

FSB Roadmap for Addressing Financial Risks from Climate Change Progress report

2023 progress report



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Executive summary

In July 2021, the Financial Stability Board (FSB) published a comprehensive Roadmap for Addressing Climate-related Financial Risks, which was endorsed by the G20. The Roadmap responded to the need for coordinated action between standard-setting bodies (SSBs) and other international organisations. Two years on, progress has been steady across all four blocks of the Roadmap and some areas have been identified for further attention:

- **Firm-level disclosures:** A substantial achievement has been the publication on 26 June of the International Sustainability Standards Board (ISSB)'s final standards, IFRS S1 on general sustainability-related disclosures and IFRS S2 on climate-related disclosures. The FSB welcomes the publication of the final standards, which will serve as a global framework for sustainability disclosures and, when implemented, will enable disclosures by different companies around the world to be made on a common basis. A key priority is now the swift consideration by the International Organization of Securities Commissions (IOSCO) of endorsement of the standards for authorities to adopt, apply or otherwise utilise in a robust and timely manner, reflecting each jurisdiction's circumstances. The FSB will work with the ISSB, IOSCO and other relevant bodies to promote the timely and wide use of the standards. The FSB also asks the ISSB to take over from the Task Force on Climate-related Financial Disclosures (TCFD) the monitoring of the adoption of climate-related disclosures by firms. Interoperability of the ISSB standards with jurisdictional frameworks is necessary in order to achieve global comparability of climate-related disclosures. In this context, the FSB strongly welcomes initiatives that aim to promote interoperability between those disclosure frameworks, such as the ISSB's Jurisdictional Working Group, and welcomes bilateral discussions on interoperability between the ISSB and individual jurisdictions in order to avoid firms' double reporting. Finally, encouraging progress has been made on the development of a global assurance framework for sustainability-related corporate reporting to drive reliability of the disclosures.
- **Data:** Work in 2022-2023 has continued to focus on improving the availability, quality and cross-border comparability of climate data. An important goal is to develop global repositories that provide open access to data and would facilitate the use of metrics that reflect climate-related risks consistently and reliably across sectors and jurisdictions. There is a continuing need for enhancing climate data and improving its accuracy, consistency and quality, in order to support climate risk assessment and scenario analysis exercises. Further work is needed to develop metrics that measure climate-related risks in a forward-looking manner.
- **Vulnerabilities analysis:** Progress is being made on development of conceptual frameworks and metrics for monitoring climate-related vulnerabilities. Further work is needed to embed climate scenarios into monitoring of financial vulnerabilities and to develop understanding of the cross-border and cross-sectoral transmission of climate shocks in order to obtain financial stability insights.
- **Regulatory and supervisory practices and tools:** Initiatives on embedding climate-related risk into risk management and prudential frameworks are ongoing and capacity building remains an important focus. As work on regulatory and supervisory approaches

to climate-related risks is evolving, there is a growing interest in the role of transition plans of financial institutions and non-financial corporates not only in enabling an orderly transition, but also as a source of information for financial authorities to assess micro- and macroprudential risks. The FSB is setting up a Transition Plans Working Group that will, as an initial task, develop a conceptual understanding on the relevance of transition plans and planning by financial and non-financial firms for financial stability. With many initiatives having started or being considered, it will be important to ensure close coordination among the FSB, SSBs and other relevant bodies.

Across all blocks of the Roadmap, financial institutions' progress in addressing climate-related financial risks relies on the non-financial corporate sector making similar progress, including in the areas of firm-level disclosures, addressing data gaps and transition plans.

1. Introduction

In July 2021, the Financial Stability Board (FSB) published a comprehensive Roadmap to address climate-related financial risks. The Roadmap was endorsed by G20 Finance Ministers and Central Bank Governors and subsequently by G20 Leaders at the Rome Summit. It addressed the need for coordinated action with the large and growing number of international initiatives underway by outlining key actions to be taken by SSBs and other international organisations over a multi-year period in four key policy areas: firm-level disclosures, data, vulnerabilities analysis, and regulatory and supervisory practices and tools.

Climate-related events are becoming ever more common, and this is leading to a growing focus on potential risks climate change could pose to financial stability. A manifestation of physical risks as well as a disorderly transition to a low-carbon economy could have destabilising effects on the financial system, such as a rise in risk premia and falling asset prices. Climate-related risks may also be amplified by the financial system, across borders and across sectors. The increased frequency and intensity of extreme weather and climate-related events, and the intense debate about current and future energy policies in many jurisdictions, highlight that this is not just a long-term issue or tail event. It also emphasises the importance of continued progress to embed effective risk management practices and strengthen financial system resilience to the risks posed by climate change.

The G20 has asked the FSB to deliver annual progress reports on the Roadmap. The objectives of this second annual progress report are to:

- Take stock of further progress made in the year since the first annual Roadmap progress report was published in July 2022
- Identify and address areas requiring further attention
- Strengthen coordination across the different international initiatives
- Provide updates where needed to the detailed Roadmap actions set out in the **Annex**

This progress report has been prepared in consultation with SSBs and other relevant international bodies. The report also serves as input to broader international policy considerations, such as at the G20, G7 and UN, as well as to the work under the G20 Sustainable Finance Working Group (SFWG) roadmap on sustainable finance.

2. Progress made across all four blocks of the Roadmap

2.1. Block 1 – Disclosures

Goal: Achieve globally consistent, comparable, and decision-useful public disclosures by firms of their climate-related financial risks.

2.1.1. Progress made on firm-level disclosures

Important progress has been made over the last year in international and jurisdictional initiatives to strengthen the comparability, consistency and decision-usefulness of climate-related financial disclosures and to develop assurance standards over sustainability-related information.

The publication on 26 June 2023 of the International Sustainability Standards Board (ISSB)'s finalised Standards, IFRS S1 on general sustainability-related disclosures¹ and IFRS S2 on climate-related disclosures², is a major achievement. Since the publication in March 2022 of its two Exposure Draft standards for consultation, the ISSB has conducted an extensive deliberation process in response to the feedback received. IFRS S2 builds on the recommendations of the FSB's Task Force on Climate-related Financial Disclosures (TCFD) and the work of other sustainability bodies. To be compliant with this standard, an entity would need to disclose material information about its exposure to climate-related risks and opportunities. Application of this standard (IFRS S2) would require an entity to centre its disclosures on the consideration of the governance, strategy and risk management of its business, and the metrics and targets it uses to measure, monitor, and manage its climate-related risks and opportunities. Under the new standard, entities would disclose information relevant to various cross-industry metric categories, such as GHG emissions (scopes 1, 2 and 3), physical risks, transition risks, climate-related opportunities, and capital deployment. Entities would also disclose information about any climate-related transition plan they have. The ISSB is supporting jurisdictions and reporting entities in their initial application of IFRS S1 and S2 by introducing a set of transitional reliefs which will, amongst other things, permit entities in the first year of application to (i) not provide comparative information, (ii) not disclose scope 3 GHG emissions, and (iii) limit their reporting to climate-related information.

The FSB progress report on climate-related disclosures³ published in October 2022 provided an update on jurisdictions' actions relating to disclosures. Since then, the European Union completed public consultations on sustainability reporting standards⁴ and is expected to adopt its final standards shortly. In March 2022, the US Securities and Exchange Commission also proposed rule amendments that would require a registrant (both domestic and foreign private issuers) to include certain climate-related information in its registration statements and periodic reports.⁵

Interoperability between the ISSB's global framework for climate-related disclosures and national and regional jurisdictions' specific requirements is necessary to achieve global comparability of climate-related disclosures and has been a continued area of focus. The ISSB's Jurisdictional Working Group established a dialogue to promote interoperability between the ISSB's work and that of ongoing jurisdictional initiatives on sustainability and climate disclosures. Membership includes regulators from China, the European Union, Japan, the UK and the US. As an example of progress in this area, the ISSB announced with the European Commission and EFRAG last December that they are working toward a shared objective to maximise

¹ IFRS (2023), *S1 General Requirements for Disclosure of Sustainability-related Financial Information*, June

² IFRS (2023), *S2 Climate-related Disclosures*, June

³ FSB (2022), *Progress report on promoting climate-related disclosures*, October.

