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## **EFRAG Connectivity Project Draft Discussion Paper:**

### **Chapters 3 and 4**

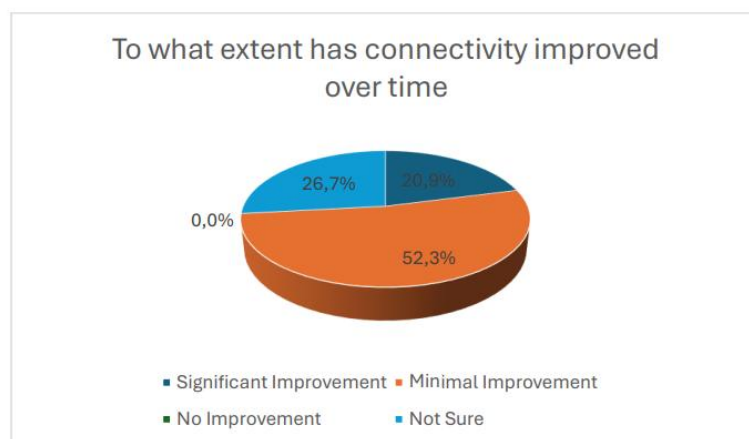
## **CHAPTER 3: ILLUSTRATIONS OF CONNECTIVITY**

*This chapter provides illustrations of connectivity, reflecting current practice, based on concepts (enabling attributes, and different types and mechanisms of connectivity of reporting information) explained in Chapter 2 of this Discussion Paper. These illustrations also cover specified anchor points, as described in Chapter 2, and cover different sectors and geographies.*

## Introduction

- 1 As indicated in Chapter 1, there is an often observed disconnect between the reporting of sustainability-related risks in the financial statements and the sustainability statement/disclosures. Therefore, it is important to enhance the connectivity of reported information across different parts of the annual report.
- 2 Currently, based on audience response on the extent to which connectivity has improved over time at the [EFRAG Roundtable event](#) on 25 April 2025, there is still some way to go for improvement.

Figure 1: Extent of improvement of connectivity over time



## Objective of illustrations

- 3 **The Discussion Paper’s illustrations of connectivity in this Chapter are not to be construed as being part of any aspect of the ESRS’s guidance. Rather, these illustrations are only meant to highlight the practical application of connectivity by companies.**
- 4 Most of the connectivity illustrations have been based on the application of current ESRS (see Figure 5 below).

## Connectivity illustrations selected

- 5 This Chapter has 17 illustrations, from 15 entities, which cover different mechanisms of connectivity, anchor points (i.e. financial statements and sustainability reporting data points that would be connectivity related), geographies (mostly EU), and sectors. These illustrations have been selected from both the 2023 and 2024 annual reports of entities.

The illustrations selected are not only reflecting current practice but also reflects a level of connectivity which was not always present in disclosures when reviewing over 70 annual reports.

- 6 The illustrations of connectivity can be found in Agenda paper 02-03A.
- 7 The documentation of each illustration includes aspects of strategy, business model, impacts, risks, and opportunities ('IROs') and entities' actions and governance responsibilities that contextualise the metrics or financial effects in the sustainability statement/disclosures and financial statements.
- 8 Each illustration specifies reports (annual report sections) and anchor points being connected, the type/mechanism/s of connectivity, and underlying sustainability and accounting requirements. The aim is to ensure that the connectivity is viewed both from an integration of information standpoint, as well as highlighting the specific linkage of quantitative and narrative data.
- 9 **The illustrations are exclusively focused on the connectivity of reported information, and they are not an assessment of the veracity or quality of sustainability-related actions taken by any entity whose excerpts are included in the illustrations.**
- 10 **Each illustration reflects a specific anchor point and type/mechanism of connectivity, and the entire annual report should be looked at to obtain a more complete picture of a company.**

*Basis for selecting the connectivity illustrations*

- 11 The 17 connectivity illustrations, from 15 entities, which are included in this Discussion Paper (see paragraph 6 above), are drawn from a review of 70+ possible connectivity illustrations that were identified and analysed by the EFRAG Secretariat and EFRAG Connectivity Advisory Panel (EFRAG CAP). The selected illustrations cover different types of connectivity, anchor points, sustainability-related topics, sector coverage and geographical regions.
- 12 The illustrations were selected based on the types/mechanisms of connectivity and anchor points they portray and not on whether they mandatorily or voluntarily reported under ESRS Set 1 or any other sustainability reporting framework.

*Profile of the connectivity illustrations*

- 13 Below is a profile of the illustrations covering type of connectivity, the anchor points covered, sustainability-related topics covered, sector coverage and application of ESRS and ISSB Standards.

Figure 2: Breakdown of illustrations per type of connectivity

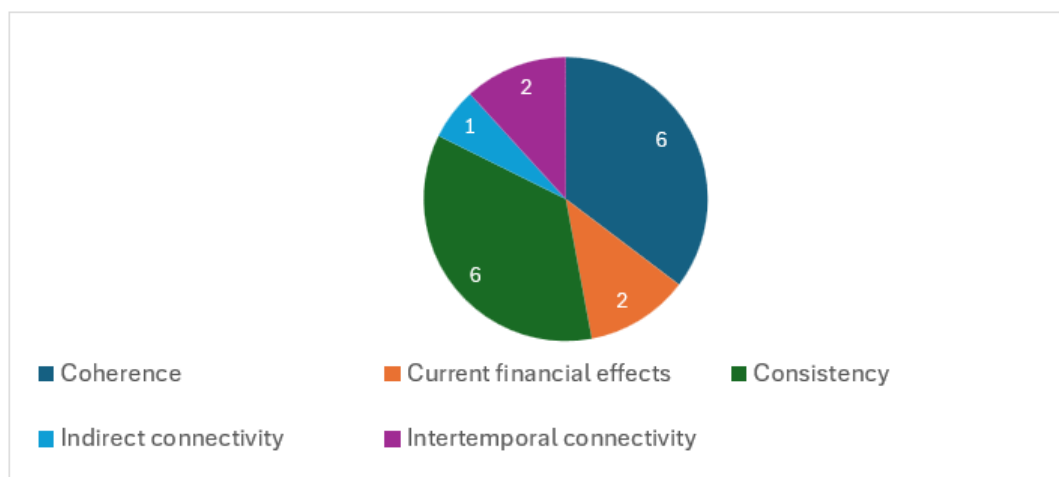
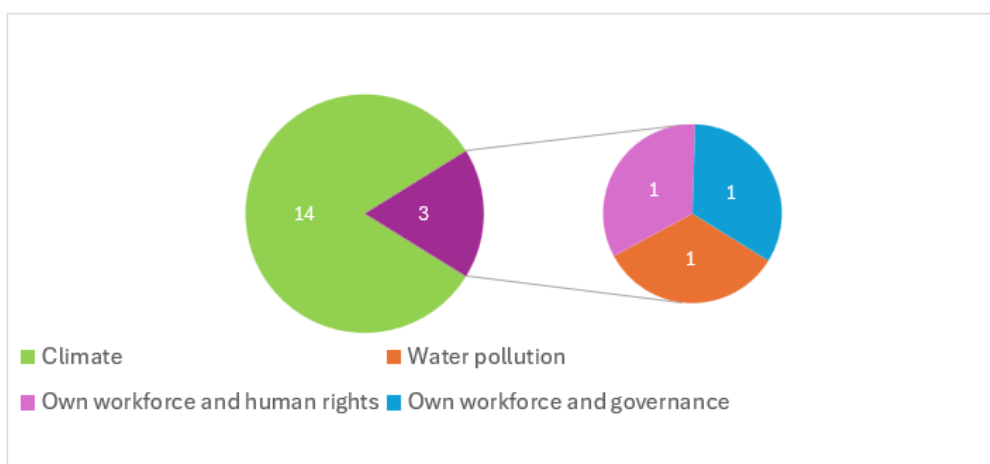


Table 1: Anchor points illustrated

Illustration #	Anchor Point Sustainability Statement/disclosures (SR)	Anchor Point Financial Statement (FS)
1	Water pollution incident disclosures	Contingent liability disclosures
2	Energy optimisation strategy	PPAs disclosures
3	Disclosure of qualitative material exposures regarding human rights and own workforce related incidence	Nothing is disclosed as the identified matter is not quantitatively material for the financial statement
4	Greenhouse Gas (GHG) emissions and mitigation	ETS Disclosures
5	ESG performance targets in the governance report	Share-based payments disclosure
6	Potential impairment of non-financial assets derived from scenario analysis	Asset impairment disclosure
7	Narrative on strategy and actions on decarbonisation	Narrative on strategy and actions related to decarbonisation in property plant and equipment disclosure
8	EU Taxonomy investments	Property Plant and Equipment (PP&E) disclosure
9	Disclosure of implications of reporting boundary differences	Revenue in consolidated income statement
10	Business segments disaggregation in strategic report	Note on Operating Segment Disclosures
11	Anticipated financial effects disclosures	Not in current FS but may crystallise in future-period FS line items and disclosures

