Green Technical Advisory Group

Promoting the international interoperability of a UK Green Taxonomy

February 2023

Preface

In recent months there have been significant shifts in the green finance operating landscape.

Recognising the urgent need to accelerate the mobilisation of capital into green solutions, and the opportunities to create employment and national prosperity from these actions, the US has passed its flagship Inflation Reduction Act (IRA): a $369bn package of climate subsidies and tax breaks to boost green industries and cut US greenhouse gas emissions. Estimates suggest it could cut US greenhouse gas emissions by 40% by 2030.

In response to threats to competitiveness, the EU has announced its Green Deal Industrial Plan to enhance the competitiveness of Europe's net zero industry. Amongst other measures this includes a proposal to create a simplified regulatory environment through its Net Zero Industry Act.

While the UK has already laid out its Net Zero Strategy – the most advanced globally, which sets out plans to meet the legally binding target of achieving net zero by 2050 – it is clear the race to attract global capital to support green industry and market development is well and truly on again.

With the US and EU - the two biggest markets that UK investors currently deploy capital into - raising the stakes with a massive green subsidy and pro-green business regulatory push, the UK will need to significantly raise its own game to attract capital seeking net zero opportunities and secure its role as the world's leading net zero financial centre.

Providing investor certainty that green investment opportunities are growing and climate ambition is here to stay will be key to strengthening the UK's global offer. There are competitiveness benefits in providing clarity to investors on where capital needs to be deployed and which technologies will be an enduring part of the UK's net zero aligned future.

There will be further benefits to putting in place a robust and usable set of disclosure standards that protect investors against greenwashing and ensure the UK is the best place in the world to deploy capital through green investment products.

This can't all be achieved unilaterally, however. As a global financial centre, the UK must account for the proliferation of green finance regulation even as investors and corporates are calling for harmonisation of rules. Based on the analysis set out in this report, the Green Technical Advisory Group (GTAG) believes the UK has the opportunity to be at the forefront of the global harmonisation project. This approach can balance usability and scientific robustness to produce a taxonomy that can be at the forefront of a second wave of taxonomy development. We must take the best from the EU instrument and iterate it to be usable and welcomed by the market – a model for other countries looking to develop their taxonomies to adopt.

With the race to secure green investment on – and more than 30 taxonomies in development globally - the time to act is now.

Ingrid Holmes
Chair, Green Technical Advisory Group and Executive Director, Green Finance Institute

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Executive Summary

As set out in GTAG's last publication: Advice on the development of a UK Green Taxonomy,[1] taxonomies and definitions of sustainable activities have proliferated rapidly in recent years. GTAG research shows that globally, over 30 taxonomies are in development or implemented.

This is particularly important in the UK, given the international significance of the City of London. Approximately 20% of UK asset manager holdings are held in the UK economy, with 80% of holdings abroad, and £4.2trn (44%) of UK-managed assets are for overseas investors (with 58% of these overseas clients being European).[2] Therefore, ensuring international interoperability of green taxonomies is an important part of UK leadership in not just green and transition finance, but financial services.

Cross-border financial flows serve several economic purposes beyond the green agenda. They support the UK's role as the world's leading international financial services hub, facilitate the needs of UK savers, and ensure the external and internal balance of the UK economy. As long as it remains UK public policy to sustain and promote the UK as an international financial services centre, then the UK Government needs to adopt rules which facilitate the presence of international investors with international portfolios in the UK and the free movement of capital across borders. The UK Green Taxonomy needs to be implemented with this in mind.

In this paper, GTAG sets out recommendations for working toward international interoperability without compromising the robustness or science-based nature of the UK Green Taxonomy, while also encouraging an increase in ambition globally.

In developing this analysis GTAG sought to understand which jurisdictions and thus which taxonomies would be most important for considering interoperability issues in the UK context. The US and EU are the two largest destinations for UK investments abroad, accounting for almost 70% of the total.[3] But the 'Rest of the World' also represents a significant share in aggregate. Of the taxonomy countries included in the dataset, the EU unsurprisingly stands out as the largest destination of UK investment abroad, accounting for 73% of the total. Japan is a significant second, followed by a long tail.

Approximately 77% of foreign investments in the UK from taxonomy countries included in the dataset came from the EU, with Japan again being second, followed by a long tail of other jurisdictions.

To better understand areas of international taxonomy convergence and divergence and relevance for UK design approaches/interoperability, GTAG reviewed the international landscape of taxonomies, looking in detail at the overall approach and at the technical screening criteria (TSC) or local versions of TSC. This research highlighted the strengths and weaknesses of different schemes and helped identify what the UK could learn and what should be avoided if the UK Green Taxonomy is to both meet user needs, ensure the taxonomy reflects the UK's ambitious net zero emissions goals and support the UK in maintaining its position as a top international financial services centre.

Some variation on how TSC are structured and what counts as green is almost inevitable: each economy is unique and what works for a large, developed country may not work for a less-developed or smaller economy.

It is crucial not to neglect the value of harmonisation, while also noting that harmonising taxonomies without taking local context into consideration could result in misaligned incentives for national decarbonisation goals. Finding a balance between harmonisation and a tailored approach that takes into account local context is vital in ensuring that taxonomies are both effective and relevant.

1 https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2022/10/GTAG-Advice-on-the-development-of-a-UK-Green-Taxonomy.pdf
2 https://www.theia.org/sites/default/files/2021-11/IA%20-%20Investment%20Management%20Survey%202020-2021.pdf
3 The dataset analysed by GTAG only includes the UK's 51 largest counterpart countries

For UK companies and investors with subsidiaries and assets abroad and conversely, international companies and investors with subsidiaries and assets in the UK, there is a very real danger that cross border companies may face multiple regulatory difficulties and significant extra costs, if taxonomies lack interoperability.

Interoperability can be pursued at three levels. The first two are in relation to the design of the TSC themselves and of their disclosure regime. The third is through advocating for harmonisation across taxonomies and fostering/supporting international cooperation to develop a list of core economic activities that can be deemed equivalent to the UK Green Taxonomy since there is no 'silver bullet' solution for interoperability that the UK can deliver on its own.

In terms of moving forward, GTAG has ten recommendations. More details are provided in the section 'Moving forward on interoperability issues – GTAG recommendations' but an overview is provided below.

Overview of GTAG's recommendations

1. **Adopt the same broad concepts, methodologies and metrics as the EU taxonomy where possible[4] and advocate that other non-taxonomy countries do the same. In appropriate international fora, His Majesty's Government (HMG) should promote alignment to the UK Green Taxonomy concepts, methodologies and metrics to ease international interoperability, for new taxonomies.** GTAG has identified a hierarchy for the construction of green taxonomies, that can help with interoperability:

- **Concepts** – align concepts by having the same environmental objectives and framework, and same underlying industry sectors;
- **Methodologies** – follow the significant contribution, do no significant harm (DNSH)[5] and minimum safeguards (MS) methodology;
- **Metrics** – use the same systems of measurement for each activity as far as possible, ensuring the same data is required even if thresholds vary;
- **Thresholds** – use the same threshold for each metric unless there is a good and significant reason for not doing so.

2. **Ensure UK Taxonomy TSC are robust and science-based to demonstrate international leadership.** Encourage firms with UK operations/subsidiarises to report on their alignment with the taxonomy under the upcoming Sustainability Disclosure Requirements (SDR), reflecting efforts by the Transition Plan Taskforce (TPT) and EU Commission to report group-level/international operations, and establish sector-specific advisory groups, similar to the Energy Working Group, such as for adaptation and buildings to tackle difficult challenges.

3. **Conduct 3-yearly reviews[6] that assess the UK Green Taxonomy's effectiveness in light of the changing international taxonomy landscape. The evaluations should determine if any adjustments are necessary to keep the taxonomy aligned with the real economy, including the inclusion of new sectors and TSC.** The review process should also consider incorporating relevant TSC from other jurisdictions as they develop their own.

4. **Streamline language and requirements where useful and appropriate to maximise interoperability with non-EU jurisdictions.** Given references within the TSC to EU legislation and directives are likely to be removed, HMG should consider how the criteria will be interpreted by those reporting against the UK Green Taxonomy and commit to making the TSC as usable and international as possible in a UK context. Streamlining DNSH will also increase the ease and appeal of reporting against the UK Green Taxonomy.

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4 Whilst following GTAG's "Adopt some and revise some" approach, as set out in the October 2022 report GTAG: Advice on the development of a UK Green Taxonomy

5 GTAG is currently examining options for reviewing and potentially streamlining DNSH to make the UK Green Taxonomy more usable and useful, while retaining the ambition of the DNSH provisions. Advice will be provided in the coming months. This advice could also support improvements in DNSH in other taxonomies.

6 The choice of a 3-yearly review mirrors the UK government's commitment in the Greening Finance Roadmap to reviewing the Taxonomy Regulation's effectiveness every three years. A private consultation with the market ran by GTAG also stated that this would be the preference of polled financial and non-financial actors.

5. **To promote international comparison – if not interoperability – in the short-term, adopt green taxonomy-related rules and guidance that cover subsidiaries and assets held in as many jurisdictions as possible, regardless of the existence of any local green taxonomy.** Rules could be set related to assets held in the following types of jurisdiction:
- UK
- EU and EU Green Taxonomy-based countries
- Principles-based green taxonomy countries
- USA and other OECD countries without official green taxonomies
- Non-OECD countries without green taxonomies

While five sets of rules may be too many, this could be reduced to as few as two. Most assets are held in EU/EU-like Green Taxonomy countries, and the USA and other OECD countries without green taxonomies should be capable of being scored against the UK Green Taxonomy.

6. **Develop and publish a list of equivalent units, where needed, in the first instance,** to allow for differences in the measurement practices carried out in respective jurisdictions and help with the comparison of data.

7. **Related to recommendation 5, for non-OECD countries without a green taxonomy, lend support to work to develop general international base principles for reporting.** This could form base levels of acceptance of reporting against the UK Green Taxonomy for non-Green Taxonomy countries, including adopting core economic activities and should be led by the relevant team from the department formerly known as the Department for Business, Energy & Industrial Strategy (BEIS).[7]

8. **For the USA and non-taxonomy OECD countries, produce guidance to encourage reporting on a voluntary basis against the UK Green Taxonomy, for UK-based corporates and financial institutions that are required to report against the UK Green Taxonomy under SDR.** Noting that those with subsidiaries in the UK and UK-based investors into assets in those jurisdictions should already be captured by the SDR regime. Those that are not should be encouraged to report on a voluntary basis, as the data should already be available to them. This work should be led by the relevant team from the former BEIS department.

9. **Provide guidance on how companies and financial services firms can report on their performance abroad when using key performance indicators (KPIs) under the future UK reporting regime.** GTAG suggests that it may be beneficial to deviate from the EU[8] and allow companies to include international activities in some of their UK KPI reporting. It is important to note that the voluntary inclusion of global performance should be in addition to UK specific performance, allowing for a clear understanding of both global and domestic components of performance. There should also be the option to report on both their alignment and eligibility figures for specific jurisdictions, to further enhance this understanding.

10. **Advocate for the harmonisation of taxonomies and promote international cooperation to develop a list of core economic activities that can be deemed equivalent to the UK Green Taxonomy. The list should apply to countries regardless of which group they are in under recommendation 5.** HMG should promote recommendations 1-9 in bilateral discussions with countries with and without green taxonomies. Developing minimum principles for emerging economies without green taxonomies is a priority and this can be aided through the work GTAG are doing to review and streamline DNSH, which could help guard against broader environmental harm. The creation of the list of core activities could be led from within or outside government and initiated through a mapping exercise that includes industry consultation and feeds into the International Platform on Sustainable Finance's Common Ground Taxonomy work. The list should include non-controversial green activities that can be considered "always green", such as offshore wind farms. Additionally, there is an opportunity to collaborate with other countries to develop taxonomies that are based on the same principles as the UK taxonomy but tailored to their local context, as per the hierarchy proposed in recommendation 1. To effectively promote these recommendations, it's important to evaluate international platforms and determine which ones are best placed to promote them. GTAG could be mandated to support His Majesty's Treasury (HMT) with this work.

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[7] At the time of publication, BEIS has recently been split into three new departments: the Department for Business and Trade, the Department for Energy Security and Net Zero and the Department for Science, Innovation and Technology. Recommendations to BEIS in this paper will apply to different teams across the new departments.

[8] In the EU, green taxonomy-aligned activities outside of the EU cannot be included in the Green Asset Ratio ('GAR').

