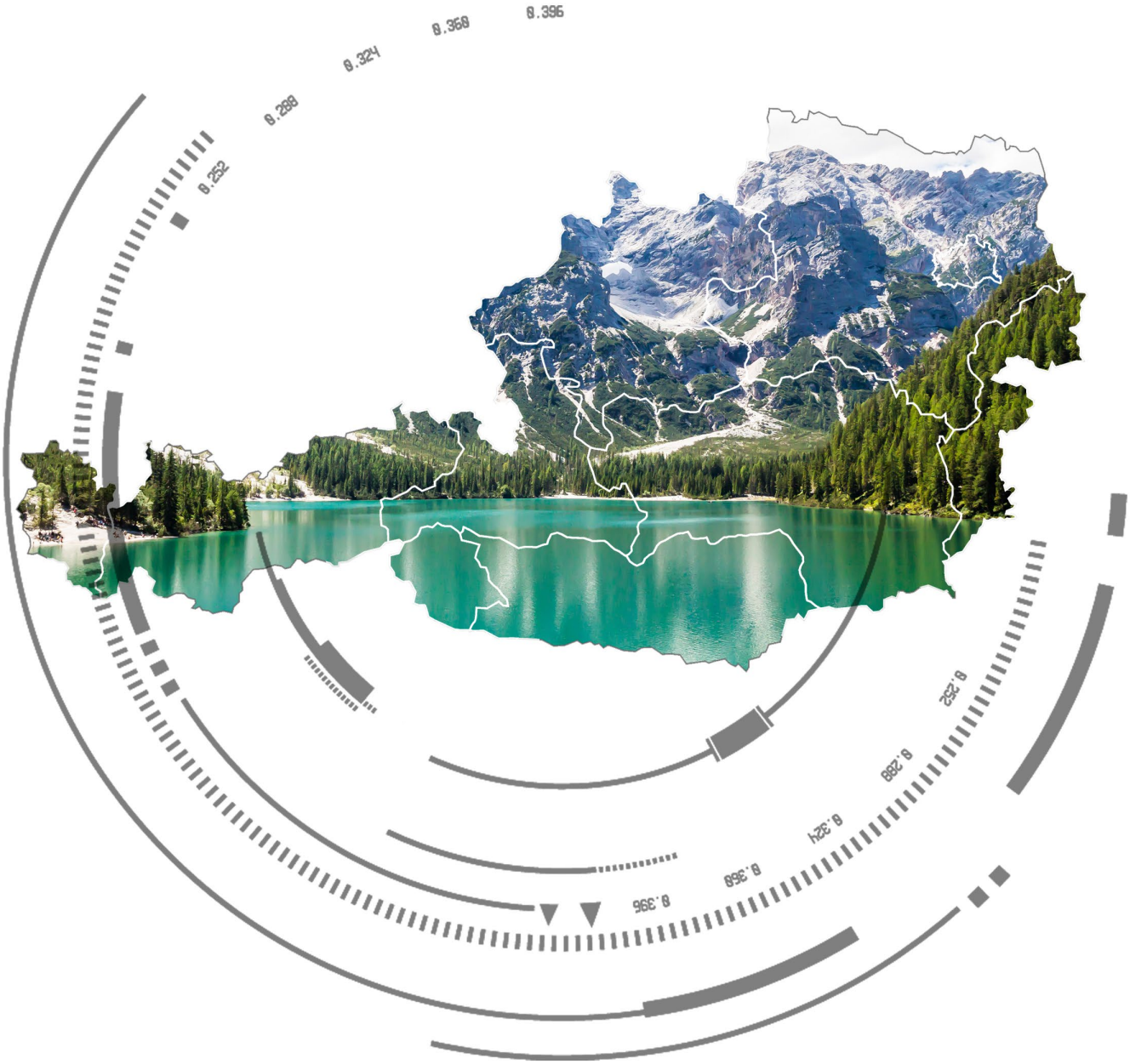
A New Responsibility for Sustainability: Corporate Non-Financial Reporting in Austria



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Executive Summary

The EU Non-Financial Reporting Directive (NFRD) is a new regulation that seeks to "increase the relevance, consistency and comparability of information disclosed by certain large undertakings and groups across the Union."[1]

Large undertakings in EU member states are not only required to report on their financial basics, now they are also required by Article 1 of the Directive to disclose their non-financial performance relevant to their business impact. This would include adverse consequences they have notably on the environment, labor rights, human rights, and how they handle diversity matters and the risk of corruption, whether as a function of their own business or actors in their supply chains.

"You manage what you measure." In accordance with the Directive, the Austrian transposition stipulates that the non-financial declaration must state which reporting framework was used to create it, as well as apply non-financial key performance indicators relevant to the particular business. These requirements are the impetus behind this study and our point of departure: We systematically assess the degree of non-financial transparency and performance reporting for 2018, applying an ex-post assessment framework premised on reporting frameworks as per the Global Reporting Initiative (GRI) and the United Nations Global Compact (UNGC).

By benchmarking all Austrian companies subject to the EU NFRD-transposed law on the topics required to be disclosed – environmental, human rights, employee, social (gender), and anti-corruption matters – this study reveals which companies make an effort to show their degree of responsibility, and to what degree.

Of the 89 companies identified to be subject to the law, we located a report pursuant to the law for 88 of them, of which 84 were unique reports. Each report was subject to rigorous analysis on the basis of 67 Environmental Social Governance (ESG) key performance indicators (KPI).

On average, disclosure transparency was higher for select gender and employee rights issues than for other matters. In contrast, companies tended to report less on environmental matters and anti-corruption, and even less on human rights issues. Yet for most the select indicators, there were examples of companies that successfully applied the KPIs.

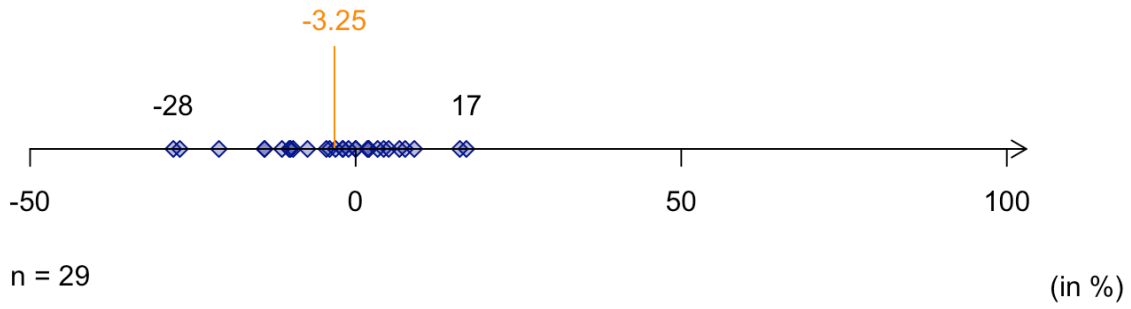
The highest transparency per matter was offered for the following indicators:

environmental:	58% disclosed their energy consumption within organization
social / human rights:	39% reported that they had supplier labor practices criteria in place
employee:	48% of companies reported on work fatalities
gender:	81% reported on their percentage of female employees
anti-corruption:	45% reported implementing a whistleblower system

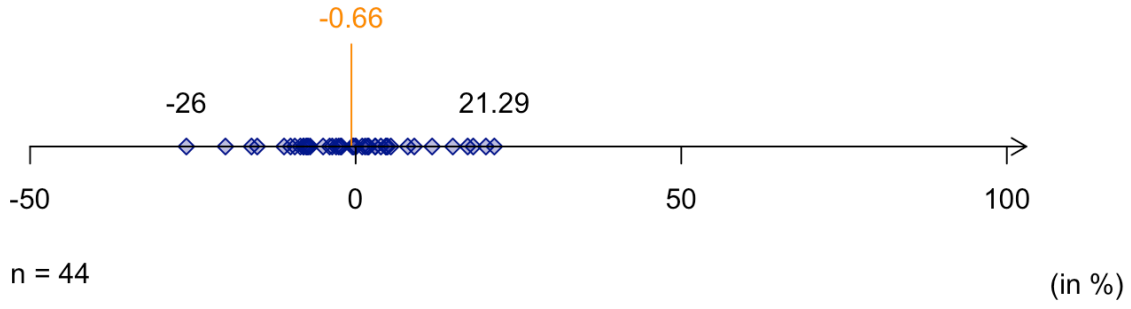
Once an indicator shows a critical mass of uptake, ESG trends are revealed.

environmental

Scope 1 emissions were reduced on average by 3.25% between 2017 and 2018:

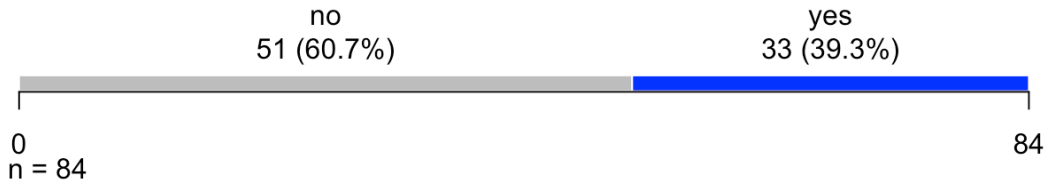


Energy consumption decreased by 0.66% between 2017 and 2018:



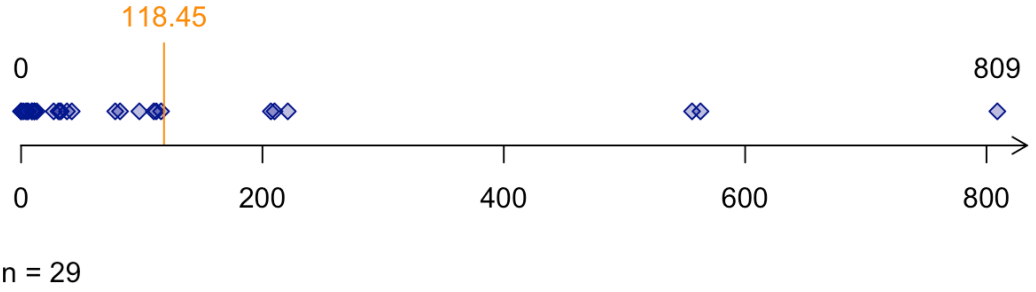
human rights

39% of companies had **supplier labor practices criteria** in place (e.g. code of conduct):



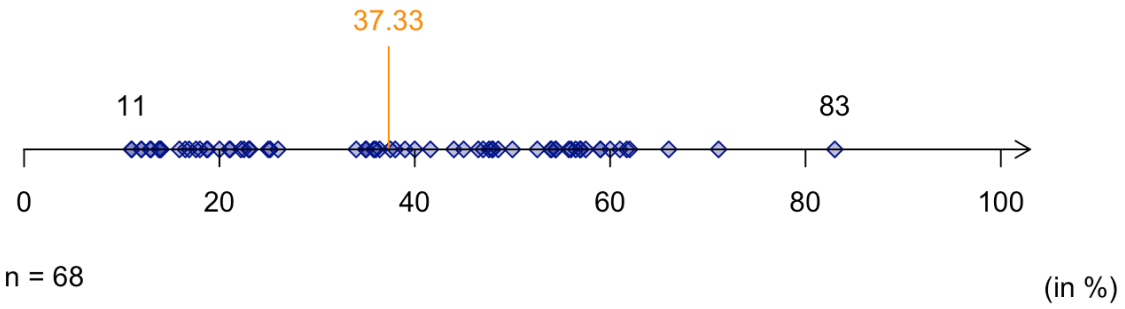
employee

The total **number of injuries** was an average 118.45 per company:

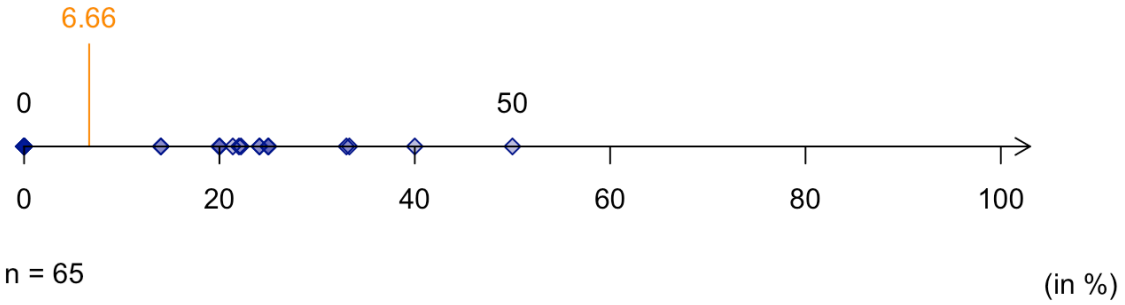


gender

The **female workforce** average was 37.33%:

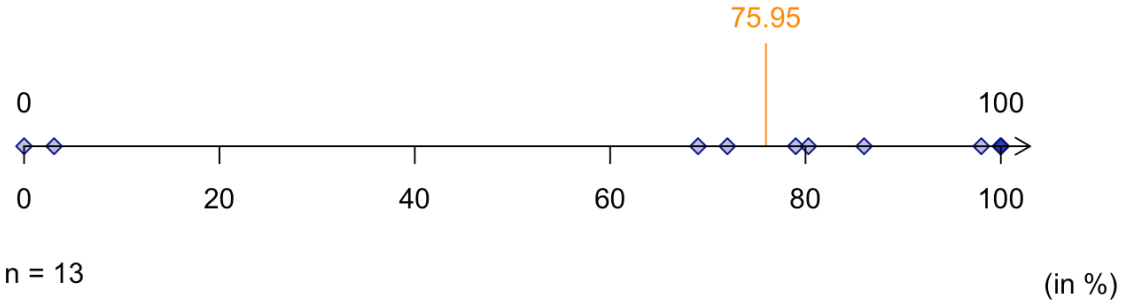


The **female members on the Executive Board (“Vorstand”)** average was 6.66%:



anti-corruption

The average percentage of **employees who received anti-corruption training** was 75.95%:



If public disclosure is an indispensable step towards corporate responsibility, which is precisely the consensus opinion within civil society and government circles, the degree of individual company transparency is the first gauge of corporate non-financial performance. Thereafter, the question arises what calculation methods and assurance are applied to underpin the reported numbers.

Transparency is one thing, performance another. With baseline data, the relative degree of political will within the company for year-over-year improvement furthermore becomes evident.

In sum, some – but not all – companies under study are using the EU NFRD as an opportunity to justify their license to operate.

Foreword

Since the Second World War, we can observe enormous and global movements: population, industrial production, and wealth grew at near exponential rates. We enjoy, in the developed world, the highest standard of living in history. But this development is accompanied by tremendous environmental and social challenges. Resource consumption, emissions and waste production have skyrocketed, we are far away from social justice, and we cannot fulfill the needs of all humans equally.

Currently about 38% of the world terrestrial net production is consumed by humans, leaving only the rest for other species. This had, still has, and will most likely have immense consequences for biodiversity, climate, and also the global nitrogen cycle. The tremendous pressure on biodiversity was profoundly revealed in the new report published by the *Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (IPBES). The same is true for earth's climate system: The reports compiled by *the Intergovernmental Panel on Climate Change* make clear, without a doubt, that it is human influence which causes the current – in Earth's history incomparably fast – change in climate conditions. We have to decarbonize our societies globally, and we have to adapt to climate change – and these changes must come fast. Altogether, humans are now able to shape and alter earth on a global scale. This is the first time in earth's history and thus scientists call this new era "Anthropocene". We, as humans, are now the stewards of the world.

In order to live up to this new responsibility, we need a new form of development, we need a sustainable development on a global scale. New policies and forms of cooperation between public and private actors are needed. Globally, the Paris Agreement to deal with climate change and the publication of the 17 Sustainable Development Goals by the United Nations aims to foster a transition towards sustainability. Also, within the European Union, several policy packages are aimed to support this transition. In addition to the EU's climate policy or the circular economy package, the Non-Financial Reporting Directive (NFRD) must be named.

The aim of the NFRD is to increase transparency about non-financial – especially social and environmental – impacts and risks of larger corporations. The idea is that making these non-financial impacts and risks transparent will help nudge businesses towards higher sustainability standards. It would further enable investors to include these non-financial issues into their investment decisions and allow stakeholders to better understand business activities. Finally, it would enable civil society and the political process to include environmental and social considerations into their scrutiny of corporations.

The report at hand presents the results of the reporting practice of Austrian companies according to the NFRD. The value of this report is to ease the comparison of non-financial reports in Austria, thereby increasing the transparency of the sustainability performance of larger companies in Austria.

Based on a sound methodology, the results show that Austrian companies have started to increase their transparency of their non-financial impacts and risks. The results reveal a diverse picture: whereas topics such as gender (female representation on executive boards; % of female employees) or energy consumption are reported on relatively widely, other topics, especially related to human rights, are more or less absent in the corporate reports. This shows that the vast majority of companies represented in this analysis is just at the beginning of their transition towards sustainability, and that many companies have to strategically rethink their business model for a world requiring sustainable development on all levels. This comes along with huge opportunities for companies as innovations by the private sector are needed together with innovations from all other societal actors including policy making, civil society, and grassroots initiatives.

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I. Introduction

A. Novelty of EU NFRD

With the intention of stimulating a debate on corporate social responsibility at the European level, in 2001 the European Commission published a "Green Paper," which marked the beginning of the EU's "CSR policy." In the paper, the European Commission defined CSR as "a concept whereby companies integrate social and environmental concerns in their business activities and in their interaction with their stakeholders on a voluntary basis."[2] Ten years later, in 2011, the European Commission published a white paper entitled "*A New EU Strategy (2011-14) for Corporate Social Responsibility (CSR)*." The focus, once more, was on voluntary implementation. However, within this framework, the Commission offered a new definition in which it considered CSR as "the responsibility of companies for their impact on society."

The EU Non-Financial Reporting Directive (NFRD) 2014/95/EU, in Austria commonly referred to as "*NFI-Richtlinie*," was adopted by the EU in 2014, amending Directive 2013/34/EU, adding enhanced non-financial disclosure requirements to the existing legislation. The Directive applies to the EU's current 28-member states and was required to be transposed into the latter's national laws by December 6, 2016, with companies obliged to provide enhanced disclosure from 2017 onwards. Considering the history of the CSR concept, one observer noted that what was once a voluntary format is now a legal requirement in the present Directive 2014/95/EU.[3]

Thus, the EU Directive joins other disclosure laws on the books, to also include public reporting requirements on environmental, anti-corruption and gender matters (among others, such as social responsibility, treatment of employees, respect for human rights and diversity). The *California Transparency in Supply Chains Act* was passed in 2010, focusing on forced labor in supply chains. In 2011, the unanimous adoption of the UN Guiding Principles charged the private sector to respect human rights. Thereafter, the UK's *Modern Slavery Act* of 2015, France' *Loi de Vigilance* of 2017, and Australia's *Modern Slavery Bill* of 2018 were passed, all part of the burgeoning legislation on Environmental, Social and Governance (ESG) due diligence and reporting across the world.

Target

Targeted by the Directive are "large undertakings which are public-interest entities" (PIEs)[4] exceeding "the average number of 500 employees during the financial year," a threshold which would be met by an estimated 6,000 European companies.

Reporting scope

In a departure with the conventional risk-centered disclosure requirements in financial disclosure laws,[5] reporting on ESG *impact* is a fulcrum in the new reporting paradigm. The Directive provided that PIEs "include in the management report a non-financial statement containing information to the extent necessary for an understanding of the undertaking's

development, performance, position and impact of its activity, relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters."

Furthermore, as per the *EU NFR Directive,* the statement of the "large undertaking, […] shall include":

"(a) a brief description of the undertaking's business model;
(b) a description of the policies pursued by the undertaking in relation to those matters, including due diligence processes implemented;
(c) the outcome of those policies;
(d) the principal risks related to those matters linked to the undertaking's operations including, where relevant and proportionate, its business relationships, products or services which are likely to cause adverse impacts in those areas, and how the undertaking manages those risks;
(e) non-financial key performance indicators relevant to the particular business."[6]

With respect to the discussion of "principal risks," Article 2 stipulates that non-financial matters must be disclosed to the "extent necessary for an understanding of the undertaking's development, performance, position, and impact of its activity." Paragraph 8 of the Directive's preamble specifies that information should be provided in "relation to matters that stand out as being most likely to bring about the materialisation of principal risks of severe impacts, along with those that have already materialised. The severity of such impacts should be judged by their scale and gravity."

Legislative intent

There are several stated rationales behind the now mandatory non-financial reporting (NFR), which serve the ends of various stakeholders.

From a **business** perspective, this NFR legislation may serve to *nudge* private sector actors to evaluate whether they are effectively managing and mitigating in-scope risks in view of long-term self-preservation and profitability. The European Parliament and the Council state that the objective of the Directive is "to increase the relevance, consistency and comparability of information disclosed by certain large undertakings and groups across the Union."[7] The European Parliament highlights "the importance of businesses divulging information on sustainability such as social and environmental factors, with a view to identifying sustainability risks and increasing investor and consumer trust."[8]

From an **investor** perspective, shareholder assessment of non-financial information allows them to determine whether the company's practices are in line with their other material interests and goals.[9] Mandatory ESG disclosure enhances symmetry of information on non-financial subjects, allowing the market itself to award performance. Furthermore, investors are increasingly integrating ESG metrics into their portfolios. Salient or material ESG issues taken into account, as for example advocated by researchers at the investment house State Street Global Advisors,[10] include:

E: greenhouse gas emissions, resource depletion, waste, pollution, deforestation;
S: working conditions, health and safety, employee relations, diversity;
G: executive pay, bribery, corruption, political lobbying, board structure, tax strategy.

From a **governance** perspective, non-financial information is "vital for managing change towards a sustainable global economy by combining long-term profitability with social justice and environmental protection."[11] Indeed, "disclosure of non-financial information helps the measuring, monitoring and managing of undertakings' performance and their impact on society."[12] As good governance is concerned with ensuring a level playing field and fair competition, mandatory ESG disclosures is just one measure to that end.

From a **civil society** point of view, the aspect of private sector accountability is notably highlighted in the 3rd Recital of the Directive, which references two European Parliament resolutions:

- *Corporate Social Responsibility: accountable, transparent and responsible business behaviour and sustainable growth*[13]
- *Corporate Social Responsibility: promoting society's interests and a route to sustainable and inclusive recovery*[14]

With its growing influence, as well as the social and environmental impact of the private sector, civil society is concerned that the business community is, in the first place, held accountable for negative impacts on people and the planet as a result of companies' operations and value chains. The 'social' repercussions relate to the ways in which companies' operations and value chains impact negatively on peoples' ability to exercise their rights – right to education, right to health, right to privacy, etc. In sum, there is increasing expectation that businesses not simply take profit, but just as well be held accountable of their ESG impact. A proper reporting of the degree to which companies are responsible stewards, in line with the United Nations Guiding Principles (UNGPs), is in part enabled through the EU Directive.

B. Austria's transposition

a. NaDiVeG

EU member states were given two years – December 6, 2014 to December 6, 2016 – to transpose the EU Directive 2014/95/EU into their own national laws.[15] On December 15, 2016, the Austrian National Council (*Nationalrat*) passed a transposition law, the *Nachhaltigkeits- und Diversitätsverbesserungsgesetz* (Law for the Improvement of Sustainability and Diversity), abbreviated as NaDiVeG.[16] While the law was published on January 17, 2017, it became effective as of December 6, 2016.

For the most part, the Austrian transposition remained faithful to the EU Directive, rarely going beyond its scope.[17] The official explanatory notes, however, mentioned "a number of

key areas which differ from the examples given in the Directive,"[18] particularly equality of origin, nationality, religion, education and training, especially taking into account "contract types, working hours, turnover and income development."[19]

The new law implemented modifications mainly in the *Unternehmensgesetzbuch* (UGB or Commercial Code, sections – § – 242, 243, 243b, 243c, 243d, 244, 267a, 267b, 267c, 269, 273, 277, 280, 282 and 906), but also in the *Aktiengesetz* (AktG or Stock Corporations Act, sections 96, 104 and 262) and in the *Gesetz über Gesellschaften mit beschränkter Haftung* (GmbHG, GmbH-Gesetz or Limited Liability Companies Act, sections 30k and 127).

The main sections for the purposes of this study are §243b and §267a of the UGB, since they contain the charge to report on non-financial matters (other sections are also relevant: §269 and §273 describe the role of the auditor ("*Abschlussprüfer"*), while §277 and §280 establish the time of publication). The chief item exceeding the suggested scope of the Directive is found in §243c and establishes an obligation to describe the concept of diversity (of gender, age and education) behind the firm's policy for the composition of the Management Board and the Supervisory Board. However, this belongs in the corporate governance report, not in the non-financial report, and a different set of companies is subject to this requirement.[20]

The non-financial information – which can either be in the form of a statement within the management report or a separate report altogether (§243b [5]) – must cover certain topics: environmental, social, labor, human rights, anti-corruption and anti-bribery matters constitute the minimum set thereof. This information ought to be sufficient for the understanding of the course of business, the business results, the situation of the company and the effects of its activity (§243b [2]). Particularly important effects are those which imply significant risks with serious effects ("*wesentliche Risiken mit schwerwiegenden Auswirkungen*) arising from the firm's business and, when relevant and proportionate ("*relevant und verhältnismäßig"*), also from the firm's products, services and business relations ("*Erzeugnissen, Dienstleistungen und Geschäftsbeziehungen"*), as well as those arising through the supply chains and the chain of subcontractors ("*Lieferkette und seiner Kette von Subunternehmen"*). The explanatory notes of the law state that, as a rule, it is sufficient to obtain information from direct customers or suppliers.[21] The seriousness of the effects must be assessed according to their magnitude and intensity.

Together with the risks and impacts, the subject firms should report the policies and due diligence processes implemented to identify, prevent and alleviate the negative effects. This ought to achieve an increase in the transparency and perception of the firm's results.[22]

b. Subject companies

Subject to this duty to report on non-financial matters are large public-interest entities (PIEs) ("*Unternehmen von öffentlichem Interesse*") exceeding 500 employees in annual average (§243b [1]).[23] PIEs involve (a) publicly-listed firms, (b) firms issuing bonds in regulated markets, (c) credit institutions, (d) insurance undertakings and (e) any other company explicitly designated as such by a federal law, according to §189a of the UGB.

While the notion of PIE is easy to understand, more difficulties emerge in trying to define what a "large" PIE is. In particular, it is unclear whether more than 20 million euro in total assets or 40 million euro in sales are required in order to be in scope of the NaDiVeG (due to uncertainties arising from §221 [3] second sentence of the UGB).[24] Currently, a number of papers and articles hold the position that at least one of these thresholds must be exceeded in order to be in scope of the NaDiVeG.[25] Since all of the PIEs identified by this study exceed at least one of the thresholds, however, this hermeneutical issue becomes inconsequential (for our purposes).

In turn, the description of the diversity concept is only required for publicly-traded companies that exceed two of the following three thresholds: 20 million euro in total assets, 40 million euro in sales, 250 employees.[26]

c. Reporting frameworks

Subject companies *can* use national, international or union-based ("*unionsbasierte"*) reporting frameworks, according to §243b [5] of the UGB. These frameworks should be capable providing fair, balanced and comprehensible information.[27] If the subject companies do so, they *must* specify what framework they relied on. However, there is no clear requirement to justify the non-usage of a reporting framework.

The 9th recital of the Directive suggests a number of reporting frameworks, e.g. the GRI, the International Organization for Standardization's ISO 26000, the EMAS (Eco-Management and Audit Scheme), and the Guidelines for Multinational Enterprises of the OECD (Organisation for Economic Co-operation and Development). While the NaDiVeG provides no specific examples of these frameworks, the aforementioned list is reiterated by the official explanatory notes to the law.[28] There it is also stated that since the existing international frameworks may not cover all the legally required information pursuant, "it must be ensured when applying frameworks that the legal requirements are completely fulfilled."[29] Nonetheless, "this is certainly the case when applying the comprehensive version of the G4 standard of the Global Reporting Initiative in accordance with the materiality test contained therein."[30]

d. Penalties, flexibility and comply-or-explain

The EU Directive assigns to States the duty of providing for effective, proportionate and dissuasive penalties to ensure compliant behavior.[31] In §283 of the UGB, Austrian legislature established fines to the representatives of the firm ranging from EUR 700 to EUR 3,600 if the non-financial report has not been published before the expiry of the disclosure period. Each two extra months that then pass incur another EUR 4,200 in fines.[32] Furthermore, if the undertaking at issue is an incorporated stock company ("*Aktiengesellschaft"* or AG), fines of up to EUR 3,600 to the board members may also be imposed (§258 and §96 AktG).[33] For limited liability companies ("*Gesellschaft mit beschränkter Haftung"* or GmbH), however, there exists no comparable legislation (§125 GmbHG does not refer to §30k GmbHG).[34]

Further penalties are established in the Austrian Criminal Code ("*Strafgesetzbuch"* or StGB), according to which up to two years of imprisonment – or three, if the firm's transferable securities are admitted to trading on a regulated market of the European Union or the European Economic Area – correspond to a decision-maker (§ 163a StGB) or auditor (§ 163b StGB) who unjustifiably conceals or misrepresents information in a report addressed to the public.

Yet the Austrian transposition did provide for some flexibility. Companies may for example omit developments that they otherwise would be expected to disclose. This is the case if revealing the information at issue could seriously harm the business situation of the firm (§243b[4]).[35] Nonetheless, this exception is to be interpreted restrictively and full disclosure must be resumed if the reasons for non-inclusion cease to exist or cease to be relevant.[36]

Moreover, according to §243b [3] *in fine*, companies are allowed not to report the "policies pursued" ("*verfolgte Konzepte"*) – and the corresponding due diligence processes[37] – on the different required matters (environmental, social, labor, human rights, anti-corruption, anti-bribery) as long as they provide a clear justification ("*eine klare Begründung"*) in turn. The reason for this was clearly stated by the legislator: the obligation to release a statement is not an obligation to pursue a policy in all the aforementioned respects, but one to *comply-or-explain*.[38]

II. Methods

A. Data

The data collected in this study comprised the subject company's NaDiVeG-oriented disclosures reporting on year 2018. Data were collected over the period of April to August 2019.

A non-financial report pursuant to §243b [6] may be published as a statement within the management report ("*nichtfinanzielle Erklärung im Lagebericht*") or as a separate non-financial report ("*gesonderter nichtfinanzielle Bericht*").

The data collected in this study comprised the non-financial reports corresponding to the year 2018 (this includes reports for the period 2017/18, while reports for the period 2018/19 were not identified for likely subject companies). In a handful of cases (7), a 2018 report was not found,[39] either because the firms at issue did not comply with their obligation to report, or because they publish their sustainability reports later in the year. In those exceptional cases, the report pursuant to the prior reporting year was taken (2017).[40]

This study built its own repository of reports applying the parameters of the law, thereby consulting the following six sources:

- Compustat (Wharton) database, which allowed us to identify the most important listed companies;
- List of companies in the Vienna Stock Exchange[41] and in the ATX Prime index,[42] which helped identify publicly-traded undertakings as well as banks;
- Record of corporate bonds emissions and listings in the Vienna Stock Exchange in 2018 (non-regulated markets – DM or *Dritter Markt* – were excluded), which allowed to pinpoint bond-issuing firms;[43]
- Global Reporting sustainability reporting database, which helped identify a number of large companies and financial institutions;[44]
- Austrian Financial Market Authority (FMA) company database, which allowed to spot insurance undertakings and credit institutions;[45]
- List of all-time winners of the Austrian Sustainability Reporting Awards (ASRA), which assisted us in not overlooking certain firms;[46]

The companies identified total 89 (for 88 of them, a report was found and downloaded to our repository)[47] and are featured in *Appendix B*. Firms registered in Austria, but trading in non-Austrian stock exchanges of the European Economic Area may have been omitted. Manual verification methods were employed to locate each report. Information on the firm's number of employees, sales and assets were taken from the firm's sustainability report and, when absent therefrom, from the annual report, the annual financial report or the firm's website. This data was used to determine whether the undertaking at issue ought to be considered in scope or not.[48]

The annual or management report ("*Lagebericht*") was only consulted when the non-financial report was a part of it.[49] However, when the required non-financial information was disclosed in a separate report, we did not additionally consult the annual report. We also did not assess additional CSR/sustainability reports if further statements, other than the one pursuant to the NaDiVeG, were published. Similarly, cross-references between a non-financial statement and another report (or statement, or section) were only taken into account if the two statements were contained in the same document. References to an

external report (or file, or website) were not considered. Moreover, the announcement of a report to be released in the future was not considered as fulfillment of the duty to report.

B. Evaluation framework

According to article 1 of the Directive, the non-financial report must include: "e. non-financial key performance indicators relevant to the particular business."[50] This is furthermore expanded by the Guidance of the Directive, which states that "The non-financial statement should include material narratives and indicator-based disclosures, commonly referred to as key performance indicators (KPIs)."[51]

In Austria, although usage of a framework is optional (and there is no need to justify non-usage), the non-financial statement or report must state which framework was employed, in case of usage (§ 243b [5]). In addition, the application of KPIs is mandated (§ 243b [3]).[52] Therefore, this study purports to identify the KPIs applied in the companies' reports according to the NaDiVeG.

The selection of indicators for this study involved the following criteria:

1. Indicator derived from a leading reporting framework;[53]
2. Indicator in-scope of the five matters highlighted in the EU NFRD;[54]
3. Preference for indicators with a value/supply chain and/or a circular economy dimension (with regard to environmental, social/human rights and anti-corruption matters);
4. Preference for outcome over process indicators.

This report reveals indicator usage and each company's reported performance for each selected indicator, in the *III. Findings* section.

For Austria, data were collected on a total of 71 indicators, 67 of which were ESG indicators, and 4 concerned disclosure modalities. Not using a particular reporting framework (e.g. GRI, UNGC) did not automatically put a company at a disadvantage, since a search method based on keywords/key terms was used in parallel to indicator codes of established frameworks. In section *III. Findings*, along with each indicator, the keywords/key terms applied are listed. However, we did not dive into why a particular indicator was or was not featured in a report (e.g. on the basis of the company's stated materiality).

C. Analyses

Measures of central tendency and other descriptive statistics were applied. In select cases, correlations between indicators were calculated. We broke down transparency performance by company size, sector and type. Moreover, we assessed the degree of adherence to select reporting frameworks. Furthermore, specific cases of companies that deviated either positively or negatively were qualitatively highlighted.

D. Scoring and scorecards

Three main classes of public-interest entities are subject to NaDiVeG in Austria: large undertakings trading on a regulated market, large banks and large insurance companies. The financial sector does not possess sizable supply chains as they are typically understood (apart from the procurement required for its own operation), in the sense that e.g. significant amounts of raw materials are extracted in remote geographical locations for their functioning. Insurance companies and banks, however, play a fundamental role in implementing the UN Guiding Principles on business and human rights. This is because firms in the financial sector finance or underwrite companies and projects with an environmental, social or governance (ESG) impact.

Individual indicators were designed to be binary or to collect a performance value. Where data were provided, it was collected as a "yes" or as a numerical value. As a part of this study, we also summarized the data in the form of individual company scorecards. The absence of data was noted. However, the "comply or explain" provision was not taken into account on a per company basis. That is, in such cases the data were treated as "absent."

E. Data quality control

In order to ensure that the researchers had the same level of understanding and consistently applied the evaluation criteria, orientation sessions were conducted and frequent meetings were held that featured discussions of individual cases. Upon data verification, in the case of any discrepancy, the point of divergence was resolved. Data collection redundancy was built into the process for quality control purposes. These steps, taken together, ensured that the highest possible data quality was obtained.

F. Research team, competing interests statement

Juan Ignacio Ibañez served as the study's evaluator – collecting the data – and coordinator. Dr. Chris N. Bayer served as the Principal Investigator of the study. Dr. Jiahua (Java) Xu and Juan Ignacio Ibañez prepared the graphs. Juan Ignacio Ibañez, Dr. Jiahua Xu and Dr. Chris N. Bayer authored this report.

The Principal Investigator of the study and research team members declare that they have no competing interests, nor conflict of interests, in their execution of this evaluation. They do not knowingly or directly own stocks or other forms of equity in any evaluated issuer or in the entities making up the Stakeholder Forum of the study. Neither DI, nor the project team members, provided services to any of the assessed companies at the time of the study. In sum, they had no known vested interests vis-à-vis the individual scores and findings of this study.

G. Peer review

The Stakeholder Forum of the study functions as a peer review mechanism that offers critique at two junctures of the research: (1) review of the study's indicators just before the evaluation framework is deployed, and (2) review of the study's draft evaluation report. The Forum, however, had absolutely no involvement in data collection, evaluation, or scoring. All findings and any errors are fully DI's responsibility. Furthermore, participation in the Stakeholder Forum is not an endorsement of the report or its findings.

The following 11 individuals served as peer reviewers on the study's Stakeholder Forum:

Prof. Dr. Rupert Baumgartner	University of Graz
Dr. Josef Peter Schöggl	University of Graz, KTH Stockholm
Dr. Katie Böhme	iPoint-systems
Martina Prox	ifu Institute for Environmental IT Hamburg (Member of iPoint Group)
Lawrence Heim	Elm Sustainability Partners
Georg Rogl [55]	Ernst & Young
Bernhard Gehmayr [56]	Ernst & Young
Michaela Kegel	KPMG
Lydia Jarmer	KPMG
Prof. Dr. Peter H. Degischer	Netzwerk Soziale Verantwortung (NeSoVe)
Josef Baumüller	Wirtschaftsuniversität Wien

III. Findings

A. In-scope organizations

In 2017, the Austrian lawmakers had estimated that 125 companies were subject to the law. This figure was first put in the law's impact-oriented assessment (*Vorblatt und Wirkungsorientierte Folgenabschätzung*, p. 7)[57]. The lawmakers attributed it to statistical data of the Vienna Stock Exchange and the Austrian Statistics Office (*Statistik Austria*) but did not provide further information how this figured was derived. Similarly, the Austrian Chamber of Commerce (Wirtschaftskammer Österreich or WKO Wien,[58] based on information provided by Ernst & Young[59] *before* the law came into force) claimed that 125 firms were subject to the NaDiVeG. Furthermore, a 2018 study by PricewaterhouseCoopers[60] (p. 5) in 2018 stated that almost 120 firms were in scope of the NaDiVeG (though only 40 were analyzed). However, more recent research by Ernst & Young (2019, p. 2, *after* the law came into force)[61] reduced this number to 76.[62]

For calendar year 2018, we identified 89 companies subject to NaDiVeG (see *Appendix B: NaDiVeG eligibility*).[63] Of those, we located a disclosure for 88 individual organizations (see *Appendix C: List of companies assessed*). In turn, of these 88 companies, 9 firms fulfilled their reporting duty by referring to a mother/holding company's disclosure, which is permitted under the law.[64] Of these 9 mother firms, 4 were individually subject as well, which led the holding company and the subsidiary to receive identical evaluations (unless the report specified that a certain data point pertained exclusively to one of the two)[65] because they shared a report.[66] Thus, we identified 84 unique disclosures, which constitutes the universe of statements for all the figures featured in section III.C. and onwards.

B. Profile of assessed organizations

1. Type of company

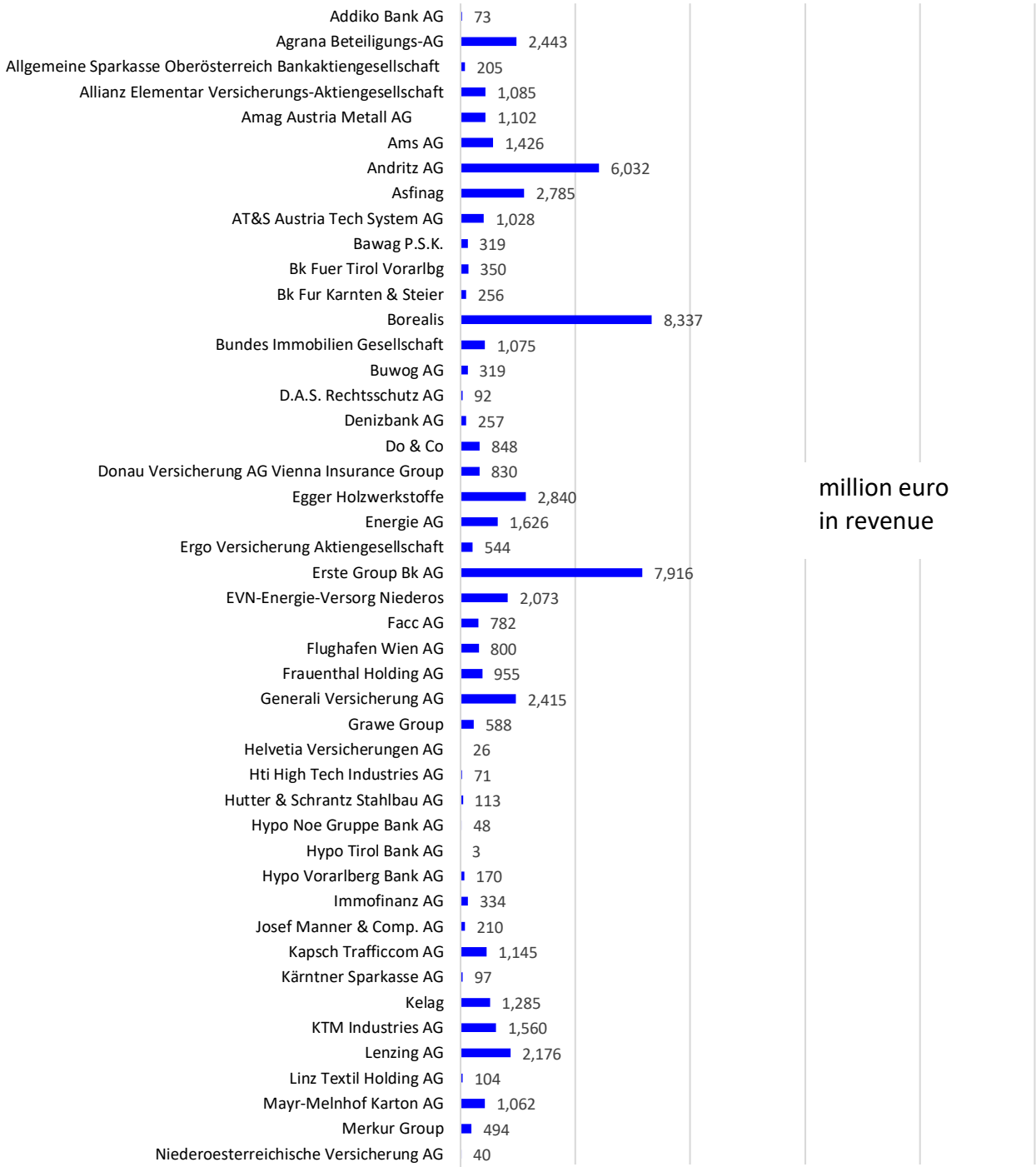
The Austrian Commercial Code (UGB), in §189a, requires the publication of a report to firms whose securities are admitted to trading on a regulated market (publicly-listed and bond-issuing companies), credit institutions, insurance undertakings and companies explicitly designated as PIEs by a federal law. While companies are also mandated to discuss their business model under § 243b [3], §189a allows for a broad categorization. By far the largest cohort among the in-scope companies disclosing NaDiVeG-pursuant information were 53 publicly-listed firms. Bond-issuing firms constituted the second-largest cohort, with 32 firms. Credit institutions, with 23 companies, followed. Finally, we identified 15 insurance undertakings subject to the law. Some of the firms belonged to more than one of these categories, as shown by Figure 1.

