

# Ahead of the Game: steel decarbonisation survey results

July 2024

# Contents

1. Demographic	<a href="#"><u>4</u></a>
2. Green steel	<a href="#"><u>8</u></a>
3. Metallurgical coal	<a href="#"><u>18</u></a>
4. Risks and opportunities	<a href="#"><u>28</u></a>
5. Low carbon energy	<a href="#"><u>31</u></a>
6. Policy and lobbying	<a href="#"><u>34</u></a>
7. 1.5°C	<a href="#"><u>43</u></a>
8. Investor action and education	<a href="#"><u>46</u></a>



# Objectives

- What are the prevailing narratives around steel and decarbonisation for investors? Is it seen as too hard? Within reach? What are the perceived challenges and opportunities?
- What are investors' perceptions of metallurgical coal and its role in the steelmaking process?

# Methodology

- We engaged the services of a consulting firm, which conducted a comprehensive survey of 500 global investors with investments in steelmaking, iron ore and/or metallurgical coal mining.
- Respondents answered a series of multiple-choice questions relating to the decarbonisation of the steel sector and its value chain.

All survey results are reported as percentages (rounded to the nearest whole number). In instances where investors are asked to select two or three responses, the response total will add to 200% or 300% respectively.

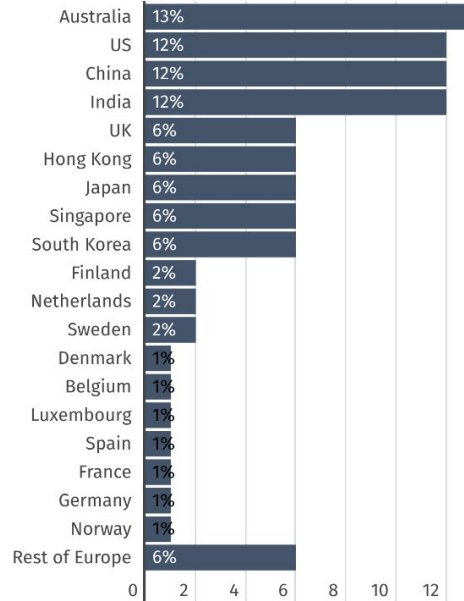
# Demographic

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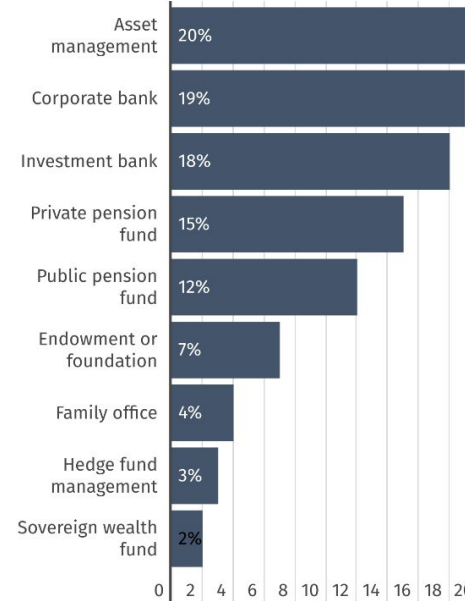
[Back to contents page](#)

# Respondents (500 total) were located across the world and worked in a range of financial institutions

In which country/region are you based for work?

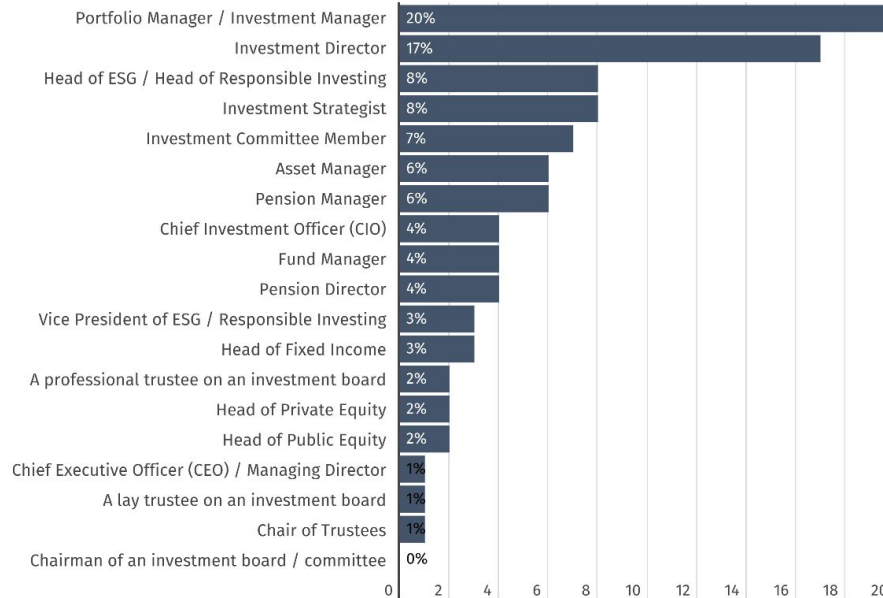


What type of financial services business do you work for?



# Respondents worked in various roles within financial institutions

Which of these roles represent your job?

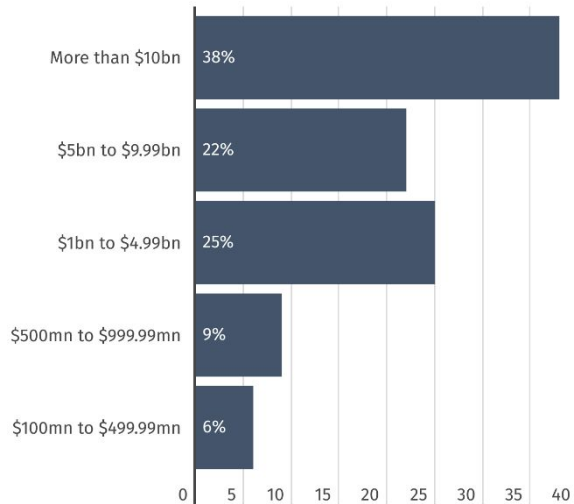


The largest cohorts of respondents were:

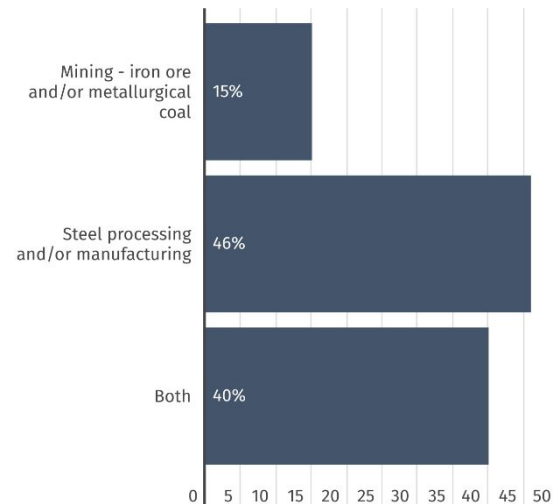
- Portfolio or Investment Managers (20%)
- Investment Directors (17%).

# Respondents were spread across institutions of different sizes and held investments in at least one part of the steel value chain

What is the value of your assets (in USD) under management?



Does your organisation have investments in any of the following?



# Green steel

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[Back to contents page](#)



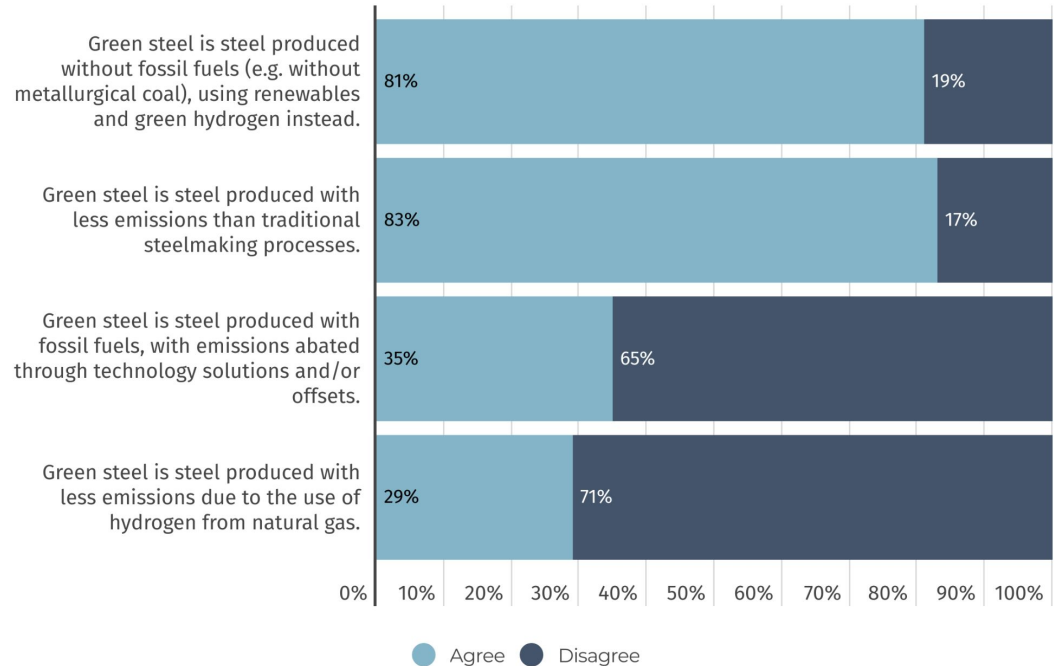
# Most investors agree green steel is produced without fossil fuels

While there is currently no globally accepted green steel definition, 81% of investors agree that green steel is produced with renewables and green hydrogen instead of fossil fuels.

Furthermore, investors have clear opinions on what does not qualify as green steel:

- 65% of investors believe green steel is not simply steel produced with fossil fuels and abated through technologies or offsets.
- 71% of investors disagree that green steel can be produced with gas-derived hydrogen.

