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Reporting on your GHG-emissions: ESRS, IFRS and GRI – similarities and differences

As of January 1st, 2024, the first organisations are obliged to report according to the European Sustainability Reporting Standards (ESRS). These 12 standards, including general, environmental, social and governance topics, are developed by the European Financial Reporting Advisory Group (EFRAG) to determine which sustainability information an organisation should report.

However, two other key sustainability reporting's standards preceded this new framework - the Global Reporting Initiative (GRI) and the International Financial Reporting Standards (IFRS). Together they outline what and how organizations should report on, including their greenhouse gas (GHG) emissions.

In this article we highlight similarities and differences between GRI, IFRS and ESRS to support you in identifying potential gaps in your GHG emissions accounting.

For the busy reader, we offer a quick summary, for the details keep reading below.

Key differences

- *Scope 1:* Both GRI and IFRS leave the organisation a choice - for following the equity-share, operational control or financial control. ESRS, however, directs organisations to include entities over which it has operational control.
- *Scope 2: Again,* ESRS requires organisations to follow the operational control approach, rather than the equity-share- and/or financial control approach as prescribed by GRI and IFRS.
- *Scope 3:* The differences lie on how to report on Biogenic CO2 emissions. According to the GRI, an organisation shall report their biogenic emissions of CO2 from combustion or biodegradation of biomass but exclude biogenic emissions of other types of GHG emissions. The ESRS, however, mandates organisations to include the latter. Additionally, IFRS asks for contextual information such as detailed insights into the measurement framework and financed emissions. Next to this, the comment on the preferred consolidation approach per standards counts her as well.

What are greenhouse gas emissions?

The Greenhouse Gas Protocol is among the world's most used standards for greenhouse gas accounting. This *"protocol establishes standardized frameworks to measure and manage greenhouse gas emissions from private and public sector operations, value chains and mitigation actions"*[1].

GRI, IFRS and ESRS all refer to the GHG protocol as a basis for their reporting requirements on Scope 1-, Scope 2-, and Scope 3-GHG emissions. But what are these emissions exactly?

- **Scope 1:** Direct GHG emissions from own operations (facilities and vehicles).
- **Scope 2:** Indirect GHG emissions from purchased electricity, steam, heating & cooling for own use.
- **Scope 3:** Indirect GHG emissions in the upstream and downstream value chain.

Addressing the similarities and differences

Organisations in Europe, across different sectors and of various sizes might be overwhelmed by all that is asked of them regarding their sustainability reporting. Especially on their greenhouse gas emissions.

With regards to GHG emissions, it's highly likely that climate change will be a material topic for your organization. The ESRS is asking for the disclosure of over 200 datapoints on climate mitigation (incl., GHG emissions) and -adaptation. But the good news is: if your organisation already reports according to GRI and/or IFRS, this burden can be more digestible and manageable.

ESRS, IFRS and GRI: Scope 1 GHG emissions

As mentioned, Scope 1 GHG emissions are the direct emissions from sources, i.e., facilities, vehicles, owned by an organisation itself. Below, there is an overview of what an organisation should disclose on their Scope 1 GHG emissions following GRI, IFRS and or ESRS.

[1] Source: [About Us | GHG Protocol]

