DEEP DIVE

OPPORTUNITY GREEN

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Table of Contents

Summary....2
What is Opportunity Green?....3
How could Opportunity Green address climate change?....3
Strategies....3
Theory of change....7
Aviation....8
Maritime shipping....11
What is Opportunity Green's cost-effectiveness?....13
Is there room for more funding?....14
Are there major co-benefits or adverse effects?....15
Key uncertainties and open questions....15
Bottom line / next steps....16

Opportunity Green is a UK-based nonprofit. This non-partisan analysis (study or research) is provided for educational purposes. Unless otherwise cited, information in this deep dive comes from direct correspondence with Opportunity Green.

Questions and comments are welcome at givinggreen@idinsight.org.
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Summary

- **What is Opportunity Green?** Opportunity Green is a UK-based nonprofit focused on addressing gaps in global climate policy. Founded in 2021, it began with a focus on the global decarbonization of aviation and maritime shipping via policy, economic, and legal avenues. It also aims to identify and address broader legal and regulatory gaps to accelerate decarbonization in sectors such as buildings, agriculture, and steel. We base our recommendation on Opportunity Green's aviation and maritime shipping work and have not assessed its efforts in other sectors.
- **How could Opportunity Green address climate change?** Opportunity Green invokes three main strategies in its work to decarbonize maritime shipping and aviation: (i) facilitating a private sector coalition to promote sustainable fuels, (ii) increasing representation from climate-vulnerable countries in the International Maritime Organization (IMO) to promote more progressive policies, and (iii) identifying and pursuing strategic legal action. Through these strategies, Opportunity Green aims to reduce emissions by decreasing demand for aviation and shipping, shifting industries to clean, alternative fuels, and ensuring that climate-vulnerable countries are supported in the transition.
- **What is its cost-effectiveness?** In 2024, we developed a highly subjective cost-effectiveness analysis (CEA) to estimate the costs and impacts of Opportunity Green's engagement with the IMO to enact regulations that decarbonize international shipping. Overall, we estimate it could plausibly be within the range of cost-effectiveness we would consider for a top recommendation. We have low confidence in the accuracy of this CEA, and an analysis focused on Opportunity Green's IMO engagement is unlikely to generalize to its overall cost-effectiveness. However, we generally view it as a positive input to our overall assessment of Opportunity Green.
- **Is there room for more funding?** Opportunity Green could use additional funding to cover operational costs, hire more staff across projects, increase analytical capacity, and expand its communications team. In particular, Opportunity Green would use funds to open a Brussels office to assist them in influencing EU policy; having an EU entity will also allow its team to launch legal challenges against EU institutions. Opportunity Green's leadership values a healthy work culture and would also use funds to help ensure employee security and progression.
- **Are there major co-benefits or potential risks?** We think Opportunity Green's potential co-benefits and potential risks are linked to the technologies for which it advocates. For example, co-benefits of green hydrogen-derived alternative fuels include lower air pollution, and potential risks include toxicity and other safety concerns. See our deep dive, Decarbonizing Aviation and Maritime Shipping, for more information.
- **Key uncertainties and open questions:** Our key uncertainties include our ability to evaluate the effectiveness of a young organization, Opportunity Green's potential difficulties attracting industry members to a coalition with ambitious climate targets, the effectiveness of legal action as a climate intervention, and the general feasibility of decarbonizing aviation.
- **Bottom line / next steps:** We classify Opportunity Green as one of our top recommendations for nonprofits addressing climate change. We think it has a strong theory of change that tackles multiple pathways of influence, including coalition and capacity building, policy advocacy, and legal

action. Opportunity Green is a small organization with robust plans for growth and the ability to utilize significant amounts of additional funding.

What is Opportunity Green?

Opportunity Green is a UK-based nonprofit focused on addressing gaps in global climate policy. Founded in 2021, it began with a focus on the global decarbonization of aviation and maritime shipping via policy, economic, and legal avenues. It also aims to identify and address broader legal and regulatory gaps to accelerate decarbonization in sectors such as buildings, agriculture, and steel. We base our recommendation on Opportunity Green's aviation and maritime shipping work and have not assessed its efforts in other sectors. See our deep dive report for more information on decarbonizing aviation and maritime shipping.

Opportunity Green was founded by Aoife O'Leary, a lawyer and economist who previously created and led the Environmental Defense Fund's shipping program. As of November 2024, Opportunity Green has 21 staff based in the UK.

How could Opportunity Green address climate change?

Opportunity Green invokes three main strategies: (i) facilitating a private sector coalition to promote emissions standards and fuel mandates, (ii) increasing representation from climate-vulnerable countries in the IMO to promote more progressive policies, and (iii) identifying and pursuing strategic legal action. Opportunity Green determines its priorities among these strategies based on available funding and project feasibility.

