Corporate social responsibility reporting: A comprehensive picture?

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ABSTRACT

This study develops a content analysis framework that provides information on the comprehensiveness of corporate social responsibility (CSR) reporting, an important aspect of social and environmental accountability. Comprehensive reporting, as defined here, requires three types of information for each disclosed CSR item: (i) vision and goals, (ii) management approach, and (iii) performance indicators. The feasibility of the framework to assess the comprehensiveness of CSR reporting is demonstrated using the 2005 annual reports of a sample of publicly traded Belgian companies. The content analysis reveals a low level of comprehensive reporting. This finding complements those of prior studies on the completeness of CSR reporting and, therefore, feeds the debate regarding the extent to which CSR reporting can be considered a mechanism for discharging social and environmental accountability.

1. Introduction

Social and environmental disclosure practices have been proposed by social accounting scholars as a mechanism by which accountability duties *may* be discharged because they can inform a wide variety of stakeholders regarding companies' social and environmental impacts (see Adams, 2004; Gray, Owen, & Adams, 1996; O'Dwyer, Unerman, & Hession, 2005; Unerman, 2000). To discharge accountability, however, these disclosures need to demonstrate corporate acceptance of a company's social and environmental responsibility (Adams, 2004). According to Adams (2004); this acceptance can be demonstrated through a clear statement of values with corresponding objectives and quantified targets with expected achievement dates against which the company must report their progress.

Although companies are increasingly disclosing corporate social responsibility (CSR) information (e.g., Adams, 2004; Archel, Fernández, & Larrinaga, 2008; Gray, Javad, Power, & Sinclair, 2001), it is highly questionable whether the current annual, stand-alone CSR or social and environmental reports can satisfy the increasing demand for accountability (Adams, 2004; Milne & Gray, 2007). Recently, Hopwood (2009) has voiced his impression that companies report much more on aims and intentions than on actual actions and performance. To close this gap, prior research (Adams & Harte, 2000; Adams, 2004; Adams, Hill, & Roberts, 1995; Robertson & Nicholson, 1996; van Staden & Hooks, 2007) suggests that companies should report *comprehensively* by providing information on their (i) aims and intentions, (ii) actions and (iii) subsequent performance concerning different CSR issues.

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This paper provides a content analysis framework to explore whether companies report CSR information in a comprehensive fashion. 'Comprehensive reporting', as interpreted in this paper, requires companies to disclose three types of information for each disclosed CSR item: (i) vision and goals (VG), (ii) management approach (MA) and (iii) performance indicators (PI). These three information types are based on Robertson and Nicholson (1996) and on Vuontisjärvi (2006), and they refer to disclosures of (i) stated aims and values, (ii) specific actions and (iii) actual performance in a quantitative way. For instance, for the CSR item 'emissions', this approach means that a company discloses, e.g., (i) the aim to reduce emissions by a specified quantity, (ii) the specific actions to realize this intention and (iii) the actual reduction achieved. If a company reports in this way, it is possible to obtain a clearer view of the company's acceptance of its social and environmental responsibility, allowing the presented information to be placed in context (Adams, 2004). As such, comprehensive reporting is one of the conditions that need to be fulfilled to demonstrate accountability (e.g., Adams & Harte, 2000; Adams, 2004).

Many academic papers (e.g., Al-Tuwaijri, Christensen, & Hughes, 2004; Cormier, Magnan, & Van Velthoven, 2005; Gray, Kouhy, & Lavers, 1995; Wiseman, 1982) have looked at whether CSR disclosures are qualitative or quantitative. However, to our knowledge, no attempts have been made to systematically assess whether companies report *comprehensively* on specific CSR items. This paper addresses this limitation by developing a content analysis framework that reveals the comprehensiveness of CSR reporting by capturing not only (i) the disclosed CSR items but also (ii) the accompanying information types (VG, MA and PI). Due to these different information types, the proposed content analysis structure is among the first to capture the contextualization of CSR disclosures. By providing an indication of both the completeness (i.e., number of disclosed CSR items) and the comprehensiveness of CSR reporting, the developed content analysis structure gives a clearer indication of the extent to which an organization is accountable to its stakeholders (Mathews, 1997).

To demonstrate the feasibility of the developed framework in assessing the two dimensions of CSR reporting previously indicated, a content analysis is conducted on the 2005 annual reports of a sample of Belgian listed companies. The main reason for choosing this sample is that, while reporting patterns have been explored in many different national contexts, to our knowledge, no academic study to date has focused on Belgium (see Thomson, 2007). The 2005 annual reports are selected for analysis because these reports were the most recently available annual reports at the start of this research project.[1] The discussion section indicates that the insights provided by the 2005 reports are still relevant today. Furthermore, these 2005 findings are briefly discussed in relation to current knowledge of the companies' CSR performance.

Without a doubt, Belgian companies have significant environmental and social impacts. For example, a recent OECD report (2007) revealed that the Belgian industrial sector still puts pressure on the air, soil, water and other natural resources. Although the environmental impact of Belgian companies has declined in recent years (MIRA-T, 2008; OECD, 2007), Belgian companies have been confronted with their environmental backlog from the past and have been required by both public and government agencies to clean up contaminated soil and watercourses. Furthermore, the Belgian public has always been very concerned about companies' social impacts, especially regarding employment. This concern reflects the fact that Belgium is a country with a long tradition of social dialogue and strong union representation. Unsurprisingly, therefore, the survey of the Federation of Enterprises in Belgium (FEB) (2007) of Belgian companies revealed that companies tend to focus on the labor aspect of CSR.

On July 30, 2004, Belgian citizens were dramatically reminded of the fact that companies can have a huge impact on society, while companies were reminded that communication with society can be of vital importance. On that day, a utility company increased the gas pressure in a pipeline in Ghislenghien. This pipeline, which probably had been hit by an excavator of a construction company some weeks earlier, exploded. The explosion killed 24 people and injured 132, and it was so intense that people suffered fatal burns in their cars while driving on the highway E429 that passes near Ghislenghien. Immediately after the disaster, it became clear that the utility company should have communicated more effectively the positions of their pipelines with construction companies, local authorities and Belgian citizens. Due to the temporal proximity to the Ghislenghien disaster, the analysis of the 2005 annual reports provides interesting information because the utility company that owned the gas pipeline is included in the sample and discussed in detail in this article.

The paper is structured as follows. Section 2 situates the concept of comprehensive reporting in the accountability literature and is followed by the development and detailed description of the content analysis framework in Section 3. The results of the application of the content analysis to the sample of Belgian companies are presented in Section 4, which also illustrates the feasibility of the developed framework to answer a variety of research questions. Section 5 discusses the limitations of this study and offers some directions for future research. Finally, Section 6 discusses the findings and concludes with some comments on the findings' implications for the future development of a more accountable form of CSR reporting in Belgium and beyond.

2. Literature review

Currently, stakeholders are demanding the 'giving of a social and environmental account' (Adams, 2004). The survey of O'Dwyer, Unerman, and Hession (2005), for instance, provides evidence of widespread demand for CSR reporting among

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[1] This research project started in 2007. At that time, not all of the 2006 reports were available. The data collection process took a considerable length of time (approximately one year) because two inexperienced coders had to be trained and because each report was coded independently by three coders with each coding discrepancy being re-analyzed and reconciled (see Section 3.2).

Irish non-governmental organizations (NGOs). This demand is primarily driven by a desire for accountability. This finding is in line with earlier studies of Tilt (1994, 2004) that indicated that Australian pressure groups both demand and use CSR information. An Australian study by Deegan and Rankin (1997) found that various classes of annual report users[2] seek environmental information, while a recent survey by de Villiers and van Staden (2010) encompassing Australia, the UK and the US reveals that even individual shareholders call for environmental information because they believe that companies should be held accountable for their environmental impacts.

Despite the evidence that different groups in society demand CSR information and that some even rely upon corporate reports for informing themselves about these organizational practices (Deegan & Rankin, 1999; de Villiers & van Staden, 2010), several studies (e.g., Archel et al., 2008; Deegan & Gordon, 1996; Deegan & Rankin, 1996; Hopwood, 2009) have questioned whether CSR reporting can be regarded as a mechanism through which accountability duties *are* discharged.

Accountability can be defined as "the duty to provide an account or reckoning of those actions for which one is held responsible" (Gray et al., 1996, p. 38). In the accountability framework, *all* stakeholders who desire to have information (Ijiri, 1983), no matter how economically powerless they are, have rights to such an account, even if they choose not to use the information, and it is for them that the account must be prepared (Gray, Dey, Owen, Evans, & Zadek, 1997; Gray et al., 1996; O'Dwyer, Unerman, & Hession, 2005). As such, reports should provide objective information that allows stakeholders to make a reliable estimate of the organization's social and environmental performance (Gray, 2006).

