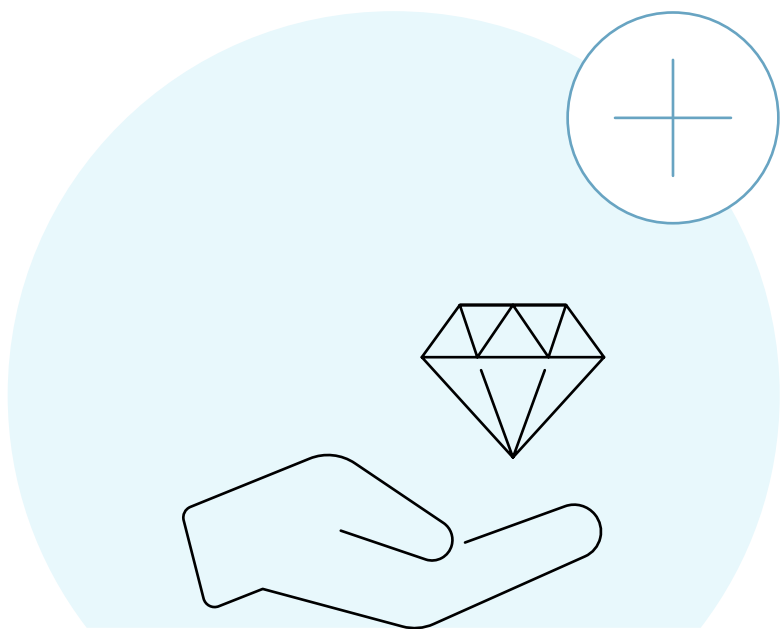


ESG Playbook for Shipping

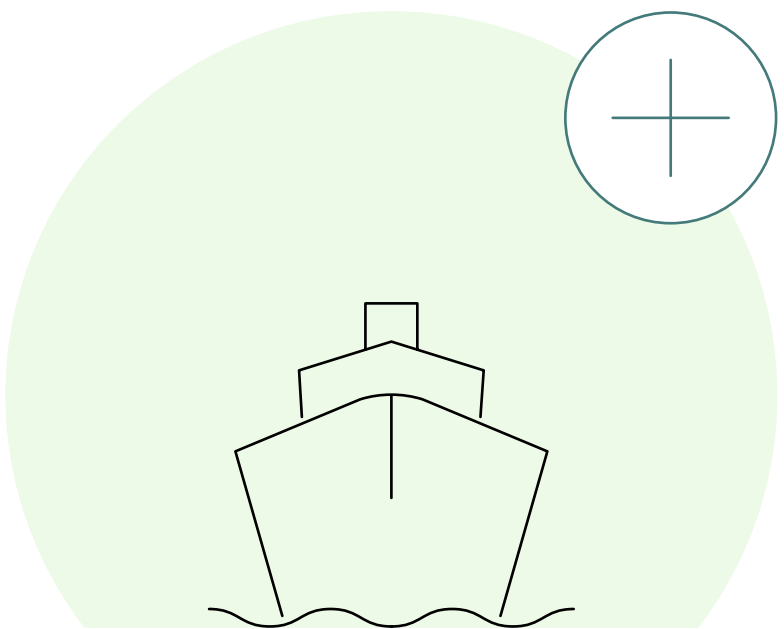


The essentials

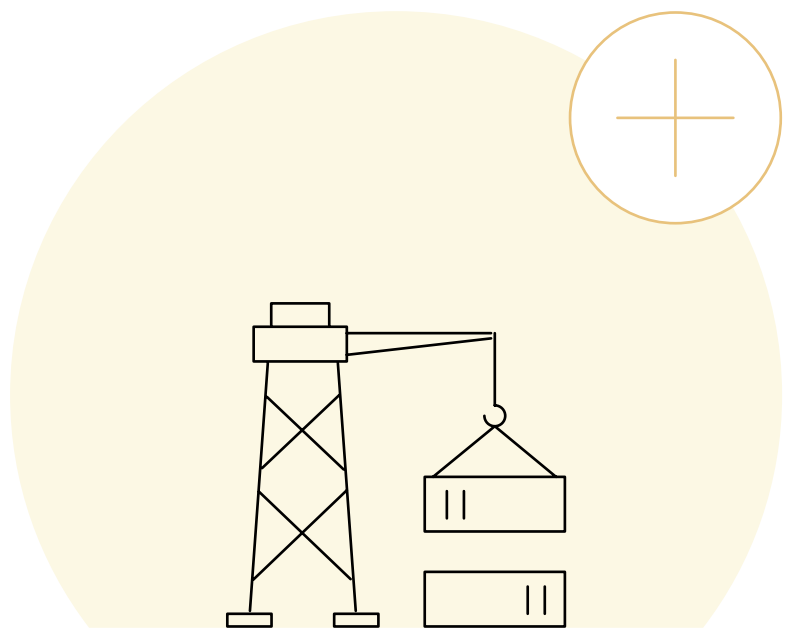
Content of the ESG Playbook for Shipping



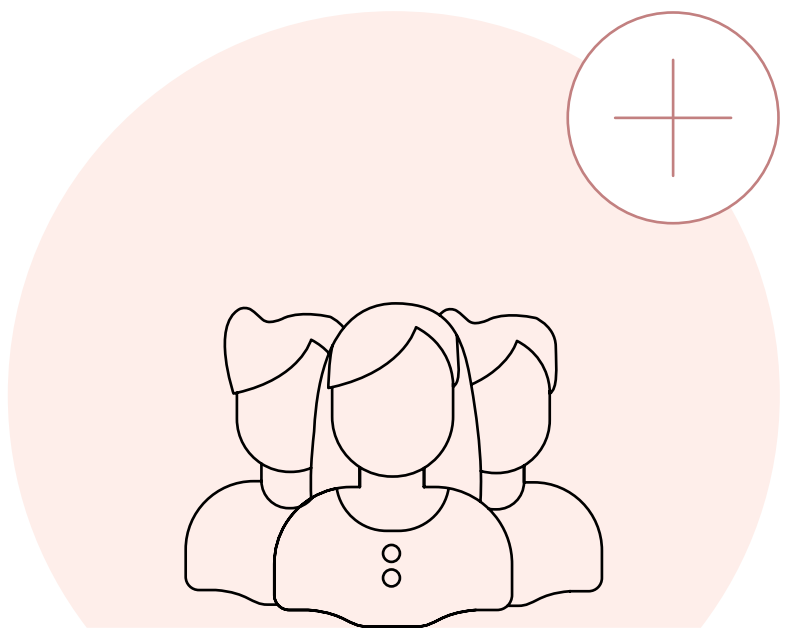
Why ESG is important to you



ESG topics in the shipping industry & your segment



Key components of your ESG Strategy



Contact information



Why ESG is important to you

Explore >



| **BCG**

| ESG Playbook for Shipping

What is ESG?



Environmental

A company's environmental impact includes sub-topics such as **CO₂e emissions, pollution, waste, biodiversity, and natural resource management incl. circularity**. A company's performance on the environmental dimension is increasingly being scrutinized by investors, regulators, and customers



Social

Health and safety of employees, product liability and the assumption of responsibility within a company's environment shape its public image

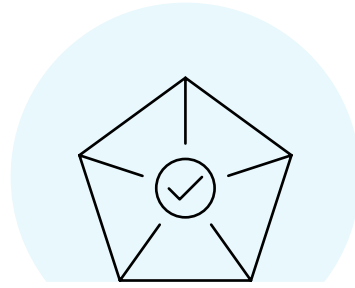


Governance

Corporate governance such as leadership's orientation on **ESG-aligned company policies** and **supply chain management** are steering mechanisms of ESG implementation

Purpose of the ESG Playbook for Shipping

Unlock the value proposition of ESG through concrete tools and processes tailored for the shipping industry

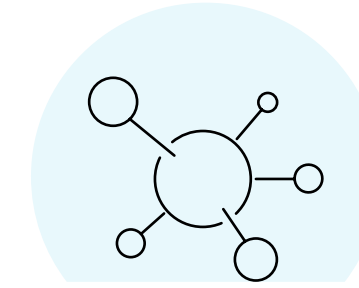


Industry transition through ESG

Now, more than ever, the integration of environmental, social, and governance (ESG) standards in business and investment decisions can act as enabler for the transition towards a more sustainable shipping industry and amplify decarbonization efforts

For businesses, environmental, social, and governance (ESG) is an increasingly critical component of their value propositions to stakeholders including investors, customers, and employees. ESG involves setting clear targets, developing roadmaps for meeting targets, and reporting progress. Therefore, it has the potential to drive climate action and more sustainable behavior, including, but not limited to, reducing GHG emissions by improving the reliability, comparability, and transparency of company ambitions and actions.

There is a growing number of voluntary ESG frameworks and methodologies which has made the ESG reporting landscape increasingly complex to navigate. This document is not an attempt at yet another framework or methodology. Rather, we encourage the use of those already out there in combination with an observant eye on the most ambitious upcoming regulation. There is good reason to believe that this along with the ongoing work for an international standard will define future requirements from your main stakeholders including investors and customers.



Guide to a credible ESG strategy

Our ambition with this Playbook is to make ESG more accessible, easy to distribute, and actionable – also for those new to ESG

The Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping and Boston Consulting Group (BCG) want to increase the ESG maturity level and understanding of ESG value proposition among shipowners. Because we believe that ESG is an enabler for more sustainable behavior, we want to provide an easy and clear pathway for shipping SMEs to set ambitious targets and act on them across E, S, and G. We hope to reach as many shipping companies as possible across geographies.

Decarbonization is at the core of what the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping does, but we strongly believe that a successful decarbonization strategy is closely related to a comprehensive ESG

strategy with ambitious target setting across E, S, and G. This transition is not just about ships and technology, we have to ensure a people-centered approach.

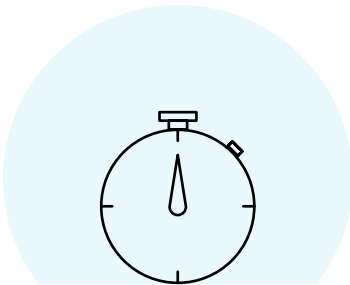
In our experience, specific elements characterize a solid and credible ESG strategy:

- Set time-bound long-term and ambitious ESG commitments with interim targets
- Develop a strategy for how to achieve targets
- Invest in initiatives and governance
- Track progress and report using a global standard

Good luck!

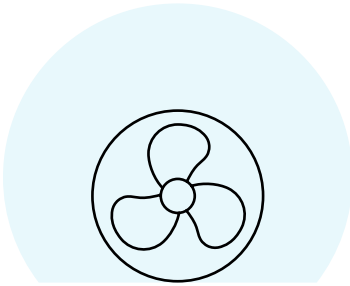
Call to action

Now is the time to act!



We are running out of time, transformative action is required

- Within 7 years the carbon budget for a 1.5 °C scenario is depleted
- To stay within the 1.5 °C, shipping must cut emissions by 45% in 2030



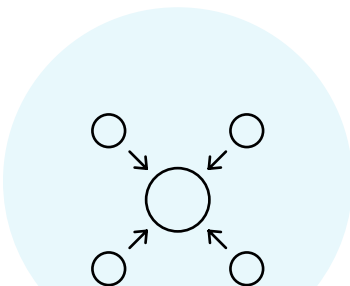
Changing shipping dynamics are amplifying the need for ESG

- Global supply chains are continuously being disrupted by global crises
- New roles and alliances emerge in shipping as the race to zero continues



Regulators, investors and customers are demanding change

- Shipping is facing a wave of new ESG regulation e.g., EU ETS, CSRD & CII
- 80% of US investors plan to reallocate capital to ESG short term



The scope of expected sustainability is widening in shipping

- Carbon tunnel vision must be avoided, shipping has a wider ESG role
- Shipping is lagging behind on ESG and must speed up for a just transition

Today

Sustainability can provide a competitive advantage

Tomorrow

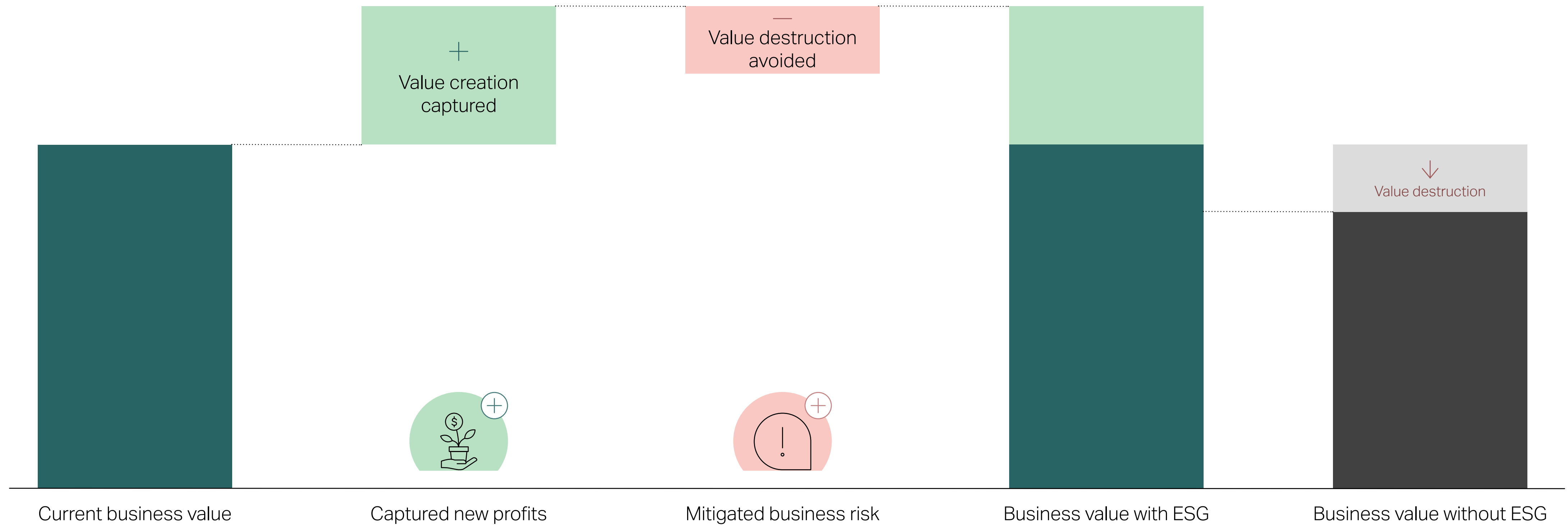
Sustainability will become a license to operate

Source: Mercator Research Institute on Global Commons and Climate Change; Earth Overshoot Day; Stockholm Resilience Centre; Financial Times; Demand for ESG Investments Outstrips Supply (2022); MMMCZCS: Ready, Set, Decarbonize (2022); BCG analysis; BCG: The Road Ahead for Low-Carbon Fuels (2022)

Value of ESG

ESG can be deployed to capture new sustainable business value and mitigate current and future business risks

The ESG imperative



Source: BCG & MMCZCS analysis

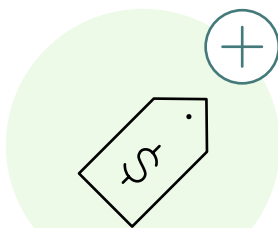
Value of ESG

ESG can
future bu

The ESG imperat

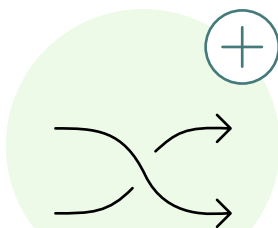
Capture new sources of profits

by participating in growing sustainable markets or increase margins through green premium pricing



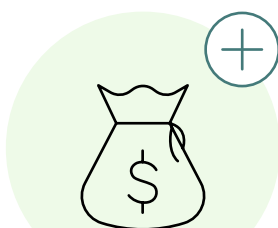
Premium pricing

Capture higher prices by exploring customers' willingness to pay for sustainable solutions e.g., 82% of shipping customers are willing to pay a green premium



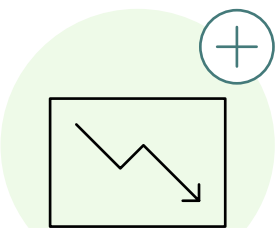
New revenue streams

Go beyond core business and build new revenue streams based on emerging green markets



Lower cost of capital

Finance company transition through access to cheaper capital linked to ESG performance



Reduction of operational costs

Capture operational cost reductions e.g., through fuel efficiency and speed optimization e.g., 20-30% of CO₂e reductions are consistent with cost reductions



Talent attraction and retention

New top talent demands credible ESG targets and actions to be attracted and retained



Customer loyalty

Foster superior customer loyalty by building a strong value proposition to key customers e.g., 71% of customers indicate they will be more loyal to zero-carbon shippers



Increased investor access

Attract new investors through ESG as they reallocate capital to sustainability to be future-fit

Source: BCG analysis; The Strategic Race to Sustainability; BCG & MMCZCS analysis; IMO GHG Study 2020

Source: BCG & MMCZCS analysis

Value of ESG

ESG can
future bu

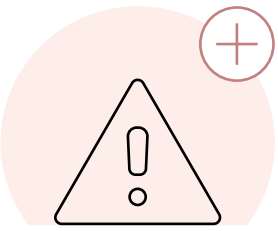
The ESG imperat

Mitigate business risks
related to material environmental, social
and governmental factors



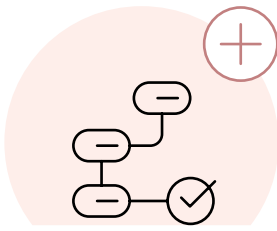
Reduces
stranded assets

Avoid stranded assets e.g., through
proper assessment of emission
reduction pathways



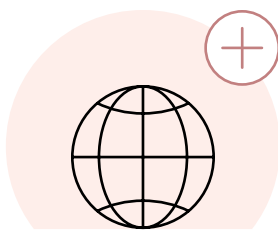
Limit
divestments

Avoid divestments by showcasing
a robust ESG transition pathway



Ensures resilient
operation

Mitigate supply chain risks through
the correct set of ESG policies,
processes and governance



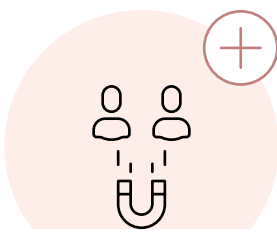
Safeguards social
license to operate

Safeguard against social backlashes
through the correct set of ESG
policies and processes



Regulatory risks /
compliance

Ensure compliance with ESG
regulation through rightful
and timely ESG disclosures



Avoid customer
flight

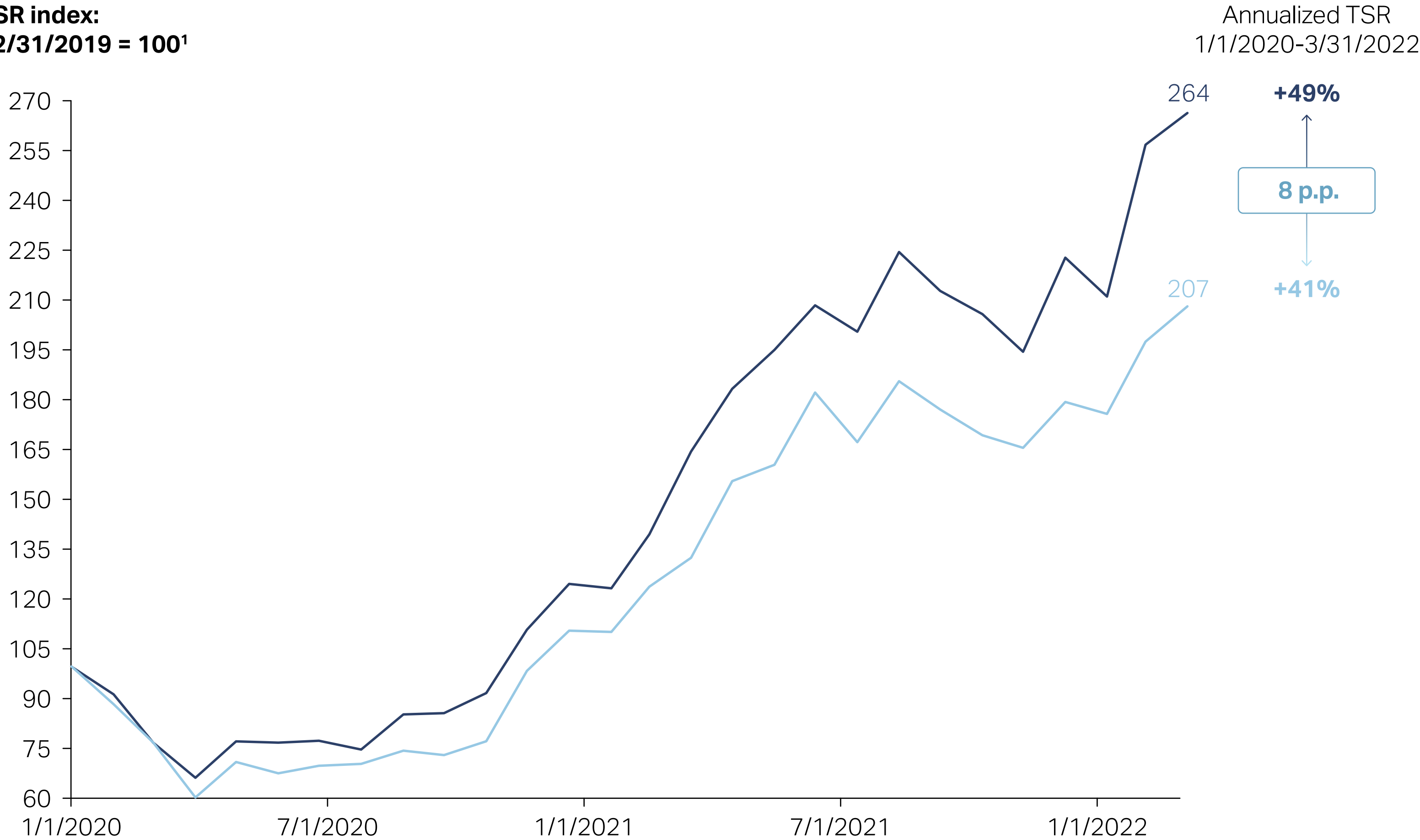
Mitigate risks of customer flight
from supply chain incidents or
non-sustainable products

