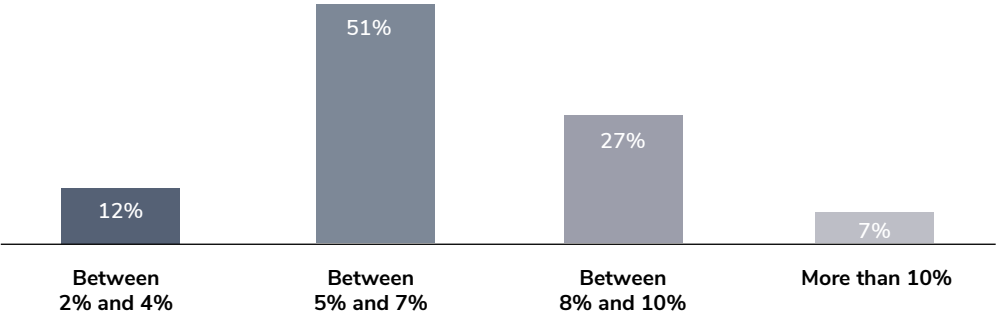
% Selecting "Major impact" or "Severe impact"



### The Future of Semiconductor Industry Growth

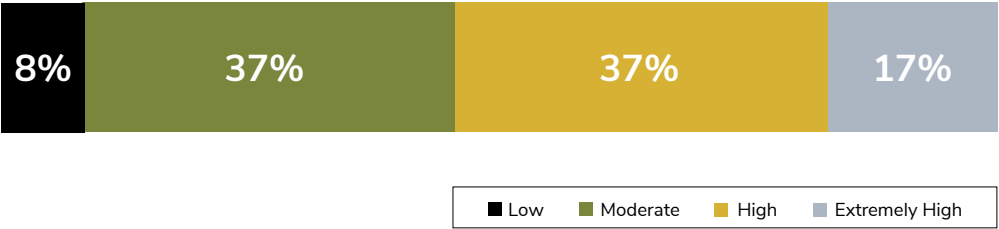
On the longer term, the semiconductor industry is expected to grow at an average compound annual growth rate (CAGR) of 7%. Bear in mind that only 45% of our respondents felt that semiconductor visibility was still at "low" to "moderate" despite recent production capacity corrective actions. The possibility of establishing overcapacity beyond the 2023 horizon is a serious risk that could trigger a major down cycle across the industry.

### Estimated Sustainable Long-Term CAGR





### Current Visibility on Demand

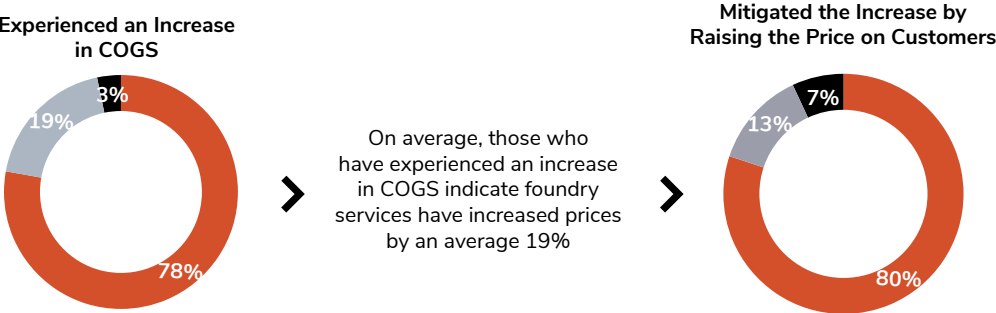


### Reverberations of the Supply Chain Challenges

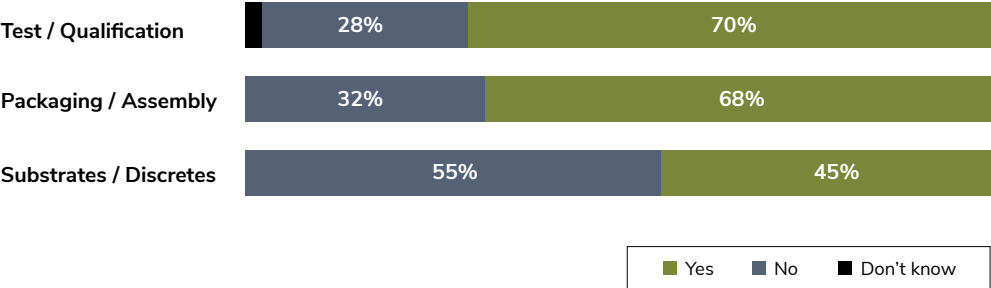
Looking specifically at the impact on businesses, about 8 in 10 respondents indicate their companies have experienced an increase in cost of goods sold (COGS), with an average 19% rise in foundry prices. Among those experiencing increases, 80% mitigated impacts by raising customer prices.

What’s more, experts participating in this survey have also indicated additional capacity restrictions, with 7 in 10 experiencing issues with test/qualification capacity and almost as many with packaging/assembly.

### Impact of Increase in Cost of Goods Sold (COGS) Due to Increased Foundry Prices



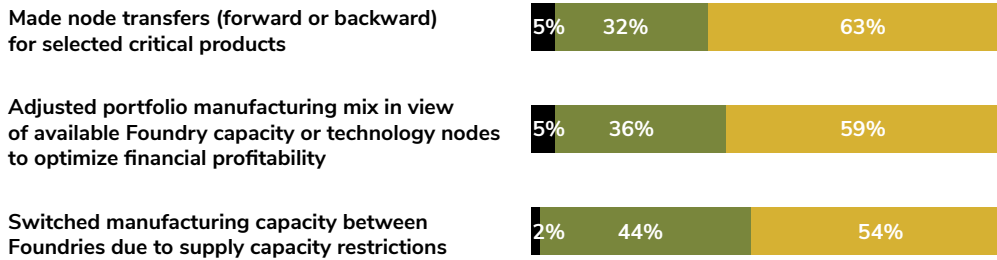
### Additional Capacity Restrictions Across Supply Chain



### Conclusion

Despite the increasing demand for semiconductors, production of chips suffered due to COVID-19 shutdowns and respondents are experiencing on average an approximately 20% gap in chip demand versus sale fulfillment. Various mitigation actions to face the demand gap have been initiated across the value chain, from expansion of capacity in existing fabless semiconductors to acceleration of plans for building new fabs and from portfolio priority decisions to node migrations for critical parts. Despite these corrective actions, the supply chain gap is expected to last throughout 2023.

### Operational Changes Resulting from Chip Shortages



### Sample Questions from the Survey

- What is your outlook for the demand-to-supply volume gap developing in the following periods?
- How would you estimate the split of actual volume demand in terms of inventory (re)build versus actual sell-through?
- Are you facing increases in cost of goods sold (COGS) due to price raises in foundry services (wafers or materials)?
- In your view, how much do the chip shortages impact the following technology nodes?
- Which of the following product classes are most affected by supply shortages?
- Have you switched manufacturing capacity between foundries due to supply capacity restrictions?
- Do you anticipate foundries to proactively adjust their global supply chain geographics, i.e., shifting capacity from Asia to EU or USA?
- How are you seeing ASP rising/falling quarter by quarter for semiconductors?

# IMPACT OF COP26 AND NET ZERO STRATEGY

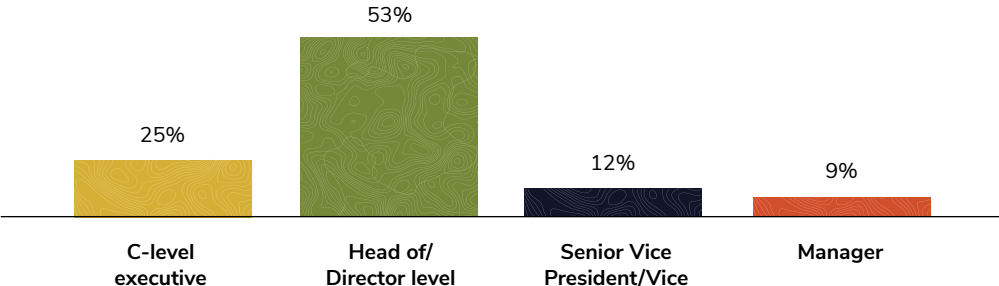
**ANDREA MOGNI, FORMER SENIOR POLICY OFFICER AT THE EUROPEAN EXTERNAL ACTION SERVICE**

In general terms, enterprises seem to be aware of the issues surrounding climate change, the need to reduce CO2 emissions, and the need to ensure environmental protection. In the UK, the government has laid out a Net Zero Strategy that plans to reduce emissions to net zero in 2050. However, there is mixed knowledge of what the UK Net Zero Strategy means in practice. At the same time, at the recent United Nations Climate Change Conference held in Glasgow (known as COP26), a group of more than 20 governments and financial institutions agreed to stop funding new overseas fossil fuel projects with public money by the end of 2022.

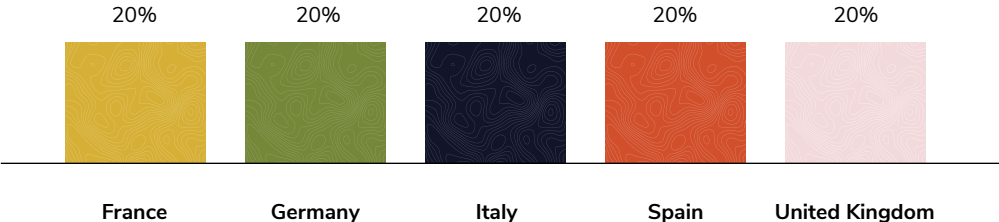
### Survey and Panel Demographics

To understand more about this topic, GLG conducted a survey of 75 executives across the UK (20%), France (20%), Italy (20%), Spain (20%), and Germany (20%). Of those surveyed, 53% were head of/director level, 25% were C-suite, 12% senior VP/VP, and 9% manager level. These respondents work in a variety of industries, including industrial (53%), automotive (24%), transportation (9%), energy (8%), utilities (3%), chemicals (1%), and shipping (1%). All respondents were knowledgeable and able to discuss the implications of COP26 and Net Zero on their industry.