Strategies

Facilitating a private-sector coalition to promote sustainable fuels

Opportunity Green established the Skies and Seas Hydrogen Accelerator (SASHA) Coalition to unite companies in maritime shipping, aviation, and alternative fuel production to advocate for policies that facilitate commercial-scale production of clean fuels such as e-ammonia, e-methanol, and e-SAFs.[1] Policy goals include increasing the ambition level of e-fuel targets in EU climate regulations (the Fit for 55 package) and ensuring safeguards against reliance on biofuels and liquified natural gas (LNG).[2] To achieve these goals, Opportunity Green facilitates meetings between SASHA members and policymakers and coordinates the drafting of public and private letters. SASHA was established one year ago, and it focuses on UK- and EU-based companies and policy. The members of this coalition as of November 2024 are Cranfield Aerospace Solutions, ZeroAvia, Zulu Associates, IðunnH2, SAF+ International Group, Arcadia

[1] We use e-SAFs to refer to synthetic jet fuels, produced using green hydrogen and sustainable CO_2.
[2] The Fit for 55 package is an EU-level policy which aims to reduce the EU's emissions by 55% by 2030; it contains the FuelEU maritime shipping and aviation initiatives targeted toward increasing the use of sustainable fuels.

eFuels, MCG UK, Oneiros Aerospace, and Ecoject. The Sustainable Shipping Initiative and the Green Hydrogen Organisation have also joined as knowledge partners.

Increasing IMO representation to promote more progressive policies

The International Maritime Organization (IMO) is a UN agency that regulates shipping globally and, combined with national and subnational policies, is considered an effective and comprehensive vehicle for establishing ambitious emissions standards.[3] While the IMO's decarbonization targets are the most ambitious to date, Opportunity Green believes that to align with climate goals, the IMO needs to incorporate stronger regulations, commitments, and clarity to ensure advancement towards international climate targets.[4] Currently, Opportunity Green is working towards the adoption of strong regulation to achieve the stretch targets for the IMO's revised decarbonization strategy.[5]

Opportunity Green aims to influence the IMO to set more ambitious targets by helping climate-vulnerable countries gain more representation and participation in IMO activities. Opportunity Green has begun capacity building by engaging with countries that have (i) historically been absent from IMO convenings and (ii) are disproportionately affected by climate change, such as Small Island Developing States (SIDS).[6] Opportunity Green claims that because these countries feel climate change more acutely, despite accounting for very few emissions, they tend to support more progressive international policies; they especially favor ones that substantially reduce Global North emissions and enable climate finance for adaptation.[7] It thinks that increasing the number of progressive voices could help move the moderate block, including the US and EU, that has dampened IMO ambition levels. Opportunity Green is working with EU Member States to increase their support for climate-vulnerable supported policies in the IMO. It is also commissioning research to support climate-vulnerable countries in highlighting the potential benefits of raising additional climate finance from a levy on shipping pollution.

As part of this work, Opportunity Green has filed a submission to the International Tribunal for the Law of the Sea (ITLOS) in support of the Commission of Small Island States (COSIS) request for the Tribunal to

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[3] "The global scope of the IMO presents a unique opportunity to develop consistent, comprehensive global policy solutions for decarbonization." Global Maritime Forum (2022)

[4] "The IMO's strategy isn't currently binding, and it lacks specific measures to achieve its stated targets. Nevertheless, it represents significant progress from previous positions. However, the absence of alignment with the 1.5° C target is a major shortfall." ClimateWorks (2023)

[5] "The measures must include a stringent GHG fuel standard, established on a well-to-wake basis, accompanied by an ambitious GHG pricing mechanism." Opportunity Green (2024)

[6] "Opportunity Green has particular expertise in shipping policy at the international level. It specifically works with climate vulnerable countries, who are traditionally under-resourced and underrepresented at the International Maritime Organization ("IMO"), providing them with briefing notes, facilitating information sharing and networking events and hosting bilateral meetings as required to help in the preparation of countries' positions." Opportunity Green (2023)

[7] "This raises intriguing questions about how these divergent approaches will unfold. Fuel standard measures and pollution levies are of high interest to many countries because they can generate climate finance for adaptation and mitigation in countries most impacted by climate change. However, those countries aren't necessarily in the room to help make those decisions." ClimateWorks (2023)

recognize countries' obligations to regulate shipping emissions in line with 1.5°C climate goals.[8] The Tribunal released an advisory opinion in May 2024 that was broadly in line with the request made by COSIS and Opportunity Green. Opportunity Green is now working with aviation and shipping policymakers[9] to ensure they understand the full legal implications of this decision, such as by supporting some climate-vulnerable countries in their submissions to the IMO on this topic.
The advisory opinion opens avenues for future State climate litigation (for example, actions against national governments, or supporting a climate-vulnerable country to take action against another government).

Identifying and pursuing strategic legal action

Opportunity Green sees litigation and non-judicial legal action as complements to policy advocacy, especially for sectors where policy efforts have lagged. It claims that climate litigation and legal action have historically focused on governments and that increasing legal pressure on corporations is important. Opportunity Green has defined the scope of its legal strategy as "*cases that seek broader systemic outcomes and social impacts, in contrast to traditional litigation that prioritises the immediate aims of an individual claim*."