Illustration #	Anchor Point Sustainability Statement/disclosures (SR)	Anchor Point Financial Statement (FS)
12	Anticipated financial effect disclosures	Not in current FS but may crystallise in future-period FS line items and disclosures
13	Sustainability-linked financing information	Note on Sustainability-linked financing information
14	Assets at risk	Statement of financial position – assets
15	Climate transition financing	Green assets disclosure
16	Information on Sustainability-linked loans	Note on sustainability-linked loans
17	Climate-related disclosure in ESG review	Expected Credit Loss (ECL) note

Figure 3: Breakdown of illustrations per sustainability-related topic:



14 As can be seen in Figure 3 above, most of the connectivity illustrations are climate-related.

Figure 4: Breakdown of illustrations per sector:

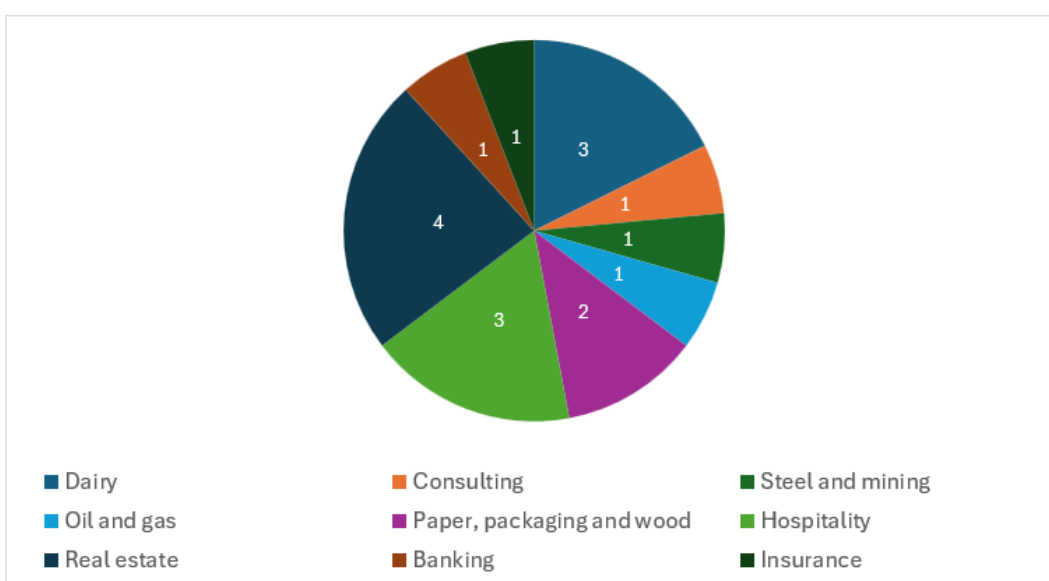
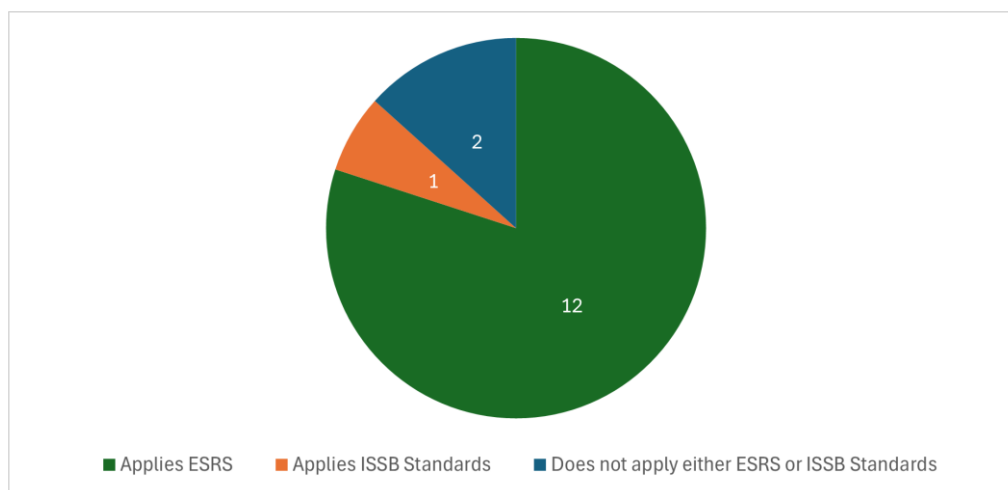


Figure 5: Extent of application of ESRS and ISSB Standards (15 entities)<sup>1</sup>



#### Contextual overview of connectivity illustrations

- 15 Below is a summary provided for each illustration which covers the sector, material topic related to the connectivity illustration, the related key IROs, the anchor points and an explanation of the type of connectivity being illustrated. These offer contextual information on the company to better understand the connectivity illustration.
- 16 In the summaries below, ‘SR’ refers to sustainability statement/disclosures and ‘FS’ refers to financial statements.

#### ILLUSTRATION #1:

#### COHERENCE BETWEEN WATER POLLUTION INCIDENT & REMEDIATION (SR) AND CONTINGENT LIABILITY (FS)

**Sector:** Paper and wood

**Material topic in focus:** Pollution

**Related Key IRO:** Water pollution was identified as one of the critical topics for the Group both for impact and financial materiality.

**Illustration Anchor points:** Water pollution incident disclosures (SR) and contingent liability disclosures (FS)

**Type of connectivity illustrated:** **Coherence** between the company’s financial statements notes, that disclose a contingent liability related to a water pollution incident, and information in the sustainability statement, whereby the pollution disclosures contextualise the financial statements information with further details on the incident and the remediation actions being taken by the company.

<sup>1</sup> Of the two entities not applying either the ESRS or ISSB Standards: one reports under NFRD and additionally follows principles from IFRS, GRI, SASB, UNGC, and UN SDGs and one reports in line with TCFD.

#### ILLUSTRATION #2:

##### COHERENCE BETWEEN DISCLOSURE OF ENERGY OPTIMISATION (SR) AND POWER PURCHASE AGREEMENTS ('PPAs') (FS)

**Sector:** Dairy

**Material topic in focus:** Climate change

**Related Key IRO's:** Brand value decline if consumers turn away from dairy due to climate-related impacts and regulatory pressure to reduce emissions in the dairy sector. Opportunities include leveraging climate data to access financing.

**Illustration Anchor points:** Energy optimisation strategy (SR) and PPAs disclosures (FS)

**Type of connectivity illustrated:** **Coherence** between the disclosures regarding the energy optimisation strategy (SR) and PPAs disclosures (FS).

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#### ILLUSTRATION #3:

##### CURRENT FINANCIAL EFFECTS (DISCLOSURE OF QUALITATIVELY MATERIAL EXPOSURES) - OWN WORKFORCE AND HUMAN RIGHTS

**Sector:** Forest assets, packaging solutions, wood products

**Material topic in focus:** Own Workforce

**Related Key IRO's:** Impacts include discrimination, bullying, or harassment despite a zero-tolerance policy and a profit improvement programme launched in February 2024 has led to redundancies across operations. Risks include serious or fatal injuries to employees, contractors, or third parties.

**Illustration Anchor points:** Disclosure of qualitatively material exposures regarding human rights and own workforce-related incidents in SR

**Type of connectivity illustrated:** **Coherence** of information regarding the sustainability statement clarifying that, since the company's own workforce is a material sustainability-related topic, but no significant human rights issues, work-related incidents, fines, or penalties occurred, there is no need for reconciliation with the financial statements.

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#### ILLUSTRATION #4:

##### COHERENCE BETWEEN DISCLOSURES OF GHG MITIGATION (SR) AND EMISSIONS TRADING SCHEME ('ETS') (FS)

**Sector:** Forest assets, packaging solutions, wood products

**Material topic in focus:** Climate change

**Related Key IRO's:** Includes direct and indirect impacts on climate change which stem from greenhouse gas emissions from production sites and the entire value chain, both upstream and downstream, driven by an energy-intensive production process. There are also long-term climate risks, including rising temperatures, which threaten forests, operations, and wood assets.

**Illustration Anchor points:** GHG emissions and mitigations (SR) and emission rights (FS)

**Type of connectivity illustrated:** **Coherence** between the greenhouse gas emissions disclosed in the sustainability report, as the company reports the share of its emissions covered by regulated emissions trading schemes and the emissions rights presented in the financial

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statements. The financial statements provide complementary information by detailing the accounting treatment and use of emissions rights, including those under the European Emissions Trading Scheme (EU ETS).