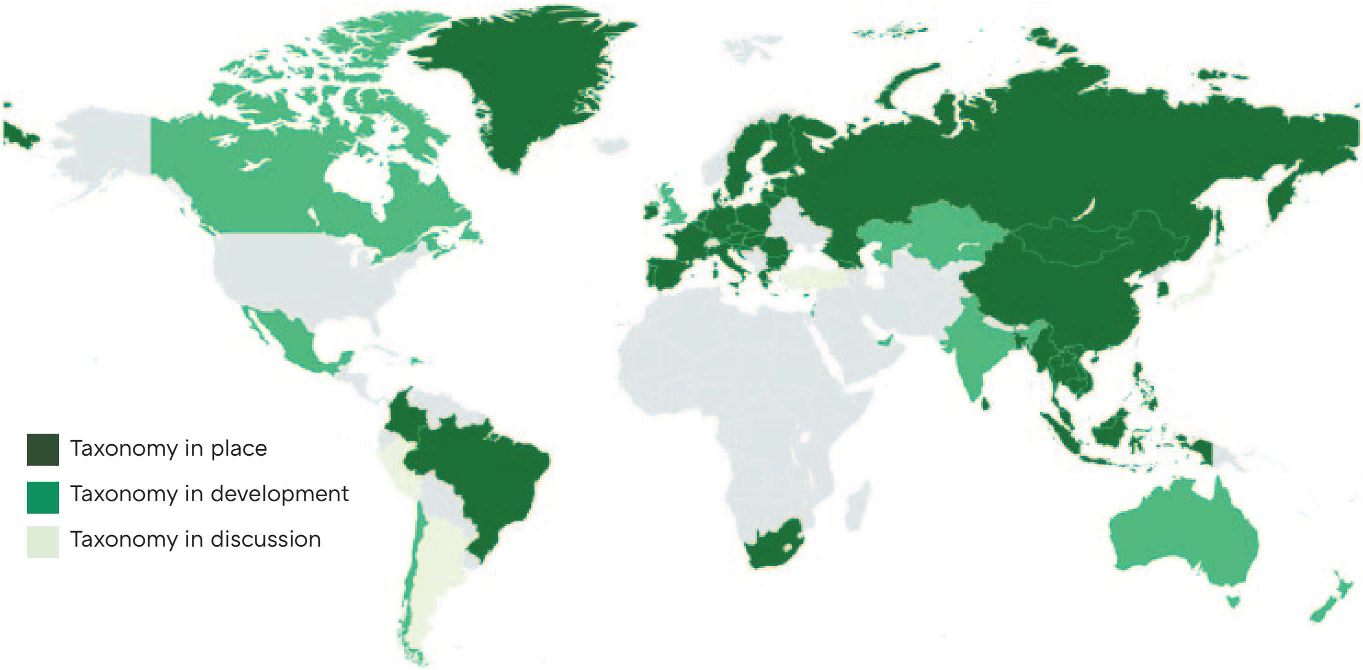
Introduction

Introduction

As set out in GTAG's last publication: Advice on the development of a UK Green Taxonomy[9] taxonomies and definitions of sustainable activities have proliferated rapidly in recent years.

GTAG research shows that globally over 30 taxonomies are now in development or implemented, as set out in **Figure 1.** This is important to keep in mind as the continued development of national taxonomies can lead to **market fragmentation, increased transaction costs and an increase in greenwashing through taxonomy arbitrage that may undermine efforts to promote cross-border green capital flows.** Therefore, for any economic entity operating across borders, divergences in green taxonomies raise the question of interoperability.

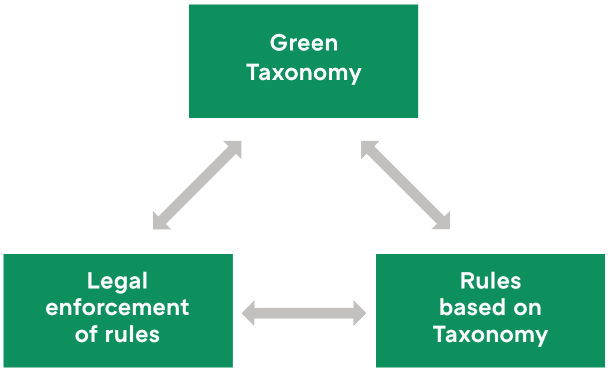
Figure 1: **International taxonomy landscape**



Traders in physical goods or locationally-delivered services, have long been accustomed to observing local laws, regulations and customs – from plugs on electronic devices to recognition of academic qualifications. But for international financial services, the problem can be more acute because the markets in financial assets are not locational in the same way as the real economy assets which underpin them.[10]

Questions about interoperability are closely related to how green taxonomies are intended to be used. To date, green taxonomies globally are primarily being used to support various aspects of disclosure regulations or standards (see **Figure 2**). Examples include: underpinning reporting requirements for asset managers (voluntary or mandatory), e.g. the EU green taxonomy; underpinning green bond issuances e.g. the Chinese Green Bond Endorsed Project Catalogue; and using taxonomies for more general green labelling (to address greenwashing) e.g. the Malaysian Climate Change and Principle-based Taxonomy (CCPT). Taxonomies will also support transition plans as they develop, as a key input to provide a credible, robust indication of the current level of sustainability of a company's activities, with taxonomy alignment monitored over time to show progress towards targets."

Figure 2: **Relationship between taxonomies and their application**



[9] https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2022/10/GTAG-Advice-on-the-development-of-a-UK-Green-Taxonomy.pdf

Cross-border investors face a challenge in not only determining which green taxonomy to use, but also in accessing and reporting the data made available to them. Real economy data reporting is likely to be driven by the local green taxonomy in the first instance. This can lead to variations in the data provided by borrowers, credit providers, and rating agencies due to different approaches to developing green taxonomies and using different reporting metrics in different jurisdictions.

In some cases, additional real economy data (e.g. on carbon emissions) may be produced to meet the needs of international investors, but this can also raise issues with local regulators who may not be supportive of entities publishing data that is not required by local rules, and lack of a process to validate or address misinformation.

The financial sector may be faced with multiple green taxonomies that do not align with one another, making it difficult and costly for investors to invest in green assets, leading them to exclude some green assets from their investment universe, which in turn inhibits cross-border investing of such assets. Multinational corporates will face similar difficulties with international subsidiaries. This runs counter to the public policy goal of green taxonomies, which is to facilitate the flow of capital into green assets.

Therefore, it is important **that when developing and implementing a UK Green Taxonomy, due consideration is given to the potential impact on cross-border investing and efforts are made to ensure compatibility and consistency with the reporting standards of countries with which the UK shares significant investment flows.** As discussed later, possible solutions include seeking equivalence between regimes or creating equal and proportionate reporting requirements for internationally active companies. **In both cases, trade-offs will need to be considered.**

[10] The Gemini offshore wind farm is a good example of the international nature of a single asset. The Gemini offshore wind farm is located in Dutch waters of the North Sea, is majority-owned by a Canadian energy company, with one German and two Dutch companies also holding equity, and has 12 commercial banks also providing financing, in addition to the European Investment Bank. Export Credit Agency facilities were provided by Belgian and Dutch credit agencies and a German company.

Understanding UK cross-border flow data and the impact of global taxonomy developments

Understanding UK cross-border flow data and the impact of global taxonomy developments

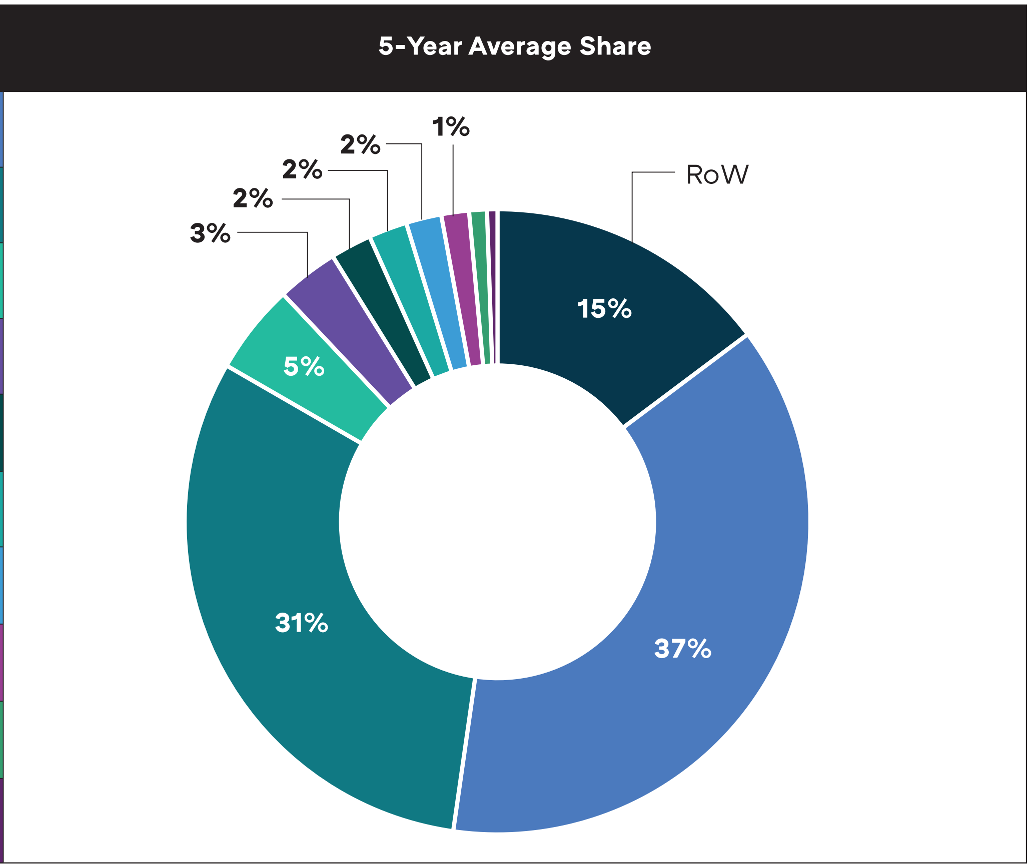
GTAG sought to understand which jurisdictions and thus which taxonomies would be most important for considering interoperability issues for the UK. An Office for National Statistics (ONS) dataset[11] was used, covering the UK's International Investment Position (IIP). These data include the total stock of assets and liabilities[12] (adjusted for price and currency fluctuations) – and does so for both UK investments overseas and foreign investments in the UK. The dataset is limited insofar as it only includes the UK's 51 largest counterpart countries, however, global total figures are also provided. Note that individual member states of the EU were bucketed under the single 'EU' jurisdiction.

It is worth noting data on cross-border capital flows are notoriously imperfect given the difficulties of measurement: transactions are largely dematerialised, high frequency and sometimes of only notional value (e.g. derivatives). Traders can be sitting anywhere in the world, dealing for a range of legal entities, while end-investors often prefer to be non-transparent about their activities, including for the legitimate reason of protecting their market position. Large revisions to both capital and trade balances are frequent for many years after initial estimates. So, capital flow data needs to be treated with some caution. Nonetheless the data are useful for informing GTAG's advice.

As shown in **Figure 3, the US and EU are the two largest destinations for UK investments abroad, accounting for almost 70% of the total. But the 'Rest of the World' also represents a significant share in aggregate.**

Figure 3: **All Countries – UK Investments Abroad.** Shows rankings for UK investments abroad for the top 10 jurisdictions as of 2020, averaging their shares over the five years prior to that date to get stable estimates.

All Countries Top 10 (2020 Ranking)	
1st	EU
2nd	United States
3rd	Japan
4th	Switzerland
5th	Hong Kong
6th	Canada
7th	Australia
8th	Singapore
9th	China
10th	India



[11] ONS (2021). UK Balance of Payments, The Pink Book: 2021. Retrieved from: https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/bulletins/unitedkingdombalanceofp aymentsthepinkbook/2021

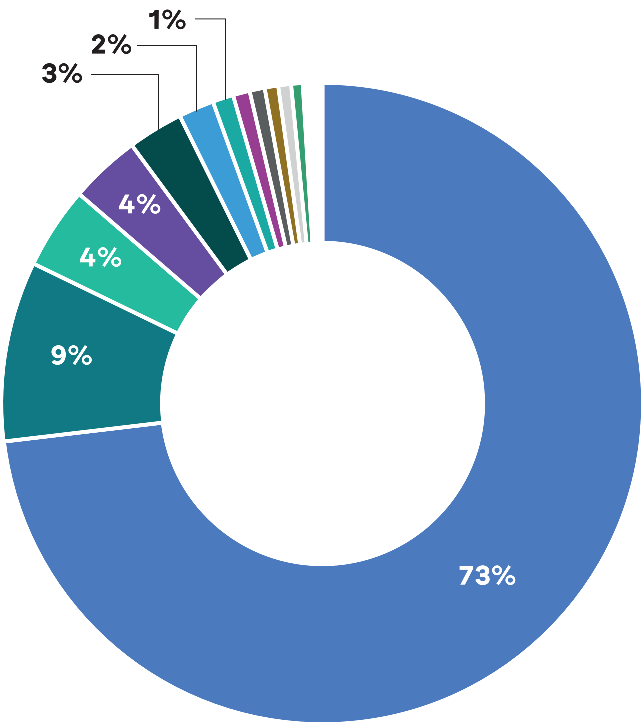
[12] The IIP is a statement that shows at the end of the period the value and composition of UK external assets (foreign assets owned by UK residents) and identified UK external liabilities (UK assets owned by foreign residents). The framework of international accounts set out that the IIP is also presented by functional category, consistent with primary income and the financial account.