Opportunity Green has identified aviation, shipping, steel, agriculture, and buildings as key sectors for strategic climate legal action. As an example, aviation is a potentially key sector for a variety of reasons, including:

- The International Civil Aviation Organization (ICAO), the entity tasked with governing aviation internationally, is not considered an effective lever for standards setting or implementation.[10]
- Without strong global policies, countries are less likely to take action independently, given the sector's inherently international nature.
- A legal victory against one major multinational corporation in the private sector could significantly impact the entire industry.
- Aviation's direct client-facing nature makes reputational damage a powerful lever to influence industry behavior change.

The first phase of Opportunity Green's strategy includes analyzing litigation cases in the aviation industry, identifying cases with precedent, and ranking each case with respect to feasibility, risk, and scale of

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[8] The International Tribunal for the Law of the Sea (ITLOS) is an independent judicial body established by the 1982 United Nations Convention on the Law of the Sea. The Commission of Small Island States on Climate Change and International Law (COSIS) is a UN commission with a mandate to "to promote and contribute to the definition, implementation, and progressive development of rules and principles of international law concerning climate change, including, but not limited to, the obligations of States relating to the protection and preservation of the marine environment and their responsibility for injuries arising from internationally wrongful acts in respect of the breach of such obligations."

[9] See Publication: ITLOS advisory opinion — Opportunity Green for Opportunity Green's briefing on this topic.

[10] "In the past few years ICAO has faced criticism and been seen rightly or wrongly as an outlier even in the UN system for its lack of transparency in decision-making, its lack of access to information by the media, undue influence of industry ("captured by producer interests": *The Economist*), restricted involvement of civil society and independent scientists, and its political interference in the culture and workings of the Secretariat." Centre for Aviation (2021)

impact. Opportunity Green's lawyers are UK-qualified but have experience with EU law, so it does not restrict itself by jurisdiction. This phase will not be made public to maintain confidentiality over potential actions.

In the second phase, Opportunity Green will directly participate in climate judicial (e.g., court-based) and non-judicial actions (actions outside of a court setting, e.g. those in front of advertising standards agencies or other non-court-based regulators, or letter-writing campaigns such as to company directors) and assist NGOs without legal teams to develop and take their own actions. It has launched this second phase by challenging an airport expansion project in Crete.[11] Our understanding is that the choice of beginning with an airport expansion challenge was based on (i) timing and opportunity and (ii) its potential to have an impact broader than the project alone by challenging the international financing of airport expansions by the European Investment Bank. Airport expansion does not represent the full breadth of legal opportunities that Opportunity Green is considering. Opportunity Green in conjunction with other NGOs launched a legal case against the EU Taxonomy rules for aviation and shipping.[12] The Taxonomy rules as currently drafted would give a 'green' label to ships and planes that run on fossil fuels, raising concerns over greenwashing. While it could take a couple of years for the case to reach a final decision, it has already had impact: other countries are looking to establish their own Taxonomy rules in a way that would not invite legal challenge, and therefore be more ambitious on climate.

Opportunity Green has also undertaken legal work in the maritime shipping sector and is conducting a similar scoping exercise to identify potentially impactful legal actions. Recently, it has compiled a report highlighting the cruise industry's misleading claims about the climate benefits of LNG and filed complaints with the UK's Advertising Standards Authority (ASA).[13] The overall purpose is to delegitimize investment in LNG as a 'transitional' fuel in the shipping industry more widely by raising awareness of the issue with regulators and building a basis of legal and regulatory decisions against its use. Tackling greenwashing by cruise companies is the first step in this approach, and Opportunity Green's legal team is currently strategizing further LNG-related actions in the shipping sector.

As a result of targeted funding, Opportunity Green is also undertaking legal work related to the building, steel, and agriculture sectors, adopting a similar strategic legal review approach. The building sector work is focused primarily on decarbonizing homes and is considering issues such as the human rights issues of adequately insulated homes in cold climates and the inefficiency of hydrogen as a potential future fuel in domestic heating. In the steel sector, Opportunity Green is close to completing the first phase of its legal scoping exercise. Despite being a major industrial emitter, the steel industry has been relatively

[11] "Our findings show the project is based on flawed and lacking climate change analysis and brings into question the commitments of Greece and the EIB to climate action and the Paris Agreement temperature goal." Opportunity Green (2023)
[12] "Five NGOs – Fossielvrij, Protect our Winters, Dryade, CLAW and Opportunity Green – have launched a legal challenge against the European Commission, requesting it to review its green investment rules on aviation and shipping. This is the first step in the challenge which may lead to court action before the European Court of Justice if the Commission does not address the legal issues raised." Opportunity Green (2024)
[13] "As a result of the findings in the report, Opportunity Green has also filed a series of complaints to the UK's Advertising Standards Authority (ASA) against some of the biggest international cruise companies to try to put an end to this apparent LNG greenwashing, which is potentially misleading consumers." Opportunity Green (2023)

unchallenged by climate litigation thus far. Opportunity Green seeks to fill this gap and is exploring a range of potential legal actions to create a systemic impact and accelerate the sector's transition to fossil-free steelmaking. Potential areas of interest include challenging financial flows toward polluting activities, underscoring misleading industry narratives, and addressing human rights impacts. To maintain confidentiality over potential actions, this work will not be made public. Opportunity Green's agriculture work began in Q4 2024. We have not assessed its building, steel, and agriculture work streams.

