



PBL Netherlands Environmental  
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## **PBL Note**

# **Comparing public and private sustainability monitoring and reporting**

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## **Summary and Main Findings**

### **Summary**

National governments and large companies are increasingly monitoring and reporting on sustainability issues. A debate is emerging on whether and how sustainability measurement can be more closely aligned at national and company level, but little analysis has been carried out on the coherence of these systems. Comparison of trends and challenges indicates that alignment would help companies identify their contribution to public goals and increase the credibility of reporting. Closer alignment would stimulate sharing of concepts and methods by governments and companies, and enable governments to improve monitoring of company impacts on sustainability. Governments can encourage further testing of the applicability of alignment and help to guide the development of company sustainability reporting. The Post-2015 Development Agenda provides a policy process where debate on alignment could help to reveal the potential contribution by companies to the new goals and targets.

### **Main Findings**

#### **Introduction**

Reporting on the sustainability of company activities has increased greatly over the last 20 years to become standard practice for many large companies. Sustainability reporting has become a global practice, with high levels of reporting in the European Union, the United States, Asia and Latin America, and many governments stimulating or regulating company non-financial reporting. Simultaneously, national sustainability monitoring has substantially increased, with countries now compiling indicator sets to monitor national economic, social and environmental development.

However, little research has been carried out on the coherence between private and public monitoring and reporting systems. Yet, this is relevant for a number of reasons. Firstly, because of its size, impact and transboundary activities, the private sector needs to be engaged to attain public goals on sustainability; for instance, on biodiversity conservation, labour conditions and reducing impacts throughout supply chains. Shared concepts, themes and indicators can help companies identify their contribution to public goals. Secondly, the diversity of monitoring and reporting systems used in the public and private sector may hamper adoption of common goals and targets. Thirdly, company sustainability reporting may yield insight for government into the impacts and performance of economic sectors, and thus contribute to the information on which policies are based.

#### **Initiatives to harmonise public sustainability monitoring systems**

Various initiatives have been directed at harmonising national sustainability monitoring, and have led, for instance, to the Conference of European Statisticians (CES) Recommendations for national sustainable development indicators. While national systems differ, there is convergence on common themes and comparable indicators. Harmonisation of national sustainability indicators can stimulate adoption by policymakers, improve communication, aid country comparisons and improve the assessment of global development.

The UN Statistics Commission has adopted the System of Environmental-Economic Accounts (SEEA). This framework links economic and environmental data, and an increasing number of countries are setting up these accounts.

Sustainability monitoring at the national level faces challenges especially on adoption (by policymakers, media), dimension (on transboundary impacts and issues relevant to developing countries), methodology (e.g. monetary valuation) and theme (e.g. ecosystems).

### **Signs of convergence in the private sector**

There is a wide diversity of initiatives in the private sector, ranging from sector-based principles, reporting frameworks to many different company rankings and ratings. There is some evidence of standardisation; for instance, through the reporting guidelines of the Global Reporting Initiative (GRI) and in greenhouse gas emission monitoring.

Increasingly, rating agencies are requiring companies to supply sustainability information to assess their risks and future profitability.

Sustainability reporting has become mainstream for large companies, and shows a number of trends. Increasingly, companies are focusing on the issues most relevant (material) to their operations and stakeholders, and are paying more attention to the environmental and social impacts in their supply chains. Integrating financial and non-financial information is high on the agenda and monetising externalities is being tested as an approach to integrated reporting. Companies are beginning to move from disclosure of sustainability data to reporting on performance (what a company is doing to improve its sustainability).

There are also challenges in company sustainability reporting and rating. These challenges include understanding the link between sustainability reporting and performance, quality assurance of reporting, more standardised data collection, methods to meaningfully integrate financial and non-financial information, and engaging small and medium-sized enterprises in sustainability reporting.

### **Comparing developments in public and private sectors**

There are common challenges in sustainability monitoring and reporting for the public and private sectors with regard to balancing comparability and relevance (materiality). Some indicators may not be relevant for a specific country or company but not reporting on them goes at the cost of comparability. There is a common desire to harmonise data in order to improve efficiency and comparability. Another common trend is monetisation in order to integrate social and environmental information with economic and financial data.