Source: BCG analysis; The Strategic Race to Sustainability; BCG & MMCZCS analysis

Source: BCG & MMCZCS analysis

Shipping companies that choose to lead on ESG capture superior value

TSR index:
12/31/2019 = 100¹



Shipping companies with robust ESG strategies deliver better shareholder returns

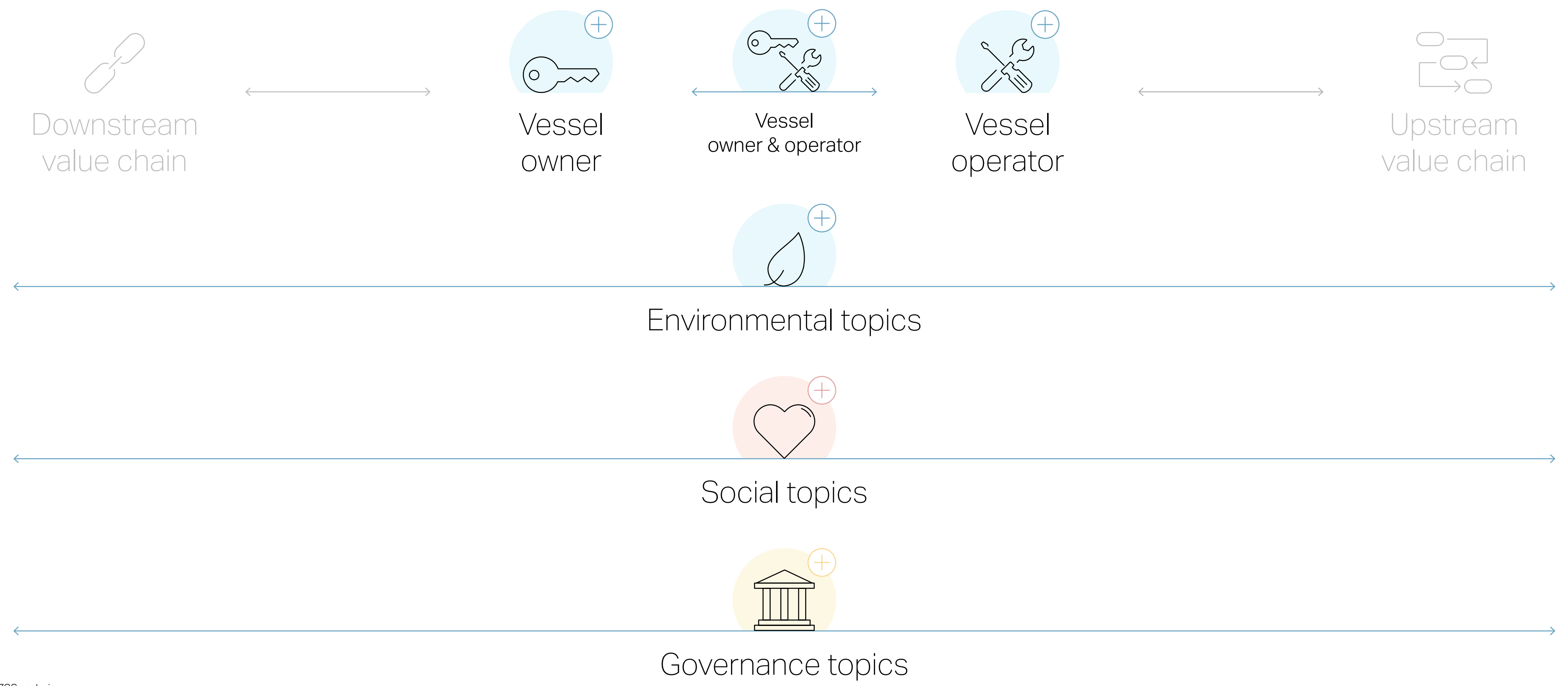
ESG score:
Environmental + Social + Governance commitment and effectiveness

TSR:
Total Shareholder Return (share price return and dividend yield)

Note:1. Median rebalanced monthly total return of a set of 40 Marine Transport players; 2. ESG score measure a company's relative material Environmental (e.g., Toxic Waste & Emissions, Carbon Emissions), Social (e.g., Health & Safety) and Governance (e.g., Corporate Governance, Corporate Behavior) performance, commitment and effectiveness

A new mindset is required

ESG accountability requires a new mindset focusing on collective action across the value chain



Source: BCG & MMMCZCS analysis

A new mindset is required

ESG acco
on collec

Vessel owner point of view (simplified)

Vessel owners should consider ESG collaborations with (at least) 6 stakeholder group

- Direct dependency
- Indirect dependency

Stakeholders

Dependencies

Potential ESG actions



Investor

- Vessel owner needs investor buy-in for ESG strategy and capital
- Investor depends on vessel owner's ESG performance to reach ESG targets for portfolio companies

- Ensure investor buy-in to begin own ESG journey and capital allocation towards prioritized ESG bets



Debt provider

- Vessel owner depends on capital lending to invest in ESG initiatives such as vessels running on low-carbon fuels
- Debt provider depends on demand for ESG loans to reach own targets

- Fund ESG bets through beneficial lending opportunities provided by debt providers



Cargo owner

- Vessel owner depends cargo owners WtP to invest in ESG bets
- Cargo owner push for green logistics to reach own ESG commitments

- Begin to develop position as ESG partner to whom freight forwarder and vessel operator can rely on for solutions fit for cargo owner's increasing ESG requirements



Vessel oper.

- Vessel owner depends on vessel operator for operations aligned with ESG targets and WtP for ESG compliant ships
- Vessel operator depends on vessel owner for access to green vessels

- Build ESG solutions fit for vessel operator's needs and engage operators with aligned ESG strategy for long-term charter to ramp-up capacity effectively



Technical manager

- Vessel owner depends on licensed crew to reach ESG targets e.g., accidents/injuries onboard merchant vessels

- Engage with crew suppliers and ensure convergence towards common ESG targets such as accidents/injuries targets



Fuel supplier

- Vessel owner depends on access to green fuel supply from fuel suppliers
- Fuel supplier depends on vessel owner for green fuel demand

- Begin to build off-take agreements with relevant fuel suppliers when long-term charter agreements are secured

1. WtP: Willingness to Pay. Source: BCG & MMMCZCS analysis

A new mindset is required

ESG acco
on collec

Vessel owner & operator point of view (simplified)

6 stakeholder groups are relevant for companies that own and operate vessels

- Direct dependency
- Indirect dependency

| Stakeholders | Dependencies | Potential ESG actions |
|--|---|--|
|  Investor | <ul style="list-style-type: none">- Vessel owner/operator needs investor buy-in for ESG strategy- Investor depends on vessel owner/operator's ESG performance to reach ESG targets for portfolio companies | <ul style="list-style-type: none">- Ensure investor buy-in to begin own ESG journey and capital allocation towards prioritized ESG bets |
|  Debt provider | <ul style="list-style-type: none">- Vessel owner/operator depends on capital lending to invest in ESG initiatives such as vessels running on low-carbon fuels- Debt provider depend on demand for ESG loans to reach own targets | <ul style="list-style-type: none">- Fund ESG bets by beneficial lending opportunities provided by debt providers |
|  Cargo owner | <ul style="list-style-type: none">- Vessel owner/operator depends WtP from cargo owners to invest in ESG bets- Cargo owner push for green logistics to reach own ESG commitments | <ul style="list-style-type: none">- Develop position as ESG partner who freight forwarder & vessel op. can rely on to fit cargo owner's increasing ESG req.- Offer ESG compliant services and seek for long-term freight contract to support investments in ESG |
|  Freight forward | <ul style="list-style-type: none">- Vessel owner/operator depends on demand for sustainable shipping solutions from freight forwarders- Freight forwarder depends on vessel owner/operator for supply of sustainable shipping solutions | <ul style="list-style-type: none">- Build ESG solutions fit for freight forwarder's needs and lock-in long-term contracts to ramp-up capacity effectively |
|  Technical manager | <ul style="list-style-type: none">- Vessel owner depends on licensed crew to reach ESG targets e.g., accidents/injuries onboard merchant vessels- Tech. manager relies on vessel owner/operator with vessel employments & ops. aligned with ESG targets to achieve targets | <ul style="list-style-type: none">- Engage with crew suppliers and ensure convergence towards common ESG targets such as accidents/injuries targets |
|  Fuel supplier | <ul style="list-style-type: none">- Vessel owner/operator depends on access to green fuel supply from fuel suppliers- Fuel supplier depends on vessel owner/operator for green fuel demand | <ul style="list-style-type: none">- Begin to build off-take agreements with relevant fuel suppliers when long-term charter agreements are secured |

1. WtP: Willingness to Pay. Source: BCG & MMMCZCS analysis

A new mindset is required

ESG acco
on collec

Vessel operator point of view (simplified)

To build a favorable position in the value chain, vessel operators should consider engaging 5 stakeholder groups on ESG

- Direct dependency
- Indirect dependency

Stakeholders

Dependencies

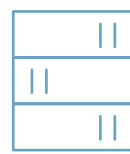
Potential ESG actions



Investor

- Vessel operator needs investor buy-in for ESG strategy and capital
- Investor depends on vessel operator's ESG performance to reach ESG targets for portfolio companies

- Ensure investor buy-in to begin own ESG journey and capital allocation towards prioritized ESG bets



Cargo owner

- Operators rely cargo owner's demand for ESG product offerings
- Cargo owner relies on vessel operators to achieve own ESG value chain targets

- Demonstrate ambition and capability in ESG and attract cargo owners who are committed to ESG and willing to pay for sustainable services



Vessel owner

- Vessel operator depends on vessel owner for access to green vessels
- Vessel owner depends on vessel operator for operations aligned with ESG targets and WtP1 for ESG compliant ships

- Demand greener vessels or partner w. vessel owners who are committed to ESG with solutions e.g., green vessel fleet
- Offer ESG compliant services and seek for long-term freight contract to support investments in ESG



Technical manager

- Vessel operator depends indirectly on licensed crew to reach ESG targets e.g., accidents/injuries onboard merchant vessel
- Tech. manager indirectly relies on vessel operator with vessel employments and operations aligned with ESG targets to achieve the ESG targets

- Engage with crew suppliers and ensure convergence towards common ESG targets such as accidents/injuries targets
- Influence and inspire tech. manager with ESG targets, and support tech. manager on delivering their ESG targets



Fuel supplier

- Vessel operator depends on access to green fuel supply from fuel suppliers
- Fuel supplier depends on vessel operator for green fuel demand

- Indicate clear demand for green fuel and support with long term commitment when it is possible

1. WtP: Willingness to Pay. Source: BCG & MMMCZCS analysis

A new mindset is required

ESG acco
on collec

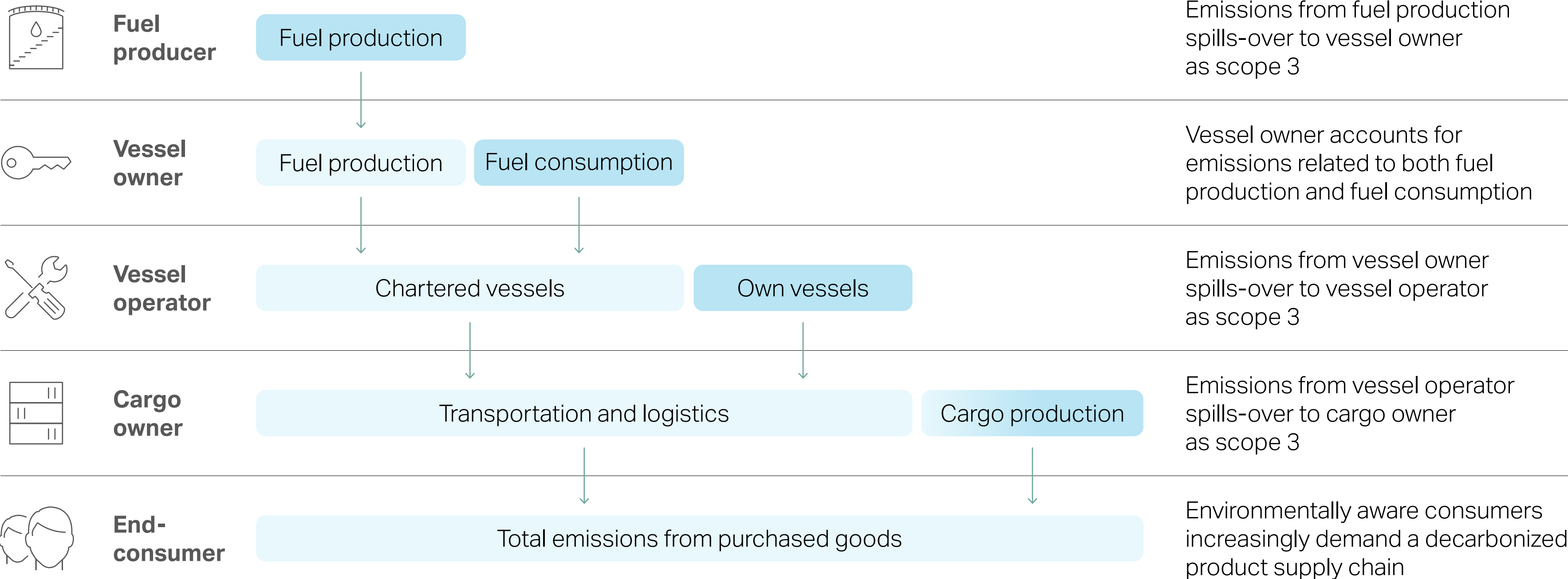
Environmental example

To reduce emissions in the supply chain, cross-company collaboration is key as suppliers' scope 1&2 is upstream scope 3



Scope 1 & 2 emissions
Scope 3 emissions

Stakeholders **Supply chain emissions** **Stakeholder dynamic (simplified)**



Downstream actors' scope 1 and 2 trickle upstream and become scope 3, enabling vessel owners and operators to 'solve' customers' scope 3

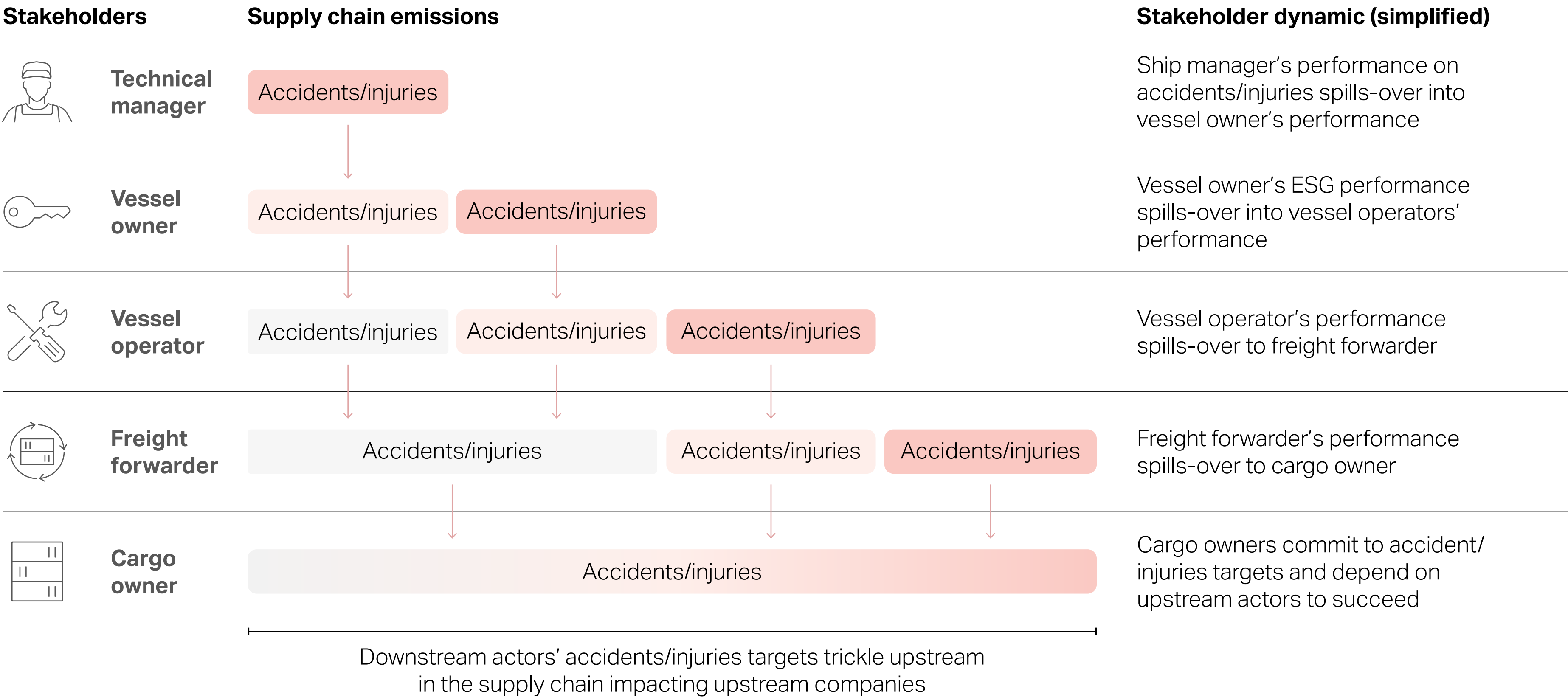
1. WtP: Willingness to Pay. Source: BCG & MMMCZCS analysis

A new mindset is required

ESG acco
on collec

Social example

To succeed with accidents/injuries targets, downstream companies depend on upstream supplier engagements/collaboration



- Own operations
- Direct suppliers
- Indirect suppliers

Source: BCG & MMMCZCS analysis

Source: BCG & MMMCZCS analysis

Governance topics

ESG acco
on collec



- Own operations
- Direct suppliers
- Indirect suppliers



Tech manager

Anti-bribery

Vessel
owner

Anti-bribery

Anti-bribery



Vessel operator

Anti-bribery

Anti-bribery

Anti-bribery

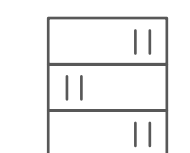


Freight forwarder

Anti-bribery

Anti-bribery

Anti-bribery



**Cargo
owner**

Anti-bribery

Downstream actors' anti-bribery targets trickle upstream in the supply chain

Tech. manager's performance
on anti-bribery (e.g., facilitation
payments¹⁾) spills-over to vessel
owner's performance

Vessel owner's anti-bribery performance spill-over to operators' performance

Operators are subject to downstream anti-bribery performance from freight forwarders

Freight forwarders are subject to downstream targets committed by cargo owners

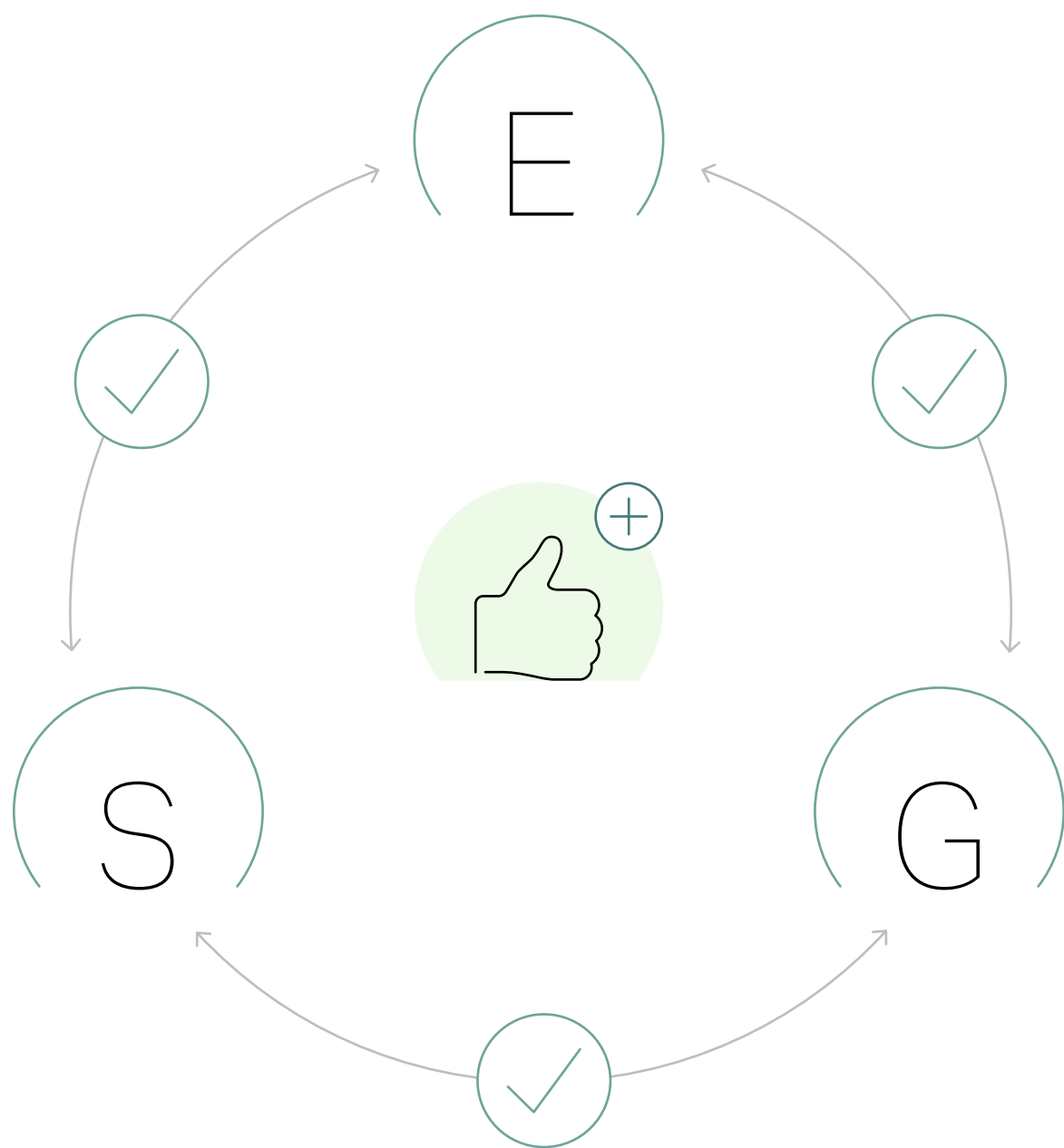
Cargo owners commit to anti-bribery and anti-corruption targets and depend on upstream actors to succeed