Theory of change

We use the above strategies to construct two theories of change to reflect our impression of how Opportunity Green can influence the decarbonization of (i) aviation and (ii) maritime shipping. Below each theory of change, we discuss and evaluate the main assumptions related to the theory of change. For each assumption, we rank whether we have **low**, **medium**, or **high** certainty about the assumption.[14] Our assessment is based on both primary and secondary evidence, as well as our general impression of the plausibility of the assumption. Importantly, a number of the stages of the theory of change may not be amenable to easy measurement or quantification, are not supported by a robust evidence base, or are expected to occur in the future but have not occurred as of yet.

[14] We describe our certainty as low/medium/high to increase readability and avoid false precision. Since these terms can be interpreted differently, we use rough heuristics to define them as percentage likelihoods the assumption is, on average, correct. Low = 0-60%, medium = 70-80%, high = 80-100%.

Aviation

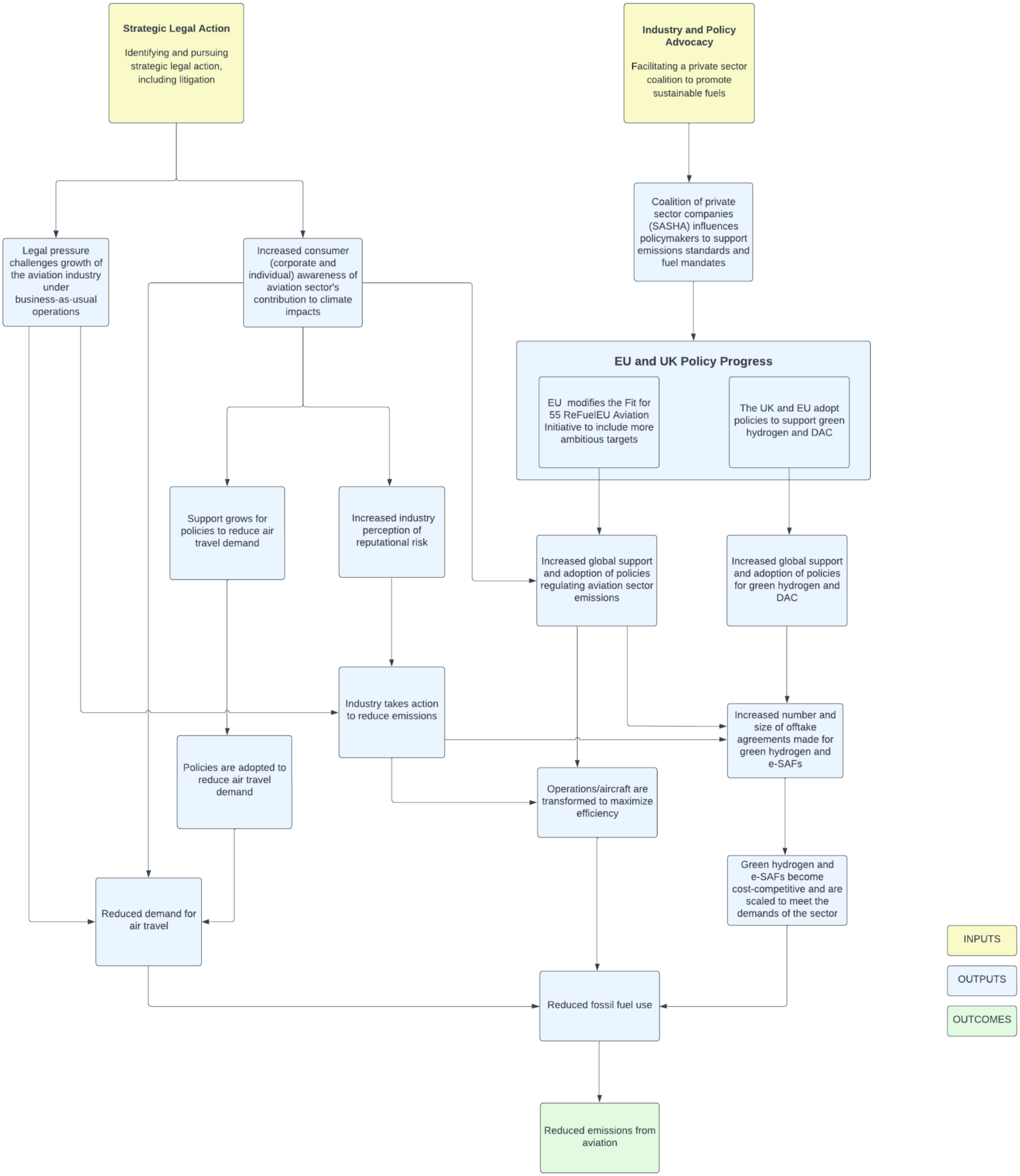

Figure 1: Opportunity Green theory of change—decarbonizing aviation

Examining key assumptions

1. *SASHA can influence the adoption of ambitious policies for sustainable fuels (**medium certainty**)*

We believe that coalitions can be a powerful form of political advocacy, especially with private-sector involvement. One of SASHA's first initiatives was to produce an in-depth report evidencing that insubstantial policy support of green hydrogen has slowed demand and investment. We think this analysis helps build the case for policy intervention and is an important resource for potential new members.

Opportunity Green expressed that it plans to ensure that SASHA promotes ambitious targets and policies and that companies must align with these ambition levels to be considered for membership. We think if SASHA's size and influence grow, it will be in a strong position to pressure other industry actors to support more progressive policies. However, if ambition levels are too high, especially in the absence of a successful track record, it could be the case that SASHA may have difficulty attracting members. This may not be the case given (i) the growing number of relevant climate tech start-ups and (ii) our impression is that these start-ups tend to be more progressive than established companies. We may be wrong and address this in our Key uncertainties and open questions section.

2. *Increased consumer awareness of the sector's emission results in direct demand reduction and policies to reduce air travel (**medium certainty**)*