⁴ *First Set of draft European Sustainability Reporting Standards (ESRS) - EFRAG*

⁵ Available [here](#).

interoperability of their standards and aligning on key climate disclosures. This included detailed analysis of terminology and requirements within the standards, with an expectation to share the results after the finalisation of both sets of standards.

At a sectoral level, the Basel Committee on Banking Supervision (BCBS) is targeting the issuance of a consultation document on a proposed Pillar 3 disclosure framework for climate-related financial risks by the end of 2023, which seeks to build on and complement the ISSB's disclosure standards with a set of bank-specific disclosure requirements. The International Association of Insurance Supervisors (IAIS) has set up a Climate Risk Disclosure Workstream, with a focus on reviewing IAIS standards related to disclosures and supervisory reporting, to ensure that they adequately cover climate-related risks, as well as monitoring developments in disclosure frameworks for climate-related risks, both at international and national levels.

The Organisation for Economic Co-operation and Development (OECD) also began its review of the G20/OECD Principles of Corporate Governance in 2021 to reflect developments in governance and capital markets. The revised Principles were adopted by OECD Ministers in June 2023. They will be submitted to G20 for endorsement. The revised Principles include recommendations on sustainability disclosures as well as the role of Boards and the rights and interests of shareholders and stakeholders on sustainability matters.

During the period until the implementation of the ISSB standards across jurisdictions begins, there is a continuing need to maintain momentum by monitoring and reporting on progress in firms' climate disclosures. The FSB therefore requested in October 2022 that the TCFD continue its work to promote and monitor progress in firms' take-up of its recommendations, and publish in September 2023 a further status report on firms' disclosures that, by being TCFD-aligned, will be using a common basis with the new global framework. The issuance of the finalised ISSB standards marks a significant new stage in the disclosure process. The publication of this year's progress report by the TCFD will be its final task. The TCFD will be disbanded, and the FSB will ask the ISSB to deliver a report in 2024 on progress in firms' disclosures, liaising with IOSCO as appropriate, including early take-up of the ISSB standard for climate-related disclosures and progress in achieving interoperability.

Endorsement of sustainability disclosure standards

IOSCO is providing a key role in reviewing the ISSB's standards and considering them for endorsement for authorities to adopt, apply or otherwise utilise, reflecting each jurisdiction's circumstances. In July 2022, the IOSCO Board discussed the ISSB's proposals in detail and re-confirmed the criteria it would use to decide whether to endorse the final ISSB standards, with a view to completing its review in 2023. IOSCO will also review the International Auditing and Assurance Standards Board (IAASB) and International Ethics Standards Board for Accountants (IESBA) standards and has set out its expectations that both disclosure and assurance standards should be ready for use by corporates for their end-2024 accounts.⁶ In March 2023, IOSCO published key considerations to promote an effective global assurance framework for

⁶ IOSCO (2022), Media release, November.

sustainability-related corporate reporting.⁷ These include, among others, four features of future standards: (1) profession-agnostic, (2) framework-neutral, (3) timely, and (4) fully respecting the due process and public interest framework.

Assurance over sustainability-related reporting

Work on sustainability-related assurance, ethics and independence standard-setting has gained much traction since the previous Roadmap update in July 2022. The IAASB and IESBA have ramped up their efforts to develop standards to ensure a high-quality framework for assurance over sustainability-related disclosures. The IAASB is developing a new profession-agnostic overarching standard for assurance on sustainability-related information, the International Standard on Sustainability Assurance (ISSA) 5000, General Requirements for Sustainability Assurance Engagements, and published a project proposal⁸ in September 2022. The IAASB approved its Exposure Draft on 28 June for consultation, with a view to finalising the standard in the second half of 2024.

In parallel, the IESBA also committed to developing fit-for-purpose, globally applicable ethics and independence standards to support sustainability-related assurance and reporting. In December 2022, the IESBA approved its project proposal: (i) profession-agnostic ethics and independence standards for use by all sustainability assurance practitioners; and (ii) specific ethics provisions relevant to sustainability reporting for use by accounting professionals. The IESBA aims to issue an Exposure Draft by December 2023, with a view to finalising the new standard by late 2024.

2.1.2. Key areas for future work

Notwithstanding the substantial progress made in the past year, the next steps will be crucial in achieving globally consistent, comparable, and decision-useful disclosures on climate-related financial risks and opportunities.

Implementation of the ISSB standards

Now that the ISSB standards have been finalised, work to promote the timely and wide use of the standards by jurisdictions is important.

IOSCO's work to consider endorsement will be an important immediate step. If IOSCO endorses the standards, jurisdictions should take timely action to consider how they would adopt, apply, or otherwise utilise the standards. IOSCO will seek to assist jurisdictions through a broad capacity building programme, working closely with the ISSB and other relevant bodies. The ISSB is also envisaging publishing adoption guidance to facilitate the implementation globally. The FSB will closely work with these bodies to promote its timely and wide adoption in line with individual circumstances of jurisdictions and will continue to report annually to the G20 on

⁷ IOSCO (2023), IOSCO report on International Work to Develop a Global Assurance Framework for Sustainability-related Corporate Reporting, March.

⁸ IAASB (2022), Project proposal for the development of an overarching standard for assurance on sustainability reporting.

progress in implementation by jurisdictions and firms of disclosures and reporting in line with international standards, including through a further report in October 2023.

In addition, capacity building will be important to facilitate implementation of the ISSB standards. The ISSB has a global capacity building programme aimed at supporting high quality adoption by jurisdictions and implementation by firms, and will be working with IOSCO, development banks and jurisdictions. IOSCO will also continue to engage with the standard setters and other stakeholders and support capacity building across the entire sustainability reporting ecosystem. The World Bank, working closely with IOSCO and ISSB, will provide capacity building support for emerging market and developing economy (EMDE) regulatory authorities in implementing and rolling out the ISSB standards.

Continued efforts on interoperability

Work to achieve the interoperability of disclosure frameworks for climate-related financial risks should remain a priority. The ISSB will continue to work with jurisdictions and other reporting organisations such as the Global Reporting Initiative (GRI) to maximise interoperability of its standards with jurisdictional requirements. This will be essential to help avoid unnecessary fragmentation and unnecessary costs for preparers of disclosures. Reducing existing conceptual and actual differences between disclosure frameworks can also help promote the comparability of disclosures across jurisdictions. The FSB welcomes bilateral discussions on interoperability between the ISSB and individual jurisdictions in order to avoid any risk of firms' double reporting.

Similarly, consistency between climate-alignment metrics and subsequent disclosures on climate and sustainability is an important issue and can assist with climate-related financial disclosures. The International Monetary Fund (IMF), jointly with the World Bank Group, OECD, and BIS, will issue a staff-level technical report on the operationalisation of G20 Sustainable Finance Working Group (SFWG) Principles for Climate Alignment Approaches⁹, promoting consistency and interoperability across alignment approaches, including disclosures, climate metrics, as well as forward-looking climate metrics and transition plan characteristics.

Finalisation of assurance and ethics standards over sustainability-related reporting

The IAASB's planned sustainability assurance standard will form an integrated package with IESBA's international ethics and independence standards for sustainability assurance practitioners. Both are due to be finalised by end-2024. The emphasis on timely completion aims to minimise the risk of fragmentation and proliferation of standards and could enhance the confidence of intended users of general-purpose external reporting of sustainability-related information.