From an accountability perspective, a significant research question is thus whether current reporting practices truly reflect corporate social and environmental behavior (Unerman, 2000). Several studies have revealed that it is highly doubtful that current CSR disclosure provides the stakeholder with a fair view of a company's CSR performance. This doubt mainly originates from the fact that companies predominantly provide narrative CSR information (e.g., Adams et al., 1995; Al-Tuwaijri et al., 2004; Beck, Campbell, & Shrives, 2010; Guthrie, Cuganesan, & Ward, 2008; Wiseman, 1982). Neu, Warsame, and Pedwell (1998), for instance, argue that managers often disclose narrative information because such disclosures can be tailored to manage public impressions. Similarly, Hopwood (2009, p. 437) states that these disclosures can be used to increase the company's legitimacy and, as such, may "even reduce what is known about the company and its environmental [CSR] activities."

To further the correspondence between reporting and actual performance, several prior studies have suggested a form of CSR reporting, which we will call *comprehensive* reporting. According to Robertson and Nicholson (1996), the 'ideal model' of CSR disclosure combines three hierarchical disclosure levels to close the gap between rhetoric and action. These disclosure levels are (i) 'General Rhetoric', which covers the corporate recognition of the value of CSR; (ii) 'Specific Endeavour', which consists of CSR activities and (iii) 'Implementation and Monitoring' of CSR programs. Companies that publicly set targets and report on their progress made have reached this level. According to Robertson and Nicholson (1996), this level is consistent with an overall corporate goal-setting approach. Similarly, van Staden and Hooks (2007) note that a high-quality environmental report should communicate a comprehensive story of the organization's environmental impacts and performance by providing information about its strategies, progress and contributions in this respect. This view is shared by Adams et al. (1995), who argue that there do not appear to be many real attempts to inform the public in an unbiased, full and helpful way regarding social and environmental topics because annual reports lack quantitative and financial information placed within a context. While disclosure of a policy statement is considered better than no disclosure at all, Adams et al. (1995) state that without any attempt to also describe the activities undertaken and results achieved, such policy statements are relatively uninformative. In a subsequent study, Adams and Harte (2000) make a number of proposals to improve equal opportunity reporting in the UK. Among those proposals, we find that companies should not simply state their commitment to equal opportunities but should also describe how that commitment is being fulfilled. Furthermore, companies are encouraged to develop an information system to enable the monitoring of their equal opportunities policies and the reporting of respective performance measures. Adams (2004) argues that one condition for the discharging of accountability is that companies provide clear statements of values, objectives and targets against which they report. Overall, prior studies suggest that CSR reporting should not only provide statements of commitments but should also elaborate on the fulfillment of these commitments and the achieved outcomes. Such reporting furthers the discharging of social and environmental accountability because it enables stakeholders to gain an overall understanding of a company's social and environmental performance.

This call for a combination of specific disclosure types has been confirmed by survey-type studies that have assessed which information types specific stakeholder groups require to satisfy their information needs. The surveys of Tilt (1994, 2004) of pressure groups illustrate that both narrative and quantified CSR information should be provided. Through in-depth interviews with representatives of NGOs, O'Dwyer, Unerman, and Bradley (2005) found that although there was a desire for the disclosure of environmental commitments and policies, many interviewees were adamant that the effectiveness of the policies and evidence of how any commitments would be met also needed to be disclosed. The recent survey of de Villiers and van Staden (2010) shows that over 60% of respondents believe that companies should disclose information on environmental risks and impacts, environmental policy, measurable environmental targets and actual performance (quantitative) against

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[2] The survey respondents were from a variety of user groups, including: shareholders, stockbrokers and research analysts, accounting academics, representatives of financial institutions, and a number of organizations performing general review or oversight functions, such as trade unions, environmental lobby groups, industry associations, and consumer associations.

environmental targets and environmental costs. Their findings illustrate that individual shareholders both require, and intend to use, a combination of information on aims and intentions, actions and performances.

Because CSR reporting is considered an important mechanism through which companies can account for their social and environmental policies and performance to a variety of stakeholders, many empirical research studies have analyzed the content of corporate reports for disclosures with respect to one or more categories of social and environmental matters (Unerman, 2000). According to Mathews (1997, p. 504) these content analysis studies are "valuable as a record of the current state of organizational disclosure, and therefore, of the distance that remains to be travelled along the path to full accountability by economic actors." To date, many of the content analysis studies have focused on the identification of the disclosed CSR items (e.g., Al-Tuwaijri et al., 2004; Branco & Rodrigues, 2008; Jose & Lee, 2007) or on the measurement of the extent (number of words, sentences or pages) of CSR disclosure used to address the different CSR items (e.g., Campbell, 2000, 2004; Gray et al., 2001; Unerman, 2000). According to Beck et al. (2010), these studies could be used to assess the completeness of reporting, i.e., the number of items disclosed.

However, in order to serve as a valuable tool for assessing the level of accountability, a content analysis must also capture the information types provided. In this context, Toms (2002) even argues that investigating only the volume of CSR disclosures is potentially misleading when it is the quality of disclosure that is important. Following Guthrie and Mathews (1985), some studies (e.g., Gray et al., 1995; Guthrie et al., 2008; Hackston & Milne, 1996) have argued that a sense of quality can be gained from whether the statement about an item is declarative, monetary quantitative or non-monetary quantitative. The content analysis of de Villiers and van Staden (2006) only distinguishes between two types of disclosures: general and specific disclosures (which mainly refer to non-quantitative and quantitative disclosures, respectively). In line with Wiseman (1982), several studies (e.g., Al-Tuwaijri et al., 2004; Cormier et al., 2005) have assigned weights to the items based on the disclosed information types for the items: if an item was covered by a quantitative disclosure, it was assigned the greatest weight (+3); if it was covered by non-quantitative but specific disclosures, it was assigned the next highest weight (+2) and general qualitative disclosures received the lowest weight (+1). These studies did not capture the contextualization of CSR disclosure because an item covered by all three disclosure types was assigned a weight of three, just like an item which was only covered by a performance indicator. Overall, these studies reveal a distinct lack of specificity in the disclosed information, indicating that CSR reporting is typically vague. Nevertheless, based on these studies, it remains impossible to judge whether companies mainly elaborate on aims and intentions or on real actions taken.

The purpose of the Vuontisjärvi (2006) study is somewhat different because it aims to describe in detail the content of the human resource disclosures of Finnish companies by using a set of indicators for each disclosed theme. For participation and staff involvement, for instance, the set of indicators contains the intranet, a personnel guide, a personnel newsletter, informing personnel about corporate strategy and an immediate supervisor as a communication channel. After the content analysis was conducted, it appeared that these indicators could be divided into three categories: (i) principle indicators, which reflect stated aims and values; (ii) process indicators, which describe the actions or practices taken into use and (iii) performance indicators, reflecting the outcome of the actions. However, this study provides no sound basis upon which to judge the comprehensiveness and completeness of reporting because (i) the level of detail of the indicators varies, i.e., the process indicators are narrowly described, whereas the principle indicators are kept very broad and (ii) the results are described at the sample level and not at the company level because the only purpose of the Vuontisjärvi (2006) study was to record the content of the disclosures of Finnish companies in general.

Conclusively, we can state that prior research (Adams & Harte, 2000; Adams, 2004; Adams et al., 1995; Robertson & Nicholson, 1996; van Staden & Hooks, 2007) suggests that to discharge accountability, companies should report comprehensively and provide information on their (i) aims and intentions, (ii) actions and (iii) subsequent performance concerning different CSR issues. Stakeholder survey studies (e.g., de Villiers & van Staden, 2010; O'Dwyer, Unerman, & Bradley, 2005; Tilt, 1994, 2004) confirm that stakeholders also require a combination of these different information types. Even though some content analysis studies take into account whether the disclosures are qualitative or quantitative, no study to date has systematically investigated the co-occurrence of these information types. This paper attempts to address this limitation by developing a content analysis framework that measures the level of comprehensive reporting by recording whether the following information types are disclosed for each item: (i) vision and goals, (ii) management approach and (iii) performance indicators. These information types, which are based on the work of Robertson and Nicholson (1996) and Vuontisjärvi (2006), refer to disclosures of (i) stated aims and values, (ii) actions and (iii) quantitative performance measures.

3. Research method

3.1. The sample

In addition to explaining the developed content analysis framework, this paper aims to illustrate the application of the framework by analyzing the disclosures of Belgian listed companies.

Although the framework can be used to analyze all types of written texts (such as websites and stand-alone reports), in line with the majority of previous studies (e.g., Beck et al., 2010; Campbell, 2000, 2004), each company's 2005 annual report was used as the basis of analysis. This decision was based on two reasons. First, the annual report plays an important role in the accountability-discharge activity of companies because it is widely distributed and often directly available on the company's website and because it is considered as the most important tool used by companies to communicate with

Table 1
The sample.