**ILLUSTRATION #5:**

**COHERENCE BETWEEN SUSTAINABILITY LINKED METRICS (GOVERNANCE REPORT) AND SHARE-BASED PAYMENT DISCLOSURES (FS)**

**Sector:** Information technology (IT) services and consulting

**Material topic in focus:** Climate change and Diverse and inclusive environment

**Related Key IRO's:** Direct and indirect contributions to GHG emissions related to its operational and upstream activities, including the use of external data centres, cloud services, and AI development. In addition, there are risks on employees' exposure to unequal treatment, non-inclusive behaviours, lack of diversity, and workplace harassment.

**Illustration Anchor points:** ESG performance targets in governance report (SR) and share based payments information in FS

**Type of connectivity illustrated:** The company's governance report refers to a Corporate Social Responsibility (CSR) condition for its share-based payment plans. The notes in the financial statements provide additional **coherent** information by disclosing that the performance condition comprises two objectives, diversity and reduction in GHG emissions.

**ILLUSTRATION #6:**

**COHERENCE BETWEEN EXPLAINING WHY POTENTIAL ASSET IMPAIRMENT (MANAGEMENT REPORT) AND ASSET IMPAIRMENT (FS) DIFFER**

**Sector:** Oil & gas

**Material topic in focus:** Climate change

**Related Key IRO's:** The company identified several impacts, categorised as actual negative and positive impacts, as well as financial risks and opportunities, across its upstream and downstream activities over the short, medium, and long term. Financial risks included higher carbon prices, the risk of losing climate-related social licence to operate, and market effects linked to climate change mitigation. From an operational perspective, negative impacts were identified in relation to greenhouse gas emissions, particularly methane. These are contrasted by positive developments such as the advancement of renewable energy, carbon capture and storage technologies, and sustainable energy production.

**Illustration Anchor points:** Potential impairment of non-financial assets derived from scenario analysis (SR) and asset impairment in the FS

**Type of connectivity illustrated:** **Coherence** between the management report and the financial statements through further explanation of why the potential asset impairments disclosed in the management report differ from those recognised in the financial statements. The management report highlights that potential impairments are assessed based on decarbonisation scenarios.

#### ILLUSTRATION #7:

##### CONSISTENCY IN AMOUNTS AND NARRATIVE RELATED TO DECARBONISATION BETWEEN MANAGEMENT REPORT & FS

**Sector:** Steel and mining

**Material topic in focus:** Climate change

**Related Key IRO's:** Risk of higher capital and operational expenditure linked to the stricter laws and regulations limiting GHG emissions. Further, governmental backing for emissions reduction and advancements in technology and infrastructure supporting decarbonisation may make it difficult for the company to achieve targets.

**Illustration Anchor points:** Narrative on strategy and actions in management report and FS notes

**Type of connectivity illustrated:** **Consistency** between reported investments in decarbonisation from the management report and financial statements.

There is also a **description of strategy and actions** on the decarbonization investments in the management report indicating delayed investments which is consistent with FS notes indicating no depreciation.

#### ILLUSTRATION #8:

##### INDIRECT CONNECTIVITY (RECONCILIATION) OF EU TAXONOMY CAPEX (SR) TO NON-FINANCIAL ASSETS (FS); IMPLICATIONS OF BOUNDARY DIFFERENCES DISCLOSED

**Sector:** Oil and Gas

**Material topic in focus:** Climate Change

**Related Key IRO's:** Refer to illustration #6

**Illustration Anchor points:** EU Taxonomy investments in Management report and property, plant and equipment in the financial statement

**Type of connectivity illustrated:** **Indirect connectivity** is demonstrated through a reconciliation of EU Taxonomy capital expenditure (Capex) reported in the management report with the non-financial assets disclosed in the financial statements.

Additionally, the illustration highlights the implications of differing **reporting boundaries** between the financial and sustainability statements, particularly in relation to the calculation of the Capex key performance indicator (KPI'). The voluntary KPI includes Capex related to equity-accounted investees, whereas this is excluded from the mandatory Capex KPI reported in the sustainability statement.

#### ILLUSTRATION #9:

##### OUTLINING REPORTING BOUNDARY DIFFERENCES BETWEEN FS/SR AND OTHER FRAMEWORKS TO CALCULATE GHG INTENSITY RATIO

**Sector:** Hospitality

**Material topic in focus:** Climate change

**Related Key IRO's:** Impacts: Dependency on energy-intensive suppliers and use of natural gas resulting in high GHG emissions. Risks include future costs from emission taxes and energy-

efficiency investments. Opportunities related to sustainable building certification making properties more attractive, and cost savings by investing in more energy-efficient buildings.

**Illustration Anchor points:** Outlining reporting boundary differences between FS/SR and other frameworks

**Type of connectivity illustrated:** There is **portrayal of differences in reporting boundaries**. The sustainability statement is prepared on a consolidated basis, aligned with the scope of the financial statements. However, the company discloses supplementary outcomes for ESRS E1, E2, and E5 to meet the specific calculation and reporting requirements of the European Public Real Estate Association (EPRA) and science-based targets (SBT) in order to calculate the GHG emission intensity ratio.

#### ILLUSTRATION #10:

##### CONSISTENCY OF SEGMENT INFORMATION IN STRATEGIC REPORT AND FS; OUTLINING REPORTING BOUNDARY DIFFERENCES

**Sector:** Energy and petrochemical

**Material topic in focus:** Climate change

**Related Key IRO's:** Short to medium-term physical risks, including hurricanes in the US Gulf Coast, heat in the Middle East, and water scarcity in Europe and Asia. Long-term risks remain uncertain, with no immediate need for adaptation investments. Opportunities include research and development to drive progress toward net-zero emissions across all segments.

**Illustration Anchor points:** Business segments disaggregation in strategic report and FS

**Type of connectivity illustrated:** **Consistency** in the use of segment categories across both the financial statements and the strategic report in relation to assets exposed to climate risk, as well as operating expenses and capital expenditure linked to the energy transition.

Furthermore, the sustainability statement includes a table that explains the **reporting boundary differences** between reporting based on operational control versus financial control, including how these are treated under the ESRS framework.

#### ILLUSTRATION #11:

##### INTERTEMPORAL CONNECTIVITY (ANTICIPATED FINANCIAL EFFECTS DISCLOSURES); COHERENCE & CONSISTENCY OF RISKS BETWEEN TCFD REPORT AND PRINCIPAL RISKS SECTION

**Sector:** Packaging and paper

**Material topic in focus:** Climate

**Related Key IRO's:** The group identified six categories of physical (e.g., higher wood procurement costs) and transition risk (e.g., energy supply costs). Two categories of opportunities were also identified, e.g., changing customer demand for more sustainable products.

**Illustration Anchor points:** Anticipated financial effects disclosures

**Type of connectivity illustrated:** Quantitative and qualitative disclosure (in TCFD report) of possible **anticipated financial statements effects** of climate change-related risks and opportunities the sustainability report over the short, medium and long-term horizon.

Also, there is **coherence and consistency** of TCFD risks and principal risks across the strategic/management report.

ILLUSTRATION #12:

INTERTEMPORAL CONNECTIVITY (ANTICIPATED FINANCIAL EFFECTS DISCLOSURES)

**Sector:** Mining and energy

**Material topic in focus:** Climate change

**Related Key IRO's:** Transition risks include increased costs and reduced market share due to regulations on GHG emissions. Physical risks relate to extreme weather conditions which may impact operations and communities. The identified opportunities relate to increased demand for more efficient products and growing demand for energy transition metals.

**Illustration Anchor points:** Anticipated financial effect disclosures related to identified transition and physical risks

**Type of connectivity illustrated:** Quantitative and qualitative disclosures of possible **anticipated financial statements effects** of climate change-related risks for both transition and physical over the short, medium and long-term time horizon.

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ILLUSTRATION #13:

CONSISTENCY OF SUSTAINABILITY-LINKED LOANS BETWEEN MANAGEMENT REPORT AND FS

**Sector:** Real estate property

**Material topic in focus:** Climate change mitigation

**Related Key IRO's:** Identified impacts include negative impacts due to its shopping centres/corporate offices and value chain and a positive impact on the implementation of actions to reduce Scope 3 GHG emissions. Identified risks include increased costs due to evolving legislation, and increased investment requirements to support the green transition. The resulting opportunities are reduced energy costs from lower emission technology.

**Illustration Anchor points:** Sustainability-linked financing information in the FS and management report

**Type of connectivity illustrated:** **Consistency** between the amount of sustainability-linked financing, including off-balance sheet commitments reported in the management report and the financial statements.