Scope 1 GHG emissions			
Type	**GRI 305**	**IFRS S2**	**ESRS E1**
Scope 1 GHG emissions	a. Gross direct (Scope 1) GHG emissions in metric tons of CO2 equivalent. *GRI 305-1-a*	"… disclose its absolute gross greenhouse gas emissions generated during the reporting period, expressed as metric tonnes of CO2 equivalent […] classified as […] Scope 1 greenhouse gas emissions […]" *IFRS S2 29 (a) (i) (1)*	a) the gross Scope 1 GHG emissions in metric tonnes of CO2eq & b) the percentage of Scope 1 GHG emissions from regulated emission trading schemes. *ESRS E1-6 Paragraph 48*
Consolidation approach	Consolidation approach for emissions; whether equity share, financial control, or operational control. *GRI 305-1-f*	An entity shall […] measure its greenhouse gas emissions in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) […] […] the entity is required to use the equity share or control approach. Specifically, the entity shall disclose: (a) the approach it uses to determine its greenhouse gas emissions […] and (b) the reason, or reasons, for the entity's choice of measurement approach and how that approach relates to the disclosure objective in paragraph 27. *IFRS S2 29 (a) (ii); IFRS S2 B27*	When disclosing the information on GHG emissions required under paragraph 44, the undertaking shall *refer to ESRS 1 paragraphs from 62to 67.* For its associates, …, the undertaking shall include the GHG emissions in accordance with the extent of the undertaking's operational control over them. *ESRS E1-6 Paragraph 46.*
Disaggregation	N/A	[…] for Scope 1 and Scope 2 greenhouse gas emissions […] disaggregate emissions between: (1) the consolidated accounting group […] and (2) other investees […] *IFRS S2 29 (a) (iv)*	On scope 1 and scope 2 emissions, separately disclose (a) the consolidated accounting group (the parent and subsidiaries); and (b) investees such as associates, joint ventures, or unconsolidated subsidiaries that are not fully consolidated in the financial statements *ESRS E1-6 Paragraph 50.*

Scope 1 GHG emissions - continued			
Type	**GRI 305**	**IFRS S2**	**ESRS E1**
Biogenic CO2 emissions	The reporting organization shall report the following information: c. Biogenic CO2-emissions in metric tons of CO2-equivalent. 2.1 When compiling the information specified in Disclosure 305-1, the reporting organization shall: 2.1.2. report biogenic emissions of CO2 from the combustion or biodegradation of biomass separately from the gross direct (Scope 1) GHG emissions. Exclude biogenic emissions of other types of GHG (such as CH4 and N2O), and biogenic emissions of CO2 that occur in the life cycle of biomass other than from combustion or biodegradation (such as GHG emissions from processing or transporting biomass). *GRI 305-1-c and 2.1.2*	*See requirements on aggregation and disaggregation in IFRS S1 (B29–B30)* *See requirements on aggregation and disaggregation in IFRS S1 (B29–B30)* *See Industry-based Guidance on Implementing IFRS S2*	The undertaking shall: (c) disclose biogenic emissions of CO2 from the combustion or bio degradation of biomass separately from the Scope 1 GHG emissions, but include emissions of other types of GHG (in particular CH4 and N2O); *ESRS E1-6 Application Requirement 43 c*

While all standards require organisations to disclose on their Scope 1 GHG emissions, ESRS additionally asks to present, if applicable, the percentage of Scope 1 GHG emissions from regulated emission trading schemes (e.g., EU ETS).

Organisations could apply various, so-called, consolidation approaches. This is about which entities are included in the GHG emissions calculation and by what percentage (%). Both GRI and IFRS leave this choice - for following the equity-share, operational control or financial control approach - to the organisation. ESRS E1, however, directs organisations to include entities over which it has operational control. This could mean that, if your organisation follows one of the other methods, you must alter your consolidation approach, potentially resulting in different amounts of GHG emissions than before. As a result, an organisation should include both the restatement and the reason for this – the change in consolidation approach.

ESRS, IFRS and GRI: Scope 2 GHG emissions

Next to Scope 1 GHG emissions, GRI, IFRS and ESRS guide organisations in how and what to disclose on their Scope 2 GHG emissions – the indirect emissions because of the energy (incl. electricity, steam, heat or cooling) purchased and used by the organisation.