Credit institution	Insurance undertaking	Publicly-listed firm	Bond-issuing firm	None other	
	0	**7** (both public and bond)		**9**	**Credit institution**
		1	**6**		
		0	0	**15**	**Insurance undertaking**
			13	**32**	**Publicly-listed firm**
				6	**Bond-issuing firm**
				0	**None other**

Figure 1: the companies analyzed in this study are all Public Interest Entities (PIEs) as defined by §189a of the UGB. This table shows how certain firms simultaneously belong to more than one PIE category. For instance, 6 firms are concurrently credit institutions and bond-issuing firms, 1 firm is publicly-listed and also a credit institution, and 7 other firms are credit institutions, publicly-listed and issuing bonds in regulated markets – all at once. N = 89.

2. Turnover/revenue

The 89 companies under review had a combined global revenue of EUR 163 billion in 2018. This amount represents more than a third of Austria's Gross Domestic Product (GDP), which was EUR 456 billion in 2018.[67] Figure 2 displays the turnover per company under review.


Addiko Bank AG 73
Agrana Beteiligungs-AG 2,443
Allgemeine Sparkasse Oberösterreich Bankaktiengesellschaft 205
Allianz Elementar Versicherungs-Aktiengesellschaft 1,085
Amag Austria Metall AG 1,102
Ams AG 1,426
Andritz AG 6,032
Asfinag 2,785
AT&S Austria Tech System AG 1,028
Bawag P.S.K. 319
Bk Fuer Tirol Vorarlbg 350
Bk Fur Karnten & Steier 256
Borealis 8,337
Bundes Immobilien Gesellschaft 1,075
Buwog AG 319
D.A.S. Rechtsschutz AG 92
Denizbank AG 257
Do & Co 848
Donau Versicherung AG Vienna Insurance Group 830
Egger Holzwerkstoffe 2,840
Energie AG 1,626
Ergo Versicherung Aktiengesellschaft 544
Erste Group Bk AG 7,916
EVN-Energie-Versorg Niederos 2,073
Facc AG 782
Flughafen Wien AG 800
Frauenthal Holding AG 955
Generali Versicherung AG 2,415
Grawe Group 588
Helvetia Versicherungen AG 26
Hti High Tech Industries AG 71
Hutter & Schrantz Stahlbau AG 113
Hypo Noe Gruppe Bank AG 48
Hypo Tirol Bank AG 3
Hypo Vorarlberg Bank AG 170
Immofinanz AG 334
Josef Manner & Comp. AG 210
Kapsch Trafficcom AG 1,145
Kärntner Sparkasse AG 97
Kelag 1,285
KTM Industries AG 1,560
Lenzing AG 2,176
Linz Textil Holding AG 104
Mayr-Melnhof Karton AG 1,062
Merkur Group 494
Niederoesterreichische Versicherung AG 40
million euro
in revenue

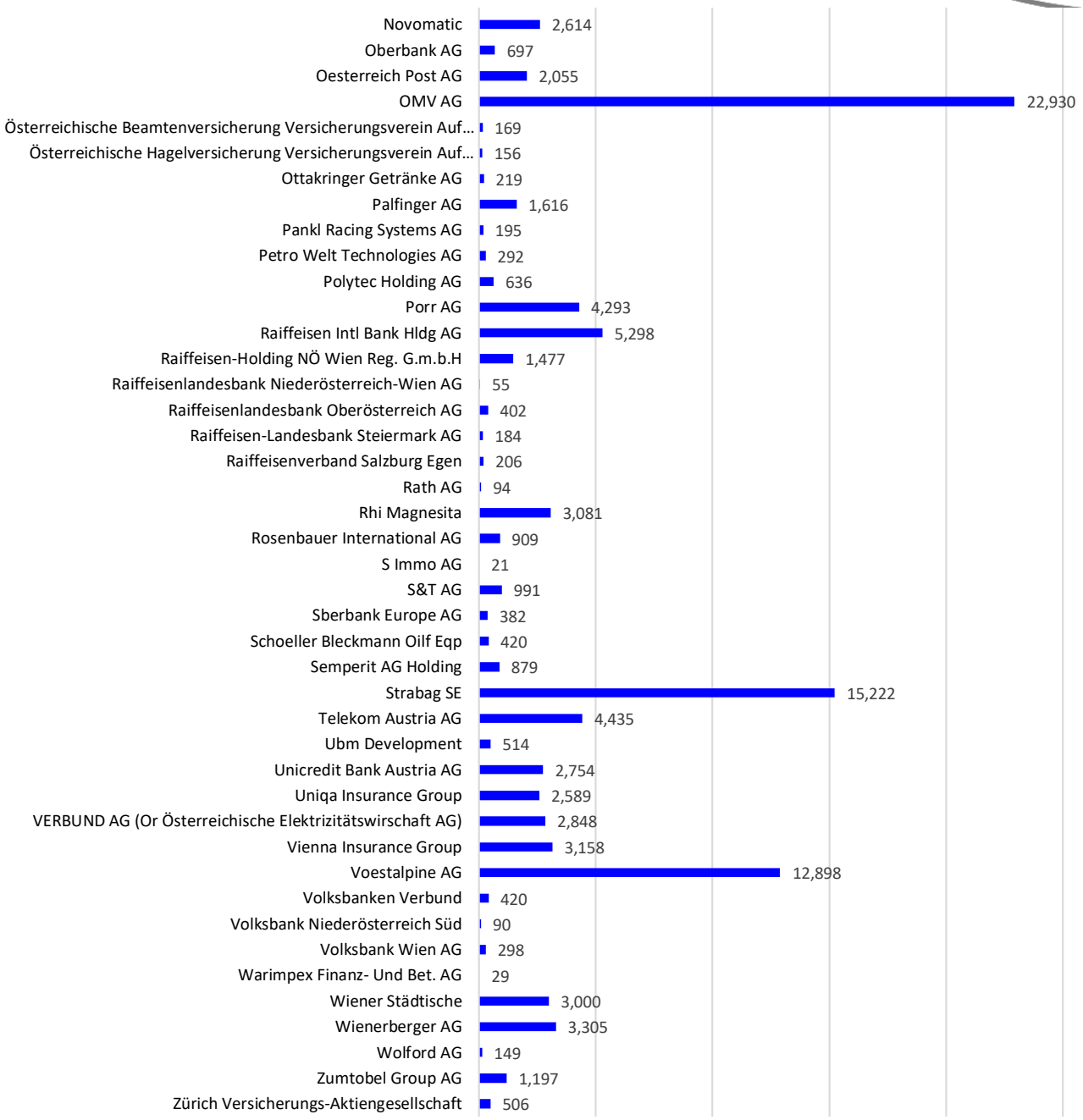
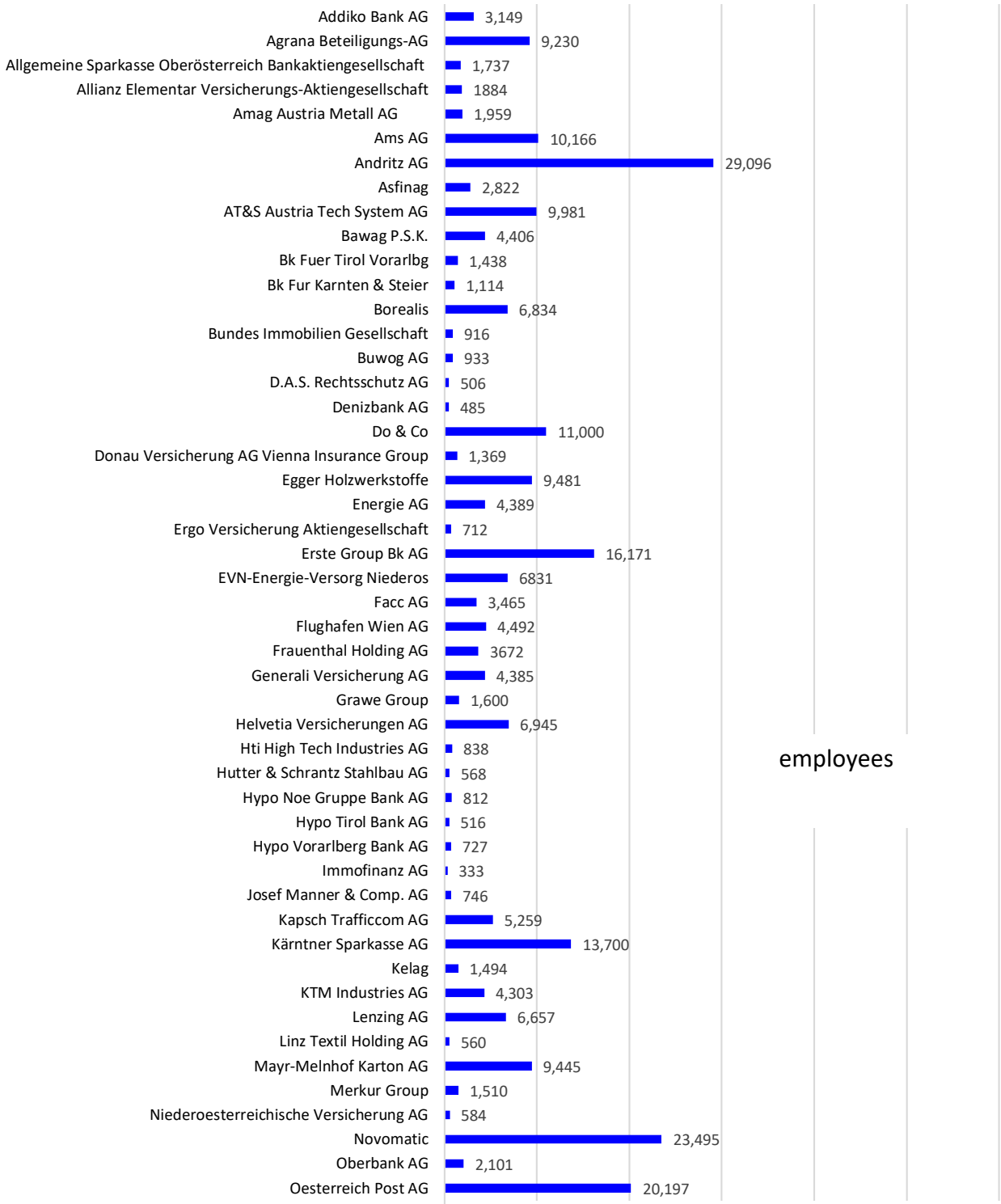


Figure 2: turnover per company, in million euro (2017 / 2018). N = 89.

3. Employees

The 89 companies under review, depicted in Figure 3, had a combined workforce of 569,093 persons, the average being 6,324 employees per company and with a median of 3,307.


Addiko Bank AG 3,149
Agrana Beteiligungs-AG 9,230
Allgemeine Sparkasse Oberösterreich Bankaktiengesellschaft 1,737
Allianz Elementar Versicherungs-Aktiengesellschaft 1884
Amag Austria Metall AG 1,959
Ams AG 10,166
Andritz AG 29,096
Asfinag 2,822
AT&S Austria Tech System AG 9,981
Bawag P.S.K. 4,406
Bk Fuer Tirol Vorarlbg 1,438
Bk Fur Karnten & Steier 1,114
Borealis 6,834
Bundes Immobilien Gesellschaft 916
Buwog AG 933
D.A.S. Rechtsschutz AG 506
Denizbank AG 485
Do & Co 11,000
Donau Versicherung AG Vienna Insurance Group 1,369
Egger Holzwerkstoffe 9,481
Energie AG 4,389
Ergo Versicherung Aktiengesellschaft 712
Erste Group Bk AG 16,171
EVN-Energie-Versorg Niederos 6831
Facc AG 3,465
Flughafen Wien AG 4,492
Frauenthal Holding AG 3672
Generali Versicherung AG 4,385
Grawe Group 1,600
Helvetia Versicherungen AG 6,945
Hti High Tech Industries AG 838
Hutter & Schrantz Stahlbau AG 568
Hypo Noe Gruppe Bank AG 812
Hypo Tirol Bank AG 516
Hypo Vorarlberg Bank AG 727
Immofinanz AG 333
Josef Manner & Comp. AG 746
Kapsch Trafficcom AG 5,259
Kärntner Sparkasse AG 13,700
Kelag 1,494
KTM Industries AG 4,303
Lenzing AG 6,657
Linz Textil Holding AG 560
Mayr-Melnhof Karton AG 9,445
Merkur Group 1,510
Niederoesterreichische Versicherung AG 584
Novomatic 23,495
Oberbank AG 2,101
Oesterreich Post AG 20,197
employees

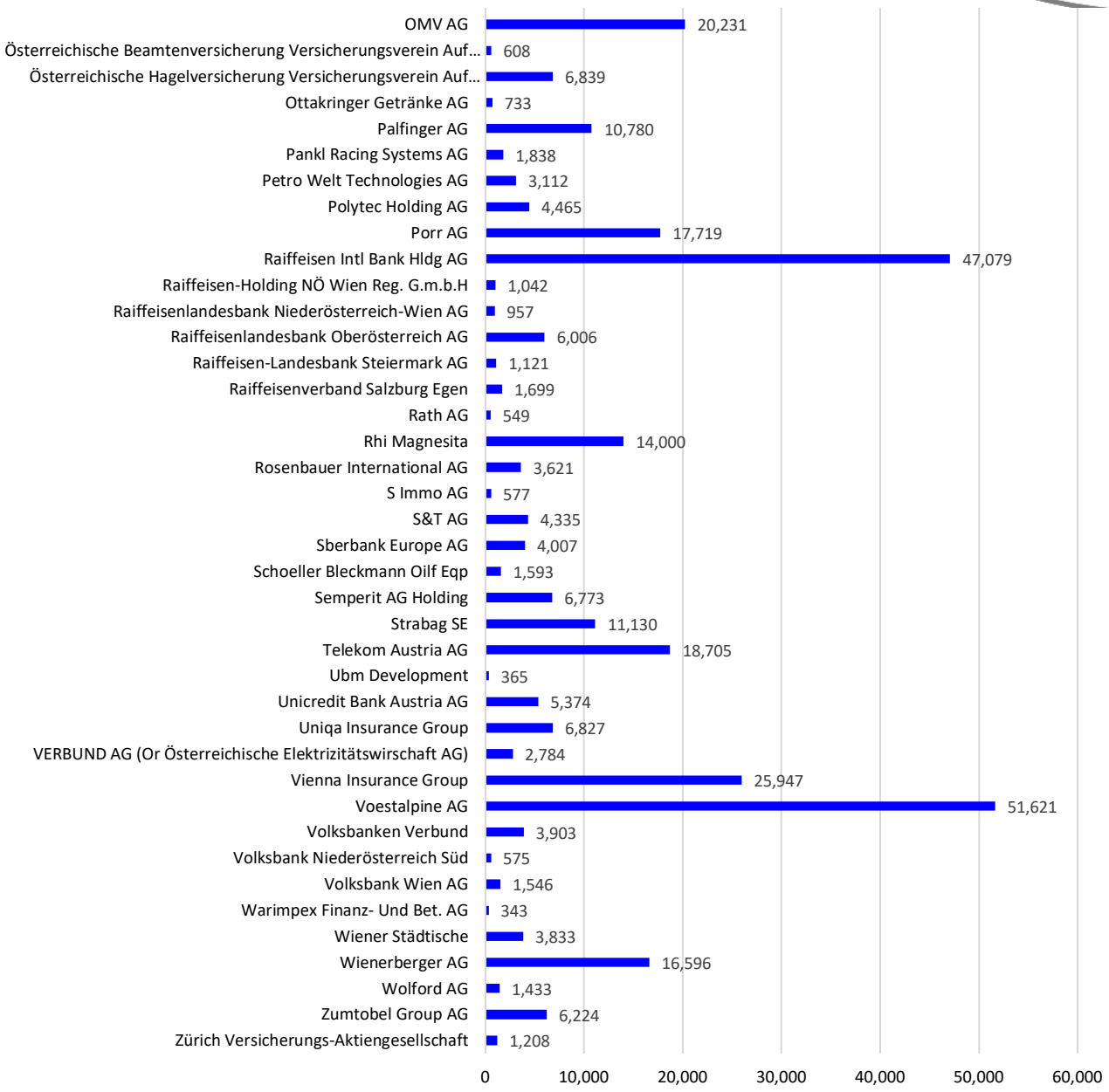


Figure 3: number of employees per company (2017 / 2018). N = 89.

C. Reporting modalities

1. Type of report

Into which type of report was the non-financial disclosure integrated?

§243b [1] of the Austrian Commercial Code (UGB) stipulates that the non-financial statement should be published as a statement within the management report ("*nichtfinanzielle*

Erklärung im Lagebericht"). However, §243b [5] allows for its publication as a separate non-financial report ("*gesonderter nichtfinanzieller Bericht*") meeting the same requirements. In the second case, there is no need to publish both reports together. If the firm is subject to the Federal Act on Securities and General Stock Exchanges (BörseG), the management report (with the non-financial statement, if it is chosen to publish both documents together) must be published in the four months following the end of the financial year (§124 BörseG). The separate non-financial report, in turn, may be disclosed up to nine months after the balance sheet due date (§243b [6] UGB in accordance with §277 [1-2] UGB).[68] If the firm is not subject to BörseG, the nine-month deadline applies to both reports.

Of the 84 unique disclosures, we identified 56% (47) separate non-financial reports ("*gesonderter nichtfinanzieller Bericht*") and 44% (37) NaDiVeG-specific statements within a management report ("*nichtfinanzielle Erklärung im Lagebericht*").[69] In short, more companies report their non-financial information in the form of a separate non-financial report, than in their management report (despite the fact that the latter is the default option provided by the law).

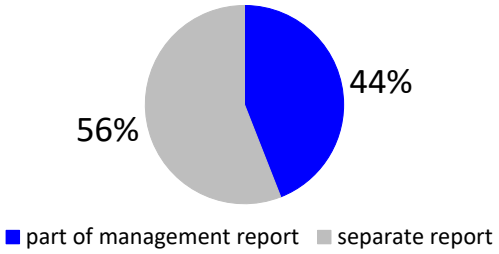


Figure 4: 47 companies published their non-financial information as a separate non-financial report ("gesonderter nichtfinanzieller Bericht"), whereas 37 companies did so as a part of their management report ("nichtfinanzielle Erklärung im Lagebericht"). N = 84.

2. Report name

Into which report was the non-financial information integrated, or how was the non-financial report named?

Thirty different titles were used to name the report containing the required NaDiVeG-pursuant information:

- "Annual Report,"
- "Consolidated Non-Financial Report,"
- "Corporate Responsibility Bericht" (Corporate Responsibility Report),
- "Corporate Responsibility Report,"
- "Corporate Social Responsibility Report,"
- "Finanzbericht" (Financial Report),
- "Ganzheitsbericht" (Unified Report),
- "Geschäftsbericht" (Business Report),

- “Group Annual Integrated Report,”
- “Integrated Annual Report,”
- “Integrated Report / Consolidated Non-Financial Statement,”
- “Integrierter Geschäftsbericht” (Integrated Business Report),
- “Jahresbericht” (Annual Report),
- “Jahresfinanzbericht” (Annual Financial Report),
- “Kombinierter Geschäftsbericht” (Combined Financial Report),
- “Konsolidierter Nichtfinanzieller Bericht” (Consolidated Non-Financial Report)
- “Konzernabschluss” (Group Statement),
- “Konzern-Geschäftsbericht” (Group Business Report),
- “Konzernjahresbericht” (Group Annual Report),
- “Nachhaltigkeitsbericht” (Sustainability Report),
- “Nachhaltigkeitsbericht / Konsolidierter Nichtfinanzieller Bericht” (Sustainability Report / Consolidated Non-Financial Report),
- “Nachhaltigkeitsbericht / Nichtfinanzieller Bericht” (Sustainability Report / Non-Financial Report),
- “Nachhaltigkeitsbericht / Sustainability Report,”
- “Nachhaltigkeitsbilanz / GRI-Bilanz” (Sustainability Balance Sheet / GRI Balance Sheet),
- “Nachhaltigkeitsupdate” (Sustainability Update),
- “NFI-Bericht / Bericht über nichtfinanzielle Informationen” (Non-Financial Information Report / Report on Non-Financial Information),
- “Nichtfinanzieller Bericht” (Non-Financial Report),
- “Sustainability Report,”
- “Verbundbericht” (Group Report),
- “Zusammengefasster nichtfinanzieller Bericht” (Combined Non-Financial Report).

Figure 5 reveals the frequency with which these names were used, however aggregating of similar names.

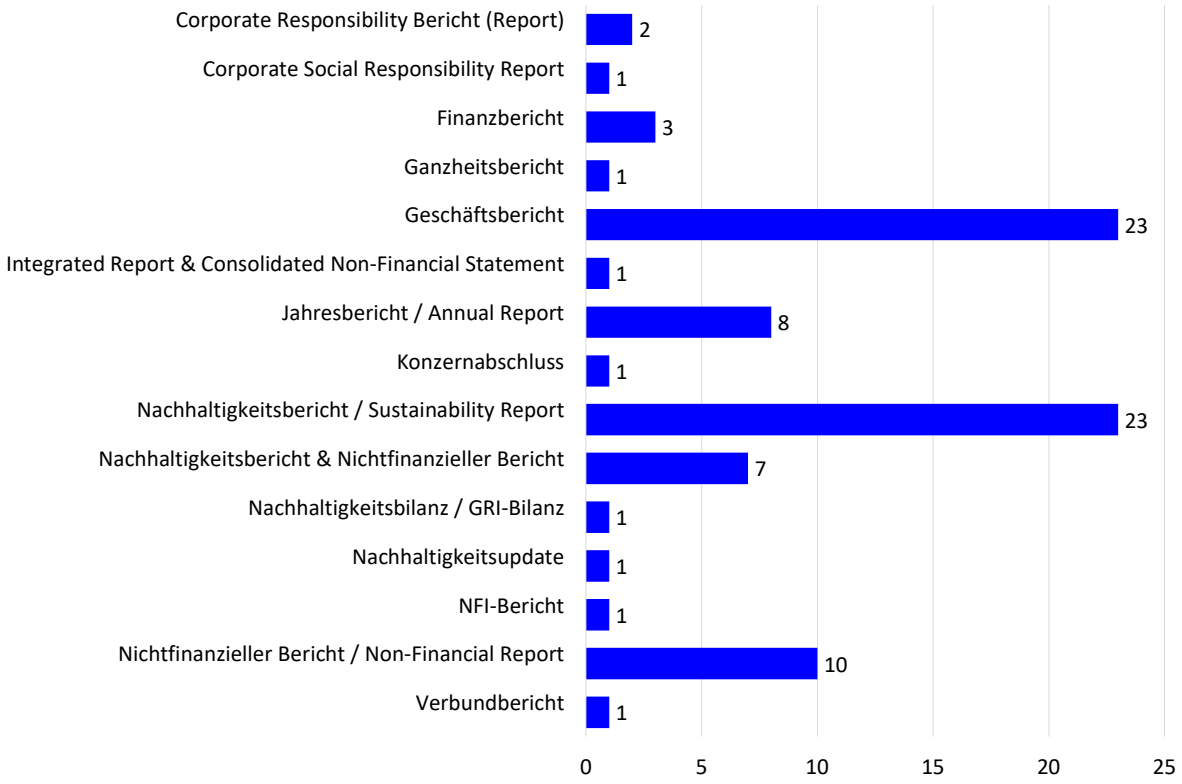


Figure 5: name of the document containing the non-financial statement. N = 84.

3. Reporting framework(s)

Which reporting framework was applied?

Article 1 of the Directive states that the company's non-financial disclosure must contain "e. non-financial key performance indicators relevant to the particular business".[70] It also states that if undertakings rely on national, union-based or international frameworks, they "shall specify which frameworks they have relied upon."[71] Transposed in Austria, the new provision (§243b of the UGB) requires that the non-financial declaration must state which framework was used to create it (but not to justify why no framework was used, if that was the case).

In Austria, companies reported applying four reporting frameworks, although, technically speaking, the UNGC and SDGs do not provide indicators against which companies are to report:

1. Global Reporting Initiative (GRI),[72]
2. The International Integrated Reporting Framework (IIRF),[73]
3. The Ten Principles of the United Nations Global Compact (UNGC),[74]
4. The Sustainable Development Goals (SDGs),[75]

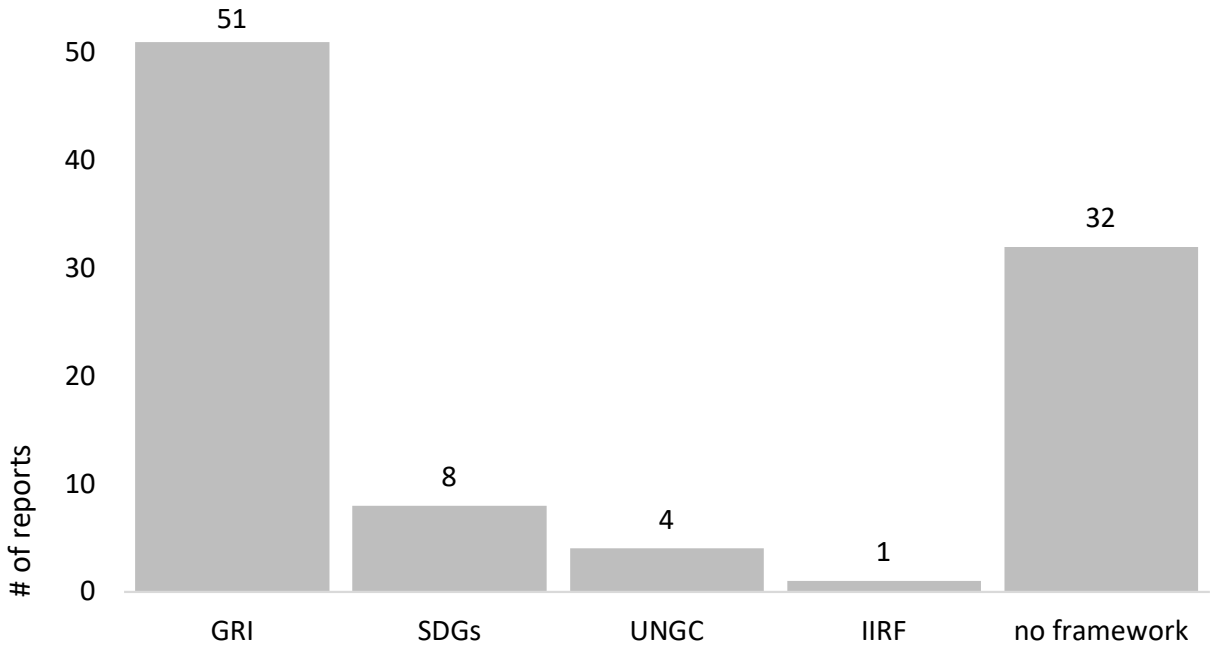


Figure 6: # of company reports that used a certain reporting framework. N = 84.

GRI	IIRF	UNGC	SDGs	no framework	
	1	2		41	GRI
		1	6		
		0	0	0	IIRF
			0	1	UNGC
				0	SDGs
				32	no framework

Figure 7: overlap of reporting frameworks. In the majority of cases under review, the GRI was the reporting framework of choice; however, usage of the International <IR> Reporting Framework, the UNGC, and the SDGs (alone or together with the GRI) was also indicated. In this figure, the overlap between reporting frameworks reveals the usage of multiple frameworks in a single statement. N = 84.

While the UNGC and the SDGs are not a reporting framework, the GRI itself recommends them as a corporate sustainability reporting tool.[76] Certain firms, such as Hypo Vorarlberg Bank AG (e.g. p. 77-79), included GRI and SDGs page indicators throughout the report. Others, such as Novomatic AG, also added a comprehensive "GRI, SDG, UNGC and NaDiVeG Index" (p. 108). This index contained a brief description of the information under each GRI reference, Sustainable Development Goal, and/or UNGC Principle, as well as the corresponding page number (and NaDiVeG requirement).

Figure 7 shows that the majority of the reports analyzed chose the GRI as their reporting framework. While many companies made reference to the UNGC (see Figure 8), only three firms made use of the UNGC's reporting framework.

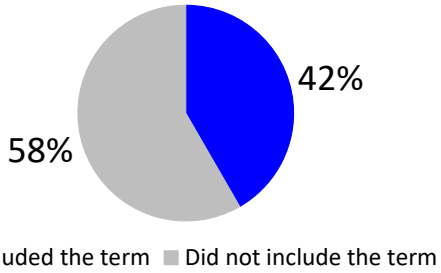


*Figure 8: 40% of the companies under study mentioned the **UNGC**. N = 84.*

While, since 2013, the Global Reporting Initiative had made use of the "GRI G4" Guidelines, a new set of guidelines was recently published: "GRI Standard".[77] GRI G4 was scheduled for usage until June 2018, with the present year constituting a year of transition. Therefore, each selected indicator in this report is marked with both the G4 and Standard ID. In the reports analyzed throughout this study, some companies still reported applying[78] the GRI G4 or even the GRI G4 and the GRI Standard simultaneously.[79]

The GRI[80] and UNGC[81] each offer a platform that hosts company reports.

The majority of the firms with reports (52 firms out of 84, 61%) applied or claimed to apply the GRI and/or UNGC reporting framework. On these grounds, these indicator associations and their overlap are referenced in section *D. Corporate responsibility, risk mitigation and remediation*.

4. Assurance services provider

Did the company obtain independent verification or assurance for the content of its report?

The NaDiVeG attempts to provide for the effective monitoring of non-financial statements. Firstly, the Board of Directors ("*Aufsichtsrat*") reviews the non-financial statement (in accordance with the new §243b [6]). Whether the review must consist of a content check or in a plausibility check it is not specified. Rather, the modifications of the NaDiVeG to §96 [2-3] of the AktG and §30k [2-3] of the GmbHG establish that the Board of Directors must indicate to what extent ("*in welcher Art und in welchem Umfang"*) the non-financial report was audited.

Article 19a [6] of the Directive 2014/95/EU provides for Member States the option to require verification by an independent assurance services provider ("*einem unabhängigen Erbringer von Bestätigungsleistungen"*). However, Austria did not make use of such option.[82] The Board of Directors ("*Vorstand*") may voluntarily commission an external entity to examine the content of the non-financial statement.

Nonetheless, the Austrian Commercial Code (UGB) has established a requirement to audit the management report (*Lagebericht*, §268 [1]). Together with this obligation, it is determined that the external auditor ("*Abschlussprüfer*") must establish:

- whether a nonfinancial report with the legally prescribed minimum contents exists ("*Existenzprüfung*,"[83] §269 [3] and §273 [1]);
- whether the legal representatives have provided the required information and evidence (§ 273 [1]);
- whether there are obvious discrepancies with the auditor's other perceptions of the audited entity[84] ("check of completeness" or "*Vollständigkeitsprüfung,*" §269 [3]);[85]

Furthermore, the duty of the auditors to conduct a formal audit or "check of completeness" based on §269 falls within the scope of the auditing standard ISA 720.[86] With ISA 720 being applicable, an obligation to critically read the non-financial information emerges, in a way that allows to identify material inconsistencies and misstatements of fact.[87]

However, "a substantive obligation to check the non-financial information currently does not exist."[88] Consequently, companies which did not obtain external assurance for their non-financial report are not in non-compliance, as any type of material audit that goes beyond the legally required minimum scope is to be agreed upon between service providers and companies with no legal obligation whatsoever.

Our research found that 23 (27%) non-financial reports were audited by an external reviewer. The remainder of the companies (61) did not subject their non-financial reports to external assurance.

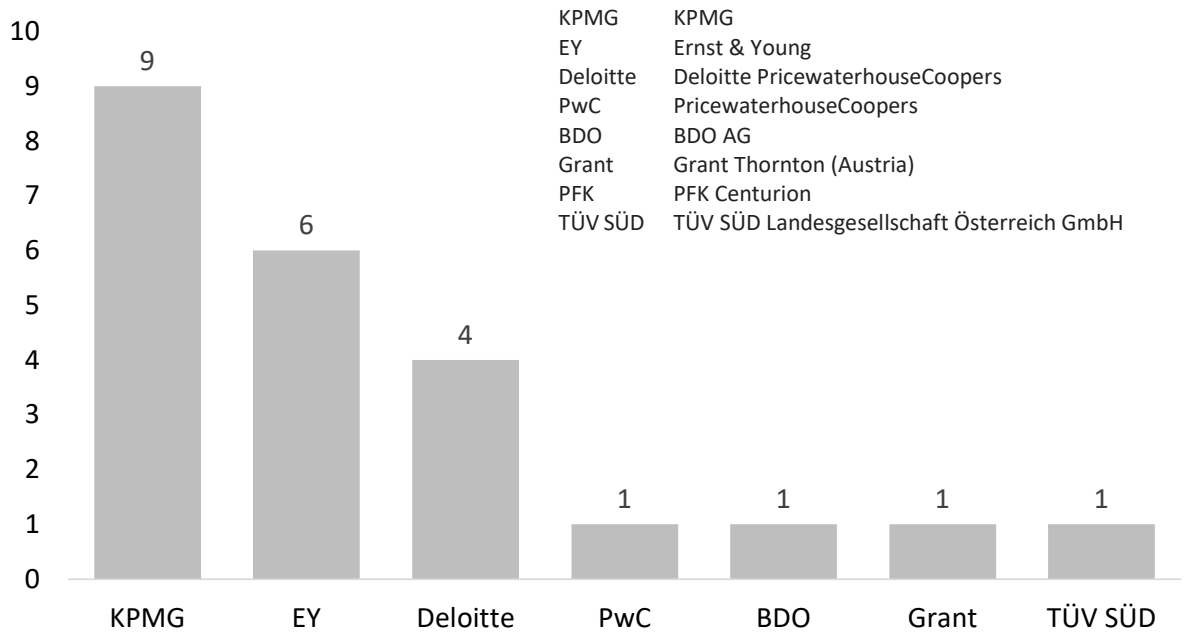


Figure 9: 23 assurance services providers audited non-financial disclosures. One report was audited jointly by KPMG and PFK Centurion. The remaining 61 reports did not receive external assurance. N = 84.

Audit standards for assurance of non-financial information are relevant here, such as the International Standard on Assurance Engagements (ISAE 3000),[89] which was applied by 18 of the companies under review.

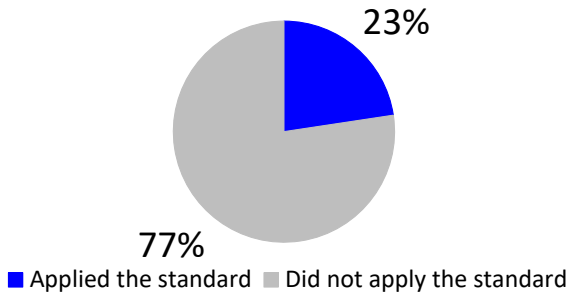


*Figure 10: the **International Standard on Assurance Engagements (ISAE) 3000** was applied by 21% of the companies under study, or 78% of the externally reviewed reports. N = 84.*

5. Type of assurance

Were audited non-financial statements subjected to "limited assurance" or "reasonable assurance"?

When providing assurance, an assurance services provider may provide "limited" or "reasonable" assurance ("*begrenzte Sicherheit*" or "*hinreichende Sicherheit*", respectively). The former implies a lower level of diligence in scrutiny and less collection of evidence than the latter. Typically, a reasonable assurance engagement allows to positively state that sufficient evidence to support the auditor conclusion was found and/or whether the statements are free of material misstatement (whether caused by error or fraud). In turn, limited assurance engagements usually conclude with a negative formulation (i.e., that no indication of material misstatement in the audited document was found during the audit). However, what distinguishes the two kinds of assurance from each other is not the positive or negative character of the statement, but the level of diligence.[90]

Since external assurance is not mandated by Austrian law,[91] companies who choose to obtain it are left to decide the level of assurance of their preference.

Twenty-three (23) reports underwent limited assurance and sixty (60) companies did not obtain assurance.[92] A special case was given by Allianz Elementar Versicherungs-Aktiengesellschaft's report, which referred to the statement of its German holding company, Allianz SE. This statement reported "reasonable assurance on all information other than the environmental indicators in the non-financial report" and limited assurance on the values of GHG emissions per employee and the percentage of green electricity (p. 170). In Figure 11, this is treated as the one (1) case of reasonable assurance.

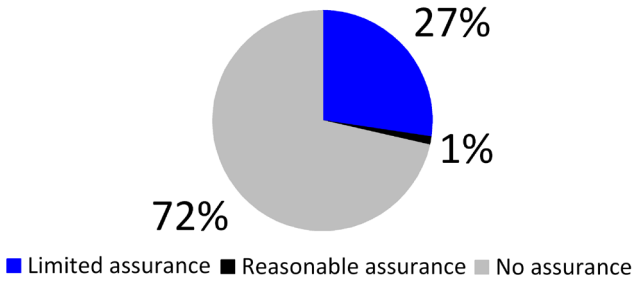


Figure 11: type of assurance per report. N = 84.

D. Corporate responsibility, risk mitigation and remediation

The term "risk", fundamental to non-financial reporting, is polysemous. While it may refer to external circumstances that may affect a firm's operations, it may also be used when a company's own activity could affect the company's (business, social, ecologic, …) environment. Furthermore, a firm's sustainability performance is determined – among other things – by the interaction between its environment and itself, which in turn highly pertains to the interests of investors and other stakeholders.

Therefore, risk is a theme that informs a number of the indicators selected for this study: the possibility of adverse impacts such as environmental damage, corruption, and human rights violations are examples thereof. Risk management, as well as action to mitigate and remediate adverse impacts, play a crucial role in corporate responsibility – and in this report.

If companies are required to report on their impacts and related risks, semantic should not be ignored. "Risk", "risk sources", "risk control", "potential events" (as well as their consequences and likelihood), "risk management", are all terms that for example may be interpreted differently. For instance, some firms emphasize (potential) adverse impacts *to* the company (which, however, is *not* what NaDiVeG requires, see section *F. Material adverse impacts*) while others report risks caused *by* the firm, both of which may have meaningful consequences to the company, financially and otherwise.

With this in mind, we analyzed the application of risk management standards, which support in the broader adoption of sustainable and responsible practices. Figure 12 shows that some of the reports reviewed indicated the application of ISO 31000, a standard with risk management guidelines and principles. The importance of this norm lies in its interpretation of the concept of risk as an effect of *uncertainty* (in the 2018 version). This represented a departure from the older standard (ISO 31000:2009 and the ISO Guide 73), which understood risk as the probability of *loss*.

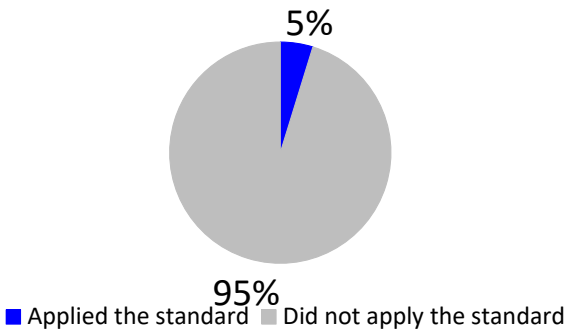


*Figure 12: 5% of the companies under study applied **ISO 31000**. N = 84.*

a. Environmental matters

i. Select issues and corresponding corporate reporting

Almost by definition, the Anthropocene is the epoch of unprecedented environmental impact: that of humans. Having steadily escalated for thousands of years, the past century has witnessed a radical acceleration of this anthropogenic influence. In this context, societal mobilization has led to the enactment of legislation with the goal of fostering conscientious business practices.

This is the case of Directive 2014/95/EU, which, as put by the explanatory notes to the NaDiVeG,[93] indicates that the non-financial statement of a company "should include details of the current and foreseeable impact of the Company's business activities on the environment and, as appropriate, on health and safety, renewable and non-renewable energy, greenhouse gas emissions, water use and air pollution" (p. 2).

Upon analyzing companies' reports pursuant to the NaDiVeG, we were able to observe the salience of certain topics in the discussion. The following figures show how pollution, climate change, and certain sources thereof (e.g. plastic, greenhouse gas emissions) repeatedly emerge in the companies' statements.

For instance, CO_2 (Figure 13) was discussed by 86% of companies under study. More than half of the reports evaluated included terms related to greenhouse gases (Figure 14) and climate change (Figure 15), indicating concern for both an environmental matter (climate change) and one of the factors behind it (greenhouse gases).

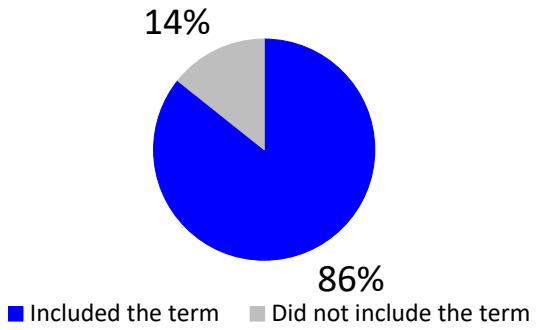


*Figure 13: 86% of the companies under study mentioned "**CO_2**", "**Carbon dioxide**", or "**Kohlendioxid**" in their reports. N = 84.*

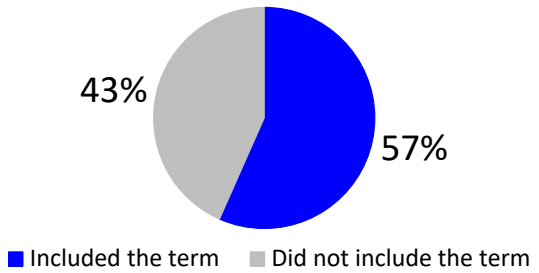


*Figure 14: 57% of the companies under study included terms related to **Greenhouse Gases** ("**GHG emissions**", "**Treibhausgasemissionen**", "**THG Emissionen**") in their reports. N = 84.*

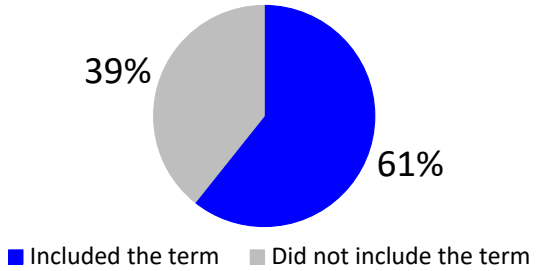


*Figure 15: 61% of the companies under study made use of the terms "**Klimawandel**" and "**climate change**". N = 84.*

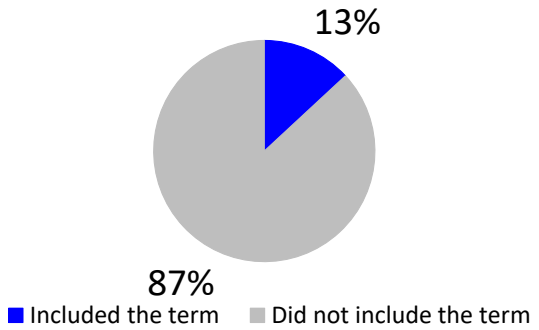


*Figure 16: 13% of the reports reviewed included the term "**carbon footprint**". N = 84.*

Carbon monoxide (CO) emissions (Figure 17) were also mentioned in some reports, as were nitrogen oxides (NO_x,[94] Figure 18) in general and nitric oxide (Figure 19) in particular. A reason for the pertinent of these gases to the intersection of corporate and environmental matters is that they may act as pollutants and they may emerge as a byproduct of combustion, which is fundamental to the production processes of a number of industry sectors.

