Green Technical Advisory Group

Green Finance Institute

Developing a UK taxonomy adapted to the UK's needs in the short and medium term: Scope, coverage and reporting considerations

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Executive summary

The Green Technical Advisory Group (GTAG) has considered the question of whether the UK Government should adapt the coverage of and approach to reporting for the UK Green Taxonomy to better reflect the needs of the UK economy, drawing on the experience of implementation in the European Union (EU) but also other jurisdictions.

In the first instance, GTAG advises that the **UK Government should prioritise delivering a credible, robust, usable green taxonomy, keeping decisions about the options to extend (by which GTAG means to cover transition or harmful activities) for later review. Options to expand (by which GTAG means to cover other sectors/industries in the UK) the taxonomy should be prioritised for certain sectors and activities,** as set out in this paper.

Regarding an extended taxonomy, **ensuring that the UK implements a taxonomy that clearly defines 'green' economic activities and is viewed as a credible, robust and usable tool for the market should be prioritised, in the near term, over developing an extended taxonomy.** The UK Taxonomy has a well-defined role within the UK's sustainable finance regulatory architecture – and a clear objective, which is to increase transparency over economic activities which can make substantial contributions to environmental objectives and encourage investment in such activities. The focus should therefore be on getting the green taxonomy implemented and avoiding the further complexity of developing and requiring reporting against an extended taxonomy – especially at a time when companies and investors are already navigating a wide range of existing and incoming regulatory requirements in this space.

The UK Government should also outline how existing and planned policy initiatives can support the UK's transition as a means to 'sense check' the case for and against an extended taxonomy in the near term. Multiple regulatory tools and levers will be needed to support the transition. A coherent policy framework that can drive toward this is critical - as is an appreciation that no single tool deployed in isolation will lead to a successful UK transition. In combination with a science-based green taxonomy, robust transition plans anchored by sector roadmaps that set out how the UK economy will transition, could provide the basis for a more dynamic and holistic regulatory framework to accelerate the UK's transition.

As the UK Taxonomy consultation document is developed, the existing taxonomy design features that factor in transition should be utilised. Important transition activities are already included within the EU Taxonomy, such as the manufacture of steel and cement. In addition to including robust, science-based technical screening criteria (TSC) for any transitional activities, the UK Taxonomy should include (where appropriate) TSC that require improvement in environmental performance over time. Using enabling activities to capture more of the economy and updating TSC through the expected three-yearly review process, as a medium-term action, will also support the transition.

Moving into a medium term view, the first taxonomy review (expected after three years) provides the right opportunity to reassess whether other policies and tools have effectively addressed the extended taxonomy use case – or whether further clarification via an extended taxonomy is needed by the market. This first review should ensure the UK Taxonomy remains aligned with the UK's transition pathway, including potentially reducing thresholds for activities that have made progress, and replacing transitional activities with net zero-aligned thresholds when such possibilities emerge. This could also involve adding or removing activities within the UK Green Taxonomy to maintain a high standard whilst being tailored for the specifics of the UK's services-dominated economy.

The UK Government should continue to monitor the international landscape of extended taxonomies to learn from best practice and implementation challenges, so the UK is able to move swiftly to implementing an extended taxonomy – if the decision is taken to implement one. The UK Taxonomy review process should incorporate an assessment of the international landscape on transition approaches to inform a decision on extending the taxonomy. The UK would be able to benefit again from its follower status by learning from international best practice and any implementation issues.

The UK Government should also promote the UK's transition rationale and approach internationally. Given the lack of global consensus on how to develop and implement extended taxonomies, the UK Government should highlight the strengths of the UK's approach to transition and its relevance for other jurisdictions. The UK's unique approach – a combination of mandatory entity-level transition plans, underpinned by a robust green taxonomy and sector roadmaps – provides a strong foundation for the UK to be influential globally.

In relation to expanding the UK Taxonomy (by which GTAG means to cover other sectors/industries in the UK), it seems a wider range of economic activities could be beneficial – but spelling out the rationale is important.

There seems to be a limited benefit from major divergence from the EU baseline based on emissions. From an emissions perspective, the sectoral coverage of the EU Taxonomy is a good fit for the UK's emissions profile and supports the climate change mitigation objective for the UK Green Taxonomy.

Looking ahead there are some potential gaps in existing EU Taxonomy sectors, including within energy, buildings, transport and manufacturing but also some notable sectors are not covered at all, e.g. agriculture. The Government has set up the Land Use, Nature and Adapted Systems (LNAS) Advisory Group to develop TSC for agriculture and forestry. **GTAG recommends the UK Government consider developing further TSC to assess and potentially address remaining potential gaps in significant sectors.**

In relation to expanding the UK taxonomy on the basis of UK gross value added (GVA), GTAG recommends consideration should be given to increasing coverage of wholesale and retail trade, manufacturing, agriculture (again) and, potentially, financial and advisory services.

GTAG received strong market feedback that enabling activities should also be included. Further work will be required to develop and test these TSC. This could be done immediately – or form part of the expected three-yearly review of the UK Green Taxonomy. This should consider additional eligible activities, particularly enabling activities, and facilitate the inclusion of new technologies. Linked to this, where international taxonomies include new sectors and activities, the relevance for the UK Green Taxonomy should also be considered as a part of the UK's three-year review. The processes should be managed by an independent body or HM Treasury.

GTAG has also considered the question of the UK Government's approach to reporting, including the most appropriate KPIs to use and also the approach to defining coverage of companies and activities reporting under the taxonomy regime.

GTAG advises taxonomy reporting should apply to companies subject to mandatory Taskforce on Climate-related Financial Disclosures (TCFD) reporting. This makes sense on the basis that both frameworks will be integrated under the UK's Sustainability Disclosure Requirements (SDR) regime, with correct phasing in of reporting obligations necessary to ensure businesses have time to adjust and financial institutions have the information needed to facilitate their own reporting. GTAG advises: non-financial companies should report on taxonomy eligibility in year 1; reports on taxonomy eligibility by financial institutions and taxonomy alignment by non-financial services companies should follow in year 2; and taxonomy alignment by financial institutions should follow in year 3.

The EU Taxonomy KPIs requiring corporates to report on their taxonomy-related CapEx, OpEx and turnover should be reassessed. In particular, the Department for Business and Trade should consult on limiting mandatory reporting to turnover and capex, whilst making opex reporting optional, without requiring a materiality assessment, reducing the burden on companies while still allowing them to voluntarily disclose opex information if they believe it is beneficial.

The SDR framework should factor in existing industry feedback on the EU Taxonomy KPIs when developing UK equivalents, to improve their usability, comparability and usefulness. The process must also set clear, consistent definitions for these KPIs to ensure meaningful and comparable reporting across various accounting frameworks. Technical experts at the Financial Conduct Authority (FCA) should lead this work. GTAG provided further advice on the KPIs in a separate report.

Finally, the international applicability of the taxonomy KPIs (including those for financial institutions) must be considered[1]. The UK Government should consult on including voluntary reporting on foreign assets and activities, which could support use of the framework beyond the UK's borders and increase the quality of available information while limiting the burden on businesses. Additionally, the costs and benefits of expanding KPIs to data provided on a voluntary basis by entities not covered by SDR should be considered.

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1 https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2023/08/GTAG-Final-Report-on-UK-Green-Taxonomy-Reporting-KPIs.pdf

Introduction

Introduction

The UK Green Taxonomy will be a key tool to mobilise capital flows into sustainable economic activities and ensure high standards for green investments. The EU Taxonomy, which the UK is leveraging as a starting point, prioritised inclusion of economic activities with the greatest potential to reduce greenhouse gas emissions. While EU Taxonomy coverage does map well to the UK in terms of sectoral emissions, it does not fully cover the UK economy, with initial estimates showing only 27% of the UK economy would be covered by the climate change mitigation objective if the UK Taxonomy exactly matched the EU Taxonomy's coverage[2].

The purpose of this report is to provide advice on the benefits and implications of adapting the coverage of the UK Green Taxonomy to better reflect the needs of the UK economy, drawing on the experience of the EU but also other jurisdictions. It forms part of the Green Technical Advisory Group's (GTAG's) strategic advice to the UK Government on UK Green Taxonomy development.

In the first part of this report, GTAG provides advice on whether an extended taxonomy that covers more transition but also harmful activities – sometimes referred to as a red/amber/green or transition taxonomy – is the right approach for the UK at this time. It should be noted that, although already a component of GTAG's intended workplan, the paper also provides a response to a recommendation from Chris Skidmore MP's recent review[3] of Net Zero in the UK, which recommended: "Government to consider the appropriateness of a transition taxonomy (alongside a green taxonomy) that is simple and proportionate".

Within the second part of this report, GTAG provides advice on the value and implications of expanding coverage of the taxonomy to include more UK sectors and economic activities.