Industry	n	%[a]
Bank	3	2.8
Chemical	6	5.6
Food and beverage	6	5.6
Holding	24	22.2
Electronics and ICT	10	9.3
Manufacturing	15	13.9
Real estate	13	12.0
Retail	12	11.1
Service	12	11.1
Telecom	3	2.8
Utilities	4	3.7
Total	108	100.0

[a] *Note*: The percentages are rounded. Using the exact figures, they add up to 100.0%.

their stakeholders (Adams, Hill, & Roberts, 1998; Gray et al., 1995; Neu et al., 1998). In addition, stakeholder studies (Deegan & Rankin, 1997; O'Dwyer, Unerman, & Hession, 2005; Tilt, 1994, 2004) indicate that the annual report is a widely favored information source. Second, most Belgian companies prefer integrated reporting over stand-alone reporting, which is rare in Belgium (KPMG, 2005). Even the eight companies[3] that published a stand-alone report also elaborated extensively on their CSR behavior in their annual reports. Consistent with other studies (e.g., Beck et al., 2010; Branco & Rodrigues, 2008), all parts of the annual report prior to the financial statements were included in the analysis.

According to Belgian law, annual reports should contain information on environmental and labor practices, "to the degree to which it is necessary for a good understanding of the development, the results or the position of the company" (article 96 and 119 Wetboek van Vennootschappen,[4] in conformity with article 46 of the Fourth Council Directive of the European Parliament and the Council (i.e., Directive 2003/51/EC)). However, this stipulation is not enforced, and no mandatory disclosure list of items exists. There are also no specific disclosure requirements for different industries. Hence, CSR disclosures are voluntary.[5]

The sample used in this study is cross-sectional because it includes all Belgian companies listed on Euronext Brussels. We focused on publicly traded companies, as they are more likely to disclose CSR information (Branco & Rodrigues, 2008; Gray et al., 1995; Milne & Gray, 2007). From the initial 128 companies, we were able to collect the 2005 annual report for 108 companies either directly from the companies' websites (100 reports) or after request by e-mail (8 reports).

The publicly traded companies were attributed to industries according to the first two digits of the NACE and SIC codes,[6] as indicated in Belfirst.[7] Table 1 illustrates that approximately 22% are holding companies, nearly 14% are manufacturers, 12.0% are real estate companies and slightly over 9% are involved with electronics and information and communication technology (ICT). Retail and service companies both represent 11.1% of the sample, while chemical and food and beverage companies each represent 5.6%.

3.2. The technique of content analysis

To assess the level of comprehensive reporting, a content analysis framework was developed. *Content analysis* can be defined as a method of codifying text into different groups depending on selected criteria (Weber, 1990). This method has been frequently used to understand and describe the patterns in CSR reporting (see Guthrie & Abeysekera, 2006). One important criticism is that many content analysis studies do not provide sufficient information to enable others to understand how the content analysis has been conducted (Beattie & Thomson, 2007; Striukova, Unerman, & Guthrie, 2008). Therefore, this section explains in detail the choices made in undertaking the content analysis.

3.2.1. Coding structure

As illustrated in Fig. 1, the coding structure consists of two dimensions: (i) content and (ii) information types. The first dimension consists of two levels: (i) areas and (ii) items. Both dimensions will be discussed in detail in the following sections.

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[3] Some of these reports are biannual or triennial.

[4] This quotation refers to the Belgian Company Code. The articles were installed by the Law of 13 January 2006, published in the Moniteur Belge of 20 January 2006.

[5] Although social disclosures in the annual reports are voluntary, companies should complete a *Bilan Social*, which is part of the company's annual account that should be provided to the government. However, this *Bilan Social* is not part of the widely distributed annual report that is available on the company's website because it exists at the statutory level but not at the group ('consolidated') level.

[6] NACE is the acronym *for Nomenclature générale des Activités économiques dans les Communautés Européennes*. SIC is the acronym for *Standard Industrial Classification*.

[7] Belfirst is a database from Bureau van Dijk that contains financial and other company data on Belgian companies.

Dimension 1: Content   **Dimension 2: Information types**

Note: VG = vision and goals; MA = management approach; PI = performance indicator
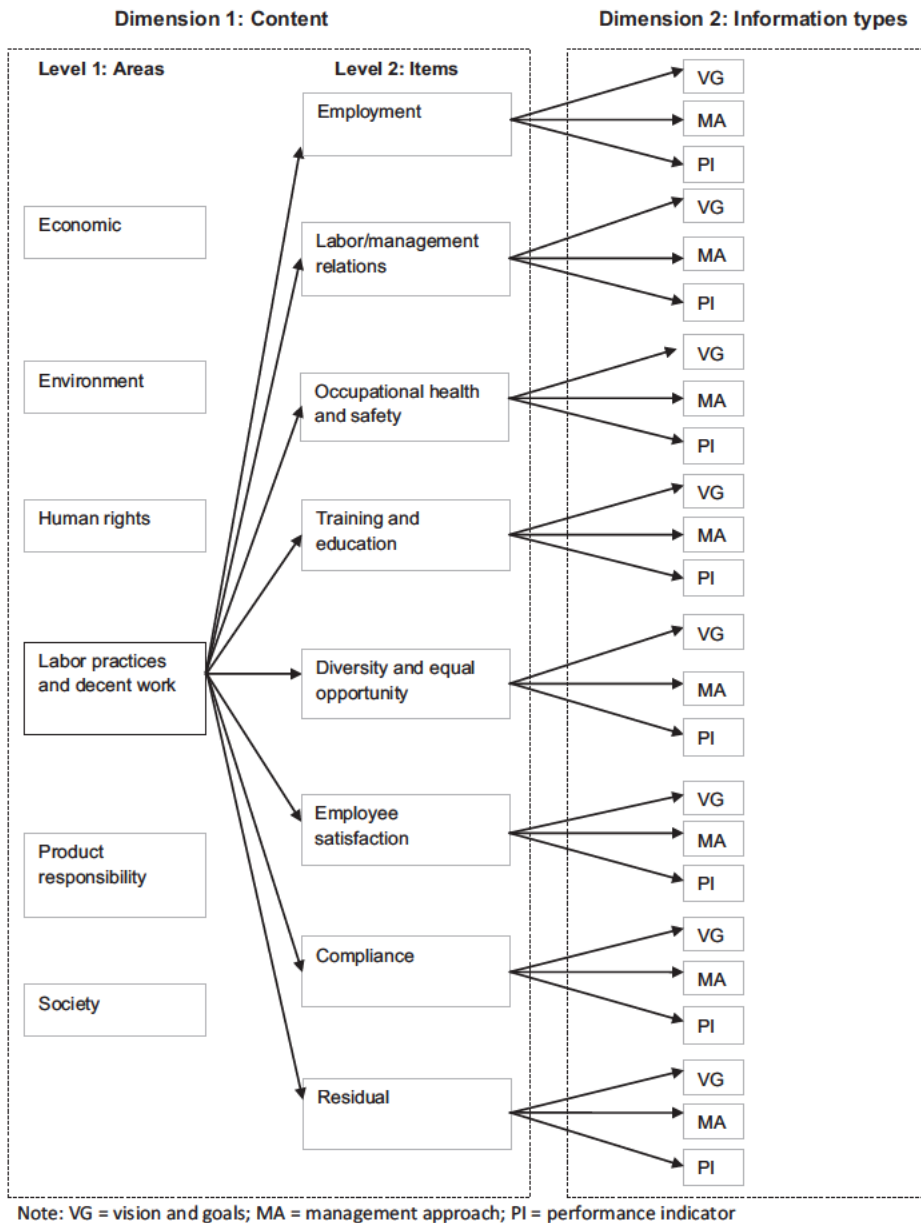
Fig. 1. The coding structure.

The coding structure has the form of a coding tree. The coder first decides on the area of disclosure, then on the item of disclosure and finally on the information type. Following Krippendorff (2004), a coding structure in the form of a decision tree has the following advantages: (i) criteria confusion is minimized, (ii) decision schemes can drastically reduce large numbers of alternatives, (iii) decision schemes can prevent unreliability due to categories being defined on different levels of generality or that overlap in meaning and (iv) when recording involves several dimensions of judgment, decision schemes offer coders the opportunity to determine each one separately.