For instance, since fossil-fueled internal combustion engines produce nitrogen oxides, these gases are especially relevant to the automotive industry.[95] Consequently, firms in this sector (e.g. KTM Industries AG, p. 26) have documented these emissions.

Carbon monoxide and nitrogen oxides are terms that were also reported on by firms in industries other than the automotive sector, such as in the steel industry (e.g. Voestalpine AG, p. 77). For instance, firms in the financial sector (e.g. Warimpex Finanz- und Beteiligungs AG, p. 26) also mentioned them.

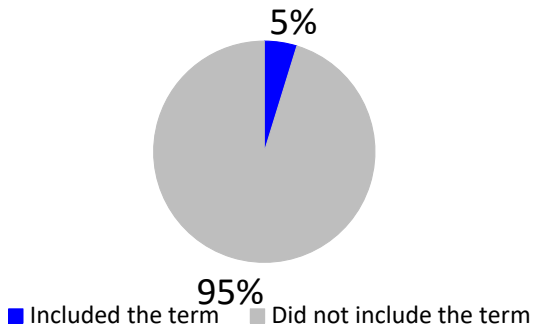


*Figure 17: 5% of the companies under study (4 firms) included the term "**carbon monoxide**" ("**Kohlenmonoxid**") in their reports. N = 84.*

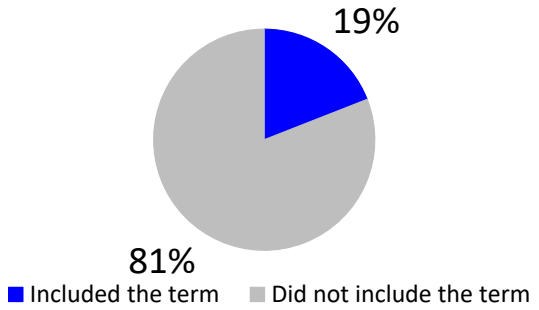


*Figure 18: Sixteen companies included the term "**nitrogen oxide**" ("**Stickstoffoxid**") in their reports. N = 84.*

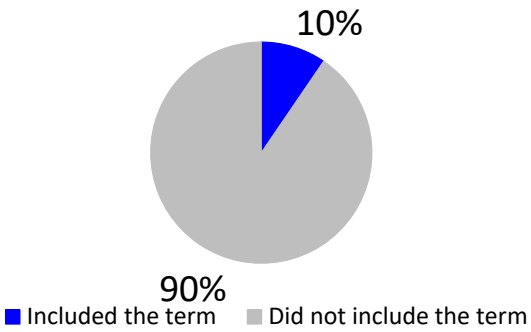


*Figure 19: eight firms mentioned **nitric oxide** ("**Stickoxid**") in their reports. N = 84.*

Other matters that repeatedly showed up in the reports under review were the issue of microplastics (Figure 20) and eutrophication (Figure 21). Interestingly, the issue of bees (Figure 22) was also discussed. While there is no robust data on the world's bee population,[96] several alarming trends (hikes in mortality, increases in colony collapse disorder, etc.) are raising the prospect of an "unforeseen and rapid collapse of pollinator communities."[97]

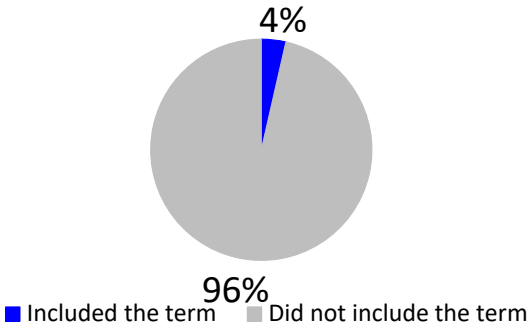


*Figure 20: the term **microplastics** ("**Mikroplastik**") was mentioned by 3 companies, comprising 4% of the total of reports under study. N = 84.*

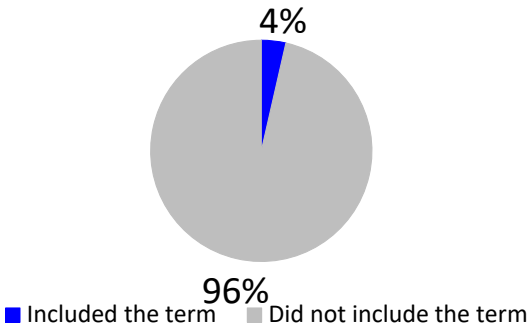


*Figure 21: the term **eutrophication** ("**Eutrophierung**") was mentioned in 4% of the reports under study. N = 84.*

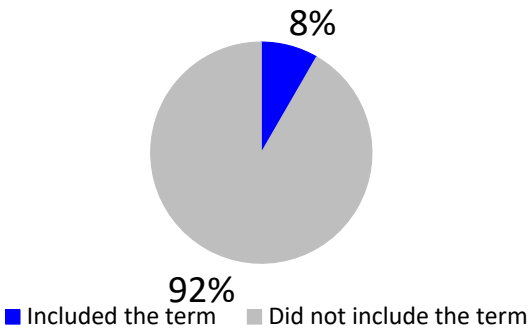


*Figure 22: eight percent of the companies under study included the term **bees** ("**Bienen**") in their reports. N = 84.*

More than half of the firms reviewed mentioned the UN Sustainable Development Goals (SDGs, Figure 23). The 17 SDGs (a part of the "2030 Agenda"[98] of the General Assembly of the UN) comprise 169 targets on social and economic development issues. A number of these goals are closely related to the protection of the environment: goal 6 ("clean water and sanitation"), 7 ("affordable and clean energy"), 12 ("responsible consumption and production"), 13 ("climate change"), 14 ("life below water"), and 15 ("life on land").[99]

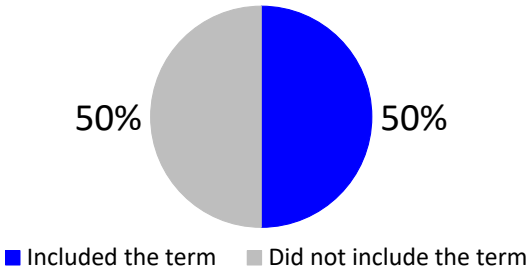


*Figure 23: 50% of the companies under study made reference to the **Sustainable Development Goals** (**SDGs**) or used the term "**Nachhaltigkeitsziele**" in their reports. N = 84.*

Other SDGs pertain to social issues, consumer protection, privacy and corporate social responsibility. The ISO 27001 norm on the management of information security (Figure 24) and the 9th SDG (regarding investment in "Industry, Innovation and Infrastructure" to promote sustainable industrialization, Figure 25) were also referred to by a number of firms.

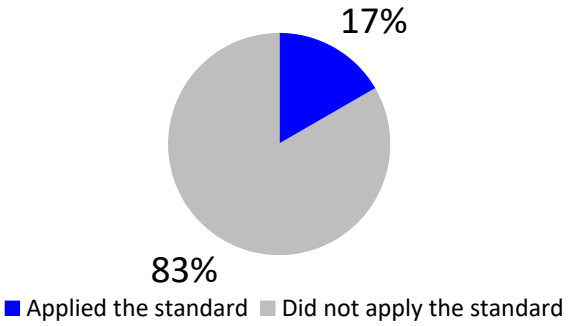


*Figure 24: the application of the **ISO 27001** information security standard was reported in 17% of the statements reviewed. N = 84.*

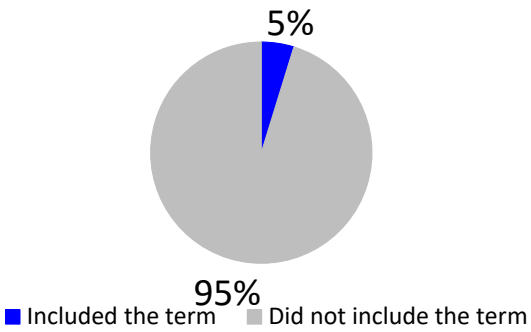


*Figure 25: five percent of the companies under study mentioned the 9th SDG ("**Ziel 9: Industrie**") on "Industry, Innovation and Infrastructure." N = 84.*

ii. Select Key Performance Indicators

#	indicator	unit	source	keywords
1.	**% of products sold and their packaging materials that are reclaimed by category**	%	GRI G4 EN28, GRI Standard 301-3, UNGC P8	Recycling, reclaimed, Wieder-verwendung

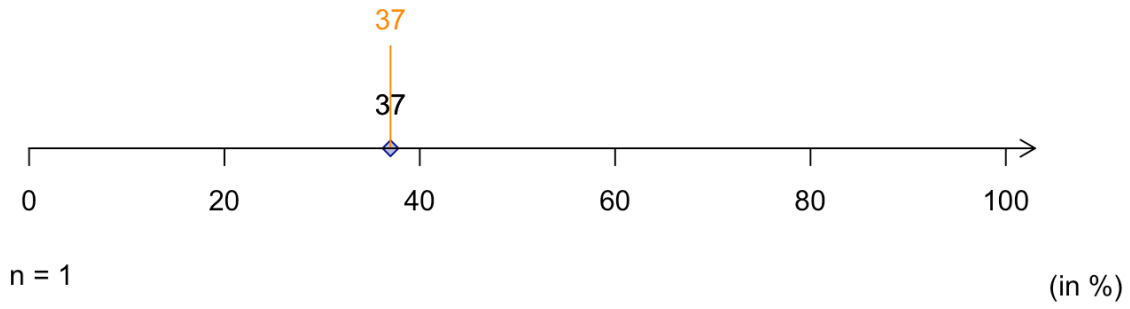


Figure 26: percentage of products sold and their packaging materials reclaimed by category. One company reported it reclaimed products and their packaging materials. n = 1 is the number of observations, out of 84 reports assessed.

One firm reported the percentage of its products sold that is reclaimed: the international gambling company Novomatic AG indicated that "more than 37%" of its total annual production of gaming machines is reused (p. 99). Other firms, such as the wood-based products manufacturer Egger Holzwerkstoffe GmbH, reported on the recyclability ("*Recyclingfähigkeit*") of its products, but not the actual reclaiming rates (p. 75).

#	indicator	unit	source	keywords
2.	**% of new suppliers that were screened using environmental criteria**	%	GRI G4 EN32, GRI Standard 308-1, UNGC P8	Umweltkriterien

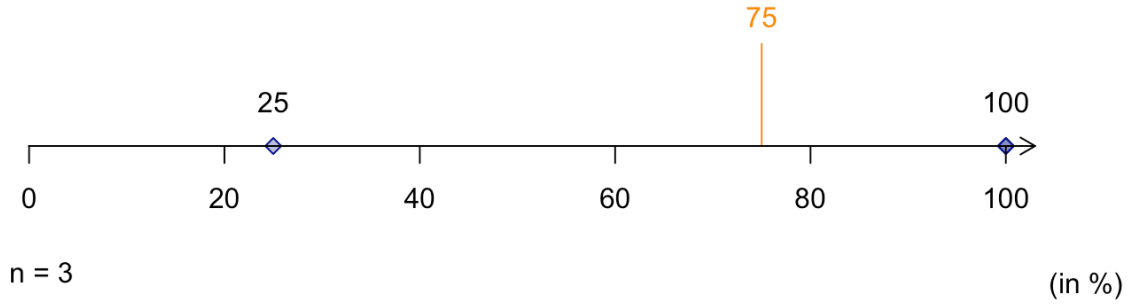


Figure 27: percentage of suppliers that were screened using environmental criteria. n = 3 is the number of observations, out of 84 reports assessed.

The steel works company Voestalpine AG indicated that "all new and existing raw material suppliers for the steel production were examined on the basis of environmental criteria" (p. 112). The specific criteria used were not revealed, but the firm reported that they covered the areas of waste & recycling, wastewater, biodiversity, energy, use and emissions to the soil and air (p. 49) and involved the obtainment of ISO 14001 certifications by suppliers (p. 50).

Similarly, the toll management corporation ASFiNAG reported that all its suppliers are checked for compliance with certain environmental criteria. The specific criteria were also not revealed (p. 77).

Novomatic AG indicated that 25% of its suppliers are audited with accordance to environmental criteria and that plans exist for extending these audits to the totality of them (p. 114).

Figure 28 shows the application of the Eco-Management and Audit Scheme ("EMAS"). Developed by the European Commission, the EMAS is an instrument aimed at the improvement of environmental performance and management. An EMAS certification includes for a company also a ISO 14001 certification (a norm also applied by many companies, as shown by Figure 29, which establishes norms for the implementation of an environmental management system), as EMAS is more stringent than ISO 14001 and includes its requirements. The EMAS was applied by 11 companies (13% of the total firms under review), which also obtained an ISO 14001 certification (i.e. 23% of the ISO 14001-certified companies were also EMAS-certified).[100]

Furthermore, since the EMAS scheme includes certain KPIs to be released with regular environmental statements and reports, it also functions as a reporting framework.

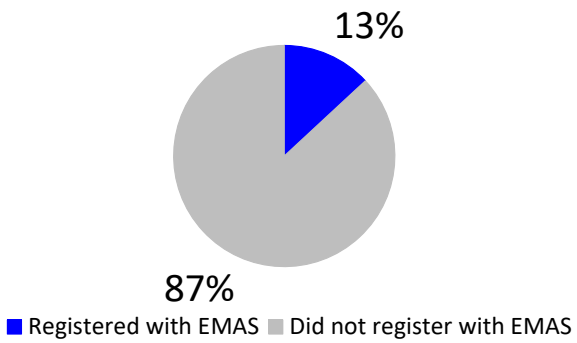


*Figure 28: 13% of the companies under study (23% of the ISO 14001-certified firms) registered with the **European Eco-Management and Audit Scheme (EMAS) 3000**. N = 84.*

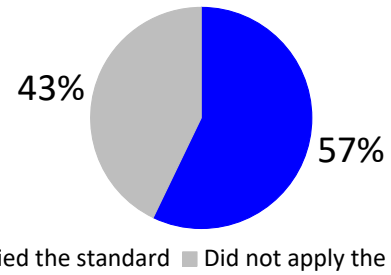


*Figure 29: 57% of all companies under study obtained the **ISO 14001** certification. N = 84.*

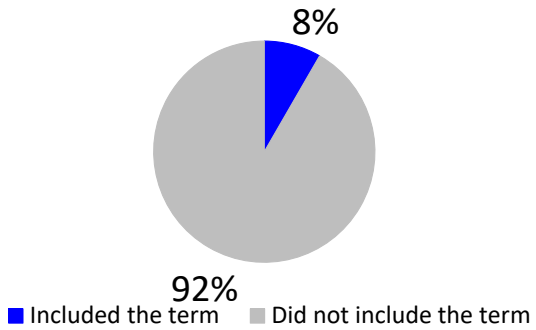


*Figure 30: the term "**life cycle assessment**" ("**Lebenszyklusanalyse**") was included in 8% of the reports under study. N = 84.*

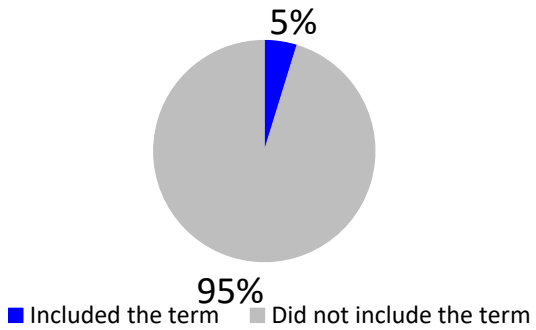


*Figure 31: the term "**Umweltbilanz**," another term for life cycle assessment, was cited in 5% of the companies under study. N = 84.*

#	indicator	unit	source	keywords
3.	**Significant actual and potential negative environmental impacts in the supply chain**	yes / no	GRI G4 EN33, GRI Standard 308-2, UNGC P8	negative Umwelt-auswirkungen

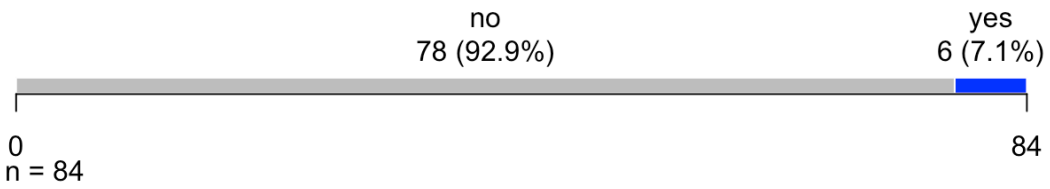


Figure 32: companies that having reported either actual or potential negative environmental impacts in their supply chain. Six of the companies under study reported on the type of negative environmental impact in their supply chain. Out of 84 reports assessed.

#	indicator	unit	source	keywords
4.	**Corresponding action taken on environmental impact**	yes / no	GRI G4 EN33, GRI Standard 308-2, UNGC P8	negative Umwelt-auswirkungen

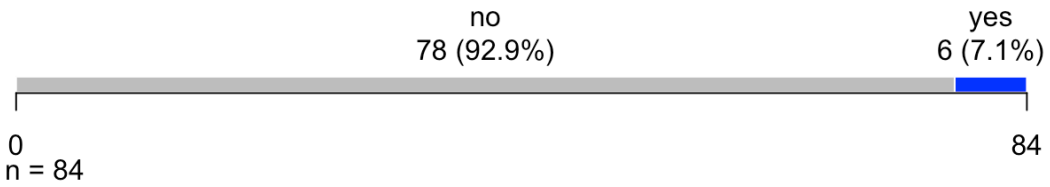


Figure 33: six of the companies under study reported having taken action on the negative environmental impacts at issue. Out of 84 reports assessed.

Six companies disclosed negative environmental impacts in the supply chain. One of them was PORR AG, a construction company which indicated that "the negative impacts on the environment emanating from the supply chain mainly relate to transporting construction materials, which produces high levels of air pollution" (p. 19).

Other impacts were also reported, emerging from the "spillage of oils and construction materials in transport accidents and from the use of materials such as insulation that is neither recyclable nor biodegradable" (p. 19). A specific remedial measure was reported only for the matter of recycling: "a business relationship in Romania was brought to an end as a competitor was able to achieve better fundamentals in terms of waste sorting and recycling" (p. 19).

ASFiNAG reported one environmental impact in the supply chain: the greenhouse effect caused by gases emitted through the purchase of energy and noise. As a remedial measure, the firm reported having undertaken a policy to increase the share of renewable and self-generated energy (p. 64).

Another environmental impact was reported, but directly by the company, rather than in the supply chain: noise pollution (p. 6-7). In order to reduce it, the firm announced that it was cooperating with the Environmental Noise Action Plan of Federal Ministry of Transport, Innovation and Technology (BMVIT). The specifics ways in which this cooperation takes place were not revealed (p. 73).

The catering company DO & CO identified a number of negative environmental impacts, some of which were in the supply chain: excessive emissions arising from transportation due to inefficient fleet management and distribution logistics, and inefficient energy consumption. The remedial measures informed were audits to increase energy efficiency as well as other generic "measures" ("*Maßnahmen*"). Other direct impacts were also reported: excessive waste of food, fats and packaging materials, as well as water consumption and the potential contamination of water through wastewater with chemicals. The action taken against these impacts was reported to be a policy of buying from regional suppliers and organic whenever possible (p. 30).

Egger Holzwerkstoffe GmbH, which manufactures wood-based products, reported the existence of a risk of creating pressure for substantial forest destruction or transformation if its wood sources undertook unsustainable practices. The firm indicated that monitoring, audits, an increase in the proportion of certified timber sources and the application of sustainable principles for non-certified sources were the remedial measures undertaken (p. 159).

Novomatic AG identified indirect environmental impacts, emerging "through energy consumption and transportation" (p. 40). In order to reduce these impacts, the firm reported a policy to minimize the consumption of energy, as well as the implementation of LED and renewable technologies (p. 43, 92). Other direct impacts were also reported, such as the mere consumption of natural resources (water and raw materials) and risks emerging from the management of hazardous and non-hazardous waste. Policies of waste reduction, separation and recycling, of minimization of resources used, ISO 14001 re-certification and plastic product labelling were some of the actions taken to mitigate these effects.

AGRANA Beteiligungs-AG reported that certain environmental risks associated with the cultivation of raw materials (e.g. soil erosion, adverse effects on water availability, water quality and biodiversity) by suppliers of agricultural raw materials and precursors (e.g. frozen fruit pieces) emerge throughout its supply chain. The firm reported that precautionary action was taken to fight this risk, by promoting good agricultural practice among its suppliers (p. 43). The investment holding Raiffeisen-Holding Niederösterreich-Wien did not report an environmental actual or potential impact of its own, but it did report the case of AGRANA as an impact in the supply chain of one of the firms where it has an important participation (p. 65).

#	indicator	unit	source	keywords
5.	**Grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms**	yes / no	GRI G4 EN34, GRI Standard 103-2, UNGC P8	Missstand, Beschwerde

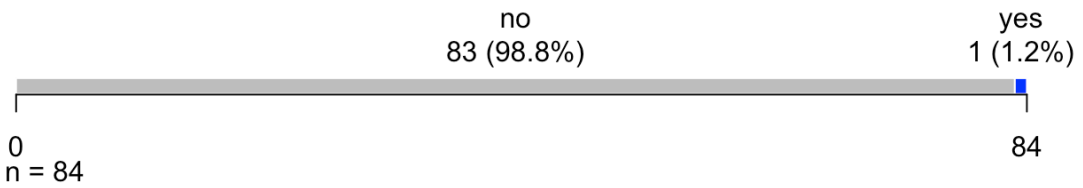


Figure 34: one company reported having a formal grievance system for filing, addressing and resolving environmental impacts. n = 1 is the number of observations, out of 84 reports assessed.

Only one firm reported having a grievance system for environmental impacts. Specifically on the matter of handling noise pollution in the highways and motorways managed by ASFiNAG, the firm indicated that one of its feedback systems is a grievance system (p. 75, 84), and that in the reporting year the number of grievances had risen to 249 (p. 76).

#	indicator	unit	source	keywords
6.	**Corresponding # of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms**	#	GRI G4 EN34, GRI Standard 103-2, UNGC P8	Missstand, Beschwerde

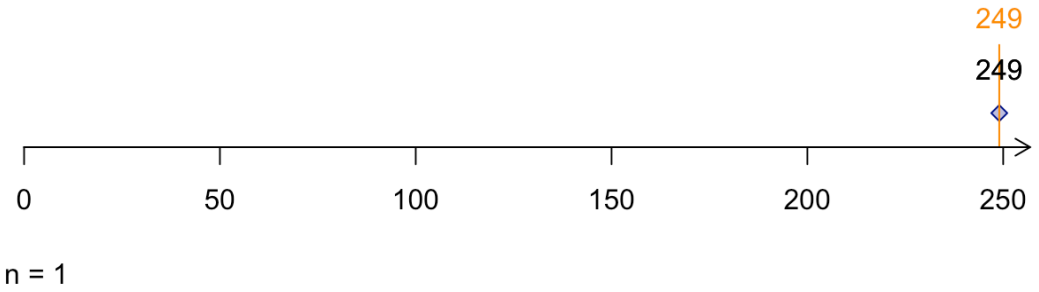


Figure 35: number of grievances filed, addressed and resolved through formal grievance mechanisms. n = 1 is the number of observations, out of 84 reports assessed.

#	indicator	unit	source	keywords
7.	**Direct greenhouse gas (GHG) emissions (Scope 1)**	#	GRI G4 EN15, GRI Standard 305-1, UNGC P8	Treibhaus-gasemission, Treibhaus, Scope 1

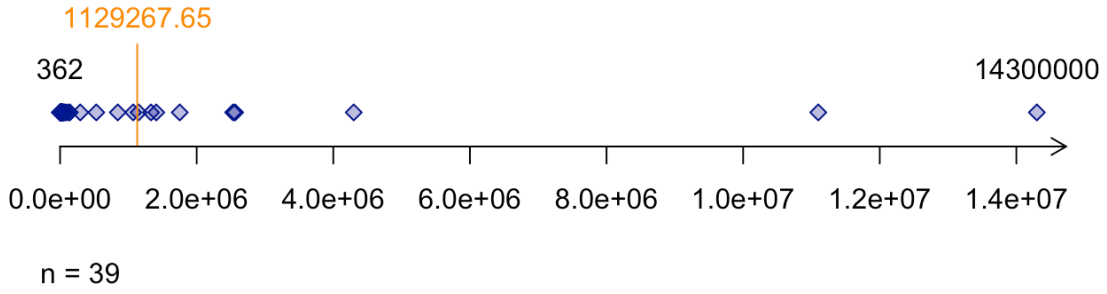


Figure 36: direct GHG emissions per company, in CO_2e metric tons. Almost half of subject companies (46%) reported their Scope 1 emissions. The average direct GHG emissions were 1,129,267.65 metric tons of CO_2e. n = 39 is the number of observations, out of 84 reports assessed.

The average Scope 1 emissions value lies to the very left of Figure 36 due to the presence of a few outliers to the right of the figure. The average emissions value was 1,129,267 CO_2e metric tons, while the median emissions value was 40,090 CO_2e metric tons. Based on the collected revenue data (see Figure 2), on average, one metric ton of CO_2e was emitted every 103,975 euro of revenue (or 237 grams of CO_2e were emitted per euro of revenue). The median value was 26,276 euro per ton of CO_2e (or 38 grams of CO_2e per euro of revenue).

The company that reported the highest emissions value was Voestalpine AG, with 14,300,000 metric tons of CO_2e (p. 75), followed by OMV AG with 11,100,000 metric tons (p. 108). The lowest emissions value was reported by Raiffeisen-Landesbank Steiermark AG, with 362 metric tons of CO_2e (p. 38).

Raiffeisen Bank International Holding AG was found to have the best emissions/revenue metric, with only 0.91 grams of CO_2e euro of revenue (p. 127), whereas EVN Energie-Versorgung Niederösterreich AG was in the opposite situation, with 1.22 kilograms of CO_2e per euro of revenue (p. 4).

A case of exemplary reporting was Ottakringer Getränke AG, whose CO_2 emissions values (though not other greenhouse emissions) were carefully identified for each line of business and sorted not only into Scope 1 values, but also Scope 2 (market and location-based) and Scope 3 (p. 51).

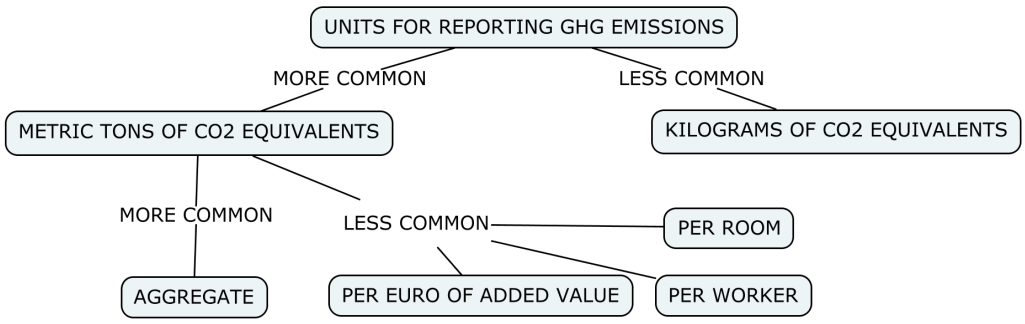
HTI High Tech Industries AG did report its CO_2 emissions (p. 10), but only for one business unit of the company ("*Aluminiumdruckguss*"), not for the firm as a whole (and again no other greenhouse emissions were reported). The company-level value could therefore not be retrieved for the purposes of our study. Similarly, Raiffeisen-Holding Niederösterreich-Wien did not report its direct Scope 1 emissions (therefore, a value was not retrieved), but it did

report the Scope 1 emissions of 3 of the firms in which it has substantial participations: Raiffeisen Bank International Konzern (6,270 metric tons CO_2e, p. 52), BayWa (44,743 metric tons CO_2e, p. 72) and Strabag (876,651 metric tons CO_2e, p. 78), for 2018 in the first two cases and for 2017 in the latter.

Measurement/metric variation:

Most commonly, GHG emissions were reported in (millions, thousands or hundreds of) metric tons of CO_2 equivalents (CO_2e, sometimes written as CO_2eq). Less commonly, kilograms of CO_2e were used as units. On a number of occasions, the values pertained only to CO_2. That is, the CO_2e value of other greenhouse emissions were not reported. Despite being less than ideal, these values were retrieved for the purposes of this study.

Yet the approach to normalizing emission mass varied greatly. AT&S Austria Tech System AG (p. 19) reported the CO_2 (no other greenhouse gases) kilograms per euro of added value ("Bruttowertschöpfung"), but since it aggregated Scope 1 and Scope 2 emissions, this was not regarded to be due disclosure. The Vienna Insurance Group AG (p. 40) reported its emissions in kilograms of CO_2e per worker (we came to an approximation of the aggregated value by calculating the product of this energy intensity measure with the number of employees indicated in the statement). Warimpex Finanz- und Beteiligungs AG (p. 25) did not disclose an aggregate value of CO_2e, but only included specific CO_2 emissions per room together with the energy consumption values in kilowatts-hour and mega-joules.



#	indicator	unit	source	keywords
8.	**Scope 1 year-over-year measurement (e.g. over 2017)**	yes / no	GRI G4 EN19, GRI Standard 305-5, UNGC P8	Scope 1

Figure 37: companies measuring GHG emissions across consecutive years, out of 84 reports assessed.

#	indicator	unit	source	keywords
9.	**Scope 1 year-over-year % change**	%	GRI G4 EN19, GRI Standard 305-5, UNGC P8	Scope 1

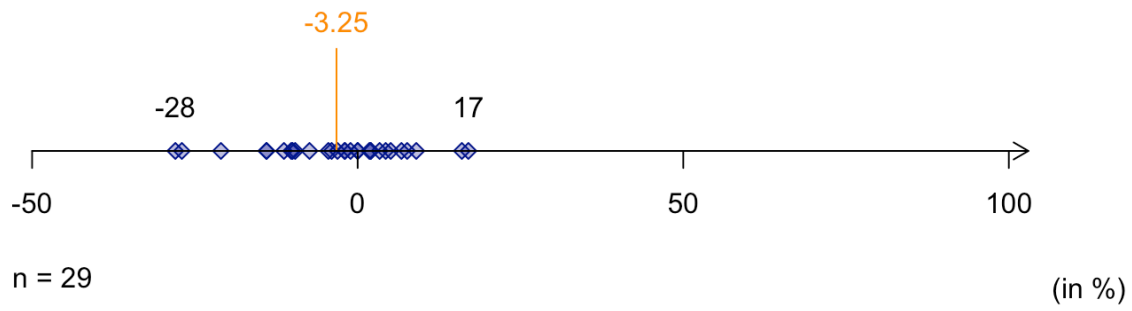


Figure 38: yearly percentage change in direct GHG emissions, understood as: $\frac{\text{reporting year emissions} - \text{prior year emissions}}{\text{prior year emissions}} \times 100\%$.
On average, Scope 1 emissions were reduced by 3.25% between 2017 and 2018. n = 29 is the number of observations, out of 84 reports assessed.

The airport of Vienna, Flughafen Wien AG, reported the highest reduction of GHG emissions: 28%. Emissions fell from 11,796 metric tons of CO_2 (no other greenhouse gases) to 8,455. While the specific measures undertaken were not disclosed, "measures and programs (…) to minimize pollutant emissions" were mentioned (p. 83).

The greatest increase in Scope 1 emissions happened at PORR AG, with a 17% rise (p. 70). The country-specific figures show that the main driver behind it was the growth of emissions at the firm's operations in Qatar. The only statement by the firm in this regard was that "in light of the overwhelming use of fossil fuels, the GHG emissions showed a similar trajectory to the energy consumption. In 2018 a total of 136,738 tonnes of CO_2 equivalent was generated by operations (2017: 116,869 tonnes)" (p. 41).[101]

A number of firms, such as the banking group Sberbank Europe, reported the variation in their emissions (in this case a 28% reduction, p. 30) but the value was not Scope 1-specific. In these cases, the data was treated as absent.

#	indicator	unit	source	keywords
10.	**Is a GHG emissions target specified (in the future)**	yes / no	GRI G4 EN19, GRI Standard 305-5, UNGC P8	Treibhausgas

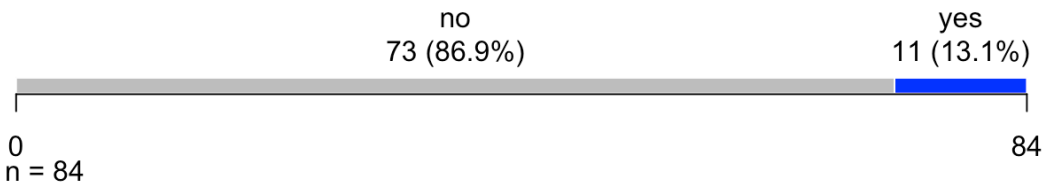


Figure 39: companies with a GHG emissions target specified. Out of 84 reports assessed.

Eleven (11) firms reported a GHG emissions target. One of them was the textile manufacturer Lenzing AG, which reported having signed (through the Lenzing Gruppe) the "Fashion Industry Charter for Climate Action" in 2018, thereby committing to a 30% reduction of its aggregate greenhouse gas emissions in Scope 1, 2 and 3 for 2030 (p. 20). The reduction achieved for the reporting year was 2% (p. 41).

In contrast, the construction company PORR AG also set a goal, but it was not met. The Group purported to reduce the emissions annually by at least 1.5% (p. 11), yet they increased by 17% for the reporting year (p. 41).

The Raiffeisen-Holding Niederösterreich-Wien did not report a GHG emissions goal for itself, but it did indicate that one of the companies in which it has substantial participations, Leipnik-Lundenburger Invest Beteiligungs AG, set a goal for itself of reducing its greenhouse emissions by 25% by 2030 (p. 60).

#	indicator	unit	source	keywords
11.	**GHG emissions target set for the report's year (2018) and met**	yes / no	GRI G4 EN19, GRI Standard 305-5, UNGC P8	Treibhausgas

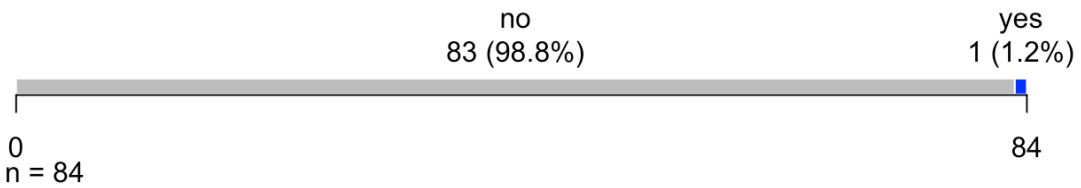


Figure 40: one company had set and met a GHG emissions target for the reporting year.

Only one firm had a self-imposed target for 2018 and managed to meet it as well. The Hypo Vorarlberg Bank AG established the goal of achieving a 1% reduction in its GHG emissions every year (p. 38). A 4% reduction was achieved for the reporting year (p. 73), thereby exceeding the self-imposed target.

#	indicator	unit	source	keywords
12.	**Energy indirect greenhouse gas (GHG) emissions (Scope 2)**	#	GRI G4 EN16, GRI Standard 302-4, UNGC P8	Scope 2

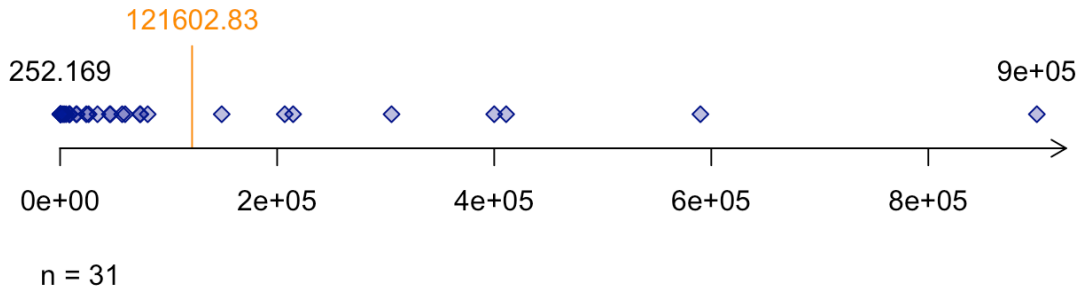


Figure 41: Scope 2 GHG emissions per company, in CO_2e metric tons. The average reported level of emissions was 121,602.83 metric tons of CO_2e. The median value was 34,464 metric tons. Only 31 out of 84 companies (37%) reported on their Scope 2 emissions.

The steelmaking company Voestalpine AG reported the highest value of Scope 2 emissions (emissions from the generation of the purchased energy), with 900,000 metric tons CO_2e (p. 75), followed by the textile firm Lenzing AG, which reported 590,000 metric tons (p. 41). The third place corresponded to Verbund AG, with 411,000 metric tons [which, however, drop to 284,000 if the market-based calculation approach (see the *Measurement/metric variation* section below) rather than the location-based calculation approach is used, p. 136].

The calculation method highly impacted in which the least emitting firms were. Among these was AMAG Austria Metall AG, which reported zero (0) 900,000 metric tons CO_2e. However, this number is a result of the market-based method of calculation (see below). A 0.000248 metric tons CO_2/kWh emissions factor, combined with the purchase of electricity from hydropower and renewable sources, resulted in zero Scope 2 emissions for 2018. However, with the location-based approach, AMAG reported having emitted 59,884 metric tons of CO_2 (p. 62).

Raiffeisen-Landesbank Steiermark AG was also among the least emitting firms, with 249 metric tons of CO_2e, according to the market-based method. However, according to the location-based approach, the firm emitted 2,557 metric tons of CO_2e.

Finally, the HYPO NOE Gruppe Bank AG reported 252 metric tons of CO_2e for its reporting year (the report, published in September 2018, corresponds to the year 2017). The method for the calculation was not disclosed.

Again, the Raiffeisen-Holding Niederösterreich-Wien did not disclose its own Scope 2 emissions, but it did disclose them for some of the firms in which it has important participations, namely the Raiffeisen Bank International Konzern (26,283 metric tons of CO_2e, p. 52), BayWa (25,015 metric tons of CO_2e, p. 71) and Strabag (234,965 metric tons of CO_2e, p. 78).

Measurement/metric variation:

As with Scope 1 emissions, most reports disclosed the CO_2e kilograms or metric tons for their Scope 2 emissions. Some companies specified the method used to calculate the emission values.

Two methods are used following the GHG Protocol: the "market-based approach" (which requires the emissions data directly from suppliers) and the "location-based approach" (which is based on grid factor data).[102] The numbers (and variations) emerging from the usage of one or another method vary: the former one emphasizes supply choices (choosing a low-carbon supplier will positively affect the firm's performance) and the latter emphasizes a firm's consumption values[103] using grid-averages which reflect how clean the energy system of a certain country is in general.

The GHG Protocol requires one show results for *both* the location-based and the market-based methods of calculation simultaneously, if contractual data from the supplier is available. However, if firms do not possess such information, they may restrict themselves to applying the emission factors from the location-based method.

Raiffeisen-Landesbank Steiermark AG (p. 38) was one of the companies that, in order to distinguish those two different measures, presented both its market-based Scope 2 emissions (249 metric tons) as well as the location-based measure (2,557 metric tons). The firm did not offer an explanation for the sizable variance. Similarly, no explanation was offered in the case of AMAG Austria Metall AG, other than stating that each method led to a different figure (p. 62).

Due to the differences between the location-based approach and the market-based approach, a Scope 2 emissions/revenue metric is not presented in this section, as that would require the combination of two different ways of measuring.

#	indicator	unit	source	keywords
13.	**Other indirect greenhouse gas (GHG) emissions (Scope 3)**	#	GRI G4 EN17, GRI Standard 302-4, UNGC P8	Scope 3

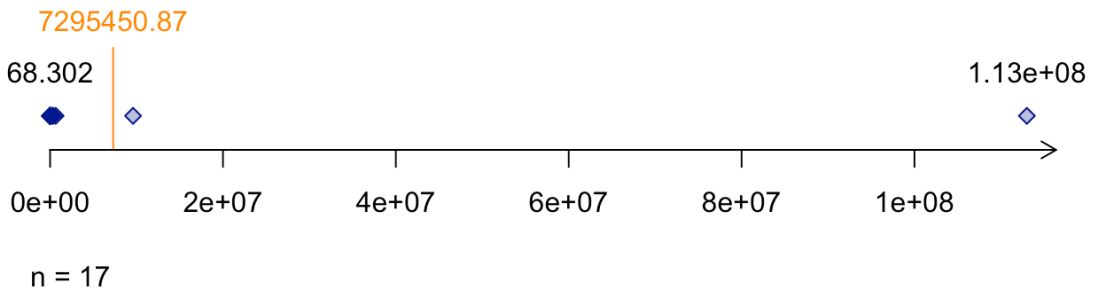


Figure 42: Scope 3 GHG emissions per company, in CO_2e metric tons. The average level of emissions was 7,295,450.87 CO_2e metric tons. Only 17 out of 84 companies (20%) reported their Scope 3 emissions.

Scope 3 emissions, that is, all emissions outside the companies' walls (i.e. indirect emissions) not included in Scope 2 (both upstream and downstream), were reported by a number of companies. OMV AG, with 113 million tons of CO_2e (p. 55, 108, 112),[104] Voestalpine AG, with 9,600,000 metric tons of CO_2e (p. 75) and Palfinger AG, with 645,000 metric tons of CO_2e (p. 106), had the highest values for this indicator.

The lowest value corresponded to the HYPO NOE Gruppe Bank AG, with 68 tons of CO_2e (p. 33). The second lowest value would belong to BKS Bank, with 315 tons of CO_2e (p. 120). Finally, Uniqa Insurance Group AG reported 374 tons of CO_2e (p. 19).

The company with the highest Scope 3 emissions per euro of revenue was OMV AG, with 4.89 kilograms of CO_2e per euro of revenue (according to the data collected in Figure 2). OMV was followed by Voestalpine AG, with 744 grams of CO_2e per euro of revenue. In the opposite situation was Uniqa, with only 0.14 grams of CO_2e per euro of revenue (p. 19), followed by PORR AG, with 0.47 grams of CO_2e per euro of revenue (p. 41).

The catering firm DO & CO did not directly reveal the Scope 3 emissions of the organization. However, it did indicate that 1,836 metric tons of CO_2 were emitted in the reporting year through transportation (p. 31). We did not retrieve this value, as it does not encompass all Scope 3 emissions. In contrast, other firms, such as Novomatic AG, reported 1,953 metric tons of Scope 3 CO_2e emissions, which were explicitly tagged as Scope 3 emissions. Nonetheless, the firm's report points out that only emissions arising from flights for the reporting year were counted (p. 97). The firm indicated to be working on a future expansion of data collection to other Scope 3 emissions. Similarly, Uniqa only reported flight emissions under the Scope 3 tag. These values were retrieved, but ought to be negatively highlighted.