1. A facilitating payment is a financial payment that may constitute a bribe and is made with the intention of expediting an administrative process. Source: BCG & MMMCZCS analysis

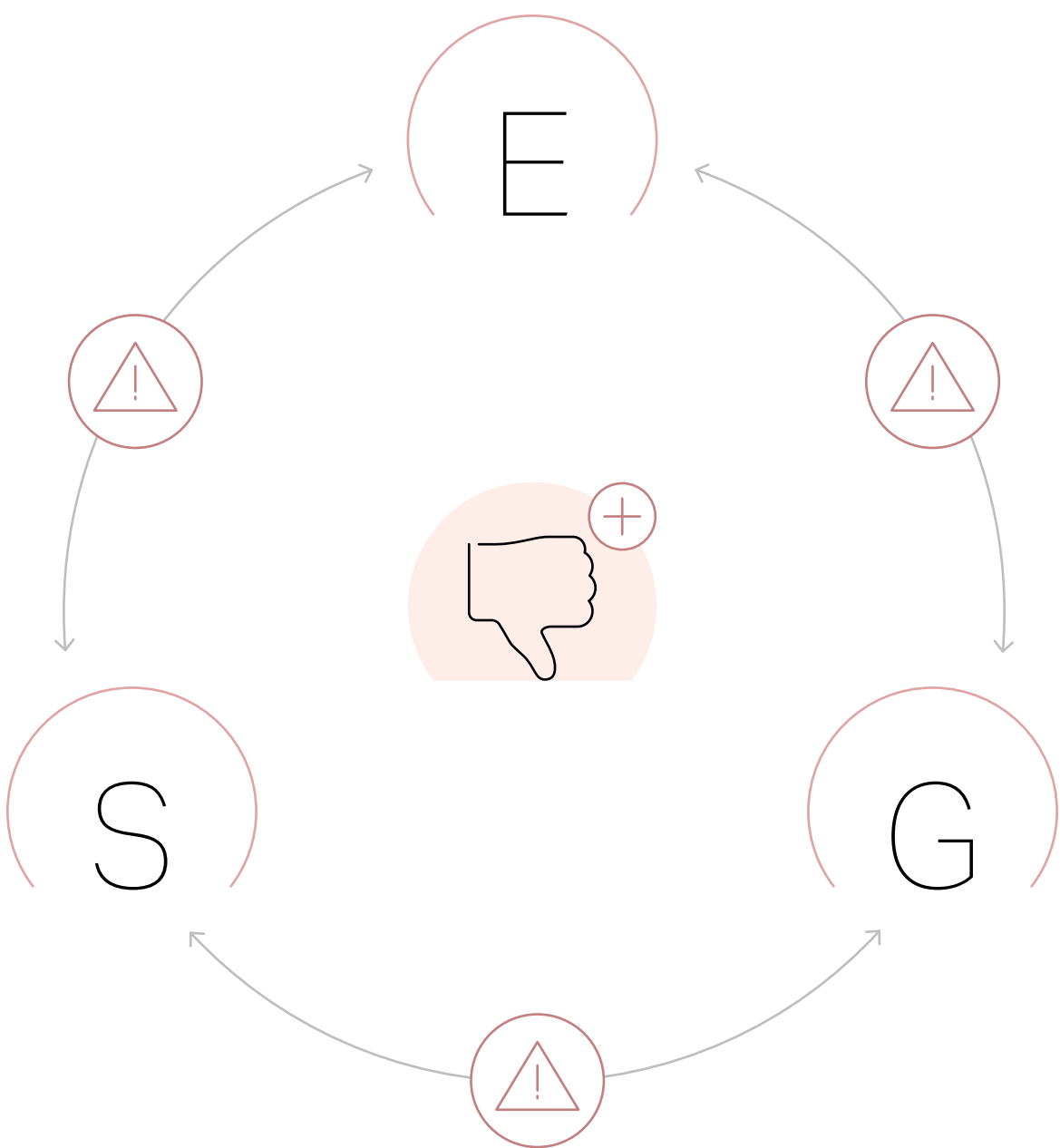
Environmental, Social & Governance reinforcement

Solid ESG strategies require a holistic approach & awareness of interdependencies of E, S, & G

How integrated thinking creates superior outcomes



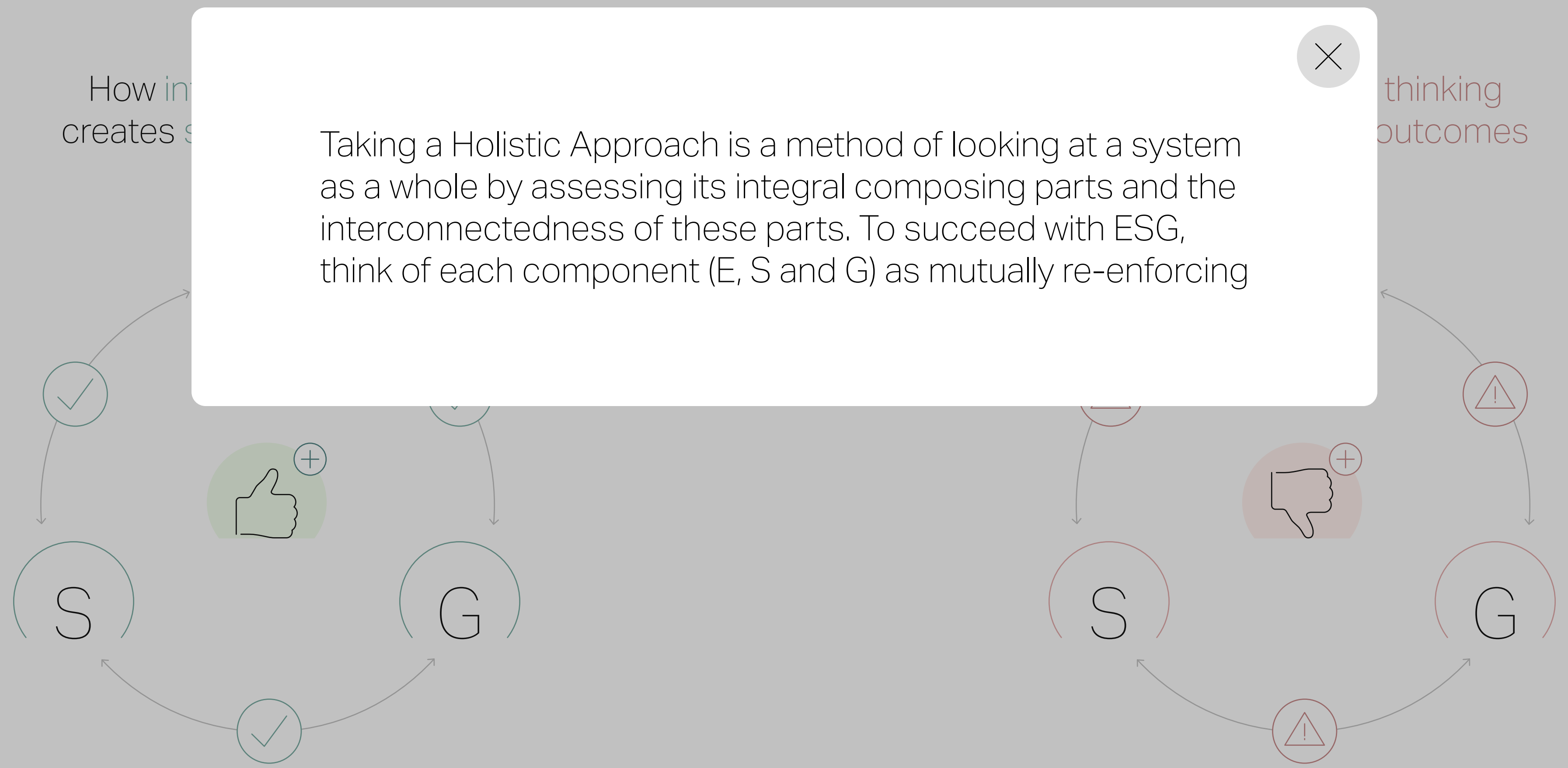
How disintegrated thinking creates suboptimal outcomes



Source: BCG & MMCZCS analysis

Environmental, Social & Governance reinforcement

Solid ESG strategies require a holistic approach & awareness of interdependencies of E, S, & G

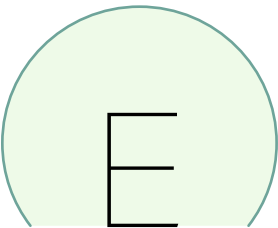


Source: BCG & MMCZCS analysis

Environmental, Social & Governance reinforcement

Solid ESG

Integrated thinking example



Vessel owner commit to net zero targets, invests accordingly in efficiency technology and identify relevant future fuels to reduce CO₂e emissions...

Reducing Emissions



... the derived need to up- or re-skill seafarers to ensure safe and accurate operations is identified and planned in collabo-ration with ship manager...

Upskilling/reskilling



... and data documenting annual progress on emission reductions incl. planned action is collected and shared with customers and investors – and made publicly available

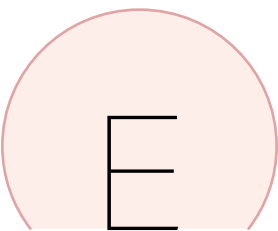
Data & transparency

Source: BCG & MMMCZCS analysis

Environmental, Social & Governance reinforcement

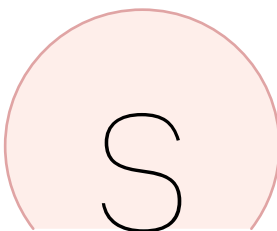
Solid ESG

Disintegrated thinking example



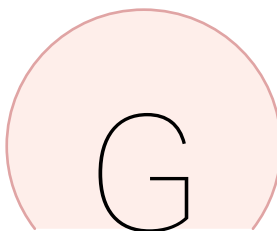
Vessel owner invests in efficiency technology and future fuels to reduce CO₂e footprint...

Reducing Emissions



... with no training, vessel crew lack skills to operate technology efficiently, leading to less CO₂e reductions as well as expose crew to potential significant safety risks

Not addressed



... insufficient data collection and missing disclosures leading to little credibility in targets and reputational risks among key stakeholders

Not addressed

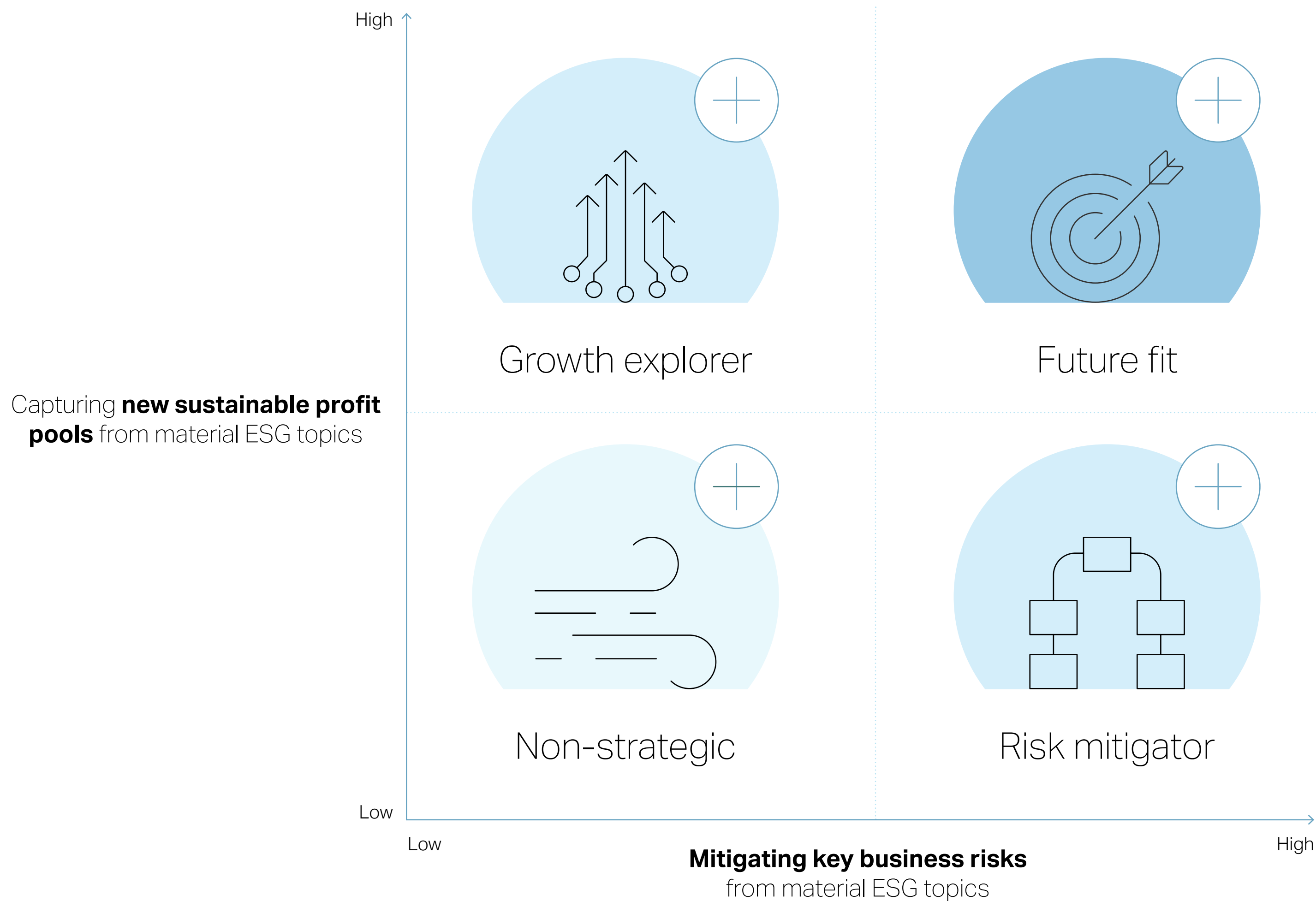
Source: BCG & MMCZCS analysis

Strategic approaches

Companies can take one of four approaches to ESG



Questions to consider



- Two-sided approach
- One-sided approach
- Non-strategic approach

Strategic approaches

Companies can take one of four approaches to ESG

Questions to consider

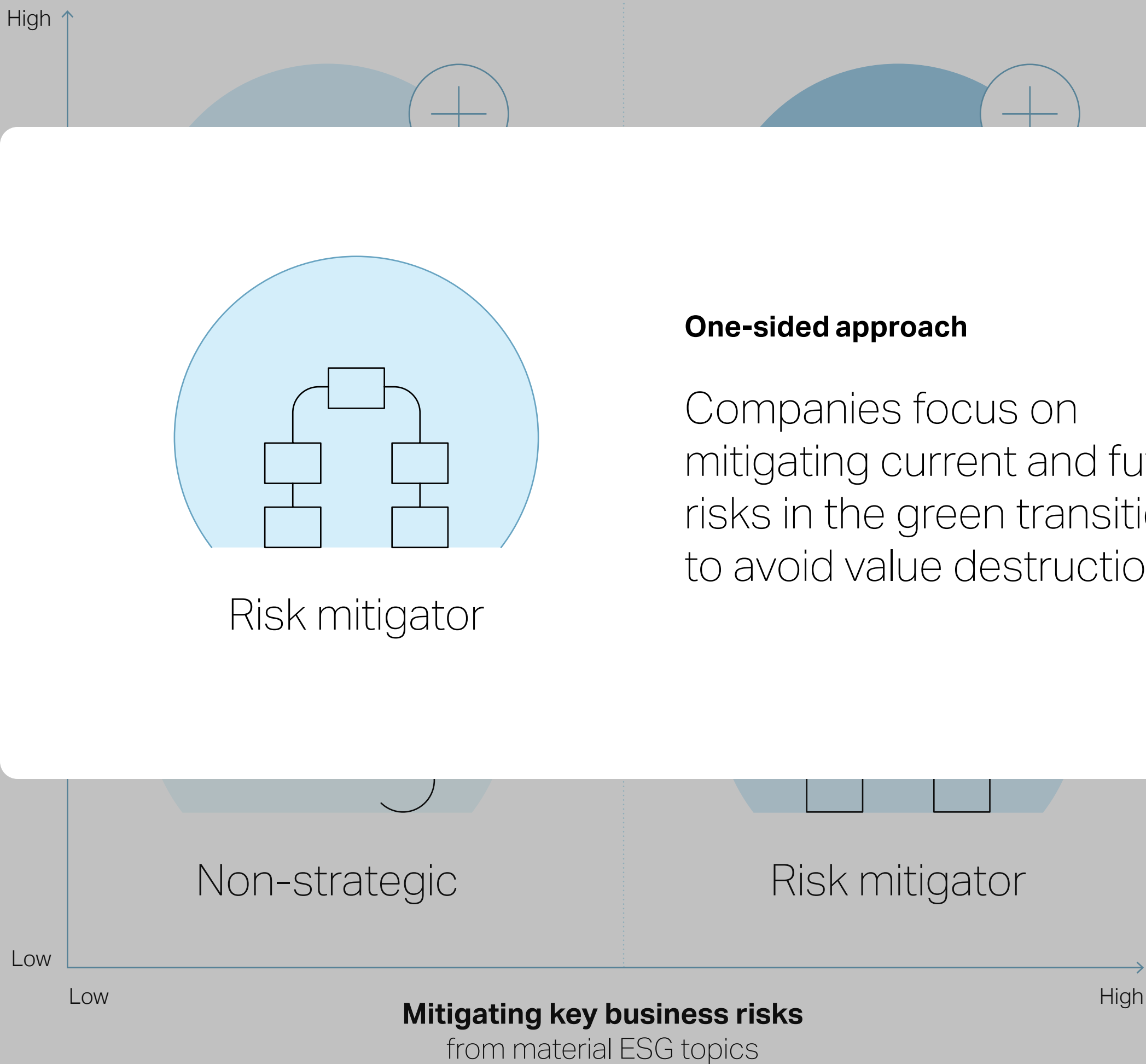


Strategic approaches

Companies can take one of four approaches to ESG

Questions to consider

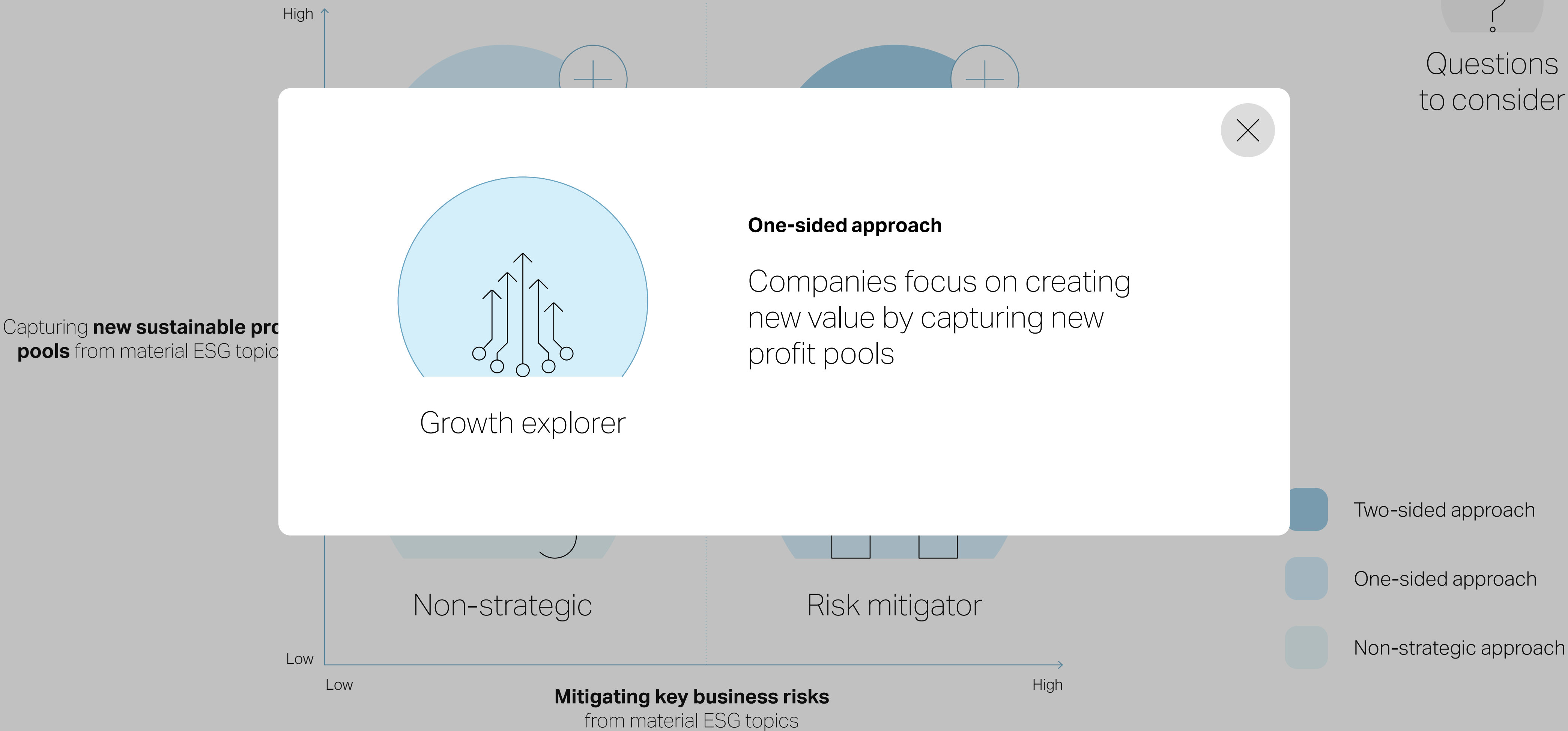
Capturing **new sustainable pro**
pools from material ESG topics