Further, both statements provide **coherent** information regarding the company's green loans and green bonds issued.

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ILLUSTRATION #14:

CONSISTENCY BETWEEN ASSETS AT RISK IN SR AND FS; COHERENCE OF EXPOSURE SENSITIVITY BETWEEN SR AND FS INFORMATION

**Sector:** Banking and Financial Services

**Material topic in focus:** Climate change

**Related Key IRO's:** Climate risk is material over the longer term for credit risk. In addition, the entity assesses the exposure of its corporate loans to environmental and social risks.

**Illustration Anchor points:** Assets at risk in SR and assets on balance sheet in FS

**Type of connectivity illustrated:** **Coherent** information between the sustainability and the financial statements regarding the sensitivity of physical and transition risk on corporate loans

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for each sub-sector including the extent of negative impact. Further, the management section indicates that the entity adequately provisioned for climate risks in its credit risk assessment.

Also, the corporate loan amount in the financial statements is **consistent** with the assets at risks amount in the sustainability statement.

#### ILLUSTRATION #15:

##### CONSISTENCY OF DISCLOSURES ON AMOUNTS OF GREEN INVESTMENTS IN FS AND SR; COHERENCE OF INFORMATION ON TARGETS BETWEEN SR AND FS

**Sector:** Insurance

**Material topic in focus:** Climate change

**Related Key IRO's:** Positive and negative IROs presented from both an investor and an insurer perspective. For example, risk of unrealized losses in the value of invested assets as a result of climate change and positive impact includes the use of environmental criteria on climate change in investment decisions.

**Illustration Anchor points:** Climate transition financing in sustainability statement and green assets information financial statements

**Type of connectivity illustrated:** **Consistency** of amounts and narrative information of its green investments between the sustainability statement and the financial statements.

**Coherence** of information in the sustainability statement information on the entity's GHG emissions targets and the extent of measuring the carbon intensity of the assets under management which is aligned with its strategy to have a net-zero GHG emissions investment portfolio by 2050.

#### ILLUSTRATION #16:

##### CONSISTENCY OF SUSTAINABILITY-LINKED LOANS' AMOUNTS IN SR AND FS; SR INFORMATION THAT CANNOT BE CONNECTED TO FS

**Sector:** Banking Financial services

**Material topic in focus:** Climate change

**Related Key IRO's:** The group has assessed both climate-related transition and physical risks across its portfolio, using a structured approach based on industry vulnerability. Identified impacts include GHG emissions from the lending portfolio. Identified risks are exposure to counterparties and sectors that potentially face high climate related transition risks and opportunities include revenue potential through their financing and investments that enable climate change.

**Illustration Anchor points:** Information on sustainability-linked loans in SR and FS

**Type of connectivity illustrated:** **Consistency** between the sustainability and financial statements in the reported amounts of sustainability-linked loans, including off-balance sheet commitments.

Additionally, the sustainability statement provides a more detailed breakdown of green loans by industry, 'green category', and geography - illustrating the type of information **that cannot always be connected** to the financial statements due to differing disaggregation of information.

**ILLUSTRATION #17:**

**DISCLOSURE OF CURRENT FS EFFECTS EXPECTED CREDIT LOSS DISCLOSURE IN SR SECTION;  
COHERENCE OF INFORMATION ON ECL CLIMATE SCENARIOS IN RISK REVIEW SECTION**

**Sector:** Banking and Financial Services

**Material topic in focus:** Climate change

**Related Key IRO's:** Identified risks are a reduction in household income and wealth and lower asset performance over the short to long-term.

**Illustration Anchor points:** Climate-related disclosure in ESG review section and Expected Credit Loss (ECL') note in FS

**Type of connectivity illustrated:** *Disclosure of current FS effects* in SR: The disclosure in the ESG review section cross references the note in the FS stating that there is no material impact on ECL. The risk review section provides **complementary** information on the ECL analysis using scenario analysis.

**Suggested questions to constituents to be included in the Discussion Paper**

17 The following are suggested questions to constituents based on Chapter 3:

- (a) Seeking constituents' views on the 17 illustrations;
- (b) Seeking constituents' views on the priority and circumstances best suited for applying different connectivity mechanisms (coherence, direct/indirect connectivity, disclosure on qualitatively material exposures, etc); and
- (c) Which types/connectivity mechanisms to connect information in different parts of the annual report is being used in practice.

**Questions for EFRAG FRB and SRB**

- 18 Do you have any comments on the Chapter 3 content above? Please explain.
- 19 Does EFRAG FRB and SRB have any comments on the proposed questions to constituents in paragraph 17 above or have any additional questions to ask the constituents? Please explain.

## **CHAPTER 4: AGGREGATED OBSERVATIONS ON CONNECTIVITY OF REPORTED INFORMATION**

*This chapter provides aggregated observations on the application of connectivity in current reporting practices based on a review of 72 annual reports, feedback from outreach to stakeholders, and a review of external publications. Overall, there is an increasing trend in the observed levels of connectivity despite the application of this concept being in early stages, there are initial indications of stakeholders having a prioritisation of the connectivity mechanisms, and the application of this concept is useful for users, preparers, securities regulators, and auditors on a multiple-fold basis.*

## Introduction

- 1 This Chapter provides aggregated observations on the extent to which there is connectivity within current reporting practices. These observations are based on the following:
  - (a) The review of the 2023 and 2024 annual reports of 72 companies, which includes the 15 companies from which the 17 illustrations of connectivity in Chapter 3 were selected (see Appendix A for profile of companies reviewed). It is acknowledged that the observations based on the illustrations are not generalisable to the reporting of all companies.
  - (b) Discussions with EFRAG CAP and EFRAG's financial reporting and sustainability reporting technical governance bodies, and other EFRAG working groups.
  - (c) Feedback received from EFRAG's interviews with 16 stakeholders (50% of preparers, 19% of auditors and 31% of users) and other outreach events (see Appendix A); and
  - (d) The findings of thematic reviews of reporting practices in the publications of other organisations including academic studies.
- 2 This paper is structured as follows:
  - (a) Findings of EFRAG's desktop research on extent of connectivity of reported information (paragraphs 3-7);
  - (b) General observations on connectivity trends and anchor points (paragraphs 8-16);
  - (c) Observations on connectivity mechanisms (paragraphs 17-40);
  - (d) Usefulness of connectivity of reporting – users' and other stakeholders' perspectives (paragraphs 41-50); and
  - (e) Suggested questions to constituents (paragraph 51).



### Findings of desktop research on the extent of connectivity of reported information

- 3 The EFRAG Secretariat reviewed 72 (primarily) EU entities across multiple industries, drawn from desktop research.
- 4 For this review, the EFRAG Secretariat used a connectivity scoring system that was developed for a 2025 academic study *Connectivity in climate-related disclosures* across 787 European firms by Karlsson, M (hereafter called ‘Karlsson (2025)’).
- 5 More specifically, the EFRAG Secretariat measured the extent of connectivity between climate-related disclosures within and outside the financial statements by manually scoring them into three different categories (capturing only firms that outside the financial statements disclose a climate-related commitment and that their business is impacted by climate change):
  - (a) *Lack of connectivity*: There are no disclosures on climate-related matters in the financial statements;
  - (b) *Weak connectivity*: There are disclosures on climate-related matters in the financial statements. However, disclosures are general and do not explicitly state how climate-related risks are expected to impact the financial statements; and
  - (c) *Strong connectivity*: In the financial statements, climate-related disclosures are firm-specific and describe how climate-related matters are expected to impact the financial statements. This includes which items in the financial statements that are or are expected to be impacted by climate-related matters; a description of whether climate-related matters have a significant impact on the financial statements or not and when not material, the firm explains why, and the considerations made; and when applicable for particular items, sensitivity analysis and scenario analysis.
- 6 In the EFRAG Secretariat’s review of the 72 entities’ 2024 annual reports, it was observed that 49% of companies demonstrated strong connectivity of reported information regarding climate-related matters within and outside the financial statements, 43% of companies demonstrated weak connectivity, while 8% of companies demonstrated no connectivity.
- 7 The above findings further show that the journey towards connectivity has begun, and the objective of this chapter is to enhance stakeholders’ understanding of what connectivity means in practical terms through illustrations of connectivity in order to improve reported information.