Looking ahead, further work on sustainability assurance is expected to be linked to the evolving maturities of reporting standards, entity's systems and reporting processes, and the information needs of intended users, as well as emerging issues that drive public interest priorities. IAASB and IESBA seek to continue coordinating with other relevant standard-setting bodies, as well as international and jurisdictional bodies with responsibility for reporting or assurance requirements.

⁹ The Principles are described in Focus Area 1, Action 1 of the G20 Sustainable Finance Roadmap

Regulatory monitoring and enforcement of profession-agnostic assurance and ethics standards

Recognising the reality that sustainability assurance is already performed by diverse assurance providers within and outside of the accountancy profession around the globe, and in response to a call from IOSCO, the IAASB's and IESBA's future sustainability-related standards will be profession-agnostic. Particularly where jurisdictions move from voluntary to mandatory reporting and assurance it may place additional responsibilities on regulators and oversight bodies. While regulatory oversight regimes for auditors are well established in most jurisdictions, this is not the case for sustainability assurance providers outside the accountancy profession. Accordingly, there would be merit in further developing supervisory regimes for sustainability assurance practitioners outside the accountancy profession.

2.2. Block 2 – Data

Goal: Establish a basis of comprehensive, consistent, and comparable data for monitoring climate-related financial risks globally.

2.2.1. Progress made on data

Work in 2022-2023 has continued to focus on improving the availability, quality and cross-border comparability of climate data.

The Network for Greening the Financial System (NGFS) in July 2022 published its final report on identifying and bridging data gaps.¹⁰ It has developed, and continues to enhance, a directory of data sources for financial sector stakeholders through an internal network of climate-related data experts working on three topics: (i) data hubs organisations within central banks and supervision authorities, (ii) set up of national climate data directories/catalogues and (iii) improving emissions data. Looking ahead, it aims to publish a new version of the NGFS Data Directory referencing data sources and metrics, which will be updated on a regular basis.

Climate data elements have also become a regular feature of the Global Monitoring Exercise (GME) conducted by the IAIS, providing a global baseline of climate risk data for the insurance sector. The outcomes of the analysis from 2022 were published as part of the regular Global Insurance Market Report (GIMAR) at the end of 2022.¹¹ The 2023 GME data collection was launched in March and again includes both qualitative and quantitative data elements related to climate risk and includes, for the first time, data requests to individual insurers. Again, outcomes of the analysis will be published as part of the regular GIMAR at the end of this year.

At a macro-level, the G20 Data Gap Initiative (DGI) workplan led by the IMF, in close cooperation with the FSB and the Inter-Agency Group on Economic and Financial Statistics (IAG), was launched in 2022. It includes seven recommendations to address data gaps relating to climate, including carbon footprint of foreign direct investment, climate finance, and forward-looking physical and transition risk indicators. In addition, to support the work on climate-related data availability, the IMF, in collaboration with relevant stakeholders, is working to ensure the addition

¹⁰ NGFS (2022), *Final report on bridging data gaps*, July.

¹¹ IAIS (2022), *Global Insurance Market Report 2022*, December

of the relevant environmental classes to the classification systems of the international statistical standards within the ongoing update of the System of National Accounts and Balance of Payments and International Investment Position Manual.

An important goal is to develop global repositories that provide open access to data. Such data repositories would facilitate the development and use of metrics that reflect climate-related risks consistently and reliably across sectors and jurisdictions. Public-private sector initiatives, such as the Net-Zero Data Public Utility (NZDPU) will help to build the climate data landscape. The Climate Data Steering Committee (CDSC), which is responsible for developing the NZDPU, aims to build a unified, global climate data utility, with the objective to aggregate, help standardise and make publicly available critical climate-related data from financial institutions and companies with respect to their net-zero transitions. It includes representatives from international organisations including the United Nations, the OECD, IMF, IOSCO, and the FSB. Other initiatives complement this data by providing access to data on risk exposures, such as the Global Resilience Index Initiative (GRII).

Finally, the FSB has made further progress on developing, for its own internal purposes, a framework, data and metrics for monitoring climate-related risks to financial stability at the global level. This work focuses on aggregating relevant data across its member jurisdictions and is highlighting various data gaps that need to be filled and further work required to advance the monitoring of climate-related financial stability vulnerabilities, including to develop and enhance forward-looking metrics.

2.2.2. Key areas for future work

There is continued need for enhancing climate data and improving its accuracy, consistency and quality, in order to support climate risk assessment and scenario analysis exercises.

Towards Forward-looking Metrics

An important focus of future work continues to be to support the understanding of the necessary forward-looking metrics and identify data needs for developing forward-looking metrics for the purpose of monitoring climate-related risks.

The ongoing initiatives mentioned in 2.2.1 are laying the foundation for filling the climate data needs that have been highlighted by different stakeholders. These issues may be addressed by establishing specific use cases of climate data (e.g., financial stability analysis, supervision of financial institutions' exposures, flow of finance to transition vulnerable sectors) and then working backwards to identify potential data gaps that are preventing stakeholders from calculating needed forward-looking climate metrics. While ongoing initiatives have focused on identifying climate indicators for non-financial corporates, there is also a need to develop relevant data for understanding how other sectors (e.g., the public sector and household sector) could be affected by climate risks. Another area for attention should be assisting EMDEs with filling data gaps.

2.3. Block 3 – Vulnerabilities analysis

Goal: To more systematically assess and better understand climate-related financial vulnerabilities and potential financial stability impacts.

2.3.1. *Progress made on vulnerabilities analysis*

There has been good progress on the three strands identified in last year's report – ongoing monitoring, development of conceptual frameworks, and further development of scenario analysis.

Several initiatives are aimed at providing support to countries on the monitoring of climate vulnerabilities. The OECD is assessing the potential vulnerabilities on aspects of climate transition, and net zero transition plans, related to risks in bank and non-bank finance. It is also preparing a report on the assessment of climate transition metrics to support governments in monitoring climate-related financial and transition risks. The World Bank published Country Climate and Development Reports that include a high-level assessment of climate risks and opportunities in the financial sector and, together with the IMF, produced technical notes as part of the Financial Sector Assessment Programs, which include the identification of climate vulnerabilities through the assessment of exposures to natural disasters. The World Bank also provided standalone technical assistance on climate risk analysis to central banks and regulators in EMDEs and published jointly with the NGFS a technical note on climate risk assessments in EMDEs.¹²

The FSB has continued its work on establishing the analytical basis for monitoring vulnerabilities to global financial stability relating to climate. This work has focused on drawing financial stability insights using two approaches: (i) computing metrics using a snapshot of current exposures in the financial system to assess physical and transition risks, and (ii) using a forward-looking approach that draws qualitative insights based on outputs from scenario analysis and other forward-looking approaches used by its members. The end-objective is to develop a monitoring template for internal use within the FSB to analyse the evolution of climate vulnerabilities and potential transmission and amplification channels, based on metrics available at the time. This will be updated regularly and evolve over time as improved data and tools become available and will help in identifying data gaps.

Scenario analysis

On scenario analysis, efforts have continued to enhance scenarios and their application for central banks and supervisors, with the NGFS publishing a 3rd vintage of its scenarios in September 2022.¹³ In addition, the NGFS and FSB published a joint report on climate scenario analysis by jurisdiction in November 2022¹⁴, providing an overview of scenarios, models, data and metrics used by FSB and NGFS member authorities in their climate scenario analysis exercises and attempting to evaluate the implications of climate-change-related developments for the financial system as depicted in climate scenarios.