### Which of the following best describes your job title?

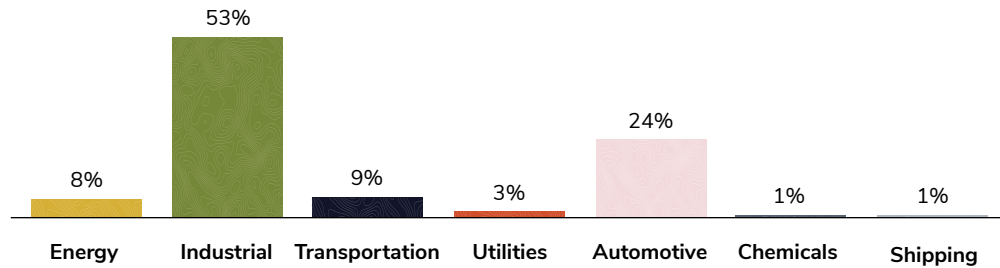


### Where are you based?





## Which of these terms best describe your industry?



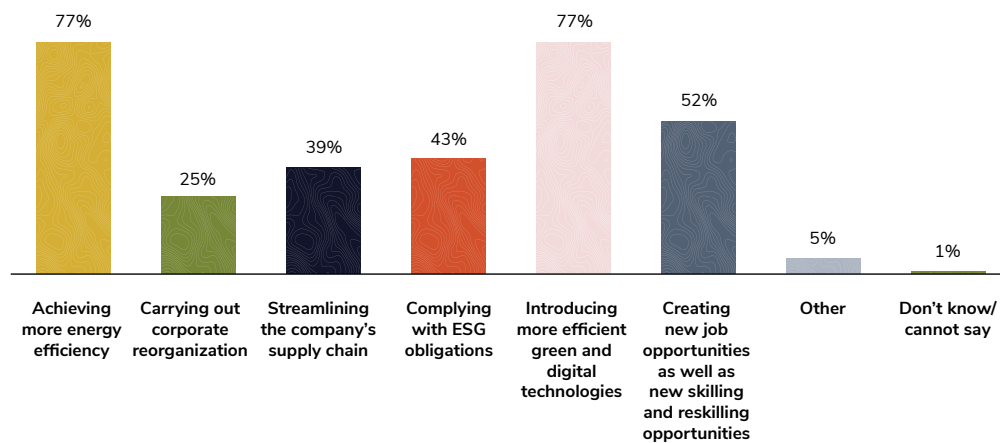
### Opportunities and Risks

The executives we surveyed perceived climate and environmental issues as both risks (additional costs, unforeseen and unpredictable future, uncertain impact of natural disasters etc.) and a new opportunity for long-term structural (“systemic”) change.

As companies transition toward net zero and COP26, we’ll likely see the introduction of more efficient green and digital technologies, achieving more energy efficiency and shifting from fossil to renewable energy. Three-quarters (77%) of those GLG surveyed support this evolution to non-fossil energy.

Forty-three percent of the executives surveyed named “complying with ESG obligations” as an opportunity, perceiving it as creating a level playing field among enterprises. Other ranked opportunities included “creating new job opportunities” (52%), “streamlining the supply chain” (39%), and “carrying out corporate reorganization” (25%).

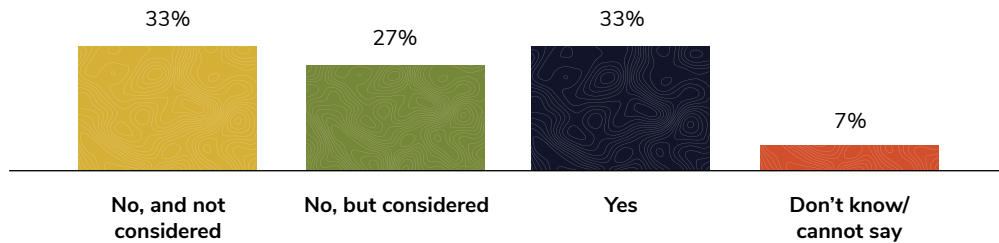
## What opportunities do the Net Zero Strategy policies present for businesses in your industry?



### Interaction between Enterprises and Government/Public Authorities

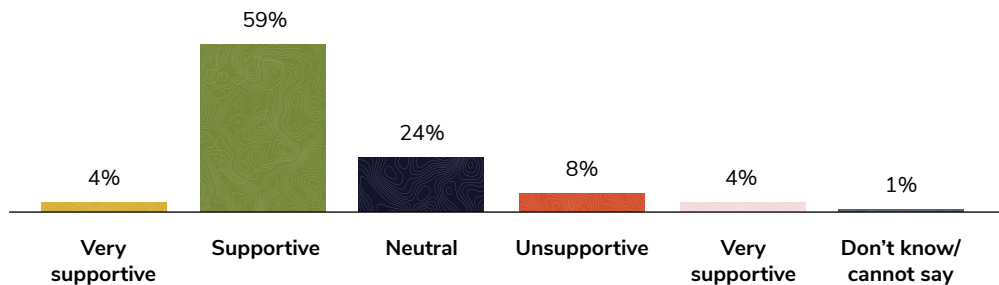
It is uncertain how the interaction between enterprises and government on climate and environmental issues will take place and evolve. Thirty-three percent of the executives we surveyed are of the opinion that there will be no interaction at all between their firm and the public authorities on these matters.

### Do you plan to take part in any policy consultations with the UK government related to its Net Zero Strategy?



At the same time, enterprises recognize that they will need massive public support in terms of incentives, subsidies, and tax facilitations to support them all through the transition period. Sixty-three percent of enterprises expect a cooperative/supportive position from their global or regional supply chains but 24% estimate that their supply chains will be neutral in this structural decarbonization process to 2050 at European level.

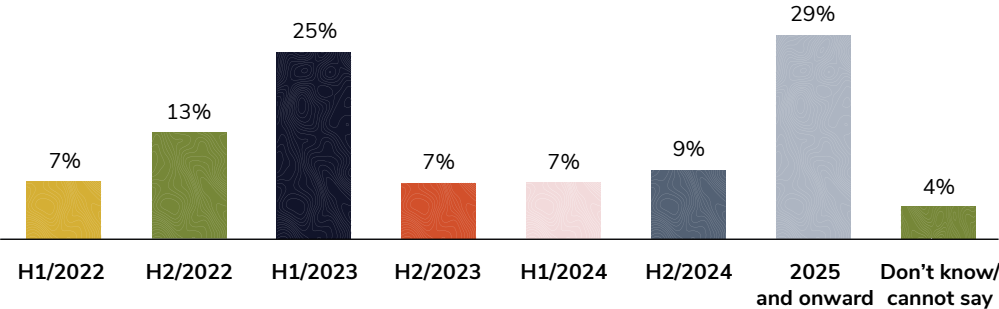
### How supportive do you believe other parts of your supply chain will be in achieving Net Zero objectives?



### Impact of Extra Costs

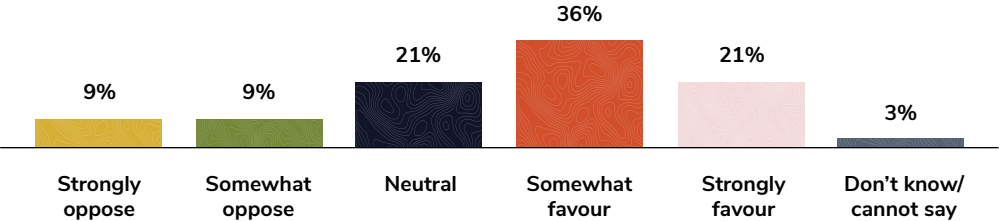
Three-quarters of those we surveyed are aware that it is likely or very likely that addressing climate or environmental concerns implies extra costs for them. Transition could be long, expensive, and painful.

**What is the average timeline for when changes will need to take place for companies in your industry?**

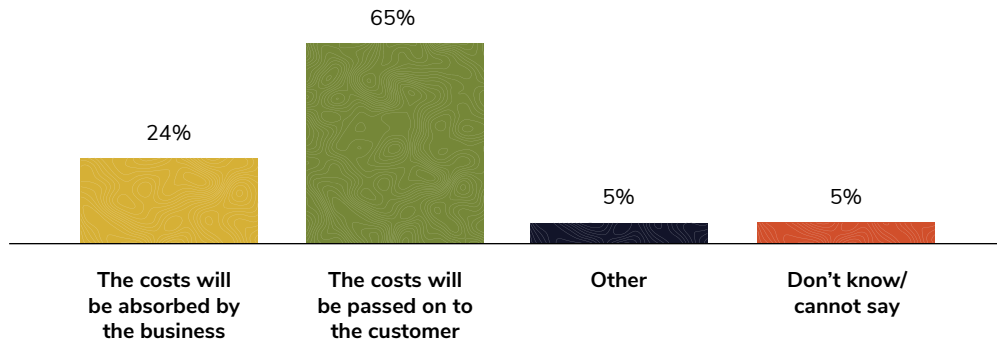


More than 50% of our respondents support a new environmental and climate tax, but 65% of them are ready to pass these extra costs to the clients/consumers. The exact impact of higher costs for consumers is difficult to assess, but for 70% of the enterprises participating in the survey, consumers are “cost sensitive.” This means that passing extra costs to them may bring about declining sales and profits for the enterprises. For them to survive and remain competitive, some of these extra costs would need to be internalized.

**An environmental/climate tax — To what extent do you support the initiative?**



## In the case of an environmental/climate tax, how do you expect this to be managed by businesses in your industry?



### Conclusion

When it comes to net zero and COP26, the executives we surveyed do not underestimate the substantial impact that such a transformation process will have on business models, organization, supply chains, vertical or horizontal integration process, competitiveness, and innovation capacity. They are also aware that this transition process will be long, expensive, and painful. However, they show a degree of resilience and appear rather optimistic. They are ready to seize new business opportunities and invest in innovation, renewable energy, circular economy, environmental protection, digitalization, skilling, and re-skilling.

To achieve the ambitious goals set forth by the Net Zero Strategy and COP26, enterprises will require government incentives and direct financial support. The executives we surveyed demonstrate confidence that public authorities will assist them financially to minimize the social costs of a transition.

### Sample Questions from the Survey

- To what extent is tackling climate-related issues a priority for your company?
- To what extent do you think businesses within your industry will incur significant costs in the next three years due to climate/environmental concerns?
- To what extent do you expect Net Zero Strategy to impact businesses in your industry?
- What is the average timeline for when changes will need to take place for companies in your industry?
- What opportunities do the Net Zero Strategy policies present for businesses in your industry?
- To what extent do you expect the outcomes of the COP26 conference to impact businesses in your industry?
- What will the impact of these changes be on businesses in your industry?
- What opportunities do the outcomes of the COP26 conference present for businesses in your industry?
- Which of the following, if any, will businesses within your industry need to invest in as a result of COP26 objectives?
- In the case of an environmental/climate tax, how do you expect this to be managed by businesses in your industry?