Measurement/metric variation:

As with Scope 1 and Scope 2, Scope 3 GHG emissions were reported in kilograms or (hundreds, thousands or millions of) metric tons. Again, AT&S Austria Tech System AG (p. 19) reported the CO_2 emissions (but not other greenhouse gases) in kilograms per euro of added value ("*Bruttowertschöpfung*").

It is worth noting that while 31 firms reported on Scope 2 GHG emissions, and 17 firms reported on Scope 3 emissions, the number of companies identifying the greenhouse gases from energy purchase or from transportation as a negative environmental impact was much lower (see indicator #3).

Four percent (4%) of the reports analyzed indicated the usage of the ISO 14064 standard, which establishes a voluntary verification, quantification, reporting, monitoring and validation process for GHG emissions (Figure 43).

Figure 44 to Figure 46 depict the treatment of further measures relevant to greenhouse gas emissions that emerged in the review of the reports under study.

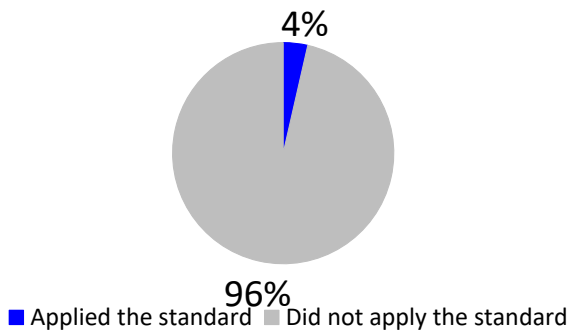


*Figure 43: 4% of the companies under study applied the **ISO 14064** norm, which specifies principles and requirements at the organization level for quantification and reporting of greenhouse gas (GHG) emissions. N = 84.*

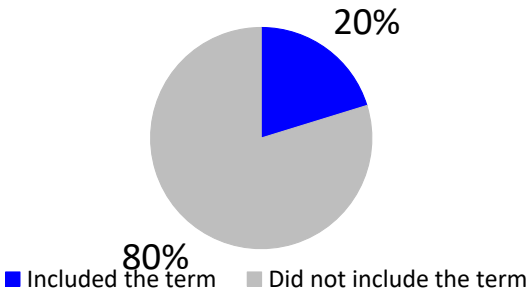


*Figure 44: the term "**Greenhouse Gas Protocol**" ("**THG-Protokoll**", "**Treibhausgas-Protokoll**", "**Treibhausgasprotokoll**") was present in 20% of the reports under study. N = 84.*

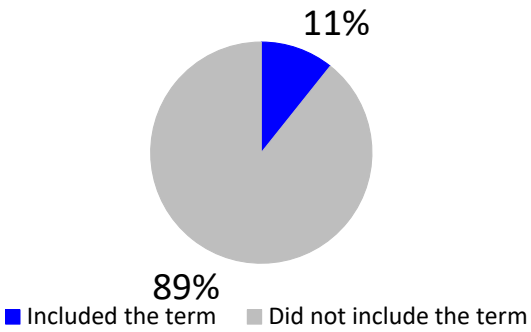


*Figure 45: 11% of the companies mentioned the **CDP** (formerly the "**Carbon Disclosure Project**", which was included in the search term) in their reports. It is an organization aimed at the reduction of climate and water risks. N = 84.*

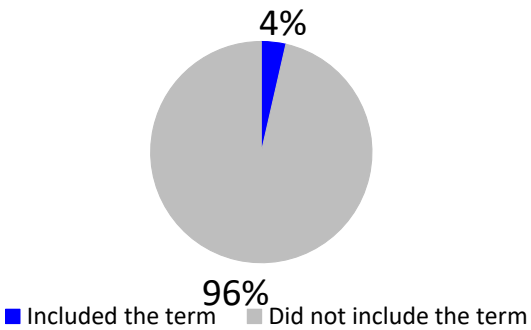


*Figure 46: 4% of the companies under study included the term "**Green Bond Principles**" in their reports. N = 84.*

#	indicator	unit	source	keywords
14.	**% of materials used that are recycled input materials**	%	GRI G4 EN2, GRI Standard 301-2, UNGC P8	recycling

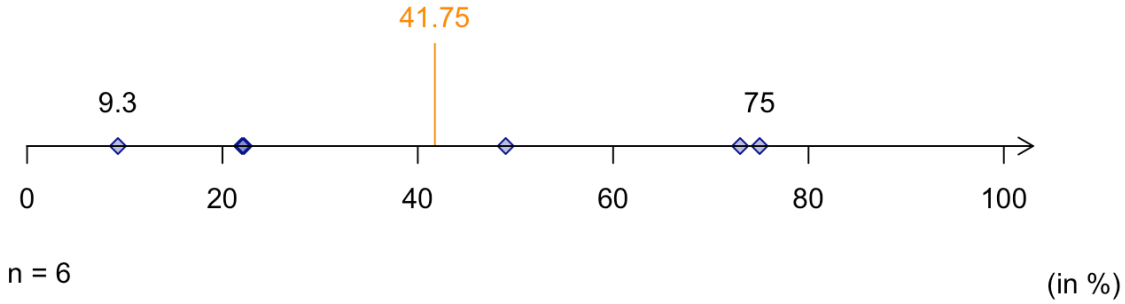


Figure 47: percentage of materials used that are recycled input materials. n = 6 is the number of observations, out of 84 reports assessed.

The percentage of input materials that was recycled (not the proportion of the production that ended up being recycled, but rather the proportion of recycled content in it) was disclosed by six companies. PORR AG stated that 9.3% of its secondary material (131,139 tons) in its asphalt mix plants consisted of recycled content (p. 67). Egger Holzwerkstoffe

GmbH, which manufactures wooden products, uses a wood mix of which 22% is recycled wood (p. 62).

According to Voestalpine AG, "the share of recycled material in the total use of materials in calendar year 2017 was 22.2%" (p. 81).

The legal insurance group D.A.S. Rechtsschutz, rather than having its own NaDiVeG-pursuant report, referred to the report[105] of its German mother firm ERGO Group. The ERGO Group disclosed that 48.5% of its paper was recycled, and that 445 tons of the total materials were recycled. However, the percentage of *total* input materials recycled (or another sufficiently general category) was not disclosed.

The Viennese brewery Ottakringer Getränke AG reported that the recycled content of the PET bottles produced by the firm is currently 49% across all packaging (to be increased to 55%) and 60% in the Vöslauer products (p. 28).

ASFiNAG reported on recycling rates of excavated material (*Aushubmaterial*), concrete demolition (*Betonabbruch*) and asphalt demolition (*Asphaltabbruch*), which includes varied practices such as depositing excavated materials, and thus experiences large year-over-year fluctuations. The average quota of recycled material was 73% (p. 58-59).

The highest share corresponded to AMAG, which claimed to have "a share of 75 to 80%" recycled materials "in the primary material", thus self-reportedly being "the world leader in recycling" ("*ist die AMAG weltweit führend in Sachen Recycling*", p. 44).

Measurement/metric variation:

As a rule, and with a few exceptions, companies did not disclose absolute recycling figures. It is not necessarily the case that a common unit for "materials" exists. Probably for this reason, we were only able to identify in only one case the percentage of recycled materials in the *total* thereof (Voestalpine AG, p. 81). We did find the percentage of recycled materials in particular categories, such as "packaging" (Ottakringer Getränke AG, p. 28), "in the primary material" (AMAG, p. 44) or in the "secondary material" (PORR AG, p. 67). Often companies reported the percentage of recycled material in a particular product, such as the percentage of recycled asphalt in bituminous mixtures (STRABAG SE, p. 102) or of recycled paper (e.g. D.A.S. Rechtsschutz)[106] but this was regarded as too narrow for this indicator.

#	indicator	unit	source	keywords
15.	**Recycled input materials year-over-year measurement (e.g. over 2017)**	yes / no	UNGCP8	recycling

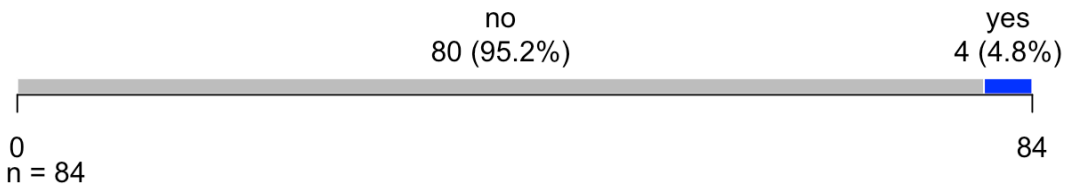


Figure 48: companies reporting recycled-input-materials figures across consecutive years. Out of 84 reports assessed.

#	indicator	unit	source	keywords
16.	**Recycled input materials year-over-year % change**	%	UNGCP8	recycling

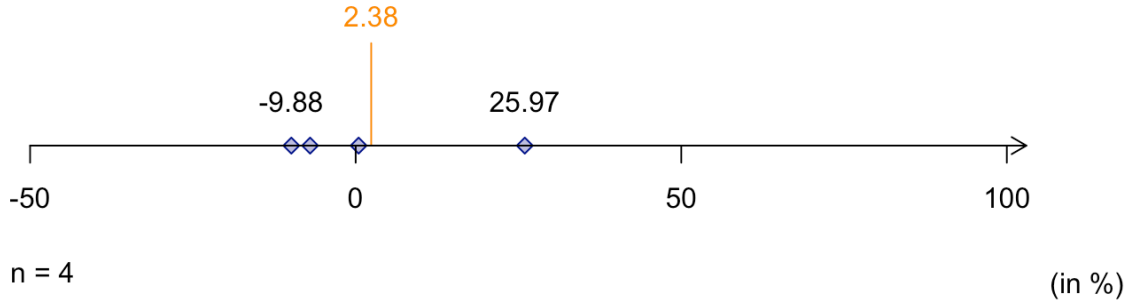


Figure 49: four companies reported on the percentage change between the previous year and the reporting year in recycled-input-materials figures. n = 4 is the number of observations, out of 84 reports assessed.

Four companies showed how their recycled material rates varied over time. According to Voestalpine AG, "the share of recycled material […] was 22.2% and thus in the same order of magnitude as in previous years" (p. 81). Meanwhile, PORR AG reported that in 2017, the "recycled construction material from asphalt" was 10%, meaning that the share of recycled material fell by 7%.

Egger Holzwerkstoffe GmbH's recycled wood rate fell by one percentage point from the previous year, due to the acquisition of a site in Concordia which does not use recycled wood (p. 62). Finally, ASFiNAG reported a 7% drop in its recycled materials quota, explaining that the very varied practices that this indicator includes – such as depositing excavated materials – leads to experiencing large year-over-year fluctuations (p. 58-59).

AMAG reported that the firm was able to "*maintain* the scrap utilization rate in the range of 75% to 80%" (p. 8, italics are ours). While this implies that the change in recycled input materials was smaller than ±7%, we did not regard this as reporting the year-over-year percentage change.

#	indicator	unit	source	keywords
17.	**Is a recycling target specified (in the future)**	yes / no	UNGCP8	recycling

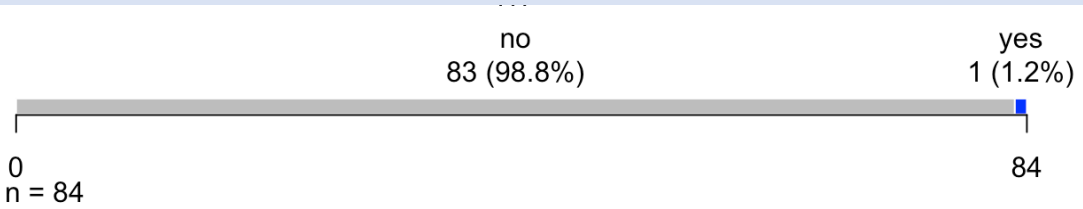


Figure 50: out of 84 reports assessed, one company had specified a recycled-input-materials target.

#	indicator	unit	source	keywords
18.	**Recycling target set for the report's year (2018) and met**	yes / no	UNGCP8	recycling

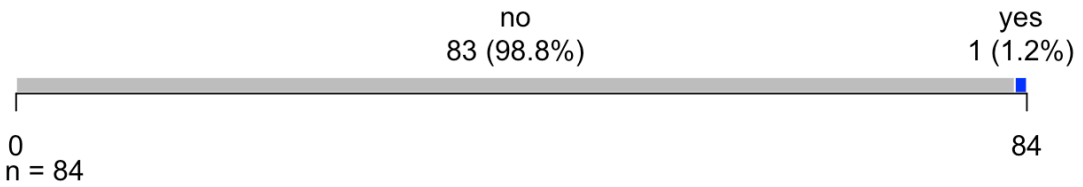


Figure 51: out of 84 reports assessed, one company had set and met a target for the indicator "% of materials used that are recycled input materials."

Only ASFiNAG reported a recycled materials target, by stating that it follows the 70% demanded by the EU. The target was met (p. 58-59).

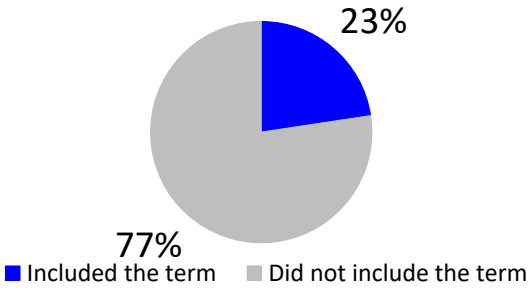


*Figure 52: 23% of the companies under study included the term "**circular economy**" ("**Kreislaufwirtschaft**") and related terms ("**Zirkularität**") in their reports. N = 84.*

#	indicator	unit	source	keywords
19.	**Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas**	yes / no	GRI G4 EN12, GRI Standard 304-2, UNGC P8	biologische Vielfalt, Biodiversität

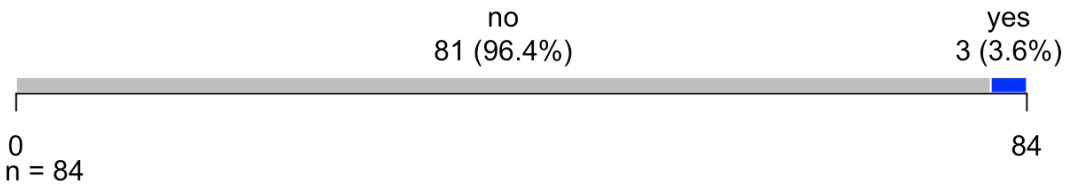


Figure 53: out of 84 reports assessed, three companies had descriptions of significant impacts on protected / high biodiversity areas.

Three companies reported their significant biodiversity impacts. ASFiNAG reported that the highways it administers are major neophyte propagation corridors, which endanger native flora and fauna. The company used to resort to glyphosate to remove them, but since 2015 they are removed by hand (p. 71).

The second firm to report significant biodiversity impacts was Egger Holzwerkstoffe GmbH, which indicated the existence of a potential impact (risk) of loss of biodiversity through illegal trafficking of forest products and through supplier forest companies destroying specially valuable forests, substantially transforming forests into plantations or other non-forest types of land use and through the introduction of genetically modified organisms (p. 159).

PORR AG was the third only company reporting on the matter of significant impacts on biodiversity. However, the acknowledged impact was not direct, but through transportation and bridge building in the interest of the company. Quoting: "PORR's business premises are generally in commercial areas and not in places with high levels of biodiversity. This means that an indirect negative impact is generally caused by transporting materials – including in the course of bridge building in Norway. Road construction also affects the environment. However, this is the responsibility of the commissioning authority. The application of comprehensive protective measures meant that no living organisms were endangered in the respective regions in the period under review. The renaturation of habitats is undertaken on behalf of and commissioned by a third party" (p. 48).

The concept of resilience is relatively useless in the context of the sixth mass extinction. As Figure 53 shows, not many firms reported biodiversity-related impacts. Moreover, the term "biodiversity" (or "*biologische Vielfalt*") itself was employed by only two companies (Figure 54). However, three other companies referenced the Global Goal "Life on Land", which purports to halt biodiversity loss, as shown by Figure 55.

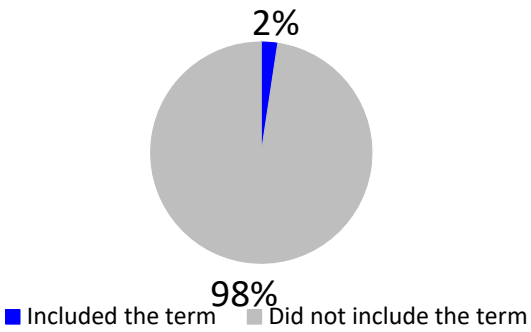


*Figure 54: the term "**biodiversity**" ("**Biologische Vielfalt**") was included in 2% of the reports of the companies under study. N = 84.*

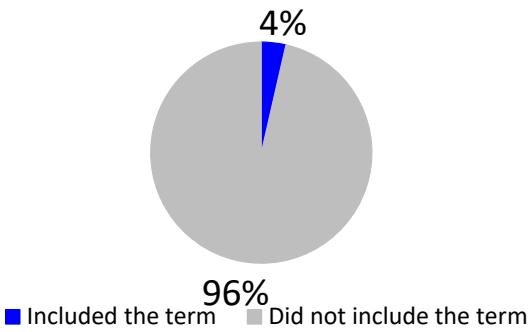


*Figure 55: the 15th Global Goal, "life on land" ("**Leben an Land**") is oriented to ending the loss of biodiversity and was included in 4% of the reports of the companies under study. N = 84.*

Water recycling ("*Wasserrückführung*"), water footprinting and water stewardship in general are among the approaches that have emerged in the face of water scarcity ("*Wasserstress*"), water pollution, ocean acidification, elevated solid particles, etc. As it is often said, "*water is the new greenhouse gas*".

In this context, the reduction of water use, as well as other hydric impacts, makes both ecological[107] and economic[108] sense. We therefore explored how corporate disclosures presented the environmental impact of water usage and the management of water systems for the reduction of such an impact. Figure 56 and Figure 57 show the frequency of relevant terms in the reports under review.

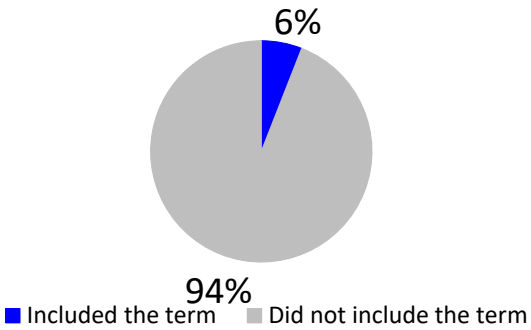


*Figure 56: 6% of the companies under study (5 firms) included the term "**water scarcity**" ("**Wassermangel**") in their reports. N = 84.*

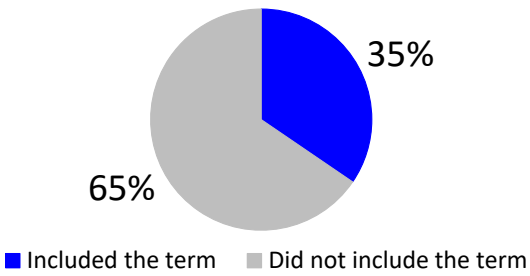


*Figure 57: 35% of the companies under study made use of the term "**wastewater**" ("**Abwasser**") in their reports. N = 84.*

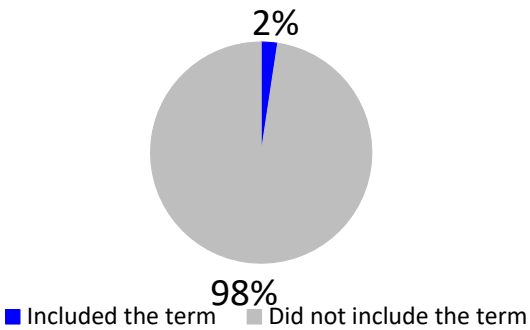


*Figure 58: 2% of the reports under study (2 firms) made reference to **Life Below Water** ("**Leben unter Wasser**"), the 14th Sustainable Development Goal of the United Nations. N = 84.*

#	indicator	unit	source	keywords
20.	**% of water recycled and reused**	%	GRI G4 EN10, GRI Standard 303-3, UNGC P8	Wasser, recycling

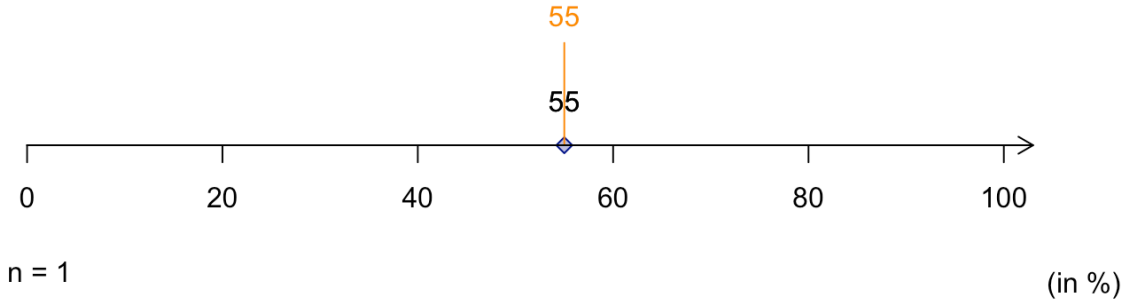


Figure 59: percentage of water recycled and reused. One company reported figures on water recycling and reuse. n = 1 is the number of observations, out of 84 reports assessed.

Only one firm reported on the percentage of reused water: Egger Holzwerkstoffe GmbH, which reported a water consumption of 20,000 m^3, of which 9,000 evaporated in the process of treatment and the remaining 11,000 (55% of the total, 100% of the non-evaporated sub-total) were recycled (p. 110). Year-over-year figures were not disclosed, though the firm did indicate that water "saving" improved by 14% since 2016 (p. 110).

#	indicator	unit	source	keywords
21.	**% of water recycled and reused year-over-year measurement (e.g. over 2017)**	yes / no	UNGCP8	Wasser, recycling

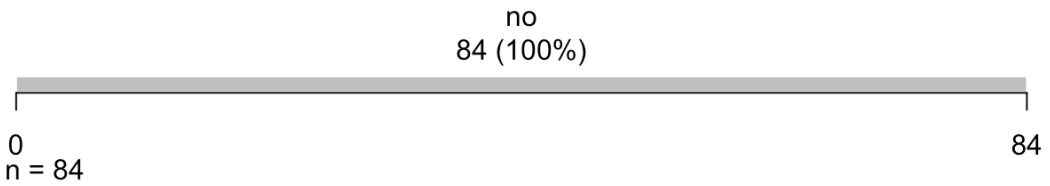


Figure 60: companies reporting water-recycling figures across consecutive years. No company reported year-over-year figures on water recycling, nor on water reuse.

#	indicator	unit	source	keywords
22.	**Water recycled and reused year-over-year % change**	%	UNGCP8	Wasser, recycling

Figure 61: percentage change in water recycling figures between the previous year and the reporting year. n = 0 is the number of observations, out of 84 reports assessed.

#	indicator	unit	source	keywords
23.	**Is a water consumption target specified (in the future)**	yes / no	UNGCP8	Wasser, Verbrauch, Ziel

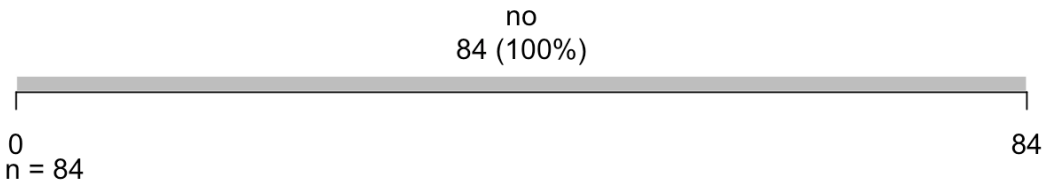


Figure 62: companies with a water consumption target specified for the future. n = 0 is the number of observations, out of 84 reports assessed.

#	indicator	unit	source	keywords
24.	**Water consumption target set for the report's year (2018) and met**	yes / no	UNGC P8	Wasser, Verbrauch, Ziel

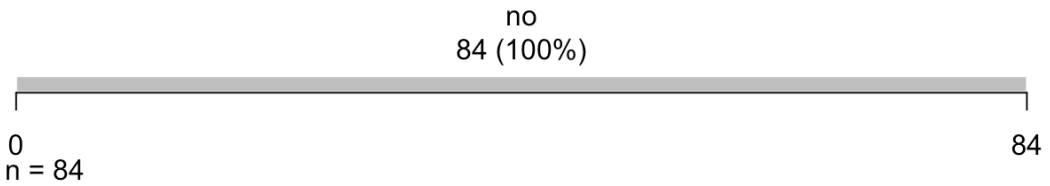


Figure 63: no companies reported water consumption targets that were met for the reporting year. N = 0 is the number of observations, out of 84 reports assessed.

#	indicator	unit	source	keywords
25.	**Water sources significantly affected by withdrawal of water**	#	GRI G4 EN8, EN9, GRI Standard 303-2, UNGC P8	Wasser

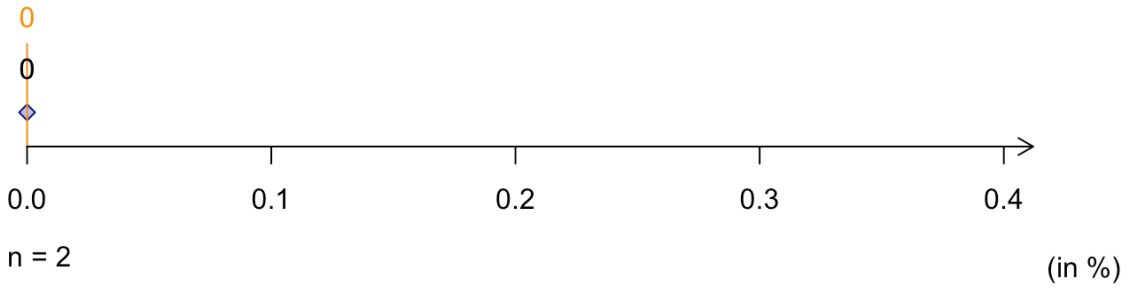


Figure 64: two companies reported they had not significantly affected water sources through the withdrawal of water. n = 2 is the number of observations, out of 84 reports assessed.

While no firms reported having significantly affected the withdrawal of water, at least two companies did assure that zero water sources were affected: PORR AG (p. 47) and Voestalpine AG (stating that its contribution to water poverty was negligible, p. 80).

#	indicator	unit	source	keywords
26.	**Energy consumption within the organization (in MWh)**	#	GRI G4 EN3, GRI Standard 302-1, UNGC P8	Energie-verbrauch

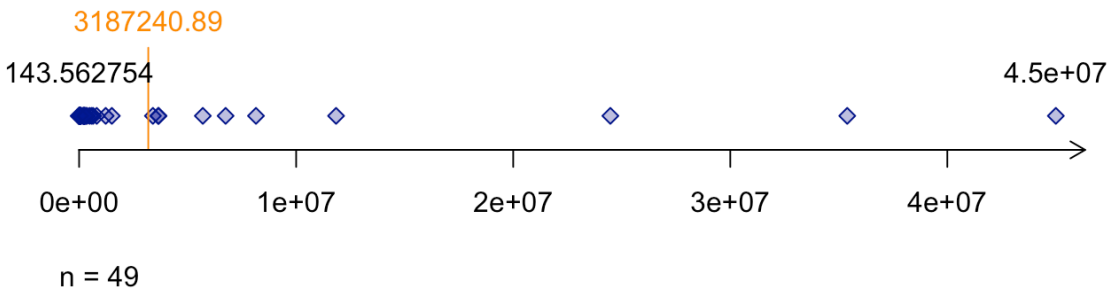


Figure 65: reported MWh consumption within the companies under study. The average energy consumption per firm was 3,187,240.89 MWh, whereas the median was 178,395 MWh. n = 49 is the number of observations, out of 84 reports assessed.

The three companies reporting the highest energy consumption values were Voestalpine AG (45,000,000 MWh, p. 83), OMV AG (123.4 petajoules, equivalent to 35,388,889 MWh, p. 25) and Borealis AG (24,476,000 MWh, p. 7).

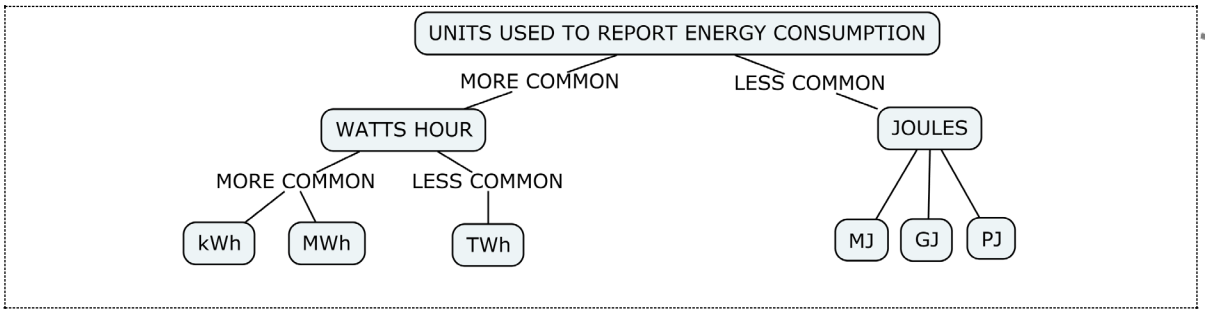
The lowest energy consumption values belonged to DO & CO (144 MWh, p. 31), DenizBank AG (1,228 MWh, p. 37), and Raiffeisen-Holding Niederösterreich-Wien (1,824 MWh, p. 44).

DO & CO was also the company with the lowest value for the energy consumption / revenue metric (0.17 watts-hour consumed per euro of revenue), while the highest value belonged to Lenzing AG (5.4 kWh consumed per euro of revenue, p. 41).

Measurement/metric variation:

The most frequently used unit for the reporting of energy consumption values was megawatts-hour. Kilowatts-hour, gigawatts-hour, terawatts-hour, megajoules, gigajoules and petajoules were other units also found during the review of the non-financial reports at issue.

The values reported were aggregate, company-level values for the reporting year. An outlier in this regard was the real estate company Warimpex Finanz- und Beteiligungs AG, which disclosed its energy consumption values in kWh (for electricity) and MJ (for heating) per hotel room.



#	indicator	unit	source	keywords
27.	**Energy consumption year-over-year measurement (e.g. over 2016)**	yes / no	GRI G4 EN3, GRI Standard 302-1, UNGC P8	Energie-verbrauch

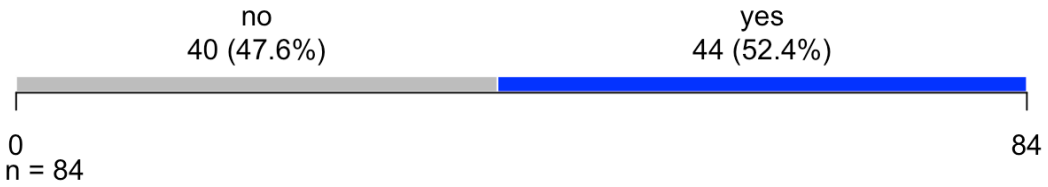


Figure 66: companies with year-over-year measurements of energy consumption. Out of 84 reports assessed.

#	indicator	unit	source	keywords
28.	**Energy consumption year-over-year % change**	%	GRI G4 EN6, GRI Standard 302-4, UNGC P8	Energie-verbrauch

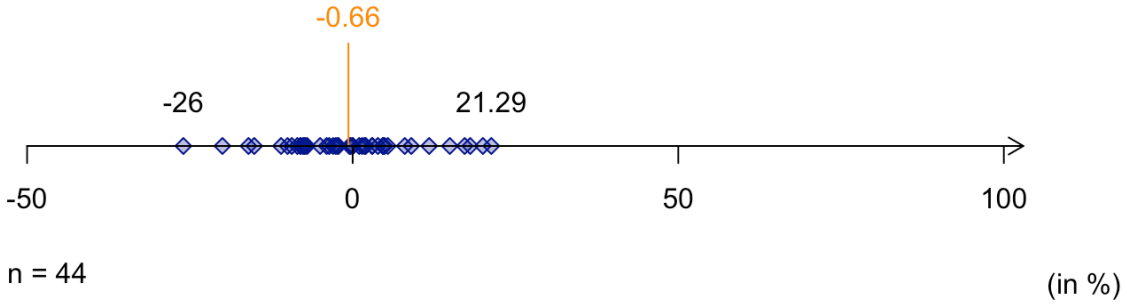


Figure 67: percentage year-over-year change in energy consumption. n = 44 is the number of observations, out of 84 reports assessed.

The greatest reduction in energy consumption in percentage terms was achieved by S Immo AG with a 26% reduction (p. 32), followed by Verbund AG, with a 20% fall (p. 135). Verbund AG attributed the drop in energy consumption to the reduced use of thermal power plants,

which also led to a decrease in energy intensity – which the firm defines as the ratio between energy consumption and energy generation – (p. 134). S Immo AG's report, in turn, mentioned the promotion of energy efficient technologies and behavior, but did not attribute the year-over-year reduction in consumption to any specific factor.

In contrast, Schoeller Bleckmann Oilfield Equipment AG's consumption went from 12,079 gigajoules (3,355 MWh) to 14,532 gigajoules (4,039 MWh), a 20% increase, being only second to Voestalpine AG, that raised its energy consumption by 21% (from 37,1 TWh to 45 TWh, p. 83). Voestalpine did not attribute this increase to any particular reason, but it insinuated that newly built facilities could be behind it (p. 83). Meanwhile, Schoeller Bleckmann Oilfield Equipment attributed it to the increased volume of business resulting from an increasing demand for its products (p. 56).

In absolute terms, the greatest energy reduction corresponded to Verbund AG, with a drop in energy consumption of 1,350,000 MWh. It was followed by OMV AG (920,111 MWh reduction, p. 25). The highest absolute increase corresponded to Voestalpine AG (a rise of 9,580,500 MWh), followed by Borealis AG (an increase of 2,202,840 MWh, p. 7)

#	indicator	unit	source	keywords
29.	**Is an energy consumption target specified (in the future)**	yes / no	GRI G4 EN6, GRI Standard 302-4, UNGC P8	Energie-verbrauch, Ziel

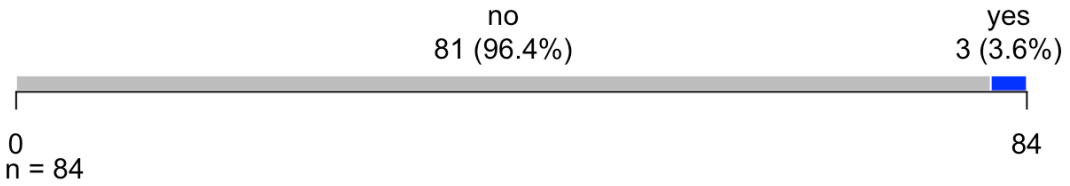


Figure 68: companies with an energy consumption target specified for the future. Out of 84 reports assessed.

Three firms specified an energy consumption target: Sberbank Europe AG (p. 27), PORR AG (p. 11) and Egger Holzwerkstoffe GmbH (p. 94-95). All of them set a goal for the year 2020. Sberbank Europe AG reported to aim at cutting consumption by 30% (the initial date being unclear, but it is implied that it would be 2013). PORR AG aimed at reducing energy consumption by 7.5% (in comparison to 2015) through a 1.5% yearly reduction. Egger Holzwerkstoffe GmbH presented a goal to increase in energy efficiency in 5% by 2020 (compared to 2013), and concordantly in 3.57% by 2018.

#	indicator	unit	source	keywords
30.	**Energy consumption target set and met for the year of the report (2018)**	yes / no	GRI G4 EN6, GRI Standard 302-4, UNGC P8	Energie-verbrauch, Ziel

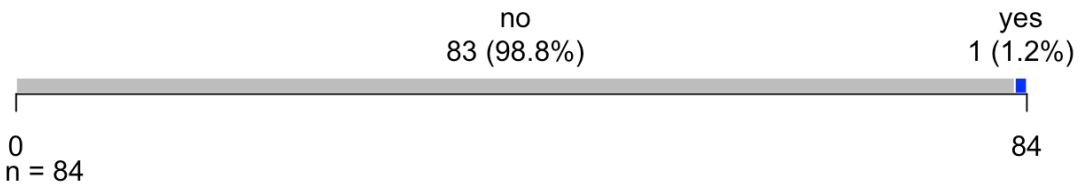


Figure 69: one company had set an energy consumption target for 2018 and met it. Out of 84 reports assessed.

Sberbank Europe AG did not have a target for the year 2018, but it is close to meeting its 2020 goal, since it has achieved a 28% reduction already, mainly owing to a reported inclusion of energy efficiency as one of the decision criteria in the selection process of new technical devices (p. 26). PORR did not meet its target, given that its consumption went from 545,675 MWh (2017) to 644,179 MWh (2018), i.e. an 18% increase. Egger Holzwerkstoffe GmbH was the only firm to meet its target for 2018, with a 6% rise in energy efficiency that beat both its goals for 2018 and for 2020.

#	indicator	unit	source	keywords
31.	**Renewable energy, % of total consumption**	%	UNGC P8	erneuerbare, regenerative Energie

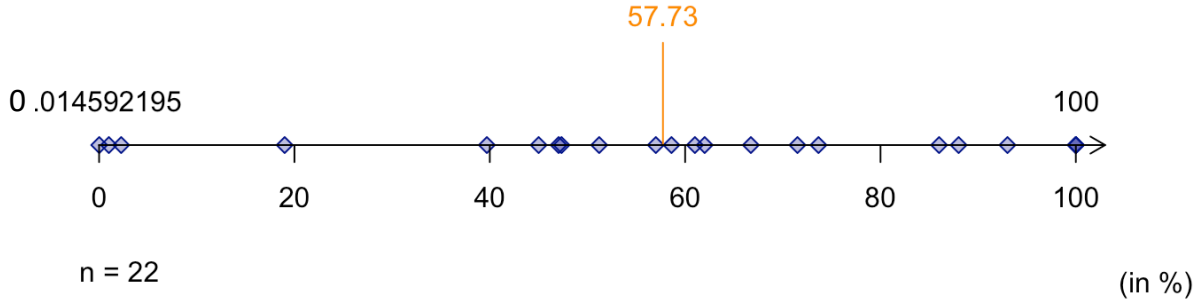


Figure 70: percentage of total energy consumption satisfied with energy from renewable sources. The average value was 57.73%. n = 22 is the number of observations, out of 84 reports assessed.

A significant number of companies reported the percentage of their energy consumption coming from renewable sources. Notably, three of them reported that 100% of their consumption came from renewables: Bank für Tirol und Vorarlberg AG (p. 42), Ottakringer Getränke AG (p. 51), Volksbank Wien AG (p. 67). Kärntner Elektrizitäts-AG (KELAG) followed, with 93% (5.43 peta-joules, p. 58). The lowest reported renewable energy consumption

corresponded to PORR AG (0.014%, p. 68) and to EVN Energie-Versorgung Niederösterreich AG (1%, p. 43).

A special case was Telekom Austria AG, which did not report the percentage of renewable energies contributing to the firm's total energy consumption. However, it is worth highlighting that it did report the MWh percentage of renewable sources for fuel consumption (4,449 MWh, constituting 4.38% of the total, p. 9).

Another particular case is Semperit AG Holding, which indicated that 0 MWh of its energy consumption came from renewable sources. Nonetheless, this appears to have been a typing error, given that the sum of the contribution of the renewable sources used constituted 19% of the firm's energy consumption (p. 74).

Finally, Allianz Elementar Versicherungs-Aktiengesellschaft's report (referring to the group report of its German parent firm) that 45% of its energy consumption was "green" energy. In the differences between "green" and "renewable" (green energies constitute the subset of renewable energies with a high environmental benefit),[109] this value was retrieved.

Through Directive 2014/95, the EU initiated a conversation regarding – among other issues – the management of energy. Almost a third of the companies reviewed obtained an ISO 50001 certification, a norm oriented towards energy efficiency establishing a framework with technical guidelines for the planning, implementation, development and evaluation of an energy management system or EnMS, as Figure 71 shows. This fact illustrates the salience of this concern in corporate discourse. Improved energy efficiency typically allows the company implementing ISO 50001 to show a positive return on investment. Moreover, 30% of the reports reviewed made included the term EnMS (Figure 72).

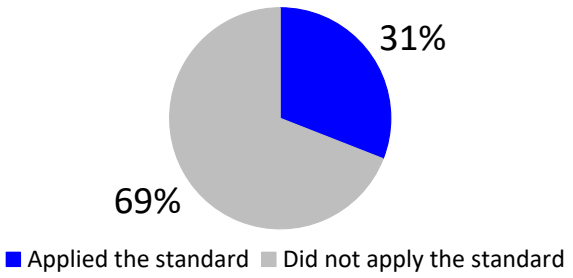


*Figure 71: the **ISO 50001** norm was applied by 31% of the companies under study. N = 84.*

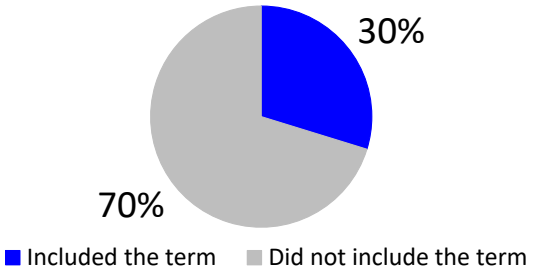


Figure 72: the term **energy management system** *(“**Energiemanagementsystem**”, “**Energiemanagement System**”, “**Energiemanagement-System**”) was present in 30% of the reports under study. N = 84.*

b. Social and human rights matters

i. Select issues and corresponding corporate reporting

The explanatory notes to the NaDiVeG[110] restate the goals of the EU NFRD, emphasizing the goal to provide information on the measures taken regarding, among other matters, the “implementation of the fundamental conventions of the International Labor Organization, working conditions, social dialogue and, in particular, respect for workers' rights to be informed and consulted, respect for trade union rights, health and safety at work, education and training, employment development, differentiated by type of contract, working time, turnover, income development, etc.” and to demand justification in case a concept in these matters is lacking. Social and labor issues in general, and fundamental rights in particular, are thus of high importance to the NaDiVeG’s concept of sustainability matters.

Among fundamental social and human rights there are those explicitly highlighted in the *International Bill of Human Rights*,[111] as well as United Nations treaties further elaborating human rights. The EU’s guidelines on non-financial reporting[112] state, in this regard, that firms should identify and prioritize their (risks of) negative human rights impacts, particularly if they are severe or especially salient. In this respect, the application of a rights-based approach to the identification and prioritization of human rights risks (e.g. as set out in the UN Guiding Principles) is a good starting point for the determination of relevant risks.

A number of matters lie at the intersection of supply chains and human rights matters. This is the case of “*conflict-minerals*”, minerals extracted from “conflict-affected and high-risk areas” (as defined by the OECD), the trade of which can fund, drive and perpetuate conflict. In the United States, disclosures regarding conflict minerals are legally required for some publicly-traded companies reporting to the US Securities and Exchange Commission.

Another serious human rights risk in supply chains is child labor. Especially worrisome is hazardous child labor, also known as the *worst forms of child labor* (WFCL, “*schlimmste Formen der Kinderarbeit*”) according to ILO C182. This is related to mining as well since, for

instance, pervasive incidents of hazardous child labor in "artisanal" cobalt mining in the DRC have recently been highlighted by the press.