Some themes and indicators are used in both the CES Recommendations and the GRI framework. For instance, social, environmental and economic domains are present in both, with similarities largest in the environmental domain, and the GRI framework more comprehensively addressing potential labour and social aspects.

### **Potential for alignment of public and private systems**

Public and private systems could be better aligned. Efforts to align company targets with public goals have been made in the OECD guidelines for multinational enterprises and the UN Global Compact. The Greenhouse Gas Protocol attempts to create a bridge from company accounting to policy in various countries. The GRI reporting framework attaches references to a number of international agreements on specific indicators. Much can also be learned from rating agencies servicing large investors as they link country and company sustainability data for a better assessment of risks.

Alignment initiatives need to be clear about the goals for alignment, and need to maintain flexibility, given the different situations of countries and companies, as well as the benefits of new initiatives and improving indicators and frameworks.

**Policy recommendations: Encourage further testing, manage public interests in company reporting, and use alignment in support of the Post-2015 Agenda**

While further alignment of public and private sustainability monitoring systems seems attractive, there is little practical experience. Thus, the first recommendation is to encourage further testing of alignment; for instance, for specific themes or sectors. Secondly, the rapid development in company non-financial reporting, partly stimulated by government regulation means that governments would do well to contribute to shaping these systems and standards in order to align them better with public interests. Thirdly, alignment could be developed to support the Post-2015 Agenda. The engagement of the private sector is crucial for this agenda and alignment can help show and quantify this potential contribution and that of individual companies.

## 1 Introduction

The last 20 years have seen a sharp increase in the number of large companies that monitor and report on the sustainability of their operations. Governments have been instrumental in mainstreaming this non-financial reporting, and national sustainability monitoring and reporting has also increased. Many countries have compiled indicator sets to monitor social and environmental aspects in addition to the traditional economic measures.

*Limited knowledge about the interplay between public and private sustainability reporting*  
Little research has been carried out on the coherence of private and public developments in sustainability reporting. The Netherlands Ministry of Foreign Affairs requested PBL to scope and compare current practices and trends in public and private sustainability monitoring and reporting. Closer alignment of public and private sustainability monitoring and reporting systems could potentially engage the private sector in contributing to public goals for sustainability. However, as stated by the Green Growth Knowledge Platform, '*The intercept between public and private initiatives [of green growth monitoring] is still very much characterised by knowledge gaps.*' (GGKP, 2013).

### *Public and private sustainability reporting in the Netherlands*

In the Netherlands, sustainability reporting is institutionalised in the publications, *Sustainability Monitor* and the *Green Growth in the Netherlands* and on a website which is regularly updated.<sup>1</sup> Examples of private sector sustainability monitoring are the promotion of corporate transparency by CSR Netherlands, the Transparency Benchmark of the quality of CSR reporting for large companies, and the Green Deal on Transparency that engages companies in the Netherlands to assess and report on their environmental and social impacts.<sup>2</sup> Furthermore, there is a legal requirement in the Netherlands for companies to report non-financial information.

In this report, sustainability monitoring and reporting is used synonymously with non-financial reporting, Corporate Social Responsibility (CSR) reporting and Environmental, Social and Governance (ESG) reporting in the private sector. In the public sector, there are also Sustainable Development Indicator sets and a variety of alternative monitoring systems. Convergence refers to converging elements in public and private sustainability monitoring and reporting, and alignment refers to the extent to which public and private elements in the systems are in line.

### **1.1 Objective, research questions and approach**

#### *Objective*

This paper explores the directions in which public and private systems of sustainability monitoring and reporting are developing and compares these developments. Although various studies provide overviews and explore developments in sustainability monitoring and reporting in either the public or private sector, few compare the two sectors (GGKP, 2013). This paper provides a quick scan to fill that gap. A more systematic analysis of

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<sup>1</sup> [www.compendiumvoordeLeefomgeving.nl](http://www.compendiumvoordeLeefomgeving.nl)

<sup>2</sup> The Green deal 'Samenwerken aan transparantie van natuurlijk en sociaal kapitaal', is a cooperation of 13 Dutch companies.

the themes and indicators used in public and private systems would indicate where more alignment is most useful (see for example, Hoekstra et al. (2014)).

### *Research questions*

This study addressed four research questions:

- What is the direction of public and private sustainability monitoring and reporting?
- What are the areas in which sustainability monitoring and reporting converge or diverge between the public and private sectors, and what are the implications?
- What are the potential benefits of closer alignment of public and private sustainability monitoring and reporting?
- What are implications of the observed trends for public policy?