3.2.2. Content: GRI as reference

Although no consensus exists on what CSR reporting means (e.g., Guthrie et al., 2008), appropriate content analysis demands that the coding structure is derived from shared meanings (Beattie & Thomson, 2007; Gray et al., 1995). Therefore, the Global Reporting Initiative's (GRI) Sustainability Reporting Guidelines (version 3.0) served as an appropriate starting point for the development of the coding structure because the GRI framework is global, has international acceptance (Farneti & Guthrie, 2009), is considered a rigorous framework for the application of triple bottom line reporting (Lamberton, 2005) and was drafted by a wide variety of experts after stakeholder consultation (Reynolds & Yuthas, 2008). Furthermore, the GRI
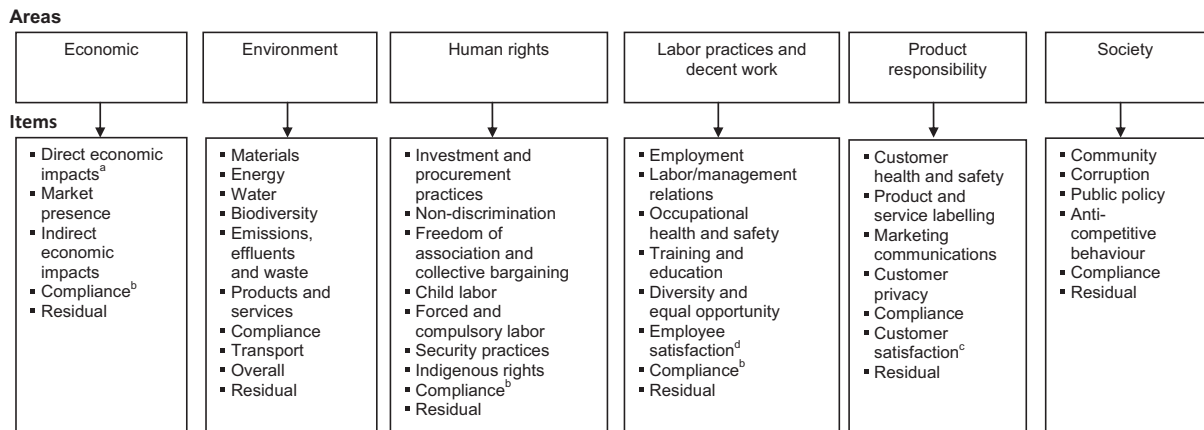
Areas

Economic	Environment	Human rights	Labor practices and decent work	Product responsibility	Society

Items

Economic	Environment	Human rights	Labor practices and decent work	Product responsibility	Society
▪ Direct economic impacts[a] ▪ Market presence ▪ Indirect economic impacts ▪ Compliance[b] ▪ Residual	▪ Materials ▪ Energy ▪ Water ▪ Biodiversity ▪ Emissions, effluents and waste ▪ Products and services ▪ Compliance ▪ Transport ▪ Overall ▪ Residual	▪ Investment and procurement practices ▪ Non-discrimination ▪ Freedom of association and collective bargaining ▪ Child labor ▪ Forced and compulsory labor ▪ Security practices ▪ Indigenous rights ▪ Compliance[b] ▪ Residual	▪ Employment ▪ Labor/management relations ▪ Occupational health and safety ▪ Training and education ▪ Diversity and equal opportunity ▪ Employee satisfaction[d] ▪ Compliance[b] ▪ Residual	▪ Customer health and safety ▪ Product and service labelling ▪ Marketing communications ▪ Customer privacy ▪ Compliance ▪ Customer satisfaction[c] ▪ Residual	▪ Community ▪ Corruption ▪ Public policy ▪ Anti-competitive behaviour ▪ Compliance ▪ Residual

Fig. 2. The GRI as reference for the dimension content.

[a] The item '*economic performance*' was narrowed to voluntary disclosures. Reporting on revenues, operating costs, employee compensation of members of the board of directors, retained earnings and payment to capital providers and governments and finally financial assistance received from governments is fully covered in either the mandatory International Financial Reporting Standards (IFRS) or the Belgian Corporate Governance Code and consequently cannot be considered as voluntary. This adjustment was also needed to further the comparability with the majority of social and environmental content analysis studies. Some studies that use the GRI as its reference like Guthrie et al. (2008) totally dismiss the economic area. Since we feel that this area records important information on direct economic impacts on non-financial stakeholders, like donations to charities (also included in other studies e.g. Adams et al., 1995; Gray et al., 1995) and risks and opportunities due to social and environmental issues (also included in e.g. Cormier et al., 2005), we opted to only narrow the item, and rename it 'direct economic impacts'. This category now involves both the economic impact of the company on non-financial stakeholders and the economic impact of social and environmental issues on the company.

[b] For the areas 'economic', 'labor practices and decent work' and 'human rights', the item '*compliance*' was added as companies often elaborate on actions to comply with or to outperform the law. Furthermore, information on e.g. the number of breaches of the law can be very informative. For the areas 'environment', 'product responsibility' and 'society', compliance was already included in the GRI Guidelines.

[c] Companies frequently elaborate on the actions they take to satisfy the customers. According to the GRI classification, '*customer satisfaction*' could fit within the item 'product and service labelling', but we felt that this would make this subcategory too heterogeneous and created a separate item. The category customer satisfaction includes consumer complaints and specific consumer relations (over and beyond 'the duty to the customer'), elements that are also included in the coding scheme of e.g. Gray et al. (1995) and Holder-Webb, Cohen, Nath, and Wood (2009).

[d] For the area 'labor practices and decent work', one item – '*employee satisfaction*' – was added because it was difficult to link employee satisfaction to one of the existing items. This item is also included in the coding structure of e.g. Branco and Rodrigues (2008).

guidelines are readily available on the GRI's website. These guidelines are intended for all types of companies,[8] allowing for the derived coding structure to be used for different industries (Willis, 2003). Finally, the GRI guidelines provide a structured overview of the base content of CSR reporting. The base content is divided into six areas (economic, environment, human rights, labor practices and decent work, product responsibility, and society) and several items (see Fig. 2). This approach adds directly to the transparency and replicability of the content analysis because other researchers can also use these guidelines to determine which area and item a disclosure belongs to.

3.2.3. Information type

The GRI suggests that a company should provide different information types (strategy and profile, management approach and performance indicators) when it discloses a CSR item. However, because these categories are not clearly defined, this message fails to reach the users of the GRI guidelines (M. Alma,[9] personal communication). Furthermore, the categories seem to overlap.[10] Therefore, the second dimension distinguishes between three information types, based on the work of Robertson and Nicholson (1996) and Vuontisjärvi (2006):

Vision and goals (*VG*): in line with Vuontisjärvi (2006), this category includes disclosures that provide information on stated aims or values. This category thus covers corporate recognition of the values of CSR (e.g., striving for a reduction in energy consumption), and it refers to Robertson and Nicholson's (1996) first level, 'General Rhetoric'.

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[8] Although the GRI has developed sector supplements for a few industries, the GRI still considers these guidelines to be the cornerstone of the GRI Sustainability Reporting Structure. These guidelines outline the core content for reporting and are relevant to all organizations, regardless of their size, sector or location. They form the foundation upon which all other GRI reporting guidance is based (see www.globalreporting.org).

[9] Marjella Alma coordinates the Application Level Checking Service of the GRI and assesses sustainability reports.

[10] For instance, some performance indicators seem to reveal management actions rather than the results of those actions. The following labor practices and decent work performance indicator is an example of this: 'Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.'

Management approach (*MA*): similar to Vuontisjärvi (2006), this category covers how the company addresses a given CSR issue by describing the action or practice adopted, and it corresponds to the second level, 'Specific Endeavour', of Robertson and Nicholson's (1996) hierarchy.

Performance indicators (*PI*): similar to Vuontisjärvi (2006), this category reflects actual CSR achievements by providing quantitative measures of CSR performance. This third category is narrower than Robertson and Nicholson's (1996) third level, 'Implementation and Monitoring'. However, the basic element of the goal-setting approach that Robertson and Nicholson (1996) described in this level is the performance measurement. For instance, in line with most of the CSR literature (e.g., Al-Tuwaijri et al., 2004; Gray et al., 1995; Wiseman, 1982), the simple statement that there has been an audit is considered a qualitative statement (here MA). If, however, the company also reports the number of breaches that this audit revealed, then this additional statement is considered to be a PI. This distinction is justified because the simple fact that there has been an audit reveals less in regard to the performance of the company than the quantitative findings of the audit.

3.2.4. Instrument reliability

We followed the approach suggested by Krippendorff (2004), Milne and Adler (1999) and Neuendorf (2002) to ensure that the definitions of the content analysis categories were reliable.

Before the coding structure was used, it was tested to determine whether the definitions of the different categories were workable. This process involved three test coders working independently. The coding structure and the initial coding rules, based on the GRI guidelines, were tested by using them to identify and record the CSR disclosures in five annual reports. Afterwards, the results were discussed and compared. Following this step, the coding structure was modified slightly, and the decision rules refined. The process was then repeated with five new reports until all three test coders agreed (after two rounds). As advised by Krippendorff (2004) and Neuendorf (2002), these annual reports were random subsamples of the total sample. Following Neuendorf (2002), the pilot subsample of 15 annual reports was re-coded afterwards with the revised coding scheme. Adjustments to the coding structure were made (i) to further comparability with other social and environmental content analysis studies, (ii) to be sure that each frequently reported item was included in the content analysis framework and (iii) to obtain well-specified areas and items with well-specified decision rules. Fig. 2 describes the adjustments made in detail. Note that an item called 'Residual' is added to each of the areas. This additional item is necessary because certain disclosures belong to one of the areas but nevertheless fall outside the items of this area (Gray et al., 1995). This item is not included in the analysis because it must be analyzed separately[11] (see Gray et al., 1995).

The set of comprehensive decision rules that resulted from the adjustment process furthered the instrument reliability (see Milne & Adler, 1999) and the objectivity of the study because the rules enabled independent coders to identify in exactly the same way what belonged to a certain category and what did not (Gray et al., 1995). These decision rules constituted a coding manual developed by the principal coder, who was also involved in the adjustment process, to assist the other coders with the coding decisions in the final stage (e.g., Beck et al., 2010). This manual was used extensively throughout the final coding process.