The NGFS will continue to enhance its climate macro-financial scenarios and seek to promote greater usability of its scenarios, by (i) enhancing their sectoral and geographical granularity and adding more key variables that are needed for analysis and providing detailed technical

¹² NGFS and World bank (2022), *Physical climate risk assessment: practical lessons for the development of climate scenarios with extreme weather events from emerging markets and developing economies*, September.

¹³ NGFS (2022), *NGFS scenarios for central banks and supervisors*, September.

¹⁴ FSB and NGFS (2022), *Climate Scenario Analysis by Jurisdictions: Initial findings and lessons*, November.

documentation, (ii) developing additional short-term adverse scenarios for the purpose of stress testing, and (iii) considering the suitability of its scenarios for financial institutions' disclosure purposes, and what changes or guidance might be needed. Regarding short-term scenarios, a conceptual note is to be published in Q3 2023 and the modelling work will start in Q3 2023. Moreover, the results of phase 4 of the long-term scenarios will be published in Q4 2023, and will incorporate two new scenarios, the enhanced version of the physical damage function as well as more sectoral granularity.

At a sectoral level, initiatives have focused on supporting supervisors in the development of practices for conducting climate scenario analysis. The BCBS is supporting the development of banks' and supervisory practices and assessing the need for supervisory guidance. The IAIS held in 2022 capacity building workshops on climate scenarios, which supported more than 200 insurance supervisors. It also launched, together with the Financial Stability Institute (FSI), a new climate scenarios training, which builds on the capacity building provided last year. The IAIS is also developing an application paper to support the practical application of the relevant Insurance Core Principles (ICPs) in relation to climate scenario analysis. The application paper is expected to be published for consultation in Q4 2023 (see also below under 2.4.1.).

2.3.2. *Key areas for future work*

Moving to regular monitoring of climate-related vulnerabilities in a timely yet flexible manner and embedding climate scenarios and other forward-looking approaches into vulnerability assessments, are ambitious but important goals.

Further work is needed to embed forward-looking metrics in vulnerability assessments. As part of that, work could include further examination of how climate scenarios could be used to draw financial stability insights, including identifying best practices and ideal metrics that could offer informative and timely climate vulnerability assessments.

Another example of the use of forward-looking metrics would be to examine the role that firms' transition plans could play in providing information for monitoring transition and physical risks, which links with work being undertaken on data and vulnerabilities analysis, and as a tool for mitigating some of those risks. The forthcoming FSB work on the relevance of transition plans and planning by financial and non-financial firms for financial stability described in Block 4 below aims to address this issue.

Conceptual and empirical work on climate vulnerabilities should lend more consideration to the cross-border and cross-sectoral transmission of climate shocks, in order to obtain financial stability insights. It may be important to assess whether there are common vulnerabilities across sectors or jurisdictions (such as, for instance, common exposures to the same set of transition-sensitive industry sectors) that could add to systemic effects, or cross-border exposures that could transmit vulnerabilities.

2.4. **Block 4 - Regulatory and supervisory practices and tools**

Goal: Establish effective and, where useful and appropriate, consistent supervisory and regulatory approaches and tools to address climate-related risks, both within individual sectors and at the system-wide level.

2.4.1. *Progress made on supervisory and regulatory approaches*

Initiatives on embedding climate-related risk into risk management and prudential frameworks are ongoing among the SSBs and NGFS. The IAIS, following the completion of a gap analysis of its supervisory material to assess how climate risk is already captured, intends to publicly consult on proposed changes to at least three elements of its ICPs. It will develop supporting material for various ICPs and topics, likely covering market conduct, financial crime, climate scenario considerations, valuation, investments, enterprise risk management for solvency purposes, reporting, public disclosure, macroprudential supervision. On banking regulation, the BCBS continued to pursue a holistic approach to address climate-related financial risks to the global banking system across all three pillars of regulation, supervision and disclosure. It has started this year to assess the materiality of gaps in the existing Basel framework. Building on this work, it will consider whether regulatory measures to address climate-related financial risks are needed. The BCBS is also monitoring the implementation across member jurisdictions of its principles for the effective management and supervision of climate-related risks published in June 2022. It is also reviewing its core principles for effective banking supervision ("Basel Core Principles") and as part of this will consider how to incorporate climate-related financial risks. On disclosures, the BCBS seeks to complement the ISSB's initiatives by developing a set of bank-specific Pillar 3 disclosure requirements, as mentioned in Block 1. Other initiatives on supervisory and regulatory approaches include the NGFS's deep dive on the supervision of climate-related litigation risks, and IOSCO's work on compliance and voluntary carbon markets, with a final report on compliance markets and next steps on voluntary carbon markets in Q4 2023. IOSCO is also developing a report on supervisory approaches for asset management and the oversight of ESG ratings and data product providers, which it aims to finalise by Q4 2023 as well.

In order to promote consistency in approaches across jurisdictions and financial sectors, the FSB published its supervisory and regulatory approaches to climate-related risks in October 2022.¹⁵ The report puts forward a system-wide approach for the supervision of climate-related risks drawing on elements of existing prudential frameworks, including the use of analytical tools such as climate scenario analysis and stress testing. The report also acknowledges that microprudential tools alone may not sufficiently address the cross-sectoral, global and systemic dimensions of climate-related risks, and presents some early thinking on macroprudential policies for climate risks.

Finally, capacity building remains an important focus, with training platforms and libraries such as the Climate Training Alliance and the NGFS SKILL being further developed and enriched, or the World Bank's support to central banks and regulators on integrating climate risks in supervisory practices and continued expansion of capacity building work in EMDEs.

¹⁵ FSB (2022) *Supervisory and regulatory approaches to climate-related risks: Final Report*, October.

2.4.2. Key areas for future work

Transition planning and transition plans

Work on supervisory and regulatory approaches to climate-related risks includes a growing attention on transition planning and transition plans of financial institutions and non-financial corporates. Transition plans are primarily a tool to facilitate an orderly transition. However, they can also be a source of information for financial authorities to assess micro- and macroprudential risks and risk management approaches to climate-related financial risks. From a microprudential perspective they provide information to regulators on firms' long-term strategic approach and financial risks. From a macroprudential perspective they can provide long-term, forward-looking information and data to better monitor progress on the transition and identify and understand the build-up of systemic risks.

With many initiatives having started or being in the planning phase, it is important to ensure close coordination among SSBs and other relevant bodies. Work on microprudential aspects is underway in the NGFS and in sectoral SSBs. The NGFS published a stocktake on the role of supervisors in requiring or using financial institutions' transition plans within the supervisory toolkit and the prudential framework in May 2023 and will continue to advance the discussion on the relevance of transition plans and planning to micro-prudential authorities' mandate, supervisory toolkit and the overall prudential framework.

From a macroprudential perspective, the FSB will prepare a report presenting a conceptual understanding on the relevance of transition plans and planning by financial and non-financial firms for financial stability. This will include the role they could play in providing information for monitoring transition and physical risks (link with Block 3 on vulnerabilities analysis) and as a tool for mitigating some of those risks. To prepare the report, the FSB is setting up a Transition Plans Working Group. This analytical work may lead to further consideration on how authorities could best use transition plans to inform macro-prudential and financial stability perspectives on climate-related financial risk.

At the sectoral level, the BCBS is conducting complementary work related to banks' transition planning and use of climate scenario analyses, and will assess the potential need for additional supervisory guidance in these areas. The IAIS is discussing whether its work should cover transition planning by insurers, and IOSCO will also consider the role of securities regulators with respect to transition plan disclosures and how regulators can promote integrity in capital markets and mitigate greenwashing.