Finally, GTAG provides advice on the UK's approach to taxonomy reporting, focusing on suitable KPIs and identifying which entities should report.

In developing its advice, GTAG aims to support the flow of investment into net zero-aligned and nature-based solutions, with coverage of the UK economy being as wide as possible to facilitate such investment while ensuring high environmental standards. As well as providing advice on the benefits of adapting the taxonomy itself to increase the coverage of the UK Green Taxonomy, costs are also considered to ensure alignment with the UK Government's commitment to produce an accessible taxonomy with disclosure requirements that do not place a disproportionate burden on business. This paper does not explore in detail issues of international interoperability, which is covered in previously published advice[4], nor the other five environmental objectives.

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[2] Analysis provides an indicative representation of EU Taxonomy coverage by comparing UK company primary activity and total turnover to climate change mitigation activities under the first Climate Delegated Act of the EU Taxonomy (therefore no inclusion of activities added to the EU Taxonomy more recently). Data from October 2021 and sourced from FAME dataset provided by Bureau Van Dijk. Analysis intended to provide an indicative, early estimate and more detailed analysis will be required in the future.

[3] Rt Hon Chris Skidmore MP – Mission Zero: Independent Review of Net Zero. January 2023. https://www.gov.uk/government/publications/review-of-net-zero

[4] GTAG – Promoting the international interoperability of a UK Green Taxonomy. February 2023. https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2023/02/GFI-GTAG-INTERNATIONAL-INTEROPERABILITY-REPORT.pdf

Adapting the UK Green Taxonomy by extending it to cover transition and harmful activities

Background

Through market outreach, GTAG heard there is uncertainty over whether the benefit of extending the UK Taxonomy to cover transition-related – distinct from sustainable – economic activities will outweigh the cost in terms of the additional time and effort needed to develop this next layer of the taxonomy, which itself is already a complex exercise.

It is worth noting up front that GTAG heard varied interpretations in the market as to what constitutes an ‘extended taxonomy’. This also reflects differing views globally – to date there is no clear consensus as to the best approach. Several jurisdictions have opted for ‘traffic-light’ approaches. In some cases, ‘traffic light’ systems have been used to differentiate between green (environmentally sustainable), amber (transition), red (harmful) activities and grey (very low environmental impact) activities. Within these traffic light systems there is also a lack of consensus on what constitutes ‘red’ and ‘amber’ activities, how to measure progress, what constitutes ‘acceptable’ levels of progress, and whether ‘do no significant harm’ (DNSH) should be used to determine whether an activity is green, amber, or red.

A table summarising the various emerging and established international approaches to the development of an extended taxonomy is in Annex 1.

For clarity we lay out GTAG’s view of the potential suitable elements of an extended taxonomy in the UK below.

GTAG’s view of the Potential Elements of an ‘Extended’ UK Taxonomy

‘Amber’ list or **transitional activities** that are not green but have the capacity to transition to a more sustainable level of performance are critical to the UK’s transition to net zero. GTAG views these transition activities as the most important in the UK context – but concludes in the short-term the market is better served by information gleaned from transition plans, sectoral policies and sustainability disclosures than a set of additional amber technical screening criteria (TSC) definitions. If followed, future UK Taxonomy reviews can monitor the status of this advice as it assesses UK progress towards transition and whether existing policies are delivering sufficiently or whether an amber list would be useful.

‘Red’ list or harmful activities that can be divided into those that cannot transition, and those that have the potential to transition, but must do so urgently given their negative impact on the environment. Although GTAG sees the value case for defining these harmful activities, real economy-focused regulation is viewed as a more effective tool for ensuring the phasing out of harmful activities.

‘White’ list or a technology-specific approach is different to the ‘technology neutral’ approach taken by most existing taxonomies in which TSC define quantitative thresholds. The ‘white list’ indicates permissible activities that are considered green by default. The Chinese taxonomy provides an example of such an approach, which works well for environmental themes and in cases where it can be difficult to define quantitative thresholds for activities.

‘Grey’ list or low environmental impact activities those deemed to have little or no impact on environmental objectives. The inclusion of ‘grey list’ activities in a green taxonomy helps distinguish between low environmental impact activities and those with greater impact.

As GTAG does not recommend the implementation of an extended taxonomy at this time, Figure 1 provides a summary of potential alternative short and medium-term solutions to address the objectives that GTAG interprets those proposing a transition taxonomy for the UK seek to achieve.

Figure 1. **Summary of short-term and potential medium-term solutions**

Element & Information Gap	Objective Supported	GTAG View on Objective's Priority Level	Short-Term Solution	Potential Medium-Term Solution
Amber list / Transition activities: Provide information on activities that can be classed as "transition" activities.	Support investment into activities that are not classed as environmentally sustainable currently, but are important to the transition.	**High** – very important for success of the UK's economy-wide transition.	**Focus on policy cohesion with continuing work to develop transition plan guidance and sector-specific roadmaps; ensure current taxonomy design features enable transition, where appropriate.**	Assess impact of transition tools (transition plans, sector-specific roadmaps) in supporting UK transition. Use the first taxonomy review to assess whether further clarity required. Option of implementing an extended taxonomy at pace.
Red list / Harmful activities: Provide information on activities that should be classed as "harmful" activities.	Prevent further financing of activities that are incompatible with the UK's net-zero goals.	**High / Medium** – important to stop financing for harmful activities. However, given the UK is a services-focused economy, more important for UK investments overseas.	**Government should legislate for the phase-out of harmful activities. The taxonomy should support this through taxonomy DNSH criteria, using quantitative thresholds where possible.**	Continue to utilise regulation with clear phase-out dates for harmful activities, e.g. as seen for the sale of new petrol and diesel cars and vans by 2030[5]. Use the first taxonomy review to assess whether further clarity is required.
White list / Technology-specific approach: Highlight economic activities without needing detailed screening criteria.	This is a less defined approach to taxonomies and not one supported by the UK's approach, nor by most jurisdictions internationally.	**N/a** – the UK is taking a TSC approach for its taxonomy.	**N/a – the short term focus in the UK is on developing a green taxonomy that uses TSC.**	Consider adding new and emerging green technologies into the UK Taxonomy over time, where applicable in the context of the UK Green Taxonomy framework.
Grey list / Low environmental impact activities: Define activities that neither substantially contribute to nor harm the environment.	Prevent low environmental impact activities being incorrectly assessed as 'not green' as a result of not being included in the green taxonomy.	**Low** – initial focus in the UK Green Taxonomy on highest emitting sectors. Future expansion of taxonomy however likely required.	**Continue with market engagement and education on the purpose and role of the taxonomy within the broader UK sustainable finance policy landscape.**	Monitor international approaches and continue to develop TSC to cover the wider economy, beginning with economically important sectors.

[5] HMG – Government takes historic step towards net-zero with end of sale of new petrol and diesel cars by 2030. November 2020. https://www.gov.uk/government/news/government-takes-historic-step-towards-net-zero-with-end-of-sale-of-new-petrol-and-diesel-cars-by-2030

The arguments for expanding beyond 'green'

The main argument for an extended taxonomy is that it could increase transparency over transitioning economic activities, ranging from the 'nearly environmentally sustainable' through to harmful activities. This increased transparency could support investor decision-making and increase the robustness of transition finance products. Additional enabling activities can also be included, with the more comprehensive coverage this brings supporting the objective of an economy-wide transition to net zero.

In some ways, an extended taxonomy would be a natural add-on to the green taxonomy, building on existing mechanisms, such as the thresholds within TSC, which can delineate between environmentally sustainable ('green'), transition ('amber') and harmful ('red') activities. Currently, the taxonomy is viewed as binary, with recognition of efforts to improve subject to strict criteria.

Extending the taxonomy may offer opportunities to demonstrate and subsequently reward transition progress.

An extension would support the risk management activities of financial institutions and investors by providing additional clarity on economic activities that are not yet green. Policymakers could also utilise an extended taxonomy to signal forthcoming decommissioning of harmful economic activities. Furthermore, an extended taxonomy would facilitate the inclusion of activities that have been viewed as controversial for green taxonomies but would fit within a 'transitional' category.

By increasing transparency over what counts as a transitional activity, an extended taxonomy could increase the robustness of transition finance products, addressing concerns that transition finance will simply enable business as usual investment.

The arguments against expanding beyond 'green'

A green taxonomy has a clearly defined role, which meets a market need for definitions of, and transparency over, sustainable economic activities. The taxonomy is one tool among many that are required for the UK to reach net zero. An extended taxonomy in isolation will not be effective and so if one were to be developed, it would need to be coordinated with other policies and tools that will also support the UK's transition.