### How investors define green steel



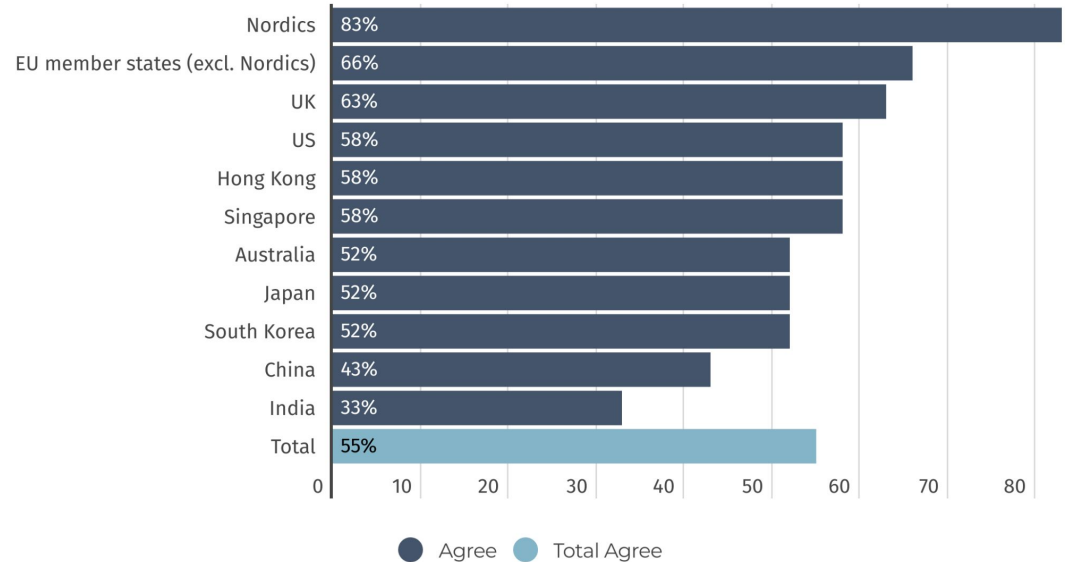
## Many investors see growth in the green steel market, though not all countries are in consensus

The majority of investors (55%) agreed the market demand for green steel is growing rapidly, however, responses varied by the location of the respondent:

- European investors had a much stronger sentiment on the growth of the market for green steel, with 83% of respondents in the Nordics and two thirds of those from other EU member states agreeing with the statement.
- Fewer investors in Asia believe the market is growing rapidly: notably only a third of respondents in India and 43% in China.

The market demand for green steel is growing rapidly.

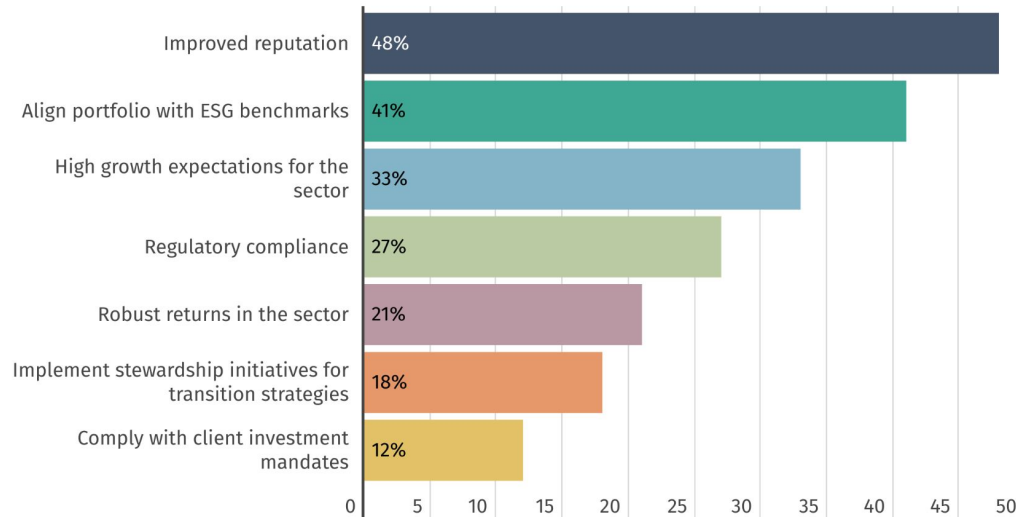
Response breakdown by country



# Investors see the greatest opportunities for green steel in improving their reputation and aligning their portfolio with ESG benchmarks

## What are the two most important opportunities for green steel processing and manufacturing?

Each respondent selected two answers below



- Investors view improved reputation (48%) and aligning portfolios with ESG benchmarks (41%) as the two most important opportunities for green steel.
- High growth expectations for the sector were also highlighted by a third of respondents.
- Around one fifth of investors (21%) already see robust returns in green steel as a key opportunity for this new market.

# Green steel is seen as a growth opportunity by many investors, particularly in certain Asian markets and the US; Reputation and ESG alignment are valued globally

- Improved reputation is considered an important opportunity by investors from every country featured in the survey.
- Respondents based in key Asian steelmaking countries, such as China and India, also identified expectation of high growth in the sector and the opportunity to align portfolios with ESG benchmarks as important green steel opportunities.
- European respondents demonstrated a much higher interest in implementing stewardship initiatives for transition strategies than other regions.

## What are the two most important opportunities for green steel processing and manufacturing?

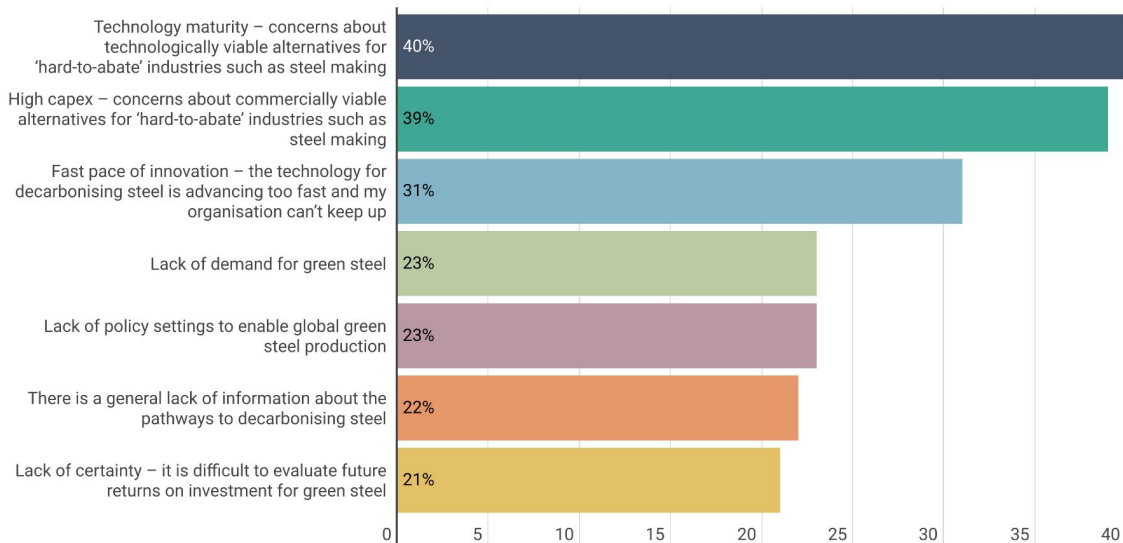
Each respondent selected two answers below and response is broken down by country

	Total	US	China	India	Australia	EU member states	UK	Japan	South Korea	Hong Kong	Singapore
Robust returns in the sector	21%	24%	28%	18%	27%	18%	25%	16%	13%	19%	13%
High growth expectations for the sector	33%	37%	35%	40%	30%	33%	31%	16%	52%	13%	39%
Regulatory compliance	27%	32%	20%	23%	28%	17%	38%	39%	19%	42%	42%
Improved reputation	48%	52%	47%	48%	50%	51%	41%	45%	42%	48%	48%
Comply with client investment mandates	12%	8%	8%	3%	5%	13%	22%	29%	23%	6%	16%
Align portfolio with ESG benchmarks	41%	34%	48%	42%	41%	39%	31%	48%	39%	52%	35%
Implement stewardship initiatives for transition strategies	18%	13%	13%	22%	20%	29%	13%	6%	13%	19%	6%
Don't know/Not applicable	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%

# Investors see technology maturity and high capex as the greatest challenges, but also find the fast pace of innovation difficult to keep up with

What are the two greatest challenges you face when making decisions for investing in the decarbonisation of steel manufacturing?

Each respondent selected two answers below



The challenges that were selected by most respondents were:

- technology maturity (40%)
- high capex (39%), citing concerns about the technological and commercial viability of alternatives.

However, nearly a third of respondents (31%) did agree that there is a fast pace of innovation in this sector which makes it difficult for their organisations to keep up.

Less than a quarter of investors (21%) selected uncertainty about the future returns on investment for green steel as a key challenge.

# More investors based in Asia, Australia and the USA considered technology maturity as a key challenge for investing in the steel transition than those in Europe

What are the two greatest challenges you face when making decisions for investing in the decarbonisation of steel manufacturing?

Each respondent selected two answers below and response is broken down by country

	Total	US	China	India	Australia	EU member states	UK	Japan	South Korea	Hong Kong	Singapore
Technology maturity – concerns about technologically viable alternatives for 'hard-to-abate' industries such as steel making	40%	40%	45%	48%	47%	34%	34%	39%	35%	45%	29%
High capex – concerns about commercially viable alternatives for 'hard-to-abate' industries such as steel making	39%	34%	47%	43%	42%	36%	31%	42%	48%	35%	32%
Fast pace of innovation – the technology for decarbonising steel is advancing too fast and my organisation can't keep up	31%	29%	30%	27%	47%	28%	19%	29%	39%	35%	32%
Lack of demand for green steel	23%	24%	27%	15%	20%	30%	28%	19%	23%	6%	35%
Lack of policy settings to enable global green steel production	23%	16%	17%	23%	14%	28%	38%	16%	13%	35%	39%
There is a general lack of information about the pathways to decarbonising steel	22%	29%	17%	28%	16%	17%	38%	23%	26%	19%	13%
Lack of certainty – it is difficult to evaluate future returns on investment for green steel	21%	24%	18%	15%	14%	29%	13%	32%	16%	23%	19%
I don't see any challenges ahead	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%

# More investors based in Asia, Australia and the US considered technology maturity as a key challenge for investing in the steel transition than those in Europe