Although we are not optimistic about voluntary behavior change in individuals, we see more potential for demand reduction resulting from (i) corporate consumers and (ii) policy. It is our impression that corporate consumers that ship products by air could noticeably reduce demand if they transition to other forms of transport. For example, Apple has begun to rely more on maritime shipping to transport its products.[15] France's legislation to ban short-haul domestic flights (2.5 hours or less) resulted from public advocacy following the Yellow Vest protests.[16] We think this policy is replicable, although likely limited to countries with substantial rail infrastructure.[17]

3. *Absent policy, perception of risk influences the aviation industry to pursue fleet transformation and increase e-SAF purchase commitments (**low certainty**)*

We think the aviation industry is unlikely to be moved by the perception of risk—via increased consumer awareness or internal risk assessment—without stringent regulation. This is because (i) there are often no viable alternatives to air travel, and (ii) the loss of revenue due to behavior change or policy may not be large enough to incentivize investment in high-cost interventions such as e-SAFs.

[15] "It's not just trains, planes, and automobiles — increasingly, we're shipping Apple products on the open seas, because ocean freight can reduce emissions by as much as 95 percent compared to air transport." Apple (2024)

[16] "The ban was originally put forward by a Citizen's Convention that suggested all flights should be banned if there is a 6-hour train journey available, which would have banned more flights. The Convention was convened by President Macron after the Yellow Vest 'Gilet Jaune' protests against social inequality." Forbes (2023)

[17] "Rutherford says there's a sweet spot: For trips of less than 500 miles, replacing a flight with high-speed rail could put a dent in air travel. Flights of less than 500 miles make up about a quarter of the United States' domestic air traffic." Washington Post (2023)

4. *Policies and industry offtake agreements enable e-SAFs to become cost-competitive and scale to meet the needs of the aviation sector (**low certainty**)*

The production cost of e-SAFs will depend on the cost of sourcing green hydrogen and CO_2. The most climate-beneficial sources of CO_2 may either be through carbon removal technologies like direct air capture (DAC), which are currently quite expensive, or sustainable biomass, for which feedstocks are limited. E-SAFs are among the most costly fuels, given the price of feedstocks and the complex chemical reactions involved in the production process. We think that it will require broad and ambitious incentives for e-SAFs to become cost-competitive with conventional jet-fuel or biomass-based sustainable aviation fuels, and we think it is possible that they may be unable to scale to meet the needs of the sector.[18] We address this as a key uncertainty.

[18] For more information, see the cost-competitiveness section in our deep dive report on decarbonizing aviation and maritime shipping.