3. Engagement with external stakeholders

Engagement with external stakeholders, including the private sector, is essential to understand evolving risk management practices, firms' progress on their transition goals and how methodologies and analytical tools to measure and analyse climate-related risks can evolve over time. This engagement takes place through a variety of fora, including public outreach, conferences, workshops and bilateral contacts.

The FSB's engagement with the private sector began with the formation of the TCFD in 2015 and has further developed through a wide variety of fora since then. Since 2021, the FSB has

asked Glasgow Financial Alliance for Net Zero (GFANZ) to periodically report to the FSB on the progress of its initiative to support an orderly transition to a net-zero financial system, so that the FSB can monitor the implications from a financial stability perspective.

4. Conclusion and next steps on the roadmap

This progress report presents a consolidated update on the progress made by the SSBs and relevant international organisations, across a wide variety of initiatives to assess and address the financial risks arising from climate change and identifies the key areas that continue to require attention. There continues to be a need for strong international coordination of actions in the coming year (and beyond) because of the importance of this issue for the global financial system. The FSB will continue to publish annual progress reports and submit them to the G20.

The Roadmap will continue to stay flexible over time to be able to respond to the deepening understanding of climate-related financial risks and to undertake further work, adjust priorities and timelines, and take action where needed. Meanwhile, understanding of the implications of other sustainability topics, such as nature-related risks, is also deepening. For instance, the NGFS has started to develop a conceptual framework on nature-related risks for central banks and supervisors, the OECD is developing analysis and policy considerations on nature-related risks and opportunities, and the interaction with climate-related risks, and the World Bank has started to integrate nature-related risk analysis in their technical assistance. The FSB will continue to monitor developments and consider whether to include a broader range of sustainability topics in its financial stability agenda in future years.

The Annex provides an update to the July 2022 detailed Roadmap description of the planned actions and deliverables across the SSBs and relevant international organisations.

Annex: Key actions and deliverables for the Roadmap

Block 1 – Disclosures

Objective

Establish a global standard for disclosures on climate-related financial risks

- IFRS Foundation to develop, under robust governance and public oversight, consistent, comparable, and reliable global standards for sustainability-related financial disclosures, which include disclosure standards for climate-related financial risks built from the TCFD framework and the work of an alliance of sustainability standard setters, involving them and a wider range of stakeholders closely, including national and regional authorities, to foster global best practice and accelerate convergence. The standards to accommodate interoperability with jurisdiction-specific disclosure requirements, including those that may extend beyond the standards. Towards that end, when considering the interoperability of these global standards, the ISSB's Sustainability Consultative Committee, Jurisdictional Working Group, and Sustainability Standards Advisory Forum have considered, and should continue to take into account, existing national and regional requirements in terms of sustainability reporting, as well as ongoing national and regional efforts to develop such standards. Some jurisdictions' domestic efforts to adopt disclosure requirements may proceed in a more accelerated timeframe than the IFRS Foundation's work.
- Provided that the official sector's expectations regarding the ISSB process and standards are satisfied and result in IOSCO's endorsement, sectoral standard-setting bodies to adopt, apply, or otherwise utilise the ISSB standards through their own supervisory and regulatory reporting requirements, which may include public disclosure frameworks.
- FSB and other bodies to promote consistent approaches among national and regional climate disclosure initiatives in the meantime, fostering coordination and collaboration among financial authorities across jurisdictions.
- IAASB and IESBA to finalise development, under robust governance and public interest oversight, of global standards for assurance, ethics and independence on sustainability reporting, to enhance the confidence of users about mainstream, general-purpose reporting of sustainability information. Such a principles-based global solution would serve to improve consistency, comparability and transparency of sustainability reporting. In developing their proposed standards, the IAASB and IESBA should continue their close coordination to

ensure that their collective efforts provide an integrated package of ethics and assurance standards for sustainability, and engage across the external reporting ecosystem to understand and incorporate the perspectives of key stakeholders.

The steps set out below in the roadmap are indicative and each step described to be taken is subject to the outcomes of necessary prior steps being satisfactorily achieved. Given this indicative status, they do not represent commitments either by jurisdictions or by international bodies to the individual actions or dates.

Actions/deliverables	Indicative timeline	Interconnections within roadmap
1. IFRS Foundation to develop global standards as a global framework for climate disclosures from an investor-focused perspective		
(i) Developing ISSB sustainability disclosure standards, with an initial focus on climate from an investor-focused perspective		IFRS Foundation to promote connectivity between financial accounting standards and ISSB sustainability disclosure standards.
ISSB to publish public consultation on Exposure Drafts	Completed - Q1 2022	
ISSB to publish final versions of standards, following on from Exposure Drafts	Completed - 26 June 2023	
(ii) IOSCO to consider whether to endorse ISSB standards - If standard is endorsed, IOSCO to encourage members to consider ISSB standards for authorities to adopt, apply or otherwise utilise, reflecting each jurisdiction's circumstances - IOSCO to develop guidance or toolkits in order to assist its members with regard to the implementation of the ISSB standards into their own legislative and regulatory frameworks	In 2023, following ISSB publication of its new standards on 26 June 2023 Conditional upon IOSCO endorsement Ongoing	
(iii) If endorsed, making use of the new ISSB standards		The steps described in this section (iii) are subject to the prior steps being satisfactorily achieved, to IOSCO endorsement of the ISSB standards and to

Actions/deliverables	Indicative timeline	Interconnections within roadmap
		jurisdictions' expectations regarding the IFRS Foundation's process and standards being satisfied. If IOSCO issues an endorsement of ISSB standards, IOSCO would encourage IOSCO members and relevant authorities to consider adopting, applying or otherwise utilising the standards, reflecting each jurisdiction's circumstances when setting sustainability-related disclosure requirements in their respective jurisdictions. Some jurisdictions' domestic efforts to implement climate disclosure requirements may have proceeded in a more accelerated timeframe. Each jurisdiction will have its own legal framework for adopting, applying or otherwise utilising international standards, reflecting each jurisdiction's circumstances. These may involve, for example: • <i>Incorporation, utilisation or reference by securities regulators in developing offering/listing requirements and other ongoing and periodic reporting requirements.</i> • <i>National and regional accounting standard-setters' adoption, or utilisation of ISSB standards at the local level as a minimum.</i> • <i>Other financial regulators' actions (including potentially covering companies that are not publicly listed).</i>

Actions/deliverables	Indicative timeline	Interconnections within roadmap
		• Steps may include possible industry-specific requirements, for types of either financial institutions or nonfinancial companies. • The ISSB is envisaging publishing adoption guidance to facilitate the implementation globally.
• <i>Effective dates of the new standards to be set out following consultation on ISSB climate-related standard</i>	Effective date – January 2024	IFRS standards typically are accompanied by dates from which they are effective. Early adoption is an option. Timeline and types of actions will also depend on steps taken by individual jurisdictions in line with domestic legal and regulatory frameworks.
• <i>ISSB to publish consultation document on its future work programme on ISSB sustainability disclosure standards, beyond climate</i>	Completed – Published in May 2023	
(iv) Promoting and monitoring of consistent implementation of the ISSB standards		
• <i>IOSCO monitoring and capacity building programmes: IOSCO's Sustainable Finance Task Force will review how different jurisdictions are using the new standards and take additional monitoring and capacity building initiatives, as needed</i>	2023 and 2024	
• <i>IOSCO to assess implementation by emerging markets of the global framework standards for sustainability disclosures: IOSCO's Growth and Emerging Markets Committee will conduct a stocktake amongst its members to understand the level of readiness and the steps taken by these jurisdictions to adopt and implement a potential global framework for climate</i>	2023 and 2024	