The phenomena of *modern-day slavery* and *human trafficking* also belong to this genre of situations. A number of countries and raw materials are associated with an elevated risk thereof: fish from Thailand, cotton from Uzbekistan, garments from Asia. To a certain extent, these products are tainted by modern-day slavery.[113] Globally, approximately 24.9 million people are estimated to be working in conditions of forced labor, almost half of them (47%) in the Asia-Pacific region.[114] Many among them are children: "there were 4.4 child victims for every 1,000 children in the world."[115] Moreover, there are also 2.2 million victims worldwide of state-imposed forced labor[116] (e.g. Uzbek cotton, Chinese prison labor, etc.).

The presence of terms related to child labor, forced labor and conflict minerals is shown from Figure 73 to Figure 75, thus revealing the degree of discourse of these issues in corporate discourse. For these firms, one observes the existence of concern for or, at least, awareness of, these issues.

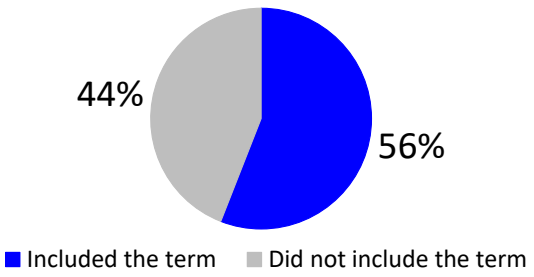


*Figure 73: the 47 companies that made reference to **child labor** ("**Kinder Arbeit**", "**Kinderarbeit**", "**Kinder- und Zwangsarbeit**", "**child labour**") in their report constitute 56% of the reports under study. N = 84.*

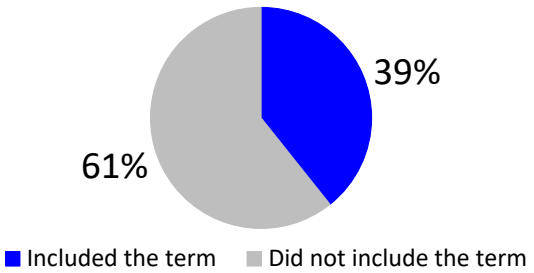


*Figure 74: the 33 companies that were found to make use of the terms "**forced labor**", "**forced labour**", "**modern slavery**" and their German equivalents ("**Zwangsarbeit**", "**moderne Sklaverei**", "**Zwangs- und Kinderarbeit**") constitute 39% of the reports under study. N = 84.*

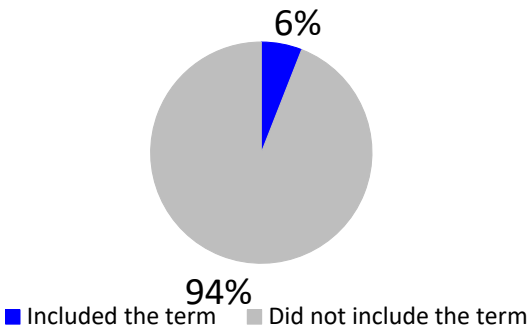


*Figure 75: the 5 companies that mentioned the term "**conflict minerals**" ("**Konfliktmineralien**") in their report constitute 6% of the reports under study. N = 84.*

Figure 76 reveals the extent of companies' use of ISO 26000, a norm that explicitly addresses risks involving, among others, human rights and labor matters, as well as avoidance of complicity in such practices. It furthermore stresses grievance systems, fundamental rights at the workplace such as freedom of association, and health and safety practices. This standard was used by the firms under review largely as a guide to select the non-financial matters to be reported.

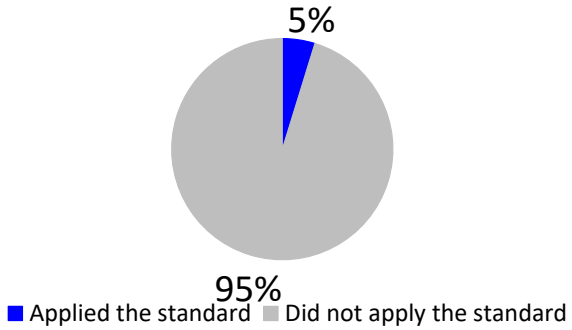


*Figure 76: 5% of the companies applied **ISO 26000**. N = 84.*

ii. Select Key Performance Indicators

#	indicator	unit	source	keywords
32.	**Total number and % of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening**	#	GRI G4 HR1, GRI Standard 412-3, UNGC P1	Verträge, Vereinbarungen, Menschenrechte

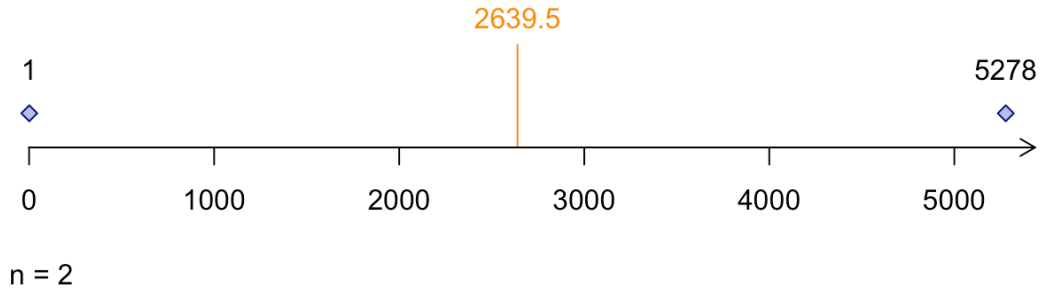


Figure 77: number of significant investment agreements/contracts including human rights clauses or having undergone human rights screening. n = 2 is the number of observations, out of 84 reports assessed.

Only two companies reported the number of significant investment agreements and contracts that underwent human rights screening. PORR AG disclosed "one assessment" under this indicator (p. 64), while ASFiNAG that 100% (p. 79) of its 5,278 suppliers (p. 77) contain human rights clauses (p. 91). AGRANA Beteiligungs-AG reported that it conducted 24 external social audits where human rights issues such as forced and child labor were examined (p. 194). However, this figure could not be retrieved, as these audits took place at AGRANA's own sites.

#	indicator	unit	source	keywords
33.	**Total number and % of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening**	%	GRI G4 HR1, GRI Standard 412-3, UNGC P1	Verträge, Vereinbarungen, Menschenrechte

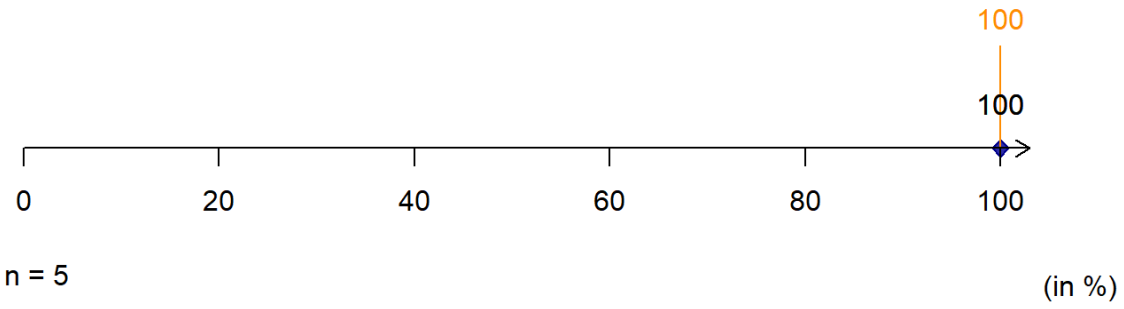


Figure 78: percentage of significant investment agreements/contracts including human rights clauses or having undergone human rights screening. n = 5 is the number of observations, out of 84 reports assessed.

Raiffeisen Bank International Holding AG reported that 100% of their investment agreements or contracts had undergone human rights screening or included human rights clauses (p. 157). Four other companies did the same: ASFiNAG (p. 79), Sberbank Europe AG (p. 35), Allianz Elementar Versicherungs-Aktiengesellschaft (p. 46) and AGRANA Beteiligungs-AG (p. 194).

AGRANA's statement is worth mentioning. The company reported that "all AGRANA sites *and suppliers* are subject to the AGRANA Code of Conduct and carry out an annual SEDEX self-assessment" (italics are ours, p. 194) , with SEDEX being the Supplier Ethical Data Exchange. This was also re-stated in Raiffeisen-Holding Niederösterreich-Wien's statement (which did not report under this indicator for itself but did so – partly – for AGRANA, as one of the firms in which it has substantial participations, p. 64). The Code of Conduct contained "a ban on discrimination and harassment, child and forced labor, as well as health and safety issues. In addition, freedom of assembly and the right to collective bargaining are enshrined" (p. 45-46).

The self-assessment reportedly covered "social criteria" ("*Sozialkriterien*", p. 38) which included human rights questions (p. 46). However, not all the suppliers *shared* the self-assessment's result with the firm. Only 72% of its processed fruit suppliers (in terms of volume) shared the assessment with AGRANA Fruit Services GmbH (p. 38). The assessment on "social criteria" was also shared by 100% of the firm's Austrian potato growers, 17.6% of the raw material suppliers (in terms of volume) in the fruit segment of the firm, 60% of the raw material suppliers in the starch segment and 100% of the beet suppliers (p. 38).

The firm also reported that "44.4% of the AGRANA production sites had valid SMETA or comparable social audits" (p. 46). In Raiffeisen-Holding Niederösterreich-Wien's report, it is

also stated that 58% of AGRANA's production sites had external third-party social audits. AGRANA also indicated 100% of its sugar factories and 72% of its starch factories underwent SEDEX social criteria evaluations (p. 38). However, these figures could not be retrieved, since they referred to AGRANA "production sites" rather than suppliers. Therefore, while 100% of AGRANA's investment agreements and contracts included human rights clauses, the percentage of screenings would be lower.

#	indicator	unit	source	keywords
34.	**Existence of supplier labor practices criteria (e.g. in supplier code of conduct)**	yes / no	GRI G4 HR10, GRI G4 LA14, GRI G4 SO8, GRI Standard 414-1, GRI Standard 419-1, UNGC P1	Kriterien, Verhaltenskodex, Ethikkodex, Code of Conduct

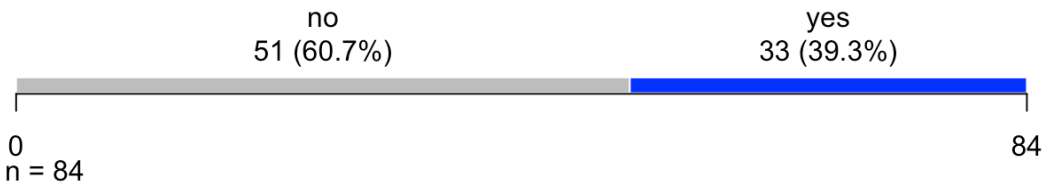


Figure 79: companies reporting the existence of supplier labor practices criteria (e.g. in supplier code of conduct).

The suppliers of Frauenthal Holding AG, one of the firms that provided a value for this indicator, must abide by a Code of Conduct which covers human rights, fair labor practices, social responsibility, non-discrimination, prevention of workplace sexual harassment, among other matters (p. 10). AT&S Austria Tech System AG has a similar Code of Conduct (p. 7). Mayr-Melnhof Karton AG implemented supplier labor practices and human rights criteria based on the UN Global Compact, developing guidelines in its Code of Conduct and providing "detailed knowledge" to the suppliers through training and communication (p. 3). Audits to these suppliers were also organized following the labor practices criteria of the Code of Conduct, which is reportedly applied worldwide (p. 29).

#	indicator	unit	source	keywords
35.	**Corresponding % of new suppliers that were screened using labor practices criteria**	%	GRI G4 LA14, GRI G4 SO8, GRI Standard 414-1, GRI Standard 419-1, UNGC P1	Kriterien, Verhaltenskodex, Ethikkodex, Code of Conduct, Lieferanten

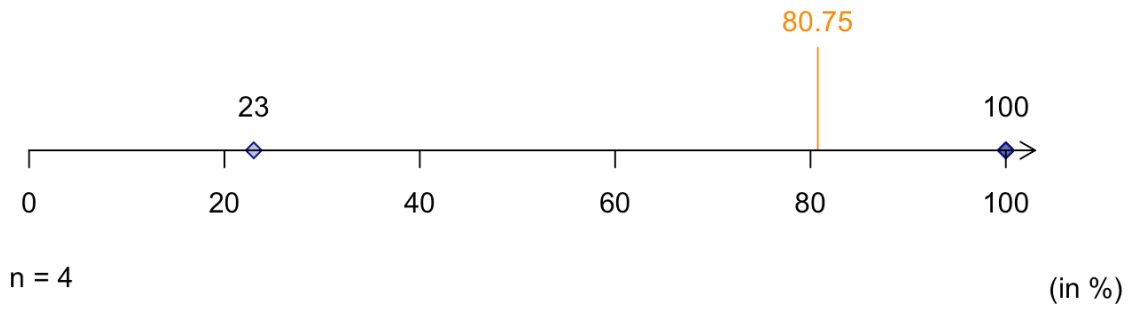


Figure 80: percentage of suppliers screened using labor practices criteria. n = 4 is the number of observations, out of 84 reports assessed.

Most companies did not report the percentage of new suppliers screened using labor practices criteria. However, three companies did explicitly state that the totality of their suppliers were screened. These firms were Voestalpine AG (p. 113), ASFiNAG (p. 79) and Unicredit Bank Austria AG (p. 84). The other firm providing a value for this indicator was Novomatic AG (23%, p. 114).

Figure 81 shows that SA 8000 was applied by one firm (Rosenbauer International AG, p. 56). This is a standard which addresses labor practices and, in particular, child labor, forced labor, the rights to collective bargaining and freedom of association and health and safety matters. Figure 82 illustrates the emergence of an initiative named *Business Social Compliance Initiative* (BSCI), oriented towards the betterment of working conditions in supply chains (and recognizing SA 8000 as good practice in this area).[117]

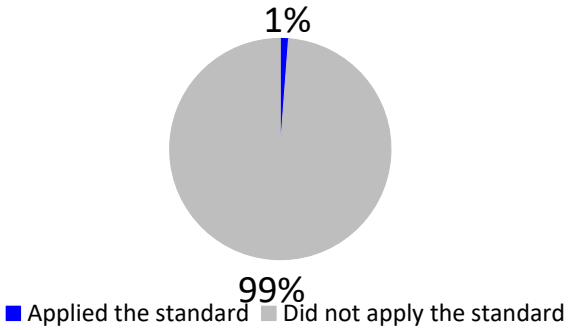


*Figure 81: the **SA 8000** labor practices standard was applied by 1% of the companies under study. N = 84.*

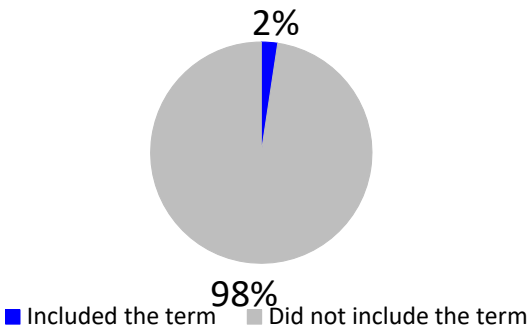


*Figure 82: the "**Business Social Compliance Initiative**", "**BSCI**" for short, was mentioned by 2% of the companies under study. N = 84.*

The assessment of suppliers is not only of interest to corporate responsibility, but also to product quality itself. Supply chain management affects the intrinsic qualities of products (including what materials a product does *not* contain), essential to control the *way* in which a product is manufactured or how it performs for the customer.

A sizable number of the firms reviewed applied norms in the ISO 9000 family (and related), which concern the evaluation of providers, including the assessment of their compliance with regulatory requirements – such as labor practices standards. ISO 9000 specifies terms and definitions for quality management systems. In particular, ISO 9001 (Figure 83) lays out the requisites to plan, implement and evaluate a quality management system.

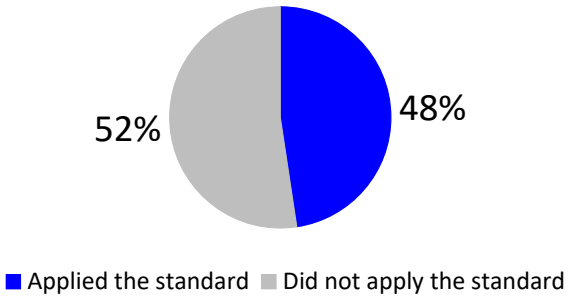


*Figure 83: an **ISO 9001** certification was obtained by 48% of the companies under study. N = 84.*

#	indicator	unit	source	keywords
36.	**Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained**	# of hours	GRI G4 HR2, GRI Standard 412-2, UNGC P1	Training, Schulung, Menschenrechte, Fortbildung

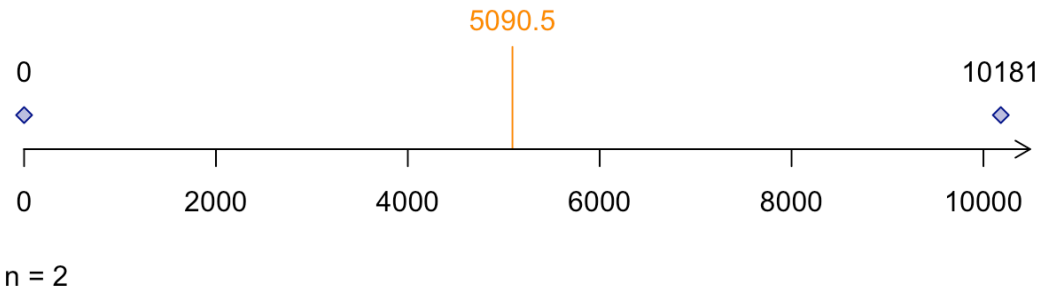


Figure 84: hours of employee training on human rights. n = 2 is the number of observations, out of 84 reports assessed.

The firms under review generally did not report on the total hours spent training their employees in human rights matters. The exception was the Raiffeisen Bank International Holding AG, whose report stated that 10,181 hours of compliance training in human rights were provided to the employees (p. 157). In a way, UBM Development AG also became an outlier in this regard, since the firm reported that no training was taking place ("*Schulungen in diesem Bereich finden derzeit nicht statt*"), i.e. the total hours were zero (p. 5).

#	indicator	unit	source	keywords
37.	**Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained**	% of employees	GRI G4 HR2, GRI Standard 412-2, UNGC P1	Training, Schulung, Menschenrechte, Fortbildung

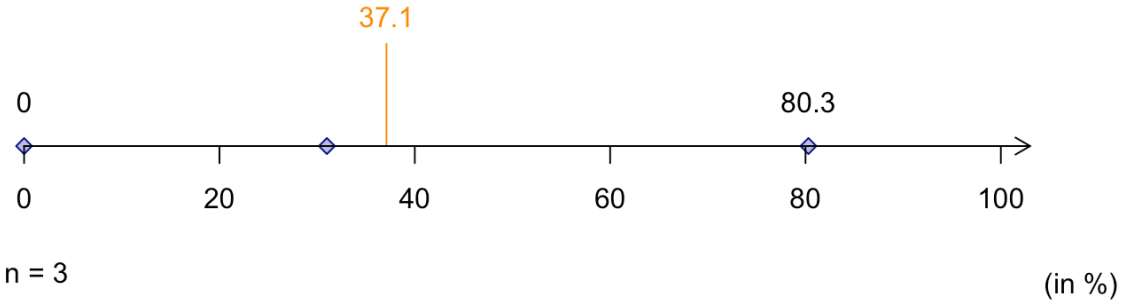


Figure 85: percentage of the workforce having received human rights training. n = 3 is the number of observations, out of 84 reports assessed.

Thirty-one percent (31%) of Raiffeisen Bank International Holding AG's employees reportedly received compliance training in issues pertaining to human rights (p. 157). Meanwhile, Generali Versicherung AG referred to its Italian Group report, where it is stated that 80.3% of the employees received human rights training (p. 25).

The report of Unicredit Bank Austria AG should be highlighted here, which states that 69,000 employees received human rights training (p. 31). However, since no number of hours or percentage of employees was provided, the data was treated as absent for this – as well as for the previous – indicator.

Again, Raiffeisen-Holding Niederösterreich-Wien did not reveal the percentage of employees trained in human rights matters, but it did so for AGRANA Beteiligungs-Aktiengesellschaft. Most of AGRANA's 3,000 employees (2,951 or 98.4%), but all of AGRANA's salaried employees and executive bodies, completed an e-training course on human rights (p. 64). Nonetheless, this figure could not be retrieved independently from AGRANA Beteiligungs-AG's statement, since the firm only stated that the Compliance E-Learning covers "all compliance-relevant priorities" (p. 26), which is not *per se* sufficient to consider these hours as hours of human rights training (and a separate document such as Raiffeisen-Holding's report cannot be taken into account in AGRANA's evaluation).[118]

#	indicator	unit	source	keywords
38.	**Supplier/provider training on human rights policies or procedures concerning aspects of human rights**	yes / no	UNGC P1	Training, Schulung, Menschenrechte, Fortbildung

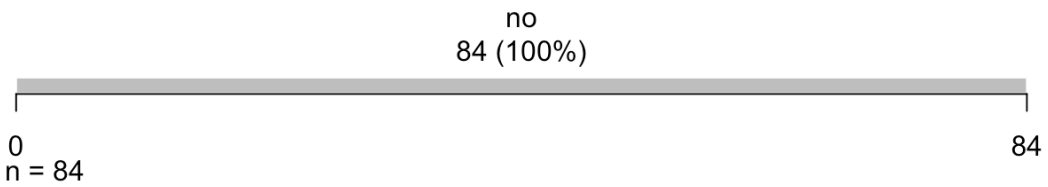


Figure 86: no reports stated that suppliers /providers received human rights training. Out of 84 reports assessed.

#	indicator	unit	source	keywords
39.	**Significant actual and potential negative impacts for labor practices in the supply chain**	yes / no	GRI G4 HR11, GRI G4 LA15, GRI G4 SO10, GRI Standard 414-2, UNGC P1	negative Auswirkungen, Arbeitspraxis, Arbeitsbedingungen

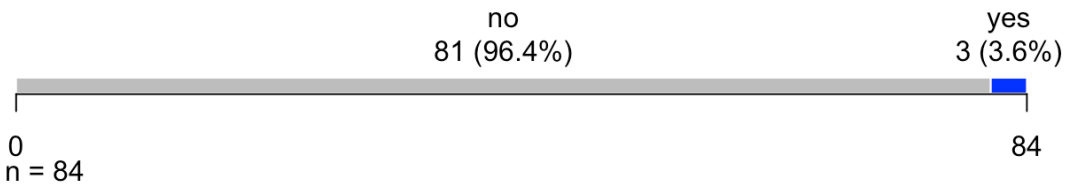


Figure 87: three companies reported significant and potential negative impacts for labor practices in the supply chain. Out of 84 reports assessed.

Mayr-Melnhof Karton AG's report indicated the possibility of potential "impairments" (*Beeinträchtigung*) due to working with chemicals, as well as the risk of accidents at work and psychological stress (p. 26). Moreover, the firm admitted human rights risks in non-European countries where (a minority of) the company is located. This includes risks of forced labor and child labor, as well as the violation of labor standards and equal opportunities (p. 28).

PORR AG disclosed that "breaches related to minimum wage requirements" were identified in a supplier relationship located in Switzerland (p. 19). Egger Holzwerkstoffe GmbH identified a risk of violations of the core conventions of the International Labour Organization in its supply chain (p. 160).

#	indicator	unit	source	keywords
40.	**Action(s) taken on negative impacts for labor practices in the supply chain**	yes / no	GRI G4 HR11, GRI G4 LA15, GRI G4 SO10, GRI Standard 414-2, UNGC P1	negative Auswirkungen, Arbeitspraxis, Arbeitsbedingungen

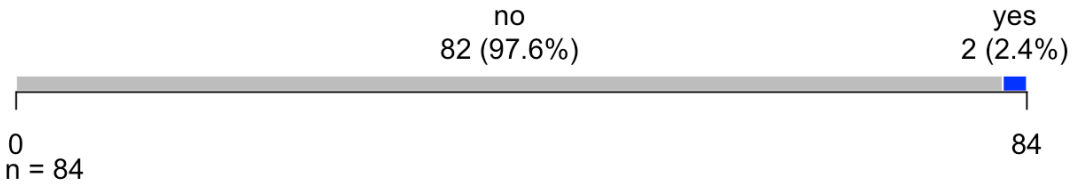


Figure 88: companies that took action against significant and potential negative impacts for labor practices in the supply chain. Out of 84 reports assessed.

In the case of minimum wage breaches identified by PORR AG, the company indicated they led to the termination of the business relationship with the supplier (p. 19). Egger Holzwerkstoffe GmbH reported that the action taken to fight the risks of labor practices violations include resorting to certified timber sources, principles for (certified and) uncertified timber sources, implementing a supply chain due diligence system according to various enumerated standards, monitoring and audits (p. 160).

Mayr-Melnhof Karton AG was less specific in reporting the remedial measures taken. The firm indicated taking "active measures to promote the health of employees" ("*aktive Maßnahmen zur Gesundheitsförderung der Mitarbeiter*", p. 26), "the ongoing development of knowledge and know-how" ("*der fortschreitende Wissens- und Know-how-Aufbau*", p. 26), and "strict compliance with standards" ("*strenge Einhalten von Standards*"), three policies worth mentioning, yet too loosely defined to qualify for this indicator (p. 26).

#	indicator	unit	source	keywords
41.	**Grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms**	yes / no	GRI G4 HR12, GRI G4 LA16, GRI G4 SO11, GRI Standard 412-2, UNGC P1	Missstand, Beschwerde

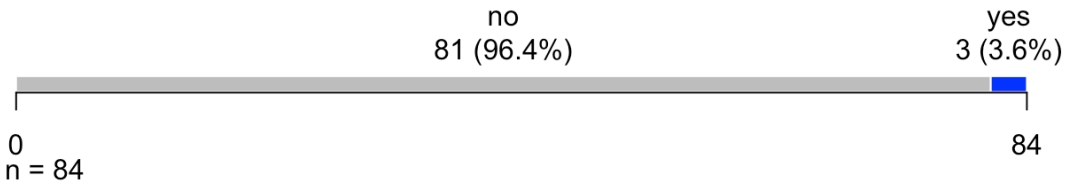


Figure 89: companies with a formal grievance system for labor practices. Out of 84 reports assessed.

Three firms indicated having labor practices grievance systems. Firstly, the construction company PORR AG reported that "there is a complaint system via which any worker can register a complaint at any time" for its employees in Qatar (p. 32). The number of complaints (whether zero or positive) was however not disclosed.

Secondly, OMV AG reported that employees have "channels for reporting human rights issues and complaints" (p. 84), which include a grievance system ("*Beschwerdemechanismus*", p. 17), an "Integrity Platform" (p. 82, 84) and the "PetrOmbudsman" department for the subsidiary OMV Petrom (p. 71).

Finally, Andritz AG indicated that if "some employees feel treated unequal or unfairly […] there are different complaint options, such as the local HR organizations, the works council or the online whistleblower system" (p. 26).

Though firms like FACC AG reported having implemented "a complaint mechanism, through which complaints and offenses can be reported" (p. 62), the possibility of initiating labor practices grievances through this mechanism was not explicitly reported.

#	indicator	unit	source	keywords
42.	**# of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms**	#	GRI G4 HR12, GRI G4 LA16, GRI G4 SO11, GRI Standard 412-2, UNGC P1	Missstand, Beschwerde

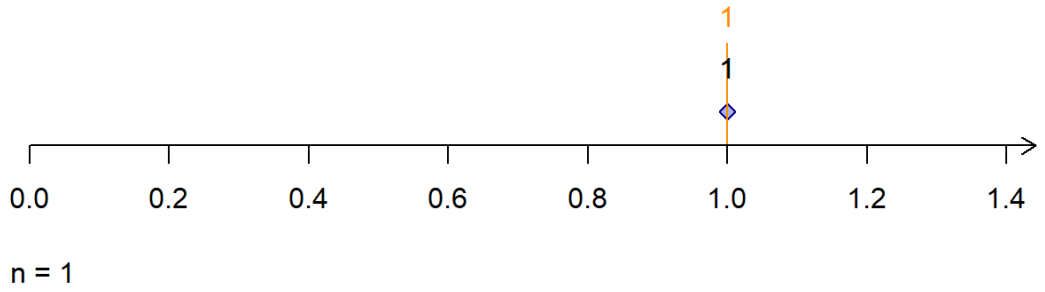


Figure 90: number of labor practices grievances resolved through a formal grievance system. n = 1 is the number of observations, out of 84 reports assessed.

OMV AG reported that a human rights complaint on working hours was filed by a subcontractor. The local management team found that there "no violation of national or human rights law" but it nonetheless introduced "a more flexible job rotation", a solution which was accepted by the subcontractor (p. 84).

A number of companies indicated the implementation of grievance-related mechanisms. AMAG reported having a mechanism ("*Kontinuierlicher Verbesserungsprozess*" *or KVP*) allowing the employees to share suggestions on health and safety matters, which result in a reward for the employees based on the net benefit of the proposal. While suggestions are not grievances and hence, the figure thereof cannot be retrieved for our evaluation, it is worth mentioning that the firm reported a total of 14,522 submitted proposals in 2018, of which approximately 77% were implemented (p. 50).

#	indicator	unit	source	keywords
43.	**Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk**	#	GRI G4 HR4, GRI Standard 407-1, UNGC P3	Versammlungsfreiheit, Tarifverhandlungen, Lohnverhandlungen, Kollektivverhandlungen

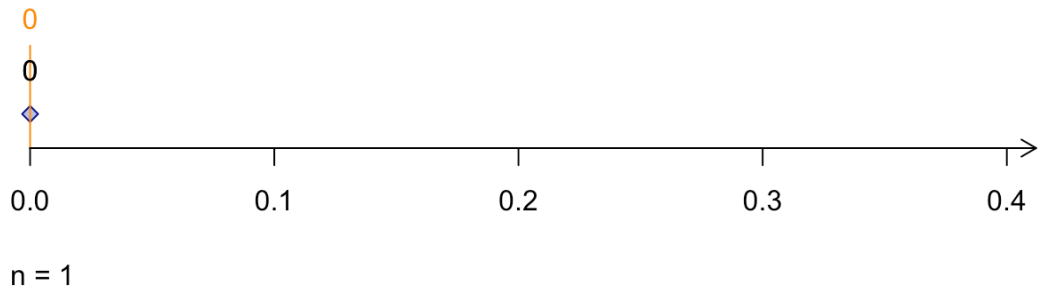


Figure 91: number of suppliers and operations identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk. n = 1 is the number of observations, out of 84 reports assessed.

PORR AG, the construction company, reported that no operations were identified as having a risk of threatening freedom of association and collective bargaining (p. 64).

#	indicator	unit	source	keywords
44.	**Corresponding measures taken to support freedom of association and collective bargaining rights**	yes / no	GRI G4 HR4, GRI Standard 407-1, UNGC P3	Versammlungsfreiheit, Tarifverhandlungen, Lohnverhandlungen, Kollektivverhandlungen

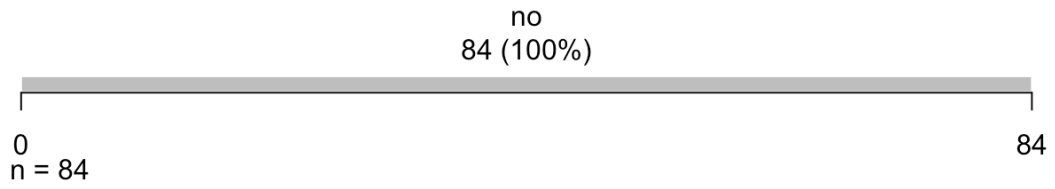


Figure 92: no companies reported having taken action to support the rights to collective bargaining and freedom of association, when risks were identified. Out of 84 reports assessed.

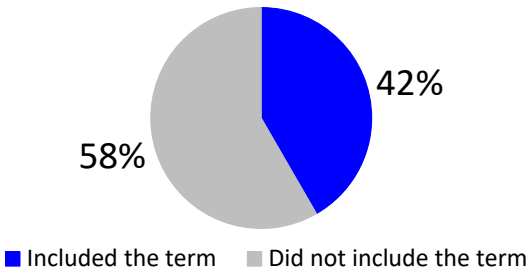


*Figure 93: 42% of the companies under study made reference to "**collective bargaining agreements**" ("**Tarifvertrag**", "**Tarifvereinbarung**", "**Kollektivvertrag**", "**Kollektivvereinbarung**") in their reports. N = 84.*

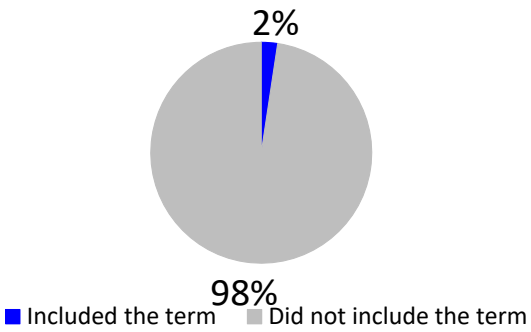


*Figure 94: the 3rd principle of the UN Global Compact, which states that businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining ("**Unternehmen sollen die Vereinigungsfreiheit und die wirksame Anerkennung des Rechts auf Kollektivverhandlungen wahren**") was mentioned in 2% of the reports under study. N = 84.*

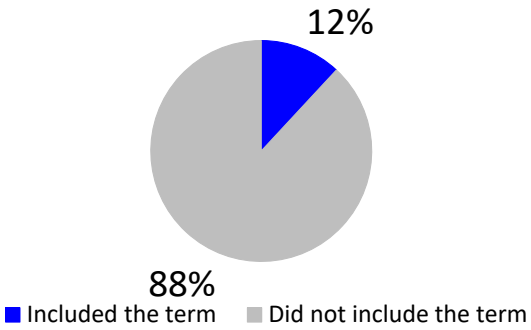


*Figure 95: 12% of the companies under study included the term "**freedom of association**" ("**Versammlungsfreiheit**") in their reports. N = 84.*

#	indicator	unit	source	keywords
45.	**Operations and suppliers identified as having significant risk for incidents of child labor**	#	GRI G4 HR5, GRI Standard 408-1, UNGC P5	Kinderarbeit

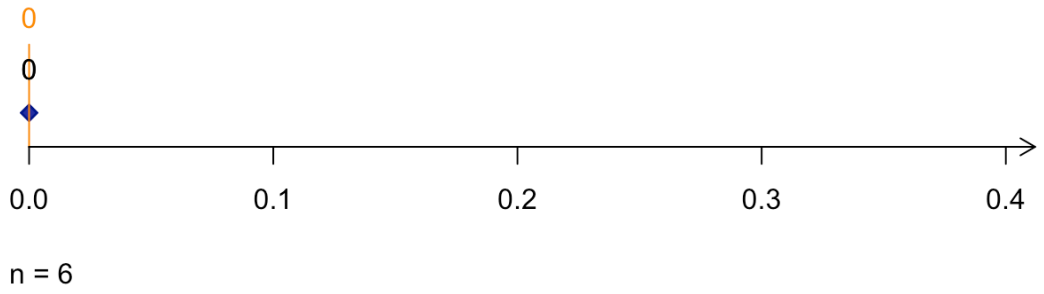


Figure 96: among the 6 companies reporting on this indicator, none of their operations / suppliers were identified as having had significant risk for incidents of child labor. n = 6 is the number of observations, out of 84 reports assessed.

#	indicator	unit	source	keywords
46.	**Corresponding measures taken to contribute to the effective abolition of child labor**	yes / no	GRI G4 HR5, GRI Standard 408-1, UNGC P5	Kinderarbeit

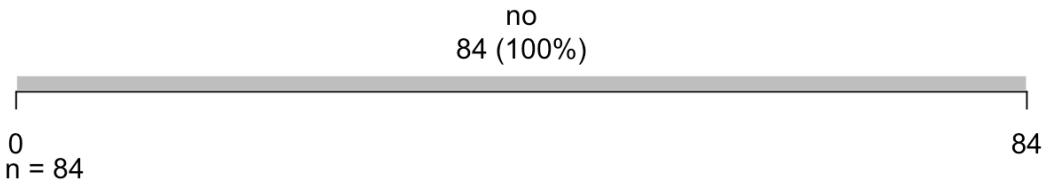


Figure 97: no company reported having taken measures to contribute to the effective abolition of child labor incidents. Out of 84 reports assessed.

Cases of – and, correspondingly, countermeasures against – child labor were not reported. In some cases, however, they were actively denied.

The firefighting equipment producer Rosenbauer International AG reported that its suppliers in general "do not manufacture any products that produce an above-average risk of child labor and forced labor" and that "suppliers with a purchasing volume of more than € 100,000 or major US suppliers are asked to make a declaration" confirming "that in the production of their products no child labor within the meaning of the ILO convention is involved and people do not work against their will" (p. 25).

Voestalpine AG stated that "not a single case so far" ("*bisher kein einziger Fall*") of child labor had been reported throughout the entire Group (p. 62). The manufacturer of aerospace components FACC AG indicated that the number of locations and suppliers with significant

risk for incidents of child labor (forced or compulsory labor) for the reporting year were zero (p. 71).

Palfinger AG's report indicated that no cases of child labor were known for the reporting year (p. 122). Similarly, the Allianz Group – to which Allianz Elementar Versicherungs-Aktiengesellschaft refers – stated that "no incident of […] child labor had been reported that would have involved an Allianz Group entity" (p. 46). Finally, the construction company PORR AG reported that no operations were identified as having a risk of incidents of child labor (p. 64).

Raiffeisen-Holding Niederösterreich-Wien did not report a value for itself, but it did indicate that there were no cases of child labor in one of the companies in which it had significant participations, namely Raiffeisen Bank International Konzern (p. 51).

#	indicator	unit	source	keywords
47.	**Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor**	#	GRI G4 HR6, GRI Standard 409-1, UNGC P4	Zwangsarbeit

Figure 98: number of operations / suppliers identified as having significant risk for incidents of forced / compulsory labor. n = 5 is the number of observations, out of 84 reports assessed.

#	indicator	unit	source	keywords
48.	**Corresponding measures to contribute to the elimination of all forms of forced or compulsory labor**	yes / no	GRI G4 HR6, GRI Standard 409-1, UNGC P4	Zwangsarbeit

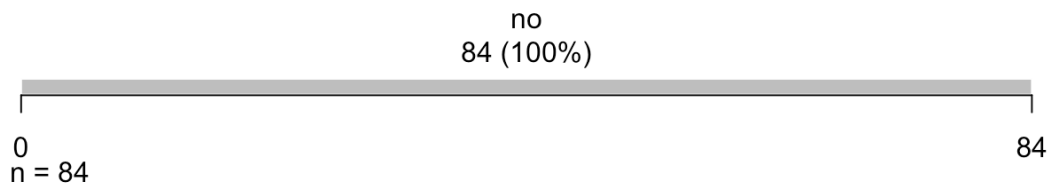


Figure 99: no company reporting having taken measures towards the elimination of forced labor. Out of 84 reports assessed.

No companies reported the identification of significant risk for incidents of forced or compulsory labor. Consequently, no companies informed about the corresponding measures taken to counteract the risks identified. Nonetheless, a few companies did explicitly deny such risks.

Rosenbauer International AG reported that its suppliers in general "do not manufacture any products that produce an above-average risk of […] forced labor" and that "suppliers with a purchasing volume of more than € 100,000 or major US suppliers are asked to make a declaration" confirming "that in the production […] people do not work against their will" (p. 25).

FACC AG reported that the number of locations and suppliers with significant risk for incidents of forced or compulsory labor for the reporting year were zero (p. 71). Voestalpine AG stated that "not a single case so far" ("*bisher kein einziger Fall*") of forced labor was reported throughout the entire Group (p. 62).

PORR AG, the construction company, reported that no operations were identified as having a risk for incidents of forced or compulsory labor (p. 64). Palfinger AG's report indicated that no cases of forced or compulsory labor were known for the reporting year (p. 122). The Allianz Elementar Versicherungs-Aktiengesellschaft – through its referral to the Group report of its German mother company – reported that "no incident of modern slavery, human trafficking […] had been reported that would have involved an Allianz Group entity" (p. 46).

c. Employee matters

i. Select issues and corresponding corporate reporting

Gender, equal pay and compensation matters are of high concern for worker wellbeing. The same can be said of OHS or Occupational Health and Safety. The avoidance of workplace accidents – in particular, those leading to injury and death – is the main concern. As shown by Figure 100, safety at the workplace is one of the most discussed topics in the reports studied. Moreover, the frequent application of ISO 45001, noted in Figure 101, is relevant since this norm specifies requirements for an OHS system oriented to the elimination (or minimization) of workplace hazards risking injury or death. A significant number of companies also mentioned OHSAS 18001 (Figure 102) in their reports. Scheduled for full replacement by ISO 45001 in March 2021, it possesses approximately the same orientation as the former.

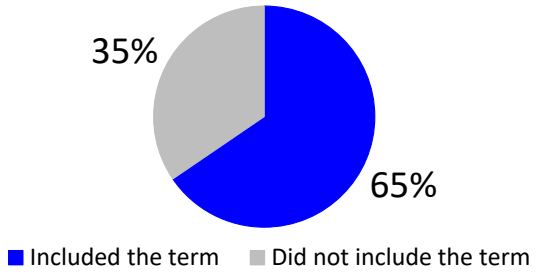


*Figure 100: 65% of the companies under study included the terms "**Occupational Health and Safety**" ("**Arbeitssicherheit**") in their report. N = 84.*

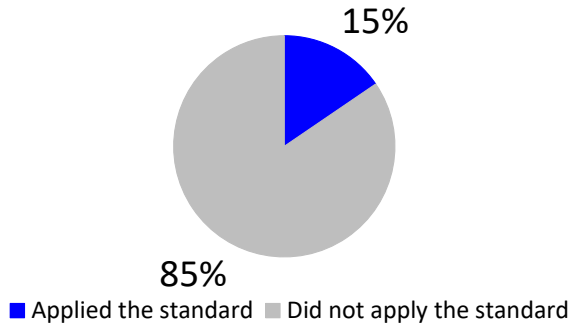


*Figure 101: 15% of the firms under study reported to conform to the requisites of **ISO 45001**, some of them also obtaining a certification. N = 84.*

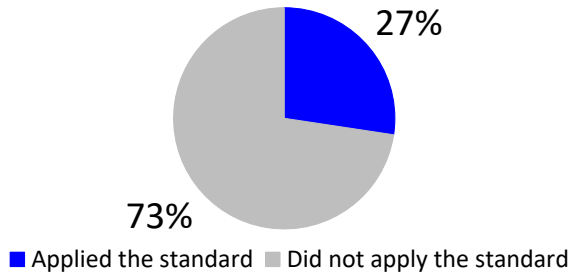


*Figure 102: the **Occupational Health and Safety Assessment Series 18001** certificate was mentioned by 27% of the companies under study. N = 84.*

ii. Select Key Performance Indicators

#	indicator	unit	source	keywords
49.	**% of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs**	%	GRI G4 LA5, GRI Standard 403-1, UNGC P4	Vertretung, Gesundheit, Sicherheit

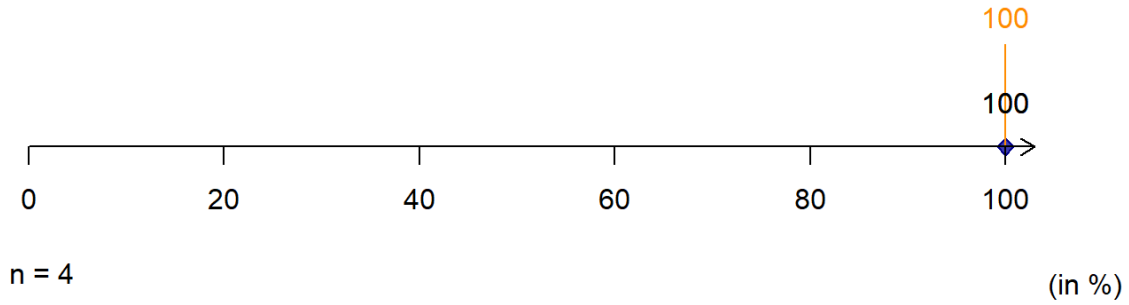


Figure 103: four reports under review covered the percentage of total workforce represented in formal joint management–worker health and safety committees. n = 4 is the number of observations, out of 84 reports assessed.