As shown in **Figure 4**, the data were then filtered to assess the relative importance of jurisdictions that are either covered by a taxonomy or are currently in the process of developing a taxonomy. 14 of those countries are identified in the data set and these are ranked.

Figure 4: **Taxonomy Countries – UK Investments Abroad**

All Countries Top 10 (2020 Ranking)	
1st	EU
6th	Japan[13]
10th	Hong Kong
11th	Canada
14th	Singapore
16th	China
20th	India
23rd	Brazil
24th	South Africa
26th	Mexico
28th	Russia
29th	Turkey
31st	Israel
33rd	Malaysia
34th	Thailand
37th	New Zealand
38th	Chile

5-Year Average Share



Of the taxonomy countries included in the dataset, the **EU unsurprisingly stands out as the largest destination of UK investment abroad, accounting for 73% of the total. Japan is a significant second, followed by a long tail of other jurisdictions.**

[13] The Japan Ministry of Economy, Trade and Industry (METI) released Basic Guidelines on Climate Transition Finance in May 2021, principles-based guidelines with transition pathways for certain sectors. Sustainable finance experts are debating whether these guidelines can be classified as a taxonomy, but GTAG has classed them as a taxonomy in development/consultation for this analysis.

Rankings for foreign investments in the UK – for all countries included in the dataset - were again assessed based on 2020 data and a representative 5-year average was used to assess relative share. Again, the data was then filtered to assess taxonomy countries. **Figure 5** shows inward investment in total and **Figure 6** shows inward investment by taxonomy countries. As was to be expected, the EU and US again accounted for the vast majority of foreign investment in the UK, representing nearly 70% of the total, with a long tail of other countries that is significant in aggregate.

Figure 5: **All Countries – Foreign Investments in the UK**

All Countries Top 10 (2020 Ranking)	
1st	EU
2nd	United States
3rd	Japan
4th	Switzerland
5th	Canada
6th	Hong Kong
7th	Australia
8th	Singapore
9th	Norway
10th	China

5-Year Average Share

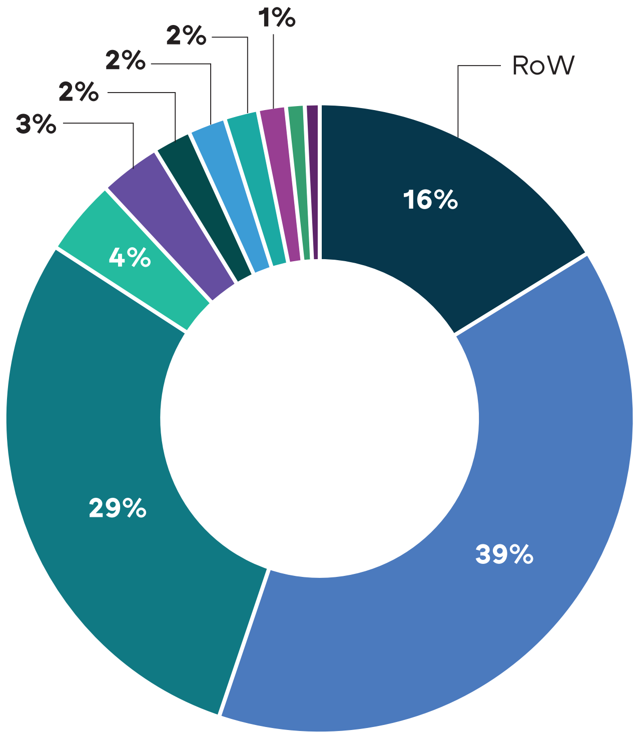


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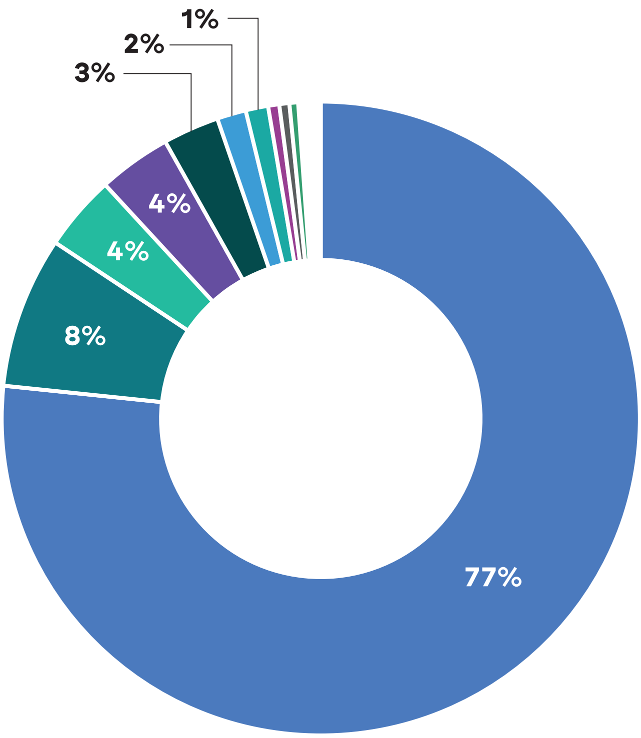
Figure 6: **Taxonomy Countries – Foreign Investments in the UK**

Taxonomy Countries (2020 Ranking)	
1st	EU
8th	Japan
10th	Canada
11th	Hong Kong
14th	Singapore
18th	China
20th	South Africa
24th	Israel
25th	India
28th	Russia
30th	Turkey
31st	Mexico
33rd	Brazil
34th	New Zealand
36th	Malaysia
38th	Chile
39th	Thailand

5-Year Average Share



As shown in Figure 6, **approximately 77% of foreign investments in the UK from taxonomy countries included in the dataset came from the EU, with Japan again being second,** followed by a long tail of other countries.

GTAG also looked at datasets relating to UK-managed assets and found that **a high proportion of UK managed assets are in holdings outside of the UK and that UK asset managers are responsible for managing the largest share of European assets under management. Again, this underscores the importance of seeking interoperability with the EU taxonomy.**

- Approximately 20% of UK asset manager holdings[15] are held in the UK economy, **with 80% of holdings abroad.[16]**
- **£4.2trn (44%) of UK-managed assets are for overseas investors** (with 58% of these overseas clients being European).
- At the end of 2020, **the UK held a 37% share of European assets under management**, with France (18%) and German (10%) holding the next largest market shares.[17]

Key takeaways

- **Importance of the EU:** the EU is the largest single counterparty for UK capital flows. The EU is unlikely to change the course of its own green taxonomies based on the UK Green Taxonomy, but it will be important to keep alignment where possible – and structurally the UK has adopted the same approach, with the same concepts, methodologies and metrics.
- **Importance of the US:** the US is the second largest UK counterparty. At this stage it seems unlikely that the US will adopt the same approach as the UK and EU. But US companies, operating in one of the most advanced economies in the world, should be capable of producing adequate data to enable reporting against the European green taxonomies' structure, if requested. If there is no official US green taxonomy at all, then the UK could seek to encourage US firms, and UK firms with US subsidiaries, to report against a robust, science-based UK Green Taxonomy voluntarily. Other OECD countries without taxonomies could be treated the same. It is noted that the EU Green Asset Ratio ('GAR') is currently limiting in this respect.
- **Other countries are collectively important, including many that are non-OECD:** although the UK has two dominant partners there are many smaller players which add up to a significant group both in terms of UK capital flows and global emissions. In many cases these countries do not currently have plans for a green taxonomy. Ideally the UK rules should allow investors to rate those assets for UK reporting purposes, even if the detailed data may not be available.

[15] This figure is based on Investment Association members managing 85% (£9.4trn) of estimated total UK assets managed (£11.0trn). Therefore this figure is the best available but subject to a margin of error.

[16] The Investment Association – Investment Management in the UK 2020 – 2021 – The Investment Association Annual Survey – September 2021. https://www.theia.org/sites/default/files/2021-11/IA%20-%20Investment%20Management%20Survey%202020-2021.pdf

[17] European Fund and Asset Management Association (EFAMA) – An Overview of the asset management industry – Facts and Figures 13th Edition – December 2021. https://www.efama.org/sites/default/files/files/Asset%20Management%20Report%202021_3.pdf

Box 1

Why care? The importance of cross-border financial flows/portfolios

Emissions in the UK, US and EU are already reported to be trending downwards and developed economies have the ability to achieve greater reductions and ultimately become net negative. But for the world to achieve net zero requires all countries to be on a downwards trend at least. So, the most impactful green investments for the global transition are likely to be in developing economies.

Domestically, financial investment is fundamentally important to support the UK real economy and a green taxonomy should be designed to help creditors, borrowers, investors and corporates to align with the transition to a sustainable economy. Green taxonomies are primarily aimed at use by corporates and the data produced then used by investing entities.

Cross-border financial flows serve several economic purposes beyond the green agenda. They support the UK's role as the world's leading international financial services hub, facilitate the needs of UK savers, and ensure the external and internal balance of the UK economy. GTAG did not go into further detail on these issues, but summarise the considerations as follows:

- As long as it remains UK public policy to sustain and promote the UK as an international financial services centre, then the UK Government needs to adopt rules which facilitate the presence of international investors with international portfolios in the UK and the free movement of capital across borders. The UK Green Taxonomy needs to be implemented with this in mind.

- The sound risk management of assets requires a diversified portfolio. Hence, portfolios of assets cutting across borders, currencies and jurisdictions, and across asset classes, are the norm for most asset managers, including UK pension funds and insurance companies. Overseas investments are, therefore, a desirable component of a sustainable UK financial system that underpins future welfare for the economy as a whole.

- A sustainable and self-adjusting macroeconomic system for the UK and internationally requires both outward and inward capital flows – and both might be (negatively) impacted by the (lack of) interoperability of green taxonomies.

Box 2

Addressing the concerns of multinational corporations

For multinational corporations faced with reporting against taxonomies unique to different jurisdictions there are a number of issues to be considered. The first is the cost of producing multiple datasets; the second in the fact they will be producing these different datasets for investors that are seeking consistent and comparable information. As an example of this challenge, from 2029 all multinational companies with operations both in the EU and non-EU countries (including the UK) and which fall within the scope of the EU's Corporate Sustainability Reporting Directive (CSRD)[18] will have to comply with Article 8 (2) of the EU Taxonomy Regulation and will be required to disclosure their proportion of revenue, CapEx, and OpEx which is aligned with the EU taxonomy. This would be in addition to having to report against any local, for example UK, taxonomy.

Multinationals are likely, therefore, to prefer a single international taxonomy to report against – since this both minimises costs of reporting and provides the consistent and comparable information investors seek.

As discussed in the paper, this is not likely in the short-term. However, there are steps the UK can take to minimise the costs as well as promoting as much consistency as is possible in reporting alignment to investors. The first is – as advised by GTAG - to adopt the same approach as the EU has taken to its taxonomy framework, adapting elements of the taxonomy only where there is a strong case to do so. Given that **GTAG research shows that around two-thirds of country-led taxonomies in place or under development use the EU Taxonomy as a framework or view it as a benchmark means following this approach builds in a strong element of baseline interoperability with the EU and beyond, helping reduce the burden on business. Where deviations are made, clear guidance should be provided by the UK Government to enable easy navigation.** For UK-based multinationals with activities in jurisdictions with no taxonomy, guidance should be provided on reporting against the UK Taxonomy on a voluntary basis if they wish, although there may initially be no legal obligation to do so.

Finally, it is worth noting that different local taxonomies existing may not be the biggest issue, but rather how the local disclosure rules interpret them, and what such rules ask of multinationals. For example, the granting of equivalence across jurisdictions, via disclosure rules, will help avoid duplicated reporting processes and increased costs. This is explored more in Box 5 and Table 1.

[18] Third-country groups with a European turnover that exceeds €150 million and with a large branch or subsidiary based in the EU exceeding certain thresholds will be required to report in 2029 on the financial year 2028. (EU) 2022/2464 (20).

State of play of international taxonomy developments

State of play of international taxonomy developments

As GTAG's analysis has shown, the US and EU are the most important jurisdictions for cross-border investment holdings into and out of the UK and so their different approaches matter. The 'Rest of the World' is also significant in aggregate. At the current juncture it seems unlikely that all the larger economies in particular will all choose the same structural approach to a green taxonomy, let alone the same definitions and criteria. It seems most likely, for example, that the United States will take a less interventionist approach than the EU, but will instead focus on climate disclosures, as set out in the recent Security and Exchange Commission announcements.[19]

To better understand areas of international taxonomy convergence and divergence and relevance for UK design approaches/interoperability, GTAG reviewed the international landscape of taxonomies, looking in detail at the overall approach and at the technical screening criteria (TSC) or local versions of TSC. This research highlighted the strengths and weaknesses of different approaches and helped identify what the UK could learn and what should be avoided if the UK Green Taxonomy is to both meet user needs and ensure the taxonomy meets our ambitious net zero emissions target.

To do this, GTAG looked at how the most relevant taxonomies meet the market's needs from the perspectives of both internationally minded investors and issuers. A particular issue for the UK is the referencing of local environmental regulations in the EU Taxonomy, most notably for the do no significant harm (DNSH) criteria. Therefore, the analysis considered how other taxonomies assess equivalence with other country or international standards and sought to understand how the international/political /diplomatic context, such as differing climate goals and nationally determined contribution (NDC) targets, is handled. Key findings from selected jurisdictions are set out below.