A green taxonomy has a clearly defined role, as an objective measure to clarify what is green, and what is not green. The taxonomy can mitigate greenwashing by providing clear definitions of what constitutes sustainable economic activity across different sectors. There is a market need for this clarity, given the existing uncertainty about what 'green' looks like for various sectors[6]. For investors wanting to understand a UK company's transition, the taxonomy reporting metrics of turnover (representing current performance) and capex (showing investment in future performance) already provide a powerful dataset, as they show how aligned future investment plans are with the wider transition.

Broadening the taxonomy to cover other areas can be helpful for mobilising capital, but this does not align with the three key aims for the UK Taxonomy, which were outlined by HM Treasury in the Greening Finance Roadmap[7]:

1) Create clarity and consistency for investors
2) Improve understanding of companies' environmental impact
3) Provide a reference point for companies

Extending the taxonomy to support other policy objectives[8] could negatively impact the usability and international interoperability of the UK taxonomy. Increasing the number and types of activities covered by the taxonomy would increase the UK Taxonomy's complexity and the reporting burden on companies. Although not necessarily a negative, given the increased transparency and information to the market, increases in complexity need to be balanced with the utility and usefulness of the additional information.

Usability issues have been noted with existing green taxonomies and although GTAG has already advised on some changes to the EU Taxonomy foundation for the UK Taxonomy[9], there would very likely be further usability challenges from implementing a transitional taxonomy in addition to the 'green taxonomy'. Significant additional resources would be required to develop and maintain the taxonomy TSC, and accompanying guidance.

Given there has been no consensus approach to transition taxonomies globally – although several jurisdictions have opted for a 'traffic-light' approach with transition activities falling in the 'amber' category – there could be implications for interoperability if the UK developed a transition taxonomy.

[6] ShareAction – In Debt to the Planet. December 2022. Page 67. https://api.shareaction.org/resources/reports/ShareAction_Banking_Survey_2022-final.pdf
[7] HM Treasury - Greening Finance: A Roadmap to Sustainable Investing. October 2021. https://www.gov.uk/government/publications/greening-finance-a-roadmap-to-sustainable-investing
[8] GTAG has provided extensive advice on how the UK Taxonomy could be applied to policy decisions as part of another workstream, published earlier this month. https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2023/08/GTAG-Final-Report-on-Policy-Links.pdf
[9] GTAG – Advice on the development of a UK Green Taxonomy. October 2022. https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2022/10/GTAG-Advice-on-the-development-of-a-UK-Green-Taxonomy.pdf

Treatment of transition within the EU Taxonomy

Transition is accounted for to an extent within the EU Taxonomy. This includes through the 'transitional activities' category, within the TSC, and via the dynamic taxonomy review process where TSC thresholds will ratchet up over time in line with the transition of the wider economy.

The UK Taxonomy should utilise these design features to cover some transitional activities. As part of this, the UK Taxonomy should consider TSC for transitional activities where environmentally friendly alternative solutions do not currently exist and include (where appropriate) TSC that require improvement in environmental performance over time. However, the inclusion of any transitional activities in the UK Taxonomy should be carefully considered to ensure it does not undermine the credibility of the UK Taxonomy as a whole. In the EU Taxonomy, inclusion of electricity generation from unabated fossil fuels as a transitional activity, despite the existence of environmentally friendly alternatives for energy generation, led to accusations of politically lobbying undermining the science-based nature of the taxonomy.

The role of the taxonomy review process

GTAG recommends that taxonomy reviews should ensure the UK Taxonomy remains aligned with the UK's transition pathway, including potentially reducing thresholds in activities that have made progress, and replacing transitional activities with net zero-aligned thresholds when such possibilities emerge.

This could also involve adding or removing activities within the UK Green Taxonomy to maintain a high standard while being tailored to the specifics of the UK economy. If criteria are tightened for certain economic activities, it may result in activities that were previously taxonomy-aligned losing their eligibility.

In addition, the UK Taxonomy review process should incorporate an assessment of the international landscape on transition approaches, before making any future decisions on extending the taxonomy.

Wider UK sustainable finance landscape

The UK's sustainable finance framework continues to evolve rapidly and the Taxonomy can serve as a foundational component of this framework. Any proposed extension of the Taxonomy's coverage will therefore need to be clearly situated within, and complementary to, the wider policy landscape. This includes the UK Green Taxonomy itself – any extension will need to build on the principles within a robust green taxonomy, without compromising on science-based criteria and the credibility of the tool as a whole. Consideration should also be given to:

- **Sustainability disclosures:** the UK's mandatory Taskforce on Climate-related Financial Disclosures (TCFD) regime and forthcoming Sustainability Disclosures Reporting (SDR), which will incorporate International Sustainability Standards Board (ISSB) standards, require firms to develop and disclose climate transition plans. The Financial Conduct Authority's (FCA's) proposed sustainable investment labels also include a category for funds seeking to improve the sustainability performance of their holdings over time ('sustainable improvers').

- **Transition plan disclosures:** the Transition Plan Taskforce (TPT) is taking forward work on sector-neutral and sector-specific transition plan disclosures, which will be integrated into the SDR regime.

- **Sectoral policies,** including the UK's objective to be the world's first net zero-aligned financial centre, the revised UK Net Zero Strategy, roadmaps for the transition of key sectors of the UK economy[10], as well as initiatives designed to mobilise and scale transition finance flows.

[10] In the March 2023 Green Finance Strategy, there was a commitment to develop and publish further roadmaps including one on heat pumps this year and a nature-positive transition pathway in 2024. In addition, an update to the market on hydrogen has been published and an update on Carbon Capture Usage and Storage (CCUS) is expected.

An extended taxonomy could complement entity-level transition plan disclosures by increasing transparency around the products and services that need to be urgently exited or which have the capacity to progress to a more sustainable level of performance over time. It could also provide the basis for KPIs under the FCA's proposed 'improvers' label and help to underpin sector pathways with more detail on how various economic activities can transition or whether they need to be discontinued.

However, these considerations need to be balanced against the greater reporting burdens, complexity and usability implications for the UK's sustainable finance framework that would be created by the introduction of an extended taxonomy. A variety of policy tools will be required to ensure a holistic approach to the transition and consideration will need to be given to which tools and levers are the most appropriate for achieving this objective.

In the absence of a UK Green Taxonomy to underpin many of these initiatives, there is a risk that an extension of the taxonomy could further complicate an already complex and fast-moving policy landscape. It would also impose additional reporting burdens and costs on firms at a time when reporting against a green taxonomy is not yet in force.

A number of existing and incoming policy initiatives may be better placed to address the value case for an extended taxonomy at this point in time. For example, sector roadmaps will provide transparency on the milestones and actions required for the UK economy to transition, giving investors confidence and policy certainty over which activities are at risk of becoming 'stranded', and where capital needs to be reoriented.

For this approach to work, it will be critical for the UK Government to deliver on its existing policy agenda in a timely fashion, and establish a clear, coordinated approach for implementing these policies. In addition, the Government should aim to increase transparency over the interlinking nature of the various sustainable finance tools discussed, and how they can support the transition. The Government's commitment to consult on the Taxonomy in Autumn 2023 is welcomed by GTAG.

However, details of future consultations on activities not included in this initial consultation, as well as further details on when the taxonomy will enter law, are needed.

Impacts of an extended taxonomy on international interoperability

It is important to consider the implications of an extended taxonomy on the interoperability of the UK taxonomy with a wider range of regional and national taxonomies, including the EU's. There are positive and negative implications to an extended UK Taxonomy for international interoperability. If the UK chooses to proceed with an extended taxonomy and few other nations do, there is a risk that fragmentation in the global taxonomy reporting landscape is further exacerbated, hindering the comparability of assets across jurisdictions and potentially reducing cross-border capital flows. There could also be consequences for the UK's international competitiveness, given the increased costs and resource requirements that would be created by an additional layer of reporting.

Out of 47 taxonomies under development at the time of writing, 11 have integrated transition activities, either through transition finance guidelines or a traffic light system. This constitutes about a third of all taxonomies when excluding those in the early stages of development that have yet to make such an intention clear. That is not to say, however, that green-focussed taxonomies do not include any elements of transition, for example, the EU Taxonomy does embed elements of transition by allowing for activities that cannot yet be replaced by technologically and economically feasible green alternatives, but that support the transition to a climate-neutral economy, as well as a 3-yearly review process. GTAG has previously recommended that the UK Taxonomy should also adopt 3-yearly reviews to "assess the UK Green Taxonomy against the evolving international taxonomy landscape, to assess whether there are any adjustments required[11].

Given the broad spectrum of approaches to the development of extended taxonomies across the globe, many of which are still nascent, it may be preferable to take a 'wait and see' approach to assess how the landscape evolves. Even where 'traffic light' taxonomies have been introduced, there is still a lack of consensus between nations on what constitutes 'red' and 'amber' activities, how to measure progress, and what constitutes 'acceptable' levels of progress.