Only four firms reported the fraction of the total workforce represented in formal joint management or worker health and safety committees. In all cases, the reported percentage was 100%. Firstly, the BKS Bank reported that "in all market areas, teams for workplace health promotion as well as the legally required health committees are established, so that 100% of the group employees are represented" (p. 66).

Secondly, AMAG Austria Metall AG indicated that "100% of employees are represented by formal employer-employee committees for occupational safety and health" (p. 51). Thirdly, Bundes Immobilien Gesellschaft reported that the representation of employees in "formal employer-employees committees for occupational safety and health protection" was 100% (p. 37). Finally, Unicredit Bank Austria AG stated that the "percentage of employees represented" in ""formal joint management-worker health and safety committees" was 100% (p. 42 of the Supplement).

In turn, many firms chose to report on how employees are represented, how safety officers are distributed or how many workers fall within the scope of the firm's health and safety system, but without reporting a percentage of formally represented employees.

For instance, although Borealis reported having a "Health and Safety Committee for Management and Employees", a "Responsible Care Committee" (p. 228), the percentage of employees represented through them was not indicated. The firm did report that "all company employees have representation" (p. 228), but through "several *informal* platforms and meetings" (italics are ours, p. 228), which are not considered for this indicator.

Analogously, Egger Holzwerkstoffe GmbH did not report on employee *representation*, but it did indicate that the proportion of its employees *covered* by the EGGER management system for occupational health and safety was 100% (p. 116). Similarly, OMV AG indicated that "in 2018, executives and employee representatives organized 173 formal joint health and safety committees at OMV Group sites" (p. 31), but no percentage of employee representation was reported.

Some firms indicated the presence of health & safety committees throughout the organization, but without explicitly reporting the figures of employees represented in them. According to Semperit AG Holding, "at all Austrian sites, there is an occupational safety organization in accordance with the Employees Protection Act [*Arbeitnehmerschutzgesetz*]. These organizations are staffed by works council members, employer representatives, company physicians, occupational safety and security officers" (p. 33). The Österreichische Post AG reported that "occupational health and safety is dealt with in larger occupational safety committees, whose members include safety experts, occupational physicians, safety representatives, employee representatives and employer representatives" (p. 42).

Finally, other firms such as Ottakringer Getränke AG disclosed the percentage of employees taking place in a workplace health promotion program ("*betriebliche Gesundheitsförderung*"): 68% (p. 54). However, this is not equal to worker representation in committees that advise on health & safety matters.

#	indicator	unit	source	keywords
50.	**Total number of injuries**	#	GRI G4 LA6, GRI Standard 403-2	Berufsunfälle, Arbeitsunfälle

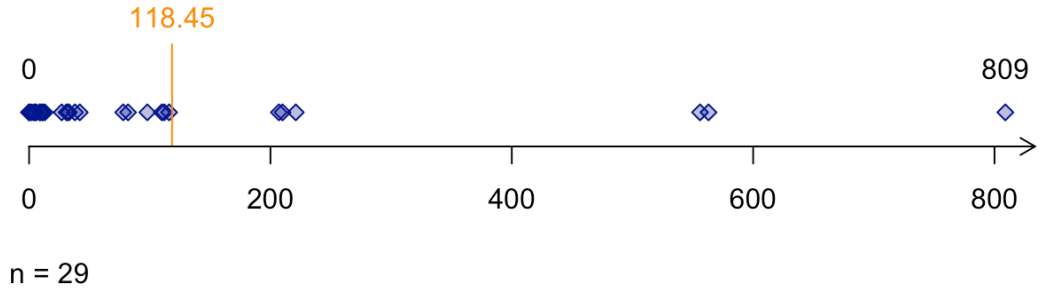


Figure 104: total number of injuries at work. n = 29 is the number of observations, out of 84 reports assessed.

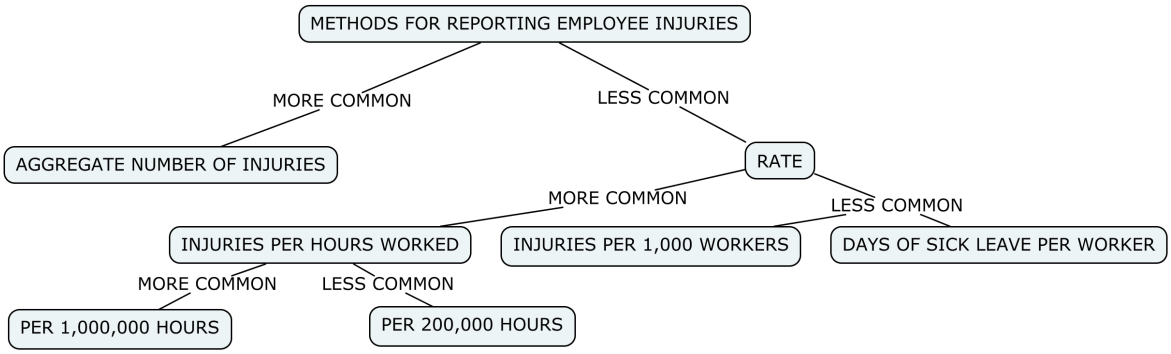
While fourty-three (43) firms reported on the number of injuries, only 29 reported an absolute value. The remaining firms disclosed the number of injuries in the form of an accident ratio (see the box *Measurement/metric variation*).

The average number of injuries was 118 per company, per year (median: 47). The average number of workers was 6,324, while the median number of workers was 3,307. The average firm had one injury per 139 employees (median: 87). The highest employee/injury ratio belonged to ASFiNAG, with one injury every 14 employees. The lowest one, to AGRANA Beteiligungs-AG, with one injury per 710 employees (p. 193).

The highest absolute number of injuries was the Österreichische Post AG, with 809 injuries (p. 45). Palfinger AG, with 563 injuries (p. 94), and PORR AG, with 556 injuries (p. 74), followed. The lowest number of injuries corresponded to S Immo AG (p. 39) and Raiffeisen-Holding Niederösterreich-Wien (p. 37), both with 0.

Measurement/metric variation:

Worker injuries were reported in various ways. While the majority of firms made use of absolute, aggregate figures, some firms reported this indicator as a rate.



The most 'popular' rate was the number of accidents per million hours worked. The metrics used in order to capture this rate took different names. Firstly, "Lost Time Injury Frequency Rate" or "LTIFR" (Novomatic AG, p. 1; Voestalpine AG, p. 100), which was also simply named "Lost Time Injury Rate" or "LTIR" (OMV AG, p. 32). Secondly, the "Total Recordable Incident Rate" or "TRIR" (OMV AG, p. 32). According to OMV AG, the former metric records all "work-related accidents leading to death, permanent total disability and absenteeism", whereas the latter records "cases of reduced ability to work and cases requiring medical treatment" on top of them (p. 127). This rate was named "Total Recordable Injuries" or "TRI" (Borealis, p. 5; Zumtobel Group AG, p. 36-37) as well. Finally, there were also cases in which the number of accidents per million hours worked were reported under no particular name (AT&S Austria Tech System AG, p. 17; Strabag SE, p. 46; Egger Holzwerkstoffe GmbH, p. 117; Wienerberger AG, p. 81).

Some firms reported only a rate, without indicating the absolute number of injuries. For instance, Wienerberger indicated a 5.1 accident-per-million-hours-worked rate (p. 81). Other firms, such as OMV AG, reported several values: absolute number of injuries (31, p.

106), LTIR (0.29 per million hours worked, p. 32) and TRIR (0.88 per million hours worked, p. 32).

Two firms reported the number of accidents per 200,000 hours worked. AMAG Austria Metall AG, reported 2.3 accidents per 200,000 hours worked (p. 4) as a "Total Recordable Injury Frequency Rate or "TRIFR". RHI Magnesita AG also opted for reporting the number of accidents per 200,000 hours, but as a "LTIF rate" and also specifying that only accidents resulting in lost working time of more than 8 hours were counted as such (p. 34).

Most firms, in contrast, did not provide a definition for accident ('recordable incident', 'lost time', 'first aid' are other potential criteria). An exception was Andritz AG, which disclosed 210 accidents causing a loss of *more than three* days, 4 accidents causing a loss of *more than three* days per million hours, and 6.2 accidents causing a loss of *one or more* days per million hours (p. 184).

Another exception in this sense was Egger, which reported its accident rate (per million hours worked) according to the NACA II scoring system, which reportedly includes occupational accidents involving medical treatment going beyond first aid and other work-related injuries according to GRI 2018 (p. 117). Moreover, the firm also reported the subset of serious injuries – deaths excluded – according to NACA III-VI (p. 117).

Lenzing AG (p. 60) reported the number of accidents per thousand workers (in this case, 5.7), whereas the Uniqa Insurance Group AG disclosed the number of days of sick leave (8.53) per employee (p. 26).

Two other reports deserve special mention. The first one, for negative reasons, Buwog AG, which reported a 1,2% "injury rate" ("*Verletzungsrate*"), *without explaining what the rate consisted in*. The second one, ASFiNAG, is a positive case, as the firm – with 207 injuries – a reported separately the accidents in the company (72, p. 30) and those in the supply chain (135, p. 80).

#	indicator	unit	source	keywords
51.	**Total number of work-related fatalities**	#	GRI G4 LA6, GRI Standard 403-2	Todesfälle, tödliche Arbeitsunfälle

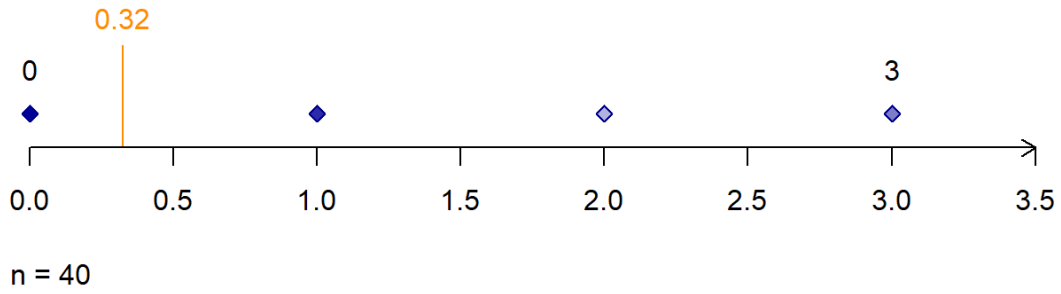


Figure 105: total number of work-related fatalities. n = 40 is the number of observations, out of 84 reports assessed.

While many companies reported that there were no fatalities over the reporting year, roughly half of companies did not report whether there were any fatalities.

The Österreichische Post AG reported 3 fatalities, occurring in subsidiaries within the Post Group (p. 45). It thus became the company with the highest number of fatalities at the workplace of all the firms under review, together with OMV AG, which also reported three accidents, two of which occurred in contracting companies ("*Vertragsunternehmen*") within the OMV Group (p. 106-107). Strabag SE constituted the other firm with more than one fatality, with a total of two deadly accidents (p. 87).

Measurement/metric variation:

The standard method for reporting fatalities was to state the aggregate, absolute value. Only one firm deviated therefrom, Egger Holzwerkstoff GmbH, which reported 0.13 fatalities per million hours worked. The firm also reported two fatalities in early 2019 (p. 117).

d. Diversity/Gender matters

i. Select issues and corresponding corporate reporting

Article 157 of the Treaty on the Functioning of the European Union, as well as Article 23 of the charter of fundamental rights of the European Union, demand equal pay on wages.

The explanatory notes to the NaDiVeG[119] state that the law aligns with the spirit of the EU NFRD, which "aims to provide information on the measures taken to ensure gender equality as regards gender, origin and religion" and requires justification if firms declare to have no concept in these matters.

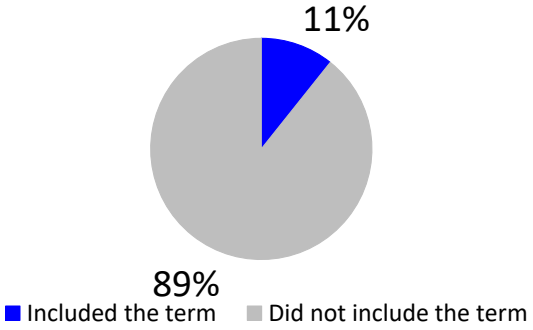


*Figure 106: 11% of the companies under study treated the issue of **fair remuneration** ("**faire Entlohnung**") in their reports. N = 84.*

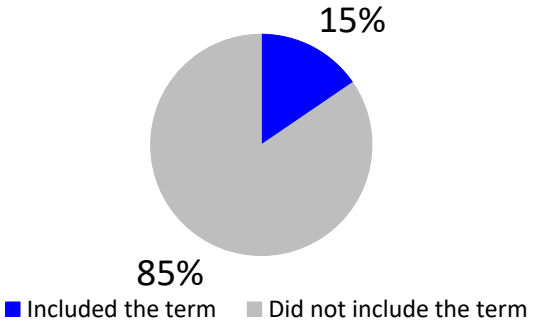


*Figure 107: 15% of the companies under study included the term "**gender equality**" ("**Geschlechtergleichstellung**", "**Gleichstellung der Geschlechter**") in their reports. N = 84.*

ii. Select Key Performance Indicators

While diversity was not a required reporting matter for the non-financial statement specifically, it is required as part of the corporate governance report according to §243c UGB. Yet such a concept (or reference to the concept in another report) was still found in the majority of the reports reviewed.

While a straightforward explanation therefor could be that, when a non-financial statement was contained within the firm's management report, the full document – which included the corporate governance report – was analyzed for this study, one should note that 38 of the 60 diversity concepts retrieved were found within separate non-financial reports.

#	indicator	unit	source	keywords
52.	**Concept of diversity (e.g. age, gender, educational background)**	yes/ no	UNGCP6	Diversität

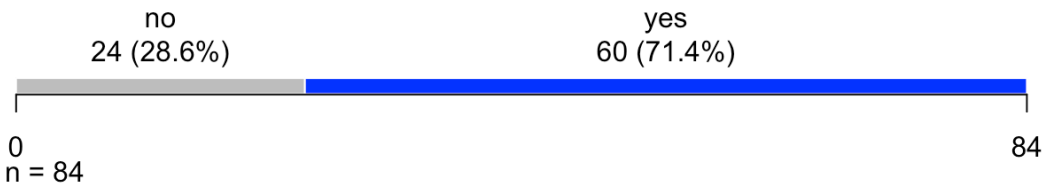


Figure 108: companies disclosing a diversity policy (e.g. regarding age, gender, educational background). n = 60 is the number of observations, out of 84 reports assessed.

The diversity section in Rath AG's report, for instance, states that the firm "strives to find, to convince and to win over the diversity of the talents existing in the society. We are convinced that sustainable economic success is based on the skills and commitment of our employees and our corporate culture. The principles of our human resources policy offer the same rights and opportunities to all employees regardless of age, gender, culture, religion, background or other diversity traits. Based on these principles, no form of discrimination is tolerated" (p. 12).

We furthermore investigated whether the companies under study had an "equal pay" policy. This indicator was constructed in a flexible manner, such that a "yes" was awarded not only if the term "equal pay" (or equivalent ones such as "*gleich vergütet*") was used, but also if the assertion that remuneration did not depend on gender was found (e.g. "*Bezahlung unabhängig vom Geschlecht*").

#	indicator	unit	source	keywords
53.	**Alternatively, reason for lack of concept**	yes/ no	UNGCP6	Diversität

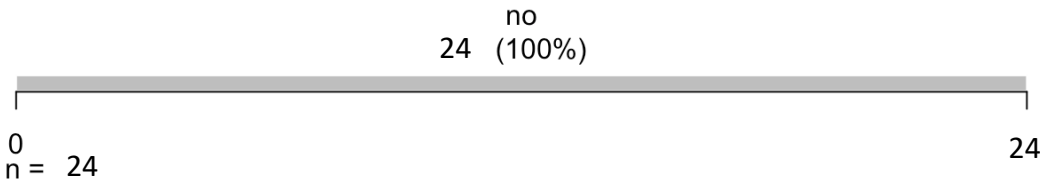


Figure 109: no companies disclosed a reason for a lack of a diversity policy (e.g. regarding age, gender, educational background). n = 24 is the number of observations, out of 84 reports assessed.

#	indicator	unit	source	keywords
54.	**Does the company have an explicit "equal pay" policy**	yes/ no	UNGC P6	gleiche Bezahlung, gleiche Entlohnung

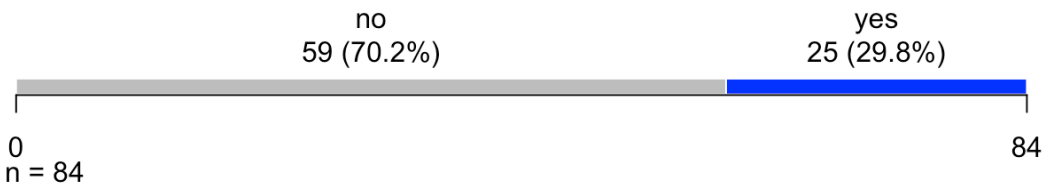


Figure 110: almost a third (29.8%) of the companies under study had an explicit "equal pay" policy. n = 25 is the number of observations, out of 84 reports assessed.

Nineteen (19) companies had an explicit equal pay policy. For instance, in the report of UBM Development AG it can be found that "equality of opportunity has a high priority and as a result of gender equality there are no salary differences between men and women for the same job and adequate qualification" (p. 12).

Similarly, EVN Energie-Versorgung Niederösterreich AG stated that regardless of gender, "people of equal professional and personal qualifications should be treated equally in terms of recruitment, training, human resources development, employment conditions and pay" (p. 49).

#	indicator	unit	source	keywords
55.	**Percentage of female employees (total)**	%	GRI G4 LA6, GRI Standard 102-8, UNGC P6	Frauen, weiblich, Anteil

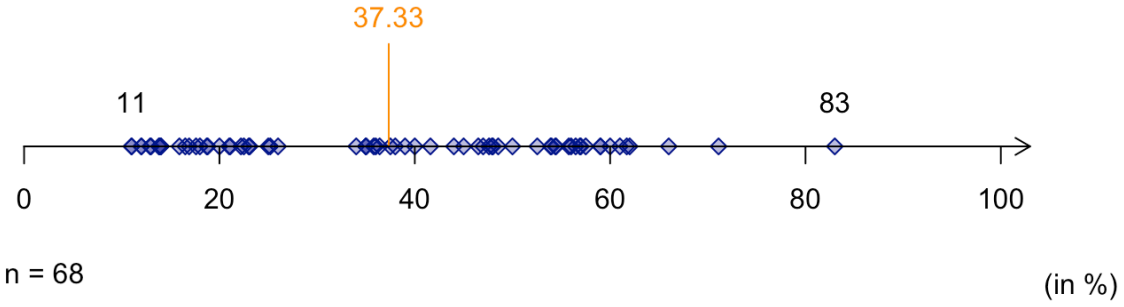


Figure 111: percentage of the workforce that is female. The average was 37.33% female workers. n = 68 is the number of observations, out of 84 reports assessed.

Generally, the percentage of female employees is related to the specific sector of a company. The evaluated companies with the highest percentages of female employees belong to the bank, insurance, and textile sectors. The company with the highest percentage of female employees was the textile manufacturer Wolford AG, with a female workforce of 83.3% by women (p. 21). The runner-up was Addiko Bank AG, with 71.1% (p. 11).

In turn, the oil services provider Petro Welt Technologies AG has the greatest male-dominated workforce, with only 10% female employees (p. 30). RHI Magnesita AG, with 11%, followed (p. 57).

#	indicator	unit	source	keywords
56.	**Percentage of women on the first management level ("erste Führungsebene")**	%	GRI G4 LA12, GRI Standard 405-1, UNGC P6	Frauen, erste Führungsebene

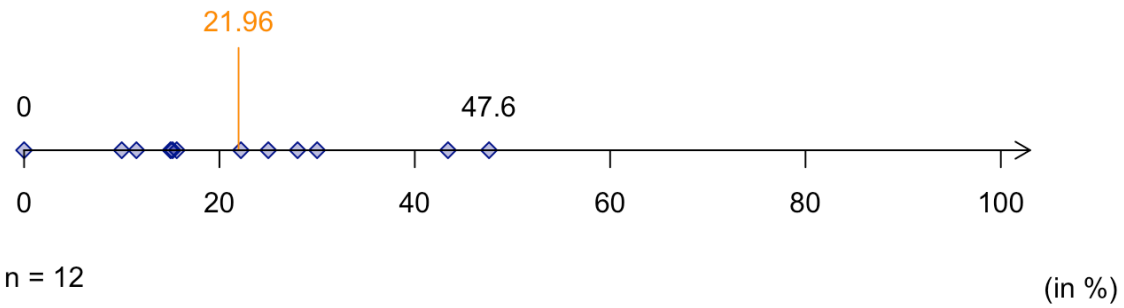


Figure 112: percentage of women on the first management level. On average, the percentage of women on the first management level according to the findings of this study was 21.96%. n = 12 is the number of observations, out of 84 reports assessed.

The number of companies reporting the percentage of women on the first management level was lower than for the previous indicator (perhaps partly because not all companies have management levels other than the Executive and Supervisory Boards). Of the companies reporting this value, only one reported a percentage of women on the first management level *higher* than the percentage of female employees in the total workforce: ASFiNAG indicated having 22.2% female members on its top management level, in contrast to the 21.5% of women in general (p. 30, 36).

No firms reported having an absolute majority of women in the first management level. The firm with the highest percentage in this regard was the Vienna Insurance Group AG, with 47.6% (p. 33). The lowest value was reported by PORR AG, with 0% (p. 77).

#	indicator	unit	source	keywords
57.	**Percentage of women on Board of Directors ("Aufsichtsrat")**	%	GRI G4 LA12, GRI Standard 405-1, GRI Standard 105-22, UNGC P6	Frauen, weiblich, Anteil, Aufsichtsrat

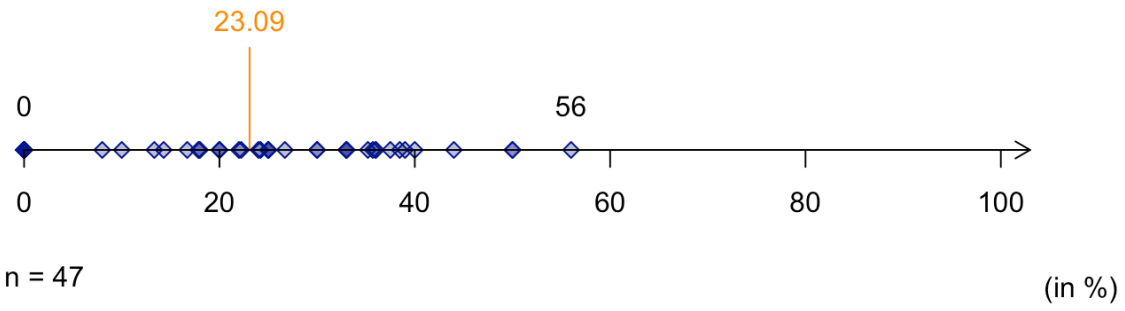


Figure 113: percentage of women on the Board of Directors. The average was 23.09% female members on the Board of Directors. n = 47 is the number of observations, out of 84 reports assessed.

The maximum female ratio at the Board of Directors was reported by Novomatic AG, with 60% (p. 228), followed two companies with 50%: Wolford AG (p. 12) and Bundes Immobilien Gesellschaft GmbH (p. 29). The minimum was shared by nine companies with 0% female members on their Board of Directors: Frauenthal Holding AG (p. 40), AGRANA Beteiligungs-AG (p. 193), KTM Industries AG (p. 14), Zumtobel Group AG (p. 146), Warimpex Finanz- und Bet. AG (p. 18), Petro Welt Technologies AG (p. 30), Helvetia Versicherungen AG (p. 54), DO & CO (p. 19), and Egger Holzwerkstoffe GmbH (p. 36).

#	indicator	unit	source	keywords
58.	**Percentage of women on Management / Executive Board ("Vorstand")**	%	GRI G4 LA12, GRI Standard 405-1, GRI Standard 105-22, UNGC P6	Frauen, weiblich, Anteil, Vorstand

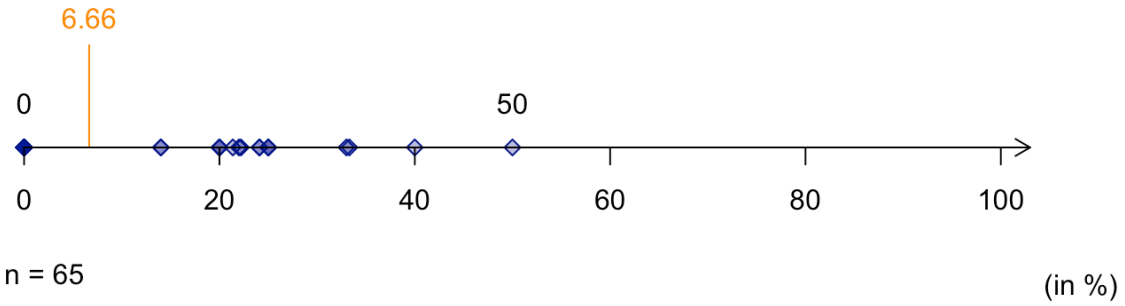


Figure 114: percentage of women on the Executive Board. The average percentage of women on the Executive Board was 6.66%. n = 65 is the number of observations, out of 84 reports assessed.

Wolford AG (p. 12) led in this indicator, with 50% of women in the Executive Board. More than half of the companies, in turn (43 firms), reported having absolutely no women on the Executive Board (e.g. Flughafen Wien AG, p. 10-11).

#	indicator	unit	source	keywords
59.	**Percentage of women in management positions ("Führungspositionen")**	%	GRI G4 LA12, GRI Standard 405-1, UNGC P6	Frauen, Führungspositionen

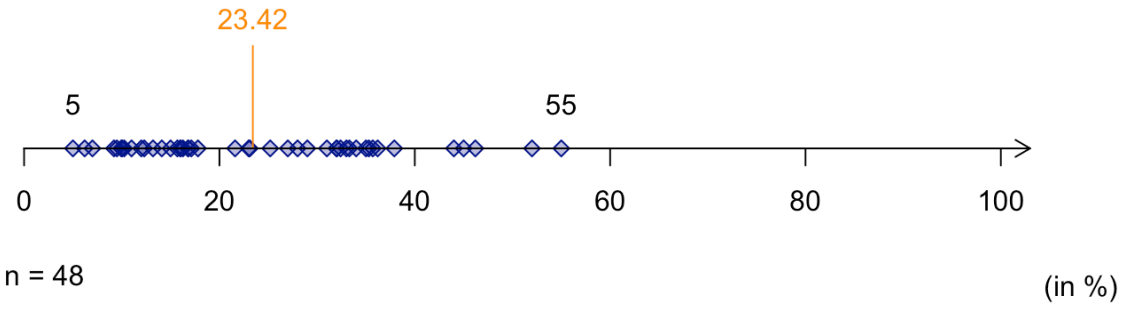


Figure 115: percentage of women in management positions. The average company reviewed had 23.42% of its management positions occupied by women. n = 48 is the number of observations, out of 84 reports assessed.

More than half of the reports under review disclosed the values for this indicator. The best performing company was the Raiffeisen Bank International Holding AG, which had 55% female members in its management positions (p. 3), followed by Linz Textil Holding AG, with 52% of women in management positions (p. 36). The lowest value was reported by AMAG Austria Metall AG (5%, p. 54).

PORR AG also reported a low value, though the degree of detail and disaggregation is worth mentioning. Among many other sub-categories, PORR distinguished between "upper management positions" (18 employees of which 0% were women) and "middle management positions" (499 employees of which 10.6% were women). The weighted average gives a total of 10.25% of women in management positions (p. 77).

e. Anti-corruption matters

i. Select issues and corresponding corporate reporting

The ultimate beneficiary of a corruption-free environment is society at large. However, the private sector in particular also stands to greatly benefit from it. An efficient and fair public administration would see to it that the most efficient and capable firms thrived, demonstrating their operational excellence, sustainability and business partner reliability.

Rewarding efficiency rather than corruption may even, in some cases, allow to improve the very goods and services procured or provided.

Hence, many companies themselves realize that they have a role to play in reducing corruption from their value chains, and that they benefit from doing so. A potential for synergy thus emerges, as the explanatory notes to the NaDiVeG[120] point out that the EU Directive encourages the inclusion of information on the fight (and instruments) against corruption and bribery in the non-financial statement.

In this direction, note that, while many companies include this information in their corporate governance statement and not in their non-financial statement, this is not what the NaDiVeG requires. Therefore, as explained in section *II. Methods A. Data*, only non-financial statements were reviewed for this study, unless there was a cross-reference to a corporate governance report or another section of the management report *within the same document*.

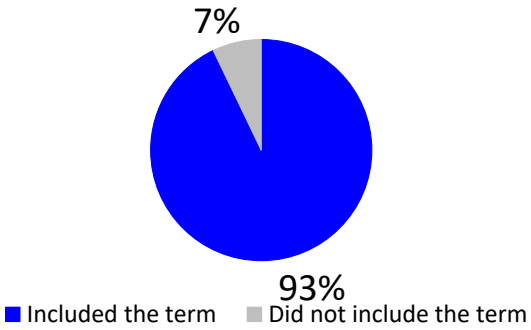


*Figure 116: the term "**corruption**" ("**Korruption**") was mentioned in 93% of the reports under study. N = 84.*

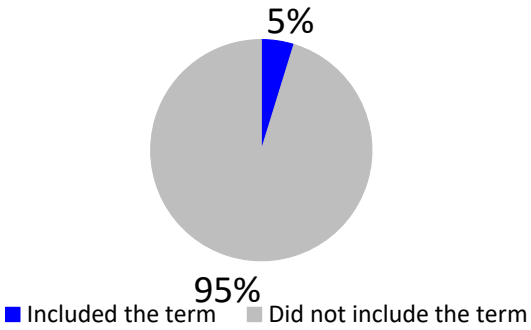


*Figure 117: the 10th principle of the UN Global Compact (Businesses should work against corruption in all its forms […], "**Unternehmen sollen gegen alle Arten der Korruption eintreten**") was mentioned in 5% of the reports under study. N = 84.*

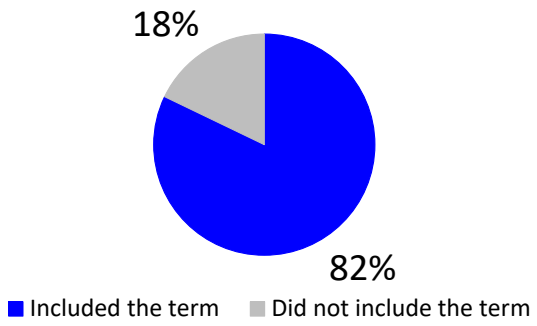


*Figure 118: 82% of the companies under study mentioned the word "**bribery**" ("**Bestechung**") in their reports. N = 84.*

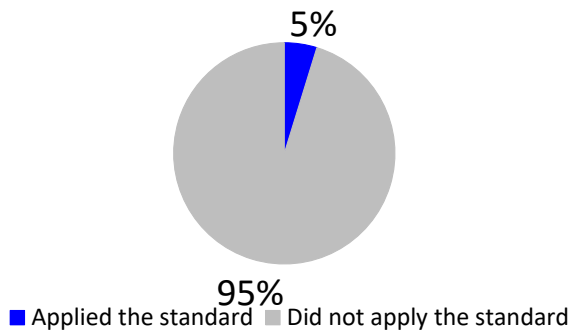


*Figure 119: 5% of the companies reviewed applied the **ISO 37001** norm, which establishes the requisites for the establishment of an anti-bribery system. N = 84.*

ii. Select Key Performance Indicators

#	indicator	unit	source	keywords
60.	**Total number and % of employees that have received training on anti-corruption**	#	GRI G4 SO4, GRI Standard 205-2, UNGC P10	Schulungen zur Korruptions-bekämpfung

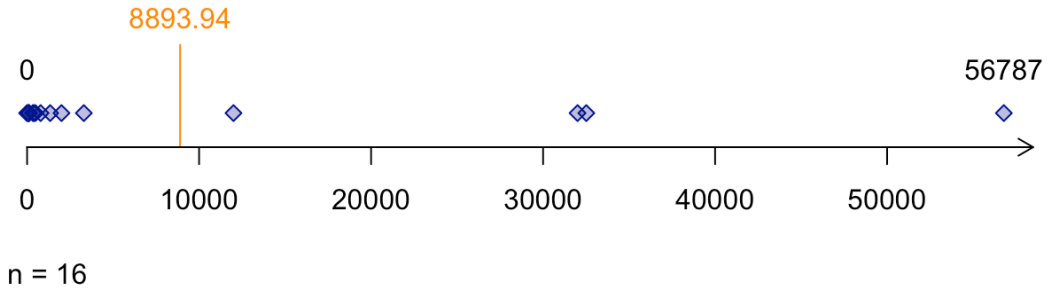


Figure 120: number of employees having received anti-corruption training. n = 16 is the number of observations, out of 84 reports assessed.

By far, the leaders in terms of the absolute number of trainings conducted were three firms: the Generali Group (the group to which Generali Versicherung AG belongs and referred) – with 56,787 employees trained (p. 25), the Raiffeisen Bank International Holding AG – with

32,512 workers trained (p. 3), and the engineering group Andritz AG, with 32,003 employees having received education on anti-corruption matters (p. 59).

The lowest value corresponded to Raiffeisenlandesbank Oberösterreich AG, which scored a 0, due to its reporting that no training was undertaken, other than requesting employees to sign the company's Code of Conduct[121] (p. 41).

PORR AG is again worth noting due to the level of detail in the data: the firm reported having given anti-corruption training to 479 employees, including: 12 members of the governance body, 18 upper management employees, 48 middle management employees and 42 non-management employees (p. 67).

#	indicator	unit	source	keywords
61.	**Total number and % of employees that have received training on anti-corruption**	%	GRI G4 SO4, GRI Standard 205-2, UNGC P10	Schulungen zur Korruptions-bekämpfung

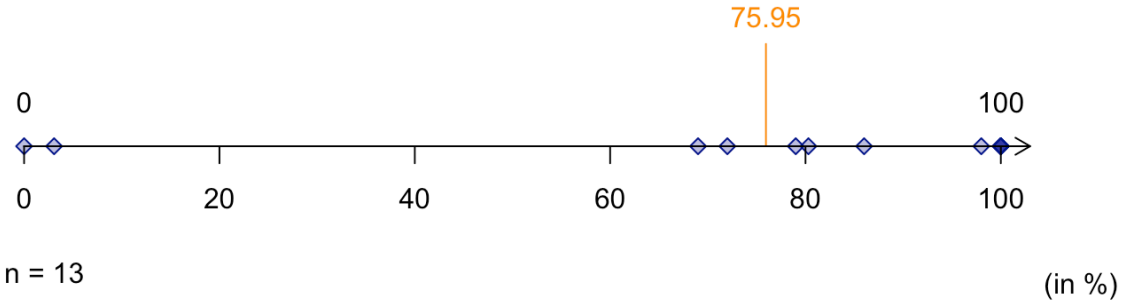


Figure 121: percentage of employees having received anti-corruption training, the average value being 75.95%. n = 13 is the number of observations, out of 84 reports assessed.

Five firms reported training 100% of their employees in anti-corruption matters: Zürich Versicherungs-AG (p. 18), HYPO NOE Gruppe Bank AG (p. 37), Allianz Elementar Versicherungs-Aktiengesellschaft (through the Allianz group report, p. 18), D.A.S. Rechtsschutz AG (through the ERGO group report, no page) and Niederösterreichische Versicherung AG (p. 11), all of them with 100% of their employees trained in anti-corruption matters. None of them, however, reported the absolute values: HYPO NOE Gruppe Bank AG reported the percentage directly, while the remaining firms claimed that "all" employees had completed such training.

The lowest values corresponded to Raiffeisenlandesbank Oberösterreich AG (0%, p. 41) and PORR AG. PORR reported giving anti-corruption training to 48% of the members of the governance body, 100% of the upper management employees, 26.2% of the middle management employees and 0.3% of the 42 non-management employees or 0.3% thereof

(p. 67). While the firm did not report the percentage of *total* employees, the data to make this calculation was readily available: 3.07%.

Uniqa Insurance Group AG reported 2.39 hours of anti-corruption training per employee, rather than an absolute number or percentage of employees (p. 28). ASFiNAG indicated the number of employees trained, but it only provided a percentage of employees *informed*, not trained (p. 18). Therefore, the data was treated as absent. Sberbank Europe AG "expects all its employees to participate in regular compliance trainings" which cover anti-corruption matters. However, since 'expecting to attend' is not effectively training, this percentage was not considered.

#	indicator	unit	source	keywords
62.	**Total number and % of suppliers/providers that have received training on anti-corruption**	#	UNGC P10	Schulungen zur Korruptions-bekämpfung, Lieferanten

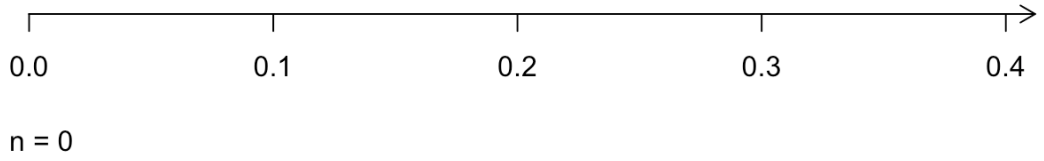


Figure 122: number of suppliers having received anti-corruption training. n = 0 is the number of observations, out of 84 reports assessed.

#	indicator	unit	source	keywords
63.	**Total number and % of suppliers/providers that have received training on anti-corruption**	%	UNGC P10	Schulungen zur Korruptions-bekämpfung, Lieferanten

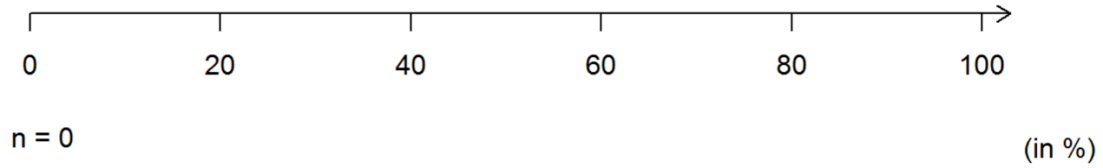


Figure 123: no companies reported training their suppliers / providers on anti-corruption. n = 0 means there were no observations in 69 reports assessed.

While no companies reported training their suppliers/providers on anti-corruption, one company, Buwog AG, indicated that it had communicated its anti-corruption principles to 1,683 of its current external partners, constituting 45% of the total (p. 93).

#	indicator	unit	source	keywords
64.	**Was a whistleblowing mechanism (ethics hotline) employed** [122]	yes/ no	UNGC P10	Hotline, Meldestelle, Meldekanal, Hinweisgebersystem

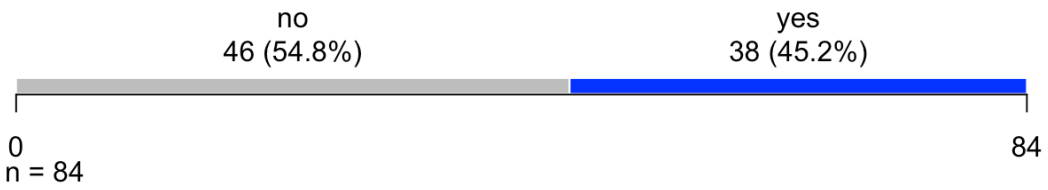


Figure 124: 38 companies, out of 84 reports assessed, reported the employment of a whistleblowing mechanism.

The utilization of a (corruption-related) whistleblowing mechanism was reported by 38 firms. For example, Volksbank Wien AG set up a whistleblowing system consisting of an anonymous online application, where all employees can report on corruption matters, as well as other issues – breach of regulatory requirements, theft, embezzlement, etc. (p. 21-22).

#	indicator	unit	source	keywords
65.	**Total number and % of operations assessed for risks related to corruption and the significant risks identified**	#	GRI G4 SO3, GRI Standard 205-1, UNGC P10	Korruption, Risiko

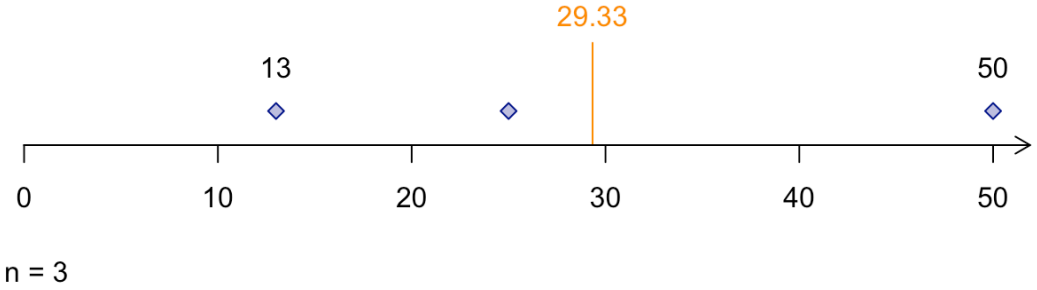


Figure 125: number of operations assessed for risks related to corruption. n = 3 is the number of observations, out of 84 reports assessed.

#	indicator	unit	source	keywords
66.	**Total number and % of operations assessed for risks related to corruption and the significant risks identified**	%	GRI G4 SO3, GRI Standard 205-1, UNGC P10	Korruption, Risiko

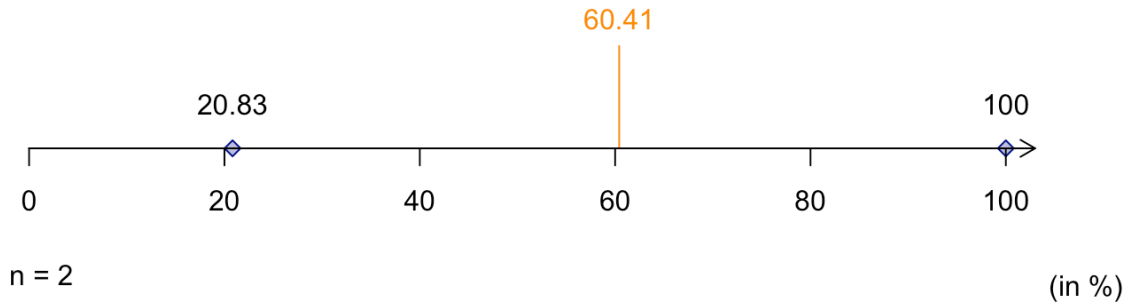


Figure 126: percentage of operations assessed for risks related to corruption, on average being 60.41%. n = 2 is the number of observations, out of 84 reports assessed.