Strategic approaches

Companies can take one of four approaches to ESG

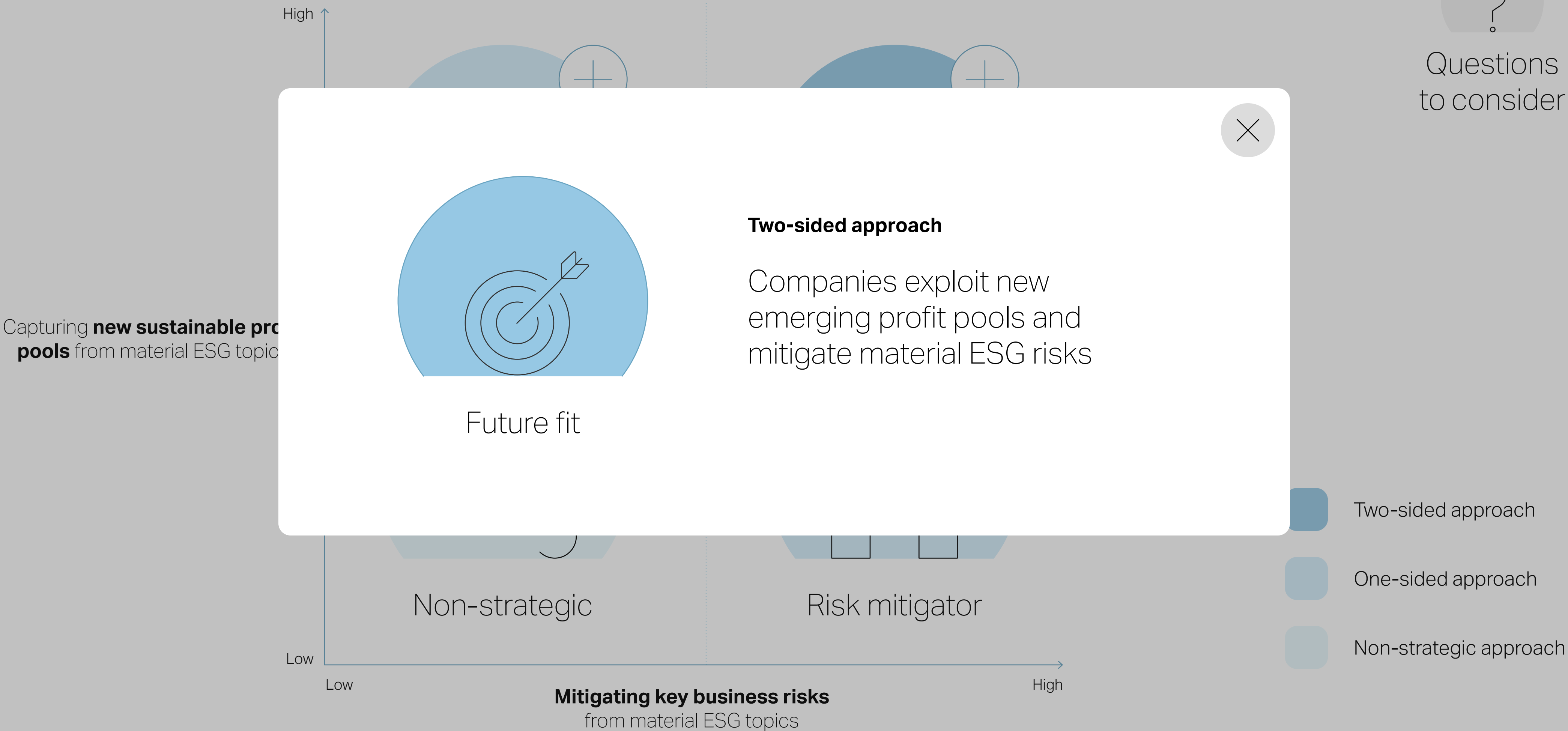
Questions to consider



Strategic approaches

Companies can take one of four approaches to ESG

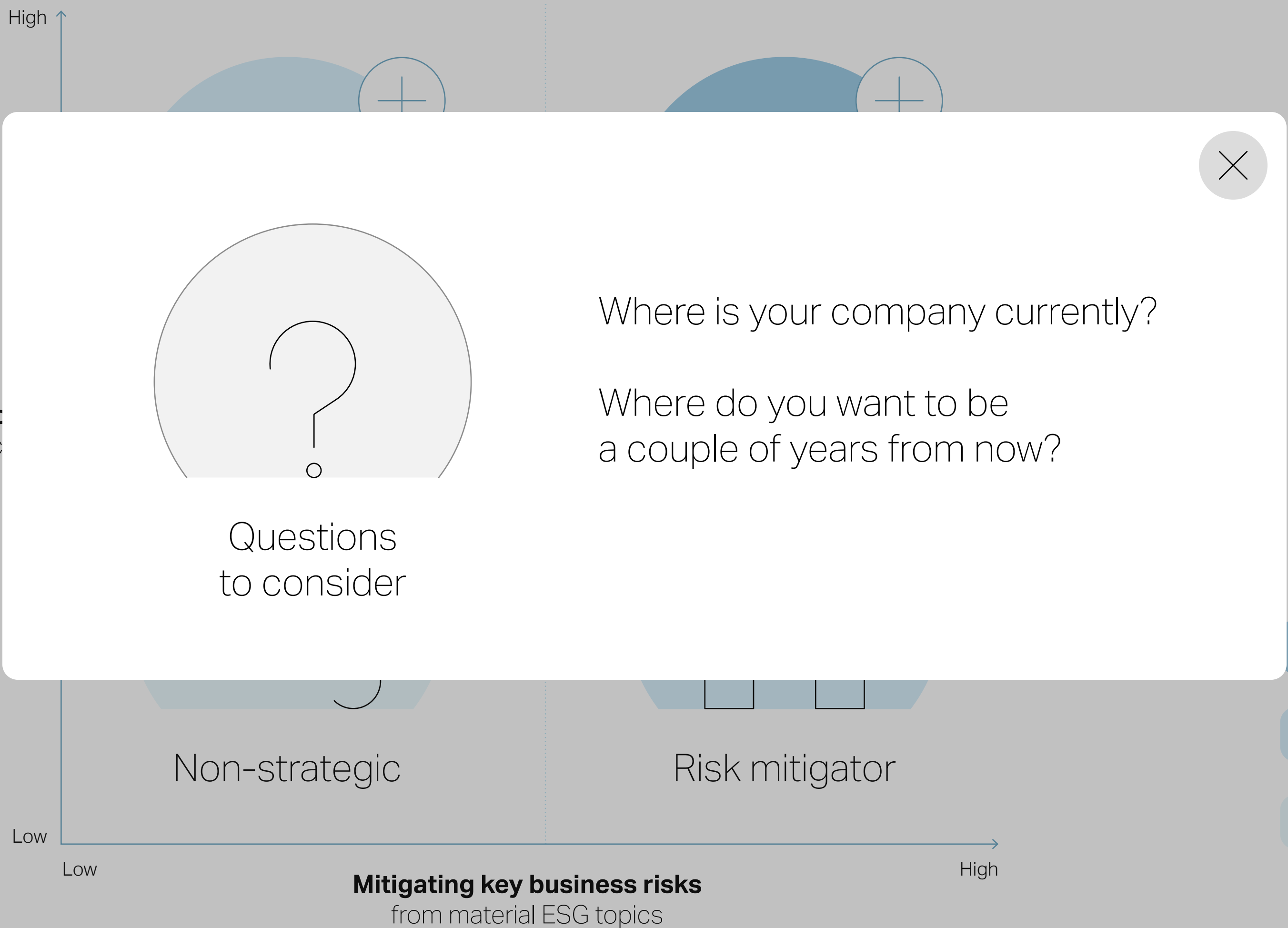
Questions to consider



Strategic approaches

Companies can take one of four approaches to ESG

Questions to consider



- Two-sided approach
- One-sided approach
- Non-strategic approach



ESG topics in the shipping industry & your segment

Explore



| BCG

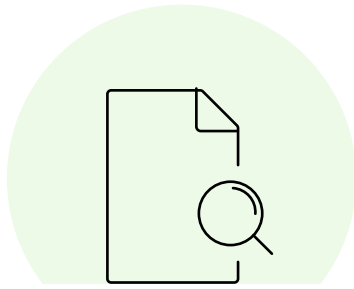
Materiality Assessment

Integrated analysis of which ESG topics you should focus on



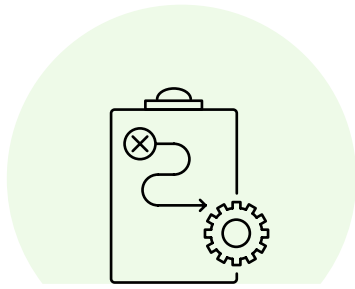
What is it?

A materiality assessment is a structured process of determining which ESG topics are most important for your company based on an assessment of stakeholder importance and relevance for long-term business success



How does it work?

It considers your company using a materiality matrix along two dimensions:
1) Business Criticality and
2) Stakeholder Importance.
By doing so, it visualizes which topics have the highest importance and potential impact for the company



Why is it helpful?

A materiality assessment provides an integrated and quantitative view into material topics, helping companies focus and compare themselves to peers and industry standards

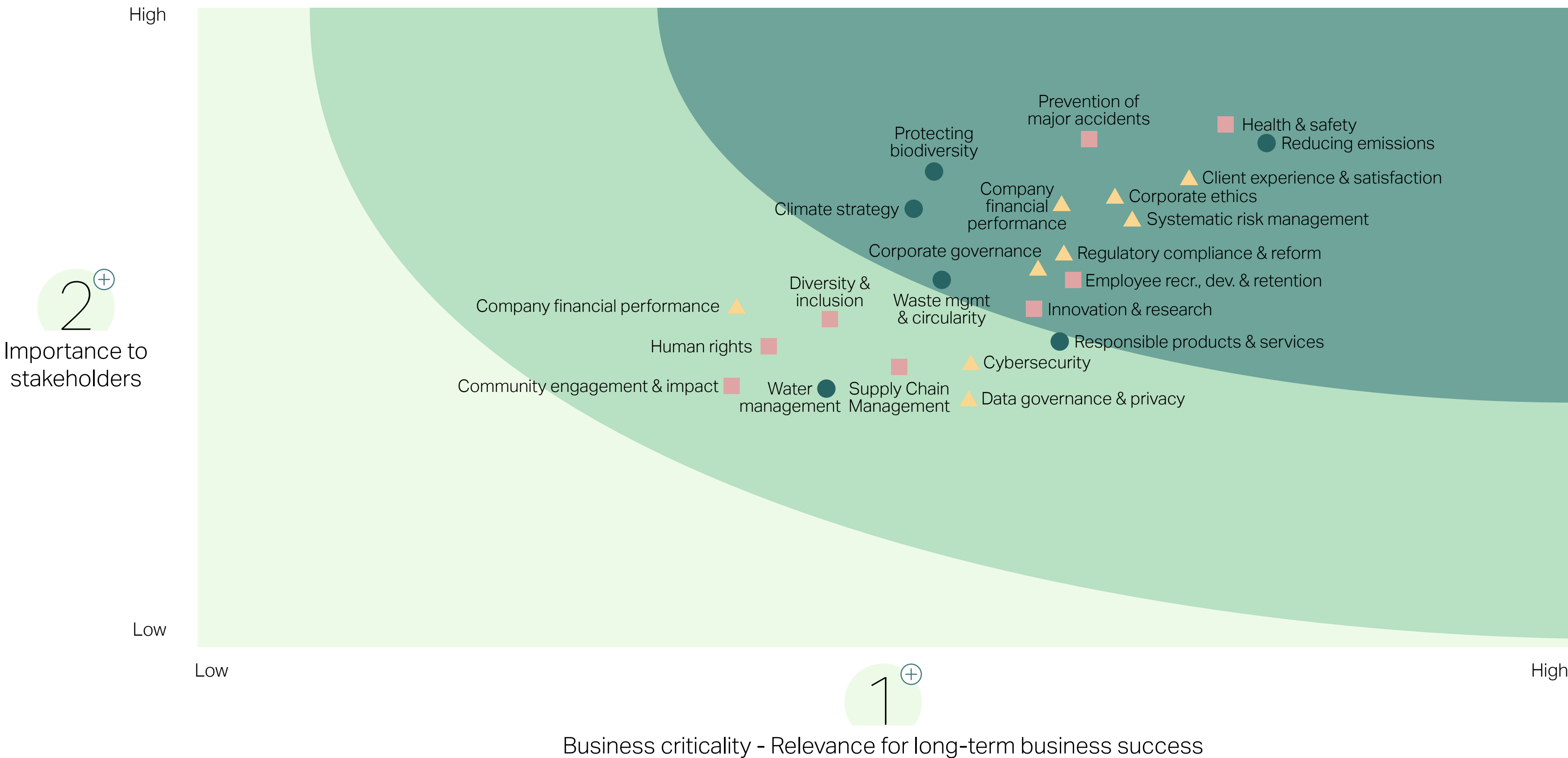


Materiality Matrix

The final output of a materiality assessment is a matrix that highlights the topics most material for your stakeholders and your business

Materiality matrix is a function of stakeholder importance and business criticality

Illustrative



Source: BCG's Materiality Mapping Analytics Product (MMAP)

Materiality Matrix

The final output of a materiality assessment is a matrix that highlights the topics most material for your stakeholders and business success

Materiality matrix is a function of stakeholder importance and business criticality

2 Importance of stakeholder

- Governance
- Social
- Environmental

1 Business Criticality/ Relevance for long-term business success (X-axis)

- Result of internal inputs gathered from internal interviews across business units
- Double materiality:
 - Financial materiality: financial risks & opportunities for the business
 - Impact materiality: impacts on society and environment



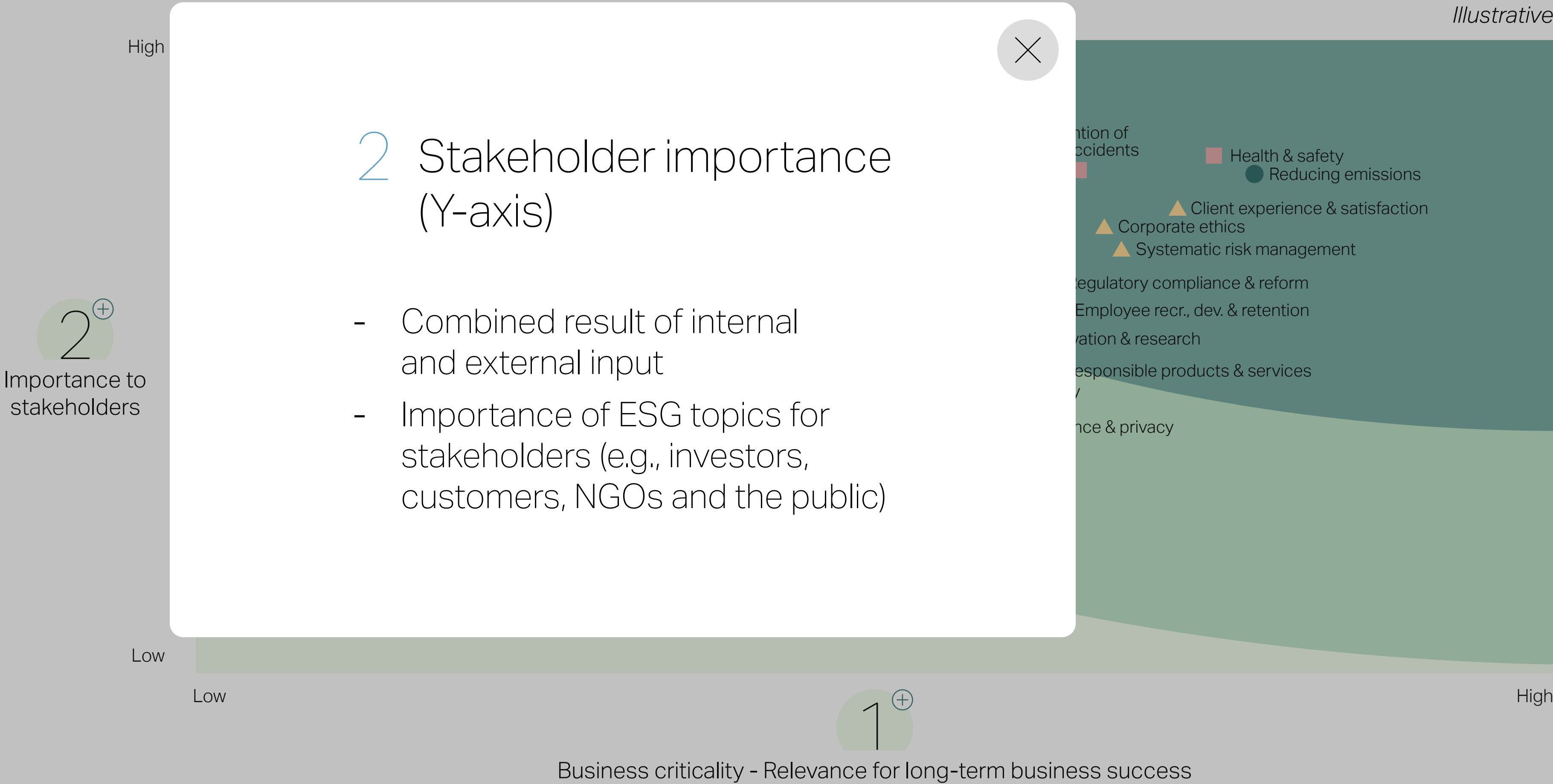
Business criticality - Relevance for long-term business success

Source: BCG's Materiality Mapping Analytics Product (MMAP)

Materiality Matrix

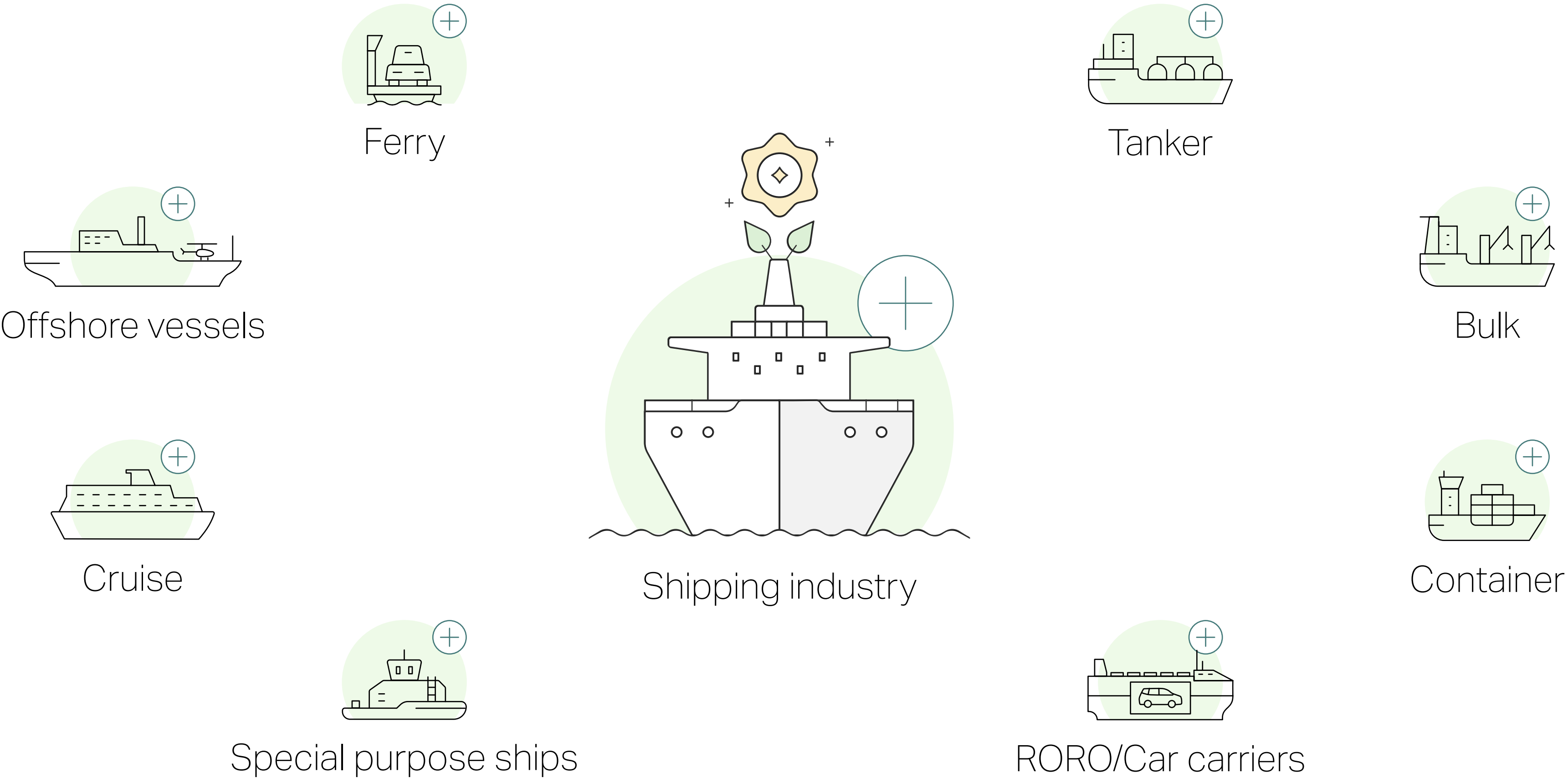
The final output of a materiality assessment is a matrix that highlights the topics most material for your stakeholders and your business