# PETROCHEMICAL MARKET OVERVIEW

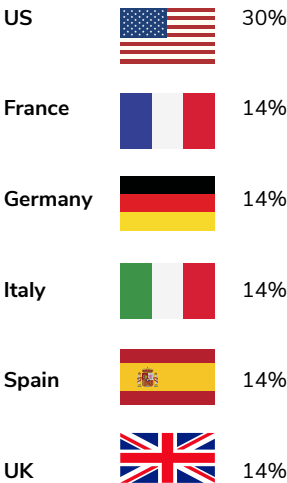
The impact of the COVID-19 pandemic on the petrochemicals market has been severe, and as a result, the first half of 2021 saw performance fall below expectations across certain segments of this space. However, experts in the field are optimistic that a return to pre-COVID-19 levels is possible by the first half of 2023.

Petrochemical companies are also factoring in climate change and the politics around it, but opinions are split across sectors about the impact it will have on their businesses.

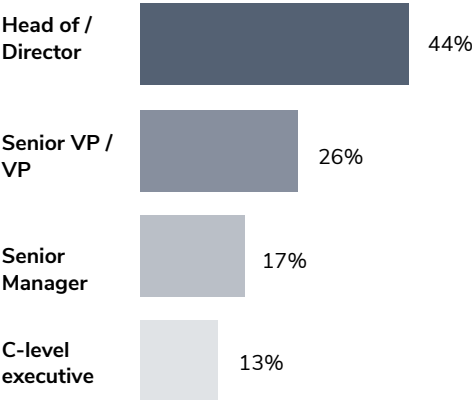
### Survey and Panel Demographics

To understand more about the current market dynamics within the petrochemical industry, GLG conducted a survey of 70 senior executives across the U.S. (30%) and Europe (70% in total with an equal split for the United Kingdom, Germany, France, Italy, and Spain). Of those surveyed, 13% were C-suite executives, 17% senior managers, 26% vice presidents, and 44% heads of departments. All our respondents were knowledgeable and able to discuss the latest trends within the petrochemical industry and provided their projections for market recovery.

### Geography



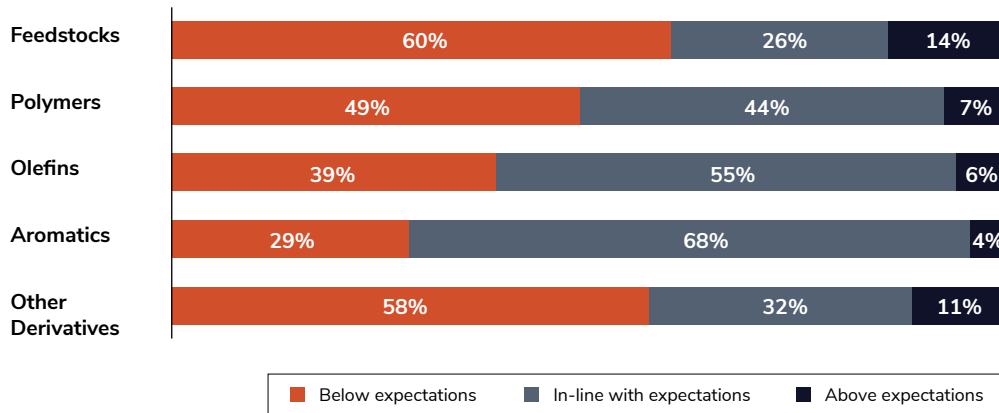
### Job Title



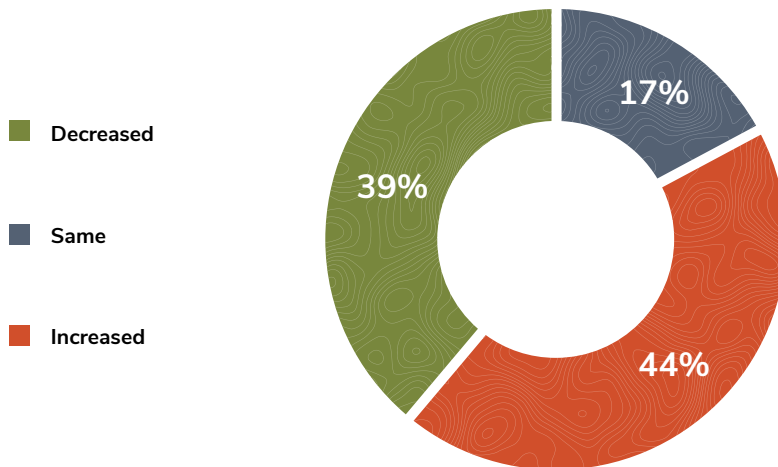
### Petrochemical Market Conditions

GLG's survey revealed considerable variation in terms of H1 performance. In the important olefins area, for example, 55% of the respondents reported that H1 2021 performance had been in line with expectations, while 39% saw it as below expectations. A similar divergence was seen upstream: 68% of aromatics respondents saw performance in line with expectations, whereas 60% of feedstocks respondents saw it below expectations. In polymers, the sector closest to end users, 49% saw performance above expectations and 44% saw it below. Perhaps surprisingly in view of the media focus on supply chain problems, 39% said their inventories had increased in H1, twice as many as reported a decrease.

### Performance by Sector in H1 2021



### Change in Size of Inventories Over the Past 6 months



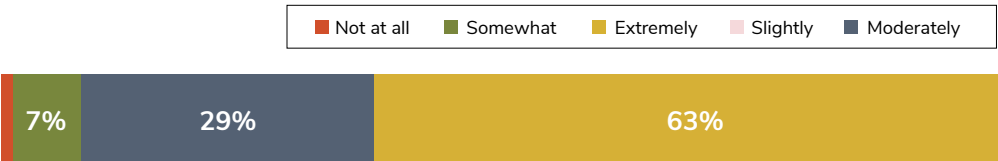


**Impact of Climate Change Politics on Petrochemical Industry**

More than 90% of companies are aware of Net Zero emission targets, and half are already planning to meet them. Their expected impact, however, varies by sector. Polymer companies are twice as optimistic about the potential for new opportunities as those in olefins and aromatics. Only a quarter of those involved in feedstocks currently see them as potentially creating new opportunities.

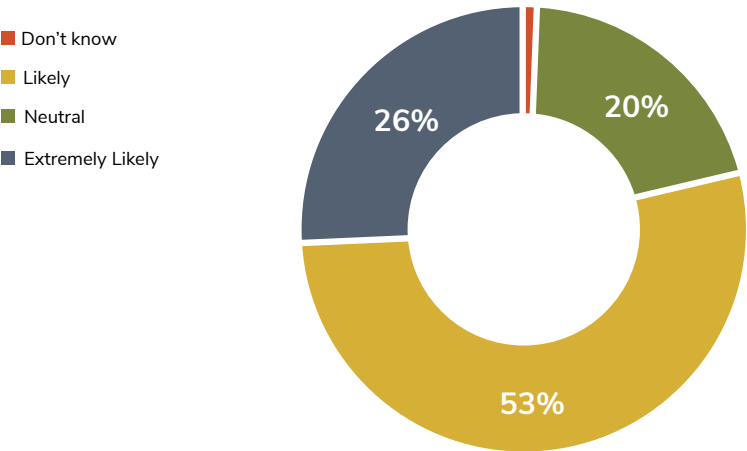
This divergence of views is highlighted in attitudes to the potential for a rapid transition to electric vehicles in the auto sector. Forty-six percent see this as likely to create rapid and positive change, while 41% see little likelihood of this happening — and 10% expect rapid change with a negative outcome for their business.

**Companies' Awareness of Implications of Net Zero Emission Targets**



Awareness of the implications of net zero emissions targets is **very high**, with **over 90%** either **moderately** or **extremely** aware.

**Likelihood Companies Are Actively Planning for Net Zero Emissions**



## Expectations for a Rapid Transition Toward Electric Vehicles (2025-2030)

**+ 46%**

Rapid change will happen, with positive impact

**41%**

Rapid change won't happen, so there won't be much impact

**- 10%**

Rapid change will happen, with negative impact

### Conclusion

In the short term, respondents expect the positive momentum established in the first half of 2021 to continue through the end of the year, with those in the aromatics sector most optimistic. Respondents are also positive about the outlook for 2023, led by the polymers sector, where 89% are generally optimistic.

The survey also demonstrated that while petrochemical companies are clearly planning for a Net Zero future, some sectors — like the polymer industry — saw these strictures as presenting opportunities, while others — such as feedstocks — perceive challenges on the road ahead.

### Sample Questions from the Survey

- In your view, what has been the overall COVID-19 impact on the petrochemical market?
- Historically, buyers build inventory when oil prices are rising to protect downstream margins. In your sector, how do you think inventories have been over the past six months?
- How would you describe conditions down the value chain in your main regions?
- In your view, how prepared are companies in your sector in servicing clients in the automotive industry considering the rapid transition from gasoline/diesel cars to electric vehicles?
- What do you think are the biggest challenges when it comes to the transition to autonomous vehicles over the next few years?
- The approaching COP26 conference is likely to see Net Zero emission targets adopted for CO<sub>2</sub>, with possibly major impact on petrochemicals. Which of the following best apply to your sector?
- Looking further ahead out to 2023, which of the following statements best applies to companies in your region?
- Assuming the oil prices will remain the same, how do you expect your sector to react in H2/2021?

# COVID-19 IMPACT ON AIRLINES AND AIRCRAFT LESSORS

The early impact of COVID-19 on airlines was significant. Nonessential air travel was shut down, flights were grounded, and personnel were furloughed. The industry reached its low point in March and April of 2020, and it's been a slow climb back ever since.

As of August 2021, the airline industry has not yet returned to pre-COVID levels in terms of either active fleets or passenger loads. Now, with the delta variant gaining traction among the unvaccinated population, a challenging road remains ahead for the industry.

## Survey and Panel Demographics

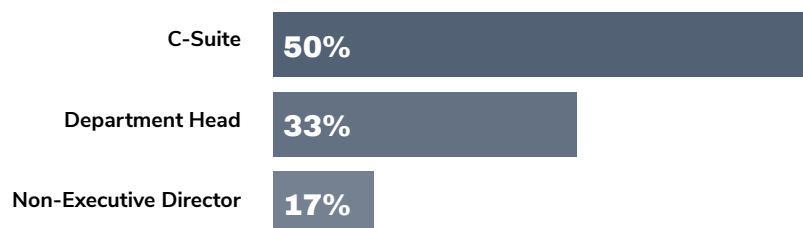
To find out more about the ongoing impact of COVID-19 on the future trends and outlooks for the airline industry, GLG conducted a reoccurring survey of airlines and aircraft lessors across the Americas; Europe, the Middle East, and Africa; and the Asia-Pacific.