### General observations on connectivity trends and anchor points

- 8 *Connectivity journey is in early stages:* Overall, based on the review of 72 annual reports, companies can be deemed to be in the early stages of their journey towards implementing connected reporting. This view has been conveyed in various fora, including during the April 2025 EFRAG roundtable event, where responses to a polling question showed that 52% of the participants considered that there was minimal improvement on connectivity in reporting over time (refer to Figure 1 in Chapter 3).
- 9 Some nascent academic studies including (a) [\*Climate disclosure in financial statements\*](#), TRR 266 Accounting for Transparency Working Paper Series No. 144, University of Cologne, IESE Business School, CEPR, ECGI, LMU Munich School of Management by M. Müller, G. Ormazabal, T. Sellhorn and V. Wagner in May 2025, and (b) Karlsson (2025), and (c) [\*Connectivity and Boundaries of Climate-related disclosures in Annual Reports\*](#) 2024 review of 80 companies (from EU, UK, Australia, and Canada) showed an increase in disclosures related to climate-related matters in the financial statements in recent years but the latter two studies indicated early stages of connectivity in disclosures.
- 10 *Connectivity is observed mainly in respect to climate-related matters:*
- (a) Though ESRS encompasses sustainability-related matters related to environmental, social and governance topics, across the reviewed annual reports of 72 companies, connectivity was mainly observed in respect of climate-related reporting. Hence, without prioritising climate-related reporting, only three of the 17 (18%) selected illustrations in Chapter 3 were not climate-related. This likely reflects the ‘climate first’ approach underpinning most of the available sustainability-related reporting frameworks and guidance (e.g., the IASB educational material, IASB ED examples on climate-related and other uncertainties in the financial statements, ISSB Standards, TCFD recommendations). Moreover, thematic reviews of reporting practices, including through the signalled enforcement priorities, and the reports of national standard setters and audit firms, have typically focused on climate-related reporting.
  - (b) During EFRAG’s outreach discussions, preparers indicated that, from a connectivity perspective, it was generally easier for them to link climate-related information to financial statements compared to information on other sustainability matters, largely due to preparers having more practical experience with climate-related issues.

- 11 *Variation in the linkage of pre-identified financial statements and sustainability reporting anchor points*<sup>2</sup>: The objective of the EFRAG connectivity project was to identify different aspects of connectivity (integration of information and coherence, consistency of narrative, data and assumption, and linkage of quantitative information (i.e., via direct and indirect connectivity as described in ESRS Set 1)) being applied for a selected set of anchor points, as discussed in Chapter 2. However, based on the reviewed annual reports of 72 companies, it was challenging to find the related information in the sustainability reporting (e.g. related to the valuation of tangible and intangible non-financial assets, i.e., impairment, amortisation; useful economic lives; impairment (ECL) of financial assets for financial institutions) to make the direct connection to some of these financial statements anchor points.
- 12 Conversely, it was also challenging to identify connected sustainability-related information related to the disclosure of sources of uncertainty in estimation of carrying value as per paragraphs 125 and 129 of IAS 1 *Presentation of Financial*, and the application of qualitative materiality assessment under paragraph 31 of IAS 1 (paragraph 20 of IFRS 18), based on the review of 72 annual reports. An explicit instance in which there was information under IAS 1.31 requirements were disclosures of qualitatively material exposures as mentioned in paragraph 23 below.
- 13 It is noted that stakeholders had expressed diverse views<sup>3</sup> on the applicability of paragraph 31 of IAS 1. Some had the perception that it is not applied frequently enough in practice, whereas others were concerned about its stretched application and questioned the limits of such disclosures.
- 14 *Segment disclosures*: Other areas where it was challenging to find information related to the disaggregation of revenues under IFRS 15 and segment disclosures of material sustainability-related matters. In only two of the 17 illustrations did material sustainability matters get depicted in the segment disclosures. Similarly, Karlsson (2025) showed that only 1% of firms (i.e. over a two-year period) disclosed climate-related matters in relation to segment reporting under IFRS 8.

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<sup>2</sup> Anchor points are data and/or qualitative or quantitative information that allows the connection of sustainability reporting disclosures and financial statements information

<sup>3</sup> EFRAG's [Final Comment Letter](#) on the 2024 IASB Exposure Draft Climate-related and other uncertainties in the financial statements, the 2024 EFRAG initial connectivity paper [Connectivity considerations and boundaries of different annual report sections](#) and the [April 2024 IFASS report](#) highlight multiple views on the applicability of IAS 1.31, including stakeholders who had concerns about the stretched application of IAS 1.31.

- 15 *Expected credit loss*: In some instances, it was not clear whether the measurement of expected credit loss was actually affected by climate-related risks or how significant (if at all) the impact was.
- 16 As shown in the below two tables, there are findings in academic papers on the extent to which climate risk is covered by different accounting standards, and this is indicative of the prevalence of the financial statements anchor points in respect of climate risk

Table 1: Accounting area where climate risk is covered - as reported in Karlsson (2025)

Accounting area	N	2022	N	2023	N	2022/3
Impairment of goodwill (IAS 36)	213	57%	292	60%	505	59%
Non-current assets (PP&E, Intangible assets excluding goodwill & RoU)* (IAS 16, IAS 38, IFRS 16, IAS 36)	200	53%	295	61%	495	58%
Provisions and contingent liabilities (IAS 37)	83	22%	94	19%	177	21%
Going concern (IAS 1)	62	17%	106	22%	168	20%
Financial instruments** (IFRS 7, IFRS 9, IFRS 13)	54	14%	84	17%	138	16%
Deferred tax (IAS 12)	29	8%	49	10%	78	9%
Investment properties (IAS 40)	29	8%	41	8%	70	8%
Share-based payments/incentive programs (IFRS 2, IAS 19)	17	5%	37	8%	54	6%
Inventory (IAS 2)	22	6%	31	6%	53	6%
Defined benefit plans (IAS 19)	19	5%	28	6%	47	5%
Power purchase agreements (IFRS 10, IFRS 11, IFRS 16, IAS 16 or IAS 20)	7	2%	16	3%	23	3%
Biological assets (IAS 41)	8	2%	8	2%	16	2%
Revenue (IFRS 15)	4	1%	10	2%	14	2%
Investments in associates/joint ventures (IAS 28)	6	2%	6	1%	12	1%
Segment reporting (IFRS 8)	6	2%	6	1%	12	1%
Government grants (IAS 20)	1	0%	3	1%	4	0.5%

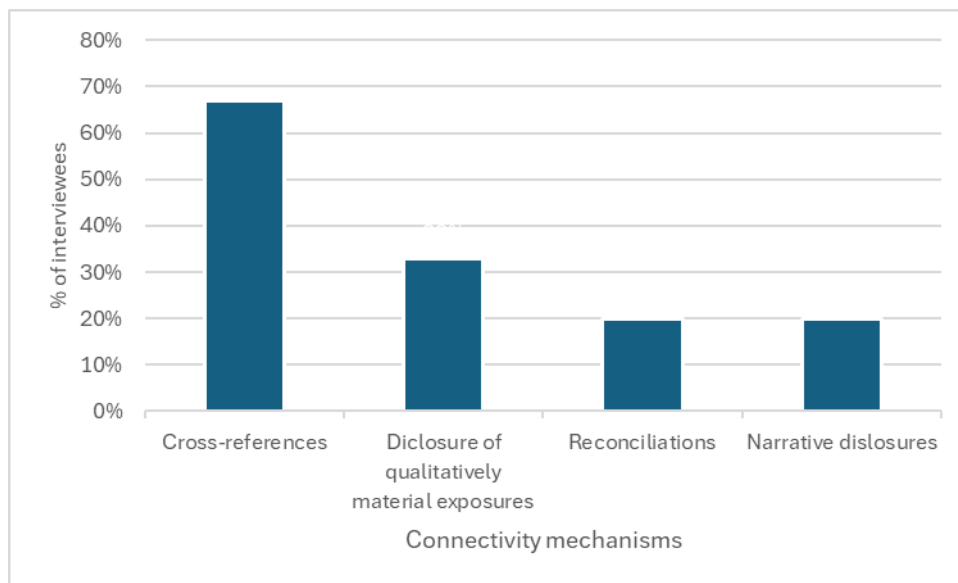
Table 2: Accounting area where climate risk is covered in [Connectivity and Boundaries of Climate-related disclosures in Annual Reports](#) by Agrawal. P., Bayne. L., Hellman. N., and Wee. M., 2025 (hereafter called ‘Bayne et al (2025)’) which comprised of a review of 80 companies from the EU, UK, Australia and Canada