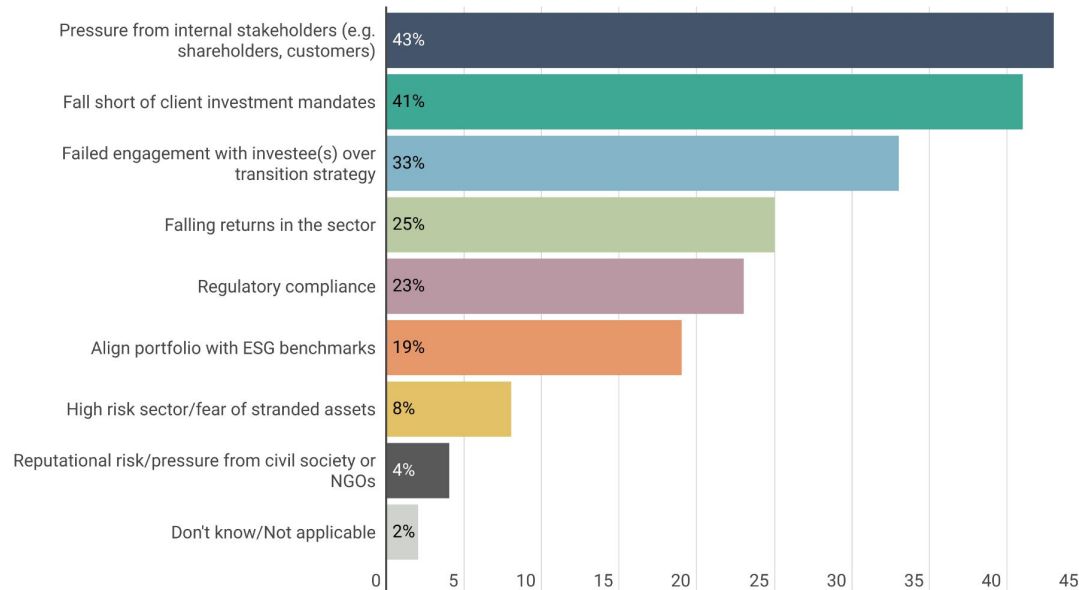
Looking at the results by country, there were some trends in how respondents from different regions considered challenges in steel decarbonisation investment:

- Australian investors believe that there is rapid innovation in green steel and that the returns on investment are certain. Nearly half of Australian investors stated that the technology for decarbonising steel is advancing too fast for their organisation to keep up, while only 14% stated that it was difficult to evaluate future returns on investment for green steel.
- Investors based in the USA, Asia and Australia are more likely to consider technology maturity as a key challenge for investing in the decarbonisation of steel manufacturing than investors in Europe.
- High capex is seen as a challenge across the globe – Nearly half of the respondents in China and South Korea selected this as one of the two greatest challenges for decision making in steel decarbonisation investment.

# Pressure from internal stakeholders and risk of falling short of client mandates are key concerns to investors in green steel processing and manufacturing

What are the two most important risks for green steel processing and manufacturing?

Each respondent selected two answers below

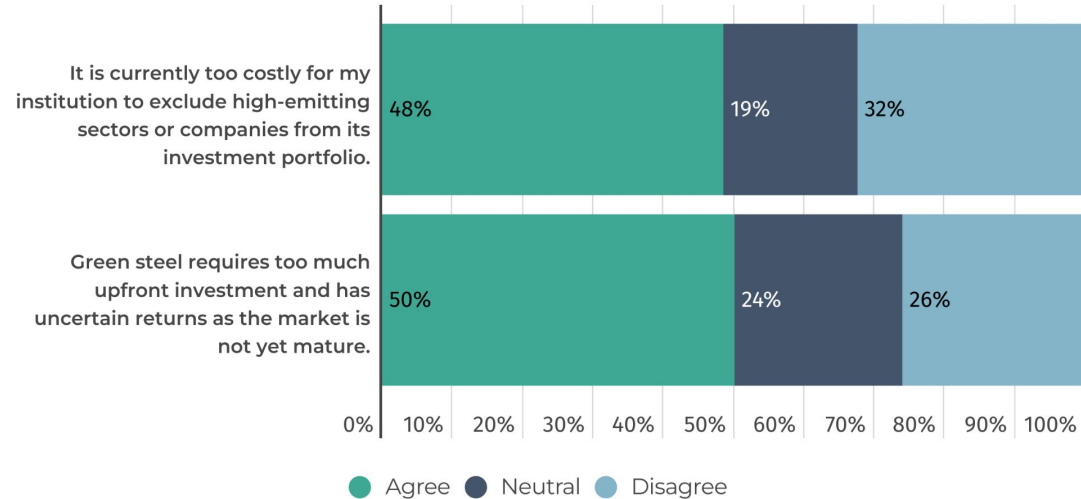




## ~50% of investors see cost as an issue for green steel investment and excluding high-emitting sectors from portfolios

Respondents were split on whether:

- it is currently too costly for their institution to exclude high-emitting sectors or companies from its investment portfolio
- green steel currently requires too much upfront investment and has uncertain returns. 50% agreed with this statement, while 50% disagreed or answered neutrally.



# Metallurgical coal

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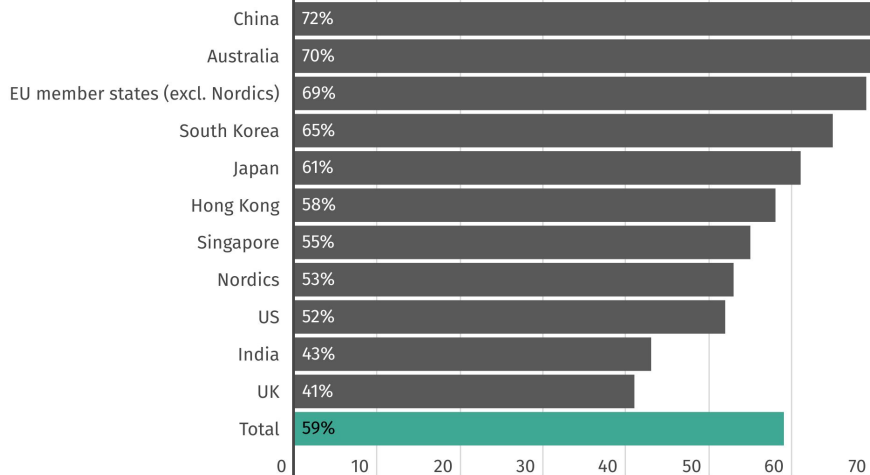
[Back to contents page](#)

# The majority of investors foresee a transition away from metallurgical coal in steelmaking

The steel industry will need to rely on metallurgical coal until, or beyond, 2050.

Response breakdown by country

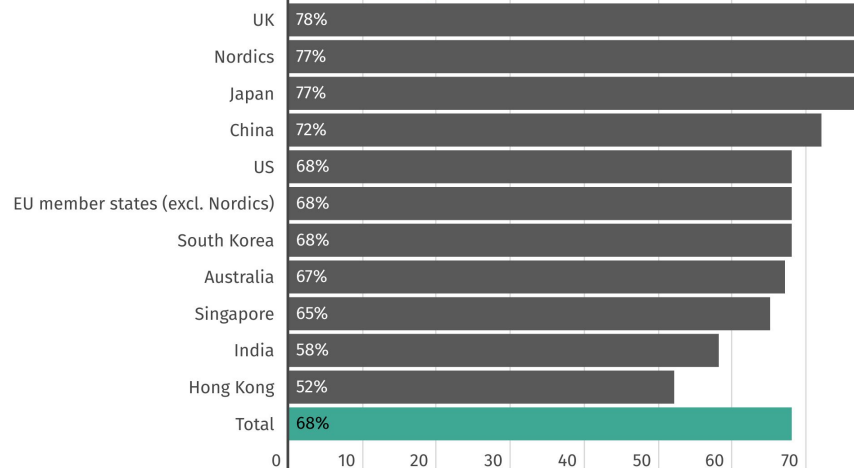
● Disagree ● Total Disagree



Metallurgical coal is a necessary component in steelmaking and will continue to be required for many decades to come.

Response breakdown by country

● Disagree ● Total Disagree



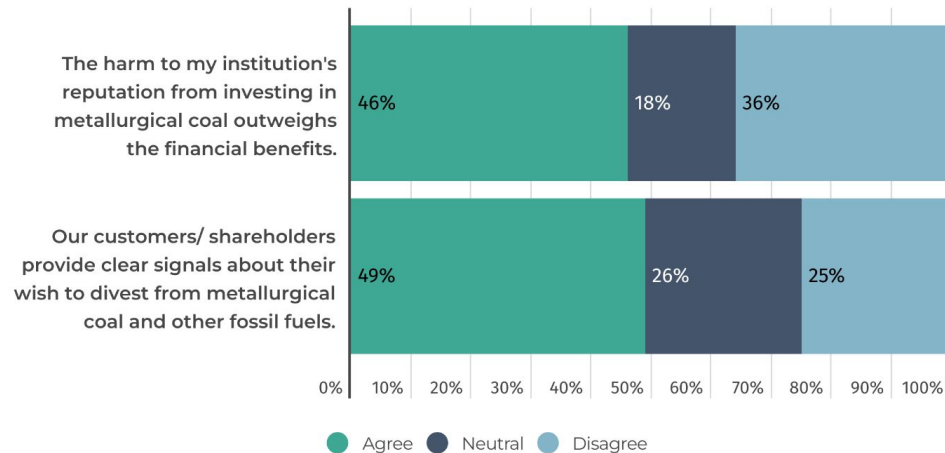
# The majority of investors foresee a transition away from metallurgical coal in steelmaking

These charts show how respondents considered the role of metallurgical coal in the steel industry to 2050 and beyond.

- The majority of investors do not think metallurgical coal plays a critical role in steelmaking, or that the steel industry will need to rely on metallurgical coal until or beyond 2050.
- The results vary by location of respondents. However, in every surveyed location, only a minority of investors believed metallurgical coal is a necessary component in steelmaking.
- Only 13% of respondents based in China think the steel industry will need to rely on metallurgical coal until, or beyond, 2050.