To ensure that the survey measured data over time, GLG conducted it in three discrete waves: wave one in September 2020, wave two in March 2021, and wave three in June 2021. Of those surveyed, 50% were C-suite executives and 33% department heads. The remaining 17% were nonexecutives who were either moderately or extremely familiar with their company's business situation and business decision-making strategy.

## Employer Type



## Role

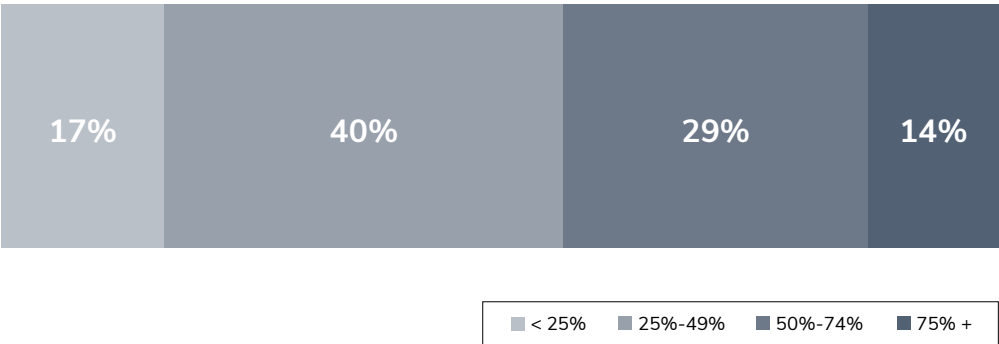


**Slow COVID-19 Recovery — Airlines**

Though social distancing and masking protocols seemed to have some impact on lowering infections since spring 2020's high point, in September of the same year we were still in the thick of it. On September 27, the World Health Organization said that more than 32.7 million COVID-19 cases had been reported. In that week alone, more than 2 million new cases were reported worldwide.

When the first wave of GLG's survey was conducted in August and September, the airline industry was clearly feeling the stark impact of the pandemic. Almost half of the airline industry professionals whom we surveyed said fleet utilization was less than 25% of 2019 levels, with nearly 85% operating at less than half of pre-COVID-19 levels.

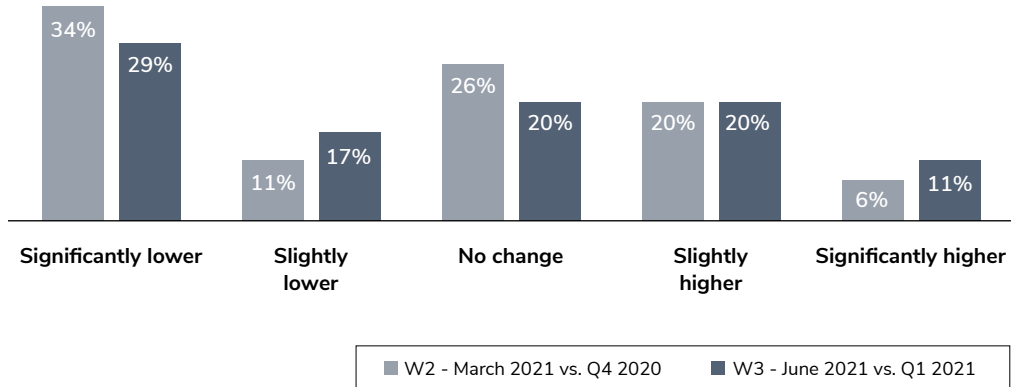
**Level of Passenger Fleet Utilization in Q4 2020 vs. 2019**



By December 2020, the first vaccines began to roll out. Within the first week, 130,000 were vaccinated in the U.K. and 556,208 received shots in the United States. Since that time, COVID rates have fallen, but airlines are still feeling pain as flight patterns have not yet returned to pre-COVID numbers. The difference between the March and June waves of our survey saw little difference in our respondents' answers.

When asked about their fleet utilization, nearly 30% of those we surveyed said they continue to see significant decreases and recovery has been reversed in several key markets due to COVID-19 variants and government interventions.

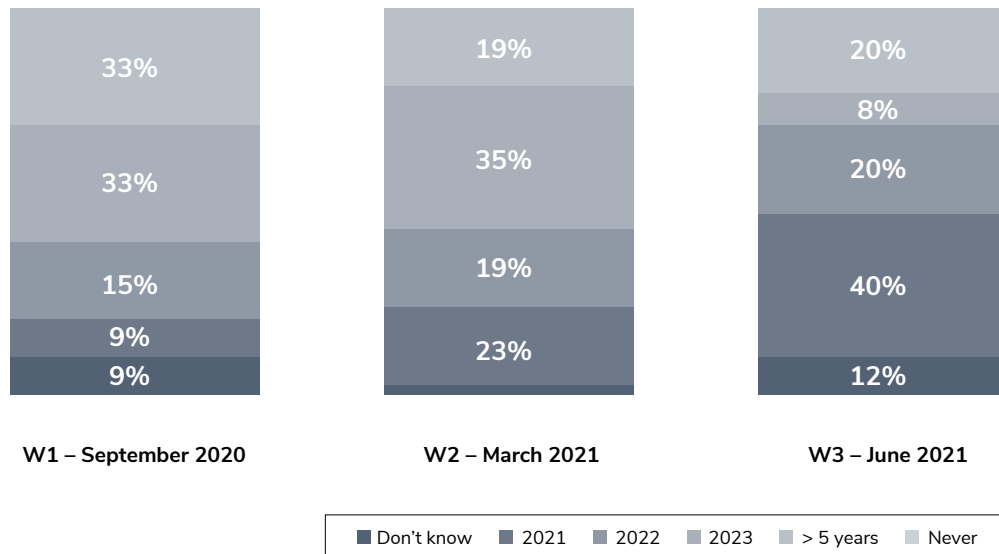
## Quarter-on-Quarter Level of Passenger Fleet Utilization



### Slow COVID Recovery — Aircraft Lessors

COVID's impact on airlines rippled through the industry, impacting the aircraft lessors that GLG surveyed. In September 2020, 66% of the lessor respondents said that their companies had granted relief requests. This diminishes to 54% in March 2021 and 28% in June 2021. This still points to a slow recovery for aircraft lessors, which have faced significant income reductions.

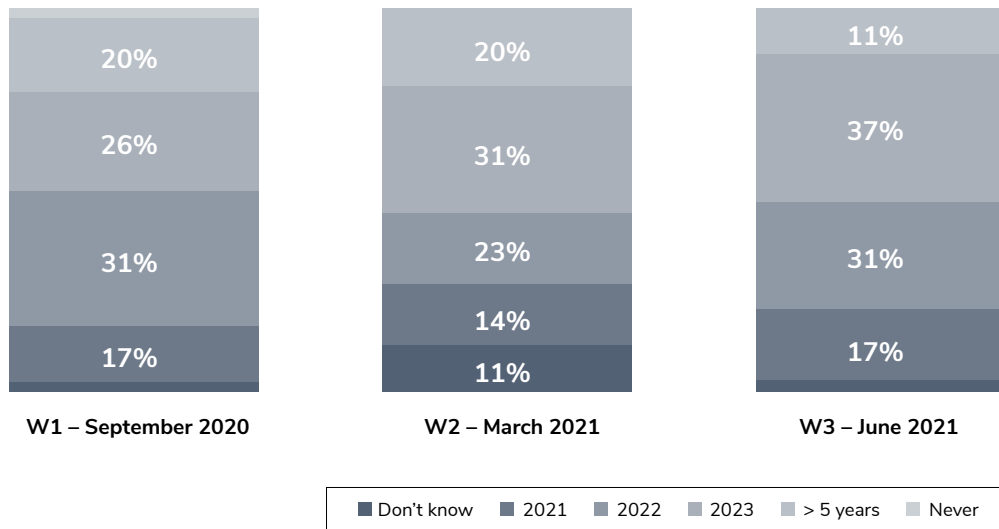
### Proportion of Requests for Relief on Lease Payments Granted



### Long-Term Impact of COVID on Airlines and Aircraft Lessors

COVID's impact on airlines rippled through the industry, impacting the aircraft lessors. In September 2020 and March 2021, 20% of our respondents predicted a 2021 recovery. But as COVID persisted, even that optimism waned. In June, just 11% foresaw a complete recovery in 2021. The most widely held view (31% in June) is that a full recovery is not likely until 2023.

### Predicted Time for Passenger Demand to Return to Respondent's Airline



### Challenges for Airlines and Lessors

GLG's survey showed that most airline respondents (68%) ranked liquidity as the largest challenge for airlines, with lack of supportive government ranking second (49%). For lessors, the overwhelming concern is now asset value impairment (78%), with oversupply remaining a significant issue (56%).

### Conclusion

The world is not out of the COVID woods yet. A critical mass of vaccination is key to sustained recovery. Without that, the delta variant may likely lead us into unpredictable quarantine scenarios that could contribute to an uncertain recovery. But as vaccinations increase, we'll likely see an early surge in leisure trips and family and friend visits, though business travel and revenue will likely struggle to recover.



### Sample Questions from the Survey

- In your view, what has been the overall COVID-19 impact on the petrochemical market?
- What is the size of your airline, measured by fleet?
- What percentage is your airline's approximate fleet mix by body?
- How would you describe your airline's business model?
- What is the size of your lessor, measured by delivered portfolio?
- What is the approximate portfolio mix by "body"?
- How would you describe your lessor's investment strategy?
- Compared with 2019, at what level of utilization is the current active passenger fleet operating?
- Compared with your company performance in [previous quarter], what level of utilization is the current active passenger fleet achieving?
- Compared with 2019, what average passenger load factor is currently being achieved?
- Compared with your company performance in [previous quarter], what average passenger load factor is currently being achieved?
- If government support was requested, what conditions, if any, were sought in return?
- What proportion of those requests have been granted in Q1 2021?
- What percentage of lease rental revenue does this represent?
- What is your view on the outlook for the airline industry?
- When do you think passenger demand for your airline will return to 2019 levels?
- Please rank these potential challenges facing airlines in Q2/2021 in order of severity.
- Please rank these potential challenges facing lessors in order of severity.

# ESG INVESTMENTS — OVERVIEW AND MARKET OUTLOOK

The idea of socially responsible investing has existed for decades, but it was in the 2010s that investors began earnestly applying environmental, social, and governance (ESG) criteria to their investment decisions. Reacting to the financial crash of 2008, fund and portfolio managers looking to restore trust in the capital markets embraced corporate governance reform.