Only four companies reported at least one of the above two indicators. OMV AG reported having assessed 25 operations for risks related to corruption. Specifically, it indicated that "25 internal compliance audits (13 at OMV and 12 at OMV Petrom)" were conducted "across the full range of business ethics topics […] including fraud and corruption" (p. 21). No percentage was reported.

Semperit AG Holding reported that 13 business locations were audited for corruption risks in the reporting year (p. 76). No percentage was reported.

One company did not report the absolute number of operations assessed for corruption risks, but indicated that 100% of the operations were reviewed. This was Rosenbauer International AG, which stated "all distribution partners are subjected to a risk-oriented integrity check to identify potential corruption risks. It is web-based and leverages the expertise of external online tools that specialize in integrity and strength assessments. Existing partners are examined at regular intervals" (p. 24).

The one company reporting both absolute and percentage values was PORR AG, having assessed 50 operations out of 240, which constituted 20.83% of the total operations.[123]

#	indicator	unit	source	keywords
67.	**Total number of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption**	#	GRI G4 SO5, GRI Standard 205-3, UNGC P10	Vorfälle Korruption

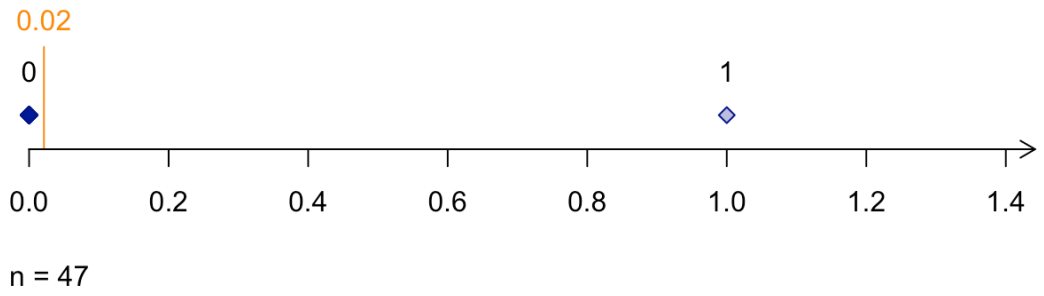


Figure 127: number of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption. n = 47 is the number of observations, out of 84 reports assessed.

None of the evaluated companies reported the termination or non-renewal of contracts with business partners related to corruption. Those that reported on this indicator, disclosed that no contracts were terminated due to corruption incidents, or that there were no corruption incidents to begin with. For instance, see High Tech Industries AG (p. 14).

The ERGO Group, in whose group report the legal insurance firm D.A.S. Rechtsschutz AG was included, reported that “two local former general managers and a few former employee” incurred in “dealing in stolen cars and excessive commission payments for brokering international insurance policies for motor vehicles”. While no relations with corporate business partners were terminated due to this incident, the employees responsible for the incident were dismissed and legal action against them is being considered (no page).

E. Disclosure transparency analyses

a. Degree of transparency per indicator

The transparency performance of each company, at the micro and macro level, was analyzed as a part of this study. If the company’s non-financial statement contained a data point that fulfilled one of the 67 indicators, the company received one "transparency point." Those points are then tallied, resulting in a transparency score for each company, where a higher score corresponds to more (pertinent) information provided. That is, a score is higher where the number of “yes” and numerical values disclosed is larger.

Figure 128 illustrates the degree of transparency per indicator, i.e. the average – for the 84 companies with reports under study – of the transparency score corresponding to each indicator. The transparency value range is between 0 and 1, where 1 corresponds with maximum transparency and 0 to no transparency.

Thus, it is possible to observe that certain indicators remain opaque due to nondisclosure by the firms under study, such as indicator 49: *Corresponding measures to contribute to the elimination of all forms of forced or compulsory labor*. In contrast, the average transparency scores were relatively high for indicators 26 (*Energy consumption within the organization*) and 55 (*Percentage of female employees*).

The highest transparency per matter was offered for the following indicators:

- In the environmental category, more than half (58%) disclosed their energy consumption within the organization.
- With respect to human rights matters, 39% of companies reported that they had supplier labor practices criteria in place.
- In the employee category, work fatalities were reported by 48% of companies.
- In the social/gender category, more than two thirds (81%) reported on their percentage of female employees.
- With regard to anti-corruption, 45% reported implementing a whistleblower system.[124]

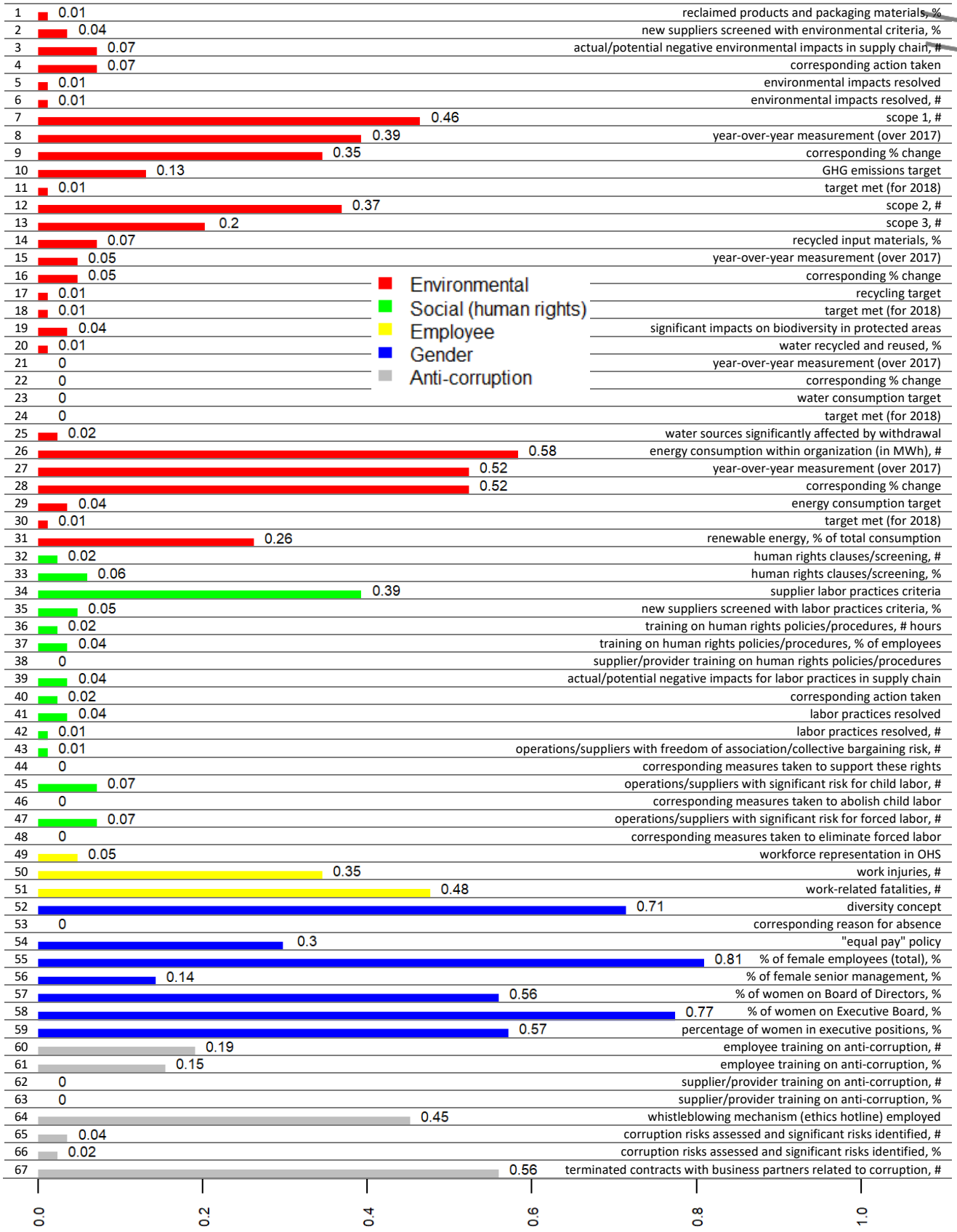


Figure 128: degree of transparency per indicator (67).

a. Degree of transparency per matter

This report studies corporate transparency on the five issues as stipulated by NaDiVeG: environmental, human rights, employee, social/gender, and anti-corruption matters. Each of the 67 implemented KPIs corresponds with one of these categories. While reporting on each of those 67 KPIs is not mandatory, we posit that by observing the number of indicators on which a firm reported, it is possible to assess the degree of transparency for each of the topics under study. To this end, a weighted average was applied in order to control for the number of indicators per category (more indicators were assessed e.g. in the environmental category than in the gender category). The result is Figure 129, showing that disclosure is highest on gender issues, and lowest for human rights matters.

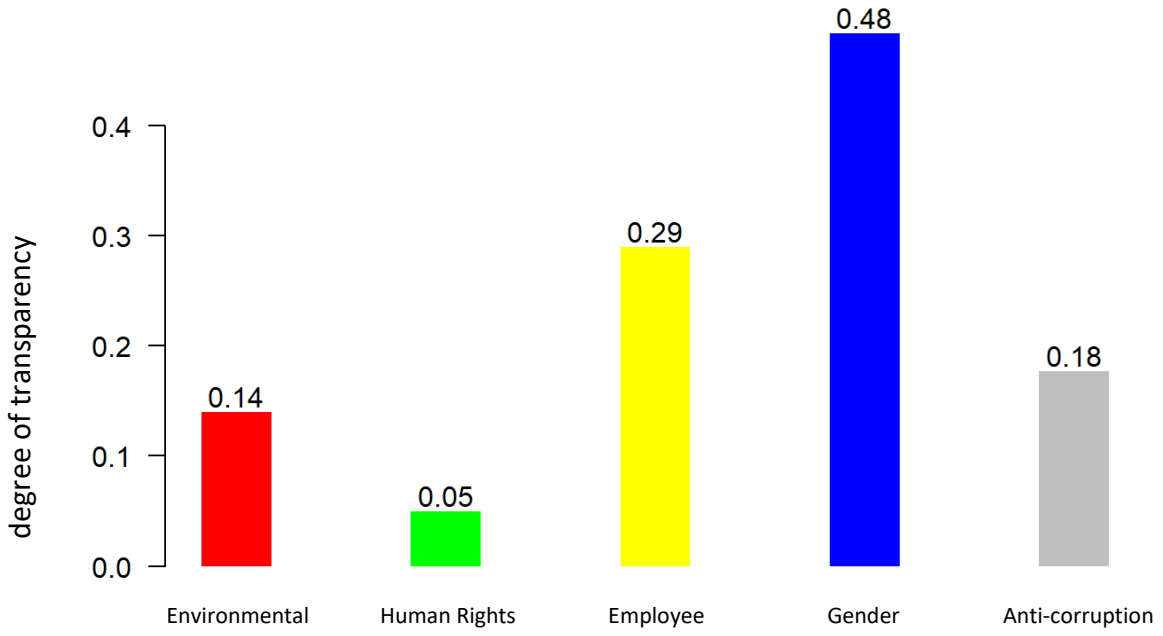


Figure 129: degree of transparency per category (matter).

b. Degree of transparency by type of company

We also broke down average company score (for the five matters) by company *type*, i.e. per PIE category. In Figure 130, the highest degree of transparency is displayed in the *bond-issuing firms cohort* while, in contrast, the *insurance undertakings cohort* represents the least transparent group.[125]

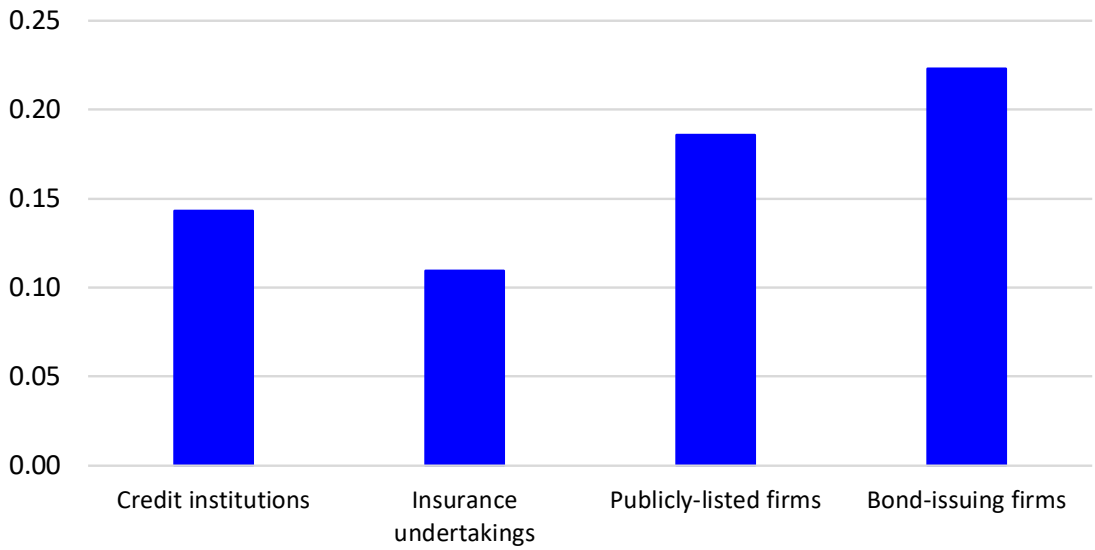


Figure 130: degree of transparency by type of company (PIE category).

c. Degree of transparency, revenue

For each company under study, yearly revenue data was collected. This allows an assessment of the interplay between the transparency variable and revenue, as is shown in Figure 131.

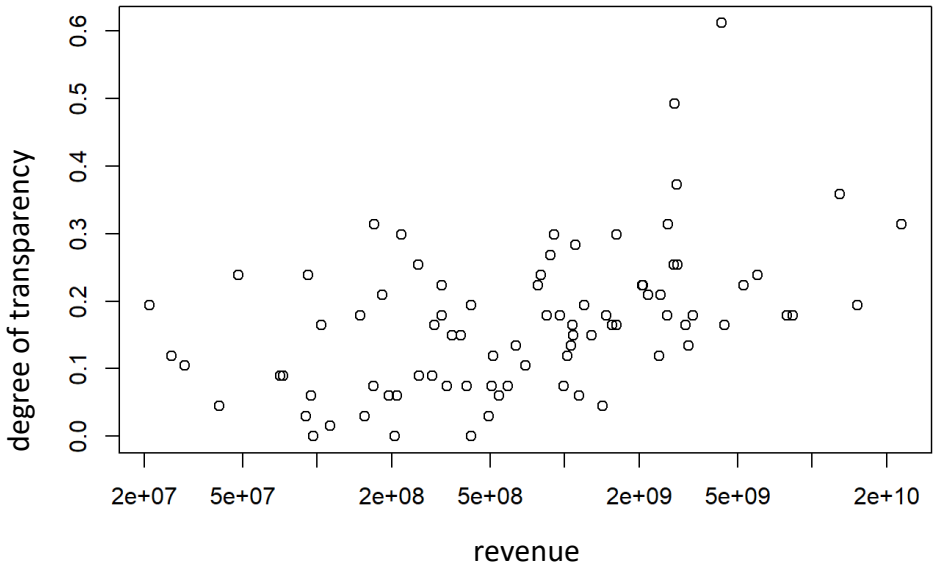


Figure 131: degree of transparency, revenue (in euro).

d. Degree of reporting framework adherence

Companies under study made the claim to make use of one or more reporting frameworks, notably the GRI. However, this does not mean that the company actually implemented the framework in full, or even partially.

It is possible for a firm not to disclose data for every (any) indicator of a framework, yet to claim to have implemented the framework. This creates a gap between the actual implementation of the framework and the framework itself. In order to observe the composition of such discrepancy (i.e. 'how much' of the framework was implemented), Figure 132 shows the transparency gap for GRI.

As our study broke down some GRI indicators into multiple indicators, 51 indicators featured in this study correspond with 29 unique GRI G4 indicators and 27 GRI Standards indicators (not counting the within-GRI indicator overlap). In theory, if companies had fully conformed to the GRI, we would see 100% on the 51st bar. Yet as most of the companies are found in the 9-19 GRI indicators range, it is clear how many companies are falling short in this regard.

We further note that most companies did not *comply or explain*, as is stipulated by the GRI – the very standard companies indicated they followed.

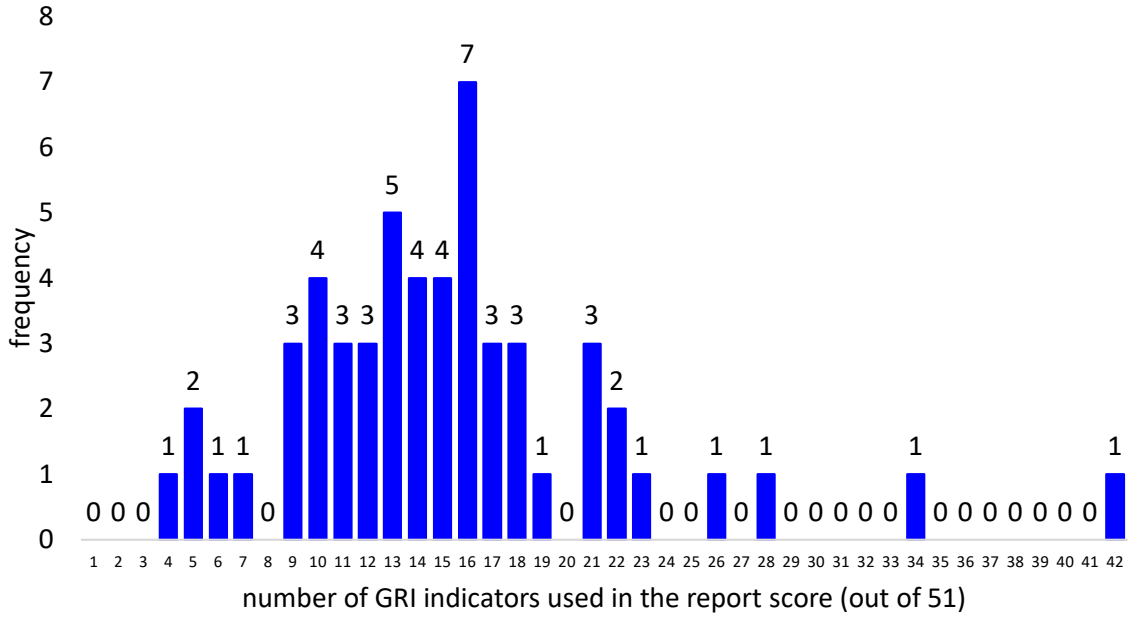


Figure 132: transparency score for those who claimed they applied the GRI reporting framework.

Five companies stood out for their comprehensive reporting practice. Transparency-wise, the best reporting firm was PORR AG. The second most transparent report was ASFiNAG. In third, fourth and fifth place were Egger Holzwerkstoffe GmbH, Voestalpine AG and Novomatic AG, respectively.[126]

F. Material adverse impacts

The NaDiVeG – through its modification of the Austrian Commercial Code – requires the reporting of the "material risks that are likely to have a negative impact […] and the way in which these risks are handled by the organization" (§243b [3]), as does the Directive 2014/95/EU (paragraph 8, and amendments to the Directive 2013/34/EU in its articles 19a [1] and 29a [1]), which translates "material risks" ("*wesentliche Risiken"*) as "principal risks".

A definition of materiality is provided in Austrian Commercial Code itself: information is material when it can be reasonably expected that its omission or misstatement will affect decisions that the users ("*Nutzer"*) of this information make based on it (§ 189a [10]).

The Austrian Financial Reporting and Auditing Committee (AFRAC) further explains the concept of materiality ("*Wesentlichkeit*"), explicitly stating that this concept of materiality is not exclusively quantitative or monetary ("*Wesentlichkeit im hier verwendeten Sinn bemisst sich nicht nur aufgrund quantitativer bzw monetärer Maßstäbe*")[127] but applicable as well to other qualitative factors. These cover – as re-affirmed by the explanatory notes to the NaDiVeG[128] – the key non-financial risks and impacts, the interests and expectations of relevant stakeholders therein and the sectoral non-financial issues of the business (related to the business model, the business results, the situation of the company, and the effects of its activity). Also included are, when relevant and proportionate, those arising from the firm's products, services and business relations, including the supply chain and the chain of subcontractors. The seriousness of these impacts and risks thereof (in environmental, social, labor, human rights, corruption and bribery matters) must be assessed according to their magnitude and intensity.

In spite of this requirement, the firms under review did not, as a rule, report on material adverse impacts. The three companies that did report to some extent, did not use the full term ("material adverse impact", "*wesentliche negative Auswirkung*"). Moreover, they deviated from the purpose of the law, by treating the risks as generic issue areas to cover, rather than actually disclosing severe damages caused by their activity or that of their supply chain.[129]

Furthermore, it was common for firms to report the magnitude and intensity of risks *to* the firm rather than *by* the firm. While disclosure of sector-specific and firm-specific risks to which a firm is exposed is an obligation for the management report,[130] the AFRAC argues that this is not what the NaDiVeG primarily requires for the non-financial statement, but rather the aforementioned negative impacts by the firms and their supply chains.[131]

IV. Recommendations

The goal of this study is to provide a comprehensive and scientific overview of the state of non-financial reporting in Austria. The EU NFR Directive generates a large informational output, something which was treated throughout this report. Indeed, this study was conducted with the aim of condensing and systematizing the large universe of available data, in such a way that the raw findings, as well as the research methodology, are accessible and clear. While some analysis is done, the idea is that, largely speaking, stakeholders are able to draw their *own* conclusions.

However, in the spirit of increasing transparency, consistency and comparability in corporate reporting, we put forward a few recommendations. We believe their application would be beneficial to both civil society and investors needing data, since it would make the information easier to process.

Companies:

A firm's resolve to participating responsibly in its social and environmental fabric is reflected by the quality of the information disclosed. What is not measured cannot be neither managed nor reported. A lack of reporting goes hand in hand with a lack of measurement and is thus an indirect reflection of a firm's intention (and position) on sustainability and responsibility. The very apparent dearth of reporting on certain issues – notably, social and human rights matters – consequently shows how companies are avoiding these (as well as other) non-financial topics. Therefore, companies still have a large role to play: a self-directed initiative to increase visibility would be highly welcomed.

Non-disclosure not only comes about as an omission of a matter, but also as inadequately, incompletely or insufficiently revealing information on it. If a firm, for instance, reports the tons of waste 'saved through recycling' rather than the actual rates of recycled waste, this reduces the relevance of the data. If a company reports the number of women in management positions with no indication of the total number of such positions, this reduces the meaningfulness of the information (it could hide the fact that the fraction of women is small). This shortcoming could be an unintended shortcoming, but it could also be a deliberate attempt to be obscure in sustainability matters. For this reason, firms should not only orient their efforts to cover more non-financial issues, but also to increase the informativeness and clarity of the data disclosed.

In this sense, one might highlight the example of injury (and injury rate) reporting. Frequently, no definition or criterium for accident (e.g. 'recordable incident', 'lost time', 'first aid', 'accidents resulting in lost working time', the 'NACA' scoring system) was provided. Moreover, whether injury figures included or excluded minor injuries was often not stated (which goes against GRI requirements).[132] Furthermore, different denominators for 'LTIF'

were used: some companies reported injury rates per 200,000 hours worked while others chose injuries per 1,000,000 hours worked.

Reporting standard setters:

Even when information is adequately disclosed, problems of comparability ("*Vergleichbarkeit*") emerged. This owes to the lack of uniformity in the choice of units, magnitudes (relative versus absolute values) and levels of analysis (data may be revealed at a group level, company level, building level, etc.).

While in some cases unit asymmetry is not an issue (e.g. if some firms report energy consumption in GJ and others in GWh, the figures are still easily comparable), it is more troublesome on other occasions. Without complementary data, energy consumption per employee is incomparable to energy consumption per room. Moreover, even when two variables are comparable, the resulting comparison is not very meaningful. For instance, comparison of unweighted averages of recycled input materials is not very telling if the material throughputs of the firms at issue vary widely. Therefore, there is a standardization problem – basically consisting in a collective action or coordination problem – which could be fixed to a high benefit and to a little cost, if reporting framework institutions (or legislatures) recommended or mandated units, magnitudes and levels.

Moreover, in certain cases there is no appropriate unit for a variable. Take, for instance, the percentage of recycled material in the total materials used. One, the variable may be mistaken for another (the firm ought to report the 'percentage of recycled content in the *materials* used', but may end up reporting the 'percentage of recycled content in the *final product*', the 'percentage of generated waste that is recycled back into the manufacturing process', or the 'percentage of waste sent out for recycling by someone else'). Two, if the 'total materials' involve very different inputs, they might be un-aggregable. That is, no common unit may be appropriate to calculate the 'total' in the first place. Imagine, for example, that a firm's materials are oil and paper, and that 60% of the first and 90% of the second were recycled. A percentage of total materials recycled could be calculated, for instance, using liters or kilograms as a common unit. The choice of one unit, as such, may be arbitrary. If there is no obvious unit *a priori*, it is highly likely that firms will calculate their averages of recycled material with different common units, which would lead to percentages that are not comparable between firms.

Using the prices of the materials in a certain currency as a common unit may be proposed as a solution. Nevertheless, it could be the case that there *is* no price for these materials because they are obtained through intra-firm transactions (a work-around here would be to use the current market value of the material). Moreover, the appropriateness of this 'fix' could also be disputed: prices reflect market transactions, but recycling reflects physical mass flows. Developing clearer instructions to follow for calculation (or, at least, standard recommended units) would constitute an improvement in the right direction, as it would improve the meaningfulness and the comparability of the indicator.

Meanwhile, however, firms could take simpler steps (and reporting standard-setting institutions could require them) to increase the quality of non-financial information disclosed to the public. For example, they could report the absolute *and* relative magnitudes for the variables they report. Since larger impacts may be identified through the former, but larger inefficiencies through the latter, reporting both absolute and relative values would constitute superior information. Similarly, including year-over-year measurements would allow for a better picture of evolution over time. Finally, a number of firms are still not reporting CO_2e GHG emissions apart from CO_2.

A comment is also worthwhile with respects to the GRI G4 / GRI Standards divide. While both guidelines possess a comprehensive structure, some clear differences emerge when contrasted with one another. In an effort to reduce duplication of efforts, GRI Standards have grouped a number of indicators into one indicator only. For instance, grievance mechanisms for environmental matters, labor practices, human rights matters and impacts on society at large were combined into one indicator on grievance mechanisms in general. Moreover, grievance mechanisms do not constitute an indicator on their own anymore; rather, disclosure thereof is required under the indicator "The management approach and its components."

While this probably succeeds at reducing duplication, it also reduces detail and thoroughness (to an extent), particularly when itemized performance analysis is attempted, as is the case of this report. In turn, companies obtain some latitude. Non-disclosure of grievance mechanisms for human rights violations, for instance, would not appear as suppression of an indicator anymore. In turn, it would 'merely' appear as insufficient compliance with an indicator's requirements. For future modifications of the framework, we encourage taking the importance of itemized detail into account.

Government:

In the age of digitalization and information, non-financial reporting ought not be exempted from the technological wave. With the advent of Big Data and other high-tech applications, sustainability reporting ought to catch up. In this context, we would like to advocate for *digital tagging* for non-financial data. As of 1st January 2020, firms will be compelled to adopt "XBRL tagging" – a procedure which enables the machine-readability of data – for their financial reports, according to the requirement of compliance with the European Single Electronic Format (ESEF), as was announced by the European Securities and Markets Authority (ESMA).[133]

Advancements could also be achieved by improving the clarity of legal writing, and paying close attention to the consistency between the law and the related explanatory notes. For instance, endnotes 24 and 26 of this report attest to the fact that different interpretations have emerged with regards to what constitutes a large PIE and a large corporation. Given

that a clear legal language is both required by the rule of law and in the interests of undertakings wanting to comply with transparency legislation, steps in this direction would facilitate compliance with corporate responsibility laws.

Acknowledgements

The authors are most grateful to the peer reviewers for their invaluable critique and points they offered on this report. Georg Rogl and Bernhard Gehmayr advised our list of in-scope companies, as well as the discussion of the concept of materiality in the Austrian legal system. Prof. Dr. Rupert Baumgartner, inter alia, provided most insightful advice on company selection and ISO certification. Lawrence Heim offered particularly valuable points concerning audits and environmental performance. Michaela Kegel and Lydia Jarmer inputted on GRI standards and a number of legal interpretation matters. Dr. Josef Peter Schöggl thoroughly reviewed the indicators used and their findings. Dr. Katie Böhme provided yet another most judicious copy edit. Martina Prox approached the document from a Life Cycle Assessment and circular economy perspective, as well as reviewing our indicators findings and implications in minutious detail. Prof. Dr. Peter Degischer contributed with exceptional first-hand knowledge on many of the firms under review. Josef Baumüller provided background to preceding, contextualizing research, enriching the study with state-of-the-art literature and knowledge of current legal debates and discussions surrounding external assurance.

Data collection was performed by Juan Ignacio Ibañez, who also analyzed the data, as well as serving as the study's coordinator, overseeing its myriad of moving parts.

This report was authored by Dr. Chris N. Bayer, Juan Ignacio Ibañez and Dr. Jiahua (Java) Xu. Dr. Jiahua (Java) Xu programmed the text mining function, and also prepared graphs and scorecards. Juan Ignacio Ibañez implemented the text mining function and produced those graphs. Juan Ignacio Ibañez provided the robust legal underpinning of this study.

We also wish to thank Professor Rupert Baumgartner for his apt foreword.

A big thank you to Joerg Walden and the *iPoint-systems* team for privately funding research which is clearly in the public interest!

Appendix A: Acronyms

#	Number
§	Section / paragraph
3TG	Tin, tungsten, tantalum and gold
Abs.	Absatz (paragraph)
AG	Aktiengesellschaft (publicly traded company)
AktG	Aktiengesetz (Stock Corporations Act)
AFRAC	Austrian Financial Reporting and Auditing Committee
ATX	Austrian Traded Index
BDO	Binder Dijker Otte
BörseG	Börsegesetz (Stock Exchange Act)
BSCI	Business Social Compliance Initiative
CDP	CDP (former Carbon Disclosure Project)
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CSR	Corporate Social Responsibility
DI	Development International e.V.
DM	Drittmarkt (third, non-regulated market)
DRC	Democratic Republic of the Congo
EMAS	Eco-Management and Audit Scheme
EnMS	Energy Management System
ESEF	European Single Electronic Format
ESG	Environmental, Social and Governance
EU	European Union
EU NFRD	European Union Non-Financial Reporting Directive
EUR	euro
EY	Ernst & Young
FMA	Österreichische Finanzmarktaufsicht (Austrian Financial Markets Authority)
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GmbH	Gesellschaft mit beschränkter Haftung (Limited Liability Company)
GmbHG	Gesetzes über Gesellschaften mit beschränkter Haftung (Limited Liability Companies Act)
GRI	Global Reporting Initiative
ILO C182	International Labour Organization Worst Forms of Child Labour Convention of 1999
IFAC	International Federation of Accountants
ISA	International Standard on Auditing
ISAE	International Standard on Assurance Engagements
ISO	International Organization for Standardization
KPI	Key Performance Indicator
KPMG	Klynveld Peat Marwick Goerdeler
kWh	Kilowatts-hour
LCA	Life Cycle Assessment

LTIF	Lost Time Injury Frequency
LTIFR	Lost Time Injury Frequency Rate
LTIR	Lost Time Injury Rate
MFCA	Material Flow Cost Accounting
MJ	Mega Joules
MWh	Megawatts-hour
n	sub-sample
N	universe of observations
NACA	US National Advisory Committee for Aeronautics
NaDiVeG	Nachhaltigkeits- und Diversitätsverbesserungsgesetz (Law for the Improvement of Sustainability and Diversity)
NFI	Non-Financial Information
NFR	Non-Financial Reporting
NOx	Nitrogen Oxides
OECD	Organisation for Economic Co-operation and Development
OHS	Occupational Health and Safety
OHSAS	Occupational Health and Safety Assessment Series
PIE	Public Interest Entity
PwC	PricewaterhouseCoopers
SA	Social Accountability
SDGs	UN Sustainable Development Goals
SEDEX	Supplier Ethical Data Exchange
SMETA	SEDEX Members Ethical Trade Audits
StGB	Strafgesetzbuch (Criminal Code)
THG	Treibhausgas (Greenhouse Gas)
TRI	Total Recordable Injuries
TRIFR	Total Recordable Injury Frequency Rate
TRIR	Total Recordable Incident Rate
TWh	Terawatts-hour
UGB	Unternehmensgesetzbuch (Commercial Code)
UK	United Kingdom
UN	United Nations
UNGC	United Nations Global Compact
UNGPs	United Nations Guiding Principles
US	United States
VVaG	Versicherungsverein auf Gegenseitigkeit (Mutual Insurance Association)
WFCL	Worst Forms of Child Labor
WKO	Wirtschaftskammer Österreich
XBRL	Extensible Business Reporting Language

Appendix B: NaDiVeG eligibility

Company	URL	Credit institution	Insurance undertaking	Publicly-listed firm	Bond-issuing firm	>500 employees	>40 million euro sales revenue	>20 million euro in total assets	Declares reporting duty or mentions following the NaDiVeG
Addiko Bank AG	URL to report	✓				✓	✓	✓	✓
AGRANA Beteiligungs-AG	URL to report			✓		✓	✓	✓	✓
Allgemeine Sparkasse Oberösterreich Bank AG	URL to report	✓				✓	✓	✓	
Allianz Elementar Versicherungs-AG	URL to report		✓			✓	✓	✓	✓
AMAG Austria Metall AG	URL to report			✓		✓	✓	✓	✓
Ams AG	URL to report			✓		✓	✓	✓	
Andritz AG	URL to report			✓	✓	✓	✓	✓	✓
ASFiNAG	URL to report				✓	✓	✓	✓	✓
AT&S Austria Tech System AG	URL to report			✓	✓	✓	✓	✓	✓
Bawag P.S.K.	URL to report	✓		✓		✓	✓	✓	✓
Bank für Tirol und Vorarlberg AG	URL to report	✓		✓	✓	✓	✓	✓	✓
BKS Bank	URL to report	✓		✓	✓	✓	✓	✓	✓
Borealis AG	URL to report			✓	✓	✓	✓	✓	✓
Bundes Immobilien Gesellschaft GmbH	URL to report				✓	✓	✓	✓	✓
Buwog AG	URL to report			✓		✓	✓	✓	✓
D.A.S. Rechtsschutz AG	URL to report		✓			✓	✓	✓	
DenizBank AG	URL to report	✓					✓	✓	✓
DO & CO AG	URL to report			✓	✓	✓	✓	✓	✓
Donau Versicherung AG	URL to report		✓			✓	✓	✓	✓
Egger Holzwerkstoffe GmbH	URL to report				✓	✓	✓	✓	✓
Energie AG	URL to report				✓	✓	✓	✓	✓
ERGO Versicherung AG	URL to report		✓			✓	✓	✓	✓
Erste Group Bank AG	URL to report	✓		✓	✓	✓	✓	✓	✓
EVN Energie-Versorgung Niederösterreich AG	URL to report			✓		✓	✓	✓	✓
FACC AG	URL to report			✓	✓	✓	✓	✓	✓
Flughafen Wien AG	URL to report			✓		✓	✓	✓	✓
Frauenthal Holding AG	URL to report			✓		✓	✓	✓	✓
Generali Versicherung AG	URL to report		✓			✓	✓	✓	✓
GRAWE Gruppe AG	URL to report		✓			✓	✓	✓	✓
Helvetia Versicherungen AG	URL to report		✓			✓		✓	
HTI High Tech Industries AG	URL to report			✓		✓	✓	✓	✓
Hutter & Schrantz Stahlbau AG	URL to report			✓		✓	✓	✓	

Hypo Noe Gruppe Bank AG	URL to report	✓			✓	✓	✓	✓	✓
Hypo Tirol Bank AG	no	✓			✓	✓		✓	✓
Hypo Vorarlberg Bank AG	URL to report	✓			✓	✓	✓	✓	✓
Immofinanz AG	URL to report			✓			✓	✓	✓
Josef Manner & Comp. AG	URL to report			✓		✓	✓	✓	✓
Kapsch Trafficcom AG	URL to report			✓		✓	✓	✓	✓
Kärntner Sparkasse AG	URL to report	✓				✓	✓	✓	
Kärntner Elektrizitäts-AG (KELAG)	URL to report				✓	✓	✓	✓	✓
KTM Industries AG	URL to report			✓		✓	✓	✓	✓
Lenzing AG	URL to report			✓		✓	✓	✓	✓
Linz Textil Holding AG	URL to report			✓		✓	✓	✓	✓
Mayr-Melnhof Karton AG	URL to report			✓		✓	✓	✓	✓
Merkur Versicherung AG	URL to report		✓			✓	✓	✓	
Niederösterreichische Versicherung AG	URL to report		✓			✓	✓	✓	✓
Novomatic AG	URL to report				✓	✓	✓	✓	✓
Oberbank AG	URL to report	✓		✓	✓	✓	✓	✓	✓
Österreichische Beamtenversicherung VVaG	URL to report		✓			✓	✓	✓	
Österreichische Hagelversicherung VVaG	URL to report		✓			✓	✓	✓	
Österreichische Post AG	URL to report			✓		✓	✓	✓	✓
OMV AG	URL to report			✓	✓	✓	✓	✓	✓
Ottakringer Getränke AG	URL to report			✓		✓	✓	✓	✓
Palfinger AG	URL to report			✓		✓	✓	✓	✓
Pankl Racing Systems AG	URL to report			✓*		✓	✓	✓	✓
Petro Welt Technologies AG	URL to report			✓		✓	✓	✓	
Polytec Holding AG	URL to report			✓		✓	✓	✓	✓
PORR AG	URL to report			✓	✓	✓	✓	✓	✓
Raiffeisen-Holding Niederösterreich-Wien reg. Gen.m.b.H	URL to report				✓	✓	✓	✓	✓
Raiffeisen Bank International Holding AG	URL to report	✓		✓	✓	✓	✓	✓	✓
Raiffeisenlandesbank Niederösterreich-Wien AG	URL to report	✓				✓	✓	✓	✓
Raiffeisenlandesbank Oberösterreich AG	URL to report	✓			✓	✓	✓	✓	✓
Raiffeisen-Landesbank Steiermark AG	URL to report	✓			✓	✓	✓	✓	✓
Raiffeisenverband Salzburg eGen	URL to report	✓		✓	✓	✓	✓	✓	✓
Rath AG	URL to report			✓		✓	✓	✓	✓
RHI Magnesita AG	URL to report			✓		✓	✓	✓	
Rosenbauer International AG	URL to report			✓		✓	✓	✓	✓
Sberbank Europe AG	URL to report	✓				✓		✓	✓
S Immo AG	URL to report			✓	✓	✓	✓	✓	✓
S&T AG	URL to report			✓		✓	✓	✓	✓

Schoeller-Bleckmann Oilfield Equipment AG	URL to report			✓		✓	✓	✓	✓
Semperit AG Holding	URL to report			✓		✓	✓	✓	✓
Strabag SE	URL to report			✓	✓	✓	✓	✓	✓
Telekom Austria AG	URL to report			✓		✓	✓	✓	✓
UBM Development AG	URL to report			✓	✓		✓	✓	✓
Unicredit Bank Austria AG	URL to report	✓		✓	✓	✓	✓	✓	✓
Uniqa Insurance Group AG	URL to report		✓			✓	✓	✓	✓
Verbund AG (Österreichische Elektrizitätswirtschaft AG)	URL to report			✓	✓	✓	✓	✓	✓
Vienna Insurance Group AG Wiener Versicherung Gruppe	URL to report		✓			✓	✓	✓	✓
Voestalpine AG	URL to report			✓	✓	✓	✓	✓	✓
Volksbanken - Verbund	URL to report	✓				✓	✓	✓	
Volksbank Niederösterreich Süd	URL to report	✓				✓	✓	✓	
Volksbank Wien AG	URL to report	✓				✓	✓	✓	✓
Warimpex Finanz- und Beteiligungs AG	URL to report			✓				✓	✓
Wiener Städtische Versicherung AG	URL to report		✓			✓	✓	✓	
Wienerberger AG	URL to report			✓	✓	✓	✓	✓	
Wolford AG	URL to report			✓		✓	✓	✓	✓
Zumtobel Group AG	URL to report			✓		✓	✓	✓	✓
Zürich Versicherungs-AG	URL to report		✓			✓	✓	✓	

* Pankl Racing Systems delisted by the end of May 2018. According to the AFRAC this implies that the obligation to prepare a non-financial statement is immediately dropped (*"die Verpflichtung zur Erstellung einer nichtfinanziellen Erklärung sofort entfällt"*)[134] but we prioritized the firm's admission of being subject over this interpretation.