EU taxonomy

- The EU's structure, defining the six environmental objectives, and approach of defining activities' substantial contribution TSC, while also ensuring that the activity also meets DNSH criteria and other minimum safeguards, has been widely adopted. GTAG research shows that around two-thirds of country-led green taxonomies use the EU as a base framework or view it as a benchmark. This shows that a robust approach to taxonomy development can influence taxonomy development in other jurisdictions.

- The EU's approach of using science-based thresholds consistent with the Paris Agreement goals, and process for revising TSC thresholds where no commercially viable Paris-aligned technology is currently available, have also been central to its success. This now risks being undermined by disputes relating to a number of specific areas of the taxonomy. The overarching learning is that the market is willing to accept taxonomy-related regulation, so long as it is transparently science-based.

- Disagreement between EU member states delayed decisions relating to nationally sensitive sectors including nuclear, gas and agriculture. At the time of publication, the Complementary Delegated Act, which covers certain gas and nuclear activities, entered into application on 1 January 2023.[20]

19 https://www.sec.gov/news/press-release/2022-46
20 https://ec.europa.eu/commission/presscorner/detail/en/ip_22_4349

There is a real possibility that this political compromise will result in a departure from 'science-based' thresholds aligned to the net zero 2050 target, which requires the closure of unabated gas in the 2030s. Although UK circumstances are different, a key lesson is the importance of clear communication to the market and taxonomy users regarding decision making processes.

- The EU has also seen difficulties with the application of DNSH criteria. As outlined in GTAG's previous advice paper[21], challenges include: DNSH criteria being very complex to navigate and some requirements that, as stated, are ambiguous or even impossible to prove. Other requirements are rooted in compliance with local EU laws, which should be the case regardless for any locally undertaken activities – raising questions about their usefulness as well as interoperability across borders. Studies have shown with relation to the Substantial Contribution element of TSC, fairly low coverage across the EU economy currently – which should not be surprising. However, when DNSH alignment is added to the mix, coverage is reduced to near zero.[22] The UK should explore alternative means to achieve the goals of the DNSH requirements that make the UK Green Taxonomy more practical and usable while avoiding watering its impact down. GTAG is currently undertaking this piece of work and will set out its advice in the coming months.

South Africa and Colombia

- South Africa and Colombia have both closely followed the EU taxonomy in specifying the climate mitigation TSC for the energy, transport and manufacturing sectors. The taxonomy documents justify this approach by citing the science-based process for developing TSC. The close alignment to the most prominent taxonomy in development will help with users' understanding. This shows the benefit of structural alignment across international taxonomies, not only for future interoperability, but also for credibility and users' understanding.

- DNSH criteria have usually been defined with reference to local regulations. South Africa also lists several social DNSH criteria which ensure firms respect local social regulations. There are pros and cons to this approach, with the pros being that DNSH is supported by local regulations (an important lesson for the UK as it develops DNSH), but the cons being that international interoperability may be hindered if all taxonomies pursue a drafting approach that relies on citing local laws. A key lesson is the need to explore ways to standardise acceptance of DNSH compliance at the international level will only increase as more taxonomies are developed.

- South Africa does not use the EU's forestry sector criteria, which has attracted criticism from NGOs involved in the EU taxonomy process.[23] It is instead making use of the Climate Bonds Initiative criteria for existing forestry management. Colombia's main innovation was to include its own agriculture criteria. However, the approach taken (specifying a menu of qualifying agricultural practices) will tend to reduce emissions but not necessarily deliver net zero and so could arguably be considered transitional only. These examples indicate that where new taxonomies are introduced, the expectation is that they will match or exceed existing best in class options – or they will draw significant criticism. Were the UK to exceed existing best in class options, this would be a way that ambition can be driven up internationally. This is reflected in GTAG's October advice paper, where GTAG advised that "The UK Green Taxonomy should strive to always be at least as ambitious in TSC and coverage as the EU – or other significant international taxonomies". This would help ensure as much commonality as possible, in line with the hierarchy included in recommendation 1 in this paper, while discussions on disclosure rules and the potential for equivalence continue.

[21] https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2022/10/GTAG-Advice-on-the-development-of-a-UK-Green-Taxonomy.pdf
[22] https://content.ftserussell.com/sites/default/files/do-no-significant-harm-and-minimum-safeguards-in-practice.pdf
[23] https://www.euractiv.com/section/energy-environment/news/ngos-walk-out-on-eu-green-finance-group-over-forestry-bioenergy-rules/

Malaysia and Singapore

- The Malaysian taxonomy was developed by the central bank and has a three-level traffic light approach to categorising activities. The 'green' category identifies activities aligned with international green taxonomy. The 'amber' category is intended to signal an improvement over current practice i.e. subject to less climate-transition risks than the red-activities but not meeting international standards. This approach is advocated to help Malaysia, an emerging market, develop its economy and delay the transition to a wholly renewable energy system. There may be merit in the UK exploring a system inspired by this traffic light approach when assessing whether and how the taxonomy can be expanded to cover 'red-list' activities but also reward incremental improvements, without bestowing the 'green' label, which would invite criticisms of greenwashing.

- Singapore, a taxonomy which combines principles-based criteria and quantifiable thresholds for activities, could also provide important lessons on how to apply a traffic light system to transitional activities.

- GTAG is exploring the potential for an extended taxonomy, sometimes referred to as a "red-amber-green taxonomy" or a "transition taxonomy" in the UK and will provide advice to HMG in due course.

Box 3

Singapore's Approach to Entity-level Transition

The MAS consultation paper provides the following two examples which give a good indication of how the Taskforce sees this system working in practice. In the UK context however, this is not as applicable, as the example shows how an **entity** might be in transition. Taxonomies in general do not cover entities directly, but **activities**, which should be kept in mind when analysing the MAS approach. GTAG is looking into how the taxonomy can link to entity-level transition through WS4: Fully Realised Taxonomy.

Example 1: A power generation company in ASEAN with significant coal-fired power generation assets seeks to raise capital to fund the transition towards lower carbon power generation. Under the 'traffic light classification system' the company's activities are reviewed and determined to be on an emissions-reduction pathway that is not aligned with meeting the objectives of the taxonomy. Therefore the company is not eligible for classification as 'green'.

Example 2: An auto-manufacturer's primary production is internal combustion engine vehicles, and tail-pipe emissions for the fleet are currently relatively high compared to both peers and the current level required to meet a 2 degree transition pathway. However, the company has committed to transitioning 100% of production to electric vehicles by 2030. Under the 'traffic light classification system' the company's activities are considered to be in transition, and meeting the requirements of a 'yellow' classification.

Bangladesh

- The central bank of Bangladesh (Bangladesh Bank) published a Sustainable Finance Policy for Banks and Financial Institutions in December 2020 which largely mirrors the concepts and frameworks of the EU Taxonomy.
- Of interest for international taxonomy development is that the taxonomy document also provides two “exclusion lists” of economic activities which are to be considered ineligible for financing and sustainable finance.
- This negative screening approach, achieved through the listing of excluded economic activities, could be used as a model to facilitate the screening and exclusion of unsustainable assets from sustainable investment portfolios in the UK, potentially through the development of a “red-list” of activities linked to the UK green taxonomy.
- A more formal classification and listing of high-emission economic activities could help financial institutions to better assess and manage climate transition risks and would improve consistency in climate-related disclosures and reporting.

Chile

- Sponsored by the International Climate Initiative (IKI), the “Taxonomy Roadmap for Chile” was prepared by the Climate Bonds Initiative in association with Chile’s Ministry of Finance, the Green Finance Public-Private Roundtable (La Mesa) and the Inter-American Development Bank (IDB). The report, published in 2021, provides an assessment on what the best approach may be for developing a national taxonomy.
- The core objective of the taxonomy development process is that it should be aligned with international objectives. This is important, mainly due to the key trade and investment relationships with international partners such as the EU and China, where green investments are in demand and taxonomies are being developed. As a result, the recommended pathway for Chile is to “adopt, adapt, and lead”, in a similar manner to the advice provided by GTAG to the UK government to “adopt some and revise some” EU TSC.
- Specifically for Chile, this is:
  - to adopt the eligibility criteria from international taxonomies where possible;
  - to adapt and modify international criteria to account for local circumstances; and
  - to take leadership globally in developing new criteria in areas that are underdeveloped.

  This is a strong example of a taxonomy factoring in international interoperability from the very initial phases of its development, and the above approach is similar to several recommendations in this paper.
- A notable example of Chile’s potential to take leadership is in mining TSC. The primary goal of mining sector TSC should be providing criteria for the mining of strategically important minerals that are required for transition (e.g., lithium, copper, etc.). Existing taxonomies do not include the mining sector and so this could be a useful case study to consider for the development of a UK Green Taxonomy, given the UK stock market hosts a large number of mining companies. As mining is a crucial sector for Chile’s economy, this could be an opportunity for Chile to lead on the development of the eligibility criteria for this sector, which other countries, such as the UK, could then adopt in future taxonomy reviews.

Russia

- Russia's state development bank VEB.RF published a Russian Green Taxonomy in November 2021.[24] It closely follows the EU Taxonomy, covering waste management, energy, construction, industry, transport, water supply, biodiversity, and agriculture. The energy criteria include science-based thresholds for electricity generation, based on the recommendations of the EU's Technical Expert Group (TEG) on sustainable finance, which pre-dates the EU Platform for Sustainable Finance (EU PSF). There are two areas that are noted as being of interest for the UK Green Taxonomy development process, set out below.
  - The Russian taxonomy diverges from other taxonomies in one key area, namely its approach to DNSH. In Russia, a project may be deemed compliant with the DNSH principle if it complies with the requirements set forth in the environmental protection laws of the Russian Federation. This much simplified approach to the design of DNSH could be argued to enhance interoperability, which, in turn, could maximise cross-border sustainable finance flows. This interoperability is necessary as investors will not have the resources to analyse taxonomies across multiple jurisdictions, which may subsequently limit their investments to a select few markets that they do have the ability to analyse. As such, the Russian taxonomy sets an interesting precedent and could be a useful benchmark for looking at possible DNSH streamlining. However, it does risk undermining the sustainability principles behind DNSH, and so a middle ground may be the best approach.
  - It applied the 100g CO2e/kWh threshold for electricity generation without the additional criteria used in EU's the Complementary Delegated Act, as recommended by the EU's TEG, which has been the source of controversy within the EU. The adoption of this threshold for gas-fired power signals to international investors that the Russian taxonomy is aligned with global definitions of green investment, and independent of fossil fuel interests. This is an example of a country using the EU Taxonomy as a base, yet going further on a specific controversial issue.

Key takeaways

- **Some variation in how TSC are structured and what counts as green in different jurisdictions is almost inevitable:** each economy is unique and what works for a large, developed country may not work for less-developed or smaller economy. However, international taxonomies can be designed in ways to mitigate the impact of this divergence in TSC.
- **Routes to harmonisation should be sought:** in the context of GTAG's work, for UK companies with assets abroad and conversely, international companies with assets in the UK, there is a very real danger that cross-border companies will struggle under the weight of multiple regulatory burdens.
- **Facilitate harmonisation through international outreach,** including through fostering/supporting international cooperation to develop a list of core economic activities that can be deemed equivalent to the UK Green Taxonomy.

[24] http://publication.pravo.gov.ru/Document/View/0001202109240043

Box 4

Common ground taxonomy

The International Platform on Sustainable Finance (IPSF) has produced a 'Common Ground Taxonomy' which analyses the differences and similarities between the EU Green Taxonomy and the Chinese green taxonomy. It does not seek to establish a common taxonomy but does provide a case study of how to compare taxonomies. It offers principles by which green taxonomies might be constructed and a starting point for new taxonomies to promote commonalities. But there is not-yet-a prototype "Common Taxonomy" for any particular jurisdiction. The World Bank produced a guide for developing a national green taxonomy in June 2020. The report included overviews of existing green taxonomies and made recommendations for the development of green taxonomies.[25] GTAG acknowledges the importance of the Common Ground Taxonomy work and believes the UK should increase its involvement in such work with the IPSF as the UK Green Taxonomy develops, which forms part of recommendation 10 in this paper.

[25] https://documents1.worldbank.org/curated/en/953011593410423487/pdf/Developing-a-National-Green-Taxonomy-A-World-Bank-Guide.pdf

The importance of disclosures to interoperability considerations

Working through disclosure considerations in relation to interoperability

The importance of the interoperability issue actually really arises when considering the ways in which green taxonomies are used. This applies whether there are mandatory rules/requirements, or a voluntary regime underpinning taxonomy-related disclosures. To illustrate this deep linkage, Box 5 set outs how interoperability is affected by the disclosure approach selected – working back from the interoperability end state achieved. The analysis is based on a mandatory reporting/disclosure regime being applied to a 'UK-based investor' (i.e. a financial firm authorised by the Prudential Regulation Authority (PRA) and/or Financial Conduct Authority (FCA) to operate in the UK or an end-investor with a physical UK presence).