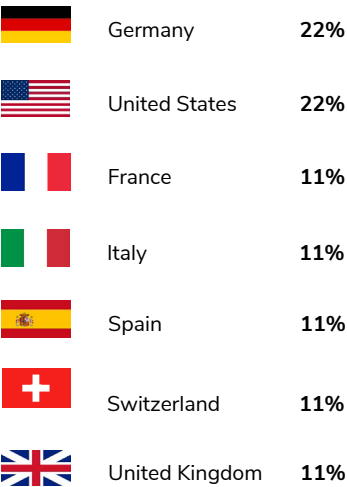
The second half of the decade saw environmental and social issues gaining traction, likely in response to such things as the #metoo scandals, diversity issues, data privacy, climate change, environmental disasters like the Deepwater Horizon oil spill, and the increased call for sustainable business practices.

By 2020, ESG investing had gained a significant toehold, but it was the COVID-19 pandemic that gave it a firm platform on which to stand, raising the importance of ESG criteria for many investors and bringing it into the mainstream for the foreseeable future.

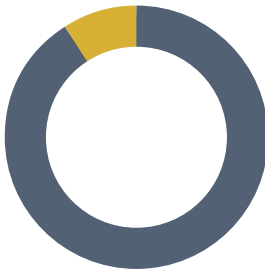
### Survey and Panel Demographics

To find out more about the current state of ESG investing, the importance of its different components, and key issues for environmental, social, and governance, GLG conducted a June to July 2021 survey of 90 financial services industry professionals in seven countries. Sixty-four percent of the professionals we surveyed were C-level executives, 22% were fund managers, 12% were portfolio managers, and 2% were co-fund managers. When asked what type of fund they were managing, 91% of our respondents reported that they primarily managed ESG funds.

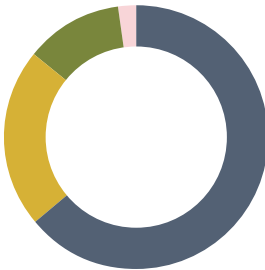
### Geography



### Type of Fund



### Role

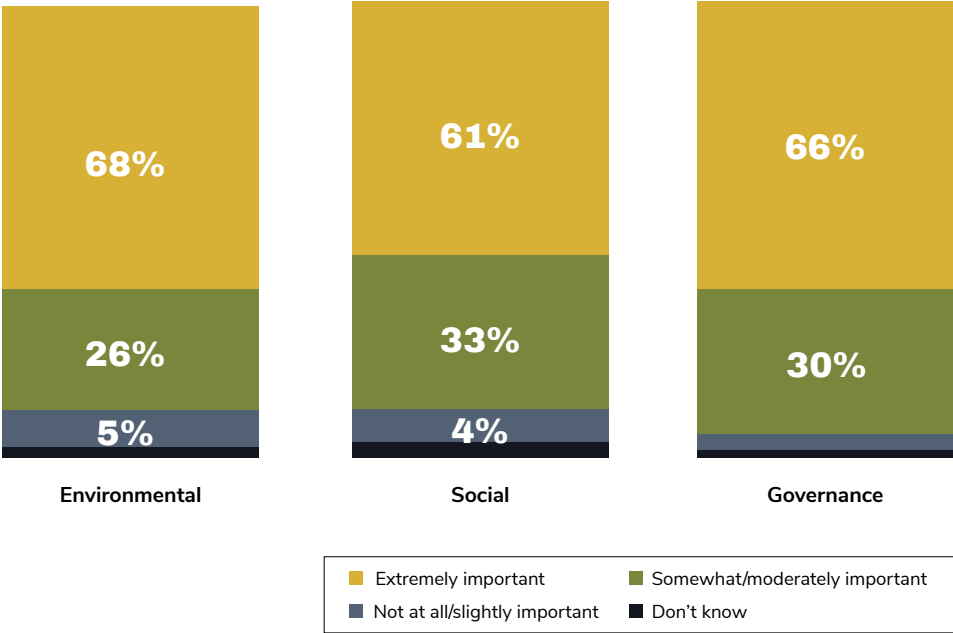


**ESG Components and Issues**

The survey found little difference among the relative importance of ESG components when it came to portfolio management. Respondents ranked environmental concerns as highest (68%), but the other components came in with very little statistical difference, with governance ranked at 66% and social issues ranked at 61%.

When we asked our respondents about the top three issues within those components, we saw a greater span of ranked concerns. For example, of the top four issues for environmental concerns, we saw climate change ranked first, with 76% of our respondents ranking it a top concern, while less than half (43%) ranked biodiversity as a top concern. Social issues saw the tightest span, with 52% ranking health as a top issue and 30% ranking racial equality as an important factor. Finally, for governance, 85% of those investment professionals who took our survey ranked business ethics as an important issue, while just under half (49%) indicated that anti-trust issues were of importance.

**Importance of ESG Components to Investors**

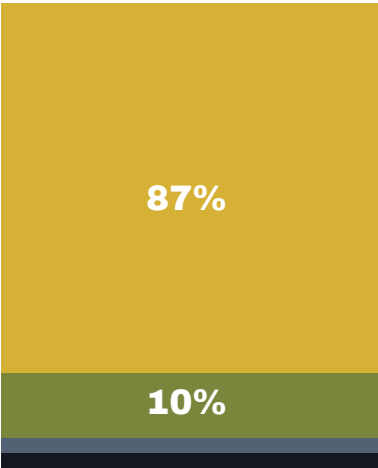


**Sustainable Development Goals**

In 2015, all United Nations Member States adopted the 2030 Agenda for Sustainable Development, which “provides a shared blueprint for peace and prosperity for people and the planet, now and into the future.” The agenda lists 17 Sustainable Development Goals (SDGs) that “recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth — all while tackling climate change and working to preserve our oceans and forests.”

Of the investment professionals GLG surveyed, 87% said it was likely that investors would consider SDGs in their investments. Just more than half (52%) of our respondents ranked climate action as the number one goal, followed by quality education at 43%, gender equality at 36%, and the elimination of poverty at 27%.

**Likelihood of Investors Using SDGs**



**SDGs Supported by Companies - T3B**

- 52%** Climate Action
- 43%** Quality Education
- 36%** Gender Equality
- 32%** Zero Hunger
- 27%** No Poverty

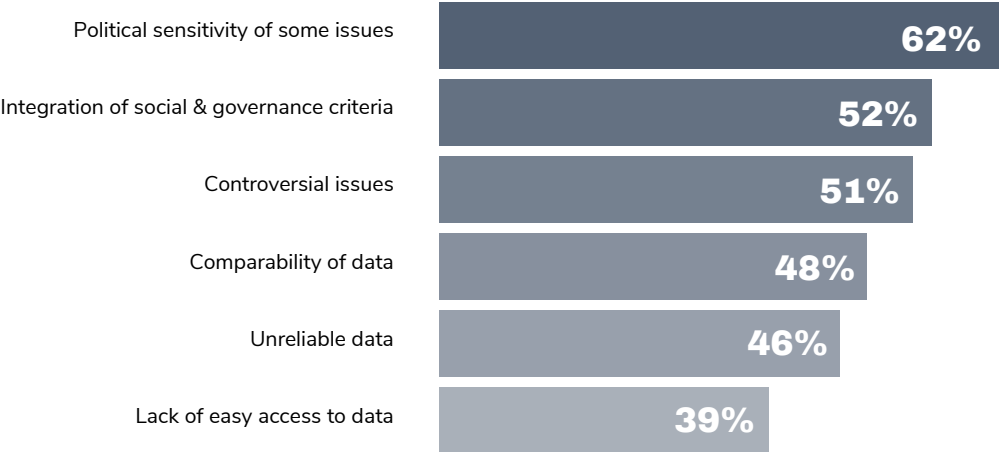
**Market Outlook for ESG**

When asked whether ESG is likely to become standard in the next five years, our respondents overwhelmingly (87%) said that it is indeed on its way to becoming integrated into mainstream investment practices.

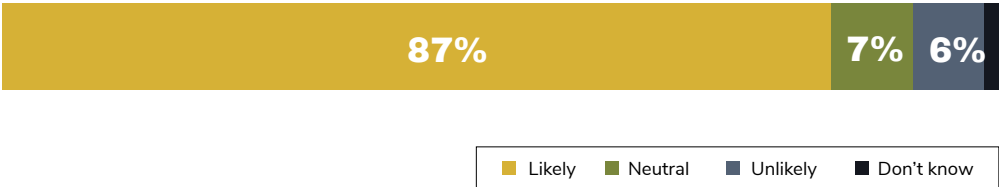
Most of those (62%) we surveyed suggested that asset managers should focus more on environmental issues to differentiate portfolios over the next five years, but most viewed ESG holistically, with 51% seeing a continued focus on social issues and 47% seeing governance issues as top investing differentiators.

But ESG is not without challenges. The top two concerns centered on the political sensitivity (62%) and controversial nature (51%) of certain ESG issues. Those we surveyed also ranked data issues highly, with 48% citing the comparability of data as a challenge and 39% citing the lack of easy access to data.

**Top ESG Challenges - T3B**



**Likelihood of ESG Investing Becoming Standard in Next 5 Years**



## Conclusion

For most of us, climate change, diversity, and the need for sustainability are top of mind in our daily lives. As companies take more responsibility for the world around them, they've become important issues for investors as well. With just the last few years as evidence — out-of-control wildfires, a global pandemic, demands for social justice occurring globally — it's clear that the world is intrinsically bound together. GLG's survey shows that ESG investment professionals can see that making responsible decisions is the best way forward for their clients.

## Sample Questions from the Survey

- How important are the following ESG components to investors?
- What are the top three most important environmental issues for ESG investors?
- What are the top three most important social issues for ESG investors?
- What are the top three most important governance issues for ESG investors?
- How important are the United Nations Sustainable Development Goals as part of the investment framework for ESG investors?
- How likely are companies to start using the U.N. Sustainable Development Goals (SDGs) as part of their investment framework?
- How are companies primarily using the SDGs?
- How likely do you think ESG investing will become a standard in the next five years for other funds similar to yours?
- From your experience, what are the top three biggest ESG challenges?
- What role do you think technology and digitization play in addressing some of the ESG challenges?
- What are the main hurdles that face the industry around ESG?