GTAG recommends the UK Government should use the first three-yearly review of the taxonomy as a 'stock take' for whether an extended taxonomy is necessary for the UK. The review should look at:

- the international taxonomy landscape to determine progress in other jurisdictions on an extended taxonomy, their impact, and the best approach for the UK; and
- the effectiveness of other UK policies and tools in supporting the UK's transition.

If an extended taxonomy is deemed appropriate at this point, the UK can benefit from its follower status by implementing an extended taxonomy using best practice and learning from other international taxonomy approaches.

[11] Previous relevant GTAG recommendations can be found here: https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2022/10/GTAG-Advice-on-the-development-of-a-UK-Green-Taxonomy.pdf

Adapting the UK Green Taxonomy by expanding it to cover new sectors

Background

As noted earlier, it is proposed that the UK Green Taxonomy TSC for the climate change mitigation and climate change adaptation objectives is expected to use the EU Taxonomy TSC as a starting point. This proposal is high-level at this stage and remains subject to consultation.

The EU Taxonomy TSC for climate change mitigation currently cover nine sectors, the most significant of which emissions-wise, are energy, manufacturing, transport and construction. Over time, it is expected that the UK Green Taxonomy TSC may be updated or expanded to cover new sectors or activities. GTAG sought to answer the question of which further sectors would merit inclusion and the rationale for this.

GTAG considered the question from two broad perspectives: (i) whether the EU's coverage works well for the UK economy as it is (based on gross value added (GVA)) and (ii) whether it fits well with the UK's emissions data and additional investments by Government as set out in the Net Zero Strategy[12].

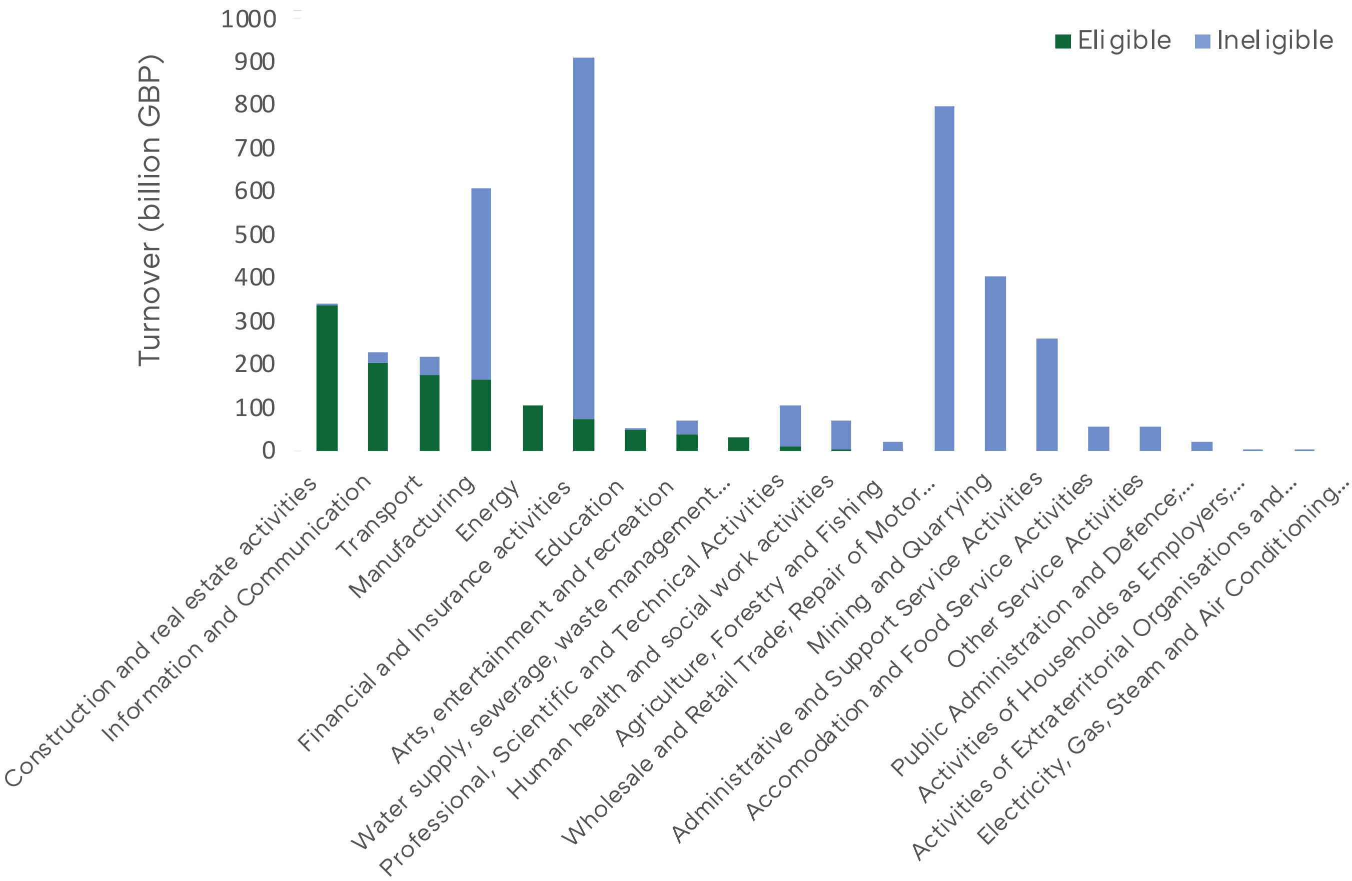
GTAG's advice considers the perspective of sectors included in the taxonomy's TSC, as well as companies and activities that will be covered by the taxonomy's reporting framework.

Mapping the EU taxonomy's activity-based coverage of the UK economy – room for improvement

The potential eligibility of the UK economy was examined based on the EU Taxonomy, using data on active companies within the UK and Ireland as of October 2021. The research provides a useful indicator of what UK taxonomy coverage might look like at the broad, sectoral level, given the UK Green Taxonomy will be based on the EU Taxonomy. Figure 2 sets out the findings and highlights the low expected eligibility for the UK Green Taxonomy across the economy. To an extent, this should be expected given the economy is not sustainable at this stage of the Net Zero transition. However, GTAG's analysis indicates this may be an indication of missing economic activities in specific sectors, including enabling activities.

[12] UK Government – Net Zero Strategy: Build Back Greener. https://www.gov.uk/government/publications/net-zero-strategy

Figure 2. **'Eligibility' and 'Ineligibility' of UK companies under the 1st Climate Delegated Act of the EU Taxonomy**



Source: analysis by GTAG member Theodor Cojoianu and deputy Anh Vu. Eligibility data for turnover (trillion GBP) is shown, broken down by sector. The data is ordered by value of 'eligible' turnover, and then by total 'ineligible' turnover. Data sourced from FAME dataset provided by Bureau Van Dijk. 'Eligibility' determined by primary company activity, with EU Taxonomy NACE codes mapped to UK SIC codes. Subsidiary companies operating with the same primary activity as parent companies were removed. Data from October 2021. Eligibility based only on activities included under the climate change mitigation objective within the first EU Climate Delegated Act of the EU Taxonomy and does not included additional activities added with later Delegated Acts, such as aviation activities.

For some sectors, there are no EU TSC covering their activity even though a relatively large proportion of UK company turnover is within that sector (see Figure 2). For example, in the case of 'Wholesale and Retail Trade: Repair of motor vehicles and motorcycles' only manufacturing and repair are covered, with no coverage of wholesale and retail activities in the EU Taxonomy. This seems a missed opportunity – there would be value expanding the UK Taxonomy to cover more wholesale and retail activities.

Example of how TSC could be expanded to retail: Currently, manufacturing of vehicles emitting lower than 50gCO_2/km is within the EU Taxonomy. However, companies selling those taxonomy-aligned vehicles or leasing them cannot claim taxonomy alignment as retail of vehicles is not included in the taxonomy, so a company choosing to only sell or lease low carbon vehicles would not benefit from taxonomy alignment status. If the taxonomy had a retail activity, the company could apply the % turnover it generates from Vehicles < 50gCO_2/km to demonstrate substantial contribution. This would then be applicable to car dealerships (% revenue from sale of qualifying EVs) and auto-finance (% revenue from financing EVs).

For other sectors, such as manufacturing, only a relatively small proportion of UK company turnover in that sector is expected to be taxonomy eligible. GTAG's analysis has shown that manufacturing TSC could be expanded without compromising scientific principles – for example by allowing manufacturers of aluminium cans (not currently within the EU Taxonomy) to qualify if they can prove their products have substantially lower life cycle emissions than typical aluminium cans. This could be done by showing their product is produced using taxonomy-aligned aluminium foil (manufacture of aluminium foil is included in the EU Taxonomy).