Maritime shipping

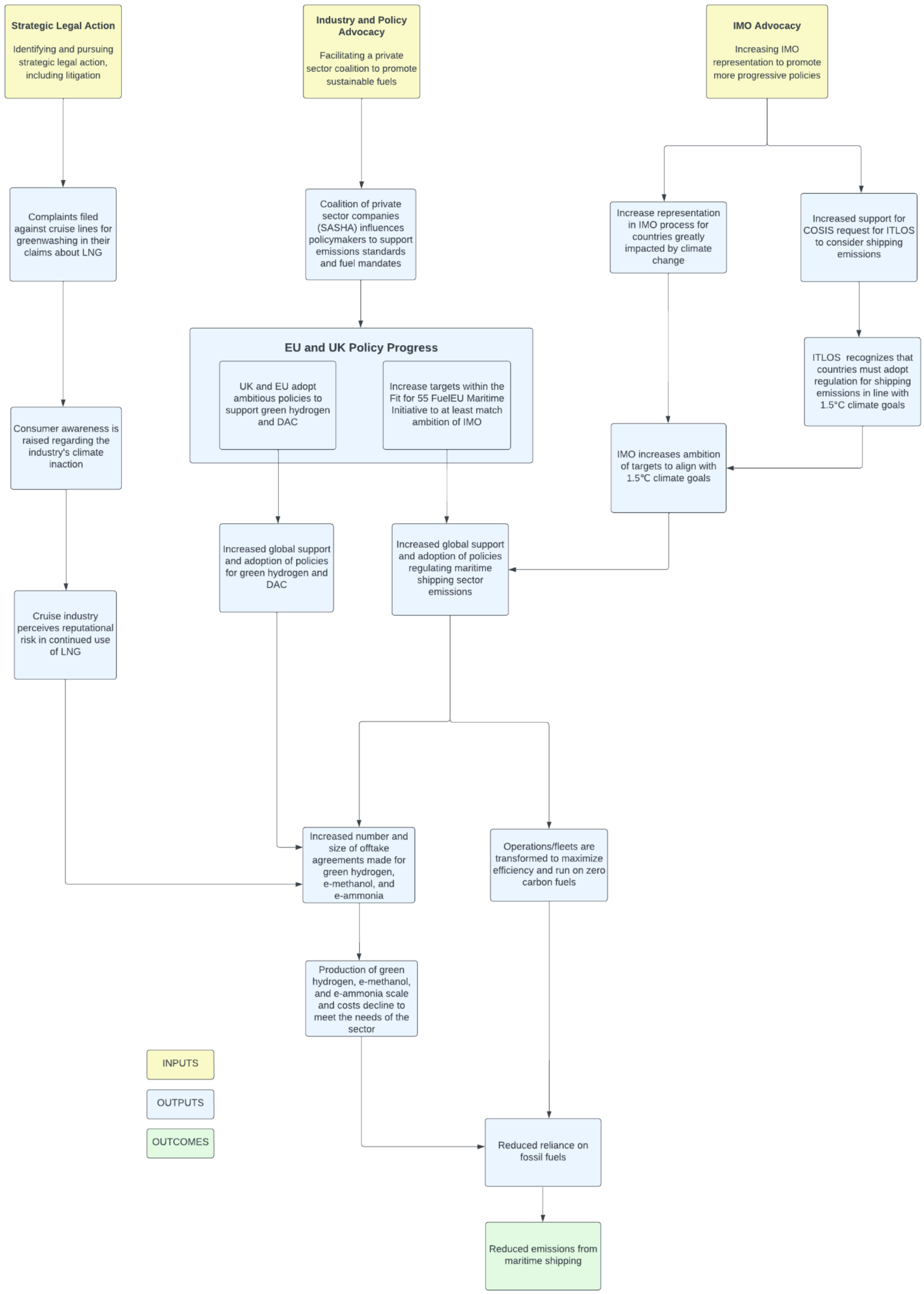

Figure 2: Opportunity Green theory of change—decarbonizing maritime shipping

Examining key assumptions

1. *SASHA can influence the adoption of ambitious policies for emissions standards and clean fuel technologies (**medium certainty**)*

We have the same reasoning as in assumption 1 under Aviation.

2. *Increased participation of underrepresented, climate-vulnerable countries leads to more ambitious IMO policy (**medium certainty**)*

We think that increasing the participation of underrepresented, climate-vulnerable countries could increase pressure to implement policies and regulations in line with the IMO's progressive standards and targets. Historically, small countries have been able to achieve outsized impacts. For example, Opportunity Green gives the Pacific Island States most of the credit for the IMO's recent adoption of ambitious decarbonization targets in July 2023.[19] Additionally, in May 2024, the International Tribunal for the Law of the Sea (ITLOS) issued a unanimous ruling on the request submitted by the Commission of Small Island States on Climate Change and International Law, affirming that "States Parties to the [United Nations Convention on the Law of the Sea] have the specific obligations to take all necessary measures to prevent, reduce and control marine pollution from anthropogenic GHG emissions and to endeavor to harmonize their policies in this connection."[20]

However, the countries with which Opportunity Green has stronger engagement are relatively new to IMO negotiations. Our impression is that they are less likely to be drivers of highly ambitious regulation, but that their support for motions proposed by other countries is still likely to be significant in shifting the outcomes of negotiations to be more aligned with climate targets.