# THE POST-COVID FUTURE OF PRIVATE HIGHER EDUCATION

**JOHN RANDOLPH COX, GLG NETWORK MEMBER  
AND FORMER CHIEF OPERATING OFFICER AT GLOBAL UNIVERSITY SYSTEMS**

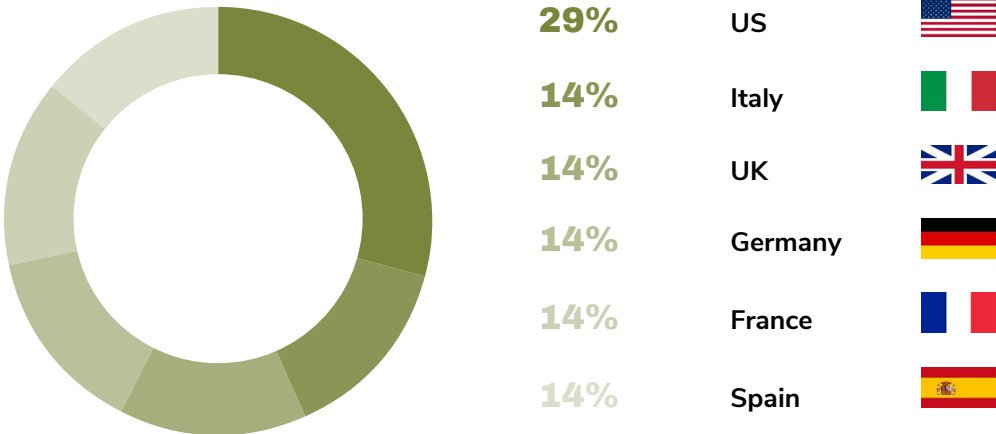
The private higher education space is known to global investors as having the potential for high operating margins, and it has seen significant growth in interest in recent years. COVID-19 has significantly disrupted the space, creating strong interest in the sector as regions emerge into post-pandemic economies and investors seek opportunities.

The space in both the U.S. and Europe has niche operators that have developed successful and sustainable platforms. The environment is showing signs of optimism, and there is movement toward both further consolidation and divestitures, with merger and acquisition players challenging for best positions. The disruption has also likely accelerated the change to increased online delivery, which again gives cause to look for upward changes in margin potential. Interest in the sector is high. Investors seem poised to participate in the emerging opportunities.

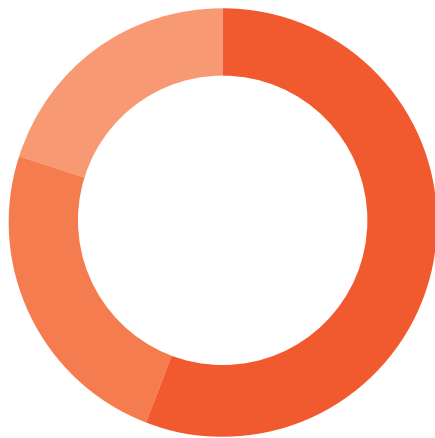
### Survey and Panel Demographics

To understand the dynamics within the private higher education space during COVID-19, GLG conducted a survey between April and May 2021 of 70 professionals working across the U.S. (29%) and Europe (71%). A proportion of the experts (24%) we surveyed were members of their institution's governing board (Dean/President), 20% were part of the administration, and the remaining 56% were part of the faculty body knowledgeable about the COVID-19 impact on their institution and able to discuss the outlook for the next several years in comparison with the public higher education space. Fifty-three percent of the respondents surveyed are currently working in institutions of less than 10,000 students, with 34% stating that more than 40% of their student base is international.

### Where are you currently based for work?



## Which of the following best describes the department you work in?

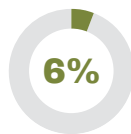


**29%** Student Accommodation

**29%** Other

**29%** Consultancy

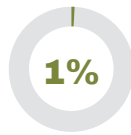
## Approximately, what is the size of the university/college you currently work in?



Less than 500 students



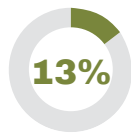
Between 5,000 and 9,999 students



Between 500 and 999 students



Between 10,000 and 19,999 students



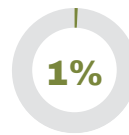
Between 1,000 and 2,499 students



Between 20,000 and 49,999 students



Between 2,500 and 4,999 students

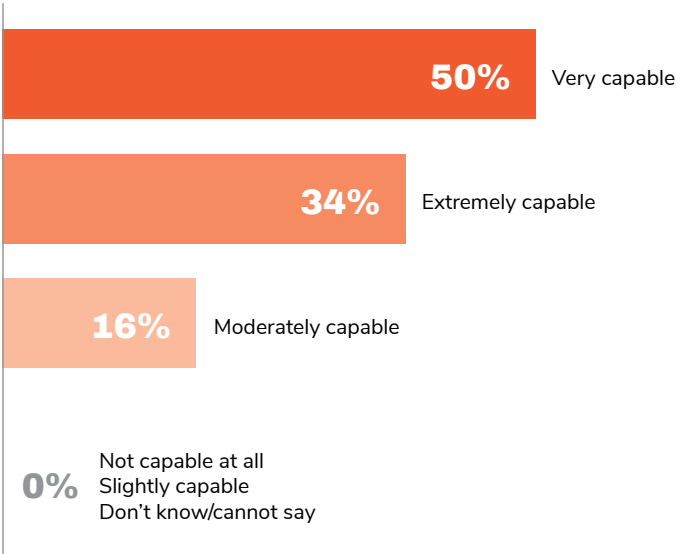


50,000 or more students

### Impact of COVID on Private Institutions Expected to Be Short Term

Faculty and management of private institutions see the pandemic impact to be short term and are optimistic about the resumed volumes of post-pandemic education delivery. The disruption caused educators to focus more on student communication as well as an increase in student care and innovation. All our respondents express some level of confidence in their institution's ability to recruit new students post-pandemic, with a whopping 84% rating their capability at either "very capable" or "extremely capable."

**Please rate your institution's ability to recruit new students in the short-term post-pandemic.**

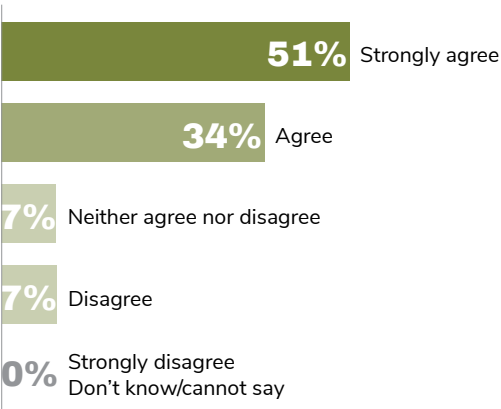


**Investment in Online Higher Education Delivery**

Faculty and management of private institutions are bullish on trends in online delivery, with 85% of all respondents agreeing that their institution should invest or continue to invest in the expansion and refinement of online delivery.

**How much do you agree with the following statement:**

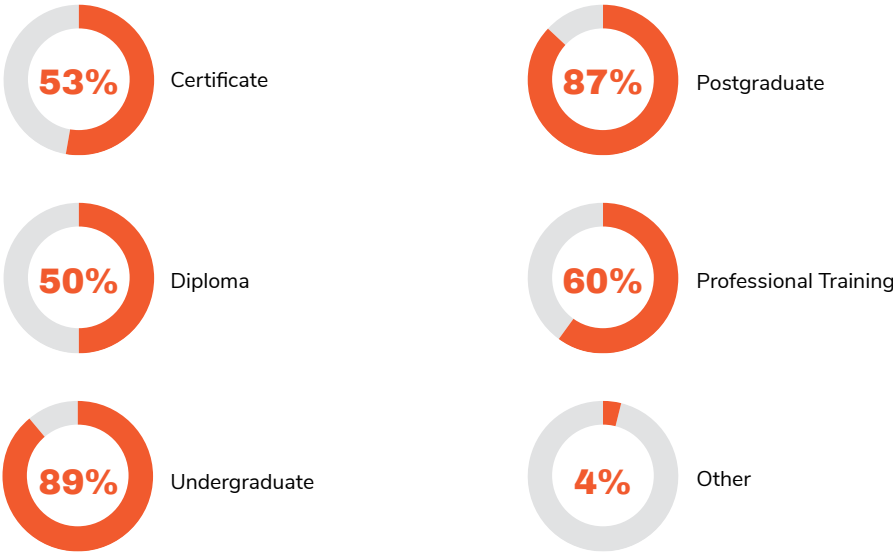
"I believe that my institution should invest or continue to invest in the expansion and refinement of online delivery"?



**Opportunities for High Margin Courses**

Faculty and management of European private institutions have the opportunity to follow the trends of U.S.-based private institutions and introduce a larger number of high-margin postgrad and professional-type courses to help increase their niche and developed brand required for sustainable growth. The survey, for example, shows that only 60% of respondents' institutions are currently offering professional training courses.

**Which level of programs is your institution offering to students?**

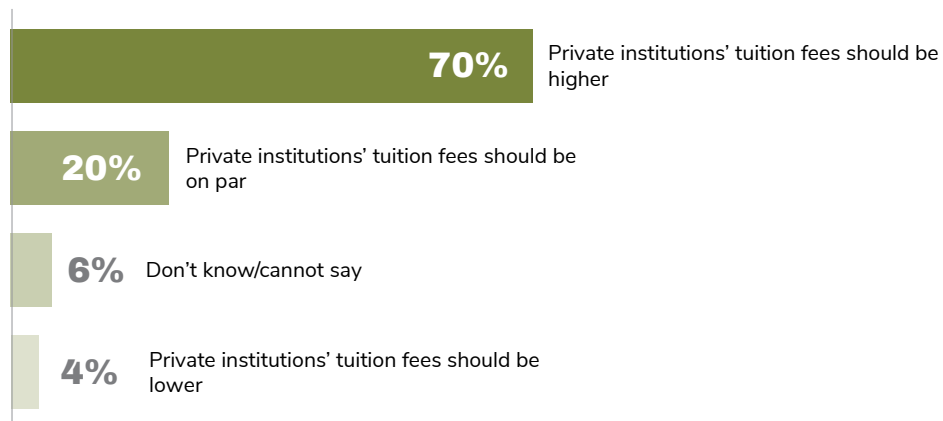


European institutions should look to U.S. institutions for best practices in recruitment capabilities, quality of faculty, student outcome, and alumni relationships for continued growth and acquisition of market share versus public institutions.

**Higher Education Tuition: Public vs. Private**

Faculty and management of private institutions understand the need to be mindful of tuition in comparison with their competitors, including public institutions, given their lack of publicly supported funding subsidies. Our survey shows that 90% of respondents believe that in comparison with the tuitions charged generally by public institutions, the tuitions at private institutions should be at par (20%) or higher (70%).