Accounting standard	2022
IAS 36 Impairment of Assets	43%
IAS 1 Presentation of Financial Statements - Climate risk	38%
IFRS 7 Financial Instruments: Disclosures, IFRS 9 Financial Instruments	30%
IAS 37 Provisions, Contingent Liabilities and Contingent Assets	30%
IAS 16 Property, Plant and Equipment	29%
IAS 37 General	29%
IFRS 7/9 General	21%
IAS 1 Presentation of Financial Statements - Assumptions and estimation uncertainty	21%
IAS 1 Presentation of Financial Statements - Judgements	18%
IFRS 3 Business Combinations - Goodwill	14%
IFRS 7/9 ETS	14%
IAS 1 Presentation of Financial Statements - Going concern	11%
IAS 2 Inventories	11%
IAS 37 ETS	11%
IAS 38 Intangible Assets	11%
IAS 2 ETS	10%
IFRS 13 Fair Value Measurement	9%
IAS 19 Employee Benefits	9%
IAS 40 Investment Property	9%
IFRS 2 Share-based Payment	8%
IAS 12 Income Taxes	8%
IAS 38 ETS	8%
IFRS 6 Exploration for and Evaluation of Mineral Resources	6%
IFRS 8 Operating Segments	6%
IAS 20 Accounting for Government Grants and Disclosure of Government Assistance	6%
IFRS 8 General	5%
IFRS 15 Revenue from Contracts with Customers	5%
IFRS 15 ETS	5%
IAS 20 ETS	5%
IAS 10 Events After the Reporting Period	4%
IFRS 8 ETS	3%
IFRS 16 Leases	3%
IFRS 17 Insurance Contracts	1%
IAS 2 General	1%
IAS 28 Investments in Associates and Joint Ventures (2011)	1%
IAS 41 Agriculture	1%

### Observations on connectivity mechanisms

- 17 Based on EFRAG’s outreach interviews with preparers, auditors and users, the most used connectivity mechanisms indicated by the stakeholders were the following:

Figure 1: Most used connectivity mechanisms



#### *Positive observations on connectivity mechanisms*

- 18 *Some level of coherence and integration of information, importance of narrative explanations:* Illustrations on coherence were easily identifiable from the 72 companies' annual reports, albeit there being variation in how companies describe their strategy, business models, impacts, risks and opportunities ('IROs') actions, and targets (see paragraphs 33 and 34 below); and the linkage made of these aspects to financial statements' effects. For instance, six out of the 17 connectivity illustrations in Chapter 3 reflect coherence between financial statements and sustainability reporting information. At the same time, as noted in paragraph 32(a) below, the financial implications of the entity's sustainability-related actions were often not quantified, which posed a challenge to the coherence of information across reports. Stakeholders in EFRAG's outreach emphasised the importance of coherence across financial statements and sustainability reporting for the reader to see how different parts interrelate. Moreover, stakeholders indicated that narrative information helped to provide context and link financial and non-financial information. Users viewed them as beneficial, particularly when used alongside reconciliations and/or quantitative information.
- 19 *Well-specified time horizon disclosures (as part of the communication of strategy and business model):* Related to the above paragraph, all 15 companies, from which the 17 illustrations in Chapter 3 were drawn, had a clear specification of what is meant by short-, medium-, and long-term even though for a few cases, the definition of the time horizon did not reflect ESRS requirements especially for the medium- and long-term (section 6.4 of

ESRS 1). This helped to contextualise the reported financial effects and other quantitative data in both the sustainability report and financial statements.

- 20 *Consistency of information identified:* Illustrations of the consistency of quantitative data, assumptions, and narrative information were easily identifiable. This is unsurprising given the emphasis on consistency that pre-dated the inclusion of mandatory connectivity requirements, and as it is also a focus of assurance. Relatedly, in the ESMA 2024 Report on Corporate Reporting Enforcement and Regulatory Activities, based on a sample of 27 entities, 77% of the reviewed entities provided qualitative and/or quantitative disclosures regarding material climate-related matters within financial statements and the management report, non-financial statement or (where applicable) the prospectus. The ESMA report indicated that there were no significant inconsistencies identified between the assumptions used in estimations and measurements related to climate matters applied, either within the financial statements or across the different parts of the annual report.
- 21 *Cross-referencing is the most commonly used connectivity mechanism currently applied:* EFRAG's outreach feedback indicated that the most used connectivity mechanism is cross-referencing, as indicated by 67% of the interviewees (Figure 4 of Chapter 4). The interviewees viewed cross-referencing, when used appropriately<sup>4</sup>, as a pragmatic method for avoiding duplication across different report sections. The outreach findings are confirmed by the [2025 EY CSRD Barometer](#), whereby incorporation by reference to the sustainability statement, of sustainability-related information included the management report, was found to be applied by 99% of the entities studied<sup>5</sup>. In addition, Karlsson (2025) showed that cross-referencing of climate-related matters between the financial statements and other parts of the annual report occurred in 26% of the observations (i.e. over a two-year period). The lower proportion of entities applying cross-referencing in the latter is because there are more constraints to the incorporation of information into the financial statements by cross-referencing (e.g., due to the need to have reasonable assurance of such information).
- 22 *Application of direct and indirect connectivity mechanisms:* Across the reviewed annual reports of 72 companies, the direct and indirect connectivity mechanisms via cross-reference or reconciliation of sustainability statement information to the financial

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<sup>4</sup> For example, when providing sufficient narrative or context

<sup>5</sup> Mandatory metrics and information were included in other parts of the annual reports. A referencing of SBM-1 and GOV-1 to 4 disclosure requirements of ESRS 2 was noted.

statements was observed mainly for cases of EU taxonomy investment-related disclosures. It is noted that, under the revised ESRS Exposure Draft, cross-referencing via direct and indirect connectivity (including those related to EU taxonomy investments) is proposed to be optional. 20% of the interviewees from EFRAG's outreach explicitly considered reconciliations helpful in aligning financial and sustainability data, despite frequent challenges caused by differences in reporting methodologies and structures.

23 *Disclosure of qualitatively material exposures*<sup>6</sup>: Disclosure of qualitatively material exposures, e.g., an entity explaining that there is no material effect on its financial position and financial performance for the current reporting period, were readily identifiable in the annual reports reviewed, and they are a point of discussion among stakeholders, as shown below.

(a) 33% of the stakeholders from EFRAG's outreach considered these disclosures to be useful, even though some preparers did not consider this mechanism to be the most appropriate, as there was a risk of being generic and covering non-material information or irrelevant information (for example, misleading users to interpret immaterial data as material). These statements were frequently observed in the reviewed annual reports.

(b) An academic study Bayne et al (2025) that reviewed the 2022 reporting of a sample of 80 entities (including 20 entities from the EU) found that there were these disclosures of qualitatively material exposures in 19% of the companies.

24 *Anticipated financial effects*: The observations on anticipated financial effects are based on reporting under ESRS Set 1, ISSB Standards and TCFD. Based on the review of 72 annual reports, disclosures on anticipated financial effects are rare due to transitional provisions under ESRS<sup>7</sup> and ISSB Standards.

25 As noted in Chapter 2, based on the revised ESRS ED, this disclosure requirement is under review for ESRS reporters, and more comprehensive feedback from stakeholders will be obtained from ESRS ED feedback. Nonetheless, during EFRAG's outreach, users and several other stakeholders have indicated that the disclosures of anticipated financial effects in the sustainability statement/disclosures are useful for the analysis of the companies' prospects

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<sup>6</sup> Refer to Example 1 of the IASB Near-final staff draft [Disclosures about Uncertainties in the Financial Statements Illustrated using Climate-related Examples - Illustrative Examples](#) for an explanation of these disclosures

<sup>7</sup> Under ESRS Set 1, Companies may limit their disclosures on anticipated financial effects to qualitative disclosures for the first three years of reporting (with limited exceptions and, in the case of climate-related financial effects only if it is impracticable to prepare quantitative disclosures).



and risk profile. Users have noted that even if this type of disclosure is currently rare, if disclosed by a reporting entity, they can use it to engage with the management of the reporting entity's competitors. For illustrations which had some disclosures on anticipated financial effects, the following is noted:

- (a) *Incoherence with current period financial statements:* For some illustrations, there was a disconnect between the significant amounts portrayed in the anticipated financial effects disclosure (which covers short, medium and long-term) and the company concurrently conveying that there were no material effects in the current period financial statements.
  - (b) *Understandability of information:* There was unclear terminology being used, for example, financial impacts / financial effects, and it was difficult to gauge the methodology used to quantify the numbers and/or whether the effects related to future balance sheet items, expenses, cash items or non-cash items; or whether they refer to maximum exposure or expected value of the financial impact.
- 26 *Navigation tools, including ESRS content indexes and dedicated sustainability-related (mostly climate-related) notes in the financial statements:* Though not included in the illustrations in Chapter 3, these were included in several annual reports to help with the navigability across different parts of annual reports. Relatedly, a few entities presented a concise summary of topics (usually in a tabular format) that intersect information in the financial statements and the sustainability statement or the rest of the management report.
- 27 *Explanation of similarities or differences between the financial statements and sustainability statement/disclosures:* Across all 15 companies, from which the illustrations of connectivity in Chapter 3 were excerpted, there were dedicated notes explaining the boundaries between the sustainability statement and the financial statements. These were useful to understand the different scopes of consolidation of the information reported in different parts of the annual report.
- 28 Moreover, based on the reviewed annual reports of 72 companies, there were observed cases of companies explaining the differences in assumptions applied for the financial statements' asset impairment versus those for the potential asset impairment in the scenario analysis disclosed outside the financial statements.
- 29 There were also cases where the sustainability disclosure had more granular information than the financial statements (e.g. loans that were subject to physical risks). In these cases, the disaggregated information was material in the context of the sustainability report, and

a similar level of disaggregation in the financial statements would likely risk obscuring other material information.