***While the "✓" mark means that we were able to verify that the firm satisfied the requisite at issue (through reviewing the firm's reports), the lack thereof does not preclude the possibility that the firm does satisfy it.*

Appendix C: List of companies assessed

Company	URL	Unique report found	Referral to evaluated report	Report not found
Addiko Bank AG	URL to report	✓		
AGRANA Beteiligungs-AG	URL to report	✓		
Allgemeine Sparkasse Oberösterreich Bank AG	URL to report	✓	✓	
Allianz Elementar Versicherungs-AG	URL to report	✓*		
AMAG Austria Metall AG	URL to report	✓		
Ams AG	URL to report	✓		
Andritz AG	URL to report	✓		
ASFiNAG	URL to report	✓		
AT&S Austria Tech System AG	URL to report	✓		
Bawag P.S.K.	URL to report	✓		
Bank für Tirol und Vorarlberg AG	URL to report	✓		
BKS Bank	URL to report	✓		
Borealis AG	URL to report	✓		
Bundes Immobilien Gesellschaft GmbH	URL to report	✓		
Buwog AG	URL to report	✓		
D.A.S. Rechtsschutz AG	URL to report	✓*		
DenizBank AG	URL to report	✓		
DO & CO AG	URL to report	✓		
Donau Versicherung AG	URL to report	✓	✓	
Egger Holzwerkstoffe GmbH	URL to report	✓		
Energie AG	URL to report	✓		
ERGO Versicherung AG	URL to report	✓*		
Erste Group Bank AG	URL to report	✓		
EVN Energie-Versorgung Niederösterreich AG	URL to report	✓		
FACC AG	URL to report	✓		
Flughafen Wien AG	URL to report	✓		
Frauenthal Holding AG	URL to report	✓		
Generali Versicherung AG	URL to report	✓*		
GRAWE Gruppe AG	URL to report	✓		
Helvetia Versicherungen AG	URL to report	✓		
HTI High Tech Industries AG	URL to report	✓		
Hutter & Schrantz Stahlbau AG	URL to report	✓		
Hypo Noe Gruppe Bank AG	URL to report	✓		
Hypo Tirol Bank AG	no	✓		✓
Hypo Vorarlberg Bank AG	URL to report	✓		
Immofinanz AG	URL to report	✓		
Josef Manner & Comp. AG	URL to report	✓		
Kapsch Trafficcom AG	URL to report	✓		
Kärntner Sparkasse AG	URL to report	✓		
Kärntner Elektrizitäts-AG (KELAG)	URL to report	✓		
KTM Industries AG	URL to report	✓		
Lenzing AG	URL to report	✓		

Linz Textil Holding AG	URL to report	✓		
Mayr-Melnhof Karton AG	URL to report	✓		
Merkur Versicherung AG	URL to report	✓		
Niederösterreichische Versicherung AG	URL to report	✓		
Novomatic AG	URL to report	✓		
Oberbank AG	URL to report	✓		
Österreichische Beamtenversicherung VVaG	URL to report	✓		
Österreichische Hagelversicherung VVaG	URL to report	✓		
Österreichische Post AG	URL to report	✓		
OMV AG	URL to report	✓		
Ottakringer Getränke AG	URL to report	✓		
Palfinger AG	URL to report	✓		
Pankl Racing Systems AG	URL to report	✓		
Petro Welt Technologies AG	URL to report	✓		
Polytec Holding AG	URL to report	✓		
PORR AG	URL to report	✓		
Raiffeisen-Holding Niederösterreich-Wien reg. Gen.m.b.H	URL to report	✓		
Raiffeisen Bank International Holding AG	URL to report	✓		
Raiffeisenlandesbank Niederösterreich-Wien AG	URL to report	✓	✓	
Raiffeisenlandesbank Oberösterreich AG	URL to report	✓		
Raiffeisen-Landesbank Steiermark AG	URL to report	✓		
Raiffeisenverband Salzburg eGen	URL to report	✓		
Rath AG	URL to report	✓		
RHI Magnesita AG	URL to report	✓		
Rosenbauer International AG	URL to report	✓		
Sberbank Europe AG	URL to report	✓		
S Immo AG	URL to report	✓		
S&T AG	URL to report	✓		
Schoeller-Bleckmann Oilfield Equipment AG	URL to report	✓		
Semperit AG Holding	URL to report	✓		
Strabag SE	URL to report	✓		
Telekom Austria AG	URL to report	✓		
UBM Development AG	URL to report	✓		
Unicredit Bank Austria AG	URL to report	✓*		
Uniqa Insurance Group AG	URL to report	✓		
Verbund AG (Österreichische Elektrizitätswirtschaft AG)	URL to report	✓		
Vienna Insurance Group AG Wiener Versicherung Gruppe	URL to report	✓		
Voestalpine AG	URL to report	✓		
Volksbanken - Verbund	URL to report	✓		
Volksbank Niederösterreich Süd	URL to report	✓		
Volksbank Wien AG	URL to report	✓		
Warimpex Finanz- und Beteiligungs AG	URL to report	✓		
Wiener Städtische Versicherung AG	URL to report	✓	✓	
Wienerberger AG	URL to report	✓		
Wolford AG	URL to report	✓		

Zumtobel Group AG	URL to report	✓		
Zürich Versicherungs-AG	URL to report	✓		

* Allianz Elementar Versicherungs-Aktiengesellschaft, ERGO Versicherung Aktiengesellschaft and D.A.S. Rechtsschutz AG referred to the report of their German holding company. Generali Versicherung AG referred to the report of its Italian holding company. Unicredit Bank Austria AG referred to the report of UniGroup. Given that these mother companies were not evaluated individually, these reports were all treated as unique and evaluated.

Endnotes

[1] Official Journal of the European Union, *Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014*, L 330/1, November 15, 2014, http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0095&from=EN, §21.
[2] Commission of the European Communities, *Green paper: promoting a European framework for Corporate Social Responsibility*, DOC/01/9, 18/07/2001, http://europa.eu/rapid/press-release_DOC-01-9_en.pdf.
[3] Andorfer: Symbol- oder Impulspolitik. Das Transparenzkonzept, ein mittelbares Instrument der Politik zur Forcierung einer ressourcenorientierten Unternehmensausrichtung. Eine konzeptionelle Betrachtungsweise am Beispiel der Richtlinie 2014/95/EU, Berlin 2018, p. 141.
[4] PIEs are defined at the EU level in directives 2013/34/EU on accounting (the Accounting Directive) and 2014/56/EU on statutory audits (the Audit Directive). Privately-held, non-bank and non-insurance companies are thus excluded from the EU-intended reporting scope. In Austria, PIEs encompass publicly-listed companies, bond-issuing companies (on regulated markets), credit institutions, insurance undertakings and other companies designed as such by a law.
See: Accountancy Europe, *Definition of Public Interest Entities in Europe*, November 30, 2017, https://www.accountancyeurope.eu/wp-content/uploads/171130-Publication-Definition-of-Public-Interest-Entities-in-Europe-published-version-1.pdf.
[5] In Austria, corporate public reporting was previously limited primarily to the financial dimension. The charge for corporations to supplement their annual financial statements with notes and with a management report is stipulated in §243 of the UGB. The management report must describe the course of business and the position of the company (§241[1] of the UGB).
[6] Official Journal of the European Union, *Directive 2014/95/EU*.
[7] Ibid, Recital 21.
[8] The EU regards human rights as such to be included in the category of sustainability.
[9] A common concept of "materiality" emerges from a judgment from the US Supreme Court at TSC Industries, *Inc. v. Northway, Inc.*, 426 U.S. 438 (1976), where information is considered to be material if there is "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."
[10] Bender, J.; Bridges, T.; Chen, H.; Lester, A.; Xiaole, S., *A Blueprint for integrating ESG into Equity Portfolios*, 2018, Journal of Investment Management (JOIM), https://www.joim.com/a-blueprint-for-integrating-esg-into-equity-portfolios/.
[11] See Recital 3, *Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014.*
[12] Ibid.
[13] European Parliament, *Corporate Social Responsibility: accountable, transparent and responsible business behaviour and sustainable growth* (2012/2098(INI)), 28.1.2013, http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A7-2013-0017+0+DOC+PDF+V0//EN.
[14] European Parliament, *Corporate Social Responsibility: promoting society's interests and a route to sustainable and inclusive recovery* (2012/2097(INI)), http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A7-2013-0023+0+DOC+PDF+V0//EN, 2013.
[15] *Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014*, Art. 4 I.
[16] Nachhaltigkeits- und Diversitätsverbesserungsgesetz: https://www.parlament.gv.at/PAKT/VHG/XXV/ME/ME_00257/index.shtml
[17] Heckendorn Urscheler, L.; Bast, J.; Curran, De Dycker, S.; Fournier, J.; Renaud-Solari, L.; Westermark, H., *Umsetzung der Richtlinie 2014/95/EU (CSR-Richtlinie) – Dänemark, Deutschland, Belgien, Finnland, Frankreich, Niederlande, Österreich, Schweden, Vereinigtes Königreich,* 2017, Swiss Institute of Comparative Law, http://www.e-collection.isdc.ch/zoom/4363/view, p. 51.
[18] Ibid.
[19] Ibid.

[20] Specifically, only large public limited companies required to prepare a corporate governance report are in scope of the diversity duty. Small and medium companies are exempted even if they are PIEs.
Parlament der Republik Österreich, *Erläuterungen (Nachhaltigkeits- und Diversitätsverbesserungsgesetz)*, 2017, https://www.parlament.gv.at/PAKT/VHG/XXV/ME/ME_00257/index.shtml, p. 3.
[21] Parlament der Republik Österreich, *Erläuterungen*, p. 3.
[22] AFRAC, *Lageberichterstattung gemäß §§ 243 bis 243b, 267 und 267a UGB*, 2017, https://www.afrac.at/wp-content/uploads/AFRAC-Stellungnahme_9_Lageberichterstattung_UGB_Dez2017.pdf, p. 45
[23] A subtlety is worth mentioning here. Although the number of employees relevant to being in scope or not is, both for §243b [1] and §221 [3], the *annual average* thereof, the explanatory notes to the NaDiVeG (*Erläuterungen*, p. 2) say otherwise: that for §221 [3], the 500 threshold must be exceeded *in two consecutive business years* (*hat in zwei aufeinanderfolgenden Geschäftsjahren mehr als 500 Mitarbeiter*) to be in scope. Once in scope, however, the firm must fall below the threshold for two consecutive years in order not to be in scope anymore (AFRAC, *Lageberichterstattung gemäß §§ 243 bis 243b*, p. 41).
This is grounded in §221 [4], which establishes that "the legal consequences of the size characteristics (paragraphs 1 to 3 first sentence) shall apply from the following financial year if these characteristics are exceeded or no longer exceeded at the end of the reporting period for two consecutive financial years. In the case of reorganization (merger, conversion, contribution, merger, division or demerger), except in the case of a change of legal form, the legal consequences already occur if the size characteristics are present on the first balance sheet date after the reorganization. This also applies to the abandonment of an establishment or a sub-establishment if the size characteristics are undercut by at least half."
[24] The explanatory notes to the NaDiVeG establish that a company is "large" in the sense defined by the §221 [3] of the UGB (*das Unternehmen ist groß im Sinne des § 221 Abs. 3 UGB*). This section defines large companies as those with at least two of the following three items: more than 20 million euros in total assets, more than 40 million euros in sales (in the twelve months prior to the balance sheet due date) and more than 250 employees on an annual average. Given that the threshold for the NaDiVeG is 500 employees, a company with that many employees would need at least either 20 million euros in total assets or 40 million euros in sales to be considered in scope.
Nevertheless, §221 [3] of the UGB also establishes, in its second sentence, that a PIE is considered to be a large company even if it doesn't meet the usual thresholds therefor (*"Ein Unternehmen von öffentlichem Interesse […] gilt stets als große Kapitalgesellschaft").* Consequently, a company would be subject to the NaDiVeG as long as it:

1) is a public-interest entity (PIE).
2) has more than 500 employees on an annual average.

– regardless of its assets and sales.
This would be reinforced by the fact that, in other sections of the NaDiVeG, explicit exclusion of the second sentence of §221 [3] of the UGB was made when intended by the legislative power. §243c [2 - 2a] of the UGB establishes that the description of the diversity concept in the corporate governance report is mandated for large companies trading on a regulated market, without application of § 221 [3] second sentence (*"ohne Anwendung des § 221 Abs. 3 zweiter Satz"*).
Thus, exclusion of the second sentence of §221 [3] of the UGB would be made only for the corporate governance report and not for the non-financial statement. Hence, as far as the non-financial statement requirement is concerned, the assets/sales levels should not be relevant – (because PIEs are automatically considered large companies).
This position has been adopted by at least some authors (see footnotes 220 and 237 at Heckendorn Urscheler, L. et al, Umsetzung der Richtlinie 2014/95/EU). However, a number of works have taken issue with this reading, concluding that the second sentence of §221 [3] is inapplicable, as its application would only come about due to oversight by the legislator.
[25] In a discussion of the implications of the second sentence of §221 [3], Josef Baumüller (*Zum Anwendungsbereich der nichtfinanziellen Berichterstattung*, 2018, SWK-Heft) argued that this provision is inapplicable. Firstly, that there is sufficient evidence to conclude that the legislator was simply unaware of the need to make it inapplicable (p. 463). Secondly, that the desire of the legislator clearly was to establish the revenue/assets thresholds (p. 463-464). Thirdly, that "a coherent interpretation of the legal text" requires taking into account "its European legal foundations", i.e. the 2014/95/EU Directive, which does not support

the removal of these thresholds (p. 464). Finally, that this would be the solution consistent with legal certainty (p. 466).
Similarly, Prof. Christian Nowotny and Lisa Ziskovsky (*§ 243b UGB. Nichtfinanzielle Erklärung, nichtfinanzieller Bericht*, 2018, https://rdb.manz.at/document/1146_5_ugb_p0243b) in their commentary of §243b, assert that the second sentence of §221 [3] is not applicable (paragraph 6), though the reasons therefor are not clearly stated.
Furthermore, the explanatory notes of the NaDiVeG omit the second sentence of §221 [3] from their text altogether. Finally, the Austrian Financial Reporting and Auditing Committee (AFRAC, *Lageberichterstattung gemäß §§ 243 bis 243b*, p. 40) also states that the revenue/assets requirements must be met cumulatively with the PIE condition, thereby also overlooking the second sentence of §221 [3] of the UGB.
[26] While §243c obliges large public limited corporations to report on their diversity concept, it also explicitly determines that §221 [3] is not applicable in this particular case. Hence, for the purposes of §243c, a large corporation is defined in the terms of §221 [2] only. While Heckendorn Urscheler et al (2017: 50) argue that the 250 employee threshold must always be surpassed, we see no evidence for this, as a company with more than 20 million euro in total assets and 40 million euro in sales would be required to report their diversity concept even if it had less than 250 employees.
Heckendorn Urscheler, L. et al., *Umsetzung der Richtlinie 2014/95/EU*.
[27] AFRAC, *Lageberichterstattung gemäß §§ 243 bis 243b*, p. 47.
[28] Parlament der Republik Österreich, *Erläuterungen*, p. 3.
[29] Ibid.
[30] Ibid.
[31] See Article 51 of the Directive ("Member States shall provide for penalties applicable to infringements of the national provisions adopted in accordance with this Directive and shall take all the measures necessary to ensure that those penalties are enforced. The penalties provided for shall be effective, proportionate and dissuasive.")
[32] §283 [5] of the UGB establishes that the EUR 700 penalty increases six-fold in case the firm at issue is a large undertaking.
[33] Heckendorn Urscheler, L. et al, *Umsetzung der Richtlinie 2014/95/EU*, p. 53.
[34] Ibid.
[35] This possibility was anticipated by Directive 2014/95/EU, Article 19a Ie.
[36] AFRAC, *Lageberichterstattung gemäß §§ 243 bis 243b*, p. 48.
[37] With regards to due diligence processes, there is a slight divergence between the NaDiVeG and the EU Directive. The latter stipulates that the non-financial statement "shall include (…) (b) a description of the policies pursued by the undertaking in relation to those matters, *including due diligence processes implemented*; (…) (c) the outcome of those policies; (…)" (Official Journal of the European Union, *Directive 2014/95/EU*, italics are ours). The Austrian transposition, however, indicates in its §243b [3] that the report "shall include (…) 2. a description of the policy pursued by the Company in relation to the matters referred to in paragraph 2; 3. the results of these policy; 4. *the due diligence processes used*" (emphasis added). Heckendorn Urscheler et al (p. 55) argue that the Austrian legislative placed the requirement to describe the due diligence processes employed as a whole new item, because their implementation is regarded to be more important than it is in the EU Directive. Moreover, they argue that this makes the description of the due diligence processes used completely mandatory. In other words, in the Austrian transposition, the obligation to report on the due diligence processes implemented is excluded from the comply-or-explain "benefit" (which solely applies to item 2). This would mean that a description of these processes would be required "even if no policy was pursued and this was also sufficiently explained" (Heckendorn Urscheler et al., p. 55). However, this is open to interpretation, since it would be possible to argue that the lack of a policy implies no due diligence processes by definition.
[38] Parlament der Republik Österreich, *Erläuterungen*, p. 3.
[39] Last checked on August 21, 2019.
[40] In only one case, no report was found at all.
[41] Source: Vienna Stock Exchange (https://www.wienerborse.at/en/trading/members/member-list/).
[42] Source: Finanzen.at (https://www.finanzen.at/index/liste/atx_prime).
[43] Source: Vienna Stock Exchange (https://www.wienerborse.at/en/issuers/new-and-existing-bonds/).

[44] Source: Global Reporting Database (http://database.globalreporting.org/search/).
[45] Source: FMA (https://www.fma.gv.at/datenbanken-uebersicht/).
The "Report On The Analysis Of Foreign Insurance Business Of Austrian Insurance Groups" (*FMA*, 2019, https://www.fma.gv.at/en/insurance/disclosure/foreign-insurance-business-austrian-insurance-groups/) and the List of Approved Brochures (*FMA*, 2018, https://www.fma.gv.at/kapitalmaerkte/aufsicht-ueber-kapitalmarktprospekte/veroeffentlichungen-des-prospektrechts/) were also consulted.
[46] Source: ASRA (https://www.respact.at/site/de/news/artikel/article/7426.html).
[47] In one of these cases (D.A.S. Rechtsschutz AG), a report was found but not downloaded, since it was not in PDF format.
[48] In case of doubt regarding whether a company was subject to the law or not, explicit admission of being in scope thereof in the firm's non-financial report was considered. For instance, Immofinanz AG (p. 70) stated "Gemäß dem Nachhaltigkeits- und Diversitätsverbesserungsgesetz (NaDiVeG) ist die IMMOFINANZ verpflichtet, für das Geschäftsjahr 2018 eine konsolidierte nichtfinanzielle Erklärung zu veröffentlichen."
[49] If an annual or sustainability report explicitly stated not to be pursuant to the NaDiVeG, the report was not analyzed. Instead, we analyzed the report that was indicated to be pursuant to this law. However, if such report was not published, no report was analyzed, with the consequent treatment as "absence" of the data. For instance, DO & CO AG's annual report states that their non-financial report pursuant to the NaDiVeG is available in the homepage ("*Dieser ist auf der Homepage (www.doco.com) abrufbar*"). However, no such report was found at said web address.
[50] Directive 2014/95/EU, Article 1.
[51] The European Commission's guidelines further inform companies how to comply with the Directive. See: European Commission, *Guidelines on non-financial reporting (methodology for reporting non-financial information)*, 2017, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52017XC0705%2801%29.
[52] UGB §243b [2]: " Die nichtfinanzielle Erklärung hat diejenigen Angaben zu enthalten, die für das Verständnis des Geschäftsverlaufs, des Geschäftsergebnisses, der Lage der Gesellschaft sowie der Auswirkungen ihrer Tätigkeit erforderlich sind und sich mindestens auf Umwelt-, Sozial- und Arbeitnehmerbelange, auf die Achtung der Menschenrechte und auf die Bekämpfung von Korruption und Bestechung beziehen. Die Analyse hat die nichtfinanziellen Leistungsindikatoren unter Bezugnahme auf die im Jahresabschluss ausgewiesenen Beträge und Angaben zu erläutern".
UGB §243b [3]: "Die Angaben nach Abs. 2 haben zu umfassen: (…) 6. die wichtigsten nichtfinanziellen Leistungsindikatoren, die für die konkrete Geschäftstätigkeit von Bedeutung sind."
UGB §243b [5]: "Die Gesellschaft kann sich bei der Erstellung der nichtfinanziellen Erklärung auf nationale, unionsbasierte oder internationale Rahmenwerke stützen; wenn sie hiervon Gebrauch macht, hat sie anzugeben, auf welche Rahmenwerke sie sich stützt. Bei der Anwendung solcher Rahmenwerke ist sicherzustellen, dass die Anforderungen nach Abs. 2 und Abs. 3 erfüllt sind."
[53] As an orientation for reporting, the EU Directive specifically refers to the Eco-Management and Audit Scheme (EMAS), United Nations (UN) Global Compact, the Guiding Principles on Business and Human Rights implementing the UN 'Protect, Respect and Remedy' Framework, the Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the International Organization for Standardization's ISO 26000, the International Labour Organization's Tripartite Declaration of principles concerning multinational enterprises and social policy, and the Global Reporting Initiative (GRI).
[54] The 5 issue areas on which the EU Directive hones in are: social / human rights matters, employee matters, environmental matters, anti-corruption matters, and gender matters.
[55] Ernst & Young peer reviewed *only* the following chapters:

- II. Methods – A. Data (page 11/12)
- III. Findings – A. In-scope organizations (1st paragraph page 15)
- Appendix C – List of companies assessed

[56] Ibid.
[57] Parlament der Republik Österreich, *Vorblatt und Wirkungsorientierte Folgenabschätzung*, https://www.parlament.gv.at/PAKT/VHG/XXV/ME/ME_00257/index.shtml.
[58] WKO, *Informationspflicht über Nachhaltigkeitsaspekte*, January 19, 2017, https://www.wko.at/service/umwelt-energie/Informationspflicht-ueber-Nachhaltigkeitsaspekte.html

[59] Ernst & Young, *Österreichs Unternehmen haben weiterhin Aufholbedarf bei Nachhaltigkeitsberichten*, 2017, https://www.ey.com/at/de/newsroom/news-releases/ey-20161109-ey-analyse-nachhaltigkeitsberichterstattung

[60] Pricewaterhousecoopers, *Das erste Jahr NaDiVeG Ergebnisse, Erfahrungen, Empfehlungen*, 2018, https://www.pwc.at/de/publikationen/klimawandel-nachhaltigkeit/pwc_wu_das_erste_jahr_nadiveg_web.pdf

[61] Ernst & Young, *Nachhaltigkeitsberichterstattung österreichischer Top-Unternehmen*, 2019, https://www.ey.com/Publication/vwLUAssets/ey-analyse-zur-nachhaltigkeitsberichterstattung-in-oesterreich/$FILE/EY%20Analyse%20Nachhaltigkeitsberichterstattung%202019.pdf
Ernst & Young applied a methodology different from the one used in this report, impacting in the number of firms identified. While Ernst & Young counts holding and subsidiary firms as one legal unit, we regard them as separate entities.

[62] Other studies from Deloitte (p. 4) and KPMG (p. 2) studied 18 and 35 firms in scope, respectively; however they do not state the total number of subject companies.

[63] This number could decrease if the case of Pankl Racing Systems AG were taken into account. The last report published by the firm was the 2017 annual report, which states that "Pankl fulfils the requirements according to NaDiVeG and is hence exempted to add data according to article 243 of the Austrian Commercial Code (...) to the status report. The consolidated NFI declaration is included in the sustainability report of KTM Industries AG" (p. 15). However, while KTM Industries was included in KTM Industries' 2017 sustainability statement (in the annual report, p. 151), it was expressly excluded from the most 2018 non-financial report, since Pankl stopped being part of the KTM Industries Group on June 30th, 2018 (p. 3). We opted to evaluate KTM's report, and to treat the data as absent when KTM specified that the values at issue did not include Pankl. This was the case for the overwhelming majority of the indicators of our study, to such an extent that it would be reasonable to regard this as a case of nondisclosure.

[64] See §243b [7] of the UGB: "A company is exempt if it and its subsidiaries are included in the group management report or separate consolidated non-financial report of a parent company incorporated in a Member State of the European Union or a state party to the Agreement on the European Economic Area that has been prepared and disclosed in accordance with the requirements of the Accounting Directive and if it indicates in the notes to the financial statements which company is included in the group management report or separate consolidated non-financial report and where it is available."
See also Heckendorn Urscheler, L. et al., *Umsetzung der Richtlinie 2014/95/EU*, p. 52: "The parent companies of a group are required to submit a group management report and, if necessary, a consolidated corporate governance report in addition to the consolidated financial statements and present it to the Supervisory Board and the parent or general meeting of the parent company".

[65] A clear example of this is Pankl Racing Systems AG (see endnote 63).

[66] Of the remaining 5 mother companies, 4 were foreigner: three German (Allianz SE, Münchner Rückversicherungs-Gesellschaft AG and ERGO Group AG) and one Italian (Generali). Their reports were prepared pursuant to the local transposition of the EU NFRD, rather than the NaDiVeG. However, they were still evaluated for the current study applying identical criteria as those used for the NaDiVeG-pursuant reports.

[67] See: World Bank, *Austria*, 2019, https://data.worldbank.org/country/austria.

[68] Heckendorn Urscheler, L. et al., Umsetzung der Richtlinie 2014/95/EU, p. 54.
See also Parlament der Republik Österreich, *Erläuterungen*, p. 3.
For a detailed discussion of the time given for drawing up non-financial statements, as well as the "flexibilities" for certain companies, see Baumüller, J., *Aufstellungs- und Offenlegungsfristen für den nichtfinanziellen Bericht*, 2017, Zeitschrift für Recht und Rechnungswesen, 27 (10), p. 299–303. For further reference, see Baumüller, J., *Veröffentlichungspflicht für den nichtfinanziellen Bericht gemäß § 243b Abs 6 UGB?*, 2019, Steuer- und Wirtschaftskartei, 94 (10), p. 525–531.

[69] Of the 84 unique reports analyzed in this report, 70 were explicitly pursuant to the NaDiVeG and hence straightforward to categorize as "nichtfinanzielle Erklärung im Lagebericht" or as "gesonderter nichtfinanzieller Bericht". For 12 of the remaining 14 companies, which did not have a report explicitly pursuant to the NaDiVeG, the annual report was evaluated. These were also categorized as "nichtfinanzielle Erklärung im Lagebericht". However, in the case of two firms, there was a non-financial report following GRI.

For this reason, it was considered to be more pertinent to our study, evaluated instead of the annual report and categorized as "gesonderter nichtfinanzieller Bericht".

[70] Directive 2014/95/EU, Article 1.

[71] Directive 2014/95/EU.

[72] The Global Reporting Initiative (GRI), founded in 1997, is an international nonprofit organization aimed at helping companies, governments, and other organizations understand and communicate the impact of business on critical sustainability problems, including climate change, human rights, and corruption. The GRI guidelines for sustainability reporting contain useful principles and implementation instructions for the preparation of company-specific sustainability reports and are internationally recognized. The GRI Generation 4 (G4) standard comprises indicators which are generally applicable for each company. https://www.globalreporting.org/

[73] The International Integrated Reporting Framework, International <IR> Framework or IIRF, created by the International Integrated Reporting Council or IIRC, is aimed at establishing "Guiding Principles and Content Elements" for integrated reporting. An important characteristic is that it identifies information to be included, but does not establish benchmarks for the level of a firm's performance. See: IIRC, http://integratedreporting.org/resource/international-ir-framework/.

[74] The Ten Principles of the UNGC are derived from the Universal Declaration of Human Rights, the ILO's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the UN Convention Against Corruption. Companies that choose to participate in the UNGC publish in their annual report or similar corporate report (e.g. sustainability report) a description of the ways in which they are supporting the UN Global Compact and its ten principles (the so-called "Communication on Progress" – COP). See: UNGC, https://www.unglobalcompact.org/what-is-gc/mission/principles.

[75] The Sustainable Development Goals or SDGs are an initiative by the United Nations and its 2030 Agenda, consisting in 17 interdependent goals – each with a list of targets and indicators –, which constitute the continuation of the Millennium Development Goals for 2015.

[76] See GRI & UNGC, *Integrating the SDGs into corporate reporting: a practical guide*, 2018, https://www.globalreporting.org/resourcelibrary/GRI_UNGC_Reporting-on-SDGs_Practical_Guide.pdf. This guide was developed in collaboration with PwC and the UNGP-specialized center Shift.

[77] While the GRI Standards came about in 2016, revisions to 303 and 403 were published in mid-2018 (and translations to languages other than English by the end of the year). Since they are scheduled to be effective for materials from January 2021 onwards – and despite earlier adoption is encouraged – these revisions were not considered for our study.

[78] Figure 6 and Figure 7 retrieve *reported* application of frameworks. Therefore, if a statement indicate that it was written in accordance with, e.g., the GRI, we considered it as such, not judging whether this was satisfactorily achieved. For the discrepancy between reporting frameworks and their actual implementation, see section *d. Degree of reporting framework adherence*.

Furthermore, note that application of, e.g., the GRI includes both reporting "in accordance with" the GRI and "oriented towards" it.

[79] See, for example, Raiffeisen Bank International's report (p. 155-160) as well as Vienna Insurance Group's (p. 49-50), Helvetia Versicherung AG (p. 24-27, 64), Generali Versicherung AG's (p. 5, 89) and Porr AG's (p. 65-78). Some of these used GRI Standard indicators for most matters, except for certain sector-specific indicators (e.g FS8, FS16). Others, in turn, implemented a more varied mix, probably due to the transition between GRI versions.

Other reports such as , Hypo Vorarlberg Bank AG's also indicated having been prepared in accordance to both GRI G4 and GRI Standard (p. 83), but not using indicators from both versions. Some reports, such as Buwog AG claim to have a GRI G4 Index (p. 3) but in fact have a GRI Standard (p. 278).

Note that a number of firms (e.g. Palfinger AG, Novomatic AG) also used the NaDiVeG itself as if it were a reporting framework, scattering "NaDiVeG indicators" throughout the report.

[80] GRI, List of GRI Standards reports and published materials with their self-declared claims, https://www.globalreporting.org/reportregistration/verifiedreports

[81] UNGC / Global Compact Netzwerk Deutschland, Teilnehmerverzeichnis, https://www.globalcompact.de/de/teilnahme/teilnehmerverzeichnis.php

[82] Not all companies' financial statements require a mandatory audit by an external auditor. However, large corporations are subject to this accounting obligation under §268 and §269 of the UGB.
[83] Gedlicka, W.; Hirschböck, G.; Völkl, C., *§ 269 UGB. Gegenstand und Umfang der Prüfung*, 2019, https://rdb.manz.at/document/1146_8_ugb_p0269, paragraphs 51-53.
[84] Ibid, paragraph 53.
[85] Baumüller, J. & Follert, F., *Fragen zur nichtfinanziellen Berichterstattung aus Sicht des Abschlussprüfers*, 2018, Die Wirtschaftsprüfung, 71 (19), p. 1208.
[86] Ibid, p. 1205–1212.
[87] International Standard on Auditing (ISA) 720, *The Auditor's Responsibilities Relating to Other Information in Documents Containing Audited Financial Statements*, 2009, https://www.ifac.org/system/files/downloads/a040-2010-iaasb-handbook-isa-720.pdf, p. 740-745.
[88] Deloitte, *NaDiVeG Monitoring 2018*, https://www2.deloitte.com/at/de/seiten/wirtschaftspruefung/artikel/nadiveg-monitoring.html, p. 3.
[89] The ISAE 3000 is issued by the International Federation of Accountants (IFAC) and consists of guidelines for the ethical behavior, quality management and performance of non-financial information gathering and reporting.
[90] Guidelines on the processes underlying the audit under each level of assurance can be found at Kammer der Steuerberater und Wirtschaftsprüfer, *Zu ausgewählten Fragen bei der gesonderten Prüfung von nichtfinanziellen Erklärungen und nichtfinanziellen Berichten gemäß § 243b und § 267a UGB sowie von Nachhaltigkeitsberichten*, 2018, https://www.ksw.or.at/PortalData/1/Resources/fachgutachten/KFSPE28_27092018_RF.PDF, p. 6. For a comparison of the two types of assurance on a definitional level, see Kammer der Wirtschaftstreuhänder, *Rahmenkonzept zu Auftragsarten*, 2017, https://www.ksw.or.at/PortalData/1/Resources/fachgutachten/KFSPE1_25102017_RF.pdf, p. 7.
[91] Deloitte, *NaDiVeG Monitoring 2018*, p. 3.
[92] The term "reasonable assurance" is also called "uneingeschränkter Bestätigungsvermerk", and the term "limited assurance" is also called "eingeschränkter Bestätigungsvermerk."
[93] Parlament der Republik Österreich, *Erläuterungen*, p. 2.
[94] The nitrogen oxides (NOx) are nitric oxide (NO), nitric dioxide (NO_2) and nitrous oxide (N_2O).
[95] Moreover, despite the fact that Diesel engines are more fuel-efficient than petrol engines (i.e. producing more energy for a given volume), diesel engines produce more such gasses than petrol engines. See: Omnagen, *"NOx emissions – formation, reduction and abatement"*, 2017, http://clean-carbonenergy.com/nox-emissions.html.
[96] Greenpeace, *Bees in decline – a review of factors that put pollinators and agriculture at risk*, 01/2013, http://sos-bees.org/wp-content/uploads/2014/04/BeesInDecline.pdf, p. 17.
[97] Ibid, p. 17-18.
[98] UN General Assembly, *Resolution 70/1*, 25/09/2017, http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E.
[99] Other SDGs also pertinent to other sections of this report are goals 3 ("good health and well-being") and 5 ("gender equality").
[100] Although we did not consider this as obtaining EMAS certification, one should note that the BKS Bank reported a plan to introduce the EMAS for 2019.
[101] While emissions from the consumption of purchased electricity correspond to Scope 2, not Scope 1, the quote at issue undoubtedly refers to the latter, since 136,738 metric tons is the value for Scope 1 emissions in p. 41 and p. 70.
[102] World Resources Institute, *GHG Protocol Scope 2 Guidance*, 2015, https://ghgprotocol.org/sites/default/files/Scope2_ExecSum_Final.pdf, p. 4
[103] Ibid.
[104] OMV AG's report, in p. 108, states that its Scope 3 emissions are 113 tons of CO2e. However, in p. 55 and p. 112 it is reported as 113 *million* tons. We interpreted that the latter value is the correct one and the former, a typo.
[105] No page can be cited for this report, because it was only released in an online interactive version.
[106] See above.

[107] See Anderson, J. *The environmental benefits of water recycling and reuse*, 2003, Water Science and Technology: Water Supply, 3(4), p. 6–8.
[108] Ibid, p. 9.
[109] United States Environmental Protection Agency, *What is green power?*, 2017, https://www.epa.gov/greenpower/what-green-power.
[110] Parlament der Republik Österreich, *Erläuterungen*, p. 2.
[111] General Assembly of the United Nations, *International Bill of Human Rights*, 10/12/1948, http://www.un-documents.net/a3r217.htm.
[112] European Commission, *Guidelines on non-financial reporting (methodology for reporting non-financial information)*, 05/07/2017, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52017XC0705%2801%29.
[113] High-risk countries or products are notably listed in USDOL's *List of Goods* and *List of Products*, as well as the U.S. Department of State's Trafficking in Persons (TIP) report:

1. USDOL's *List of Goods Produced by Child Labor or Forced Labor* includes 148 items from 76 countries (as of September 20, 2018), www.dol.gov/ilab/reports/child-labor/list-of-goods/.
2. Pursuant to Executive Order 13126, USDOL's ILAB also "maintains a list of products (and their source countries) that it has a reasonable basis to believe are produced by forced or indentured child labor." See, e.g.,: USDOL, *List of Products Produced by Forced or Indentured Child Labor,* 2018, https://www.dol.gov/agencies/ilab/reports/child-labor/list-of-products.
3. The U.S. Department of State's annual TIP Report includes a list of countries in which there is a high risk for human trafficking. The full report is located at https://www.state.gov/j/tip/rls/tiprpt/2018/.
4. The U.S. State Department resource *Tier Placements and Regional Maps* is located here: https://www.state.gov/j/tip/rls/tiprpt/2018/282584.htm.

[114] International Labour Organization (ILO), Walk Free Foundation, and the International Organization for Migration, *Global estimates of modern slavery: Forced labour and forced marriage*, 2017, https://www.alliance87.org/global_estimates_of_modern_slavery-forced_labour_and_forced_marriage.pdf.
[115] Ibid.
[116] ILO, International Labour Office, *Profits and Poverty: The Economics of Forced Labour*, Geneva, 2014, http://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_243391/lang--en/index.htm.
[117] ABS Quality Evaluations, *Business Social Compliance Initiative (BSCI)*, 2015, http://abs-qe.com/es/sistema-de-bsci.html.
[118] Moreover, the figures slightly differed between statements, as AGRANA's report indicated that 3,002 out of 3,474 employees – i.e. 86.4% of the employees – completed the training.
[119] Parlament der Republik Österreich, *Erläuterungen*, p. 2.
[120] Parlament der Republik Österreich, *Erläuterungen*, p. 2.
[121] "Der Verhaltenskodex der efko-Gruppe wird bei Tätigkeitsbeginn in Österreich von jeder neuen Mitarbeiterin und jedem neuen Mitarbeiter unterzeichnet. Darüber hinausgehende Schulungen zur Korruptionsbekämpfung werden aufgrund des geringen Risikos, welches durch ein Risikomanagement bewertet wird, nicht abgehalten."
[122] At the moment, the implementation of a whistleblowing system is not legally required in Austria. However, this will be the case from 2021 onwards, for companies meeting specific conditions). See: European Parliament, *Protecting whistle-blowers: new EU-wide rules approved*, 2019, http://www.europarl.europa.eu/news/en/press-room/20190410IPR37529/protecting-whistle-blowers-new-eu-wide-rules-approved.
[123] The percentage value was not available in itself, but it was easily calculated since both the number of operations assessed and the total number thereof were reported together.
[124] For 55% of the companies under study, we retrieved a number of relations with business partners that were terminated (or not renewed) due to violations related to corruption. While this is indeed a higher value, we did not regard it as a higher level of transparency because, in most cases, this indicator was not reported directly. Rather, the majority of the firms reported having zero cases of corruption. Given that this logically implies that zero business relations were terminated due to corruption cases, a "zero" was retrieved. In fact, all the values retrieved under this indicator were zero.

[125] Transparency is considered by the OECD as part of due diligence also for institutional investors: "In line with the OECD Guidelines, due diligence involves: 1) identifying actual and potential adverse impacts; 2) preventing or mitigating adverse impacts; and 3) accounting for how adverse impacts are addressed, by (a) tracking performance and (b) communicating results." See: OECD, *Responsible business conduct for institutional investors: Key considerations for due diligence under the OECD Guidelines for Multinational Enterprises*, 2017, https://mneguidelines.oecd.org/RBC-for-Institutional-Investors.pdf.

[126] In Porr's report, a value was retrieved for 41 of the 67 indicators of this study. Thrity-three (33) were retrieved for ASFiNAG, 27 for Egger Holzwerkstoffe, 25 for Voestalpine AG and 22 for Novomatic AG. The average and median value was 11.

[127] AFRAC, *Lageberichterstattung gemäß §§ 243 bis 243b*, p. 44.

[128] Parlament der Republik Österreich, *Erläuterungen*, p. 3.

[129] Semperit AG Holding (p. 29-30) reported a number of "material risks […] that have a potentially high negative impact" according to the NaDiVeG ("*wesentlichen Risiken angeführt, die potenziell hohe negative Auswirkungen auf die Belange gemäß NaDiVeG haben*"), including CO_2 emissions, high usage of fossile fuels, environmental impacts of raw material extraction, inefficient use of resources, risks to working conditions, excessive usage of water, water pollution through sewages, among many others. However, the report rather covers these risks as "issue areas" on which the company works, rather than as actual material adverse impacts specific to the firm's activity. Very similar is the case of Egger Holzwerkstoffe's section on "NaDiVeG risks" and material risks with probably negative effects for the environment and society (*Wesentliche Risiken mit wahrscheinlich negativen Auswirkungen für Umwelt und Gesellschaft*) covering a wide variety of risks. Again, however, these risks appear to be issue areas rather than admissions of actual impacts.
Meanwhile, PORR AG reported "significant impacts of activities, products, and services on biodiversity" (p. 62), caused through "bridge building in Norway" and through "road construction", but they were specifically marked as *indirect* damages beyond the control of the firm (p. 48).

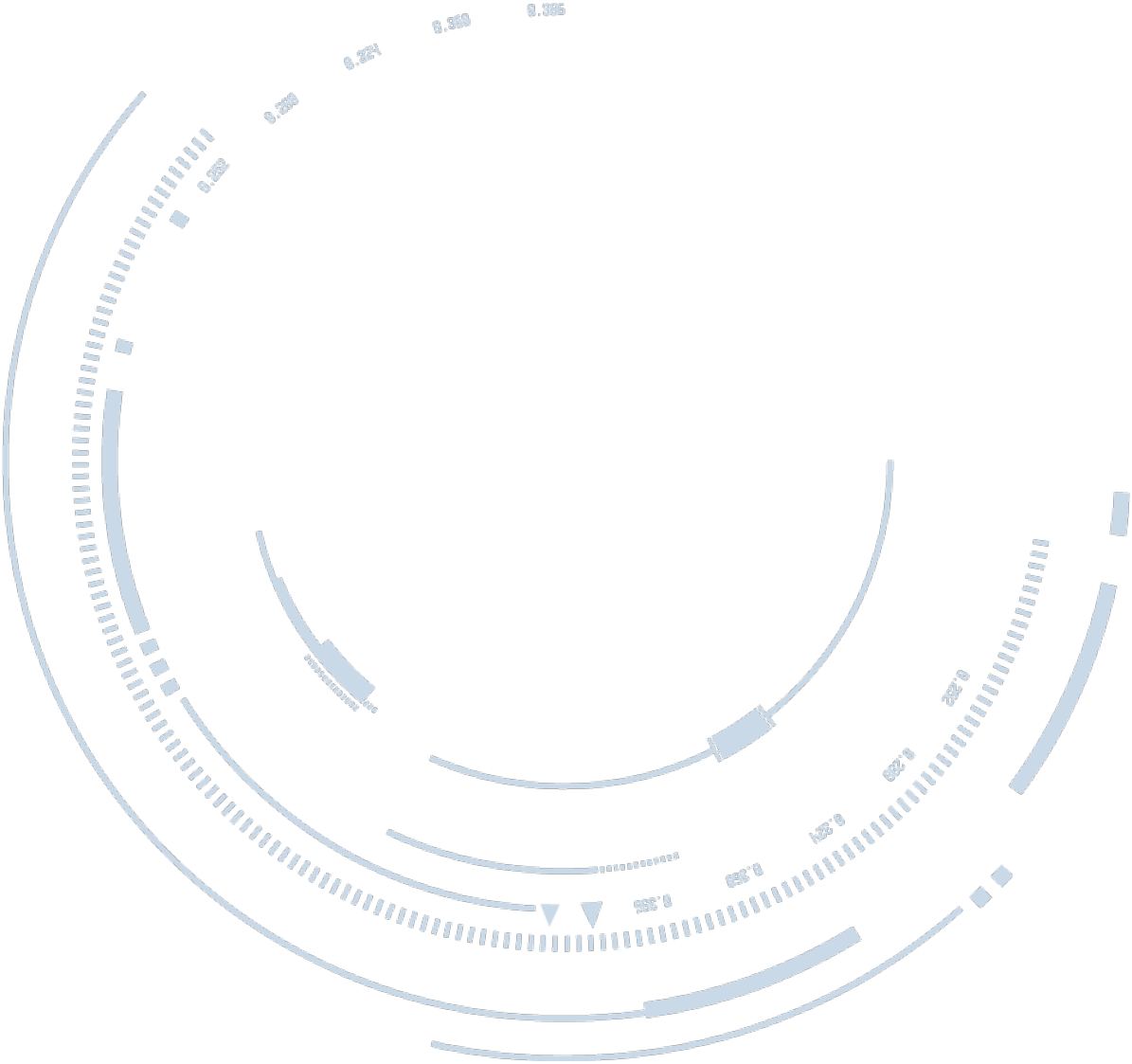
[130] AFRAC, *Lageberichterstattung gemäß §§ 243 bis 243b*, p. 18.

[131] Ibid, p. 46.

[132] Global Reporting Initiative, *Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities*, GRI 403: Occupational Health And Safety, 2016, https://www.globalreporting.org/standards/media/1018/gri-403-occupational-health-and-safety-2016.pdf#page=8.

[133] Laerman, M., *Machine-Readable Disclosure and ESEF 2020 – A New Era of Corporate Digital Reporting?*, 2018, https://www.sustainablebrands.com/news_and_views/marketing_comms/michael_laermann/machine-readable_disclosure_esef_2020_new_era_corp.

[134] AFRAC, *Lageberichterstattung gemäß §§ 243 bis 243b*, p. 42.



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