## A risk not worth the reward: Almost half of investors agree that reputational risk from metallurgical coal outweighs the financial benefits

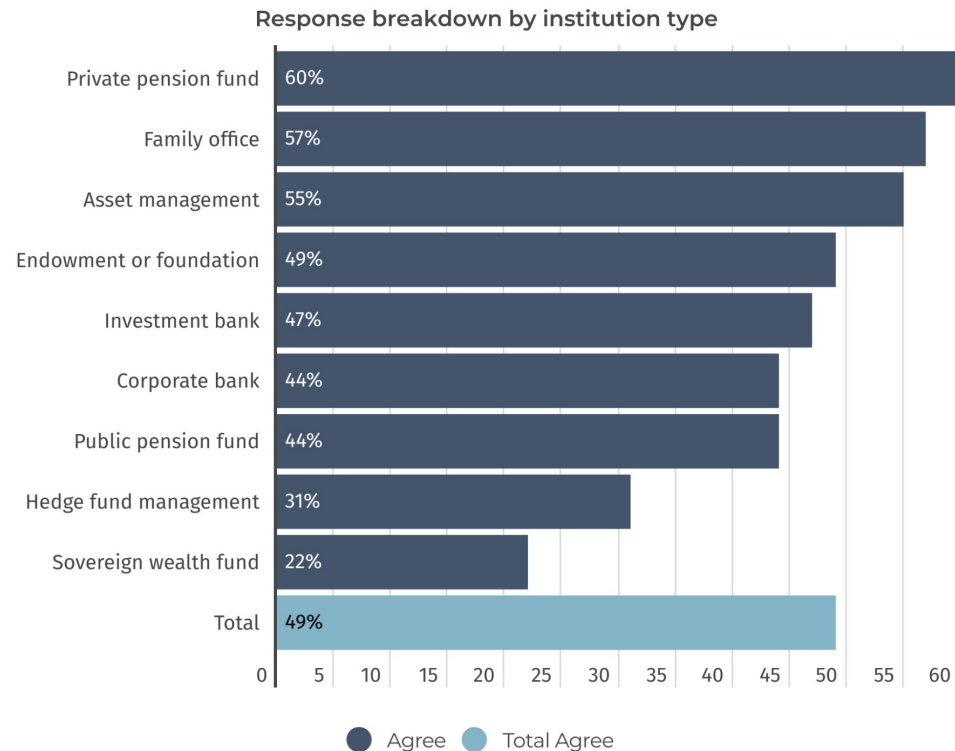
- Just under half of investors (46%) agreed that reputational risk outweighed the financial benefits of investing in metallurgical coal.
- Nearly 50% of investors stated their customers or shareholders have provided clear signals about their wish to divest from metallurgical coal and other fossil fuels.



## Around half of investors are already receiving signals from customers and shareholders about their wish to divest metallurgical coal assets

- All types of investors surveyed are receiving signals from customers/shareholders to divest from metallurgical coal and other fossil fuels.
- These signals are strongest from the customers of private pension funds, family offices and asset managers.

Our customers/shareholders provide clear signals about their wish to divest from metallurgical coal and other fossil fuels.

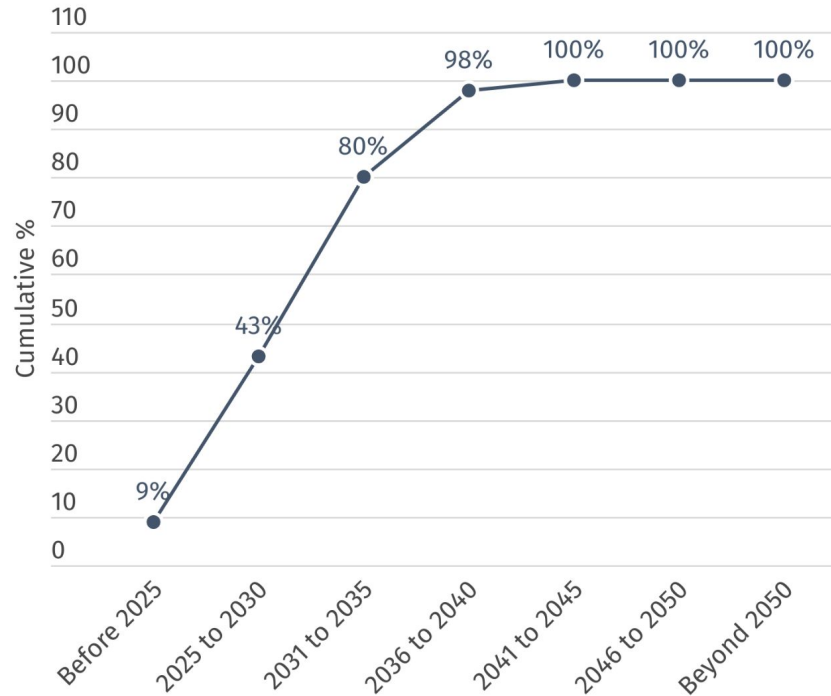


## 80% of investors expect the risk profile of metallurgical coal to increase by 2035 or earlier

There was a consensus among investors the risk profile of metallurgical coal will increase in the short- to medium-term:

- 43% expect this to happen within the next 6 years.
- 80% expect this to happen within 11 years.
- All respondents expect this to happen by 2045.

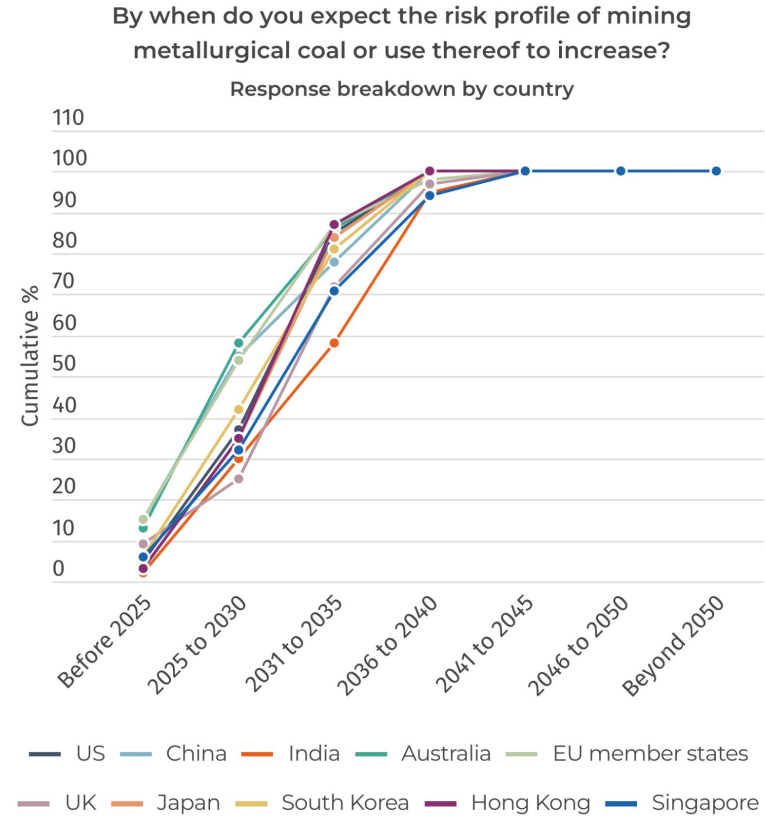
By when do you expect the risk profile of mining metallurgical coal or use thereof to increase?



## Investors in different countries varied in when they expect the risk profile of metallurgical coal to increase, though all were in consensus that it would happen by 2045 or earlier

There was some variation in responses based on location. Investors in:

- Australia, China and EU member states expected risk to increase in the short term, with over half expecting this to occur in the next 6 years
- India expect the risk profile to increase slightly later, with just over half expecting this to occur in the next 11 years.





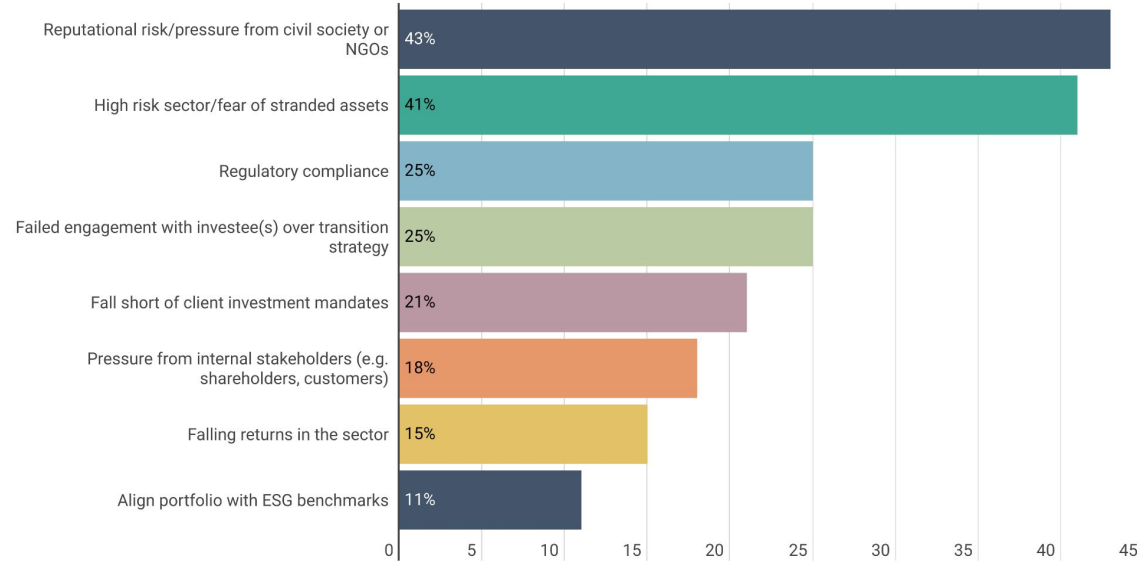
# Reputational risk and fear of stranded assets are key concerns for investors

Reputational risk and fear of stranded assets were found to be the two greatest risks for respondents with regard to mining metallurgical coal, with 43% and 41% selecting these respectively.

Regulatory compliance and failed engagement with investees on transition strategy also emerged as notable risks, with each chosen by a quarter of respondents.