3.2.5. Coding reliability

Coding reliability means that the coded data produced by the content analysis are, in fact, reliable. To ensure coding reliability, all reports were coded by three persons. Only one researcher involved in the adjustment process was also involved in this final stage, i.e., the principal coder. The two other coders were inexperienced but were trained. Coding discrepancies between coders were re-analyzed, discussed and reconciled (Milne & Adler, 1999).

3.2.6. Identifying and quantifying CSR disclosures

As mentioned in Section 2, some content analysis studies measure the presence/absence of items (e.g., Branco & Rodrigues, 2008; Cormier et al., 2005; Jose & Lee, 2007), whereas others measure the extent of the disclosures on those items (e.g., Campbell, 2000, 2004; Gray et al., 2001; Unerman, 2000). In this study, the former practice was adopted. Before verifying the presence of an item and the disclosure type, it was necessary to read each report to identify and code every sentence that contained CSR information by assigning a content and information type label to it.[12] In line with most social and environmental content analyses, the sentence was thus used as the unit of analysis (e.g., Guthrie et al., 2008; Hackston & Milne, 1996; Milne & Adler, 1999). However, in rare cases in which complex sentence structures were used, logical parts of sentences – a group of words containing a single piece of information that is meaningful in its own right – were coded instead (see Zéghal & Ahmed, 1990). Sentences and logical parts of sentences can be considered as sound bases for coding because they both provide context (Milne & Adler, 1999).

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[11] A typical example of a VG quote that falls under the residual category is "Focusing on caring for the environment continues to be a major area of consideration". We checked whether those fairly broad VG statements could be related to more specific MA statements on one of the items of the area. However, the results showed that this was never the case.

[12] In practice, the content analysis was executed by loading the reports into a qualitative analysis software program (Atlas-ti). The relevant sentences were linked to the appropriate codes.

Table 2
Main characteristics of CSR reporting in Belgium.

Panel A (*N* = 108)						
Discloses information in the area	Number of disclosing companies		Number of non-disclosing companies		Total number of companies	
	n	%	*n*	%	*n*	%
Economic	45	41.7	63	58.3	108	100.0
Environment	49	45.4	59	54.6	108	100.0
Human rights	11	10.2	97	89.8	108	100.0
Labor practices and decent work	72	66.7	36	33.3	108	100.0
Product responsibility	37	34.3	71	65.7	108	100.0
Society	27	25.0	81	75.0	108	100.0
CSR	79	73.1	29	26.9	108	100.0

Panel B (*N* = 79)						
Information types	Number of items covered by		Number of items not covered by		Total number of items	
	n	%	*n*	%	*n*	%
Vision and goals	258	45.7	307	54.3	565	100.0
Management approach	424	75.0	141	25.0	565	100.0
Performance indicators	204	36.1	361	63.9	565	100.0

4. Results

This section describes the results of the application of the content analysis to the 2005 annual reports of Belgian listed firms and illustrates the feasibility of the developed framework to answer a variety of research questions.

Panel A of Table 2 illustrates that the majority of Belgian listed companies (66.7%) elaborate on at least one item in the labor practices and decent work area. Furthermore, nearly half of the companies (45.4%) provide some environmental information, whereas nearly 42% elaborate on an item in the economic area. Slightly more than one-third of companies (34.3%) disclose some product responsibility information, and a quarter elaborate on at least one society item. Only a few companies (10.2%) disclose some human rights information. These findings confirm that Belgian companies tend to focus on the labor aspect of CSR (see FEB survey, 2007). Overall, 79 companies (73.1%) disclose some information on at least one CSR item. Because the focus of this section is on assessing the level of comprehensive CSR reporting, which is the main contribution of the content analysis framework, the remainder of the results section will focus on the 79 disclosing companies. Indeed, the level of comprehensive reporting is only relevant when a company discloses *some* CSR information.

The last column in Panel B of Table 2 shows that, in total, 565 items are disclosed by the 79 reporting companies. Furthermore, Panel B illustrates that 75.0% of all items are covered by a MA disclosure, while 45.7% of all items are covered by a VG disclosure. Only for 36.1% of the items is a PI provided.

Subsections 4.1 and 4.2 illustrate that the developed content analysis framework can be used to reveal how Belgian companies reported for the 2005 period, whereas the last subsection (4.3) demonstrates that the developed framework may assist researchers in capturing a richer picture of the disclosure of CSR information, and as such, provides a meaningful basis from which various research questions can be addressed.

4.1. Level of comprehensive CSR reporting

The main contribution of the content analysis framework is that it assesses the comprehensiveness of CSR reporting by verifying whether a company releases information on VG, MA and PI concerning a specific CSR item. Based on this information, a measure for the level of comprehensive CSR reporting can be constructed as follows:

$$\text{Level of comprehensive reporting} = \frac{\text{number of items for which all 3 information types (VG, MA, PI) are disclosed}}{\text{number of items reported by the company}}$$

The level of comprehensive reporting reveals the extent to which a company discloses all three information types for the items they report on. Company 99, for instance, has a level of comprehensive reporting of 0.5 because this company reports on a total of 22 items, of which 11 had all three information types provided.

Column a in Table 3 illustrates that, for more than half of the disclosing companies (59.5%), the level of comprehensive reporting is zero because they fail to provide all three information types for *at least one* reported item. For 28 companies, the level of comprehensive reporting is greater than zero but smaller than or equal to 0.3. One company reports all three information types for a third of the disclosed items, and another company (company 99) discloses all three types for half of the disclosed items. Two companies disclose all three information types for all of the items they report on. Overall, Table 3 indicates the level of comprehensive reporting to be low. In line with prior studies (e.g., Adams et al., 1995; Beck et al., 2010; Guthrie et al., 2008; Wiseman, 1982), companies often fail to report quantitative measures. Therefore, Column b in

Table 3

Overview of the level of comprehensive reporting (a) and level of co-occurrence of the qualitative information types (b).

Level of co-occurrence of the information types (x) ($N = 79$)	VG and MA and PI (a)		VG and MA (b)	
	n	%[a]	n	%[a]
$x = 0$	47	59.5	25	31.6
$0 < x \leq 0.1$	4	5.1	1	1.3
$0.1 < x \leq 0.2$	17	21.5	8	10.1
$0.2 < x \leq 0.3$	7	8.9	16	20.3
$0.3 < x \leq 0.4$	1	1.3	17	21.5
$0.4 < x < 0.5$			2	2.5
$x = 0.5$	1	1.3	2	2.5
$0.5 < x \leq 0.6$			2	2.5
$0.6 < x \leq 0.7$			2	2.5
$0.7 < x \leq 0.8$				
$0.8 < x \leq 0.9$				
$0.9 < x < 1$				
$x = 1$	2	2.5	4	5.1
Total	79	100.0	79	100.0

VG: vision and goals; MA: management approach; and PI: performance indicator.

  [a] *Note*: The percentages are rounded. Using the exact figures, they add up to 100.0%.

Table 3 describes the level of co-occurrence of the narrative categories – VG and MA. Even so, more than 30% of the reporting companies fail to provide both information types for at least one of their disclosed items. For 25 companies, the level of co-occurrence is greater than zero but smaller than or equal to 0.3, whereas for 19 companies, the level of co-occurrence is between 0.3 and 0.5. Four companies reveal information on both VG and MA for at least 50% and up to 60% of the disclosed items, whereas two companies report both information types for more than 60% and up to 70% of the disclosed items. Finally, only four companies report both information types for all items they disclose on.

The previous findings raise the following questions: (i) Do companies that reach a comprehensive level score of 'one' actually report a wide range of CSR items? and (ii) Do the isolated disclosures inform the stakeholders on aims and intentions or on specific actions?

Because others, e.g., Adams et al. (1995) and Chapman and Milne (2004), have argued that the breadth of coverage of CSR items is another aspect of good reporting practice, the first question is highly relevant. To illustrate whether companies report comprehensively on a wide range of CSR items, Fig. 3 lists the sample companies by level of comprehensive reporting and number of items disclosed. Company 99 is the only company that discloses on more than half of the 39 suggested CSR items. As previously mentioned, this company has a level of comprehensive reporting of 0.5. The two companies that reached a comprehensive level score of one report on only one item. All the other companies report in a less than comprehensive fashion on less than half of the suggested CSR items. Overall, Fig. 3 reveals that only studying *comprehensiveness* without studying *completeness* could lead to misleading conclusions concerning the underlying reporting quality.