Box 5

Working through disclosure considerations in relation to interoperability

The following 'straw man' options for disclosure have been considered and debated by GTAG, to illustrate some of the trade-offs.

Option 1 – No Interoperability: The investor could be required to report the proportion of its assets which are green under the UK Green Taxonomy, with no explicit consideration of interoperability. In this case, any foreign assets would also have to be categorised under the UK Green Taxonomy or classed as non-green. Inclusion would require sufficient data to be available to enable a UK Green Taxonomy assessment, and the investor may have to undertake their own evaluation.

Disadvantages: Even where possible, the increased costs of evaluating alignment of overseas assets would effectively discourage holding them – especially assets from less developed economies where relevant data is likely to be more scarce.

Option 2 – Some Interoperability: The investor could be required to disclose the proportion of assets which are green, based on the green taxonomy relevant to the location of e.g. the borrowing entity. So, UK assets could be assessed and reported against the UK Green Taxonomy and EU assets against the EU Green Taxonomy. This could reduce costs because the investor could simply take the market approach relevant to each jurisdiction. If a new evaluation was needed, it could be expected that the borrower would have published enough data to make the local evaluation possible. Increased costs would still apply if there was a need to assess a foreign asset not covered by a local green taxonomy.

Box 5

Disadvantages: There would not be a single consistent measure of the greenness of the portfolio. Users of the information may not know whether the green taxonomy from a particular jurisdiction was reliable or not. And there would still be some discouragement of holding assets where there was no green taxonomy.

Option 3 – Introducing 'Equivalence': Some foreign green taxonomies could be recognised – in whole or in part – to be equivalent to the UK Green Taxonomy and for those assets to be reported as UK Green Taxonomy consistent.

For those assets not deemed to be in an equivalent regime, there would be a choice to follow either Option 1 or 2, that is evaluate against the UK Green Taxonomy or report against a local green taxonomy. This approach would reduce some of the downsides associated with Option 2 and would mean that more of the portfolio could be easily assessed as meeting the UK Green Taxonomy standard. There would be no discouragement where equivalence was granted.

Disadvantages: Maintaining an equivalence regime would be expensive, complicated, and would likely need to be dynamic (as green taxonomies change). Some green taxonomies may be equivalent in part only. And this approach would still not produce a single overview. It could encourage a 'negotiation to the bottom' in which the green taxonomies were relaxed against the science-based merits.

Option 4 – Hard Equivalence: One of many variations could be that only assets which were directly covered by the UK Green Taxonomy (or equivalent regimes) were allowed to be classed as green. This could put pressure on some jurisdictions to seek equivalence – e.g. if the UK and EU agreed equivalence, many other regimes might align.

Disadvantages: Initial discouragement to invest in countries where there was no regime or no equivalence would penalise those countries which most need green investment (i.e. developing economies). This would be inherently unfair and counterproductive to global climate goals.

Table 1 demonstrates the trade-offs identified: the existence of green taxonomies in some countries and not in others, and the differences between those green taxonomies will mean increased costs of assessment. Attempts to overcome this could reduce the clarity of the reporting and/or require costly equivalence regimes.

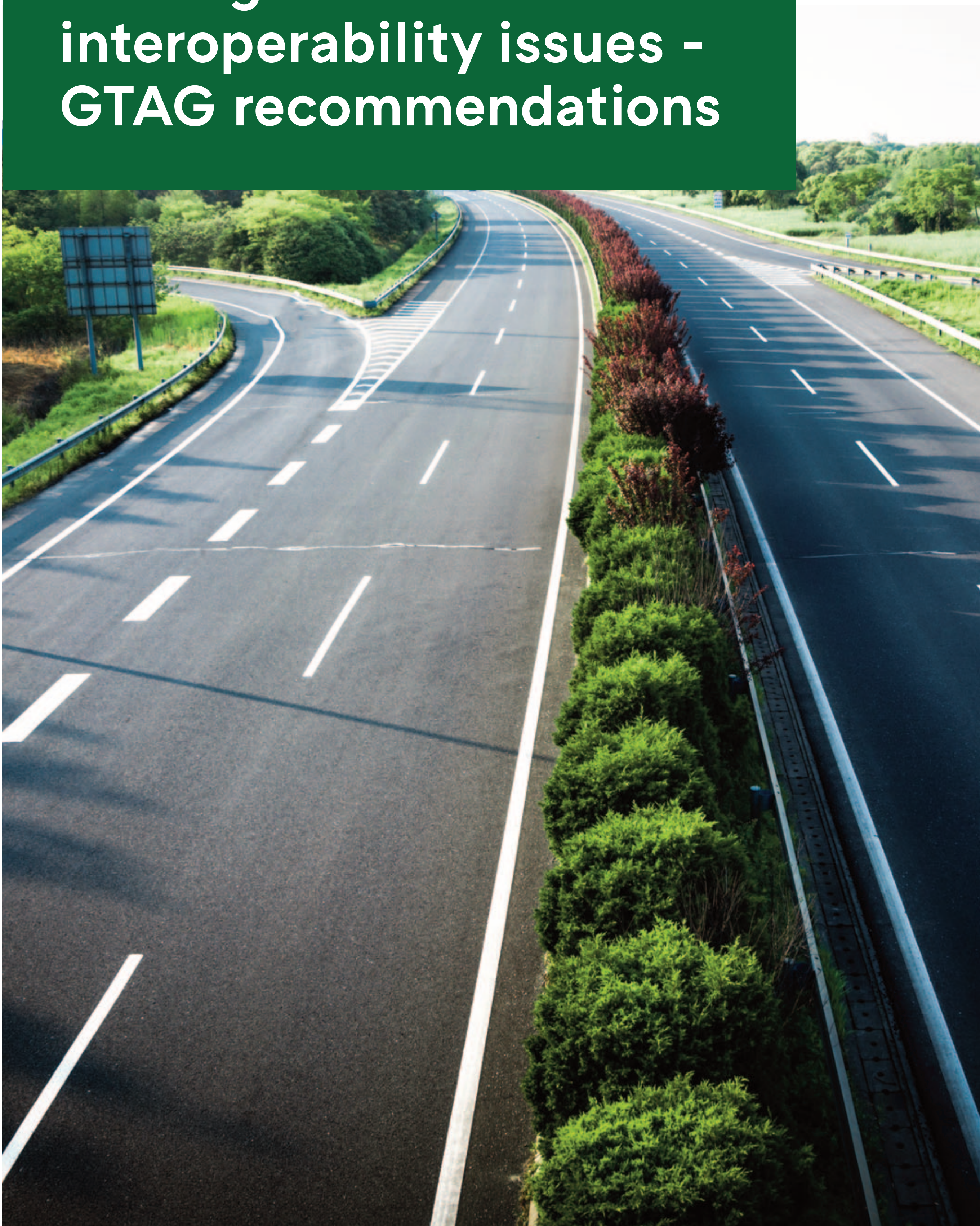
Table 1: **Straw man representation of interoperability options.**

	UK assets held by UK firm	**Non-UK assets held by UK firm**	**Notes**
Applicable taxonomy	UK	Other & potentially UK	Could have to report in multiple locations
Option 1 All international activities disclosed against UK Green Taxonomy	% covered by UK Green Taxonomy		Have to use UK Green Taxonomy to evaluate overseas assets where data may not be available
Option 2 Locational disclosure, no equivalence	% covered by UK Green Taxonomy	% covered by non-UK green taxonomies	Don’t have a single overview, nor a single standard
Option 3 Locational disclosure, with some equivalence	i) % covered by UK Green Taxonomy and equivalent taxonomies; and ii) % covered by non-UK green taxonomies in non-equivalent jurisdictions		
Option 4 ‘Hard’ equivalence	% UK Green Taxonomy & % in equivalent jurisdictions	Treated as not covered if not equivalent	Discourages overseas green investment, perhaps in the ‘least green’ places

The same analysis applies when considering the interoperability of voluntary assessment (e.g. a private, high-wealth individual investing for their own benefit would not be covered by disclosure rules).

For a foreign-based investor holding UK assets, a mirror of this analysis would apply. A UK borrower that wishes to have assets considered as green investments would need to publish sufficient data as required by the UK Green Taxonomy for that to be established. Indeed, the market may provide ratings to that effect. Furthermore, UK borrowers who wish to be open to overseas investors may well be required to publish any additional data needed. It is worth noting that there may be some assets for which there are multiple locations – or no location – that can be associated with the underlying economic activity. However, the nationality of the legal entity of the borrower is usually uniquely defined and would indicate the jurisdiction for green taxonomy purposes.

Moving forward on interoperability issues - GTAG recommendations



Moving forward on interoperability issues - GTAG recommendations

As the analysis above indicates, interoperability can be pursued at two levels: in relation to the design of the TSC themselves, and their disclosure regime. Additionally, international engagement is desirable to promote interoperability. **There is no 'silver bullet' solution for interoperability that the UK can deliver on its own. Nonetheless there are some actions that can be taken in pursuit of interoperability by the UK, or indeed any jurisdiction developing a taxonomy.** These recommendations can be grouped under three broad headings:

- interoperable TSC;
- interoperable disclosures;
- international engagement.

5a. Interoperable TSC

As the analysis undertaken by GTAG shows, for the UK in the short-term, interoperability with the EU taxonomy should be a prime consideration given the EU is the largest single counterparty for UK capital flows, and because GTAG research shows that around two-thirds of country-led taxonomies in place or under development use the EU taxonomy as their base framework or view it as a benchmark. This can be achieved through following **recommendation 1: in which the UK adopts the same broad concepts, methodologies and metrics and advocates that other non-taxonomy countries do the same.** Specific thresholds may need to diverge in certain sectors.

The US is the second largest UK counterparty. US companies should be capable of producing data to enable reporting against the European green taxonomy structure. If there is no official US green taxonomy at all, then UK investors could seek to encourage US firms, and UK firms with US subsidiaries, to report against a UK Green Taxonomy voluntarily. Other OECD countries without taxonomies could be treated in the same way. For other countries, the UK rules should ideally allow investors to rate those assets for UK reporting purposes, even if the detailed data may not be available. Countries without taxonomies currently may also seek to develop their own taxonomy in the future.

GTAG therefore recommends promoting the following hierarchy through discussions with countries without green taxonomies that may be considering developing their own:

- **Maintain the same broad concepts and structure,** which means having the same environmental objectives and framework. For the UK Green Taxonomy, this means having the same framework as the EU taxonomy, which the UK helped develop, while also updating for the UK context. For emerging taxonomies, this also means having the same broad framework and also the same industry sectors as far as is possible.
- **Maintain the same broad methodology.** This includes the significant contribution, DNSH, and minimum safeguards approaches to measuring alignment.
- **Maintain the same metrics** as far as possible. Maintaining the same measurement system means that the data requirements are the same, even if the thresholds are different.[26]
- **Maintain the same thresholds,** unless there is a good, explicitly made, science-based case for the divergence.

Some elements of the EU Green Taxonomy are challenged as not being scientifically rigorous. GTAG has recommended that the UK **should ensure UK Green Taxonomy TSC are robust and science-based to show international leadership (recommendation 2),** and as such should follow an adopt-some-revise-some approach to building off the EU framework, guided by science and as reflected in the UK's net zero strategy.[27] In addition, **under recommendation 3, 3-yearly reviews[28] should assess the UK Green Taxonomy against the evolving international taxonomy landscape, to assess whether there are any adjustments required to ensure the Taxonomy continues to reflect the real economy, including potential new sectors and TSC that should be adopted for inclusion.** As other jurisdictions develop TSC, taxonomy review processes should formally review and incorporate relevant TSC.

[26] Different countries may adopt different metrics which are simply different units e.g. of weight or volume. This may be an issue with US data for example. Reporting entities should be allowed (at a minimum) to convert published data to standard international units. See principle 6.

[27] The key requirement is that the UK should not make changes that are not significant. Small variations of the rules could be costly to implement without materially affecting the outcome. The precise TSC will always be subject to disputes between those who wish them to be slightly tighter or slighter looser, but small divergences from the EU, which make little or no difference to the policy objective, should be avoided.

[28] The choice of a 3-yearly review mirrors the UK government's commitment in the Greening Finance Roadmap to reviewing the Taxonomy Regulation's effectiveness every three years. A private consultation with the market ran by GTAG also stated that this would be the preference of polled financial and non-financial actors.

There are likely to be some activities that other jurisdictions specialise in and so are best placed to develop TSC for – and which, if deemed appropriate, the UK can adopt. Mining activities as defined under a future Chilean taxonomy is an example highlighted earlier.

Analysis by the EU PSF has indicated that while reporting against most of the Significant Contribution element of the EU taxonomy's TSC is straightforward, demonstrating compliance with many of the over 700 DNSH requirements and some Significant Contribution criteria is not. This, combined with the fact many DNSH and TSC requirements are rooted in EU legislation and directives,[29] which are now likely to be removed in the UK, is a significant barrier to international interoperability. Addressing this will require adopting **recommendation 4, streamline language and requirements where useful and appropriate to maximise interoperability with non-EU jurisdictions.** This will help build the credibility and attractiveness of the UK Green Taxonomy globally and incentivise others to report against UK TSC, on a voluntary basis, as an emerging gold standard.