Materiality matrix is a function of stakeholder importance and business criticality



Materiality Matrices

Each segment has its own materiality matrix encompassing the differences across

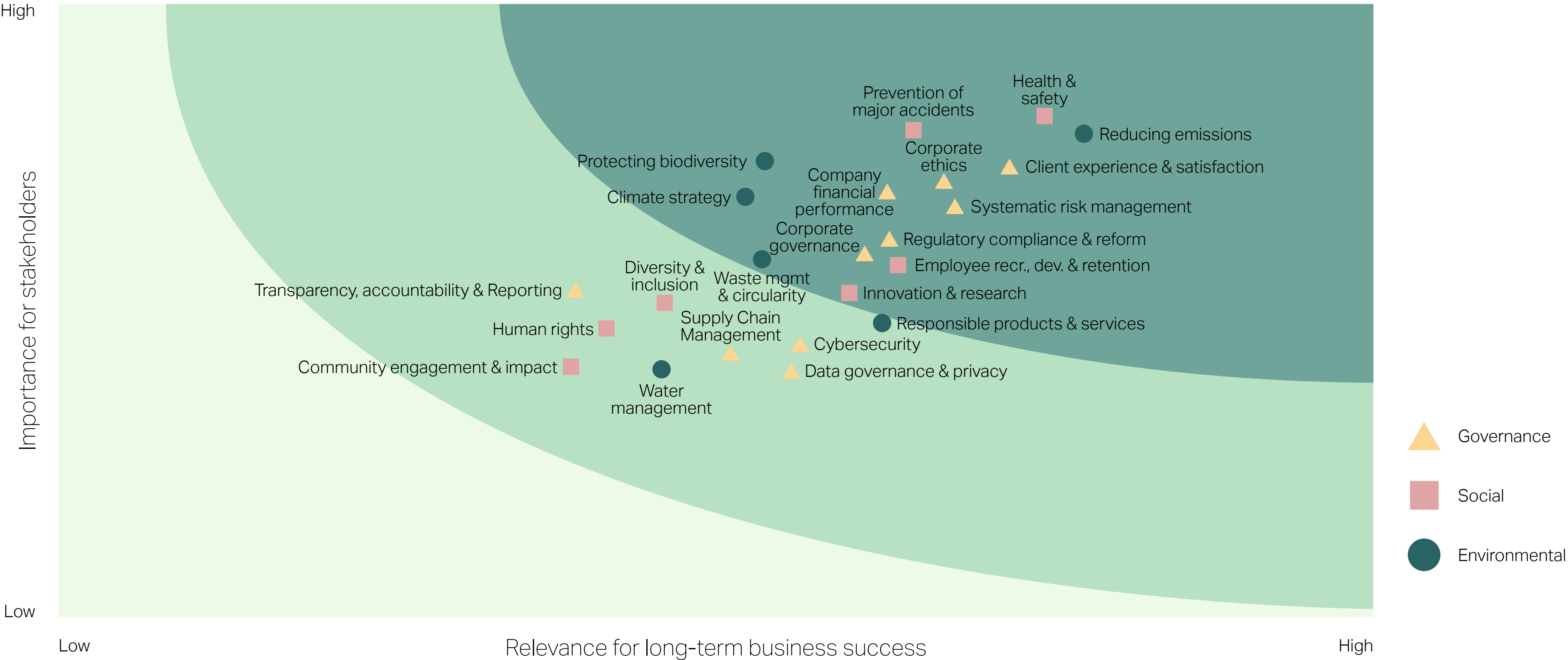


Materiality Matrices

Each seg

Shipping Industry Matrix

The matrix for the shipping industry shows the importance of Reducing Emissions and Health & Safety



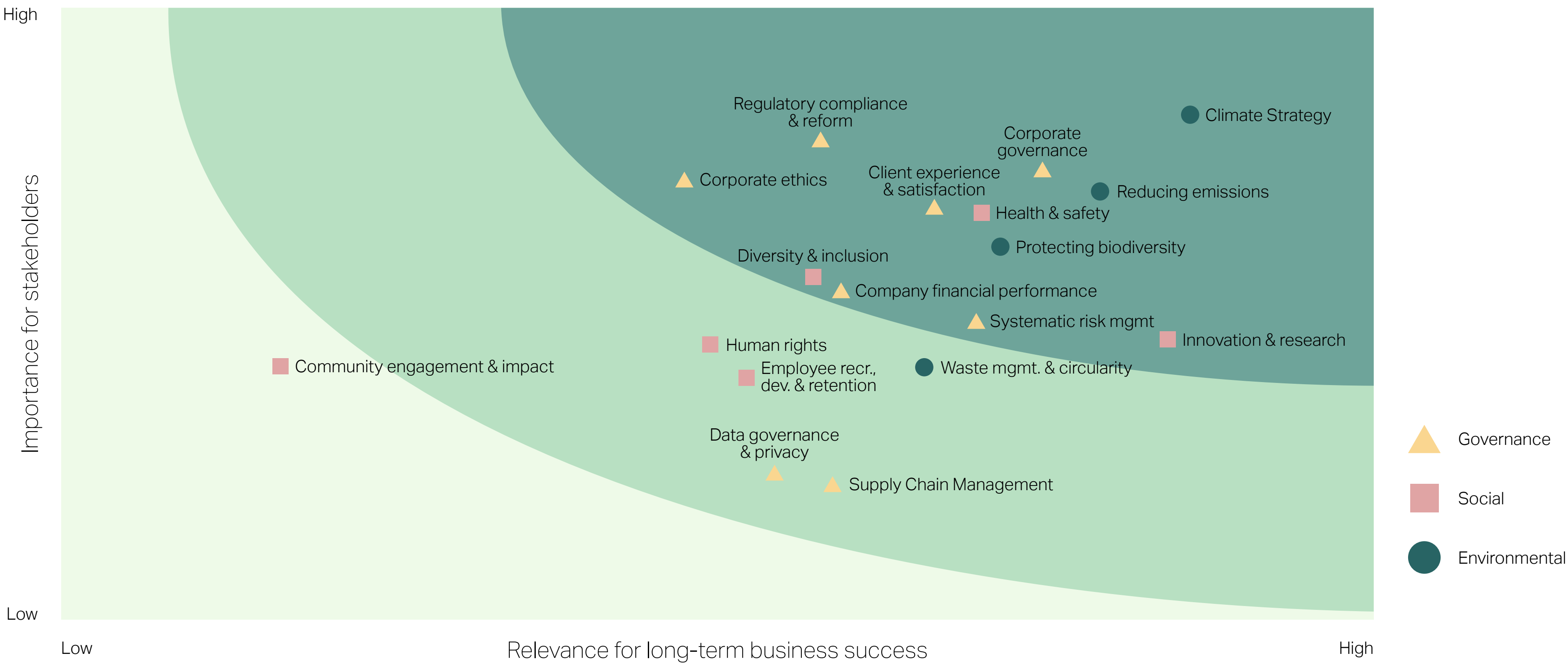
Note: Includes ESG topics mentioned by at least 10 times by the 47 analyzed companies
Source: BCG's Materiality Mapping Analytics Product (MMAP)

Materiality Matrices

Each seg

Tanker

Consolidated materiality matrix for the tanker segment



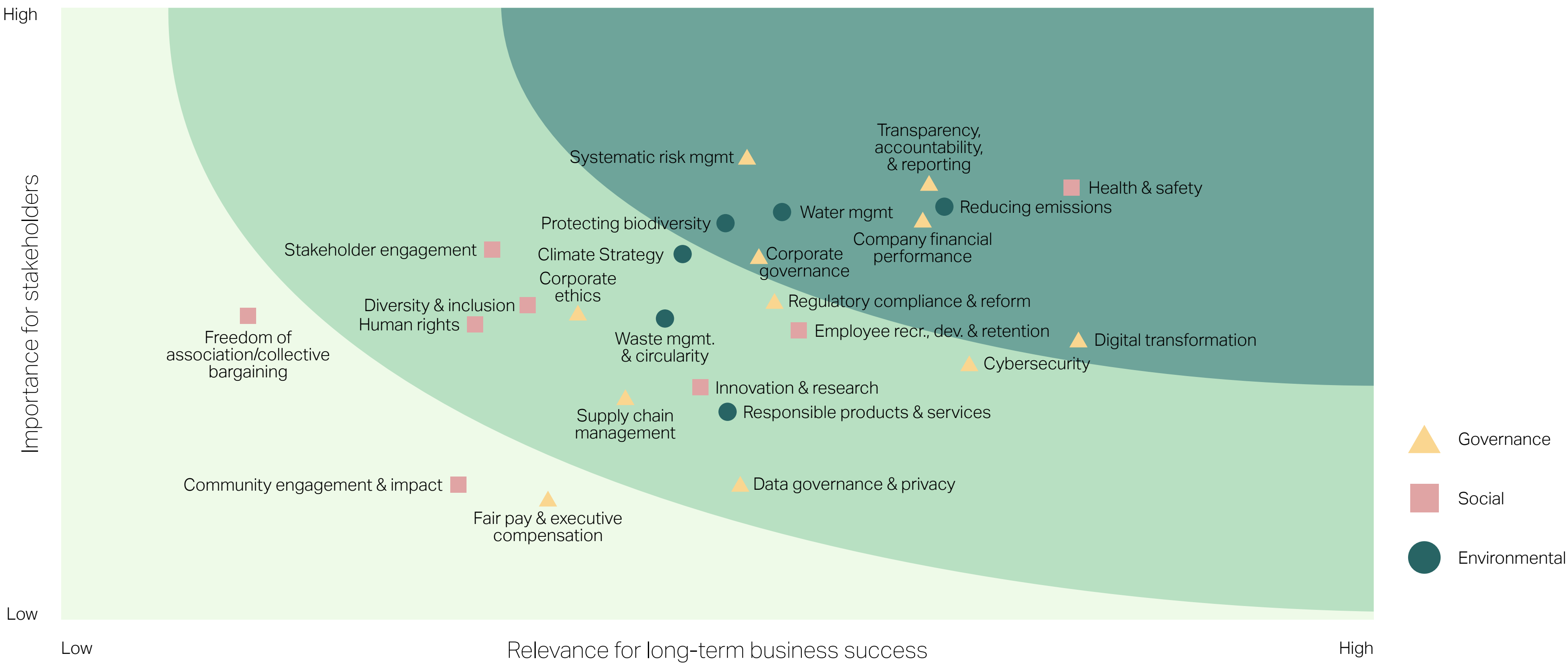
Note: Sample size 6 tanker companies
Source: BCG's Materiality Mapping Analytics Product (MMAP)

Materiality Matrices

Each seg

Bulk

Consolidated materiality matrix for the Bulk segment



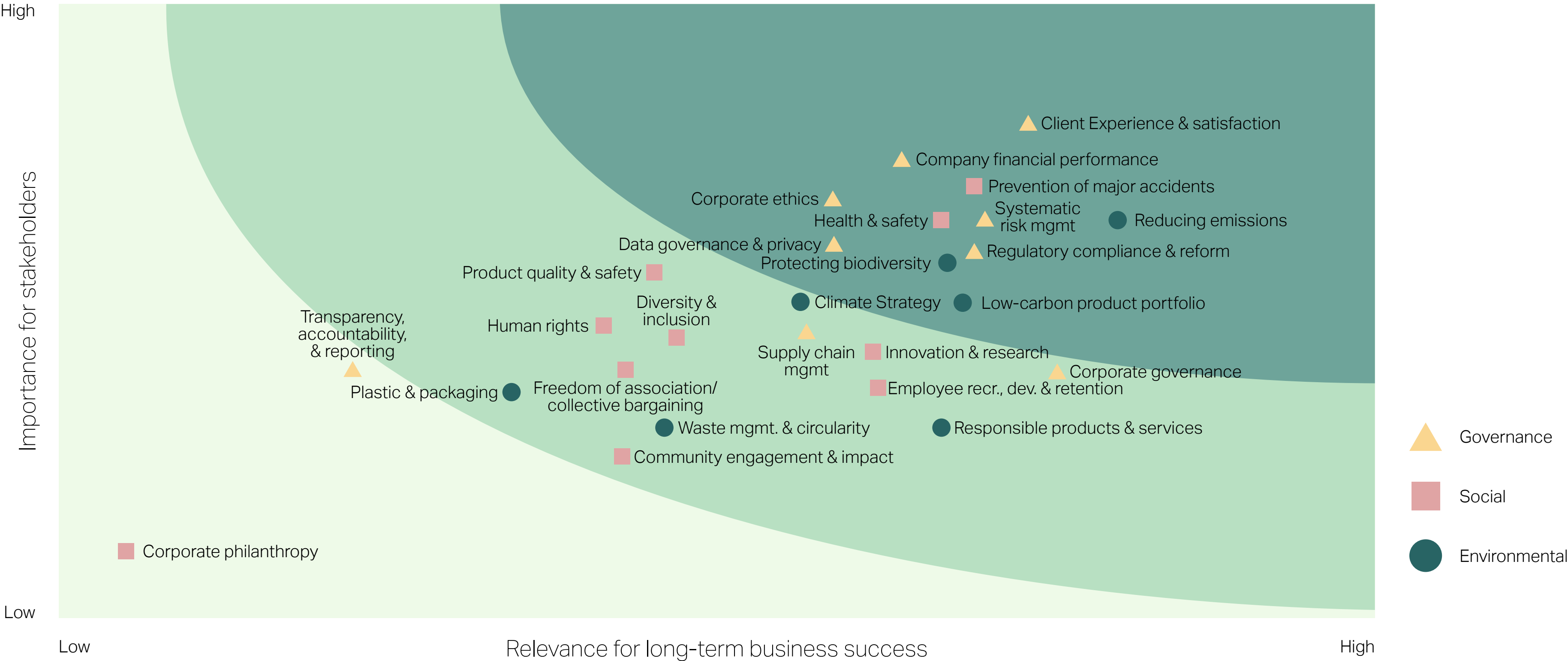
Note: Sample size 8 Bulk companies
Source: BCG's Materiality Mapping Analytics Product (MMAP)

Materiality Matrices

Each seg

Container

Consolidated materiality matrix for the container segment



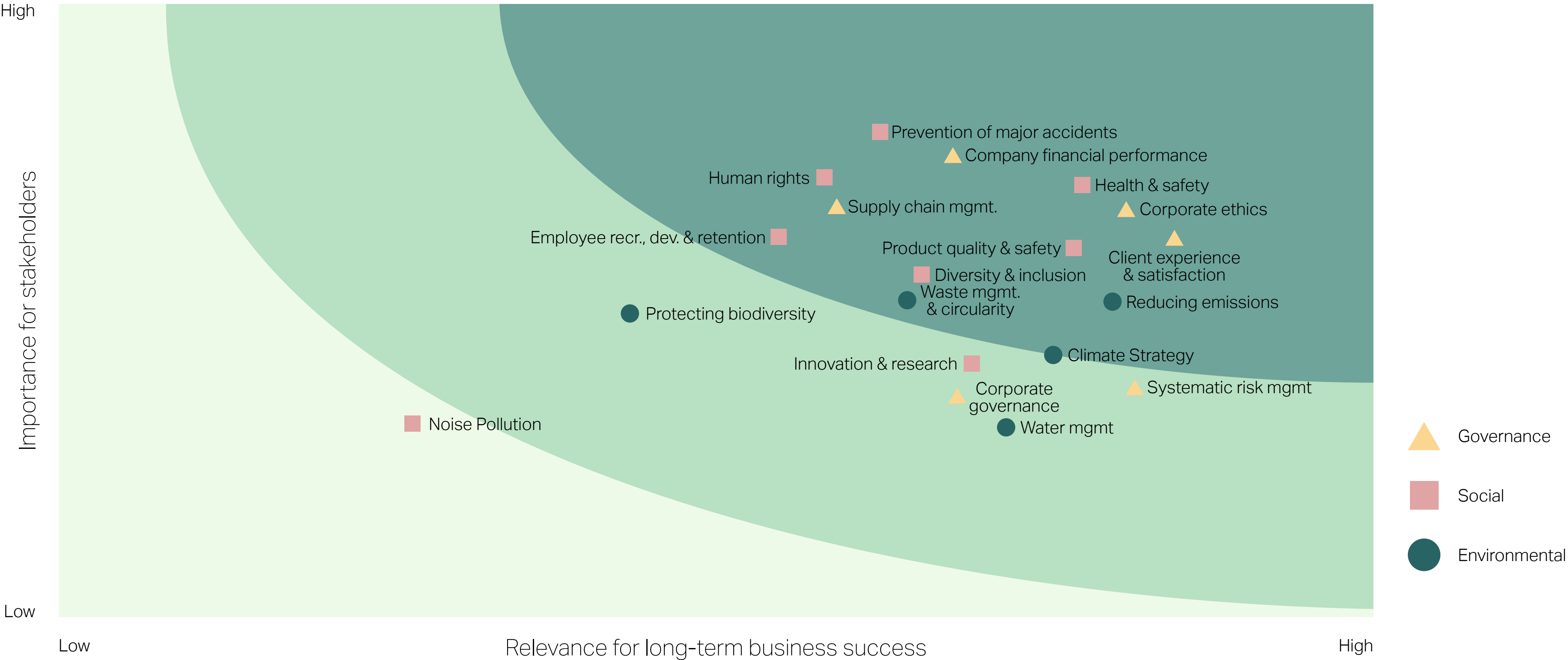
Note: Sample size 8 container companies
Source: BCG's Materiality Mapping Analytics Product (MMAPI)

Materiality Matrices

Each seg

RORO/Car Carriers

Consolidated materiality matrix for the RORO segment



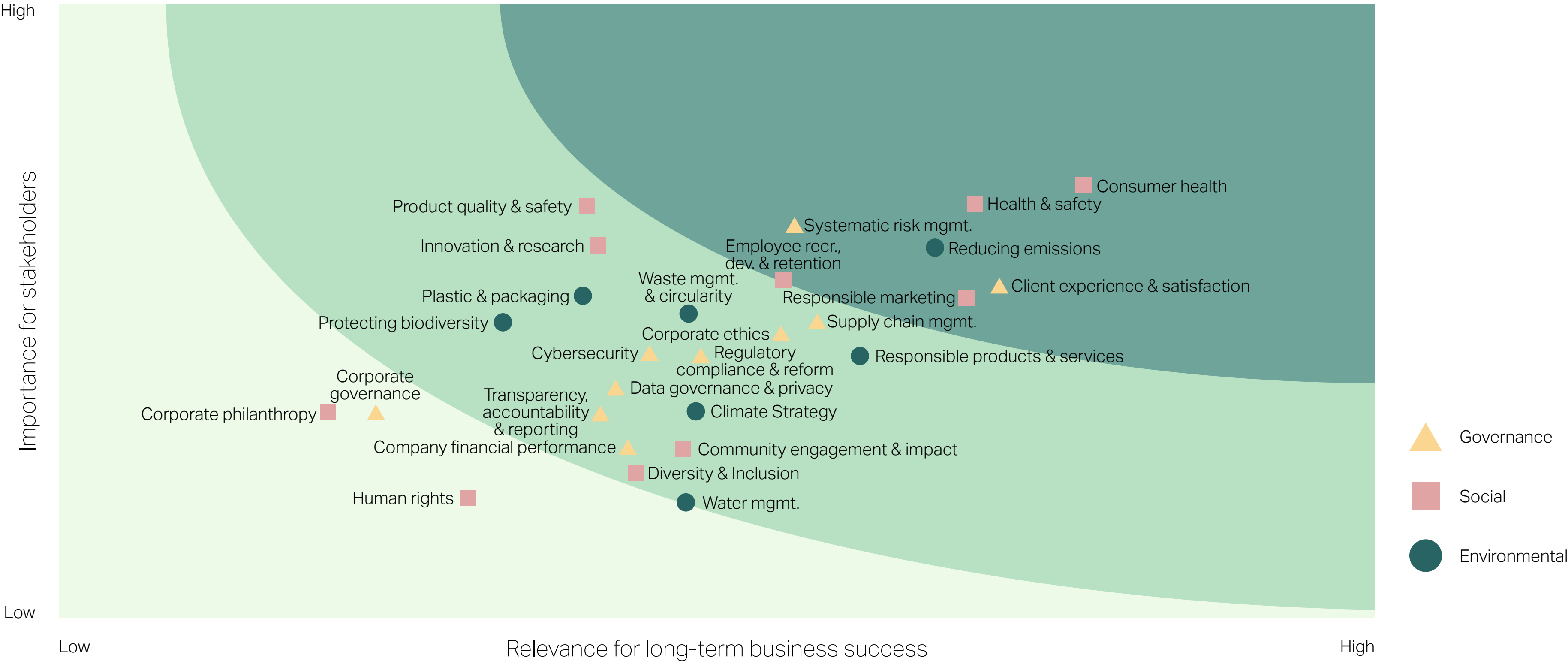
Note: Sample size 4 RORO companies
Source: BCG's Materiality Mapping Analytics Product (MMAP)

Materiality Matrices

Each seg

Ferry

Consolidated materiality matrix for the ferry segment



Note: Sample size 7 ferry companies
Source: BCG's Materiality Mapping Analytics Product (MMAP)