In total, 565 separate CSR items are disclosed by the 79 disclosing companies. Table 4 shows the information types in which these items are covered. As such, Table 4 answers the second question by illustrating that isolated disclosures mostly
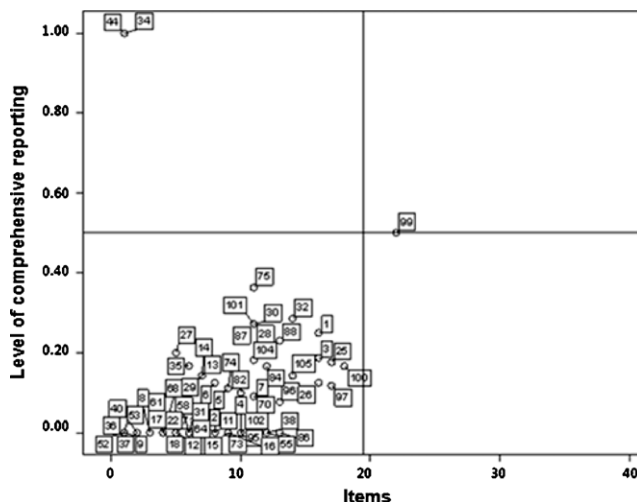

Fig. 3. Level of comprehensive CSR reporting and number of disclosed items ($N = 79$).

Table 4
Overview of the information types and their combinations in total and per area.[a]

Item is covered in the following way:	Total (N = 565)[b,c]		Economic (N = 56)[b,c]		Environment (N = 149)[b]		Human rights (N = 17)[b]		Labor practices and decent work (N = 234)[b,c]		Product responsibility (N = 62)[b,c]		Society (N = 47)[b]	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
VG and MA and PI	72	12.7	11	19.6	19	12.8	1	5.9	35	15.0	4	6.5	2	4.3
VG and MA	95	16.8	9	16.1	26	17.4	5	29.4	36	15.4	9	14.5	10	21.3
MA and PI	73	12.9	4	7.1	21	14.1	0	0.0	41	17.5	5	8.1	2	4.3
VG and PI	9	1.6	0	0.0	3	2.0	0	0.0	5	2.1	0	0.0	1	2.1
Only MA	**184**	**32.6**	**25**	**44.6**	**59**	**39.6**	1	5.9	**45**	**19.2**	**31**	**50.0**	**23**	**48.9**
Only VG	82	14.5	7	12.5	13	8.7	**10**	**58.8**	30	12.8	13	21.0	9	19.1
Only PI	50	8.8	0	0.0	8	5.4	0	0	42	17.9	0	0.0	0	0.0

VG: vision and goals; MA: management approach; and PI: performance indicator.

[a] *Note*: The most frequent combination is indicated in bold.

[b] *Note*: N is the sum of the items disclosed by each company.

[c] *Note*: The percentages are rounded. Using the exact figures, they add up to 100.0%.

inform the stakeholders on specific actions because 32.6% of the total number of items disclosed by all reporting companies are only covered by a MA disclosure; 'isolated' VG disclosures occur less than half as often (14.5%). Hopwood's (2009) impression that companies report much more on aims and intentions than on actions appears not to be confirmed here.

4.2. The practice of comprehensive reporting and various CSR items

By illustrating that the frequency of the information types and their combinations are different, Table 4 shows that the level of comprehensive reporting differs between the GRI areas. More specifically, only in the areas of economic, environment, and labor practices and decent work are more than 10% of the disclosed items covered by all three information types. In all areas other than the human rights area, the items are most frequently covered only by MA disclosures.

To reveal whether the preferred information types differ between the items, Table 5 reports (i) the number of companies that report on a certain item and (ii) how these companies disclose that item, i.e., by providing all three information types, two information types, or only one information type.

Table 5
Overview of information types and their combinations per item.[a]

Number of disclosing companies	Total	VG and MA and PI		VG and MA		MA and PI		VG and PI		Only MA		Only VG		Only PI	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%
Economic															
Direct economic impacts	**44**	11	25.0	7	15.9	4	9.1	0	0.0	**17**	**38.6**	5	11.4	0	0.0
Market presence	**6**	0	0.0	2	33.3	0	0.0	0	0.0	**3**	**50.0**	1	16.7	0	0.0
Indirect economic impacts	**5**	0	0.0	0	0.0	0	0.0	0	0.0	**4**	**80.0**	1	20.0	0	0.0
Compliance	**1**	0	0.0	0	0.0	0	0.0	0	0.0	**1**	**100.0**	0	0.0	0	0.0
Environment															
Materials[b]	**12**	3	25.0	0	0.0	1	8.3	0	0.0	**7**	**58.3**	0	0.0	1	8.3
Energy[b]	**22**	5	**22.7**	4	18.2	3	13.6	1	4.5	3	13.6	4	18.2	2	9.1
Water[b]	**13**	0	0.0	2	15.4	3	23.1	2	15.4	**5**	**38.5**	0	0.0	1	7.7
Biodiversity	**4**	**2**	**50.0**	1	25.0	1	25.0	0	0.0	0	0.0	0	0.0	0	0.0
Emissions, effluents and waste[b]	**33**	6	18.2	8	**24.2**	6	18.2	0	0.0	8	**24.2**	4	12.1	1	3.0
Products and services	**21**	2	9.5	5	23.8	1	4.8	0	0.0	**10**	**47.6**	3	14.3	0	0.0
Compliance	**28**	1	3.6	5	17.9	2	7.1	0	0.0	**18**	**64.3**	2	7.1	0	0.0
Transport	**7**	0	0.0	0	0.0	2	28.6	0	0.0	**5**	**71.4**	0	0.0	0	0.0
Overall[b]	**9**	0	0.0	1	11.1	2	22.2	0	0.0	**3**	**33.3**	0	0.0	3	33.3
Human rights															
Investment and procurement practices	**8**	1	12.5	**3**	**37.5**	0	0.0	0	0.0	1	12.5	**3**	**37.5**	0	0.0
Non-discrimination	**7**	0	0.0	2	28.6	0	0.0	0	0.0	0	0.0	**5**	**71.4**	0	0.0
Freedom of assoc. and coll. barg.	**0**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Child labor	**1**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	**1**	**100.0**	0	0.0
Forced and compulsory labor	**1**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	**1**	**100.0**	0	0.0
Security practices	**0**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Indigenous rights	**0**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Compliance	**0**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Labor practices and decent work															
Employment[b]	**67**	3	4.5	0	0.0	33	**49.3**	2	3.0	2	3.0	0	0.0	27	40.3
Labor/ management rel.	**25**	2	8.0	4	16.0	1	4.0	0	0.0	**14**	**56.0**	2	8.0	2	8.0
Occupational health and safety	**34**	**12**	**35.3**	8	23.5	2	5.9	0	0.0	2	5.9	8	23.5	2	5.9
Training and education[b]	**54**	13	24.1	**19**	**35.2**	4	7.4	0	0.0	5	9.3	13	24.1	0	0.0
Diversity and equal opportunity[b]	**21**	4	19.0	2	9.5	0	0.0	3	14.3	0	0.0	2	9.5	**10**	**47.6**
Employee satisfaction	**21**	1	4.8	2	9.5	1	4.8	0	0.0	**13**	**61.9**	4	19.0	0	0.0
Compliance[b]	**12**	0	0.0	1	8.3	0	0.0	0	0.0	**9**	**75.0**	1	8.3	1	8.3
Product responsibility															
Customer health and safety	**20**	3	15.0	4	20.0	1	5.0	0	0.0	**7**	**35.0**	5	25.0	0	0.0
Product and service labelling	**11**	0	0.0	1	9.1	1	9.1	0	0.0	**8**	**72.7**	1	9.1	0	0.0
Marketing communications	**2**	0	0.0	0	0.0	0	0.0	0	0.0	**2**	**100.0**	0	0.0	0	0.0
Customer privacy	**1**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	**1**	**100.0**	0	0.0
Compliance	**9**	0	0.0	1	11.1	0	0.0	0	0.0	**8**	**88.9**	0	0.0	0	0.0
Customer satisfaction[b]	**19**	1	5.3	3	15.8	3	15.8	0	0.0	**6**	**31.6**	6	31.6	0	0.0
Society															
Community[b]	**13**	2	15.4	**4**	**30.8**	0	0.0	1	7.7	3	23.1	3	23.1	0	0.0
Corruption	**3**	0	0.0	0	0.0	0	0.0	0	0.0	**2**	**66.7**	1	33.3	0	0.0
Public policy	**11**	0	0.0	1	9.1	0	0.0	0	0.0	**9**	**81.8**	1	9.1	0	0.0
Anti-competitive behavior	**2**	0	0.0	0	0.0	**1**	**50.0**	0	0.0	0	0.0	**1**	**50.0**	0	0.0
Compliance[b]	**18**	0	0.0	5	27.8	1	5.6	0	0.0	**9**	**50.0**	3	16.7	0	0.0

VG: vision and goals; MA: management approach; and PI: performance indicator.

[a] *Note*: The most frequent combination is indicated in bold.

[b] *Note*: The percentages are rounded. Using the exact figures, they add up to 100.0%.

Table 5 confirms that *economic* items are typically only covered by MA disclosures. However, the number of companies that report comprehensively on the item 'direct economic impacts' is quite high: 25.0% of the companies that elaborate on direct economic impacts provide all three information types. This finding explains the high frequency of the combination of all three information types in the economic area (see Table 4). Studying these disclosures in detail reveals that they typically cover the vision underlying donations, the actions to support a good cause, and the monetary amount of donations.