Other sectors with a lack of sufficient coverage under the EU taxonomy include:

- **Agriculture.** Expected eligibility is low. Agriculture is not a large sector for equity or debt investment but is relevant for emissions and biodiversity and the taxonomy could act as a tool to stimulate green private investments in agriculture and accelerate its transition[13].

- **Financial Services.** Coverage in the EU taxonomy is low with the only activities covered by TSC under the climate change adaptation objective being 'non-life insurance: underwriting of climate-related perils' and 'reinsurance'. The financial services sector contributed £173bn (9% of UK gross value added, or GVA) to the UK economy in 2021 - greening it is an essential task if the Government's aim for the UK to become the world's first Net Zero-aligned Financial Centre is to be met. However, further analysis will need to be undertaken to develop a set of appropriate TSC – and this may be better done through taxonomy-related reporting regimes.

- **Advisory Financial Services.** Including advisory services by reporting KPIs or through TSC could be considered but would also require further research to develop appropriate TSC.

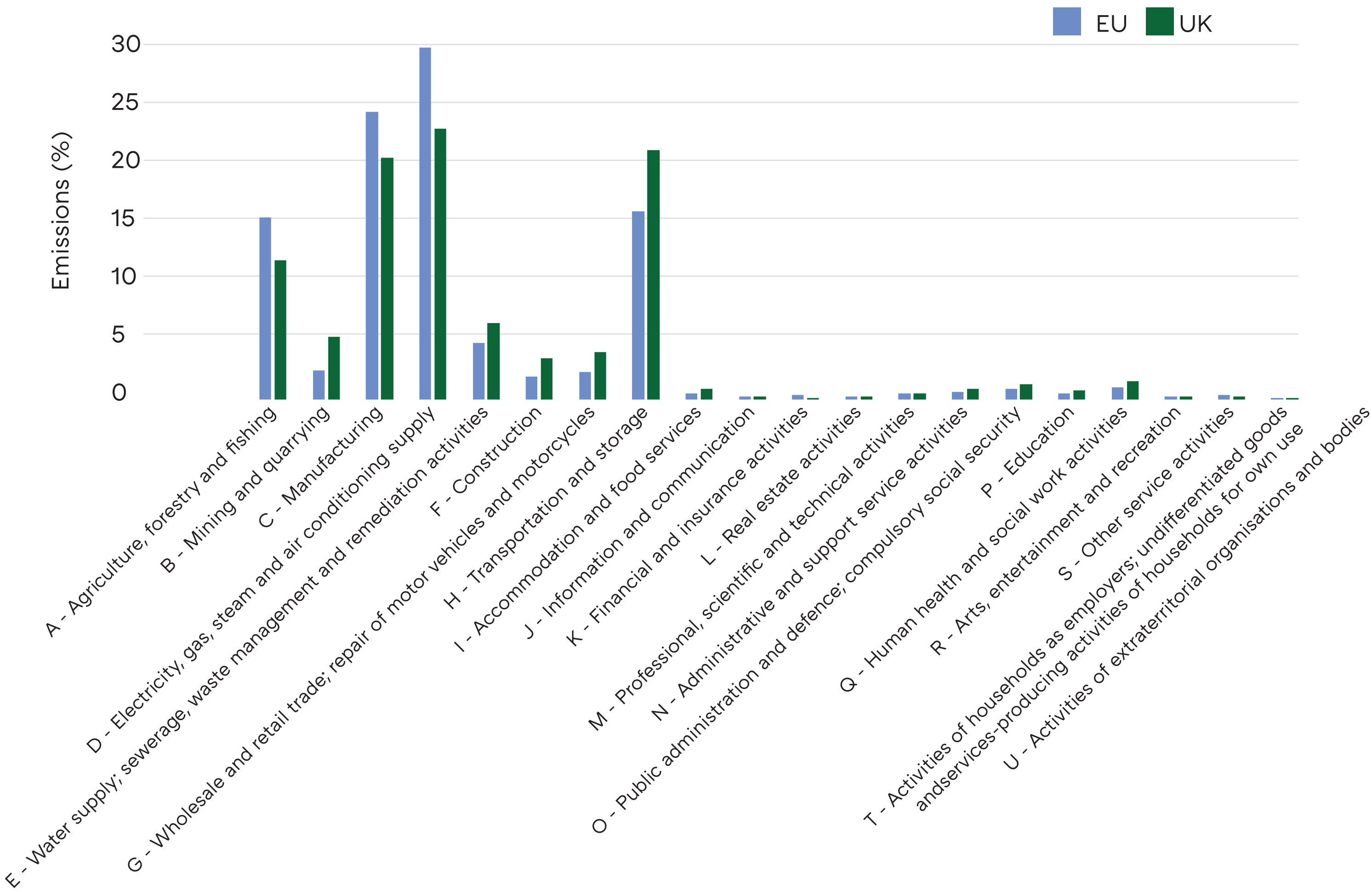
To more accurately reflect the UK economy, GTAG recommends that more economic activities should be added to the UK Green Taxonomy, prioritised based on contribution to the UK GVA, starting with a focus on expansion in the following sectors: wholesale and retail trade, manufacturing, agriculture and, potentially, financial and advisory services. Further work will be required to develop and test these TSC, however.

[13] Figure calculated from analysis of UK gross value added (GVA) using Office for National Statistics data. https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalandrealregionalgrossvalueaddedbalancedbyindustry

Mapping the EU taxonomy to the UK's current direct emissions – a good fit

The EU Taxonomy was designed to cover the sectors that are responsible for the largest direct greenhouse gas emissions. Analysis of UK direct greenhouse gas emissions by sector shows the UK has a similar profile to the EU (see Figure 3).

Figure 3. **Scope 1 CO2 equivalent emissions by sector for the EU in 2018 (blue) and UK total greenhouse gas emissions (in CO2 equivalent) for 2018 (orange).**



Each pair of bars relate to a different sector, with NACE sectors for the EU data, and SIC sectors for the UK. The letter preceding the description of each sector refers to the relevant NACE or SIC code. EU data sourced from page 13, TEG Taxonomy Report: Technical Annex[14]; originally sourced from Eurostat. UK data sourced from ONS data.[15]

GTAG concludes that from a purely emissions perspective, the sectoral coverage of the EU Taxonomy is a good fit for the UK's emissions profile and supports the climate change mitigation objective for the UK Green Taxonomy. There seems to be limited benefit for major divergence based on emissions only.

[14] EU TEG – Taxonomy Report: Technical Annex. March 2020. https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy-annexes_en.pdf

[15] ONS - Atmospheric emissions: greenhouse gases by industry and gas. September 2021. https://www.ons.gov.uk/economy/environmentalaccounts/datasets/ukenvironmentalaccountsatmosphericemissionsgreenhousegasemissionsbyeconomicsectorandgasunitedkingdom

Mapping the EU taxonomy to the UK's net zero trajectory – room for improvement

GTAG examined potential UK Green Taxonomy coverage, if it were to include all the activities covered under the EU Taxonomy, by comparing the climate change mitigation activities included in the EU Taxonomy's first Delegated Act[16] with the priority sectors in the Climate Change Committee's Sixth Carbon Budget. This revealed both overlaps but also potential gaps – the five highest-emitting sectors are assessed below.

- **Energy / Power (10% of UK emissions in 2019 were 'electricity generation' according to the Climate Change Committee's (CCC) Sixth Carbon Budget).**
  - High expected coverage of the energy sector implies that the power sector, which has the largest additional investment requirements, will be well covered.
  - The taxonomy will likely also cover the 'fuel supply' sector, including hydrogen electrolysers and electrification of oil and gas platforms.
  - The taxonomy could cover carbon capture and storage infrastructure and greenhouse gas removals, where energy companies are expected to be major players. Carbon capture for energy from waste plants may also be covered under the energy sector.

- **Buildings (17% of UK emissions).**
  - High coverage for construction implies an overlap with required buildings investment. Certainly, extra costs for new builds will be covered, but these are only around 10-15% of the extra buildings-related investment.
  - Further analysis may be needed to establish how well building retrofits are covered for major improvements in energy efficiency and the switch to low-carbon heating. Many of these will be paid for by property owners and fitted by small and medium enterprises that are unlikely to be covered.
  - Public and commercial buildings (a third of buildings investment) are likely to have patchy coverage depending on their sector (e.g. schools appear to be covered).

- **Transport (22% of UK emissions is 'Surface Transport').**
  - Although the economic sector of 'transportation' is well covered, the majority of the additional Net Zero investment is not, which includes higher upfront spending by consumers on car purchases and small traders for vans.
  - These elements may be captured through the finance sector (given the high prevalence of financing for car purchases) or the manufacturing of electric cars and vans and their batteries.
  - Extra investments for HGVs, buses, ships, planes, rail are expected to be captured.
  - Further analysis may be needed regarding the electric vehicle charging infrastructure, which is being developed by a range of specialist installers.