Actions/deliverables	Indicative timeline	Interconnections within roadmap
<i>disclosures locally. The results of this survey will inform the wider work done by IOSCO on sustainable finance</i>		
ISSB to support and facilitate preparers, and jurisdictions in adopting ISSB sustainability disclosure standards	Ongoing (launched in November 2022)	
ISSB to develop additional adoption guidance for use by jurisdictions to support the scaling and phasing of implementation of the ISSB standards	To be published later in 2023	
2. IAASB to develop global standards for assurance on sustainability information		
(i) Initial project: Develop an overarching standard for sustainability assurance, underpinned by relevant ethical requirements and quality management, covering the entire assurance engagement, that can be applied to reasonable and limited assurance engagements of information on any sustainability topic prepared under a suitable reporting framework, and be profession-agnostic		As the IAASB's proposed standard on sustainability assurance will be framework neutral, it will be able to be applied by assurance practitioners providing assurance reports on sustainability information prepared under the ISSB sustainability reporting standards.
IAASB to approve <i>Exposure Draft of overarching standard</i>	Completed - June 2023	
IAASB to approve <i>final version of overarching standard</i>	H2 2024	
(ii) Future work: Further develop a suite of standard(s) for assurance on sustainability information. Topics selected would be based on priorities identified at the time, taking into account the public interest, and subject to consultation on the IAASB's Work Plan	Following IAASB publication of its overarching standard	
(iii) IOSCO to continue engagement with the IAASB and IESBA, based on its <u>key considerations for an effective global assurance framework over sustainability-related corporate reporting</u>	2023-2024	Engagement with SSBs on this work

Actions/deliverables	Indicative timeline	Interconnections within roadmap
<i>If standards are fit for purpose, IOSCO could encourage members to consider the IAASB's overarching standard when setting sustainability assurance requirements for cross-border purpose and at the domestic level, taking into account domestic legal frameworks</i>	Following IAASB publication of its overarching standard	
<i>IOSCO to develop guidance or toolkits to assist its members with regard to the implementation of the IAASB's overarching standard for sustainability assurance engagements into their own legislative and regulatory frameworks</i>	Following IAASB publication of its overarching standard	
3. IESBA to develop global ethics and independence standards for sustainability reporting and assurance		
(i) Initial phase: Develop (a) profession-agnostic ethics and independence standards for sustainability assurance for use by all assurance providers, and (b) ethics standards for sustainability reporting for use by professional accountants		
<i>IESBA to approve Exposure Draft of the proposed standards</i>	Q4 2023	
<i>IESBA to approve the final standards</i>	Q4 2024	
(ii) Future work: <i>Consider developing profession-agnostic ethics standards for sustainability reporting</i>	Subject to further stakeholder consultation	
<i>Consider developing profession-agnostic independence standards for special purpose sustainability reports</i>	Following IESBA publication of its new standards	

Actions/deliverables	Indicative timeline	Interconnections within roadmap
(iii) IOSCO to continue engagement with the IESBA and the IAASB, based on its key considerations for an effective global assurance framework for sustainability-related corporate reporting	Following IESBA publication of its new standards	Engagement with the SSBs on this work
<i>If standards are fit for purpose, IOSCO could encourage members to consider the IESBA's profession-agnostic ethics and independence standards when setting sustainability assurance requirements for cross-border purpose and at the domestic level, taking into account domestic legal frameworks</i>	Following IESBA publication of its new standards	
<i>IOSCO to develop guidance or toolkits to assist its members with regard to the implementation of the IESBA's profession-agnostic ethics and independence standards for sustainability assurance into their own legislative and regulatory frameworks</i>	Following IESBA publication of its new standards	
4. Promoting consistent approaches among national and regional climate disclosure initiatives during the development of a global standard		
(i) FSB and other bodies will promote consistent approaches among national and regional climate disclosure initiatives, using frameworks based on the TCFD Recommendations for climate-related financial disclosures, in line with domestic legal and regulatory frameworks, as work on the issuance of ISSB standards progresses	Update to be included in FSB October 2023 progress report on disclosures	FSB October 2023 progress report on disclosures is shown item 6(i) below
(ii) IMF, jointly with World Bank Group, OECD and BIS, will issue a staff-level technical report on the operationalization of G20 SFWG Principles for Climate Alignment Approaches, promoting consistency and interoperability across alignment approaches, including disclosures and climate metrics, as	Ongoing	Consistency between alignment metrics and subsequent disclosures on climate. Connection with global disclosure standards

Actions/deliverables	Indicative timeline	Interconnections within roadmap
well as forward-looking climate metrics and transition plans characteristics		
5. SSB work on sectoral standards for disclosure requirements		Consistency between ISSB disclosures standards (if endorsed) and sectoral standards for disclosures will be important
(i) BCBS to publish a consultation paper on a Pillar 3 framework for climate-related financial risks as a common disclosure baseline across internationally active banks, which is interoperable with the forthcoming ISSB standards	Q4 2023	
(ii) IAIS to consider disclosure issues as part of the consultation on ICP supporting materials; a dedicated workstream has been set up to this effect in May 2023	2024	
(iii) IOSCO to complete project scoping for its workstream on transition plans, which will consider the role of securities regulators with respect to transition plan disclosures and how these may be leveraged to support integrity in capital markets	Q3 2023	This work will be coordinated with relevant on-going work at other international organisations.
6. Reporting on progress in disclosures		This work both helps prepare for rapid market take-up of the new ISSB standards and promotes fuller and more consistent disclosures in the meantime
(i) FSB, coordinating with IFRS Foundation, IOSCO and others, to report annually to the G20 on progress in implementation by jurisdictions and firms of disclosures and reporting in line with international standards	October 2022 onwards (annually)	
(ii) Reporting on progress by companies in their disclosures		
2022 TCFD Status Report on the implementation progress of TCFD Recommendation	Completed - October 2022	

Actions/deliverables	Indicative timeline	Interconnections within roadmap
2023 TCFD Status Report on the implementation progress of TCFD Recommendations	October 2023	
2024 ISSB Status Report on progress in corporate disclosures	October 2024	

Block 2 – Data

Objective

Establish a basis of comprehensive and robust international data for both the private sector and financial authorities to monitor and assess climate-related financial risks faced by individual entities and by the system as a whole.

- Assess the availability of data with which to monitor and assess climate-related financial risks, identify data gaps.
- Take steps to fill gaps, with a special emphasis on ensuring cross-sectoral and international consistency.
- Develop forward-looking metrics – anchored in real-world climate targets – that can translate climate, and the transitions to low-carbon economies, and other information into financial impacts.

Actions/deliverables	Indicative timeline	Interconnections within roadmap
1. Assessing data availability and identifying data gaps, with respect to both publicly available data and supervisory data		
2. Filling data gaps		
Further work to be included on steps to fill data gaps and establish consistent cross-jurisdiction and cross-sector data sets relating to climate-related financial risks. Steps here could include:		Work to fill data gaps will inform, and be informed by, the work in Block 1 to develop standardised disclosures
(i) FSB and NGFS to coordinate work by various bodies to fill data gaps identified by FSB and NGFS 2021 reports	Ongoing	Newly established NGFS expert network on data is a forum for information sharing and coordination with other initiatives
(ii) IMF work on climate-related data availability and needs from a macroeconomic and financial policy analysis perspective (including further development of relevant indicators in its Climate Change Indicators Dashboard)	Ongoing	