## What are the two most important risks for metallurgical coal mining?

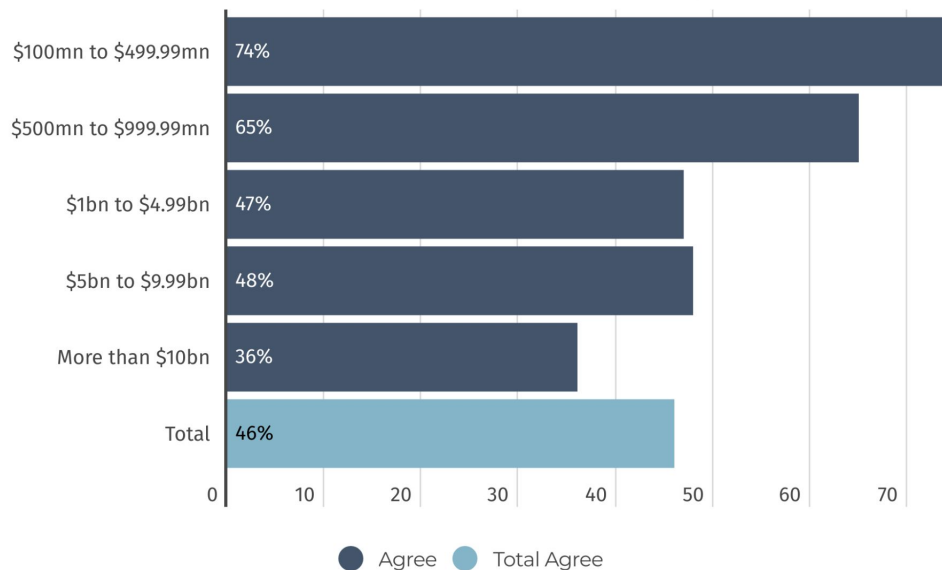
Each respondent selected two answers below



# Many investors have not yet reviewed their portfolio for potential stranded assets, particularly those at smaller institutions

My organisation has yet to review its portfolio for potential climate-related risks and assets that can become stranded.

Response breakdown by value of assets under management



Despite stranded asset risk being the second most important risk identified by investors (p. 25), 46% of investors acknowledged their organisation had not yet reviewed its portfolio for this risk.

Fewer investors from smaller institutions had assessed stranded asset risk compared to those at larger institutions:

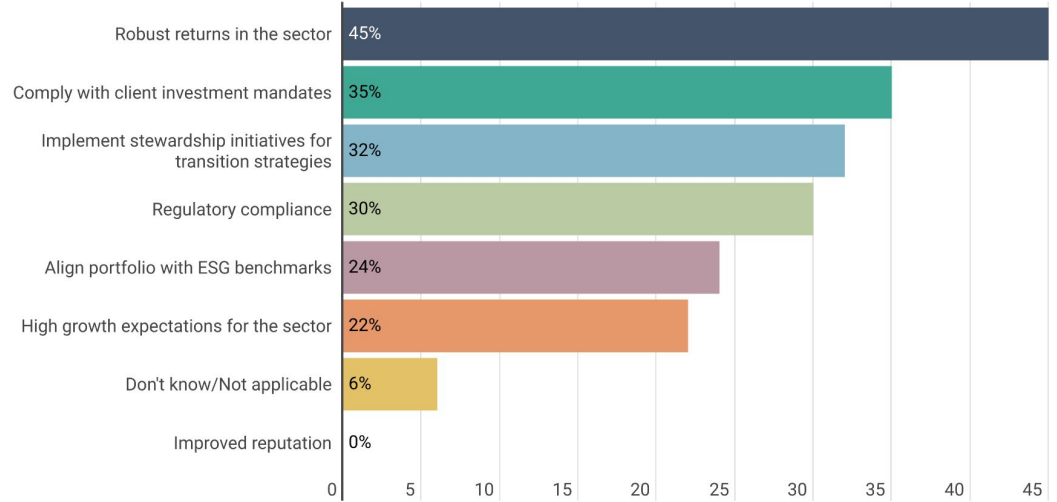
- 74% of investors at institutions managing between \$US100 and 499 million of assets were yet to review their portfolios.
- In contrast, only 36% of investors at institutions managing more than \$US10bn in assets were yet to review their portfolios.

# Investors see no opportunity to improve their reputation by investing in metallurgical coal

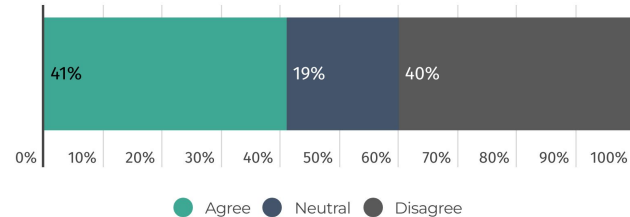
- Investors acknowledged that investing in metallurgical coal mining would not improve their reputation, with no respondents selecting this as an opportunity.
- Just under half of investors (45%) see robust returns in the sector as an important opportunity, with 41% not phasing out metallurgical coal for this reason.
- However, 40% of investors disagreed with the statement that returns on metallurgical coal are still good for the foreseeable future.

## What are the two most important opportunities for metallurgical coal mining?

Each respondent selected two answers below



We are not phasing out metallurgical coal because returns are still good for the foreseeable future.



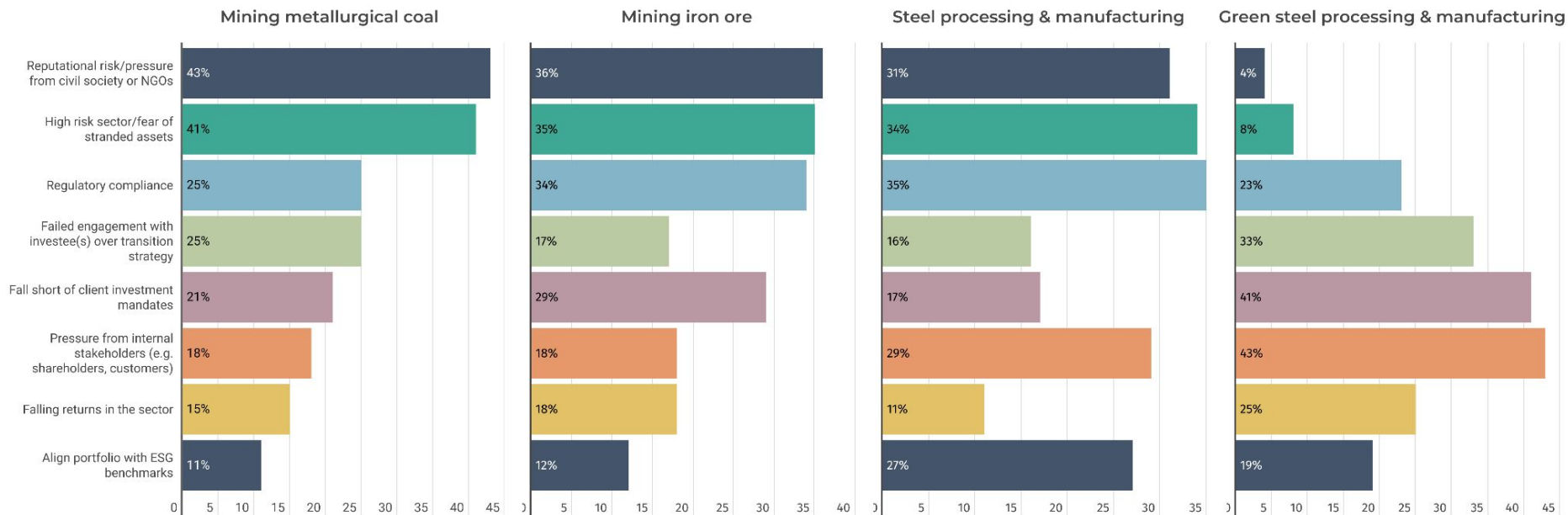
# Risks and opportunities

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# Important risks

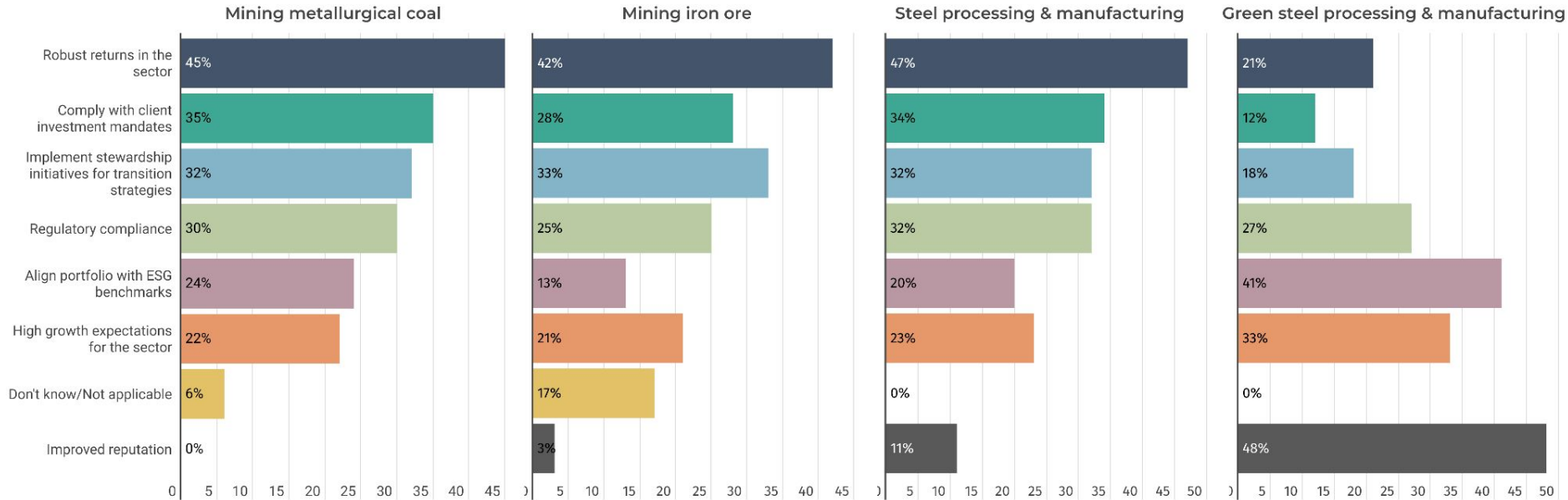
What are the two most important risks for each of these investment areas?