We also think that given such recent modifications to IMO targets, member states may be reluctant to vote for stricter measures if they fear pressure to ensure that their domestic policies match the ambition level of the IMO. We think this might already be happening at the EU level, given that its maritime shipping emission reduction targets are weaker than those of the IMO.[21]

3. *Absent policy, consumer awareness of greenwashing in the context of LNG accelerates industry's switch to clean fuels such as e-ammonia or e-methanol (low certainty)*

Given the high costs and low supply of clean alternative fuels and vessels powered by them, we are concerned that consumer awareness may not significantly influence the industry's transition away from LNG in the absence of robust policy. We think it is especially unlikely in the context of cruise lines given

[19] "our team knows that the final outcome we got could have been much weaker. The fact that it wasn't is mostly thanks to the immense diplomatic effort and tireless work of the Pacific Island nations and other ambitious Member States" Opportunity Green (2023)

[20] "Under article 194, paragraph 1, of the Convention, States Parties to the Convention have the specific obligations to take all necessary measures to prevent, reduce and control marine pollution from anthropogenic GHG emissions and to endeavour to harmonize their policies in this connection. " ITLOS (2024)

[21] "A substantial surprise lies in the European Union's positions. Despite enacting various shipping legislations, the IMO's strategy outpaces the European Union's ambitions in certain aspects." Climateworks (2023)

the industry's poor environmental track record, evidenced by cruise companies' continual breach of environmental regulations even after facing lawsuits and fines.[22]

4. *Policies and industry offtake agreements enable alternative fuels such as e-ammonia and e-methanol to become cost-competitive and scale to meet the needs of the shipping sector (**medium certainty**)*

The cost trajectories of e-ammonia and e-methanol are highly correlated to the cost of green hydrogen. Given cross-sector demand and the uptick in supply-side hydrogen policy initiatives, we have medium certainty that green hydrogen can become cost-competitive and be scaled to meet the needs as a feedstock for these fuels. We think it may be more difficult for e-methanol to scale, as it also depends on sourcing atmospheric CO_2. According to a 2019 study, while e-methanol and e-ammonia are more expensive than their fossil fuel counterparts at present, they could become cost-competitive by 2040 and even cheaper by 2050.[23] For more information on these fuels, see our deep dive report on decarbonizing aviation and maritime shipping.

What is Opportunity Green's cost-effectiveness?

In 2024, as a rough plausibility check, we developed a cost-effectiveness analysis (CEA) to estimate the costs and impacts of Opportunity Green's work with the IMO to enact regulations that decarbonize international shipping. We chose to model this subset of Opportunity Green's work as we think a CEA covering all of Opportunity Green's work would include too many uncertain parameters to have any confidence in the results. Focusing this CEA on Opportunity Green's work with the IMO is likely not generalizable to Opportunity Green's overall cost-effectiveness, and, due to the highly subjective guess parameters included in this CEA, we have low confidence in its accuracy. Since we use CEAs only as a rough plausibility check, we chose not to spend more time reducing these uncertainties.

Despite the narrow focus of this CEA, it includes highly subjective guess parameters and should not be taken literally. In particular, we estimated:

- The number of years that Opportunity Green's advocacy brings forward the adoption of ambitious regulation.
- The relative increase in ambition levels of IMO regulations due to advocacy.
- The likelihood of achieving ambitious regulations as a result of increased participation of climate-vulnerable countries and the ITLOS ruling.
- How much the changes in these likelihoods can be attributed to Opportunity Green.

Overall, we think Opportunity Green could plausibly be within the range of cost-effectiveness we would consider for a top recommendation. We have low confidence in our CEA's ability to estimate Opportunity

[22] "Cruise companies have been fined for everything from illegal dumping of toxic chemicals, sewage, plastics, and oil into our oceans, as well as violating local port regulations, and even continuing to violate federal and state laws while under court-ordered probation." Friends of the Earth n.d.
[23] Fuel production cost estimates and assumptions. Lloyd's Register (2019)

Green's general cost-effectiveness but view it as a slightly positive input into our overall assessment of Opportunity Green. See below for a high-level explanation and the model for additional notes and citations.

- **Costs:** Based on its 2023 spending, we estimated Opportunity Green's spending on IMO workstreams at around $575,000.
- **Avoided emissions:** We compared the shipping sector's cumulative emissions from 2025 to 2050 under two scenarios with different ambition levels. The high-ambition scenario assumes that IMO enacts sufficient regulations in 2025 to meet its decarbonization plan, and the BAU scenario is a counterfactual scenario where regulations in 2025 are still passed but are insufficient to meet IMO's decarbonization targets. We assumed that regulations for the BAU scenario catch up to the high-ambition regulations within ten years due to future increases in political momentum and technological capabilities for green shipping.
- **Effectiveness:** We assumed that support for high-ambition regulations in the IMO would increase because of 1) greater participation of climate-vulnerable countries in negotiations and 2) greater chance of a favorable ruling from ITLOS in favor of COSIS's submission. We then assigned Opportunity Green a degree of influence for these results. We estimated Opportunity Green's expected emissions mitigation by multiplying the emissions reductions from adopting more ambitious regulations by the change in the probability of adopting these due to Opportunity Green.
- **Results:** Our best guess is that Opportunity Green's IMO advocacy will avoid one tCO_2e for around $0.76 (range: $0.03-$7.70).