- **Manufacturing (20% of UK emissions when grouped with construction and fuel supply industries).**
  - Low coverage may mean investments in electrification, efficiency and a switch to using hydrogen and carbon capture may not be well covered.
  - Some may be picked up downstream through the use of materials, for example using low-carbon cement and steel in the water, construction and transport sectors.
  - Some waste facilities, such as recycling plants may also fall under this sector.

- **Agriculture and forestry (12% of UK emissions when grouped with Land Use and Land Use Change).**
  - Low coverage implies investment in tree planting and peatland restoration may not be well captured, nor will on-farm investment such as use of precision technologies and innovative feed additives as well as electrifying tractors and farm machinery.
  - Some low-carbon land investments may be captured via other sectors through their land ownership, such as the water sector.
  - Some agricultural investments could be picked up upstream via the growing of animal feed and downstream via food retailers.

[16] GTAG is not involved directly in the drafting of the technical screening criteria nor the selection of activities for inclusion in the UK Green Taxonomy. GTAG provides independent, non-binding advice to UK Government on the implementation and design of the UK Green Taxonomy, and its advice is considered alongside the Government's policy development process.

GTAG recommends there would be value in the UK Government considering developing further TSC to address these key gaps – noting that the LNAS Advisory Group is developing TSC for agriculture and forestry.

Expanding the EU taxonomy to include market enablers – market support for exploring this
One of the clear messages GTAG heard during market feedback was the gaps around considering enabling activities and wider activities within supply and value chains. While it is expected that some enabling activities will be covered by the UK taxonomy, the EU experience indicates many are likely to be missed.

Although an effective taxonomy cannot possibly define every potential activity that may exist in the future, this issue merits further consideration. The UK taxonomy should aim not only to look at sectors that are the source of the highest emissions but at the economic activities and technologies that have the biggest impact in reducing emissions while adhering to high standards of environmental impact for the entire economy[17]. Such enabling activities must not, of course, themselves risk harm to environmental objectives.

There is an opportunity for the UK Green Taxonomy to take a more considered view of supply and value chains and support the inclusion of additional activities within the taxonomy. There should be a formal mechanism in place for the government to consider eligible activities on a regular basis (every three years is the review period suggested in the Greening Finance Roadmap).

Ongoing cooperation on this between the government and industry will be key as technologies will change rapidly. This process needs to be managed by an independent body, involving independent experts or another government department or regulator, to ensure sufficient safeguards against undue influence and to prevent diluting the taxonomy's rigorous scientific standards. Any activities considered as enabling must be able to provide full traceability to the substantial contribution of the end activity.

GTAG recommends that an independent mechanism should be developed to consider additional eligible activities, particularly enabling activities, and to facilitate the inclusion of new technologies into the UK Green Taxonomy as part of the three-year review process. The process should be managed by an independent body or team in HM Treasury.

The process for incorporating additional activities should look at UK needs – but also build on work carried out in other jurisdictions using similar taxonomies to the UK. To facilitate this GTAG recommends that the development of international taxonomies should be closely followed and - where additional sectors and activities are included - the relevance for the UK Green Taxonomy should be considered as a part of the three-year review process.

[17] Activities of this kind were defined by the Technical Expert Group as "economic activities that, by provision of their products or services, enable a substantial contribution to be made in other activities. For example, an activity that manufacture a component that improves the environmental performance of another activity".

Increasing UK taxonomy coverage through the scope of and approach to disclosure requirements

Background

GTAG has also considered the question of the UK Government's approach to reporting, including the most appropriate KPIs to use and also the approach to defining coverage of companies and activities reporting under the taxonomy regime.

To date the UK has proposed – as outlined in the Greening Finance Roadmap - a clear single integrated disclosures framework for corporates and investors – the SDR.

The SDR seeks to provide an integrated disclosure framework for UK companies, asset managers and asset owners that builds on and incorporates existing and upcoming standards.[18]

While the proposals remain subject to consultation[19], the Greening Finance Roadmap states that the regulatory regime is expected to cover corporates, asset managers and asset owners, as well as investment product disclosures. When it comes to the coverage of corporate entities, the government wants companies to report the proportion of their capital expenditure (CapEx) which is taxonomy-aligned.

Looking ahead, and learning from the EU experience of implementing reporting requirements, GTAG identified several key questions to address ahead of designing an effective regime. These include:

- What type of companies need to be covered by the framework to ensure sufficient coverage of the UK economy?
- What type of metrics (e.g. CapEx, OpEx, turnover) need to be considered to appropriately measure the taxonomy alignment of corporates?
- Is there a need to develop bespoke KPIs for financial institutions and does their coverage need to be expanded/limited compared to the EU framework?
- Is the EU approach justified from a cost/benefits point of view and does it prioritise outcomes in the real economy?

[18] HM Treasury - Greening Finance Roadmap. October 2021. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1031805/CCS0821102722-006_Green_Finance_Paper_2021_v6_Web_Accessible.pdf
[19] In the 2023 Green Finance Strategy, UK government committed to published a consultation on the UK Taxonomy in Autumn 2023.

Scope of Coverage

Given the upcoming SDR framework will integrate reporting for both the Taskforce on Climate Related Financial Disclosures (TCFD) and the taxonomy, alignment to TCFD is the most obvious solution to clarify reporting requirements. At the moment, it is not known how widely SDR will apply and how far taxonomy reporting obligations will extend – issues that in due course will be subject to consultation. GTAG's advice is to initially align the scope of taxonomy disclosures with mandatory climate-related financial disclosures, i.e. TCFD. This should include:

- All UK companies currently required to produce a non-financial information statement, (>500 employees and transferable securities admitted to trading on a UK-regulated market (such as the London Stock Exchange's main market);
- UK Alternative Investment Market (AIM) companies > 500 employees;
- Other UK companies (not included above) > 500 employees and turnover > £500m; and
- Limited Liability Partnerships (LLPs) with > 500 employees and turnover > £500m.

The scope of the TCFD framework recognises the growing importance of private investment markets. Private companies can have a significant environmental impact and if disclosure is only applied to public companies, private companies might not be sufficiently incentivised to invest in the transition to a Net Zero economy. Additionally, if they were not included in the taxonomy reporting regime, financial institutions investing in private markets are likely to face data gaps in their own taxonomy reports.

GTAG agrees it makes sense to follow the UK's TCFD approach and focus on larger companies in the first 1-2 reporting years, who are likely to be of a size that merits disclosure and who have the resources to calculate and disclose their taxonomy alignment score. The TCFD scope incorporates over 1,300 of the largest UK companies[20], which should be sufficiently resourced to manage the complexity of taxonomy reporting.

In time, the scope could be extended to a wider range of companies, such as listed medium-sized companies, subject to the principle of proportionality. If extended, the disclosure requirements for these firms should be proportionate to the size and complexity of their operations.

To help businesses adjust to the complexity of taxonomy TSC, GTAG advises that companies are initially required to report on their taxonomy eligibility (i.e. the type of activities that classify for taxonomy reports) and only then report on taxonomy alignment (i.e. specific activities that fulfil taxonomy's TSC).

It is important to recognise that data needs to be provided in the right sequence for some companies to publish their taxonomy reports. The EU experience made it clear that financial services firms are dependent on adequate and timely corporate reporting to measure taxonomy eligibility and alignment. To ensure that financial institutions, which rely on data from non-financial services corporates, have the right information to complete their own reports, GTAG advises:

- **Year 1:** non-financial services companies report on their taxonomy eligibility;
- **Year 2:** financial institutions report on taxonomy eligibility and taxonomy alignment for non-financial services companies;
- **Year 3:** taxonomy alignment for financial institutions.

GTAG recommends that taxonomy reporting should apply to companies subject to mandatory TCFD reporting, as both frameworks will be integrated under the SDR, with appropriate phasing in and sequencing of reporting obligations, to ensure businesses have time to adjust and financial institutions have all information they require available[21]. GTAG suggests non-financial companies report on taxonomy eligibility in year 1; reports on taxonomy eligibility by FIs and taxonomy alignment by non-financial services companies happen in year 2; and taxonomy alignment by FIs happen in year 3[22].

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[20] HMG – UK to enshrine mandatory climate disclosures for largest companies in law. October 2021. https://www.gov.uk/government/news/uk-to-enshrine-mandatory-climate-disclosures-for-largest-companies-in-law

[21] This aligns with the Transition Plan Taskforce's Disclosure Framework, which was published after this paper was written and recommended building on existing climate-related risk disclosures, as provided by the Taskforce on Climate-related Financial Disclosures (TCFD) and International Sustainability Standards Board (ISSB).

[22] Since this advice was originally provided, UK Government announced a voluntary reporting period. To maximise the usefulness of voluntary reporting, GTAG recommends that government encourage non-financial companies to voluntarily report in the first year, as financial institutions will be dependent on information disclosed by corporate clients and investee companies for their own voluntary reporting.