Each respondent selected two answers per investment area



# Important opportunities

What are the two most important opportunities for each of these investment areas?  
Each respondent selected two answers per investment area



# Low-carbon energy

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[Back to contents page](#)

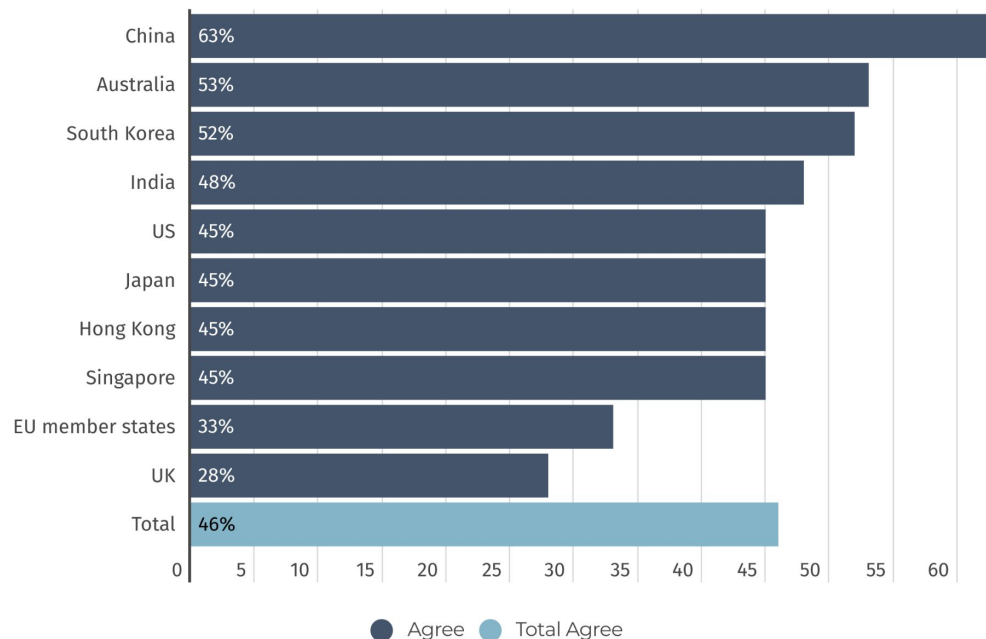
## Perceptions on low-carbon energy availability for the steel industry differ across regions

A higher proportion of surveyed investors from Asia, Australia and the USA believe there is not enough low-carbon energy to decarbonise steel compared to investors from Europe. In particular:

- 63% of investors based in China believe there is not currently enough low-carbon energy to decarbonise the steel industry
- only 28% of investors based in the UK believe there is not currently enough low-carbon energy to decarbonise the steel industry.

I believe there is not yet enough low-carbon energy available to decarbonise the steel industry.

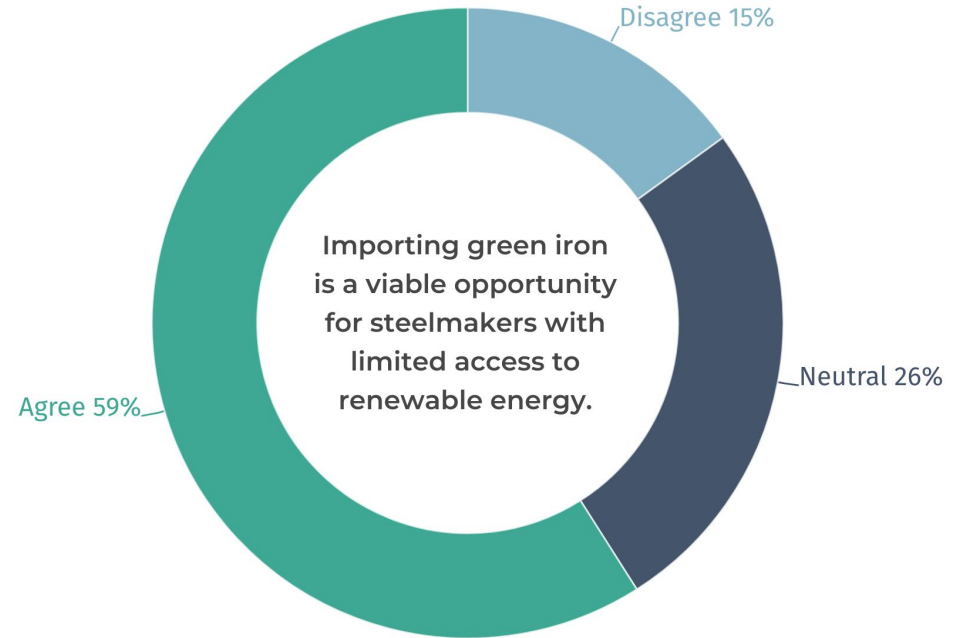
Response breakdown by country





## Investors see importing green iron as an opportunity in situations where low-carbon energy is not available

Most investors (59%) agreed importing green iron could be a possibility for steelmakers with limited access to renewable energy. Only 15% of respondents disagreed with the statement.



# Policy and lobbying

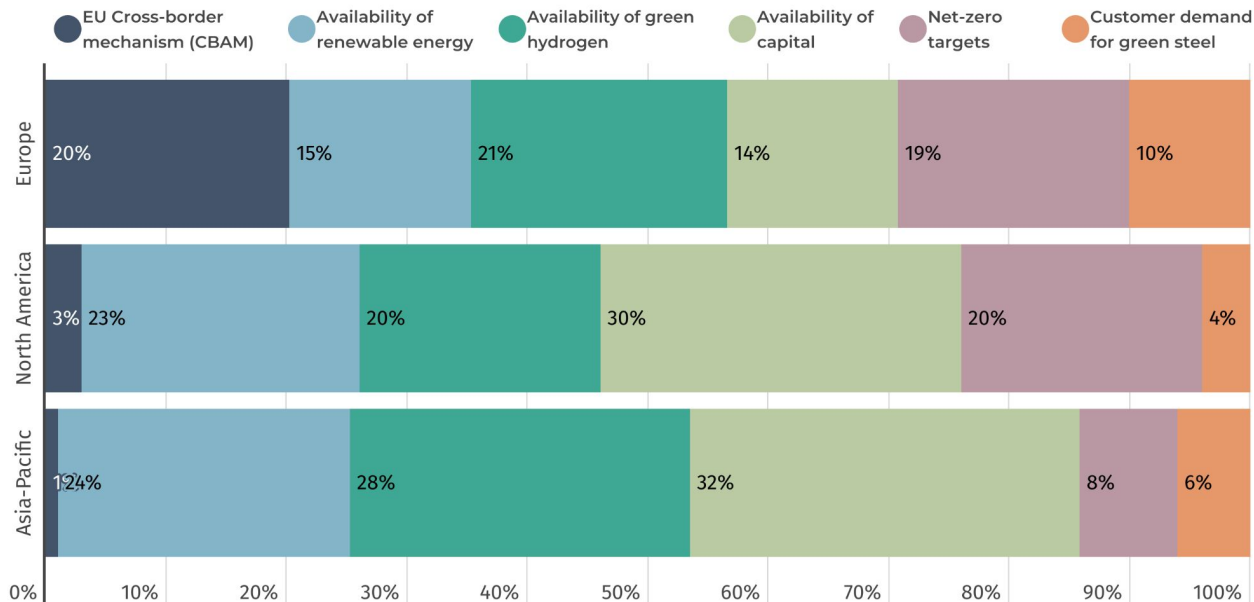
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[Back to contents page](#)

# Investors have a region-specific understanding of how policy and other factors impact steelmaking

What do you believe will have the biggest impact on each region's steel industry?

Each respondent selected one answer per region



# Investors have a region-specific understanding of how policy and other factors impact steelmaking

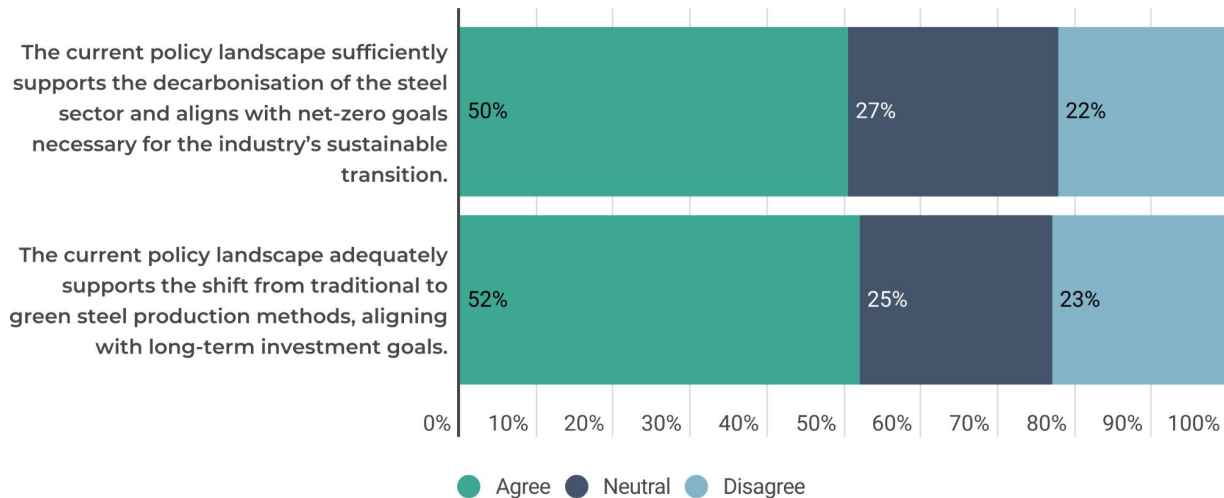
Similarities across the three regions:

- Customer demand is not considered to have a large impact on any region by the investors.
- The surveyed investors consider the availability of renewable energy and green hydrogen consistently significant across each region, with around a third of investors citing one of these as having the biggest impact on each region's steel industry.

Differences between the three regions:

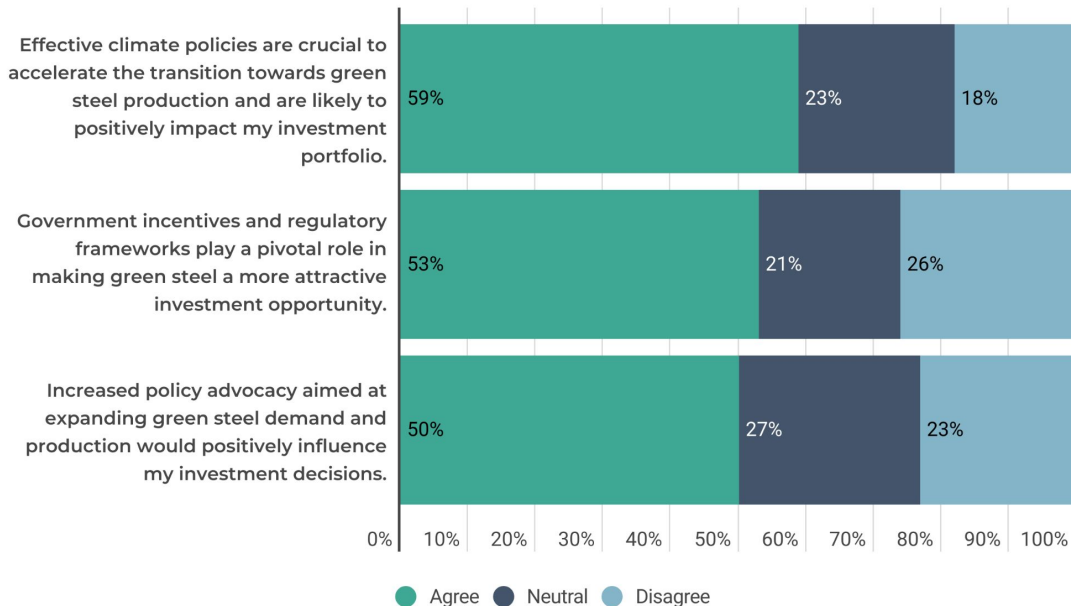
- The availability of capital is considered more impactful in the Asia-Pacific and North America than in Europe.
- Investors believe the CBAM will have a much bigger impact on Europe than North America or the Asia-Pacific.
- They also believe net zero targets will have a bigger impact on the steel industry in Europe and North America than in the Asia-Pacific.