Recommendation 4 can begin to be pursued in the UK through accepting the advice of the Energy Working Group on tackling controversial TSC, forming additional advisory groups for other areas (such as adaptation and buildings), and taking on board the responses to the planned robust TSC consultation process, factoring in expert feedback to ensure the UK Green Taxonomy is truly science-based and robust. GTAG is exploring whether a 'review and revise' approach to DNSH requirements within TSC is merited in order to streamline and improve their usability. Each DNSH TSC will be examined and then amended or streamlined if needed. To ensure interoperability is not undermined through this review process, activities would still need to be assessed against these streamlined DNSH requirements – with the key difference that they should be easier to assess, understand, and comply with. Making the DNSH criteria more usable will greatly increase the ease and appeal of reporting against the UK Green Taxonomy.

5b. Interoperable disclosures

Different regulatory regimes already exist in many industries where national regulatory standards are applied, ranging from food to vaccinations. In the real economy trading context, these are often seen as protectionist measures to favour the home country's production (even where that is not the intention). In the context of green assets, a national protectionist outcome would be negative for the intended policy outcome.

Solutions could be pursued through unilateral UK, multilateral action, or somewhere in-between. Four approaches are laid out below, with key recommendations highlighted. **Whatever route forward is selected, UK entities should not be prevented by UK reporting rules from publishing and using data that is needed for green taxonomy assessments in other countries. Where possible, UK validation requirements should be applied equally to such published data.**

In approach 1 (unilateral): UK users could be given more freedom in reporting rules. Recognising that each country has its own regime, the UK could take a version of Option 2 in Box 5/Table 1 and simply allow reporting to be consistent with the rules of where the assets (or at least the legal entities borrowing) are located. All that would be required for a 'green' portfolio would be to demonstrate local consistency and a table of indicators would result. Disclosures requirements could be more or less prescriptive about whether the local standards had to meet some minimum – ranging from no standards up to UK Green Taxonomy equivalence (which would be the full Option 2).

To promote international comparison – if not interoperability – in the short-term, GTAG suggests recommendation 5 is followed: the adoption of green taxonomy-related rules that cover assets held in as many jurisdictions as possible, regardless of the existence of any local green taxonomy. Rules could be set related to assets held in the following types of jurisdiction.

- UK
- EU and EU Green Taxonomy-based countries
- Principles-based green taxonomy countries
- USA and other OECD countries without official green taxonomies
- Non-OECD countries without green taxonomies

Investors with a strong commitment may need to adhere to higher standards for their international green portfolios, which could result in additional costs. On the other hand, other investors may choose to meet the minimal requirements for green investments in all locations, resulting in more transparency but potentially weaker outcomes.

This approach could be a temporary solution while working towards interoperability, but it could also lead to extra costs for investors and added complexity for those reading the disclosures.

[29] The PSF noted that 75% of DNSH criteria (as part of the Climate Delegated Act) refer to EU environmental legislation.

In approach 2 (unilateral): A 'blinkered' approach to unilateral action would be taken – this is Option 1 in Box 5/Table 1. UK companies would only be required to report what is green under the UK Green Taxonomy. Disadvantages have been described above. However, in this approach, while the reporting rules may be 'blinkered', the UK Green Taxonomy itself need not be. As it stands, the most significant alternative green taxonomy is the EU. At the time of writing the EU framework has been adopted by the UK and thus there would be a base level of interoperability built in between the two. This approach is not recommended as optimal for promoting international interoperability.

Multilateral action, using diplomacy, is likely to be the most effective route to harmonisation and promotion of interoperability, **through setting out a vision of a single green taxonomy that covers as much of the world as possible.** While this may be a stretch currently, it is worth considering how such an end state might be achieved. Two further options for routes forward are proposed.

Approach 3 (multilateral): The UK and EU combine, perhaps with other European, non-EU countries such as Switzerland, to coalesce around a core green taxonomy which other countries globally are then encouraged to adopt. This could be an iteration of the IPSF's existing collaboration with China, the Common Ground Taxonomy work, to consolidate different multiple green taxonomies into a new, agreed regime – perhaps one that would meet UK objectives of being more science-based.

For an international collaboration to have maximum acceptance, all countries adopting the same green taxonomy would need to be regarded as having equivalence, even if there were appropriate local variations. The UK would have to share the cost of maintaining this green taxonomy and share decision making – but that might be the most efficient way to maintain equivalence. It would be cheaper than negotiating and maintaining bilateral recognition. A disadvantage of the approach is that any large countries not involved at the start may not wish to come on board after the fact e.g. the US and India.

The IPSF's Common Ground Taxonomy work suggests that is a range of approaches that might be difficult to reconcile. **Nonetheless, GTAG recommends that the UK advocate that international interoperability be sought – including through the IPSF.**

Approach 4 (multilateral): A Basel regime for banking regulation-style approach to taxonomy development. There could be an international committee of experts (possibly UN or OECD-hosted) covering all the most significant economies. It would meet and agree a global green taxonomy then, potentially, move on to disclosure regimes, perhaps underpinned by new International Sustainability Standards Board (ISSB) standards. Each country would then voluntarily adopt the same approach in its own national legislation, allowing for local variations as necessary. The experts would also report independently on alignment. Broad equivalence should follow. This would be a more open governance approach than the first option and could have some attractions to countries not currently involved in the IPSF (or, alternatively, the IPSF could be the starting point for such a group), but the consequences would likely be those of the Basel regime: slow implementation, with the risk of significant divergences in implementation by national authorities. And, given the starting point, it is not clear there would be sufficient international will to achieve this.

Regardless of which approach is under consideration, the issue of different countries using metrics measured with different units e.g. of weight, or volume, will exist. Reporting entities should be allowed (at a minimum) to convert data to standard international units. **Recommendation 6 is for HMT to develop and publish a list of equivalent units, where needed, to allow for differences in the measurement practices carried out in respective jurisdictions and help promote data comparability.** HMT could begin this work for the UK, but seek to work with a suitable international forum, such as the IPSF, to develop and hold an international version.

5c. International engagement

Encouraging other jurisdictions to align

In terms of solutions, it will not be possible to develop a universal rules-based regime that covers all assets in all other economies in one go. However, a series of steps could be taken by the UK to create the enabling conditions for this to happen. **For non-OECD countries without a green taxonomy, recommendation 7 is that teams from the former BEIS department[29] should develop general international base principles for reporting.** These could underpin the assessment of assets that do not meet the requirements of a UK Green Taxonomy for jurisdictional reasons; this work could be promoted internationally via the ISSB. For principles-based regimes, this could be based on a best practice assessment. This could form base levels of acceptance of reporting against the UK Green Taxonomy for non-Green Taxonomy countries, including adopting core economic activities (see recommendation 8).

To address compatibility with **the USA and non-taxonomy OECD countries, recommendation 8 is for teams from the former BEIS department to produce guidance encouraging reporting on activities in such countries on a voluntary basis for all UK-based corporates and financial institutions that are required to report against the Green Taxonomy in the UK.** This would encourage further transparency for UK-based companies that have international operations in countries without taxonomies.

[30] At the time of publication, BEIS has recently been split into three new departments: the Department for Business and Trade, the Department for Energy Security and Net Zero and the Department for Science, Innovation and Technology. Recommendations to BEIS in this paper will apply to different teams across the new departments.

It is important to note that developing and emerging economies may not have a green taxonomy or may have one that is less advanced, and they may also lack the resources to monitor or enforce it. Those same countries may also have fast rising emissions as economic development takes place and industry expands. A global solution will need to include technology transfer and other investments in less-developed countries which will require funding. If a green taxonomy in developed countries results in less capital flowing to these developing countries, it will not achieve the intended policy goal.

Recommendation 9 is for teams from the former BEIS department to also provide guidance on how (and if at all) relevant KPIs are applied to activities abroad. GTAG notes that the Green Asset Ratio ('GAR') in the EU is of limited usefulness - for example, green taxonomy-aligned activities undertaken outside the EU cannot be included in the GAR. GTAG recommends allowing this in the UK for relevant KPIs, where a firm may choose to also incorporate its alignment and eligibility figures for a specific jurisdiction. For all these issues, the regime would have to be dynamic as new developments and cases come to light, countries develop, and new green taxonomies are produced. There could also be accusations of an unlevel playing field – but that might be defensible if the list of countries was appropriately drawn.

Recommendation 10 is for the UK Government to advocate for harmonisation across taxonomies and foster/support international cooperation to develop a list of core economic activities that can be deemed equivalent to the UK Green Taxonomy and EU Green Taxonomy. The recommendations set out here are important for the UK but will have more impact if they are also adopted in other jurisdictions, no matter what stage of taxonomy development these are currently at. This would include activities that are deemed "always green". For example, for the least developed nations any investment that relied on, or helped to deliver, renewable energy could be considered green automatically or such assets could be classified as 'green' upon application.

This can be done bilaterally or through a range sustainable finance-focussed, official international fora, many of which the UK is a members of. These fora could further influence green taxonomy development internationally. GTAG could be mandated to support HMG with this work.

The key opportunities are set out below.

Selected International Fora for International Engagement

G20 Sustainable Finance Working Group (G20 SFWG)

A group in which the UK is involved is the G20 SFWG. This Group has evolved from the Green Finance Study Group created in 2016 and is mandated **"to developing, in a collaborative manner, an initial evidence-based and climate-focused G20 sustainable finance roadmap, improving sustainability reporting, identifying sustainable investments, and aligning International Financial Institutions' efforts with the Paris Agreement."**

For 2022 the work programme included:

1. Developing a framework for transition finance and improving the credibility of financial institution commitments;
2. Scaling up sustainable finance instruments, with a focus on accessibility and affordability; and
3. Discussing policy levers that incentivise financing and investment that support the transition.

The G20 Sustainable Finance Roadmap, under Italian presidency, also mentions the promotion of interoperability of taxonomies as an action.[30]

"ACTION 2

Improve coordination at the regional and international level to facilitate the comparability, interoperability, and as appropriate the consistency of different alignment approaches, including via work of relevant IOs [international organisations], and by encouraging:

- Jurisdictions which intend to pursue a taxonomy-based approach to consider developing sustainable finance taxonomies using the same language (e.g., international standard industry classification and other internationally recognised classification systems), voluntary use of reference or common taxonomies, and regional collaboration on taxonomies**"**.

GTAG also notes that India, who currently hold the G20 Presidency, and Brazil, who will hold the G20 Presidency in 2024, both have taxonomies at various stages of development. The Brazilian Federation of Banks published an industry-led taxonomy in January 2021, while India's Ministry of Finance are expected to publish a draft taxonomy developed by its green finance working group later this year.

[30] https://g20sfwg.org/wp-content/uploads/2022/01/RoadMap_Final14_12.pdf

Organisations that promote sustainability reporting and the disclosure of sustainability-related information

The Sustainability Accounting Standards Board (SASB), the Task Force on Climate-related Financial Disclosures (TCFD), and the International Sustainability Standards Board (ISSB) are organisations that provide guidelines and frameworks to help companies assess and report their sustainability performance and the impact of their operations. However, they differ in several key ways.

- SASB develops industry-specific standards for sustainability disclosure that are intended to help companies understand and manage the financial risks and opportunities associated with sustainability issues, and to provide investors with the information they need to make informed decisions.

- TCFD was established to develop a set of voluntary, consistent climate-related disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders. The TCFD's recommendations are designed to help companies understand and manage the financial risks and opportunities associated with climate change, and to provide investors with the information they need to make informed decisions.

- ISSB is an independent, international standards-setting body that was established at COP26 to develop a global baseline to enhance the comparability of sustainability reporting standards, which might create a more common base for green taxonomy objectives and thresholds.

While all three organisations provide guidance on sustainability disclosure, the SASB focuses on industry-specific standards, the TCFD focuses on climate-related financial disclosures, and the ISSB focuses on global sustainability reporting standards.

Network for Greening the Financial System (NGFS)

The UK was a founding member of the NGFS which brings together a range of central banks and regulators to discuss best practice for their own activities, which include the publication of a Guide for Supervisors. While the NGFS is not a body that would design taxonomies, its members may well have significant roles in policing any regulatory requirements that are built on green taxonomies. That could include aspects of interoperability and so the NGFS could be encouraged to consider how green taxonomies impact on their work.

The Coalition of Finance Ministers for Climate Action

The Coalition of Finance Ministers for Climate Action is a group of over 80 finance ministers from around the world who are committed to taking concrete steps to tackle the challenges of climate change. The Coalition is focused on six key workstreams: (1) aligning policies with the Paris Agreement; (2) sharing experiences and expertise; (3) promoting carbon pricing measures; (4) mainstreaming climate in economic policies; (5) mobilising private climate finance; and (6) engaging in NDC development. This group recognises the role of finance and wider economic policies in addressing climate change and seeks to provide leadership and support for global action. Under workstream 5, the group aims to ensure that finance is aligned with the goals of the Paris Agreement and that there is greater cooperation between Member countries on private finance mobilisation.