Taxonomy KPIs for Non-Financial Companies

The UK has an opportunity to learn from some the challenges reporting entities have faced in reporting against EU taxonomy KPIs. GTAG recommends critically assessing the EU's approach to designing taxonomy KPIs, specifically where corporates are required to report on their capex, opex and turnover aligned with the taxonomy.

GTAG's initial research suggests that already, even with the less complex task of reporting taxonomy eligibility, large firms are struggling with their interpretation of the EU taxonomy. This is partly due to the complexity of TSC, but also as a result of the KPIs themselves.

- **Capex:** As a forward-looking indicator, capex is a valuable metric for measuring the extent of mitigation action taking place in the economy. By examining capex, it is possible to assess whether a company is investing in ways that align with the taxonomy over the medium- to long-term.
- **Opex:** The benefit of opex reporting is that it is helpful in order for SME businesses to demonstrate progress in the absence of capex. However, GTAG believe that opex should not be subject to a mandatory regime.
- **Turnover:** As a meaningful indicator of a business's current alignment with net zero transition pathways, turnover demonstrates the extent of a company's ongoing green activities.

GTAG recommends that the EU Taxonomy KPIs requiring corporates to report on their taxonomy-related capex, opex and turnover should be reassessed. In particular, the Department for Business and Trade should consult on limiting mandatory reporting to turnover and capex, whilst making opex reporting optional, without requiring a materiality assessment, reducing the burden on companies while still allowing them to voluntarily disclose opex information if they believe it is beneficial[23].

Taxonomy KPIs for financial institutions

Adjustments will be required to the taxonomy KPIs for financial institutions to reflect the specific nature of activities undertaken by banks, asset managers and insurers. GTAG's research has found that while the KPIs are based on simple ratios representing taxonomy investments, the implementation of KPIs has proven to be data-intensive and developed metrics are irrelevant in some cases.

Due to the complexity of these requirements, we believe that this is an area where the UK government can significantly learn from the EU's experience and mitigate some of the issues while making the UK's metrics more usable, comparable and internationally minded. To achieve this, we recommend developing KPIs to help investors avoid greenwashing, inform their investment decisions, and compare the performance of different institutions. These metrics should be developed by expert regulatory bodies, such as the FCA, in cooperation with a panel of businesses that will be subject to these disclosures.

Based on the EU experience, GTAG's advice is to devote sufficient time to developing and consulting on these metrics in order to achieve a KPI reporting framework that promotes a sustainable economy and enables stakeholders to better evaluate and manage their environmental risks and opportunities.

A summary of the issues and risks observed from the EU's approach, which require further investigation by UK regulators and businesses when designing the UK's approach, are covered on the next page.

[23] GTAG recommendations on taxonomy reporting KPIs are covered in more detail in another GTAG paper https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2023/08/GTAG-Final-Report-on-UK-Green-Taxonomy-Reporting-KPIs.pdf

Credit institutions

- Comparability and greenwashing risk: the design of the taxonomy KPIs published by credit institutions does not reflect variable taxonomy eligibility, types of operations activity and international exposure for banks.
- The Green Asset Ratio (GAR), which is the KPI metric developed for banks, reflects a company's balance sheet rather than its efforts to support the green transition. The scope of activities included in the GAR also needs to be considered as there are also potential unintended consequences for lending to SMEs and concerns over whether it is an accurate reflection of banks' sustainable activity.
- Numerator and denominator consistency: there are concerns over the consistency of the numerator and denominator for the taxonomy KPIs, with some activities excluded from one but not both elements. For example, sovereign exposure and derivatives are included in the denominator but excluded from the numerator in the GAR calculation.

Investors

- Usefulness of disclosures: considering that most asset managers work on behalf of someone else, the Green Investment Ratio (GIR) might not provide significant value.

Insurers

- Low level of taxonomy-eligible assets: currently, a very small percentage of assets are taxonomy-eligible which limits their usefulness as a comparison tool.

GTAG recommends that the SDR framework should factor in existing industry feedback on the EU Taxonomy KPIs when developing UK equivalents, to improve their usability, comparability and usefulness. The process must also set clear, consistent definitions for these KPIs to ensure meaningful and comparable reporting across various accounting frameworks. Technical experts at the FCA should lead this work. GTAG is also providing more advice on the KPIs in a separate report[24].

International angle

Implementation of the taxonomy is inevitably going to result in multiple challenges linked to the lack of international interoperability of sustainable finance regulations. Different taxonomy disclosures for multi-national companies will require significant expenditure and time, and will create operational inefficiencies, with data availability potentially causing issues too. GTAG published advice on international interoperability in February 2023[25], with further points in this paper focussed on certain issues relating to the perspective of applying the taxonomy in practice. These issues are being covered extensively in another GTAG workstream on interoperability and potential approaches to and implications of reporting against multiple taxonomy requirements, but a few issues are particularly relevant from the taxonomy application perspective.

GTAG found that when banks, which are in scope of the EU Taxonomy, calculate their taxonomy alignment score (the GAR), they experience challenges in gathering the required data from non-EU companies (i.e. outside the scope of the EU Taxonomy)[26]. Metrics for banks will also need to consider how international exposure is taken into account, otherwise their eligibility and alignment scores may be skewed and have the potential to mislead.

Another solution could be to allow the voluntary provision of data by international entities for the purpose of UK reports. This proposal is particularly relevant for financial institutions that not only have to deal with more complex KPIs but also tend to have more global and interlinked operations than non-financial services companies.

GTAG advises that the Government investigate the potential benefits of allowing UK companies, and especially international banks, to include data provided on a voluntary basis in their taxonomy KPIs for international entities not covered by the SDR. This will not only provide the market with more accurate information on a company's taxonomy alignment but will also encourage the use of the UK taxonomy internationally.

[24] https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2023/08/GTAG-Final-Report-on-UK-Green-Taxonomy-Reporting-KPIs.pdf
[25] https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2023/02/GFI-GTAG-INTERNATIONAL-INTEROPERABILITY-REPORT.pdf
[26] Swiss Finance Council – CSRD Joint Association Letter. April 2021.
https://www.swissfinancecouncil.org/images/Positions/CSRD_Joint_Association_Letter.pdf

GTAG also recommends that the international applicability of the taxonomy KPIs (including those for financial institutions) must be considered. HMG should consult on including voluntary reporting on foreign assets and activities, which could support use of the framework beyond the UK's borders and increase the quality of available information while limiting the burden on businesses. Additionally, the costs and benefits of expanding KPIs to data provided on a voluntary basis by entities not covered by SDR should be considered[27]. Recommendations made in the separate GTAG KPI Reporting paper provide further detail on how this could be done.

Conclusion

There are numerous adjustments that the government can undertake to create a taxonomy fit for purpose for the UK economy. While sectoral coverage of the taxonomy imposed by the EU will appropriately reflect sectors requiring decarbonisation in the UK, the inclusion of more enabling activities and lessons learnt from international taxonomies can improve taxonomy coverage in the UK economy. Moreover, there are multiple lessons learnt from the way taxonomy disclosures were implemented internationally. The UK government has a unique opportunity to take them on board to introduce a more effective and efficient way of assessing taxonomy performance of different companies.

[27] GTAG's published international paper discusses use of the taxonomy beyond the UK. In the 2023 Green Finance Strategy, UK Government committed to a voluntary reporting period for at least two years before introducing mandatory obligations which could facilitate testing of taxonomy KPIs and use of the framework outside the UK – some voluntary reporting against the EU Taxonomy has already occurred so there is precedent.

Annex:

Activities included within the EU Taxonomy under the climate change mitigation environmental objective, as of July 2023.