BCG

ESG Playbook for Shipping



ESG topics in the shipping industry & your segment

Materiality Matrices

Each seg

Offshore Vessels

Consolidated materiality matrix for the offshore segment



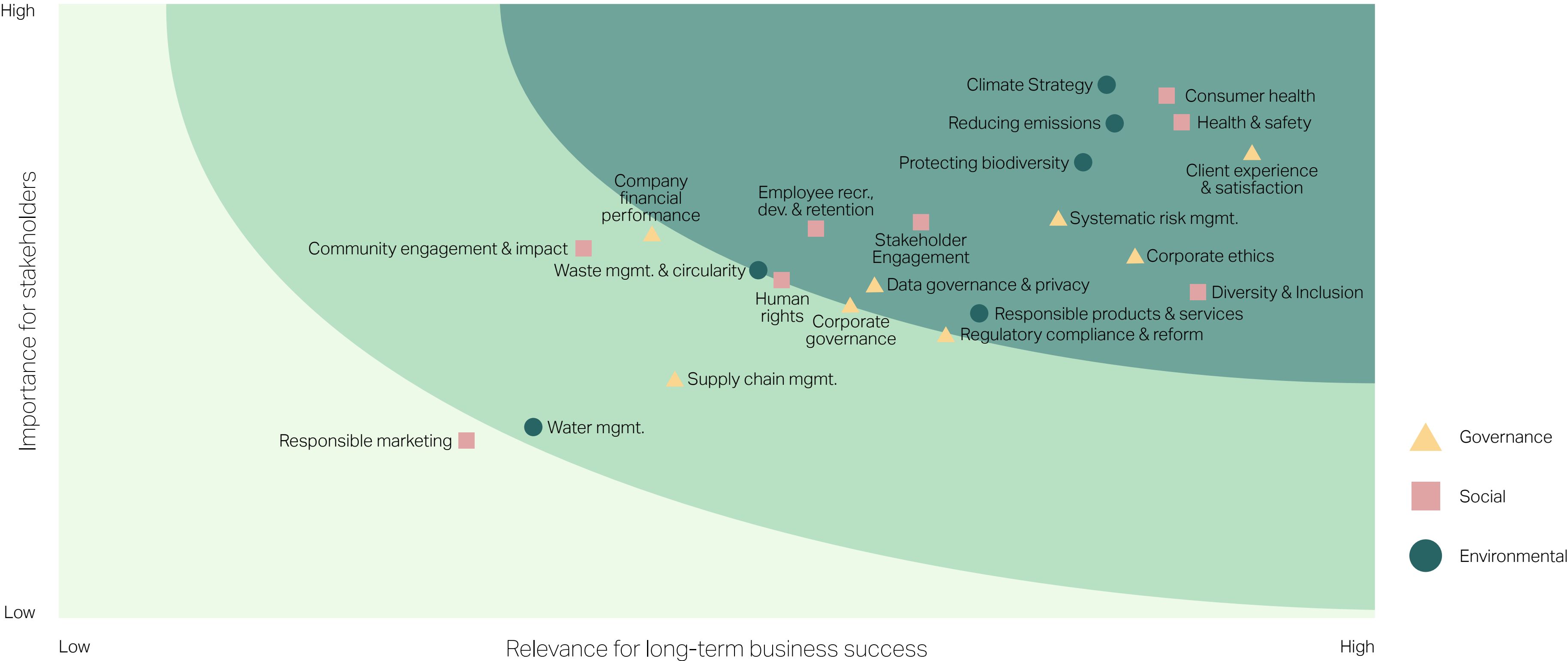
Note: Sample size 6 offshore vessel companies
Source: BCG's Materiality Mapping Analytics Product (MMAP)

Materiality Matrices

Each seg

Cruise

Consolidated materiality matrix for the cruise segment



Note: Sample size 4 cruise companies
Source: BCG's Materiality Mapping Analytics Product (MMA)



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ESG Playbook for Shipping



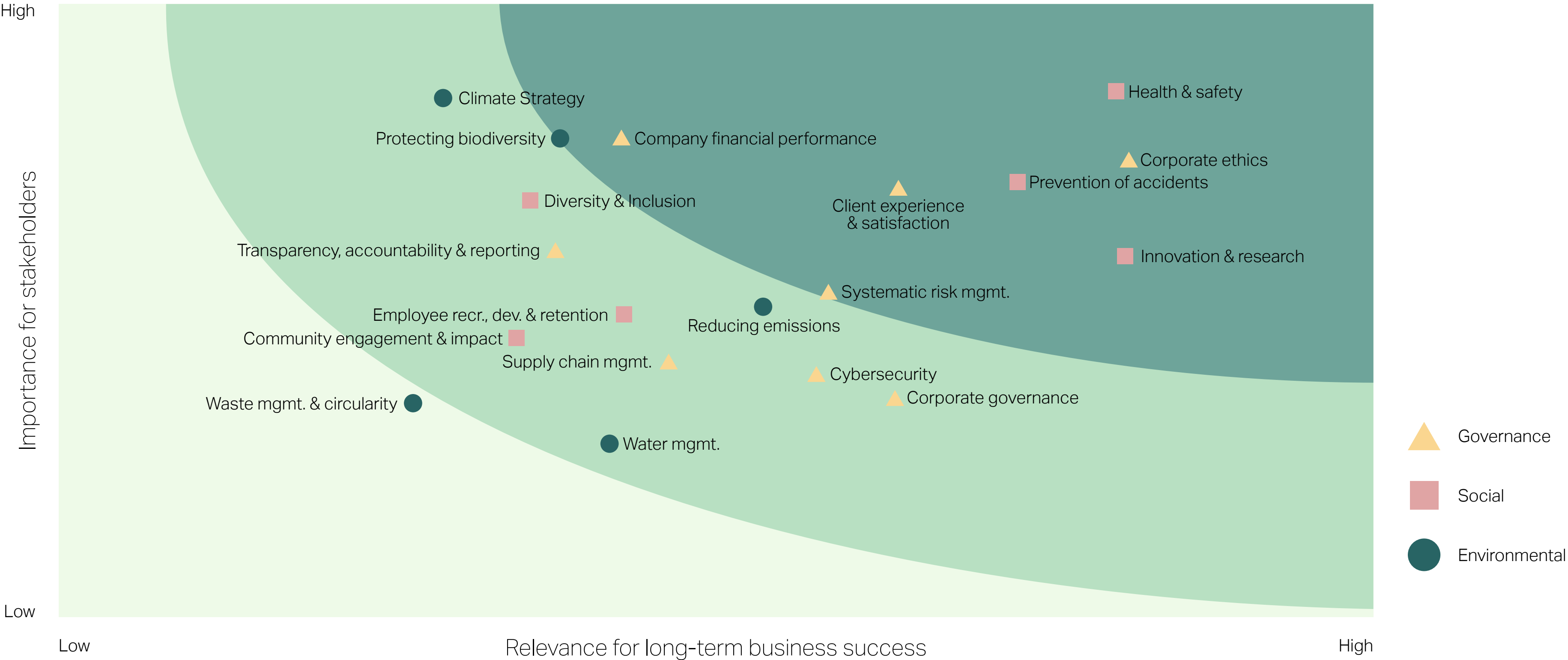
ESG topics in the shipping industry & your segment

Materiality Matrices

Each seg

Special Purpose Ships

Consolidated materiality matrix for the special purpose segment



Note: Sample size 4 special purpose ship companies
Source: BCG's Materiality Mapping Analytics Product (MMA)



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ESG Playbook for Shipping



ESG topics in the shipping industry & your segment



Key components of your ESG Strategy

Explore >

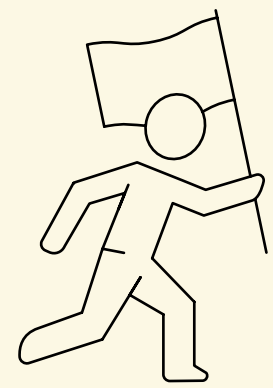


| **BCG**

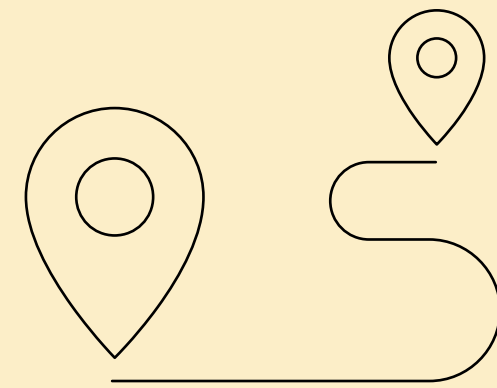
What is a credible ESG strategy?

Strategy credibility through long-term and interim target setting, investments in initiatives, and ongoing transparency on progress

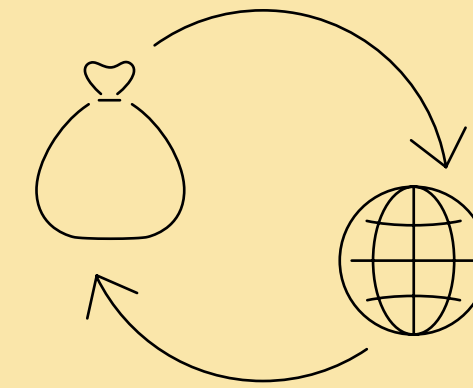
Foundation of a credible ESG strategy



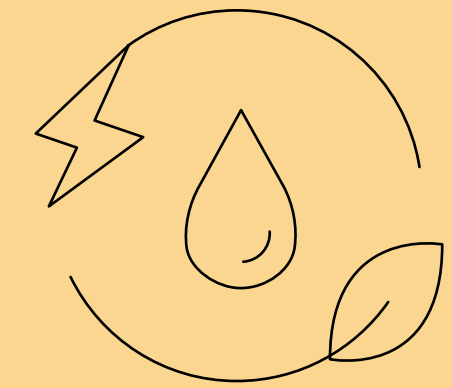
Set time-bound long-term ESG commitments with interim targets



Develop an initiative roadmap for how to achieve targets



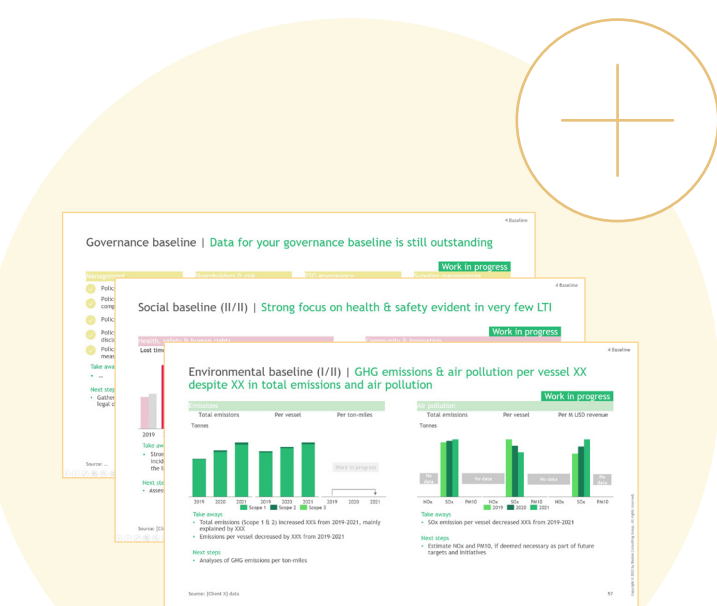
Invest in initiatives and governance



Track progress and report using globally recognized standards such as SASB, GRI, CDP, and TCFD

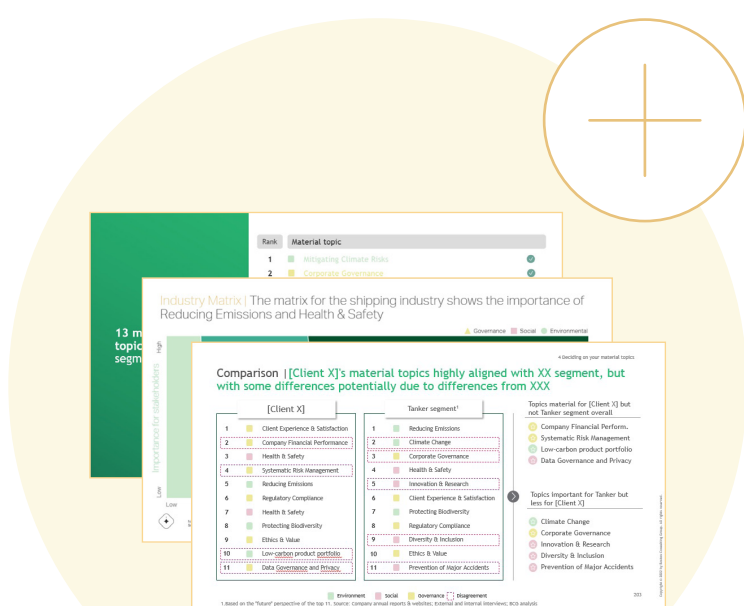
Building blocks

Five instrumental pieces of your ESG strategy



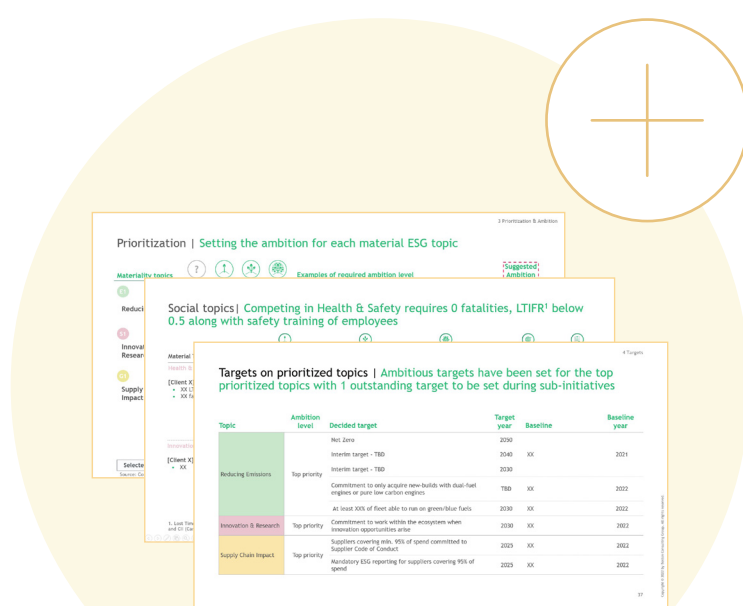
ESG baseline

- Current state of E, S, and G for your shipping company
- Analytical foundation for the ESG project



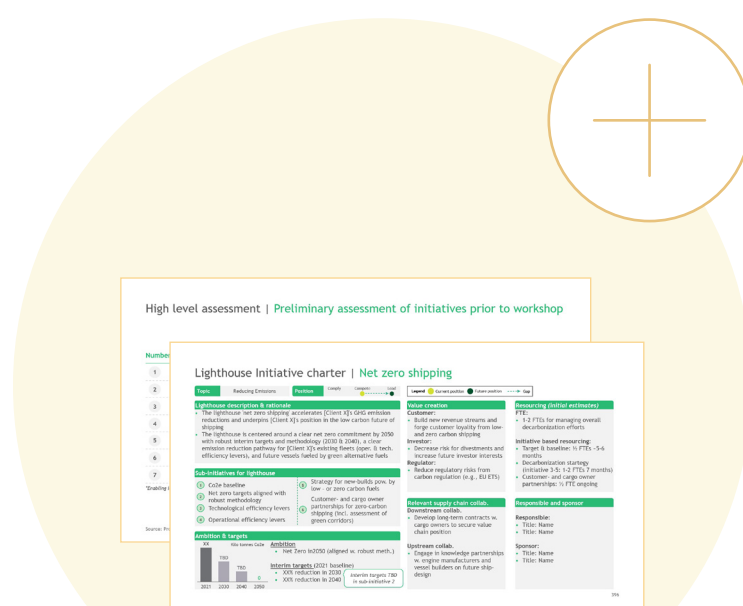
Material topics

- Most important topics within E, S, and G for your shipping company
- Benchmark to overall industry and your industry segment



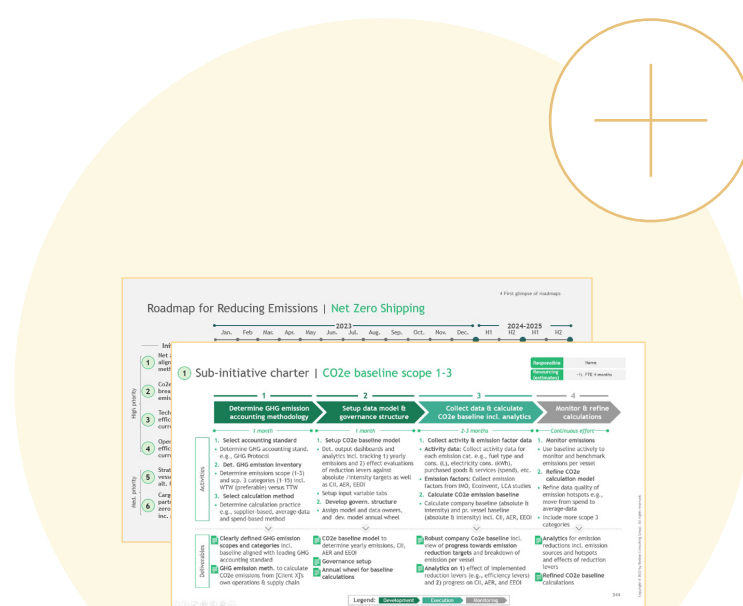
ESG targets

- Prioritized targets across E, S, and G aligned with company priorities
- Ambitions for your shipping company



Main initiatives

- Detailed and tangible initiatives to reach new ESG targets
- Clearly defined actions and roles



ESG roadmaps

- Roadmaps for prioritized initiatives
- Sub-initiative charters describing actions and deliverables

The key pieces constitutes the **ESG strategy**

Source: BCG and MMMCZCS analysis

Building blocks

Five

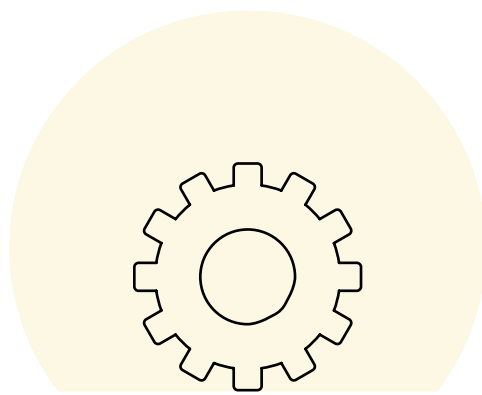
ESG baseline

Creating a baseline gives the analytical foundation for the ESG strategy project and allows for benchmarking across companies & industries



Why

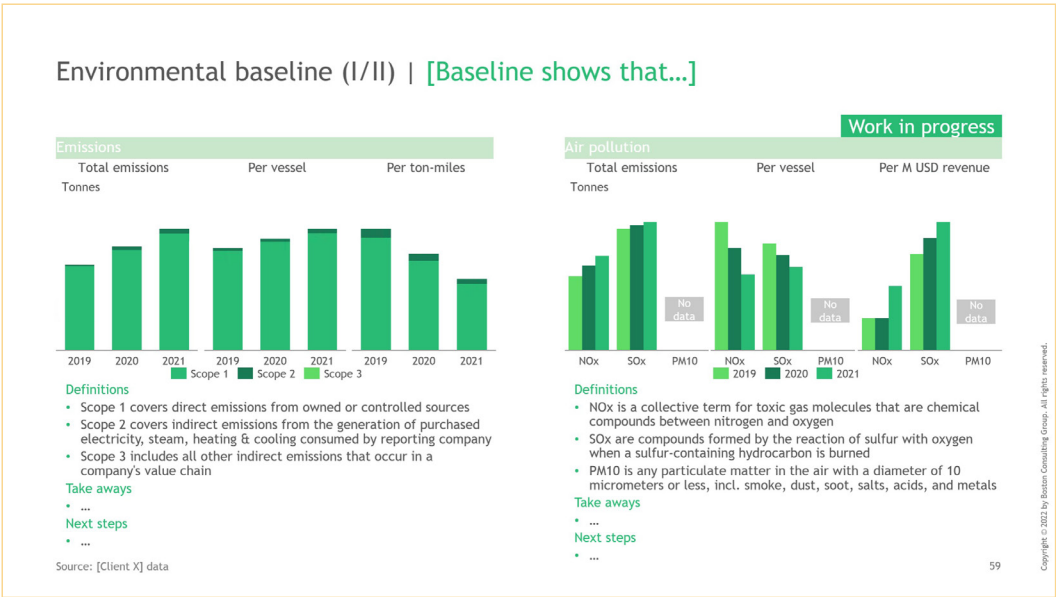
- Provides the **analytical foundation** for the ESG project
- Identifies **current blind spots** in data needed for future target tracking and ESG reporting
- Enables **comparison across companies** & industries
- Identifies **company challenges and strengths**
- Secures **informed prioritizations** based on data
- Builds **foundation for future ESG** reporting