Nearly all *environmental* items are mostly covered only by MA disclosures. However, combinations of the information types occur more frequently here than in the economic area. Energy, water, biodiversity and emissions, for instance, are often represented by a combination of two or more disclosure types. Furthermore, all three information types are frequently provided for products and services (9.5%) and for materials (25.0%).

The frequency of the information type combinations varies widely between the items in the *labor practices and decent work* area. Most disclosing companies provide only MA disclosures regarding the following three items: labor/management relations, employee satisfaction and compliance. All three information types are provided by approximately 35% of the companies that disclose occupational health and safety information, whereas nearly 24% provide both qualitative disclosure types. The results for training and education are opposite; approximately 24% disclose comprehensively, whereas approximately 35% disclose both VG and MA information. Approximately 49% of the companies that elaborate on employment do so by disclosing MA and PI information, whereas approximately 40% only disclose the number of employees. Most frequently, companies only reveal a PI on the item 'diversity and equal opportunity'. This point can be explained by the fact that numerous companies only disclose a male/female ratio.

Only a few companies reveal all three information types on one or more items in the areas of human rights, product responsibility and society. Most companies report only VG information on the *human rights* items they disclose. Only one human rights item is covered by all three information types by one company, i.e., investment and procurement practices. Most companies reveal only MA information regarding *product responsibility* items. A considerable number of companies provide all three information types – or a combination of two types – on customer health and safety. In the area *society*, the items corruption, public policy and compliance are mostly covered by MA disclosures only. The item community, however, is frequently covered by all three information types, or by a combination of two information types.

4.3. The feasibility of the developed framework to answer a variety of research questions

By employing three examples, this subsection illustrates the capacity of the developed content analysis framework to answer a variety of research questions.

Prior literature consistently speculates that industry membership is related to CSR reporting (see Gray et al., 2001). The 2008 study of KPMG International confirms these industry differences. The developed content analysis framework can be used not only to verify whether the number of disclosed CSR items differs between industries but also to investigate whether the level of comprehensive reporting varies between industries. Fig. 4 sets out the industry means for the level of comprehensive reporting and for the number of items disclosed. Although these findings need to be interpreted with
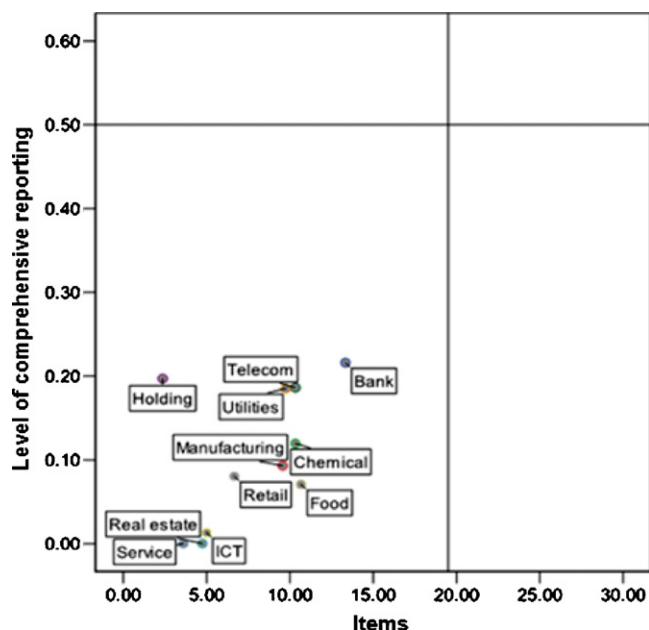

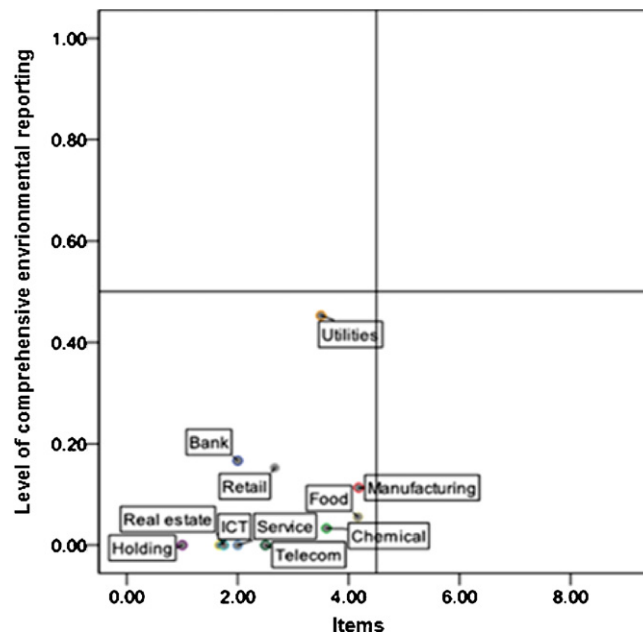**Fig. 4.** Level of comprehensive CSR reporting and industries (*N* = 79).

Fig. 5. Level of comprehensive environmental reporting and industries (*N* = 49).

caution due to the small number of companies in some industry categories, they shed some light on industry differences. The mean level of comprehensive reporting is highest for holding companies and banks. However, of all industries, the average number of items disclosed is highest in the banking sector and lowest in the holdings sector. Based on these two aspects, banks can be considered the best CSR reporters in Belgium. The telecom and utility sectors score relatively well for both level of comprehensive reporting and number of items disclosed. Both the level of comprehensive reporting and the number of disclosed items are inferior for the retail, real estate, electronics and ICT, and service sectors. Companies involving food and beverages, manufacturing and chemicals perform relatively well on the number of items disclosed, but their average level of comprehensive reporting is relatively low. The industry differences concerning the number of items disclosed are in line with the findings of content analysis studies in other countries (e.g., Adams et al., 1998; Branco & Rodrigues, 2008). A worthwhile avenue for further research is to investigate why the mean level of comprehensive reporting differs between industries that disclose a similar average number of items.

By focusing on the differences between environmentally sensitive and non-environmentally sensitive industries, the capability of the developed content analysis to answer a variety of research questions can be further illustrated. Based on legitimacy theory, it is expected that companies in environmentally sensitive industries will disclose more than will companies in non-environmentally sensitive industries (see Branco & Rodrigues, 2008; Patten, 2002). However, prior studies (see Dowling & Pfeffer, 1975; Lindblom, 1993) suggest that companies can use several legitimization strategies. On the one hand, the process of legitimization can involve real, material change in the organization's output, methods and goals, and voluntary CSR disclosures, in this case, are needed to inform relevant stakeholders about these changes (Deegan, 2002; de Villiers & van Staden, 2006). On the other hand, disclosures can be symbolic, which means that they are part of a legitimization process whereby companies try to influence the perception of the public without changing performance (Day & Woodward, 2004; Neu et al., 1998). de Villiers and van Staden (2006) consider general (qualitative) disclosures as symbolic disclosures.

The content analysis framework developed in the present article can be used to assess which legitimating strategy is followed by companies in environmentally sensitive industries by considering the types of information provided. Based on prior literature (e.g., Adams et al., 1998; Branco & Rodrigues, 2008; Campbell, 2004), the following industries are considered to be environmentally sensitive: manufacturing, chemicals and utilities. Fig. 5 sets out the industry means for the level of comprehensive environmental reporting and for the number of environmental items disclosed.

In relation to overall environmental disclosure, differences are noted in the average number of environmental items reported among sensitive and non-sensitive industries. However, the results are more mixed for the level of comprehensive environmental reporting. Whereas the utilities sector performs well, manufacturers score close to average and chemicals below average. To determine whether environmental reporting differs significantly between environmentally sensitive and non-environmentally sensitive industries, the Kruskal–Wallis test is used (see Table 6). This test reveals that the level of comprehensive reporting is significantly higher in the environmentally sensitive industries than in the non-sensitive industries. This finding might indicate that companies in environmentally sensitive industries prefer to provide substantive instead of symbolic environmental information. However, this conclusion should be interpreted carefully because Fig. 5 reveals that this difference is mainly driven by the fact that the average level of comprehensive environmental reporting

Table 6
Kruskal–Wallis tests (*N* = 49).

Kruskal–Wallis tests	Level of comprehensive environmental reporting	Items
Chi square	3.767	6.764
p-value	0.052	0.009

is quite high in the utility industry. In line with prior research (see, for example, Adams et al., 1998; Cowen, Ferreri, & Parker, 1987; Patten, 2002), the Kruskal–Wallis test indicates that the average number of environmental items disclosed is significantly higher in environmentally sensitive industries. Future studies may wish to investigate why the mean level of comprehensive reporting differs between specific environmentally sensitive industries.

In this context, the developed content analysis framework can also be used to investigate how the disclosure patterns change after a company has been exposed to public scrutiny. Company 26, for instance, represents the utility company that owned the gas pipeline that caused the disaster in Ghislenghien. In the 2005 report, this company reported on the accident and elaborated on the subsequent actions it had taken to prevent such a disaster from happening again, such as the development of communication plans. Furthermore, the company provided figures on how many mayors and subcontractors it had met with to discuss and inform them on this issue. The company also indicated how much compensation it would pay to the victims of the accident and expressed the intention for investments to reduce risks in the proximity of pipelines. The company had already elaborated on actions taken to avoid accidents with pipelines in the 2003 report; however, after the explosion in 2004, the disclosures quadrupled, and all three information types were provided.