The development of a common, international green taxonomy framework is crucial to fostering interoperability and consistency in the green finance space. The Coalition plays a crucial role in advancing this goal by providing a platform for collaboration and knowledge sharing among its members. By working together, Ministries of Finance can promote green finance policies and regulations which are harmonised and consistent with the international framework being developed. This will help to reduce the risk of fragmented approaches and conflicting standards, enabling the effective deployment of green finance globally.

International Platform on Sustainable Finance

In 2019, the European Union launched, together with some relevant authorities, the International Platform on Sustainable Finance (IPSF). Together, the 19 members of the IPSF represent 55% of greenhouse gas emissions, 51% of the world population and 55% of global GDP.
The ultimate objective of the IPSF is to scale up the mobilisation of private capital towards environmentally sustainable investments. The IPSF therefore offers a multilateral forum of dialogue between policymakers that are in charge of developing sustainable finance

regulatory measures to help investors identify and seize sustainable investment opportunities that truly contribute to climate and environmental objectives.

The International Platform aims to:

- Exchange and spread information to promote best practices in environmentally sustainable finance.
- Compare the different initiatives and identify barriers and opportunities to help scale up environmentally sustainable finance internationally.
- While respecting national and regional contexts, enhance international cooperation where appropriate on environmentally sustainable finance issues. Members are free to go further and align initiatives and approaches.

In collaboration with China, one of the other 17 member jurisdictions, a Common Ground Taxonomy (CGT) for climate change mitigation has been developed. It compares the approaches of the EU Taxonomy and the Chinese Taxonomy and identifies commonalities and differences for economic activities under the scope of both frameworks.

Other potential international organisations that could be important include the OECD, the UN, the G7 and possibly the IMF and World Bank.

The G7 is particularly important for the other organisations and groups, as it serves as a crucial forum for international cooperation on key economic issues. By facilitating discussions on the topic of international interoperability of taxonomies, the G7 can help to inform wider priorities of other fora, and promote greater consistency and transparency in global green finance frameworks. The presidency this year is held by Japan, one of the UK's largest counterpart countries by cross-border investment flow, increasing the importance of UK engagement on this topic.

If all countries adopted either the EU or a version thereof as GTAG is proposing for the UK, the remaining problems for interoperability would be relatively small. Likely, the biggest issue would be interoperability with countries that do not have a green taxonomy, notably the US.

One possible scenario is that US firms adopt a voluntary approach, without any legal requirements. Perhaps the normal rules of advertising would apply – if an entity claimed to be consistent with a 'voluntary' regime, no doubt any lack of compliance could be challenged in the US courts.
For disclosure, US companies, including financial institutions, are most likely to follow the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD), which could be underpinned by new standards being prepared by the ISSB which has promised to deliver:

> **"a comprehensive global baseline of sustainability-related disclosure standards that provide investors and other capital market participants with information about companies' sustainability-related risks and opportunities to help them make informed decisions."**

As and when the UK implements its green taxonomy, the UK government may have opportunities to cross-reference these market-led developments but at the very least the UK should ensure that its green taxonomy regime does not clash.

It is likely that other taxonomies will be developed in the future. Some jurisdictions with existing green taxonomies may expand their coverage to include more sectors, based on the specific economic and emissions characteristics of these other jurisdictions.

Certain jurisdictions will be better placed to develop TSC for expansion into certain sectors, than the UK is. For example, Chile may be better equipped to develop TSC for the mining sector. The UK should consider incorporating such TSC into its own green taxonomy to promote consistency and avoid duplication of efforts.

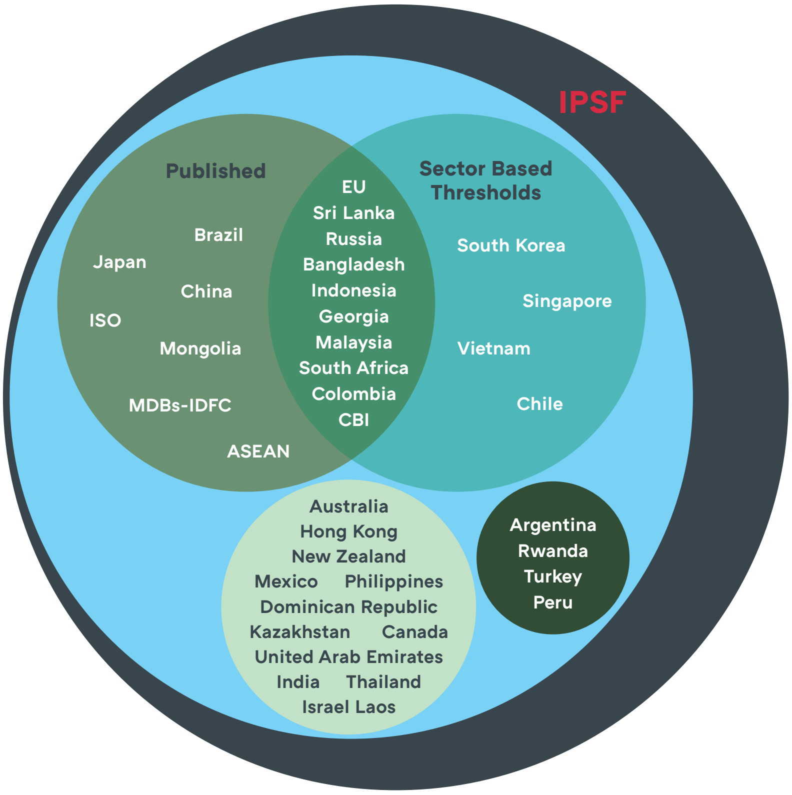
The UK is well-positioned to advocate for a consistent approach to green taxonomies, given its presence at important international tables. This can be used to emphasise the importance of cross-border green investments, especially in countries that need the most assistance in reducing emissions.

Annex

GTAG international taxonomy landscape review

We have categorised the main global taxonomies in the Venn diagram (Figure 7). The main focus is on those that are both issued and have identifiable thresholds or principles.

Figure 7: **Universe of Most Relevant Taxonomies**



- Published
- Published taxonomies that contain identifiable sector-level thresholds or principles
- Countries developing taxonomies identifiable sector-level thresholds or principles
- In development
- High-level / being discussed
- IPSF*

*It is the intention that the IPSF will look to incorporate new taxonomies into the Common Ground Taxonomy (CGT)

International taxonomy landscape research in numbers

Table 2:

EU / Non-EU*	Number of Taxonomies	List of Taxonomies
EU (that view the EU as a benchmark)	23	Australia, Bangladesh, Canada, Chile, Colombia, EU, Georgia, Hong Kong, India, Indonesia, Israel, Kazakhstan, Mexico, MAS Singapore, New Zealand, Russia, Sri Lanka, South Africa, South Korea, Thailand**, Turkey, UK, Vietnam
Non-EU	7	ASEAN, BNM Malaysia, Brazil, China, Japan, Mongolia, Philippines

*Excludes early-stage taxonomies and industry standards
**Thailand considers the EU Taxonomy to be a global benchmark for taxonomy development and has sought alignment with multiple taxonomies, including the ASEAN and Climate Bond Taxonomies.

Table 3:

Approach to Eligibility	Number of Taxonomies	List of Taxonomies
Technical Screening Criteria-based	17	Bangladesh, Chile, Climate Bonds, Colombia, EU, Georgia, India, Indonesia, ISO, MAS Singapore*, Russia, South Africa*, South Korea, Sri Lanka, Thailand, UK, Vietnam
Principle/whitelist-based	8	ASEAN**, BNM Malaysia, Brazil, China, Japan, Kazakhstan, MDBs-IDFC, Mongolia
Uncategorised / Not yet stated	15	Argentina, Australia, Canada, Dominican Republic, Hong Kong, IPSF, Israel, Laos, Mexico, New Zealand, Peru, Philippines, Rwanda, Turkey, United Arab Emirates

*Combination of quantifiable thresholds and principles-based criteria for activities
**The ASEAN Taxonomy employs two approaches – the Foundation Framework, which classifies all sectors using qualitative screening criteria, and the Plus Standard, which classifies specific sectors of high importance using specific criteria.

Table 4:

State of Development	Number of Taxonomies	List of Taxonomies
Published	18	ASEAN, Bangladesh, BNM Malaysia, Brazil, Climate Bonds, China, Colombia, EU, Georgia, Indonesia, IPSF, ISO, MDBs-IDFC, Mongolia, Russia, Sri Lanka, South Africa, South Korea
In Development/ Consultation	18	Australia, Canada, Chile, Dominican Republic, Hong Kong, India, Israel, Japan, Kazakhstan, Laos, MAS Singapore, Mexico, New Zealand, Philippines, Thailand, UK, United Arab Emirates, Vietnam
In Discussion	4	Argentina, Peru, Rwanda, Turkey

Table 5:

Developed by	Number of Taxonomies	List of Taxonomies
Sponsored by govt / central bank	27	ASEAN, Bangladesh, BNM Malaysia, China, Colombia, Dominican Republic, EU, Georgia, Hong Kong, Israel, India, Indonesia, IPSF, Japan, Kazakhstan, Laos, MAS Singapore, Mongolia, Philippines, Russia, South Africa*, South Korea, Sri Lanka, Thailand, UK, United Arab Emirates, Vietnam
Not	10	Australia, Brazil, Canada, Climate Bonds, Chile, ISO, MDBs-IDFC, Mexico*, New Zealand*, Peru
Uncategorised / Not yet stated	3	Argentina, Rwanda, Turkey

*Finance sector initiative, with government observers

Table 6:

Voluntary vs Mandatory	Number of Taxonomies	List of Taxonomies
Mandatory	7	Bangladesh, BNM Malaysia, China, EU, Georgia, South Korea, UK*
Voluntary / Guidance	15	ASEAN, Australia, Brazil, Canada, Climate Bonds, Colombia, Israel, Japan, IPSF, ISO, MDBs-IDFC, Mongolia, Russia, South Africa, Thailand
Uncategorised / Not yet stated	18	Argentina, Chile, Dominican Republic, Hong Kong, India, Indonesia, Kazakhstan, Laos, MAS Singapore, Mexico, New Zealand, Peru, Philippines, Rwanda, Sri Lanka, Turkey, United Arab Emirates, Vietnam

*Pending further details on the Sustainability Disclosure Requirements. As set out in Greening Finance: A Roadmap to Sustainable Investing "Reporting against the Taxonomy will form part of SDR. Certain companies will be required to disclose which proportion of their activities are Taxonomy-aligned. Providers of investment funds and products will have to do the same for the assets that they invest in" Retrieved from:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1031805/CCS0821102722-006_Green_Finance_Paper_2021_v6_Web_Accessible.pdf

Further supporting data for the cross-border capital flow analysis

Figure 8: **All Countries - Total Combined Investment Flows (5-Year Trend)**

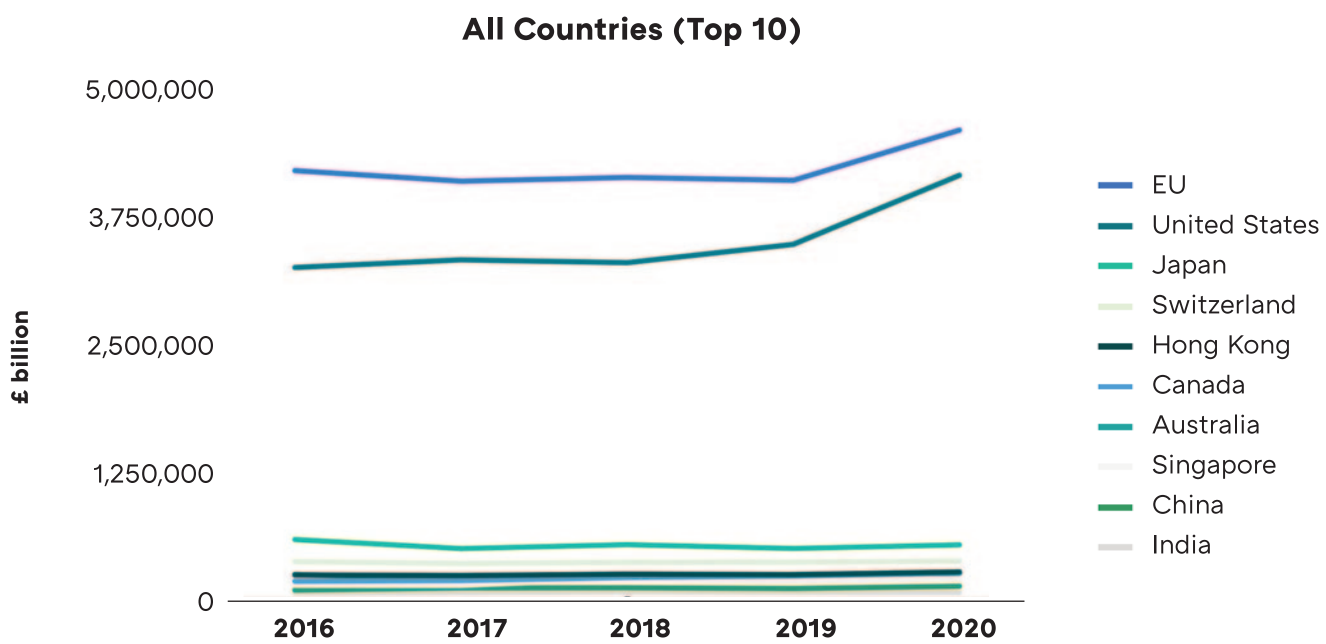


Figure 9: **All Countries – Total Combined Investment Flows**

All Countries Top 10 (2020 Ranking)	
1st	EU
2nd	United States
3rd	Japan
4th	Switzerland
5th	Hong Kong
6th	Canada
7th	Australia
8th	Singapore
9th	China
10th	Norway