# Around half of investors think the current policy landscape supports steel decarbonisation and long-term investment goals



## Effective climate policies, government incentives and positive advocacy are likely to make investing in green steel more attractive

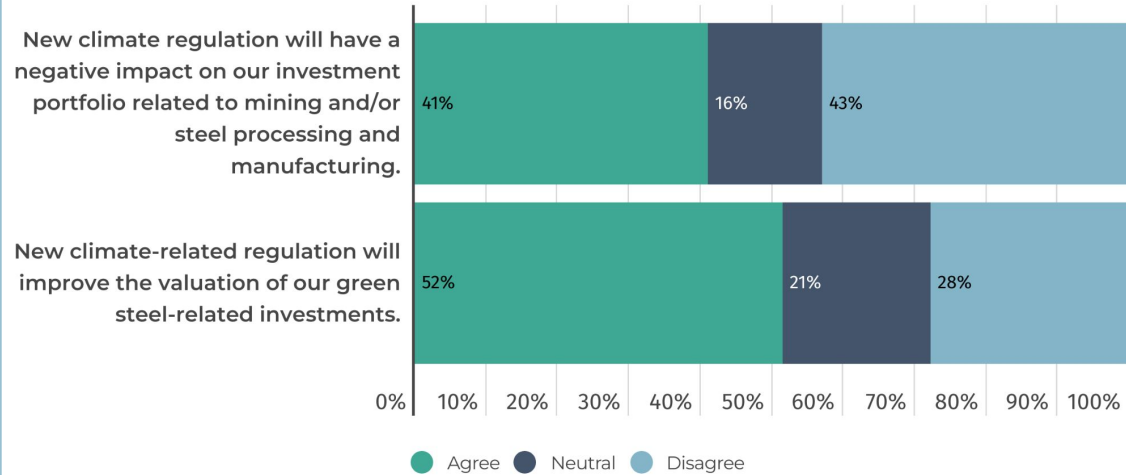
The majority of investors believe that effective climate policies, government incentives, regulatory frameworks and increased policy advocacy on green steel demand and production would likely be beneficial to their investment portfolio.



## Regulation will have a positive impact on green steel valuations, but the effect on mining and steel portfolios is less certain

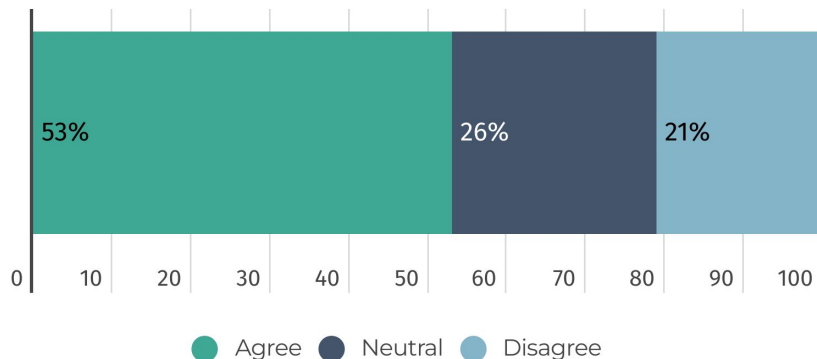
More than half of the respondents agreed that climate-related regulation will improve the valuation of green steel investments.

However, investors were more split on whether climate regulation would also have a negative impact on their mining and/or steel portfolios, with 41% agreeing and 43% disagreeing.



# A majority of investors agree the Carbon Border Adjustment Mechanism will help jumpstart the green steel industry

The European cross-border mechanism (CBAM) is going to jumpstart a green steel industry.



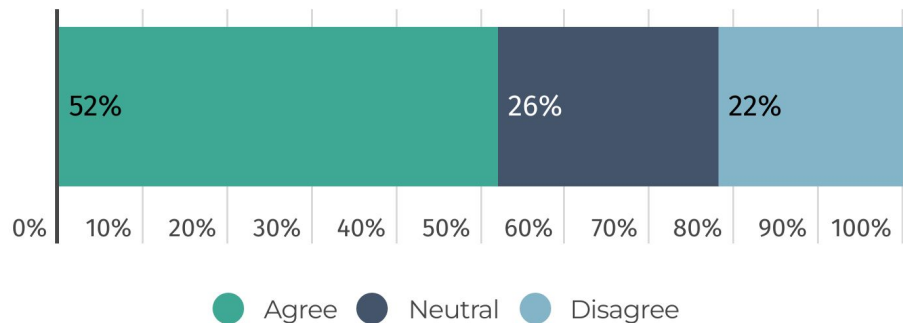
53% of investors agree that the EU's Carbon Border Adjustment Mechanism (CBAM)\* is going to catalyse a green steel industry.

*\*The CBAM is a tariff on carbon intensive products imported into the European Union. It started in 2023, and will be fully implemented by 2026.*



**More than half of investors (52%) identify the persistence of metallurgical coal in steelmaking due to lobbying as a problem**

The persistence of metallurgical coal in steel production due to lobbying efforts is a significant concern for sustainable investment strategies.

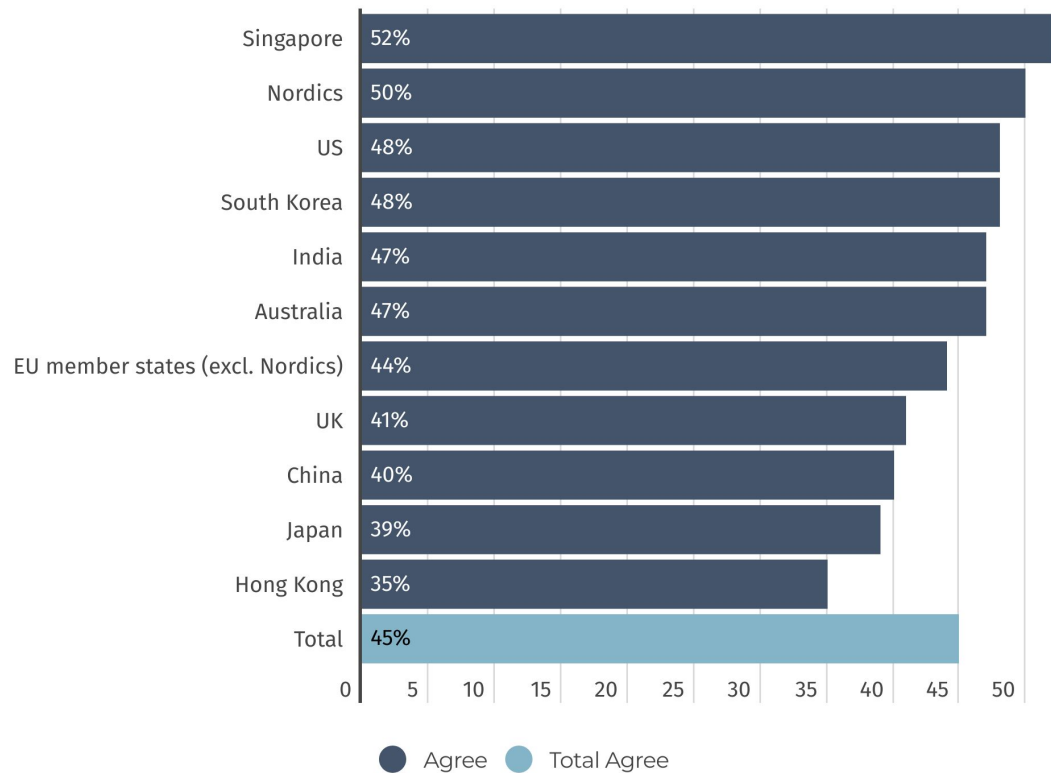


## Nearly half of the investors surveyed are lobbying their government for incentives to attract renewable energy development

This was fairly consistent for investors in different regions, though the lowest proportion of respondents that agreed were based in China (40%), Japan (39%) and Hong Kong (35%).

We are lobbying our government for more incentives to attract renewable energy development.

Response breakdown by country



# 1.5°C

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[Back to contents page](#)

 **ACCR**

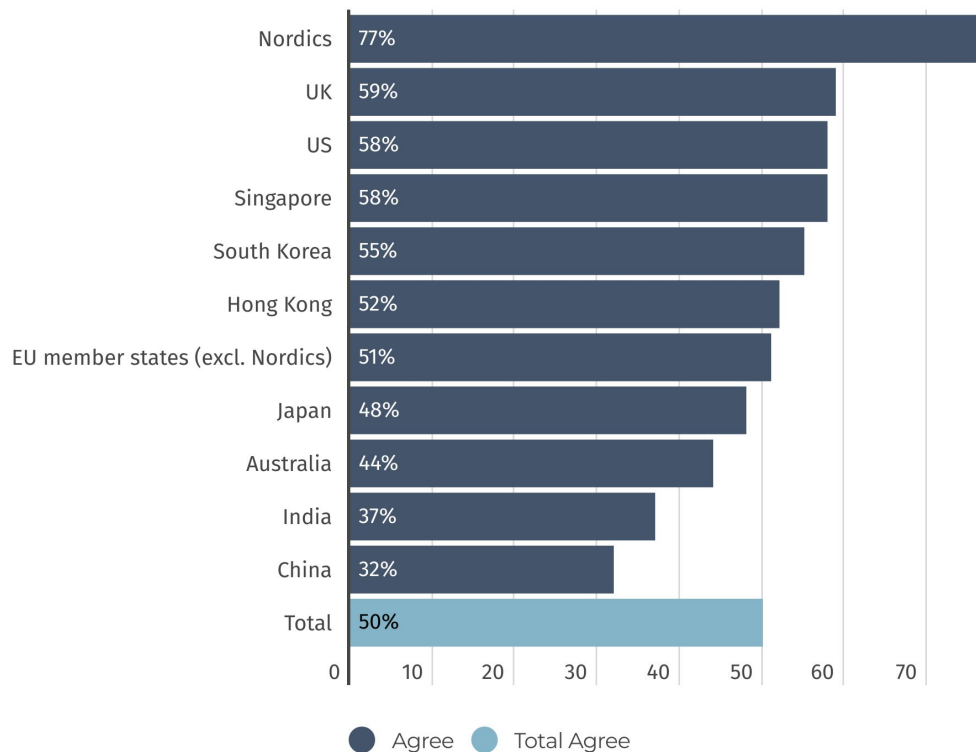
## 50% of investors aim to align with 1.5°C and factor the Paris Agreement goals into their investment decisions

This was most strongly supported by investors in Nordic countries, where over three quarters of respondents (77%) agreed that they aim to align with 1.5°C.