- 30 *Some insightful governance disclosures (connectivity in process):* For eight of the 15 companies from which the illustrations were drawn, there were disclosures about the governance structure showing the different responsibilities, at the management and operational level, for managing sustainability matters. EFRAG's outreach has indicated that these disclosures are useful for investors as they give comfort that sustainability-related risks are being well managed by the entity.

*Considerations (areas for further attention) to enhance connectivity*

- 31 Chapter 5 has a broader examination of considerations to enhance the connectivity of reported information and related aspects. Below are some considerations based on the review of the annual reports of 72 companies, from which the 17 illustrations were drawn.
- 32 *Progress in ensuring holistic communication:* From the illustrations reviewed, there are enhancements to be made in ensuring holistic communication that allows readers to link strategy, IROs, entity actions and reported metrics and financial effects. For instance:
- (a) *Limited quantification of financial effects:* In general, in the sustainability reporting, there was limited quantification of the financial implications of actions, including commitments, investments, even when these had financial statements' effects.
  - (b) *Investment disclosures:* Investment disclosures (including the taxonomy disclosures) rarely shed light on the entity's strategic objectives and its net-zero commitments. Moreover, these disclosures are often not adequate to assess the return on invested capital by the company, which users have signalled would also be useful for them.
  - (c) *Reporting on research and development ('R&D') expenditures:* In the sustainability disclosures, it was challenging to identify narrative or quantitative information about the sustainability-related R&D investments that were not recognised as assets, presented as a separate line item in the income statement or disclosed in the notes to the financial statements.
- 33 *Varied quality in the reporting of entities' strategies and business models:* The narrative description of entities' strategies and business model was sometimes generic, although it was possible to distil some key information. As noted in the 2021 EFRAG European Lab PTF-

RNFRO publication<sup>8</sup>, an explanation of the sustainability of the business model and its potential to continue beyond the current period is often not part of the business model description.

- 34 *Varied quality in the reporting on IRO, actions and targets:* Based on the annual report review of 72 companies, there was varied quality in the reporting on IROs, which were sometimes not clearly described or were challenging to identify. Moreover, in some cases, for material topics identified, there were generically worded risks and opportunities. This was similar for actions and targets. Also, there were limited cases whereby entities focused on opportunities in addition to risks of an entity. That said, it is discernible that the sustainability standards are helping in getting common terminology (e.g., IROs, description of materiality). Entity-specific, clear and concise IROs that are linked to potential financial effects would be helpful.
- 35 *Reported information on connectivity between the sustainability statement/disclosures and the financial statements was not easily identifiable:* Based on 72 annual reports reviewed, in general, reported information on connectivity between the sustainability statement/disclosures and the financial statements was not easily identifiable because in a lot of cases, the reported information on connectivity was too generic. For example, there would be information on impairment of non-financial assets in the financial statements, but very high-level sustainability-related information related to their strategy. Another example is detailed information in the financial statements on carbon credits but quite generic information in the sustainability statement/disclosures.
- 36 *Inconsistent terminology:* Sometimes similar terms were used for the same concept (e.g. commitments), whereas different terms were used to describe the same concept (e.g. financial impact and financial effects). In this vein, during outreach, stakeholders emphasised the role of connectivity towards enhancing effective communication including by the harmonisation of terms applied across the annual report and related requirements (e.g., alignment in the terms applied in the *Conceptual Framework for Financial Reporting* and those applied in IFRS S1 and ESRS 1).
- 37 *Challenges with cross-referencing were noted:*
- (a) *Uninformative cross-referencing:* Based on the review of the possible illustrations of connectivity, there was uninformative mutual cross-referencing (i.e., sustainability

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<sup>8</sup> [Towards Sustainable Business: Good Practices in Business Model, Sustainability Risks and Opportunities Reporting in the EU.](#)

reporting disclosures which refer to a specific note in the financial statements and that note in turn only stated that it considered the sustainability reporting disclosures).

- (b) EFRAG's outreach with stakeholders acknowledged the following challenges:
  - (i) *Excessive referencing*: This, particularly when lacking methodological clarity, could confuse rather than provide clarity.
  - (ii) *Lack of cross-referencing resulting in duplication*: Cross-referencing between the sustainability statements, financial statements and other reports has been seen as complicated. This is because there may be duplication of sustainability-related information in the financial statements, as cross-referencing under IFRS Accounting Standards is generally limited.

38 *Organisational reporting boundaries*: Based on the review of the connectivity illustrations, there may be a misinterpretation of sustainability metrics due to the application of different organisational reporting boundaries for sustainability statement/disclosures and financial statements. Of note, a KPMG study of 270 European companies, whereby 45% of them reference operational control as an additional consideration when setting the reporting boundary under ESRS. In addition, it was observed that most companies referred to the basis of preparation of their sustainability statement, but without detailing the differences between the reporting boundaries for the sustainability statement/disclosures and the financial statements.

39 *Preparer challenges*: Preparers pointed to the following additional challenges towards connecting financial statements and sustainability reporting information:

- (a) *Lack of clear guidance and illustrative examples* make the reporting process particularly difficult.
- (b) *Uneven implementation of the CSRD across member states* – in some jurisdictions, the directive has yet to be transposed into national law and audit practices vary considerably.
- (c) The need for *knowledge-building* across teams.
- (d) *Meeting diverse audience needs* – some preparers found it challenging to identify the target user of the annual report, which has evolved due to sustainability reporting.

40 Stakeholders also provided comments as follows on their expectations of connectivity beyond what is captured by the connectivity mechanisms described above.

- (a) Integrated thinking: Several stakeholders (preparers and academics) viewed connectivity as a core reporting principle that has to be underpinned by connectivity in process and integrated thinking in how companies manage their business model. Several pointed out how integrated thinking/less-siloed departments has helped to enhance their internal risk management. It was also suggested connectivity could be seen as a step on a broader trajectory towards integrated thinking (i.e. connectivity of reported information is a precursor to ‘integrated reporting’, which then leads to ‘integrated thinking’). At the same time, it was noted that ‘integrated thinking’ lies beyond the remit of reporting standard setters, since it cannot realistically be mandated through reporting requirements.
- (b) Causality of information: A few stakeholders suggested that it would be insightful if the causality of information (cause and effect relationship between sustainability statement/disclosures information and financial statements information) were considered as an aspect of connectivity, albeit it being more complex concept than the linkage of information via cross referencing or reconciliation.
- (c) Role of technology:
  - (i) It was seen as an enabler of reporting integration. In general, preparers and auditors saw digital tagging as beneficial for both reporting and audit processes once further developed, although such tagging could make comparing entities challenging because it is inherently specific to each organization. Stakeholders considered that digital taxonomies had potential for enhancing connectivity, with clearer guidance on the scope and methodologies of key concepts such as anticipated financial effects and materiality frameworks. Additionally, there was a general view that AI-powered search capabilities layered on structured data can improve connectivity and facilitate easier navigation within and across reports.
  - (ii) Users, some of whom applied algorithmic trading and AI-driven scraping of information across multiple sources, overall expected a minimal role of technology in enhancing connectivity of their analytical processes. However, they noted that digital tagging can enhance the comparability and navigability of reported information.

## Usefulness of connectivity of reporting – users’ and other stakeholders’ perspectives

- 41 As noted in Chapter 1, connectivity of reported information enhances users’ valuation of reporting entities, by improving their understanding of an entity’ past and its prospects (financial position, financial performance, and progress), helping in forecasting future cash flows. It can also improve users’ assessment of a company’s sustainability-related IROs and its contribution to the climate-change-related transition goals and other sustainability-related policy goals. The importance of connectivity for users has been highlighted in a few academic studies and through the feedback from users received during EFRAG’s outreach including through interviews, outreach events, and the user panel (see Appendix A for detailed profile of the users who provided feedback).