Scope 2 GHG emissions			
Type	**GRI 305**	**IFRS S2**	**ESRS E1**
Location-based Scope 2 GHG emissions	The reporting organization shall report the following information: a. Gross location-based energy indirect (Scope 2) GHG emissions in metric tons of CO2 equivalent. *GRI 305-2-a*	[…] disclose its absolute gross greenhouse gas emissions generated during the reporting period, expressed as metric tonnes of CO2 equivalent […] classified as […] Scope 2 greenhouse gas emissions […] […] disclose its location-based Scope 2 greenhouse gas emissions […] *IFRS S2 29 (a)(i) (2)* *IFRS S2 29 (a) (v)*	The organization shall include: (a) the gross location-based Scope 2 GHG emissions in metric tonnes of CO2eq *ESRS E1-6 Paragraph 49 a.*
Market-based Scope 2 GHG emissions	The reporting organization shall report the following information: b. If applicable, gross market-based energy indirect (Scope 2) GHG emissions in metric tons of CO2 equivalent. *GRI 305-2-b*	[…] the entity shall […] provide information about any contractual instruments the entity has entered into that is necessary to inform users' understanding of the entity's Scope 2 GHG emissions […] Various types of contractual instruments are available in different markets and the entity might disclose information about its market-based Scope 2 greenhouse gas emissions as part of its disclosure. *IFRS S2 29 (a) (v)* *IFRS S2 B31*	The organization shall include: (b) the gross market-based Scope 2 GHG emissions in metric tonnes of CO2eq. *ESRS E1-6 Paragraph 49 b.*

Scope 2 GHG emissions - continued			
Type	**GRI 305**	**IFRS S2**	**ESRS E1**
Consolidation approach	The reporting organization shall report the following information: f. Consolidation approach for emissions; whether equity share, financial control, or operational control. *GRI 305-2-f*	[…] the entity shall […] measure its greenhouse gas emissions in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) […] […] when the entity discloses its greenhouse gas emissions […] the entity is required to use the equity share or control approach. Specifically, the entity shall disclose: (a) the approach it uses to determine its greenhouse gas emissions […] and (b) the reason, or reasons, for the entity's choice of measurement approach and how that approach relates to the disclosure objective in paragraph 27. *IFRS S2 29 (a) (ii)* *IFRS S2 B27*	When disclosing the information on GHG emissions required under paragraph 44, the undertaking shall *refer to ESRS 1 paragraphs from 62 to 67.* For its associates, …, the undertaking shall include the GHG emissions in accordance with the extent of the undertaking's operational control over them. *ESRS E1-6 Paragraph 46.*
Disaggregation	*N/A*	[…] for Scope 1 and Scope 2 greenhouse gas emissions […] disaggregate emissions between: (1) the consolidated accounting group […] and (2) other investees […] *IFRS S2 29 (a) (iv)*	For scope 1 and scope 2 emissions, separately disclose: (a) the consolidated accounting group (the parent and subsidiaries); and (b) investees such as associates, joint ventures, or unconsolidated subsidiaries that are not fully consolidated in the financial statements *ESRS E1-6 Paragraph 50.*

The assessment on how organisations should report on their Scope 2 GHG emissions, considering the three frameworks – GRI, IFRS, and ESRS, shows similar insights as the assessment on Scope 1 GHG emissions. Similarly, ESRS requires organisations to follow the operational control approach, rather than the equity-share- and/or financial control approach as prescribed by GRI and IFRS.

ESRS, IFRS and GRI: Scope 3 GHG emissions

The final category of GHG emissions, and for most organisations the biggest, is Scope 3 GHG emissions. These emissions are the results of assets not controlled or owned by the reporting organization, but the organisation, indirectly, affects its value chain.

These emissions can occur upstream or downstream of an organization's value-chain. The figure below shows the total of 15 Scope 3 GHG emissions categories.