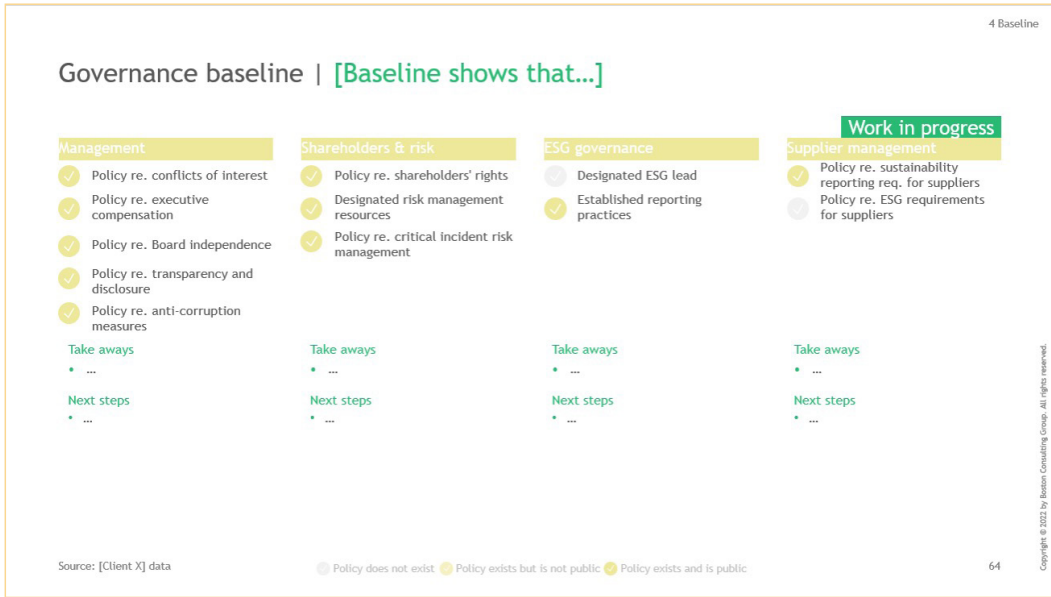
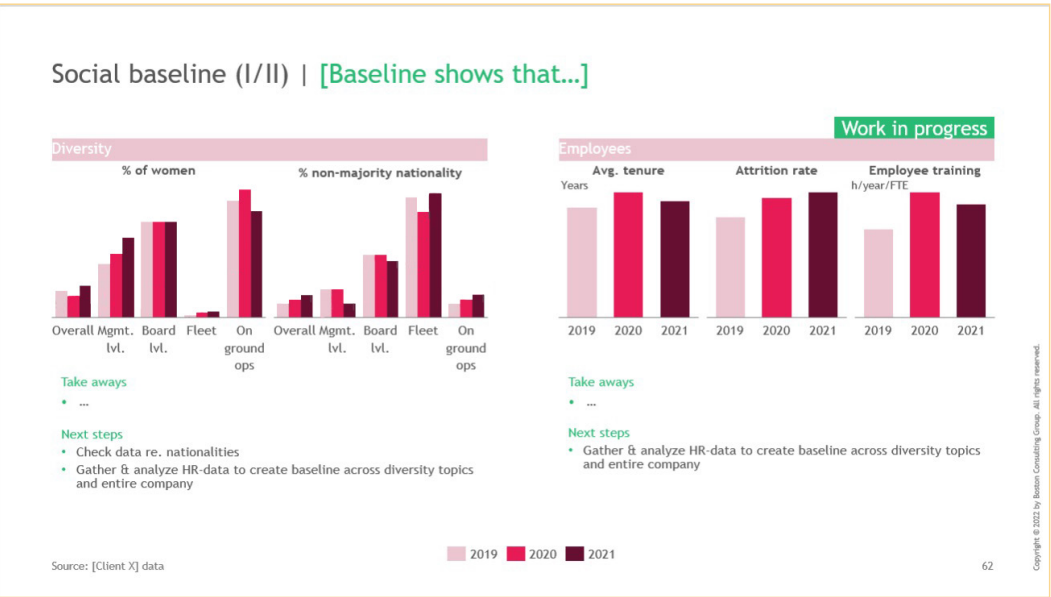
How

- **Gather data** for E, S, and G
 - **Data for E:** GHG emissions, air pollution, resource consumption & ecological impact, etc.
 - **Data for S:** diversity, employee tenure & training, heath & safety, human rights & community, etc.
 - **Data for G:** mgmt., shareholders & risk, ESG governance & supplier mgmt., etc.
- **Setup visualization of data** across all three dimensions for your ESG strategy and future reporting

Sanitized examples from playbook project of ESG baseline



Source: BCG and MMMCZCS analysis



Source: BCG and MMMCZCS analysis



BCG

ESG Playbook for Shipping | Key components of your ESG Strategy

Building blocks

Five

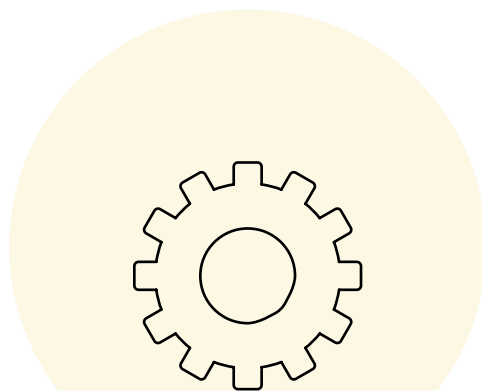
Material topics

Identifying material topics gives an integrated view intro material topics enabling focus on the most important & critical topic



Why

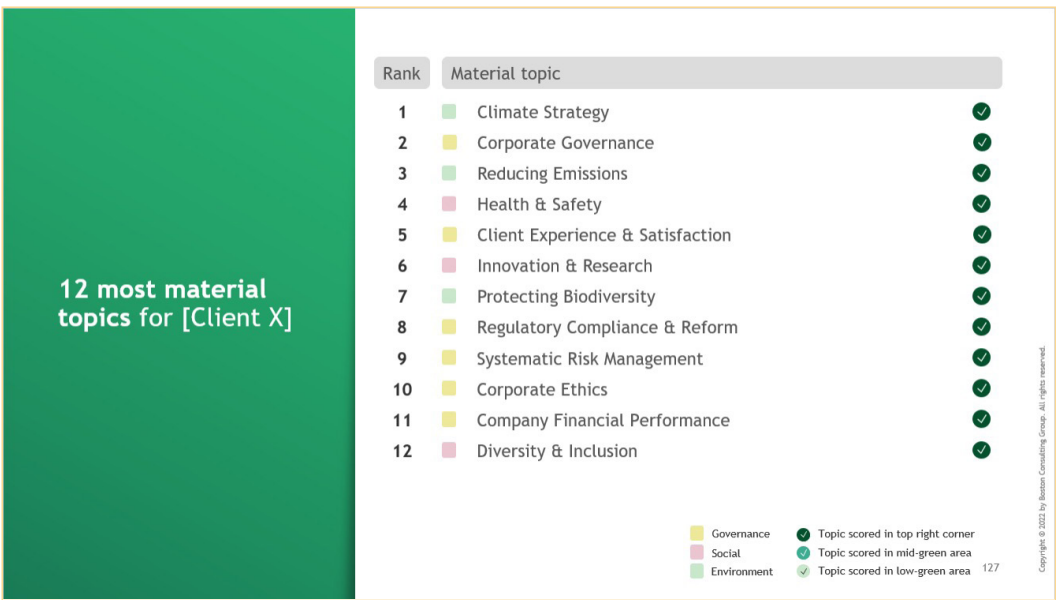
- Provides an **integrated & quantitative view** on material topics
- Determines **the most material ESG topics** for your stakeholders and your business
- Ensures **focus on the most important and critical topics**
- Enables **comparison to peers and industry standards**
- Enables **prioritization and ambition setting** in the next step towards formulating of your ESG strategy
- Creates **lasting impact by ensuring buy-in** of key stakeholders



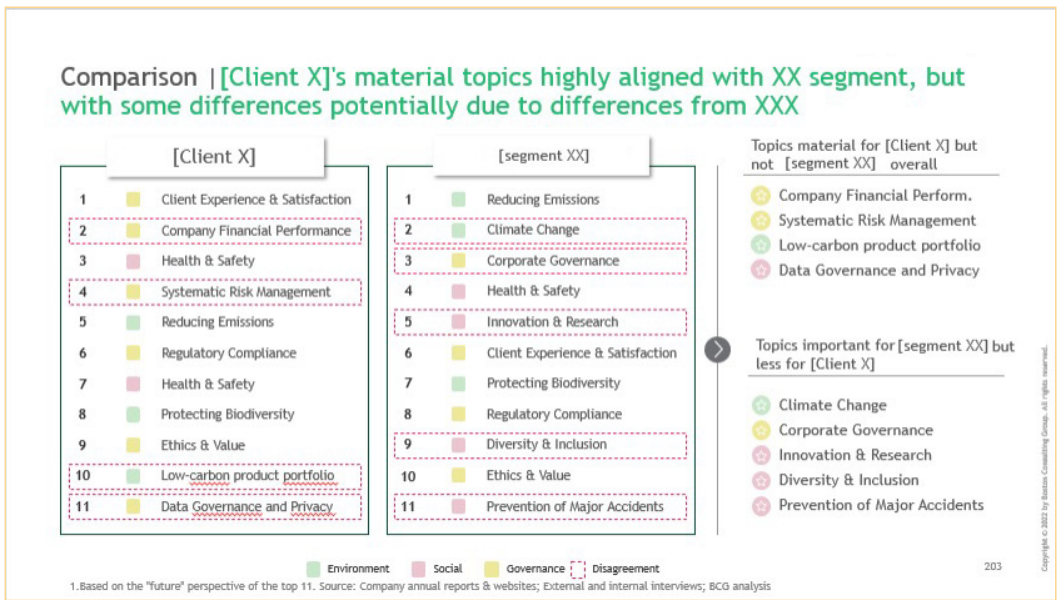
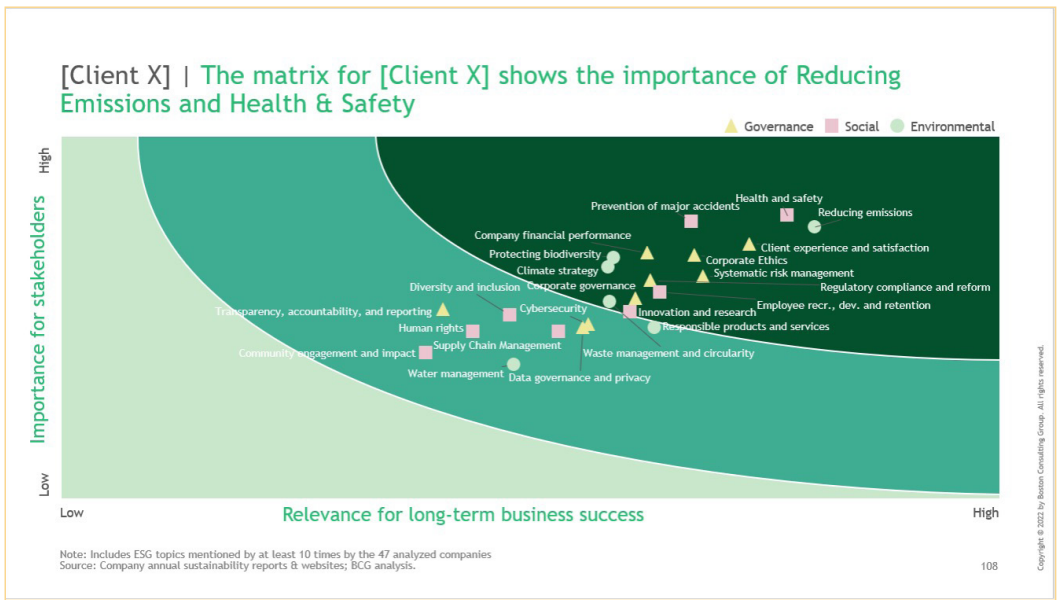
How

- **Identify long list of the most material topics** for the industry by utilizing publicly available reports, e.g., from SASB, GRI, etc.
- **Conduct internal assessment** of business criticality of topics through interviews & survey
- **Conduct external assessment** of stakeholder importance through interviews of stakeholders, e.g., core customers, investors, share owners
- **Construct materiality matrix** with topics plotted based on internal and external assessments
- **Compare company matrix** to industry and peers to qualify own matrix and be conscious about potentially omitted topics

Sanitized examples from playbook project of materiality assessment



Source: BCG and MMMCZCS analysis



Source: BCG and MMMCZCS analysis



Five ESG Targets

Deciding on future ambition levels and setting ambitious, yet feasible targets is a cornerstone of a credible ESG strategy



- Helps your company **work in the same direction**
- Fosters **organizational accountability & responsibility**
- Allows for more **conscious resource planning**
- Provides **inspiration** from topic, industry, and segment leaders
- Ensures **deepened focus** on most important & critical topics
- Makes **company ambitions explicit** and based on conscious decision-making processes
- Sets **ambitious and credible targets** for your company



- **Perform benchmark of selected industry players** to gauge what ambitious looks like for your top ~10 topics
- **Facilitate discussions** of ambition levels for top ~10 topics
- **Outline targets for all top ~10 topics** across ambition levels
- **Focus your efforts** on a few (2-4) topics in which you will set the most ambitious targets and prioritize your resources
- **Decide on targets & target years** for top ~10 topics with measurable, ambitious, and feasible targets

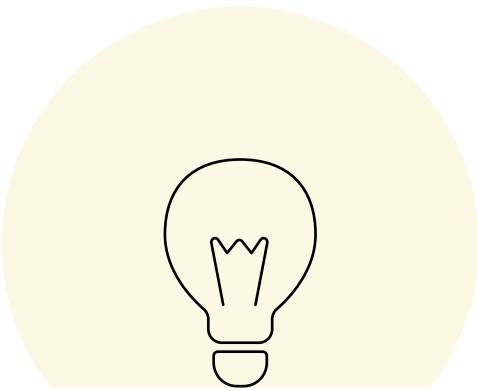
Sanitized examples from playbook project of ESG ambitions & targets



Building blocks

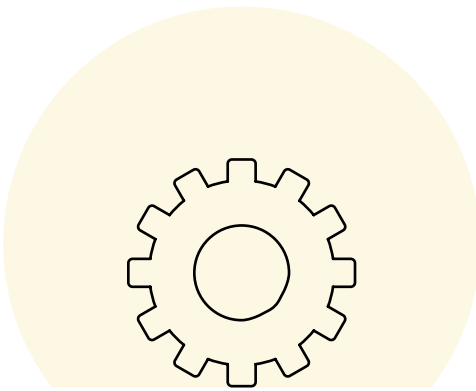
Five Main initiatives

Strong main initiatives to accelerate momentum for prioritized topics, enabling your organization to reach your ESG targets



Why

- Describes **overall aim and components of company main initiatives**
- Sets the **company direction for future implementation** of ESG initiative to drive change
- Provides **tangible overview of organizational expectations**
- Sharpens **organizational focus** even more on a few prioritized topics to ensure capacity to **reach ESG targets**
- Defines roles of **responsibility and sponsorship**



How

- **Describe the overall ambition for topics** you have chosen as top priority, thus making your main initiatives
- **Create long-list of sub-initiatives** to comprise your main initiatives gathering inspiration internally & from other comp.
- **Conduct high level assessment of sub-initiatives** on impact, commercial value, and feasibility
- **Facilitate prioritization discussions** of sub-initiatives, thereby choosing sub-initiatives to construct your main initiatives

Sanitized examples from playbook project of Main initiatives

High level assessment | Preliminary assessment of initiatives prior to workshop

| Number | Initiative | ESG impact | Commercial value | Feasibility | Aggregated assessment | Initiative type |
|--------|------------|------------|------------------|-------------|-----------------------|---------------------|
| 1 | — | High | Med. | Low | Direct initiative | Direct initiative |
| 2 | — | High | Med. | Low | Indirect initiative | Indirect initiative |
| 3 | — | High | Med. | Low | Direct initiative | Direct initiative |
| 4 | — | High | Med. | Low | Direct initiative | Direct initiative |
| 5 | — | High | Med. | Low | Direct initiative | Direct initiative |
| 6 | — | NA* | NA* | Low | NA* | Enabler |
| 7 | — | NA* | NA* | Low | NA* | Enabler |

*Enabling initiatives have not been assessed on ESG impact and commercial value as they work as catalysts to other initiatives with no direct effect e.g., an emission reductions

Source: Project team analysis

Main initiative charter | Reducing Emissions

Topic: Reducing Emissions | Position: Comply | Complete | Lead

Legend: ● Current position ● Future position → Gap

Lighthouse description & rationale

- The lighthouse 'Reducing Emissions' accelerates (Client X)'s GHG emission reductions
- The lighthouse is centered around a clear net zero commitment by 2050 with robust interim targets (2030 & 2040)

Value creation

- Customer:** Premium pricing & customer loyalty from zero carbon offering
- Investor:** Decrease risk for divestments and increase future investor interests
- Regulator:** Avoid regulatory risks from carbon regulation

Sub-initiatives for lighthouse

- ① Validated net zero targets
- ② Internal cost of carbon
- ③ Co2e baseline
- ④ Technological efficiency levers
- ⑤ Operational efficiency levers

Relevant supply chain collab.

- Downstream collab. Develop long-term contracts with XXX
- Upstream collab. Engage in knowledge partnerships with XXX

Ambition & targets

- Ambition:** Net Zero in 2050 (SBTi approved)
- Interim targets (2021 baseline):** XXX reduction in 2030, XXX reduction in 2040

Resourcing

- FTE:** XX FTEs for managing overall decarbonization efforts
- Initiative based resourcing:** Validated net zero target: XX FTEs, Decarbonization levers: XX FTEs, Supply chain partnerships: XX FTE for XX months

Responsible and sponsor

- Responsible:** Head of Sustainability
- Sponsor:** CEO, CCO

Source: BCG and MMCZCS analysis

Source: BCG and MMCZCS analysis

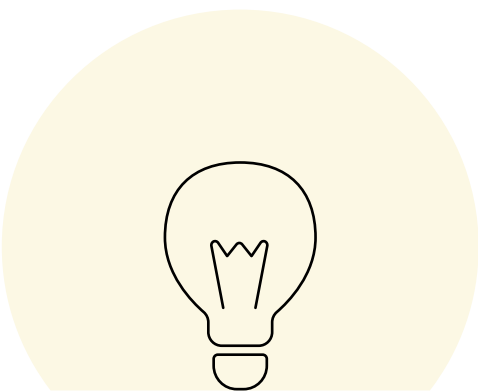


Building blocks

Five

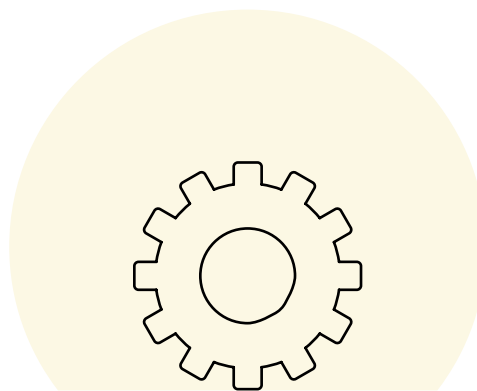
ESG Roadmaps

Clear guidance and next steps for prioritized topics will help drive change and implement your ESG strategy



Why

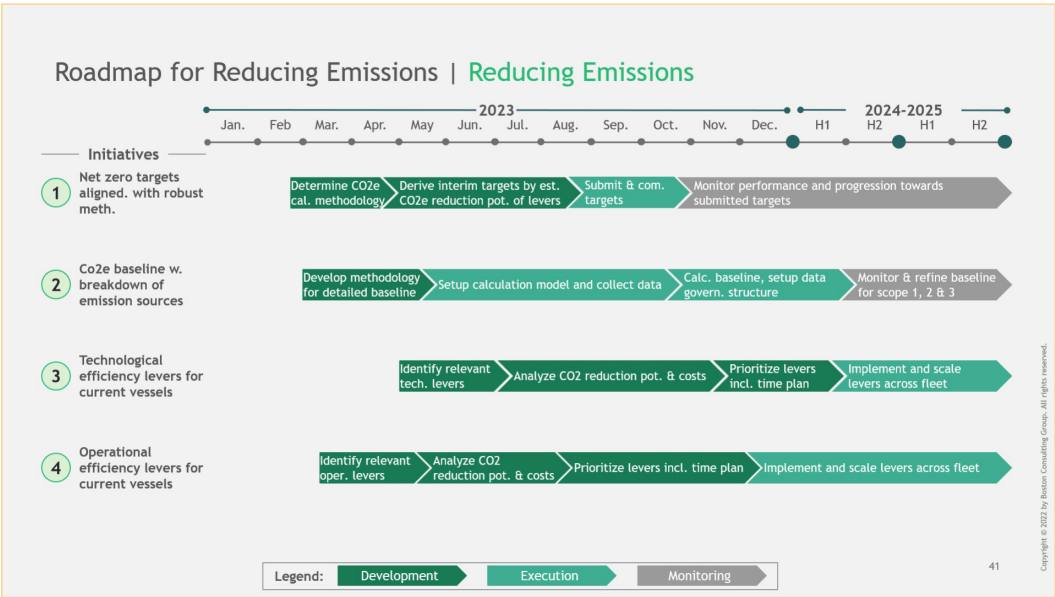
- Details the **implementation of sub-initiatives** in main initiatives to drive impact
- Anchors sub-initiatives by **creating ownership and responsibility** in the organization
- Ensures **balanced prioritization and resource pull by phasing** of sub-initiatives across main initiatives
- Outlines **resource need and deliverables** for sub-initiatives
- Defines **clear actions and next steps** for all sub-initiatives



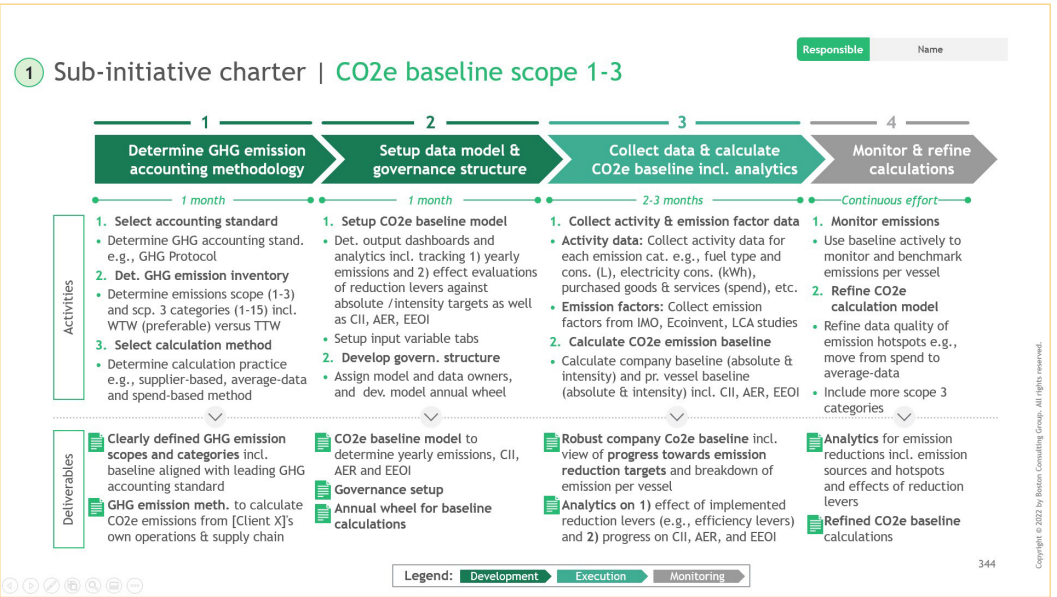
How

- **Construct the overall roadmaps** for your main initiatives
- **Detail each sub-initiative** together with future responsible to make all of them tangible and actionable
- **Estimate resources needed** to implement each sub-initiative
- **Phase sub-initiatives in each main initiative** and coordinate across main initiatives, utilizing synergies across initiatives
- **Present all main initiatives** to ensure buy-in and anchoring across main initiatives broader in the organization

Sanitized examples from playbook project of ESG Roadmaps



Source: BCG and MMMCZCS analysis



Source: BCG and MMMCZCS analysis



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Phases

The strategy process consists of 3 phases and 10 key meetings




Why is it important to you?