Is there room for more funding?

Opportunity Green's 2024 budget is £2,500,000 (about $3.23 million USD), and its projected 2025 budget is £3,250,000 (about $4.17 million USD). Funders include ClimateWorks Foundation, Oceankind, and the European Climate Foundation.

Our understanding is that as of November 2024, about 90% of Opportunity Green's funds are restricted and directed to specific projects. Giving Green funds directed to Opportunity Green were unrestricted, allowing it to support operations and strategically fill funding gaps within work streams. More unrestricted funds would allow Opportunity Green to allocate money based on its own priorities and invest more in its internal needs, such as operational expenses. Opportunity Green said it especially values more multi-year funding to ensure employee security and enable longer-term strategy building. Opportunity Green's plans for growth include:

- Opening an office in Brussels in order to more closely work with the EU institutions on legislation for aviation and shipping. A Brussels office will also enable Opportunity Green to launch legal actions against the EU institutions; currently, it can only do so in conjunction with other NGOs.
- Increasing communications capacity across projects.

- Hiring more staff to engage in global hydrogen policy discussions and facilitate meetings between industry and policymakers.
- Hiring staff to educate NGOs and governments about the aviation and shipping sectors to build momentum for future climate finance efforts.
- Hiring more lawyers, including a senior litigator, and contracting barristers for ad hoc opinions and consulting.
- Continuing to improve employee security and well-being to continue to foster a healthy work culture.

Based on these plans for growth, we think that Opportunity Green can absorb additional funding effectively.

Are there major co-benefits or adverse effects?

We think Opportunity Green's potential co-benefits and adverse effects are linked to the technologies for which it advocates. For example, co-benefits of green hydrogen-derived alternative fuels include lower air pollution, and adverse effects include toxicity and other safety concerns. See our deep dive, Decarbonizing Aviation and Maritime Shipping, for more information.

Key uncertainties and open questions

- **Organizational effectiveness:** Opportunity Green is young and still establishing a track record of success. We think its legal strategies, in particular, will take a longer time to develop and produce demonstrable results. We have high confidence that Opportunity Green will be effective, given the credentials and experience of its CEO and staff, its diversified theory of change, and its leadership's focus on growing sustainably as an organization. As Opportunity Green matures and executes its strategy, we expect to learn more about its effectiveness.
- **Industry coalition strength**: Opportunity Green has chosen to ensure that SASHA coalition members share ambitious policy goals. We think this could reduce the coalition's size and influence, especially if it excludes more established industry players. As SASHA membership expands, we will have more information to assess its progress and standing.
- **Effectiveness of litigation:** Giving Green has historically been skeptical regarding the effectiveness of legal action as a climate intervention.[24] We think that Opportunity Green's strategy is novel in that it takes a comprehensive approach, beginning with an in-depth analysis and ranking of possible legal strategies. However, we are unsure about its initial project, which targets an airport expansion project in Crete. Specifically, we are uncertain about this project's replicability and the potential for leakage if the airport expansion is simply delayed or results in additional infrastructure elsewhere. We will update our assessment as Opportunity Green progresses with its legal strategy.

[24] "Litigation was ranked third, reflecting the fact that litigation is a mixed-success endeavor, in that it may often not achieve its goals, and is subject to existing precedent and legal institutions." Giving Green (2021)

- **Feasibility of decarbonizing aviation:** Aviation is one of the most difficult sectors to decarbonize as there is no clear, viable technological pathway. We believe that Opportunity Green's strategy to promote both the adoption of e-SAFs and demand reduction for air travel is pragmatic. However, it is possible neither of these approaches can scale to meet mid-century goals. We think that a possible scenario is that the aviation sector cannot fully decarbonize and could, for some time, rely on carbon dioxide removal to compensate for these unabated emissions.[25]

Bottom line / next steps

We classify Opportunity Green as one of our Top Nonprofitsaddressing climate change. We think it has a strong theory of change that tackles multiple pathways of influence, including coalition and capacity building, policy advocacy, and litigation. The organization could use additional funding to support operational costs, hire more staff across projects, increase its communications capacity, and create an advisory panel of senior lawyers.

We believe its strategies and geographies of focus complement those of Clean Air Task Force, another Top Nonprofit, in part, for its work to decarbonize aviation and maritime shipping. We plan to continue assessing our key uncertainties and believe that we will be able to substantially improve our understanding of the severity and importance of some or all of these uncertainties in the near future.

[25] "This is difficult in practice, and CDR could start well before 2050 to accommodate a more feasible trajectory of emissions reduction. It is followed by an increasing removal effort due to the rising RF induced by the fleet." Sacchi et al (2023)