In a similar manner, it is interesting to study the two companies with a huge environmental backlog: companies 99 and 105. Disclosures on the backlog should be included under the item emissions, effluents and waste. These disclosures were analyzed more thoroughly to determine which of them were related to contaminations in the past. Company 99 issued VG, MA and PI disclosures related to historical contamination, whereas company 105 only disclosed some MA information. The two companies are thus coping differently with their past actions. Furthermore, the overall level of comprehensive environmental reporting is higher for company 99 (0.43) than it is for company 105 (0.17). It would be interesting to further investigate why they have chosen to opt for different reporting approaches. Part of the answer is most likely related to the fact that in recent years, company 99 managed to create a solid environmental reputation, whereas company 105 is still considered to be an environmental polluter.

5. Limitations and future research

Although the content analysis framework developed here can be used to assess the comprehensiveness and completeness of CSR reporting as well as a variety of other research questions, it is necessary to discuss some limitations that might offer some opportunities for future research.

First, this study does not evaluate the overall quality of the disclosures, nor does it determine the credibility of the disclosures. Consequently, this study focuses on merely two of the requisites of accountability, i.e., comprehensiveness and completeness. This focus implies that even if companies report all three information types, the disclosures can still be selected to reflect well on the company in question. CSR assurance could improve the credibility of the disclosures; however, previous studies indicate that assurance appears to make no substantial difference in the extent to which one might rely on the CSR disclosures (Ball, Owen, & Gray, 2000; Dando & Swift, 2003; O'Dwyer & Owen, 2005). Nevertheless, the results suggest that comprehensive reporting might signal the efforts a company is making towards improving its CSR performance. Indeed, although companies 99 and 105 both have a huge environmental backlog, only company 99 succeeded in creating a solid environmental reputation. Remarkably, this company has the highest level of comprehensive reporting of all companies. Hence, future research could examine whether there is a link between comprehensive reporting and (future) CSR performance.

Second, in this study, the number of CSR items is used to obtain an indication of the completeness of disclosure. However, the CSR items included in the content analysis should not be considered as *the* complete list of items a company should report on. Rather, it is *a* list of CSR items, that – following the GRI Guidelines – contains the items that could be disclosed by each company. Undoubtedly, some items that may be relevant for a specific company are not recorded in the proposed disclosures. Completeness of reporting can only be assessed by considering supporting evidence from information users. Using detailed survey research and in-depth interviews, future research could (i) further scrutinize the detailed information demands of a variety of stakeholders (as most studies only focus on demands for environmental information and on particular stakeholder groups) and (ii) study the extent to which these stakeholders feel their information needs are fulfilled.

Third, the relationship between the VG, MA and PI statements might be time-lagged (see also Robertson & Nicholson, 1996). This limitation of the current study presents opportunities for future research because longitudinal studies could better take this aspect into account.

Fourth, the findings regarding industry differences should be interpreted with caution given the small number of companies included in some of the industry categories. However, if future research in other countries confirms that the level of comprehensive reporting differs between sensitive industries, future studies should try to explain why this difference occurs.

6. Discussion and conclusions

This study provides a content analysis framework to investigate the comprehensiveness of CSR reporting. Comprehensive reporting, as defined in this study, requires that three information types be provided for each disclosed CSR item: (i) vision and goals (VG), (ii) management approach (MA) and (iii) performance indicators (PI). The main contribution of this study is thus the development of a content analysis framework that reveals both the content of the disclosed CSR information (area and item) *and* the accompanying information types (VG, MA and PI). As such, two important aspects of accountability can be assessed simultaneously: (i) completeness and (ii) comprehensiveness. Hence, an indication is provided regarding the extent to which a company is accountable to its stakeholders.

The developed content analysis framework was applied to the 2005 annual reports of 108 publicly traded Belgian companies to demonstrate its capacity to (i) assess both dimensions of CSR reporting previously indicated and (ii) answer a variety of research questions.

The results reveal that Belgian companies do not report completely on their CSR behavior. The accountability demand remains totally unanswered in nearly 27% of Belgian listed companies. Although approximately 73% of the companies provide some CSR information, the number of items covered is typically low. Furthermore, only 36% of the items are covered by at least one PI. As such, we can conclude that the trend to provide mainly narrative CSR information (e.g., Adams et al., 1995; Beck et al., 2010; Guthrie et al., 2008; Wiseman, 1982) was also present in the 2005 Belgian context.

In addition, the results indicate that it is doubtful that the ascertained level of disclosure will satisfy the information demands of stakeholders because more than 59% of the reporting companies fail to provide all three information types for at least one item. Moreover, nearly 32% of the disclosing companies fail even to report information on both VG and MA for at least one disclosed CSR item. However, it is encouraging that, in contrast to Hopwood's (2009) impression, the majority of the isolated disclosures are MA disclosures and not VG disclosures. As such, this finding is in contrast with Robertson and Nicholson's (1996) analysis of corporate communication, which indicated that companies mostly reveal General Rhetoric information, and it also contrasts with Adams et al.'s (1995) analysis of environmental reporting, which indicated that companies mostly inform the public on their mere intentions regarding the environment. The present paper's finding thus leads to the conclusion that although the disclosed information is piecemeal, it contains some information that could be relevant to the user. However, the fact that nearly 64% of the disclosed items remain uncovered by a PI is astonishing.

The analysis also reveals that the level of comprehensive reporting is higher for the economic, environment and labor practices and decent work areas. One possible explanation is that environmental and labor-related issues are more embedded in Belgian companies than are other aspects such as human rights. In the labor area, companies typically report all three information types for well-embedded labor practices, such as training and health and safety. Similarly, in the area environment, items that are part of the daily operations (such as energy) score well. The use of environmental management systems like ISO 14001 can also positively influence the level of environmental reporting because a feature of these systems is the focus on intentions-actions-targets (Kuk, Fokeer, & Hung, 2005). The high level of comprehensive reporting in the economic area is due to the high number of companies that report comprehensively on their donations to charity.

Finally, through three examples, the suitability of the developed content analysis framework to answer a variety of research questions has been illustrated. First, in line with prior research, industry effects are noted. Banks are the best CSR reporters in Belgium when both completeness (i.e., number of disclosed CSR items) and comprehensiveness of reporting are taken into consideration. Scholtens (2009, p. 173) argues that CSR "gets deeper and deeper into the banks' business as usual" because (Belgian) banks develop an environmental policy, offer socially responsible investments and savings, and pay attention to community involvement, training facilities as well as diversity and equal opportunities. Once again, the results indicate that the level of comprehensive reporting is higher when CSR practices are well embedded. Second, differences in the level of comprehensive environmental reporting and in the number of items reported between environmentally sensitive and non-environmentally sensitive industries are noted. Although the environmentally sensitive industries report more environmental items, the results for the level of comprehensive reporting appear more mixed: one environmentally sensitive industry performs below average, one on average and a third above average. Third, high-profile companies have been shown to react differently, with some reporting comprehensively on the sensitive items, whereas others do not.

Overall, the findings indicate that CSR reporting in Belgium has a long way to go before it can be deemed a comprehensive and widely practiced activity among listed companies. Annual reports of Belgian companies leave the accountability demands of their stakeholders thus largely unanswered. There are some indications that CSR reporting has recently achieved greater attention in Belgium. In 1998, the Institute of Company Auditors launched the *Award for Best Belgian Environmental Report*, now labeled the *Best Belgian Sustainability Report*. In 2006, only 17 organizations (companies and NGOs) participated. Recently, however, the number of reports submitted (mostly annual reports) has increased, and in 2010, 44 organizations participated. In 2008, Business & Society Belgium issued a guide on CSR reporting. However, only companies cooperated in the development of this guide, and the quality of some reports was still deemed insufficient.[13] Furthermore, examination of the 2009 (most recent) annual reports of the non-disclosing companies utilized in the present enquiry indicate that nearly all still do *not* disclose any social and environmental information. As such, it may only be through some regulatory route

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[13] Observations of the quality of the reports reflect two of the authors' direct experience as members of the jury of the Best Belgian Sustainability Report, from 2006 to the most recent award in 2010.

that Belgian stakeholders can achieve access to the accountability information that they require. Based on previous studies and on the present findings, policy makers should not only prescribe the items a company should disclose but should also focus on the different information types that should be provided in regard to each specific item. However, it seems unlikely that the Belgian parliament will imminently pass a law on social and environmental reporting because in contrast to other EU countries such as the UK and the Netherlands, no precursory voluntary standards, codes or guidelines for social and environmental reporting have been developed to encourage companies to report. Therefore, it is important that voluntary reporting initiatives such as GRI try to enhance comprehensive reporting by better communicating to companies the idea that different information types need to be provided for each CSR item.

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