**In comparison with tuitions charged generally by public institutions, how do you believe that private institutions should position their tuitions for competitive offerings?**



Increasing tuition to meet rising costs is seen as necessary and will create the type of sustainable margins required to secure and increase money market investment from private equity and the investment community for future market share and growth. This includes demonstrating value by brand building by focusing on improving student outcomes, better communication with students and alumni, and investing in delivery systems and faculty.

**Conclusion**

The private higher education sector has been seriously impacted by the COVID-19 pandemic causing global disruption to face-to-face instruction. This disruption is seen largely as twofold, with belief that the impact is short term in duration and will lead to shifts in delivery — largely to online and hybrid options, which provide opportunity for increased distribution and reach as well as the potential for increased value in operating margins.

**Sample Questions Covered in the Full Private Higher Education Network Survey**

- In your view, how likely are students enrolled and active pre-pandemic to discontinue their studies?
- For any students who were able to take courses during the pandemic, please rate the support received from faculty and administration.
- How likely is a change to the community feel of student participation in post-pandemic delivery of programs (e.g., more online demand rather than face-to-face learning sessions)?
- You mentioned your institution was not offering online programs pre-COVID-19. How likely is it that your institution will include online programs in the next one to three years?
- How much do you agree with the following statement: “I believe that my Institution should invest or continue to invest in the expansion and refinement of online delivery”?
- In your view, what are the competitive advantages/disadvantages private institutions have over public institutions?

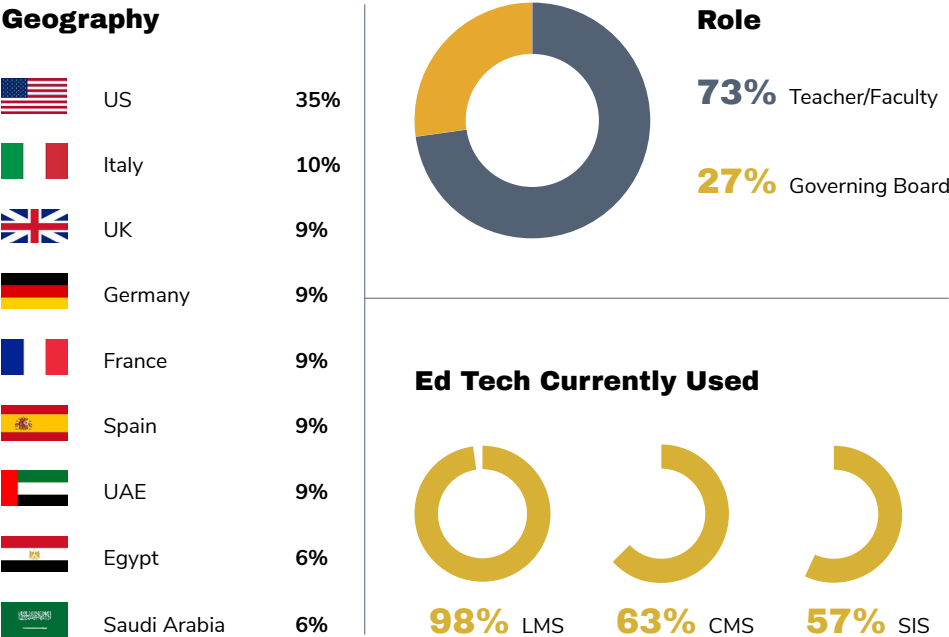
# EDTECH ADOPTION — THE PANDEMIC AND BEYOND

Even though educational technology — or edtech — has been with us for a while (online education originated in 1960 at the University of Illinois), the major driver behind the adoption of education technology in the last year was doubtlessly the global shutdown caused by the pandemic. While schools of all levels shut physical classroom doors, the process of education moved online. Adoption of many of these technologies had to happen quickly.

To be successful, and keep students learning, teachers whose lesson plans were built for the analog world had to adapt to this new digital environment. And, even as we begin to see schools return to in-classroom education, it's unlikely that adoption and use of edtech will return to pre-pandemic levels.

### Survey and Panel Demographics

To find out about more about the current state of edtech adoption, how educators use it, the barriers to its ongoing use, and what the future looks like, GLG conducted a January-to-February 2021 survey of 115 educators in nine countries. A proportion of the experts (27%) we surveyed were members of their institution's governing board (dean/president); the remaining 73% were teachers who are knowledgeable about the educational technology their institution is using. Of those we surveyed, 98% said they used a learning management system (LMS) to document, track, and deliver educational courses. Sixty-three percent said they used a content management system (CMS) to create and to organize the creation of educational content. Fifty-seven percent said they used a student information system (SIS) to manage student data.



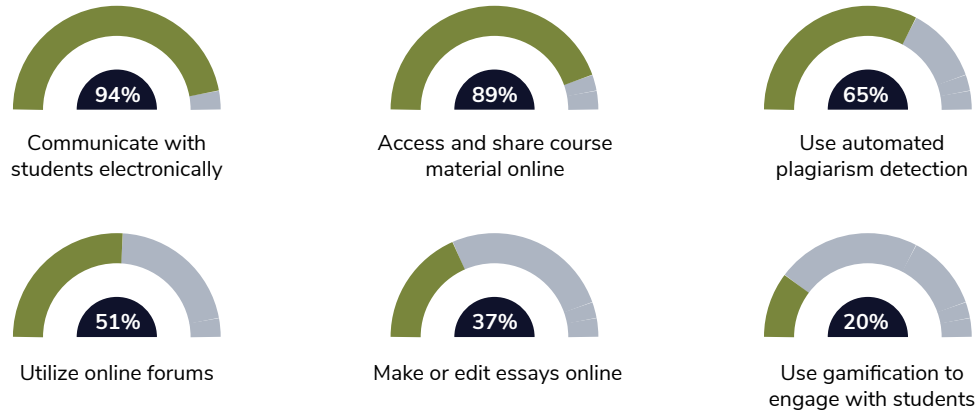


**Edtech Adoption**

Edtech can take many forms, but the pandemic drove most attention to remote technologies, and the survey reflects that observation. When we asked which technologies teachers are adopting and using, tools that enable remote learning came out on top. Ninety-four percent of our respondents said that teachers were using technology to “communicate with students electronically,” and 89% said that tech helped teachers “access and share course material online.”

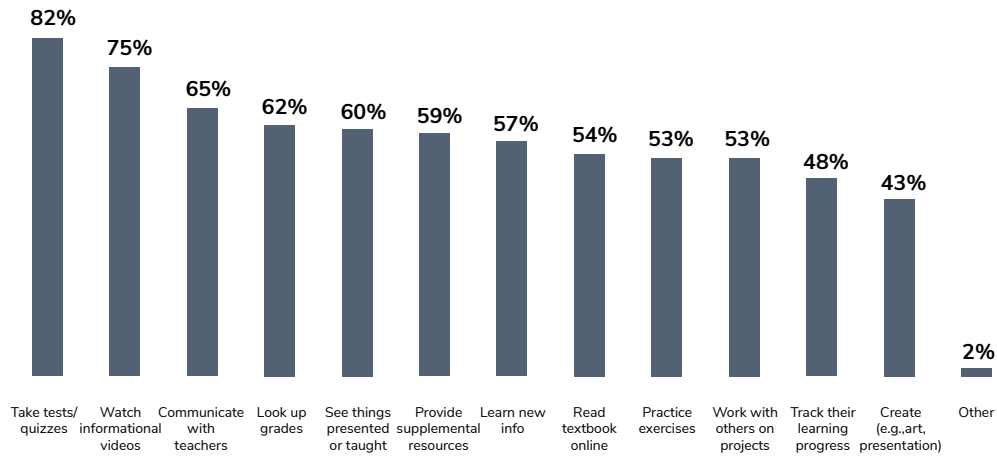
**Adopted Technologies Most Used by Teachers**

% Selecting Amount Total



Students themselves use digital learning tools for a wide range of uses. Eighty-two percent of our panel of educators said that they are using technology to “take tests and quizzes.” Just below that, our pool of respondents said that 75% of students watch informational videos as part of their learning process. The range of uses our panelists cited (“communicate with teachers” at 65%, “look up grades” at 62%, etc.) suggest that institutions are using multiple technologies to satisfy student, teacher, and administrative needs.

## What Are the Primary Reasons Why Students Use Digital Learning Tools?

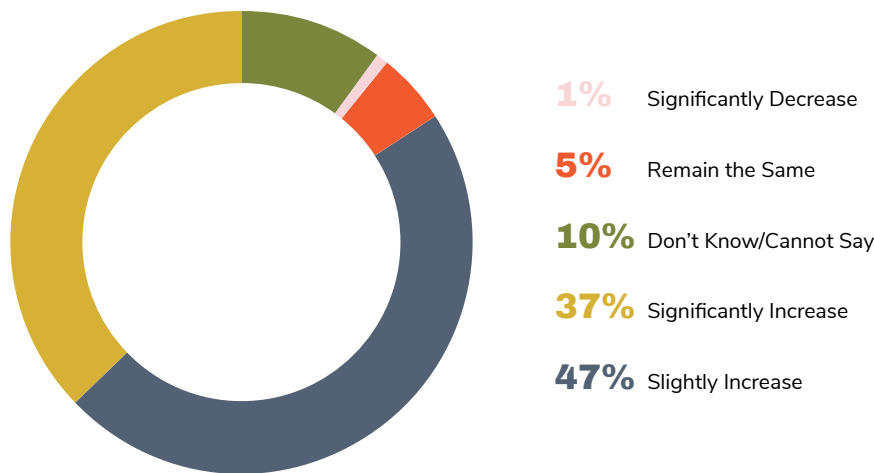


### Market Outlook for Edtech

When our survey was conducted in early 2021, 75% of our respondents told us that they expected their institutions to use a hybrid model in the fall, a number that may read differently now after a relatively effective vaccine rollout. Nonetheless, the pandemic has underlined the importance of edtech in the modern classroom, whether that classroom is fully in person, fully remote, or somewhere in between.