Sector	Code	Description	Introduced via	Amended via
Forestry	1.1	Afforestation	Climate Delegated Act	N/A
	1.2	Rehabilitation and restoration of forests, including reforestation and natural forest regeneration after an extreme event		
	1.3	Forest management		
	1.4	Conservation forestry		
Environmental protection and restoration activities	2.1	Restoration of wetlands	Climate Delegated Act	N/A
Manufacturing	3.1	Manufacture of renewable energy technologies	Climate Delegated Act	N/A
	3.2	Manufacture of equipment for the production and use of hydrogen		
	3.3	Manufacture of low carbon technologies for transport		Environmental Delegated Act (not yet in force, but adopted June 2023)
	3.4	Manufacture of batteries		N/A
	3.5	Manufacture of energy efficient equipment for buildings		
	3.6	Manufacture of other low carbon technologies		
	3.7	Manufacture of cement		
	3.8	Manufacture of aluminium		
	3.9	Manufacture of iron and steel		
	3.1	Manufacture of hydrogen		
	3.11	Manufacture of carbon black		
	3.12	Manufacture of soda ash		
	3.13	Manufacture of chlorine		

Sector	Code	Description	Introduced via	Amended via
Manufacturing	3.14	Manufacture of organic basic chemicals		
	3.15	Manufacture of anydrous ammonia		
	3.16	Manufacture of nitric acid		
	3.17	Manufacture of plastics in primary form		
	3.18	Manufacture of automotive and mobility components	Environmental Delegated Act (not yet in force, but adopted June 2023)	N/A
	3.19	Manufacture of rail constituents		
	3.2	Manufacture, installation, and servicing of high, medium and low voltage electrical equipment for electrical transmission and distribution that result in or enable substantial contribution to climate change mitigation		
	3.21	Manufacturing of aircraft		
Energy	4.1	Electricity generation using solar photovoltaic technology	Climate Delegated Act	N/A
	4.2	Electricity generation using concentrated solar power (CSP) technology		
	4.3	Electricity generation from wind power		
	4.4	Electricity generation from ocean energy technologies		
	4.5	Electricity generation from hydropower		
	4.6	Electricity generation from geothermal energy		
	4.7	Electricity generation from renewable non-fossil gaseous and liquid fuels		
	4.8	Electricity generation from bioenergy		
	4.9	Transmission and distribution of electricity		
	4.1	Storage of electricity		
	4.11	Storage of thermal energy		
	4.12	Storage of hydrogen		
	4.13	Manufacture of biogas and biofuels for use in transport and of bioliquids		
	4.14	Transmission and distribution networks for renewable and low-carbon gases		
	4.15	District heating/cooling distribution		
	4.16	Installation and operation of electric heat pumps		
	4.17	Cogeneration of heat/cool and power from solar energy		
	4.18	Cogeneration of heat/cool and power from geothermal energy		
	4.19	Cogeneration of heat/cool and power from renewable non-fossil gaseous and liquid fuels		
	4.2	Cogeneration of heat/cool and power from bioenergy		
	4.21	Production of heat/cool from solar thermal heating		
	4.22	Production of heat/cool from geothermal energy		
	4.23	Production of heat/cool from renewable non-fossil gaseous and liquid fuels		
	4.24	Production of heat/cool from bioenergy		
	4.25	Production of heat/cool using waste heat		

Sector	Code	Description	Introduced via	Amended via
Energy	4.26	Pre-commercial stages of advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle	Complementary Delegated Act (In force July 2022)	N/A
	4.27	Construction and safe operation of new nuclear power plants, for the generation of electricity or heat, including for hydrogen production, using best-available technologies		
	4.28	Electricity generation from nuclear energy in existing installations		
	4.29	Electricity generation from fossil gaseous fuels		
	4.3	High-efficiency co-generation of heat/cool and power from fossil gaseous fuels		
	4.31	Production of heat/cool from fossil gaseous fuels in an efficient district heating and cooling system		
Water supply, sewerage, waste management and remediation	5.1	Construction, extension and operation of water collection, treatment and supply systems	Climate Delegated Act	N/A
	5.2	Renewal of water collection, treatment and supply systems		
	5.3	Construction, extension and operation of waste water collection and treatment		
	5.4	Renewal of waste water collection and treatment		
	5.5	Collection and transport of non-hazardous waste in source segregated fractions		
	5.6	Anaerobic digestion of sewage sludge		
	5.7	Anaerobic digestion of bio-waste		
	5.8	Composting of bio-waste		
	5.9	Material recovery from non-hazardous waste		
	5.1	Landfill gas capture and utilisation		
	5.11	Transport of CO2		
	5.12	Underground permanent geological storage of CO2		
Transport	6.1	Passenger interurban rail transport		
	6.2	Freight rail transport		
	6.3	Urban and suburban transport, road passenger transport		
	6.4	Operation of personal mobility devices, cycle logistics		
	6.5	Transport by motorbikes, passenger cars and light commercial vehicles		
	6.6	Freight transport services by road		
	6.7	Inland passenger water transport		Environmental Delegated Act (not yet in force, but adopted June 2023)
	6.8	Inland freight water transport		
	6.9	Retrofitting of inland water passenger and freight transport		
	6.1	Sea and coastal freight water transport, vessels for port operations and auxiliary activities		
	6.11	Sea and coastal passenger water transport		
	6.12	Retrofitting of sea and coastal freight and passenger water transport		
	6.13	Infrastructure for personal mobility, cycle logistics		N/A

Sector	Code	Description	Introduced via	Amended via
Transport	6.14	Infrastructure for rail transport		Environmental Delegated Act (not yet in force, but adopted June 2023)
	6.15	Infrastructure enabling low-carbon road transport and public transport		N/A
	6.16	Infrastructure enabling low carbon water transport		Environmental Delegated Act (not yet in force, but adopted June 2023)
	6.17	Low carbon airport infrastructure		
	6.18	Leasing of aircraft	Environmental Delegated Act (not yet in force, but adopted June 2023)	N/A
	6.19	Passenger and freight air transport		
	6.2	Air transportation ground handling operations		
Construction and real estate activities	7.1	Construction of new buildings	Climate Delegated Act	N/A
	7.2	Renovation of existing buildings		
	7.3	Installation, maintenance and repair of energy efficiency equipment		
	7.4	Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)		
	7.5	Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings		
	7.6	Installation, maintenance and repair of renewable energy technologies7.7		
	7.7	Acquisition and ownership of buildings		
Information and communication	8.1	Data processing, hosting and related activities		
	8.2	Data-driven solutions for GHG emissions reductions		
Professional, scientific and technical activities	9.1	Close to market research, development and innovation		
	9.2	Research, development and innovation for direct air capture of CO_2		
	9.3	Professional services related to energy performance of buildings		

Approaches to Extended Taxonomies

Various emerging and established approaches to the development of an extended taxonomy are summarised below – several other jurisdictions are taking a transition-focused approach to taxonomy development, including Australia, Canada and Chile.

Taxonomy	Approach
Climate Bonds Initiative	A traffic light system is used to indicate whether identified assets and projects are automatically compatible with a 1.5°C decarbonisation trajectory. **Green** = automatically compatible; **orange** = potentially compatible (specific criteria); **red** = not compatible; grey = further work required.
Association of Southeast Asian Nations (ASEAN)	A traffic light system is used in the Foundation Framework to classify activities. **Green** = meets one or more environmental objective and does no significant harm; **amber** = meets one or more environmental objective, but causes harm that it is making efforts to remediate; **red** = causing harm and no efforts to mediate.
Indonesia	A traffic light system is used to classify activities. **Green** = provides positive environmental impact + meets minimum safeguards + do no significant harm; **yellow** = do no significant harm; **red** = harmful activities.
Japan	The Ministry of Economy, Trade and Industry (METI) released guidelines on climate transition finance, following the Ministry of Environment's publication of Green Bond Guidelines. Although not yet a detailed taxonomy, the focus is on transition and METI has set up a Roadmap Taskforce to formulate sector-specific pathways.
Malaysia	Activities are split into five categories: C1 – **climate supporting** (meets at least one environmental objective and does no significant harm) C2 – **transitioning** (meets at least one environmental objective, does significant harm but is making remedial efforts to promote transition) C3 – **transitioning** (does not meet at least one environmental objective, does significant harm, but is making remedial efforts to promote transition) C4 – **watchlist** (meets at least one environmental objective, does significant harm and no remedial efforts to promote transition. C5 – **watchlist** (does not meet an environmental objective, does significant harm and no remedial efforts to promote transition)
Singapore	A traffic light system is used to classify activities. **Green** = substantially contributes to climate change mitigation by operating at net zero, or on a path to net zero by 2050; **amber** = transition; **red** = harmful activities incompatible with net zero.

Glossary

Term	Description
AIM	Alternative investment market
Amber list	Activities that are not green but have the capacity to transition to a more sustainable level of performance
CapEx, or capex	Capital expenditure
DNSH	Do no significant harm
FIs	Financial institutions
GAR	Green asset ratio
GDP	Gross domestic product
Grey list	Activities with little or no environmental impact
HGVs	Heavy goods vehicles
ISSB	International Sustainability Standards Board
KPIs	Key performance indicators
LLP	Limited liability partnership
LSE	London Stock Exchange
NACE	Statistical Classification of Economic Activities in the European Community
OpEx, or opex	Operating expenditure
Red list	Activities that are harmful and cannot transition, and those that have the potential to transition, but must do so urgently given their negative environmental impact
SDR	Sustainability Disclosure Requirements (SDR)
SIC	Standard Industrial Classification
SMEs	Small or medium-sized enterprise
TCFD	Taskforce on Climate-related Financial Disclosures
TPT	Transition Plan Taskforce
TSC	Technical Screening Criteria
White list	Permissible activities that are considered green by default without needing to meet screening criteria or quantitative thresholds

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- **James Alexander,** UK Sustainable Investment and Finance Association
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- HM Treasury
- 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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