Comparatively, a much lower proportion of investors based in India (37%) and China (32%) factored the goals of the Paris Agreement into their investment decisions.

Aiming to align with 1.5C and the goals of the Paris Agreement factors into our/my investment decisions.

Response breakdown by country



## Investors in Europe are more optimistic about staying within the 1.5°C limit by 2100 than the rest of the world

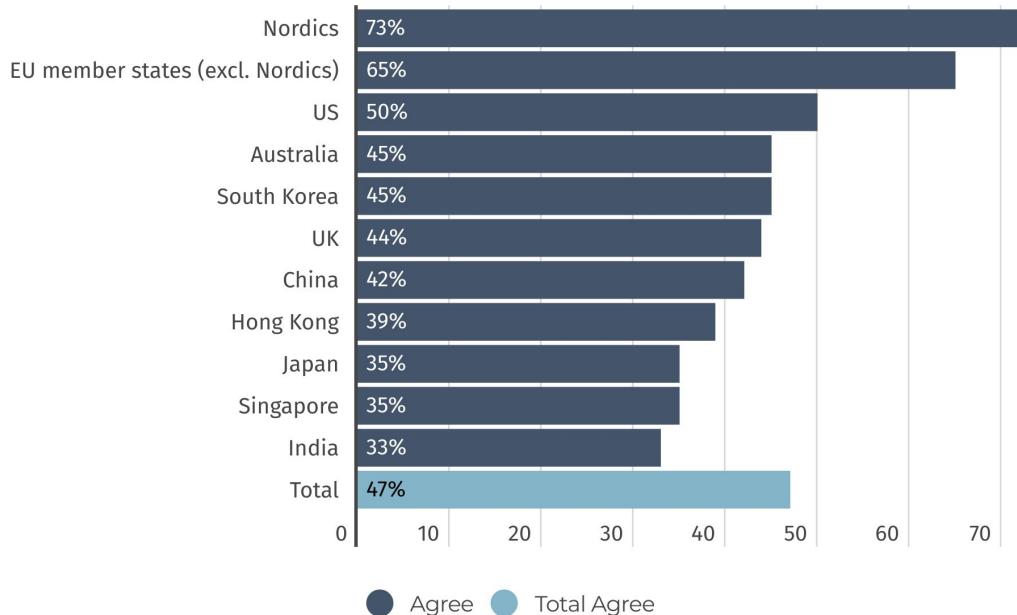
The majority of respondents from Nordic countries and other European states believe that keeping temperature increases below 1.5°C is achievable by 2100.

In contrast, only 33% of investors in India and 35% in Singapore and Japan believe this.

Overall, just under half of respondents believe it is possible.

## Keeping temperature increases below 1.5C is achievable by 2100.

Response breakdown by country



# Investor action and information sources

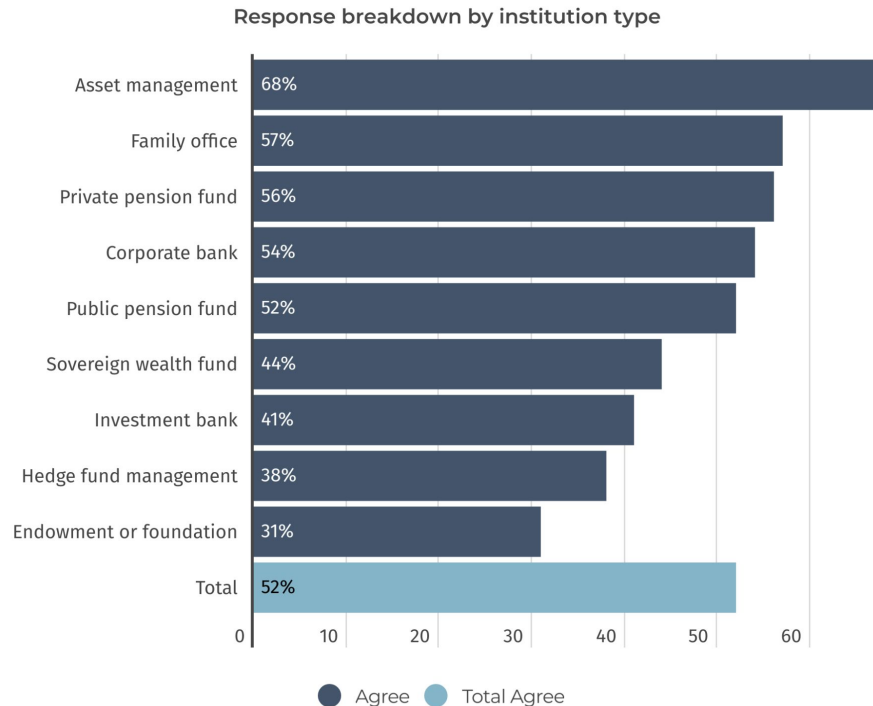
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## More than half of investors vote in favour of resolutions asking for increased ambition or transparency in decarbonisation efforts

Investors are using shareholder powers to encourage companies to disclose more information, or decarbonise:

- Asset managers were the most likely to do so, with two-thirds of respondents (67%) at these institutions stating they voted in favour.
- Hedge funds (38%) and endowments/foundations (31%) were the least likely to vote in favour of shareholder resolutions.

My institution votes in favour of shareholder resolutions that ask companies to disclose more information or take more action on decarbonisation.



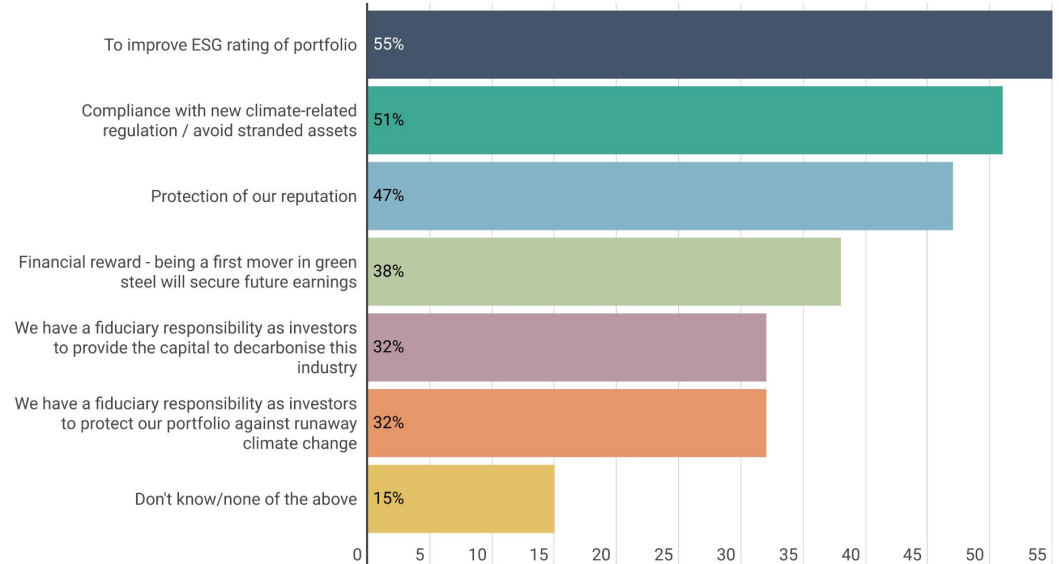
## Investors tend to engage with companies to improve their portfolio ESG ratings, comply with regulation and avoid stranded assets

Investors chose a wide range of motivations for engaging with mining/steel companies. Improving the ESG rating of the portfolio, compliance with new climate-related regulation and protection of reputation were the most common drivers for engagement.

A third of investors agreed they had a fiduciary responsibility to provide capital to decarbonise the steel industry, and to protect their portfolios against climate change.

### What are your three most important motivations for engaging with mining/steel companies?

Each respondent selected three answers below

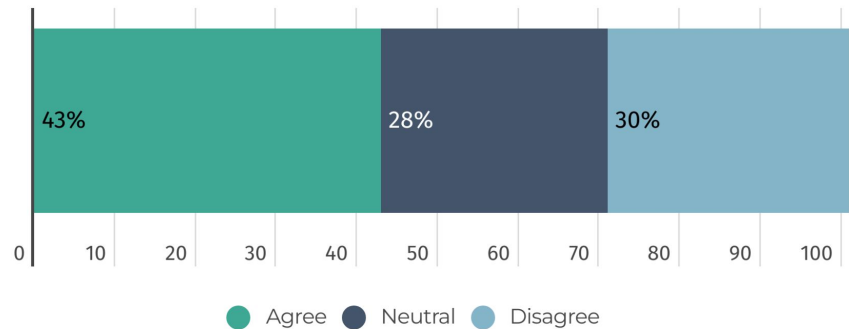




## Not all investors believe there is enough information available on steel decarbonisation

While some investors (43%) are satisfied with the availability of information to factor decarbonisation into investment decisions about steel, the results remain quite mixed.

There is enough information available to factor decarbonisation into investment decisions about steel.



# Investors use a range of sources to inform climate-related decisions for investments in mining and steelmaking

The most important information sources to investors were:

- international frameworks such as the Task Force on Climate-related Financial Disclosures, with 60% selecting this
- work from industry associations like the World Steel Association, with 53% selecting this.

Which of these sources of information are the three most important sources you rely on when making climate-related decisions for your investments in mining and/or steel making?

Each respondent selected three answers below