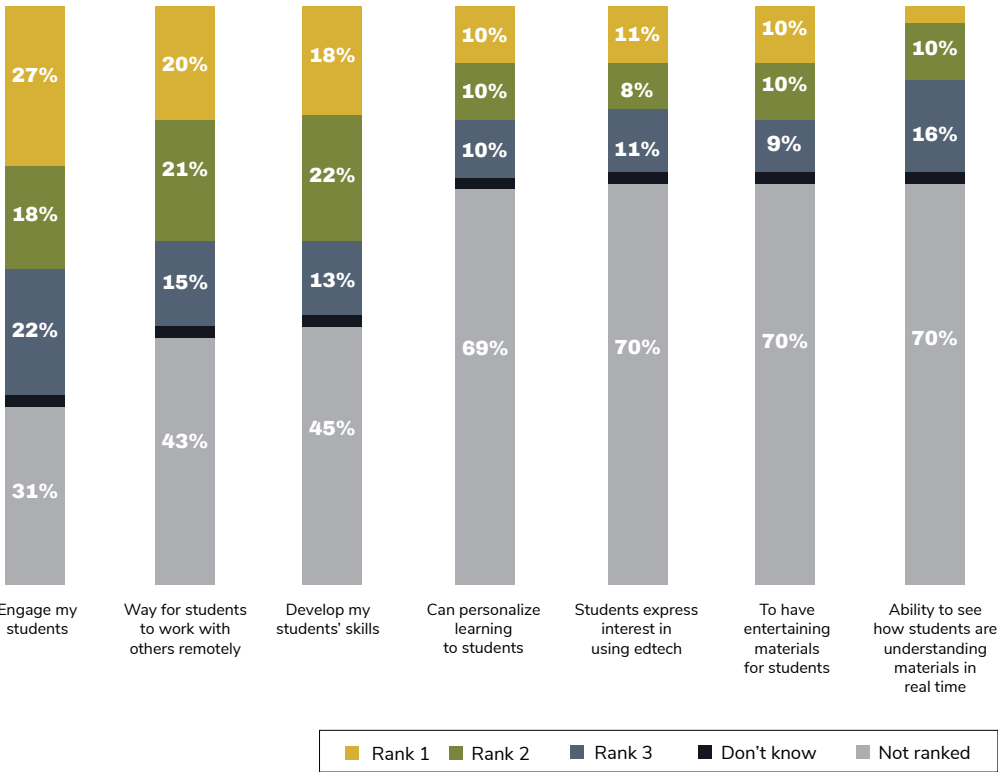
When we asked our panel about whether they expect their technology budget to increase or decrease, a marginal 1% of respondents said that they expected a significant decrease in their tech budgets. The remaining 89% expected their budget to either remain the same or increase over the next five years.

### Do You Expect Your Technology Budget to Increase or Decrease in the Next Five Years?



The respondents to our survey suggest that the reasoning behind potential tech budget increases doesn't necessarily focus on remote learning. Remote learning is a factor — 56% of those we surveyed said it was a top factor for acquiring digital learning materials for the classroom. A significantly larger number of respondents (71%) said that they wanted tech to “engage my students,” a need that is likely to remain the same whether the education is in person or remote. Another 53% said that edtech helped them develop their students' skills — a need that also can be independent of learning location.

**Which Are the Top Three Reasons You Acquire or Want to Acquire Digital Learning Materials for Your Classroom**



## **Conclusion**

Learning has always been driven by technology. From the invention of moveable type to the digital solutions of our current day, technology has driven how knowledge is conveyed, synthesized, and applied. In contemporary education, technology can underlie everything from an institution's administrative capabilities to the tools students and teachers use to interact.

In addition to the information above, our survey revealed the most popular edtech platforms that institutions are using, the pressures driving adoption, the tech challenges, and the barriers facing its complete adoption. Challenges aside, edtech will certainly be part of the landscape in the coming years even as the pandemic wanes and we enter what we can only call the "new normal."

## **Sample Questions Covered in the Full Edtech Survey**

- When it comes to adoption of technology, which of the following are most used by teachers in your institution?
- Do any issues with technology concern you?
- What, if any, support do you receive from your institution with regards to the successful integration of technology into your classroom?
- Which of the following do you feel represent the biggest barriers to increasing the use of educational technology inside the classroom?
- By what percentage do you expect your technology budget to increase in the next 5 years?
- Which of the following are the top 3 technologies that you believe will be important over the next 7 years in education?
- Which educational trends do you think will have the greatest impact on our teaching and learning in the future?
- Do you believe adding more technology to your classroom would increase the level of student engagement?

# SAMPLE NETWORK SURVEYS — COMPLETED AND AVAILABLE NOW

As of February 2022, GLG has produced more than 200 Network Surveys in the following market sectors. This is only a sample of the work we've done and can do, representing an overview of the most pertinent topics for each practice area. If there is a topic you would like to learn more about, please reach out to your GLG representative for details.

## CONSUMER GOODS AND SERVICES

### **K-12 Education**

Topic: Understanding trends for both developed and emerging markets

Panel: 60 senior leadership heads at private K-12 education schools

### **Alternative Meat**

Topic: Outlook of the industry and how it is expected to fare against traditional meat-based products

Panel: 65 senior executives from alternative meat companies

### **U.K. Gyms**

Topic: Understanding how the industry has adapted from the implications of COVID-19

Panel: 50 owners/operators of U.K. gyms and fitness clubs

### **Other Surveys In This Category Include:**

Beauty Product Consumers

Cinemagoers

U.K. Pubs

Cruise Operators

European Theme Parks

Luxury Fashion

Private Higher Education

## ENERGY AND INDUSTRIALS

### **Bioplastics**

Topic: The latest trends in the market and the COVID-19 impact on the industry

Panel: 60 senior executives working across a broad range of industries currently using/ converting bioplastics across the U.S. and Europe

### **Infrastructure and Construction**

Topic: The latest trends in the space and COVID-19 impact in Europe

Panel: 70 senior executives working in the infrastructure and construction space along with distributors of building materials

### **Automotive OEMs**

Topic: Electrification trends, COVID-19 impact, competitive landscape for Aston Martin, Land Rover, Jaguar Land Rover, BMW, and Mercedes

Panel: 50 automotive OEMs based in Europe and the U.S.

**Other Surveys In This Category Include:**

Energy Prices  
Hydrogen Market Overview  
European Airports  
Battery Innovation  
Coal Phase-Out  
Wind Turbine Market Overview

**LEGAL, ECONOMIC, AND REGULATORY AFFAIRS**

**COP26/Net Zero**

Topic: Understanding climate matters in relation to enterprise strategy  
Panel: 75 senior business executives across Europe

**Brexit Overview**

Topic: Brexit's impact on industries, looking at steps the companies have taken, and the outlook for the future  
Panel: 80 CEOs of large companies across the U.K.

**ESG**

Topic: Trends on the responsible/impact investment field and recent developments  
Panel: 90 ESG and non-ESG investors who are planning to invest in ESG

**Other Surveys In This Category Include:**

Geopolitics  
Inflation

**TECHNOLOGY, MEDIA, AND TELECOM**

**Advertising Platforms**

Topic: Strengths, weaknesses, and use cases of Instagram, Pinterest, Facebook, Twitter, and Google Ads  
Panel: 80 marketing leads based in the U.S., Europe, and Australia

**Cybersecurity**

Topic: The latest demand in the market and insight into the challenges faced by companies in Europe and U.S.  
Panel: 70 cybersecurity resellers of Palo Alto, Fortinet, Symantec, Z-Scaler, and Juniper

**Semiconductors Supply Chain**

Topic: The latest market dynamics and COVID-19 impact on the industry  
Panel: 60 senior executives working within the semiconductors space (suppliers/distributors, manufacturers)

**Other Surveys In This Category Include:**

Accounting Software  
European Data Centers  
ERP Value-Added Resellers  
New and Used Cars Online Platforms  
Edtech  
Telecom Market Overview

## FINANCIAL BUSINESS SERVICES

### Staffing Industry

Topic: The COVID-19 impact, trends, and outlook of the space and a competitive assessment of the players in the market such as Adecco Group, Reed, Allegis, Michael Page, Hays, etc.

Panel: 70 senior executives working within the staffing/recruitment industry

### Fintech Payment Platforms

Topic: Customer preferences about different paytech companies as well as “Buy Now, Pay Later” solutions

Panel: 95 retail customers of payment vendors

### SPACs

Topic: Current attitudes and trends around this form of investment

Panel: 70 SPAC sponsors and investors

### Other Surveys In This Category Include:

Trade Shows

Nonperforming Loans

U.K. Insurance

## HEALTHCARE

### Pharmaceutical CDMOs

Topic: COVID-19 impact on the sector and projections on the outlook going forward

Panel: 60 senior executives working at pharmaceutical companies who are currently outsourcing to CDMOs (e.g., Lonza, Recipharm, Cambrex, etc.)

### Generics Market

Topic: Current trends for different key products and the impact of COVID-19 on R&D, manufacturing, supply chain, marketing promotions, and business development

Panel: 70 senior executives working in the pharmaceutical industry in the U.S. and Europe

### Medtech

Topic: COVID-19 impact on the market and views on the current regulatory landscape

Panel: 70 senior executives working at medtech companies

### Other Surveys In This Category Include:

COVID-19 Vaccine Uptake

Dental Aligners

Interocular Lenses

Plasma Industry

Telemedicine

Contact the GLG Network Surveys team at [networksurveys@glgroup.com](mailto:networksurveys@glgroup.com) for more information or a full menu of completed and upcoming surveys.



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## Network Surveys

Targeted surveys that provide timely insights on the most topical themes impacting business today

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### **Fresh insights on trending topics**

Survey topics range from category trends, supply chain changes, market sizing and diligence, brand perception, and beyond.

### **Developed in partnership with subject matter experts**

Our experienced researchers work with our expert Network Members to develop detailed survey questions to uncover key findings to help our clients gain an edge.

### **Available for instant download**

Exclusively available to GLG clients, our prepackaged quantitative surveys include a base report and detailed data tables. Further cross-tabulations, analysis, or webinar discussions led by industry experts are also available for an additional fee.

### **When market-moving news breaks, GLG surveys the people at the heart of the matter.**

Our dedicated team continuously launches new topics. Some of our recent survey audiences include:

#### **Healthcare Professionals**

- 200 U.S. hospital C-suite executives, procurement managers, and physicians
- 50 cardiologists, gastroenterologists, endocrinologists, dermatologists, and ob-gyns across the U.S. and Europe
- 100 U.S. audiologists who provide insight into how hearing aid manufacturers are working with audiology practices during COVID-19

#### **Supply Chain and Operations Professionals**

- 50 purchasing and operations managers at global mining majors
- 100 European C-level executives operating large global businesses on the impact of COVID-19 on business performance, supply chain, and business planning
- 40 procurement and supply chain experts at U.K. grocery chains on the current competitive landscape within the poultry market

#### **Hospitality and Travel Professionals**

- 2,000 consumers and business customers of online travel agencies across the U.S. and Europe
- 50 hotel owners, brand franchisees, and hotel chain executives across the U.S. and Europe
- 40 current executives at ground handling operators, airlines, and airport operators in the U.S., U.K., France, and Germany