Actions/deliverables	Indicative timeline	Interconnections within roadmap
(i) G20 DGI-3 workplan led by the IMF, in close cooperation with the FSB and IAG, that includes seven recommendations to address data gaps relating to climate, including carbon footprint of foreign direct investment, climate finance, and forward looking physical and transition risk indicators	Ongoing. DGI-3 launched in 2022 following endorsement by G20 FMCBG.	
(ii) To support the work on climate-related data availability, the IMF, in collaboration with relevant stakeholders, to ensure the addition of the relevant environmental classes to the classification systems of the international statistical standards within the ongoing update of the System of National Accounts and Balance of Payments and International Investment Position Manual	Expected completion: Q1 2025	
(iii) To understand climate risk exposure of the global insurance sector, IAIS to regularly collect and analyse data on exposure of insurance sector assets and liabilities to climate-related risks as part of its GME. In 2023, IAIS not only collected data from insurance supervisors but also from individual insurers. The outcomes of the analysis are published annually	Ongoing; annual publication of outcomes in Q4 of each year in the GIMAR	
(iv) Launch of <u>NGFS data directory</u> of data sources that can be mapped to different climate metrics. Ongoing work to design a new version. NGFS to engage with various bodies to advance the data agenda in that context	Launched in July 2022 Launch of new version: TBD	
3. Developing forward-looking metrics on the financial impacts of climate change and transition		
(i) BCBS considering appropriate risk metrics for banks as part of its potential Pillar 3 framework	Consultation paper on disclosure framework to be published Q4 2023	

Actions/deliverables	Indicative timeline	Interconnections within roadmap
(ii) FSB and NGFS joint report on scenario analysis and the financial metrics needed for this analysis, both at the level of the firm and the overall system	Completed - November 2022	
(iii) NGFS to consider the suitability of the NGFS climate scenarios for financial institutions' disclosure purposes	2022-2024	
(iv) FSB to develop consistent and comparable metrics for use in climate-related vulnerabilities monitoring (see Block 3) and identify data availability and gaps for developing ideal metrics. This work focuses on using current exposures as well as more forward-looking scenario-based metrics	Initial assessment – December 2022 Follow-up work – 2023-24	
(v) FSB to develop broader data-based methodology for monitoring of global climate vulnerabilities, including through the use of consistent classification	2023	The FSB will coordinate with the relevant SSBs to ensure consistency with any equivalent work they carry out.
(vi) OECD to develop ESG risk policy framework, including policy recommendations on credible corporate transition plans • <u>Policy guidance on market practices to strengthen ESG investing and finance a climate transition</u> • <u>Guidance on transition finance: ensuring the credibility of corporate climate transition plans</u> • OECD to develop a sustainable finance roadmap	Both reports published in October 2022 2023	

Block 3 – Vulnerabilities analysis

Objective

Carry out systematic and regular assessments of climate-related financial vulnerabilities and financial stability impacts.

- Address open analytical issues in assessing climate-related financial risks
- Develop a monitoring framework for vulnerabilities, mitigants and the level of resilience
- Deepen scenario analysis
- Establish regular monitoring and assessment of climate-related financial risks and vulnerabilities

Actions/deliverables:	Indicative timeline	Interconnections within roadmap
1. Analysing the nature of climate-related risks and vulnerabilities		
(i) BCBS members exchange views on key supervisory issues and climate-related financial vulnerabilities	Ongoing	
(ii) IAIS GIMAR will include the outcomes of its assessment of climate risks in the global insurance sector using data collected in 2023 GME	2023	
(iii) Multilateral surveillance work of the IMF (including several GFSR chapters on climate risks)	Ongoing	
2. Developing a monitoring framework		
Building on steps to fill data gaps and establish metrics to gauge the financial impacts of climate risk, actions here should include:		The development of a monitoring framework would not only build on work to fill data gaps but would in turn inform further consideration of the data needed to assess risks

Actions/deliverables:	Indicative timeline	Interconnections within roadmap
(i) Work by the FSB to identify specific issues related to climate-related vulnerabilities that warrant close monitoring at the cross-sectoral and macroprudential level, and to develop tools to carry out such monitoring Includes specific FSB-IMF collaboration on underlying commonalities in indicators used in assessing financial stability implications of climate change for the banking sector	Completed - December 2022	
(ii) FSB to develop a data-based methodology/framework for regular monitoring of climate-related financial vulnerabilities including channels through which climate risks can affect the financial system, amplifiers, mitigants and potential for transmission and feedback loops across borders and sectors (through including climate-related vulnerabilities in its Surveillance Framework)	2023-24	FSB has identified certain exposure-based climate metrics making use of data developed under Block 2. Further work will focus on identifying best practice and ideal metrics that would be more suitable for drawing financial stability insights, including making use of forward-looking climate scenarios and other approaches.
(iii) IMF to incorporate climate-related risks in its assessments of global financial stability in the GFSR	Ongoing	
(iv) OECD to monitor climate-related financial and transition risks and their potential impact on financial performance, natural capital, and sustainable growth		
Report on the assessment of climate transition metrics to support governments in monitoring climate-related financial and transition risks	2023 – 2024	
3. Deepening scenario analysis		Work on climate scenarios relates to the development of forward-looking metrics, as described under Block 2 of the roadmap.
(i) NGFS to develop short term scenarios	Ongoing, including publication of a conceptual note in Q3 2023	

Actions/deliverables:	Indicative timeline	Interconnections within roadmap
(ii) NGFS to publish updated sets of reference scenarios	4 th release expected in Q4 2023	
(iii) NGFS to continue improving and updating NGFS climate scenarios on a regular basis	2022-2024	
(iv) Following work in 2022 on capacity building and training materials to support supervisors as they develop climate scenario analysis, the IAIS is now developing an application paper to support the practical application of the relevant Insurance Core Principles (ICPs) in relation to climate scenario analysis	Ongoing, including developing supporting material for consultation in Q4 2023	
(v) BCBS to support the development of banks' and supervisory practices with respect to climate-related scenario analysis and assess the need for supervisory guidance	Ongoing	
4. Establishing regular monitoring and assessment of risks and vulnerabilities		Regular monitoring will not only be informed by data (Block 2) and disclosures (Block 1), but will also in turn help to inform further refinement of data needs (Block 2) and supervisory and regulatory approaches (Block 4)
(i) FSB and NGFS jointly to publish a report synthesising outputs of analysis done by jurisdictions so far on the implications of possible future climate scenarios for the financial system	Completed - November 2022	
(ii) NGFS to provide methodological guidance on scenario-based climate risk analysis for macroeconomic and financial stability surveillance	2022-2024	
(iii) FSB to regularly report on monitoring of climate-related financial vulnerabilities at the global level (including steps taken to mitigate these financial risks)	Annually, beginning 2023	This will be updated frequently as new data, metrics and tools to monitor climate-related vulnerabilities become available (Block 2).

Actions/deliverables:	Indicative timeline	Interconnections within roadmap
(iv) IAIS has integrated climate monitoring and assessment of risks and vulnerabilities related to climate change risk into the GME	Ongoing	
(v) IMF to incorporate climate-related risks in its assessments of global financial stability in the GFSR	Ongoing	
(vi) IMF and World Bank to incorporate climate-related risks in their assessments of financial systems in the context of the FSAP	Ongoing	
(vii) World Bank to conduct Country Climate and Development Reports (CCDRs) in EMDEs. These cover: <i>The opportunities and risks that climate change (both physical risks and transition risks) create for the country's development path</i> <i>The existing climate commitments, policies and institutional arrangements in the country to improve resilience and promote decarbonisation</i> <i>The macroeconomic implications of climate change and policies in terms of growth, poverty reduction, fiscal sustainability, and stability of the financial system</i> <i>The prioritisation of sectoral and macro-fiscal policies to address climate change in the context of development objectives, and identification of operational recommendations</i>	Ongoing	

Block 4 – Supervisory and regulatory practices

Objective

To promote consistent and effective supervisory and regulatory approaches and tools to address climate-related risks, both within individual sectors and at the system-wide level.