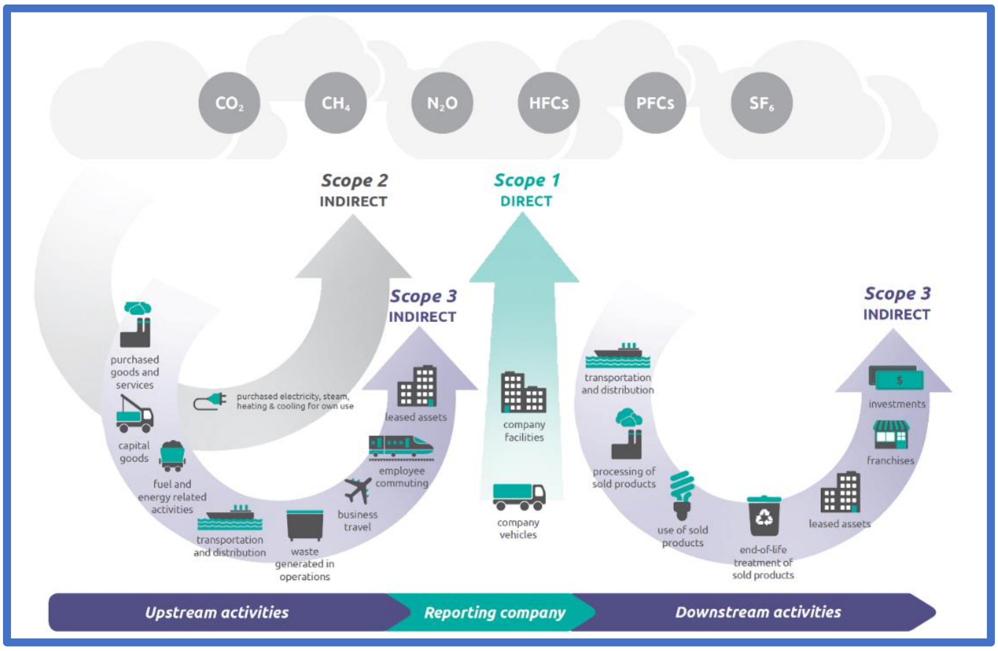

Figure 1: Overview of Scope 1-, 2- and 3 GHG emissions[2]

The table below outlines the similarities and differences between what the Global Reporting Initiative, the International Financial Reporting Standards and the European Sustainability Reporting Standards ask organisations to report on their Scope 3 GHG emissions.

[2] Source: [GHG-protocol-revised.pdf (GHGprotocol.org)]

Scope 3 GHG emissions			
Type	**GRI 305**	**IFRS S2**	**ESRS E1**
Scope 3 GHG emissions	The reporting organization shall report the following information: a. Gross other indirect (Scope 3) GHG emissions in metric tons of CO2 equivalent. *GRI 305-3-a*	[…] disclose its absolute gross greenhouse gas emissions generated during the reporting period, expressed as metric tonnes of CO2 equivalent […] classified as […] Scope 3 greenhouse gas emissions […] *IFRS S2 29 (a) (i) (3)*	The disclosure of gross Scope 3 GHG emission required by paragraph 44 (c) shall include GHG emissions in metric tonnes of CO2eq from each significant Scope 3 category (i.e. each Scope 3 category that is a priority for the undertaking). *ESRS E1-6 Paragraph 51.*
Scope 3 categories	The reporting organization shall report the following information: d. Other indirect (Scope 3) GHG emissions categories and activities included in the calculation. The organization can use the following upstream and downstream categories and activities from the 'GHG Protocol Corporate Value Chain Standard' […]. *GRI 305-3-d and Guidance for Disclosure 305-3*	[…] for Scope 3 greenhouse gas emissions […] disclose: (1) the categories included within the entity's measure of Scope 3 greenhouse gas emissions, in accordance with the Scope 3 categories described in the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011) *IFRS S2 29 (a) (vi) (1)*	The disclosure of gross Scope 3 GHG emission required by paragraph 44 (c) shall include GHG emissions in metric tonnes of CO2eq from each significant Scope 3 category (i.e. each Scope 3 category that is a priority for the undertaking). *ESRS E1-6 Paragraph 51.*
Reassessment	N/A	In accordance with paragraph B11 in IFRS S1, on the occurrence of a significant event or a significant change in circumstances, an entity shall reassess the scope of all affected climate-related risks and opportunities throughout its value chain, including reassessing which Scope 3 categories and entities throughout its value chain to include in the measurement of its Scope 3 greenhouse gas emissions […] *IFRS S2 B34*	In case of significant changes in the definition of what constitutes the reporting undertaking and its upstream and downstream value chain, the undertaking shall disclose these changes and explain their effect on the year-to-year comparability of its reported GHG emissions (i.e., the effect on the comparability of current versus previous reporting period GHG emissions). *ESRS E1-6 Paragraph 47.*