5-Year Average Share

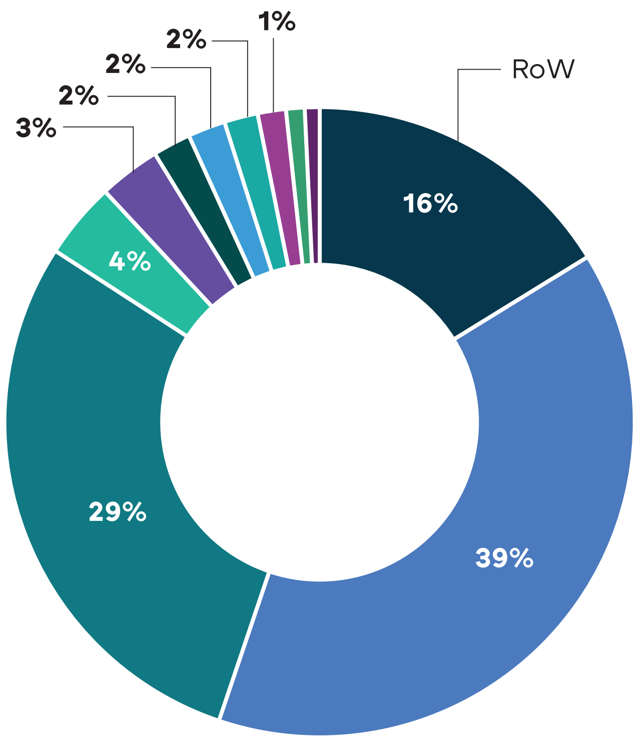


Figure 10: **Taxonomy Countries – Total Combined Investment Flows**

All Countries Top 10 (2020 Ranking)	
1st	EU
8th	Japan
10th	Canada
11th	Hong Kong
13th	Singapore
17th	China
21st	South Africa
23rd	India
27th	Brazil
26th	Russia
29th	Israel
30th	Mexico
31st	Turkey
34th	Malaysia
36th	Malaysia
37th	New Zealand
38th	Chile

5-Year Average Share

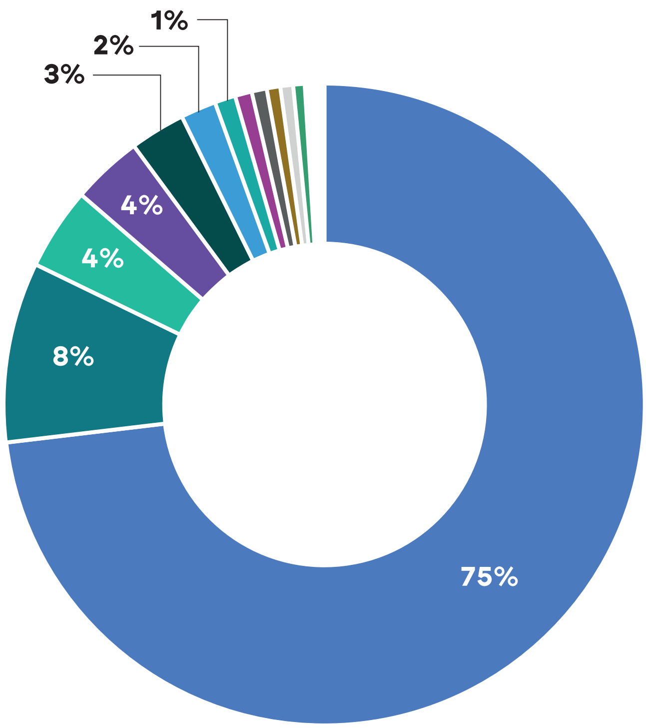


Figure 11: **All Country Rankings (2020)**

Ranking	UK Investments Abroad	Foreign Investments in UK	Total
1st	EU	EU	**EU**
2nd	United States	United States	**United States**
3rd	Japan	Japan	**Japan**
4th	Switzerland	Switzerland	**Switzerland**
5th	Hong Kong	Canada	**Hong Kong**
6th	Canada	Hong Kong	**Canada**
7th	Australia	Australia	**Australia**
8th	Singapore	Singapore	**Singapore**
9th	China	Norway	**China**
10th	India	China	**Norway**

Figure 12: **Taxonomy Country Rankings (2020)**

Ranking	UK Investments Abroad	Foreign Investments in UK	Total
1st	EU	EU	**EU**
2nd	Japan	Japan	**Japan**
3rd	Hong Kong	Canada	**Canada**
4th	Canada	Hong Kong	**Hong Kong**
5th	Singapore	Singapore	**Singapore**
6th	China	China	**China**
7th	India	South Africa	**South Africa**
8th	Brazil	Israel	**India**
9th	South Africa	India	**Brazil**
10th	Mexico	Russia	**Russia**
11th	Russia	Turkey	**Israel**
12th	Turkey	Mexico	**Mexico**
13th	Israel	Brazil	**Turkey**
14th	Malaysia	New Zealand	**Malaysia**
15th	Thailand	Malaysia	**Thailand**
16th	New Zealand	Chile	**New Zealand**
17th	Chile	Thailand	**Chile**

Figure 13: **Taxonomy Countries – Investments Rankings vs CO2 Emissions Rankings**

Investment Ranking	Country	Emissions (% World Total)
1st	EU	7.29%
2nd	Japan	2.95%
3rd	Canada	1.51%
4th	Hong Kong	0.09%
5th	Singapore	0.16%
6th	China	32.48%
7th	South Africa	1.21%
8th	India	6.71%
9th	Brazil	1.26%
10th	Russia	4.66%
11th	Israel	0.17%
12th	Mexico	1.13%
13th	Turkey	1.13%
14th	Malaysia	0.73%
15th	Thailand	0.71%
16th	New Zealand	0.09%
17th	Chile	0.24%

→

Emissions Ranking	Country	Change
1st	China	↑5
2nd	EU	↓1
3rd	India	↑5
4th	Russia	↑6
5th	Japan	↓3
6th	Canada	↓3
7th	Brazil	↑2
8th	South Africa	↓1
9th	Mexico	↑3
10th	Turkey	↑3
11th	Malaysia	↑3
12th	Thailand	↑3
13th	Chile	↑4
14th	Israel	↓3
15th	Singapore	↓10
16th	Hong Kong	↓12
17th	New Zealand	↓1

GTAG Structure and Workstreams

Chair: Ingrid Holmes (GFI)

18 original members, 4 ad-hoc members plus HMG, FCA, PRA, observers
Appointed members from a range of sectors, including finance, business, academia & NGOs

WS1 - Addressing UK-Specific Needs WS Chair: Rain Newton-Smith	**WS2 - Usability and Data** WS Chair: Lily Dai	**WS3 - Policy Links** WS Chair: Kate Levick	**WS4 - Fully Realised Taxonomy** WS Chair: Faith Ward	**WS5 - International Interoperability** WS Chair: Paul Fisher	**Future Workstreams**
To provide strategic advice to government on next steps with UK taxonomy development, including advice on approaching overlaying UK specific transition and adoption pathways when assessing EU TSCs and ensuring coverage is UK-appropriate.	To provide advice to HMG on how to optimise the usability of the taxonomy through design and application of related disclosure regimes; considering interoperability with other international regimes - including methodological equivalence; and reviewing approaches to DNSH. Assessing the risk of data gaps and need to develop mitigants will have primacy.	Exploring how the taxonomy can be best used to support the UK's transition to net zero as well as exploring how the taxonomy can be used to support the delivery of wider HMG policy.	To set out how best to provide market certainty now and in the future. To determine the value case for, and potential scope and uses for, a fully realised taxonomy.	To assess the conditions necessary for interoperability and explore avenues for influencing international taxonomy development in a 'race to the top'. To analyse implications of and remedies for risks of international fragmentation.	Further work streams will be developed as the GTAG evolves and via the monitoring of EU taxonomy updates.

GTAG Members

UK Chair: **Ingrid Holmes,** Green Finance Institute

Users of the taxonomy – Financial Services:

- **Faith Ward,** Institutional Investors Group on Climate Change
- **James Alexander,** UK Sustainable Investment and Finance Association
- **Elizabeth Gillam,** International Regulatory Strategy Group

Users of the taxonomy – Non-Financial Services

- **Nick Molho,** Aldersgate Group
- **Flora Hamilton,** (January 2023 – present), Confederation of British Industry

Taxonomy & Data Experts

- **Mike Thompson** (June 2021 – January 2023), **Bea Natzler** (January 2023 – present), Committee on Climate Change
- **Alyssa Heath** (June 2021 – August 2021), **Olivia Mooney** (August 2021 – February 2022), **Margarita Pirovska** (February 2022 – July 2022), **Eliette Riera** (July 2022 – present), Principles for Responsible Investment
- **Prashant Vaze** (June 2021 – March 2022), **Anna Creed** (March 2022 – January 2023), **Matteo Bigoni** (January 2023 – present), Climate Bonds Initiative
- **Lily Dai,** FTSE Russell, London Stock Exchange Group
- **Nadia Humphreys,** Bloomberg
- **Anna Bond** (June 2021 – January 2022), **Katie Spooner** (January 2022 – present), Environment Agency

Academia & Subject Matter Experts

- **Paul Fisher,** Cambridge Institute for Sustainability Leadership
- **Ben Caldecott** (June 2021 – August 2022), **Nicola Ranger** (August 2022 – present), Centre for Greening Finance and Investment and Oxford Sustainable Finance Group / University of Oxford
- **Nick Robins,** Grantham Institute / London School of Economics
- **Theodor Cojoianu,** Queen's University / University of Edinburgh
- **Rhian-Mari Thomas,** Taskforce on Nature-Related Financial Disclosures (TNFD)

NGOs

- **Kate Levick,** E3G
- **Karen Ellis,** WWF

Ad-hoc Members

- **Rachel Barrett,** Linklaters (August 2022 – present)
- **Mark O'Sullivan,** PwC (August 2022 – present)
- **Amanda Swaffield,** Deloitte (August 2022 – present)
- **Jeffrey Twentyman,** Slaughter and May (August 2022 – present)

Observer Group

- HM Treasury
- Department for Energy Security and Net Zero
- Department for Energy Security and Net Zero
- Department for Business and Trade
- Financial Conduct Authority
- Bank of England
- Other relevant HMG departments and regulators

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The GTAG Secretariat is led by **Ryan Jude**, working with **Charlotte Love, Sandie-Gene Muir, Adam Standage**, **Jonathan Heybrock**, **Amy Allan**, **Blanche de Biolley** and **Victoria Spiteri**. This report was drafted with the support of **Kirsty Hudson**.

Glossary

ASEAN	Association of Southeast Asian Nations
BEIS	Department for Business, Energy and Industrial Strategy
BNM	Bank Negara Malaysia
CCPT	Malaysian Climate Change and Principle-based Taxonomy
CGT	Common Ground Taxonomy
DNSH	Do No Significant Harm
EU	European Union
EU PSF	EU Platform on Sustainable Finance
FCA	Financial Conduct Authority
G20 SFWG	G20 Sustainable Finance Working Group
GAR	Green Asset Ratio
GDP	Gross Domestic Product
GTAG	Green Technical Advisory Group
HMG	His Majesty's Government
HMT	His Majesty's Treasury
IDB	Inter-American Development Bank
IDFC	International Development Finance Club
IIP	International Investment Position
IKI	International Climate Initiative
IMF	International Monetary Fund
IO	International Organisation
IPSF	International Platform on Sustainable Finance
ISO	International Organisation for Standardisation
ISSB	International Sustainability Standards Board
KPI	Key Performance Indicator
MAS	Monetary Authority of Singapore
MDB	Multilateral Development Bank
MS	Minimum Safeguards
NDC	Nationally Determined Contributions
NGFS	Network for Greening the Financial System
NGO	Non Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics
PRA	Prudential Regulation Authority
RoW	Rest of the World
SASB	Sustainability Accounting Standards Board
SC	Significant Contribution
SDR	Sustainability Disclosure Requirement
TCFD	Taskforce on Climate-related Financial Disclosures
TEG	EU Technical Expert Group
TPT	Transition Plan Taskforce
TSC	Technical Screening Criteria
UK	United Kingdom
US	United States
USA	United States of America