- Develop effective regulatory and supervisory practices and tools
- Achieve cross-sector and cross-jurisdiction consistency of approaches
- Build regulatory and supervisory capacity

Actions/deliverables	Indicative timeline	Interconnections within roadmap
1. Developing effective regulatory and supervisory practices and tools		
Steps to develop consistent and effective supervisory and regulatory practices:		
(i) NGFS report on capturing risk differentials from climate-related risks. A <u>Progress Report</u> : lessons learned from the existing analyses and practices of financial institutions, credit rating agencies and supervisors	Progress report completed - May 2022. Issue to be revisited in the context of the mapping of supervisory practices.	
(ii) NGFS to conduct deep-dives into the prudential supervision of specific climate-related and environmental risks (including litigation and reputational risks)	Report on supervision of climate-related litigation risks (to be published soon) 2022/24	
(iii) NGFS to examine the role of supervisors in assessing financial institutions' transition plans	Stocktake report completed – May 2023. Further work still to be undertaken in 2023/24.	

Actions/deliverables	Indicative timeline	Interconnections within roadmap
(iv) BCBS to monitor implementation of the principles across member jurisdictions, identify practical challenges and consider potential additional guidance	2023	
(v) BCBS to consult on changes to the Basel Core Principles drawing on structural changes since the previous update in 2012	H2 2023	
(vi) BCBS to assess the materiality of gaps in the existing Basel framework. Building on this work, the BCBS will consider the need for regulatory measures to address climate-related financial risks	Q4 2024	
(vii) IAIS to make limited changes to its guidance material in the ICPs, as well as develop new supporting material to support a globally consistent supervisory response to climate change within the insurance sector	The first consultation was published in Q1 2023, the second part is expected to be published in Q4 2023 and the final in Q1 2024	
(viii) IAIS to publish a report on the various types of initiatives undertaken by insurance supervisors to address natural catastrophe protection gaps	Q4 2023	
(ix) IOSCO work on compliance and voluntary carbon markets – IOSCO is developing a set of recommendations for the development of transparent, liquid and well-structured compliance carbon markets and a report on the state of play of voluntary carbon markets and the vulnerabilities that may require regulatory intervention	Final report on compliance carbon markets in Q3 2023 Engagement with stakeholders and possible consultation paper on voluntary carbon markets in Q4 2023	
(x) FSB to publish a report on <u>climate-related financial risk factors in compensation frameworks</u>	Completed – April 2023	

Actions/deliverables	Indicative timeline	Interconnections within roadmap
(xi) FSB to prepare a report on a conceptual understanding on the relevance of transition plans and planning by financial and non-financial firms for financial stability	2023-2024	This will complement the FSB work on the monitoring of climate-related vulnerabilities (Block 3). It will also draw on and be closely coordinated with work by the NGFS on transition plans in relation to microprudential supervision and take account of the work of standard setters.
(xii) OECD to update its principles and frameworks on Corporate Governance, Due Diligence, and Effective and Efficient Financial Regulation. The G20/OECD Principles of Corporate Governance, as well as the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct, are being updated to include climate and other sustainability considerations	2023	
2. Achieving cross-sector and cross-jurisdiction consistency of approaches		
<i>Cross-jurisdictional consistency within sectors</i>		
(i) NGFS to update the mapping of supervisory practices for integrating climate-related and environmental risks into micro-prudential supervision	2022/24	
(ii) IAIS work on scenario analysis and developing supporting material for the ICPs on climate risk will increase cross-jurisdictional consistency	Ongoing, please see 1 (vii) above	
(iii) IOSCO work on promoting good industry and supervisory practices based on its 2021 recommendations on asset managers and ESG ratings and data providers, and the November 2022 Call for Action for financial markets voluntary standard setting bodies and industry association to counter the risk of greenwashing including:	Ongoing	

Actions/deliverables	Indicative timeline	Interconnections within roadmap
- Continue the dialogue with supervisors and relevant industry associations to support market participants' implementation of the IOSCO recommendations based on a Call for Action - Utilise the inputs from supervisory and industry roundtables hosted by IOSCO, used for sharing regulatory and supervisory practices, including main challenges and data gaps hindering the implementation of the IOSCO recommendations - Use the information gathered to form the basis of an IOSCO report on supervisory practices	H2 2023	
<i>Cross-sectoral consistency and interactions between sectors</i>		
(iv) FSB report promoting consistent regulatory and supervisory approaches to addressing climate-related risks at financial institutions and supporting efforts to incorporate the interactions between sectors in regulatory and supervisory approaches, including recommendations <u>Final Report</u> - FSB to consider conducting a peer review of regulatory and supervisory practices against the FSB recommendations on supervision and regulation of climate risks	Published in October 2022 Consideration in 2024	This work took place in coordination with SSBs and international organisations, using their existing work as a basis
(v) FSB update of its guidance and recommendations	Consideration in 2025	
(vi) IMF and World Bank to incorporate climate-related risks in their assessments of financial supervisory and regulatory frameworks in the context of the FSAP	Ongoing	
3. Macroprudential tools		
(i) Macroprudential tools. Development of supervisory tools (if any are needed), either for individual sectors or at the cross-	June 2024	

Actions/deliverables	Indicative timeline	Interconnections within roadmap
sectoral jurisdiction-wide level. This would complement the forward-looking scenario analysis, using NGFS scenarios, coordinated by the FSB under Block 3. Ongoing consideration of the need for additional macro prudential tools to address additional issues impacting financial stability that may be identified		
4. Capacity building		
(i) IMF and World Bank work to assist with capacity building on incorporating climate-related risks in stress testing frameworks, the prudential framework and supervisory practices	Ongoing	
(ii) NGFS Task Force on Capacity building and Training (launched in June 2022) to deliver on its work programme: (i) keeping up-to-date the SKILL hosted on the Climate Training Alliance Portal; (ii) releasing the Training Guide for central bank and supervisors (September 2023); (iii) continuing ad hoc training collaboration with international organisations and stakeholders; (iv) delivering the BIS-NGFS annual online course on banking and insurance supervision (May-June 2023)	Action plan focused on supervision completed in June 2022. Implementation of broader work programme in 2022/24	
(iii) IAIS joint work with several partners (UN Sustainable Insurance Forum, Access to Insurance Initiative and FSI) to develop training materials based on the Application Paper on the supervision of climate-related risks in the insurance sector	Various initiatives, from June through October 2021, and ongoing thereafter	This has now been embedded into the Climate Training Alliance
(iv) IAIS to engage with EMDE members and members of its Financial Inclusion Forum to consider the impacts of climate risks on jurisdictions and on protection gaps	ongoing	
(v) IOSCO capacity building:		

Actions/deliverables	Indicative timeline	Interconnections within roadmap
ISSB Standards: Develop a capacity building programme to assist its members, notably those from emerging market jurisdictions, in their understanding and implementation considerations of the ISSB standards	2023 and 2024	
Assurance: develop a programme on sustainability-related assurance to complement capacity building on sustainability-related disclosures	2023 and 2024	
Supervision of asset managers and the oversight of ESG ratings and data product providers: Develop capacity building programmes for its members, in order to assist them in implementing the IOSCO recommendations in these areas	Q1 2024	
Carbon markets: work on the development of a capacity building programme on compliance markets with international partner organisations	2023 and 2024	
(vi) OECD capacity-building regarding ESG and climate transition practices (due diligence, metrics and methodologies, alignment of objectives and tools), as well as climate and biodiversity loss and financial systems, for central banks and regulatory bodies	Ongoing (several workshops conducted in 2022-2023 on climate scenarios, climate transition reporting metrics, due diligence, and biodiversity risks)	
(vii) BIS, NGFS, SIF, and IAIS to continue and enhance their collaboration in sharing and providing training opportunities for central banks and supervisors under the Climate Training Alliance, coordinated under COP26	Launched at COP26, November 2021 and still ongoing	