Scope 3 GHG emissions – Continued			
Type	**GRI 305**	**IFRS S2**	**ESRS E1**
Scope 3 measurement framework	N/A	An entity's measurement of Scope 3 greenhouse gas emissions is likely to include the use of estimation rather than solely comprising direct measurement. In measuring Scope 3 greenhouse gas emissions an entity shall use a measurement approach, inputs and assumptions that result in a faithful representation of this measurement. The measurement framework described in paragraphs B40 B54 provides guidance for an entity to use in preparing its Scope 3 greenhouse gas emissions disclosures. […] *IFRS S2 B38-B57*	N/A
Additional information about financed emissions	N/A	[…] for Scope 3 greenhouse gas emissions […] disclose: (2) additional information about the entity's Category 15 greenhouse gas emissions or those associated with its investments (financed emissions), if the entity's activities include asset management, commercial banking or insurance *IFRS S2 29 (a) (vi) (2)*	N/A
Biogenic CO2 emissions	c. Biogenic CO2 emissions in metric tons of CO2 equivalent. 2.5 When compiling the information specified in Disclosure 305-3, the reporting organization shall: 2.5.3. report biogenic emissions of CO2 from the combustion or biodegradation of biomass that occur in its value chain separately from the gross other indirect (Scope 3) GHG emissions. Exclude biogenic emissions of other types of GHG (such as CH4 and N2O), and biogenic emissions of CO2 that occur in the life cycle of biomass other than from combustion or biodegradation (such as GHG emissions from processing or transporting biomass). *GRI 305-3-c and 2.5.3*	*See requirements on aggregation and disaggregation in IFRS S1 (B29-B30)* *See requirements on aggregation and disaggregation in IFRS S1 (B29-B30)* *See Industry-based guidance on Implementing IFRS S2*	The organization shall: (j) disclose biogenic emissions of CO2 from the combustion or biodegradation of biomass that occur in its upstream and downstream value chain separately from the gross Scope 3 GHG emissions, and include emissions of other types of GHG (such as CH4 and N2O), and emissions of CO2 that occur in the life cycle of biomass other than from combustion or biodegradation (such as GHG emissions from processing or transporting biomass) in the calculation of Scope 3 GHG emissions; *ESRS E1-6 Application Requirement 46 j.*

When investigating closely, you would find small but impactful differences in how your organisation should report on its Scope 3 GHG emissions according to ESRS. Compared to GRI and/or IFRS. The differences lie on how to report on Biogenic CO2 emissions. According to the GRI, an organisation shall report their biogenic emissions of CO2 from combustion or biodegradation of biomass but exclude biogenic emissions of other types of GHG emissions. The ESRS, however, mandates organisations to include the latter. Additionally, IFRS asks for contextual information such as detailed insights into the measurement framework and financed emissions.

How can this help your organisation?

Although the reporting duties following the ESRS might be staggering, an organisation could gain insights other reporting standards it is already compliant with – the GRI and IFRS. Based on this knowledge, an organisation could gain further insights into what it already reports on, what it misses, and how it could achieve interoperability.

Becoming compliant with ESRS is not an easy task, if you need help, please contact us and we are happy to guide you along this journey.

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