### *Empirical and other academic evidence on the usefulness of connectivity*

- 42 Karlsson (2025) presents the findings from testing the relationship between the level of connectivity and information asymmetry (i.e. a gap of information about the company that exists between insiders/management and outsiders of the company including investors, and this could be due to the limited transparency/reporting by the reporting company). As noted in paragraph 5, the level of connectivity was measured by manually scoring entities into three different categories depending on their climate-related disclosures within and outside the financial statements. The stock’s bid-ask spread served as a proxy for investors’ perceived risk and information asymmetry.
- 43 The findings indicated that increased levels of connectivity between climate-related disclosures in the management report and the financial statements reduce the information asymmetry, particularly in the long-term. Similarly, a 2024 academic paper (Wang, Chua, Simnett, and Zhou, 2025)<sup>9</sup> presented the findings from testing the quality of sustainability reporting disclosures of 428 UK listed companies. Connectivity of the sustainability statement/disclosures’ information with the financial statements’ information was seen as a component of increased sustainability reporting disclosure quality. The study found that increased connectivity is related to lower bid-ask spreads (and lower cost of capital). The above results suggest that increased connectivity has the potential to reduce information asymmetry.

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<sup>9</sup> Wang, R., Chua W.F., Simnett, R., and Zhou, S., 2024. [Is greater connectivity of financial and non-financial information valued by market participants?](#) The British Accounting Review. The University of Sydney and Deakin University.

- 44 However, neither of the above two studies found there to be a significant relationship between levels of connectivity and analysts' earnings forecast dispersion (which is another proxy measure for information asymmetry).

*Feedback received from EFRAG's outreach*

*Feedback on sources and use of companies' information*

- 45 The interviewed users indicated that they rely on annual reports, other publicly available information (e.g. corporate governance reports, press releases) and information by data providers to gather information for their analytical purposes and for engaging with an entity's management. Some of the interviewed users also noted that they use proprietary questionnaires to assess how an entity manages sustainability-related matters.
- 46 One user, representing a technology-driven investment firm, signalled that they primarily receive data from data providers extracted from annual reports, rather than directly analysing annual reports themselves. Nonetheless, this user underscored that the attributes and quality of annual reports including the connectivity of reported information affects the quality of information available from third-party data providers and their own proprietary databases.
- 47 *Integration of users' analytical processes:* There was no indication that the interviewee users had unified functional teams (akin to some of the preparers) that jointly consider both the traditional financial information and the sustainability reporting information for analytical purposes. Such a unified approach would be expected to increase the demand for connected information.

*Feedback on how connectivity of reported information is useful*

Usefulness of identified connectivity mechanisms

- 48 Users provided the following feedback on the following enabling attributes, types, and mechanisms of connectivity of reported information:
- (a) *Avoidance of duplication:* Users confirmed that avoiding duplication, which enables the connectivity of reported information, also minimises the risk of them double counting information during their valuation and assessment of the risk profile of companies.
  - (b) *Coherence/complementarity and integration of information:* Users confirmed that the coherence and integration of information enhance their understanding of the

entity's value creation story, and it conveys that a company has embedded sustainability-related matters into its strategy and business model.

- (c) *Consistency*: Consistency of data, assumptions and narrative information was confirmed as crucial for ensuring the credibility of reported information. This confirmatory role enhances the annual report's faithful representation and verifiability/reliability (e.g. by avoiding greenwashing risk).
- (d) *Direct connectivity (cross-referencing)*: Cross-referencing enhances the understandability and navigability of the annual report, and it also lessens the risk of double counting of information. However, users confirmed that excessive cross-referencing impairs understandability.
- (e) *Indirect connectivity (reconciliation)*: Reconciliation was viewed as a mechanism that can ensure the verifiability and faithful representation of reported information.
- (f) *Forward-looking or future-oriented information*: The importance of connectivity in the context of forward-looking or future oriented information was underscored. For instance, the link between sustainability related matters (environmental pollution in the sustainability statement) and the disclosed contingent liabilities in the financial statements.
- (g) *Anticipated financial effects (inter-temporal connectivity mechanism)*: Although this type of information has been rarely reported previously, users were generally positive about the potential usefulness of anticipated financial effects disclosures within the sustainability statement/disclosures as noted above in paragraph 25, albeit indicating that they were not yet monitoring these newly introduced disclosures across reporting periods. For contextual purposes, users underscored the importance of the disclosure of the anticipated business impacts that precede the occurrence of the anticipated financial effects. They also noted the lack of comparability and unclear terminology (which was also observed in EFRAG's review of companies - see paragraph 36), and the inherent uncertainty of the disclosed amounts. According to users, these limitations affect the usefulness of these disclosures for valuation and other analytical purposes. Nonetheless, users considered these disclosures can signal that companies' management have considered risks that may crystallise in the long-term and they can be a useful starting point for users to engage with companies' management. The importance of Standards to further ensure the usefulness of these disclosures was also highlighted.



- (h) *Disclosure of qualitative materiality exposures:* Users viewed these disclosures as helpful since they help explain why certain information is not disclosed and enable more targeted engagement with companies' management. They considered that these disclosures could be located either in the financial statements, the sustainability statement/disclosures, or the rest of the management report.
  - (i) *Other mechanisms:* Users considered other mechanisms of connectivity such as dedicated sustainability-related matter notes in the financial statements and content indices as less helpful.
- 49 *Relative priority of mechanisms:* Users underscored the importance of the overarching aspects of connectivity (consistency, coherence and integration of information). They also considered mechanisms such as cross-referencing and reconciliation moderately helpful. As noted above, other mechanisms were seen as less helpful. Anticipated financial effects were highlighted as potentially very helpful.

#### Other user perspectives

- 50 During the outreach discussions, which included feedback on a selection of the illustrations in Chapter 3, users provided additional perspectives on the following:
- (a) Connectivity/dis-connectivity in the economic meaning of information. In this regard, users highlighted the importance of:
    - (i) ensuring that there is no disjointed consideration of information disclosed in both the financial statements and sustainability reporting information in a manner that risks are double counted, or risks are ignored due to not being reflected in either of the reports (carbon credits); and
    - (ii) considering the confounding/offsetting effects from information disclosed in both the financial statements and sustainability reporting information (e.g. rising employee injuries may occur in tandem with increased profitability due to both factors occurring as a result of increased production time).
  - (b) Level of disaggregation:
    - (i) Users pointed to the insufficient disaggregation sometimes being an issue in respect to both financial statements and sustainability reporting information. For instance, they pointed to the difficulty in linking an entity's operating segments in financial statements to its transition plans (e.g. plans for asset retirement due to transition to green products).

- (ii) Disaggregated information provides insight into the extent and materiality of sustainable activities within a business. For instance, a large conglomerate may only have 2% of its operations making a strong contribution to sustainability, while the remainder of its activities are neutral or negative.
- (iii) Users signalled that they consider capital expenditure ('CapEx') to be one of the most important sustainability-related metrics and highlighted that it was essential to understand whether CapEx and capital commitments related to, e.g., green activities or transition activities indicating that this disaggregation was not consistently provided.
- (iv) Some users suggested that many renewable businesses have different return on invested capital ('ROIC') prospects and risk profiles and information that enables a valuation of these businesses separately from existing businesses would be helpful. They also suggested that a greater disaggregation of human capital information (e.g. employee attrition rates, employee satisfaction) can enable investors to better assess the long-term prospects of companies (i.e. distinguish between short term fixes from long term solutions).
- (c) Role of connectivity in users' engagement with companies: They noted that the connectivity of reported information (e.g., business segments that are sustainability-related) and disclosure of connectivity-related information (e.g. individuals that are responsible for governance) facilitates users' engagement with companies' management. Engagement could also occur, in cases where there was a disconnect between anticipated financial effects (e.g. material, significant amount of potential impairment/amortisation of assets) and current financial effects (immaterial impairment/amortisation of assets)<sup>10</sup>.

### Suggested questions to constituents

51 The following are suggested questions to constituents based on Chapter 4:

- (a) whether constituents agree with the aggregated positive observations and considerations (areas for further attention) to enhance connectivity of reported information and why; whether other aspects should be considered and why (paragraphs 18 to 40);

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<sup>10</sup> Anticipated financial effects could relate to the possible impairment of assets, which may only become obsolete at a future date subject to the enactment of particular regulation, whereas those assets may be economically viable when considered in the context of current period financial statements.

- (b) constituents' views on the priority of different connectivity mechanisms;
- (c) suggestions on how to address the considerations (areas for further attention) to enhance connectivity of reported information (paragraphs 31 to 40); and
- (d) whether users agree with the usefulness of connectivity (paragraphs 41 to 50); how is the connectivity of reported sustainability and financial information within the annual report, and across reports over time, used in users' analyses?

**Questions for EFRAG FRB and SRB**

- 52 Do you have any comments on the Chapter 4 content above? Please explain.
- 53 Do EFRAG FRB and SRB members have any comments on the proposed questions to constituents in paragraph 51 above, or have any additional questions to ask the constituents? Please explain.