Baseline walkthrough



Kick-off meeting



Individual materiality topic interviews



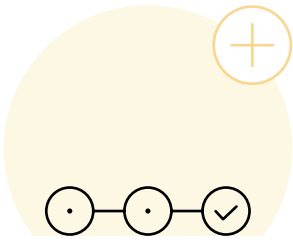
Materiality assessment workshop



What will you prioritize?



Prioritization & ambition workshop



Target setting workshop



Main initiatives workshop



Sign-off meeting



How do you execute?



Roadmaps & Anchoring workshop



Wrap-up meeting

Phases

The strategy process consists of 3 phases and 10 key meetings



Phases

The strategy process consists of 3 phases and 10 key meetings



Phases

The strategy process consists of 3 phases and 10 key meetings



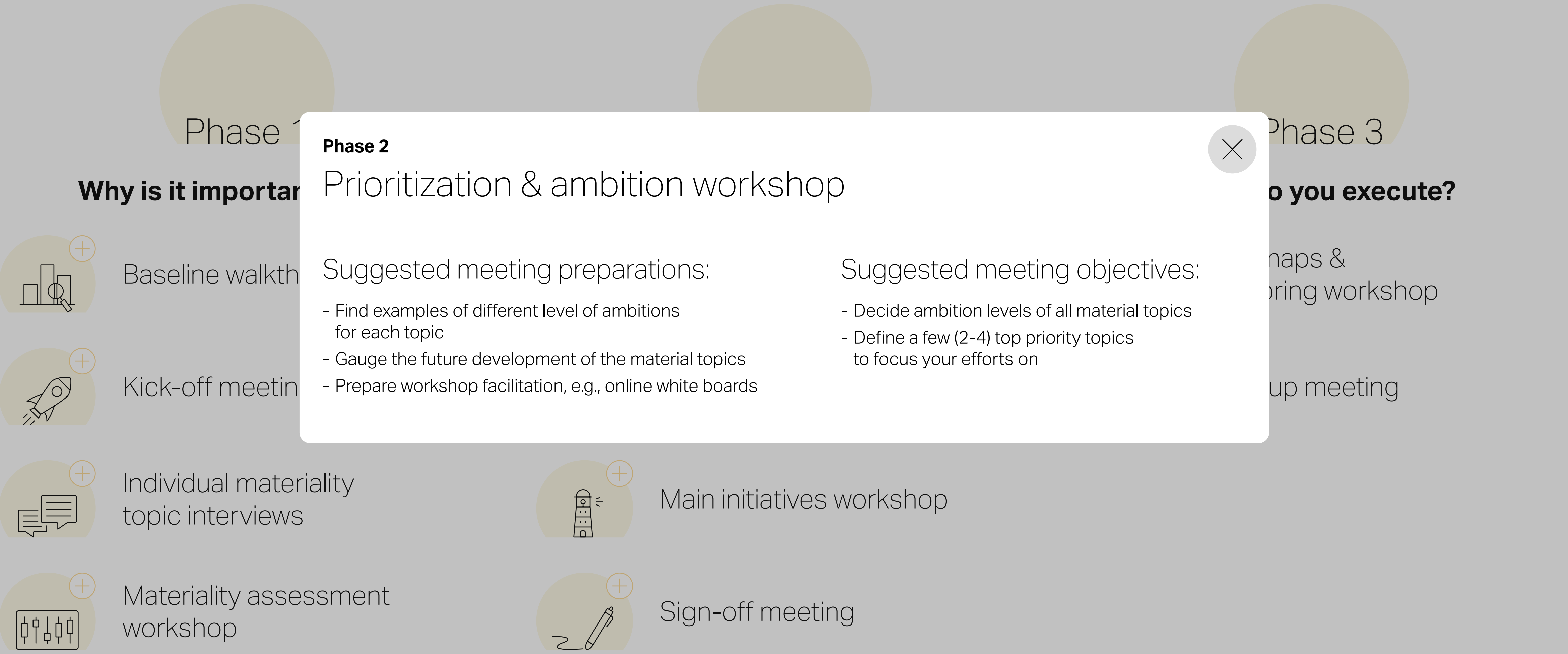
Phases

The strategy process consists of 3 phases and 10 key meetings



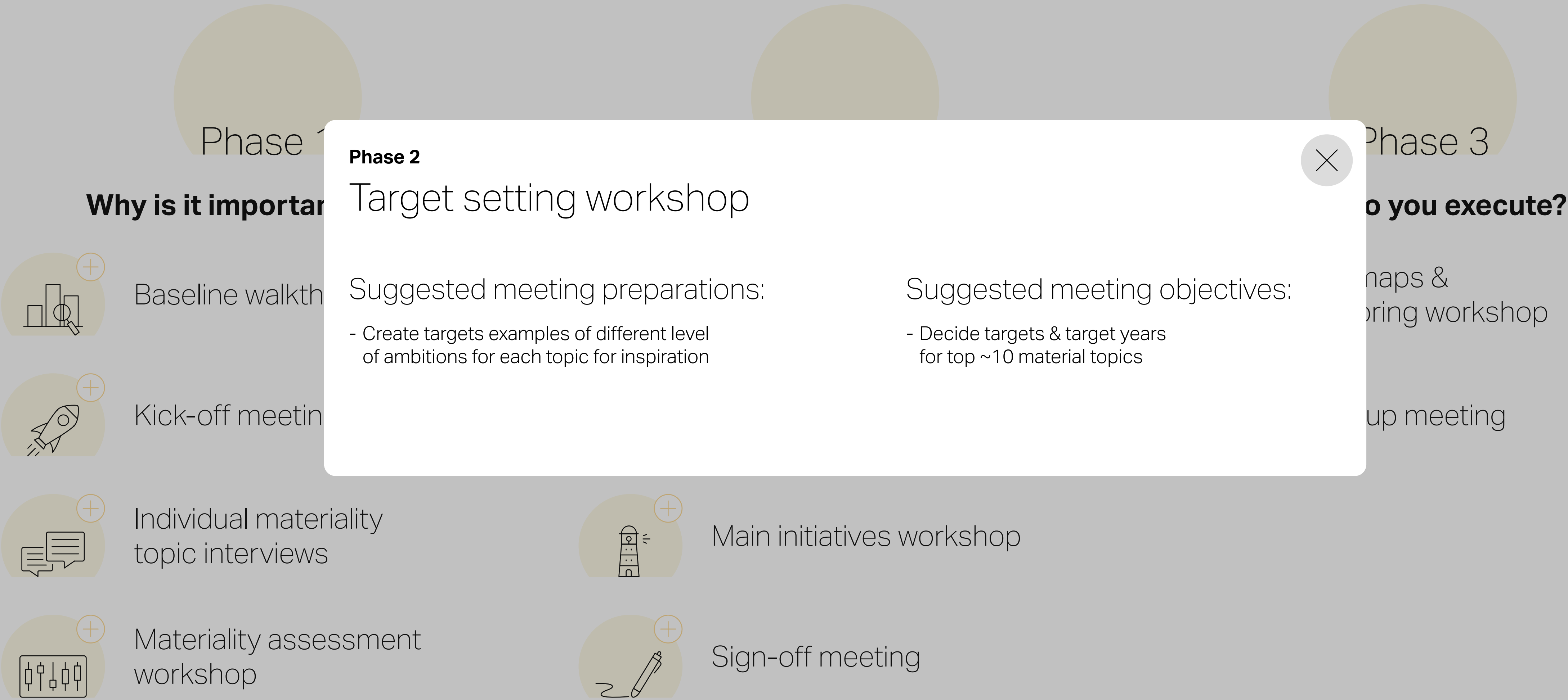
Phases

The strategy process consists of 3 phases and 10 key meetings



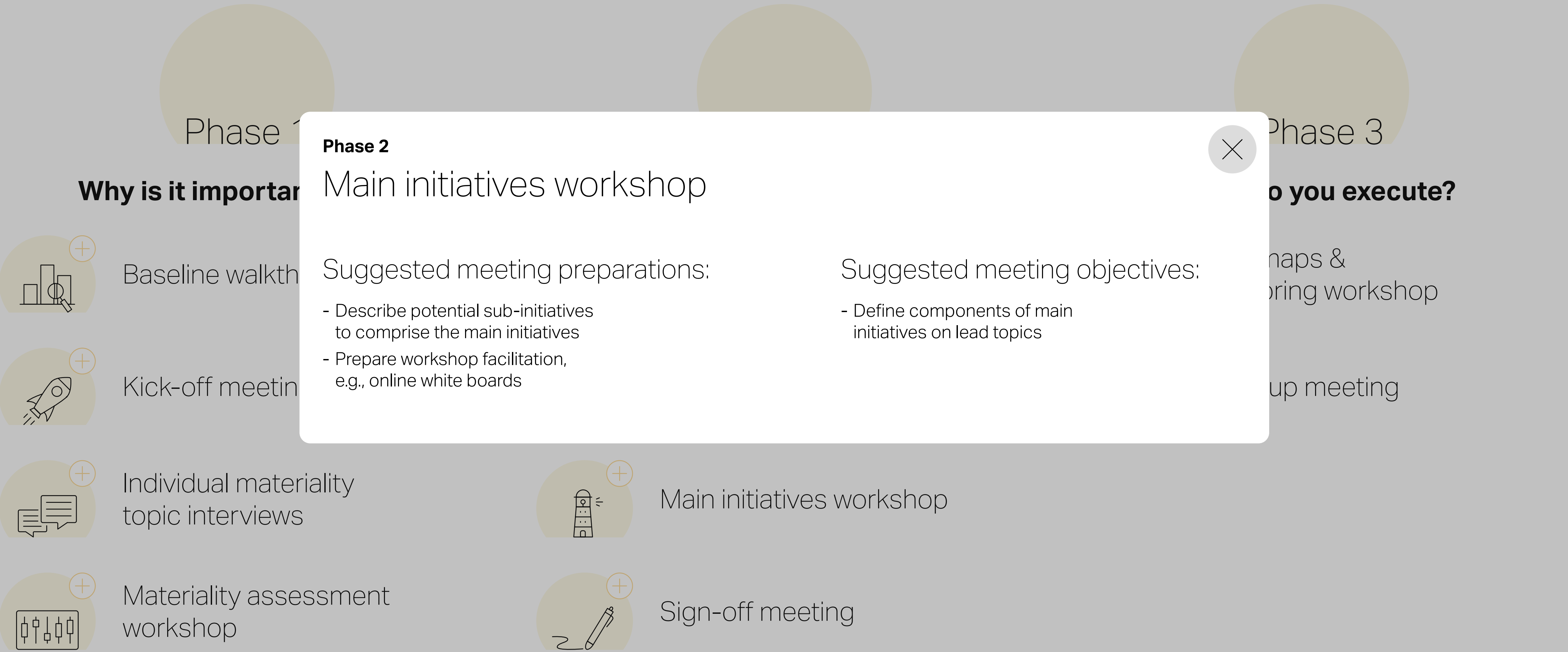
Phases

The strategy process consists of 3 phases and 10 key meetings



Phases

The strategy process consists of 3 phases and 10 key meetings



Phases

The strategy process consists of 3 phases and 10 key meetings

Phase 1

Why is it important?

Baseline walkthru

Kick-off meeting

Individual materiality topic interviews

Materiality assessment workshop

Phase 2

Phase 2

Sign-off meeting

Suggested meeting preparations:

- Collect and compile all latest versions of major content pieces from phase 2
- Create first view on ESG roadmaps

Suggested meeting objectives:

- Sign-off on all major content pieces of phase 2
- Internal alignment enabling future strategy anchoring

Phase 3

How do you execute?

ESG roadmaps & strategy workshop

Follow-up meeting

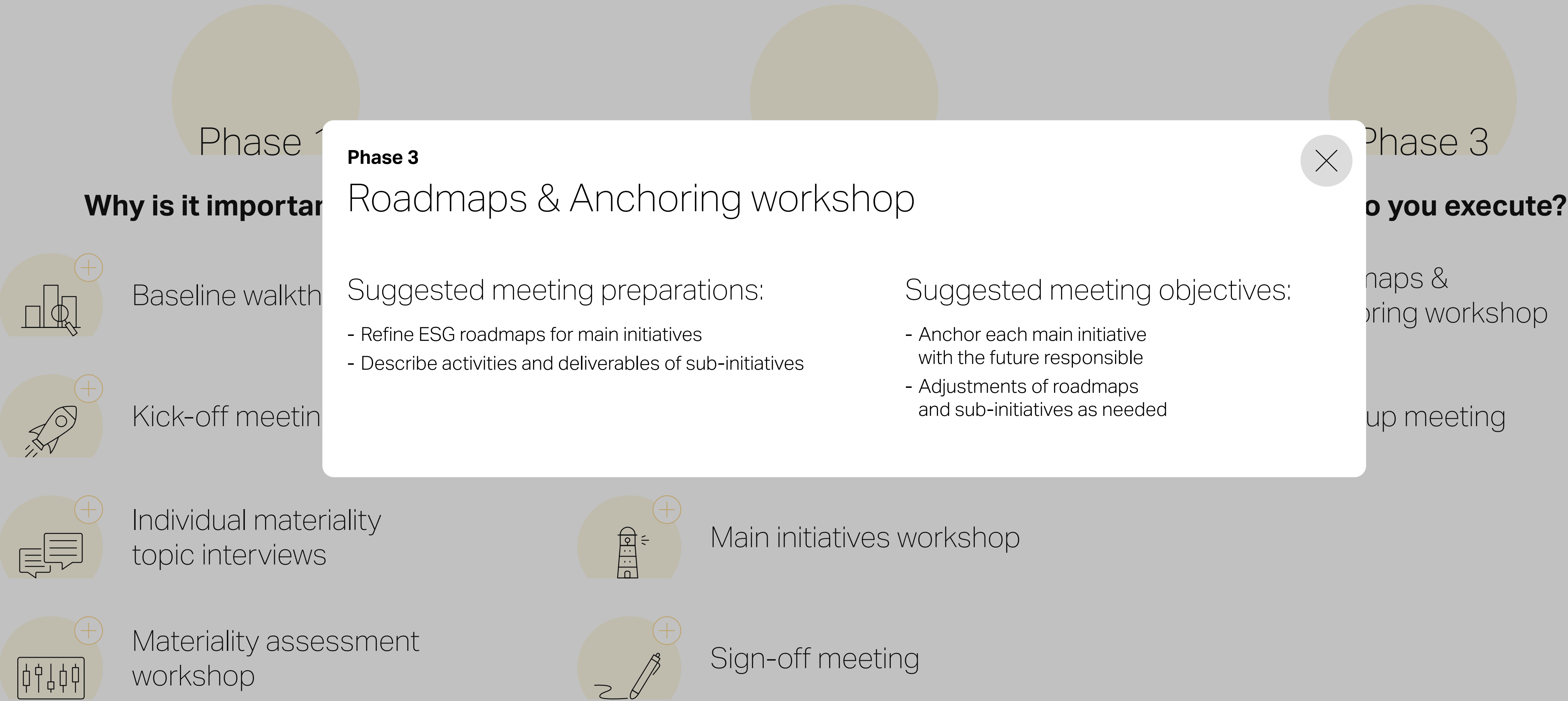
Main initiatives workshop

Sign-off meeting



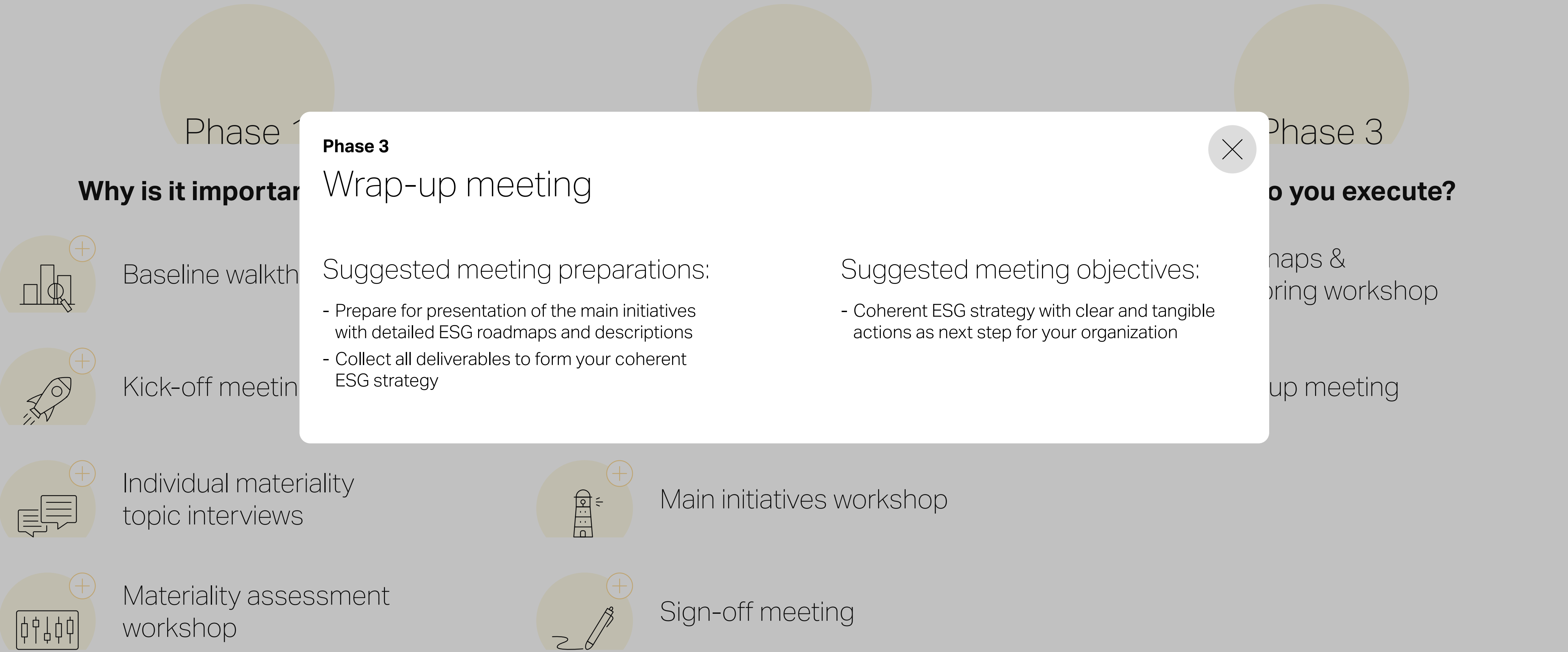
Phases

The strategy process consists of 3 phases and 10 key meetings



Phases

The strategy process consists of 3 phases and 10 key meetings





Contact Information

Explore >



| **BCG**

| ESG Playbook for Shipping

Contact

If you want to know more or be assisted in the process of making your ESG strategy - reach out to us!



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Mærsk Mc-Kinney Møller Center
for Zero Carbon Shipping



Read more about the Center



Read more about BCG's Climate & Sustainability practice



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Contact

If you want to learn more about your ESG

The Center

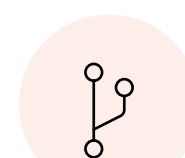
The Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping is a not-for-profit, independent, and science-based research and development center



We set the course for a sustainable transition

The Center sets the course for sustainable maritime decarbonization by assessing, informing and guiding the industry transition.

Guided by targets outlined in the Paris Agreement, the Center advocates for sustainable transition pathways that are safe and just for all



We drive collaborative research, development and innovation

The Center carries out applied research and development activities to produce solutions, concepts and standards.

In collaboration with our industry-leading partners across the shipping value chain we create new knowledge, model viable decarbonization pathways, lower uncertainty, and de-risk decision making to mobilize climate action.



We advocate industry action and regulatory reforms

The Center is recognized as change leader, trusted advisor, and leading knowledge hub for maritime decarbonization.

The Center seeks to influence global, regional, and national decarbonization strategies, advocate for reforms, and collaborate with decision makers to act at scale.

Recommendations for enabling policy frameworkks, global standards, and industry actions are based on data, research, and the latest science.

Our vision is sustainable decarbonization of the maritime industry by 2050 & our mission is to be an independent and significant driver of a sustainable maritime decarbonization



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