### *Approach and limitations*

This paper is based on a literature search and interviews with ten people working in sustainability monitoring and reporting in public and private sector organisations and selected to obtain a balanced cover of the topics addressed (see Annex I).

The time available did not allow for a comprehensive analysis of all systems, frameworks, themes and indicators. Prominent frameworks and methods of sustainability monitoring and reporting in the public and private sectors were summarised and current trends explored. Although the emphasis was on environmental aspects, the thematic scope included social and economic dimensions in line with the practice of sustainability monitoring and reporting.

Convergence and divergence of sustainability monitoring and reporting occur within and between public and private sectors (alignment), and in different elements (conceptual level, concepts, methods, indicators or through standards, see Figure 1.1). This paper considers especially the national (public) and company (private) levels, but not regional and product levels. The public (national) level is presented in Chapter 2, the private (company) level in Chapter 3, and the two levels are compared in Chapter 4. The potential implications for public policy and the conclusions are presented in Chapter 5.

Figure 1.1

### **Framework to assess convergence of sustainable measurement and reporting systems**

Levels	Elements where convergence may occur			
	Conceptual / scope	Methods and techniques	Data and indicators	Creation of standards
National (public)				pbl.nl
Regional				
Company (private)				
Product				

 Chapter 2  
Chapter 3  
Chapter 4

Source: Statistics Netherlands, 2014; adaptation by PBL

## 2. Public sustainability monitoring and reporting

The background to developments in public sustainability monitoring are presented in Section 2.1, an overview and comparison of the more prominent frameworks in Section 2.2, efforts to harmonise sustainability monitoring at the national level are discussed in Section 2.3, and the challenges are summarised in Section 2.4.

### 2.1 Developments in public sustainability monitoring

The last 20 years have seen a large increase in systems and methods to measure national sustainable developments. The idea is to move 'beyond GDP' and to expand indicators for national progress beyond the traditional and mainly economic indicators.

#### *From environmental sustainability to a broad concept of well-being*

Initially, emphasis was on ecological aspects in measuring national sustainable development (Smits, 2011; Hohnen, 2012), even though sustainable development has always been framed as broader than the environment. The absence of depreciation of natural capital was a main concern in the system of national accounts. Not including natural capital as a stock that can be added to or depreciated on which the stability of future income and production depends sends misleading signals from national accounts. In addition, externalities – non-marketed costs or benefits – are not recorded in national accounts (Edens, 2013).

National sustainability measurement is now more comprehensive and includes components, such as health, education, safety and equality.<sup>3</sup> The Task Force on Measuring Sustainable Development uses a conceptual model with three dimensions of human well-being. These are the well-being of the current generation, effects on the well-being of people in other countries, and the well-being of future generations (UNECE et al., 2013). Yet, many of the links between the environment and well-being identified in this model are either indirect or not as yet well understood.

#### *Large growth in sustainability indices and indicator sets over time*

The Commission on Sustainable Development (CSD), which was established after the Rio Conference in 1992, published a set of Sustainable Development Indicators (SDI set). These led many countries to adopt varying sets of sustainable development indicators, many of which differed to varying extents from the CSD set.<sup>4</sup> The indicators in these national sets overlap to a large extent (Smits et al., 2014). There is overlap especially in themes, such as labour, health, climate, land and ecosystems, and a general absence of international dimension indicators. There are also numerous gaps between available indicators and 'ideal' indicators (UNECE et al., 2013).

### 2.2 Overview of national sustainability monitoring frameworks

With time, several frameworks and methodologies to measure national sustainability have gained prominence and are regularly reported. A distinction is made between frameworks with a specific environmental focus and those that include broader

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<sup>3</sup> The concept of well-being has different meanings. For a short discussion, see for instance, UNECE (2013), p. 41.

<sup>4</sup> For an overview of SDI sets, see Smits (2011), p. 50.

measurement of sustainability, including well-being. An overview of public sustainability monitoring and reporting approaches is presented in Table 2.1. These approaches were selected from an assessment of sustainability accounting frameworks for the UK Department of International Development (Smith, 2012).

**Table 2.1**

**Prominent public sustainability monitoring and reporting approaches**

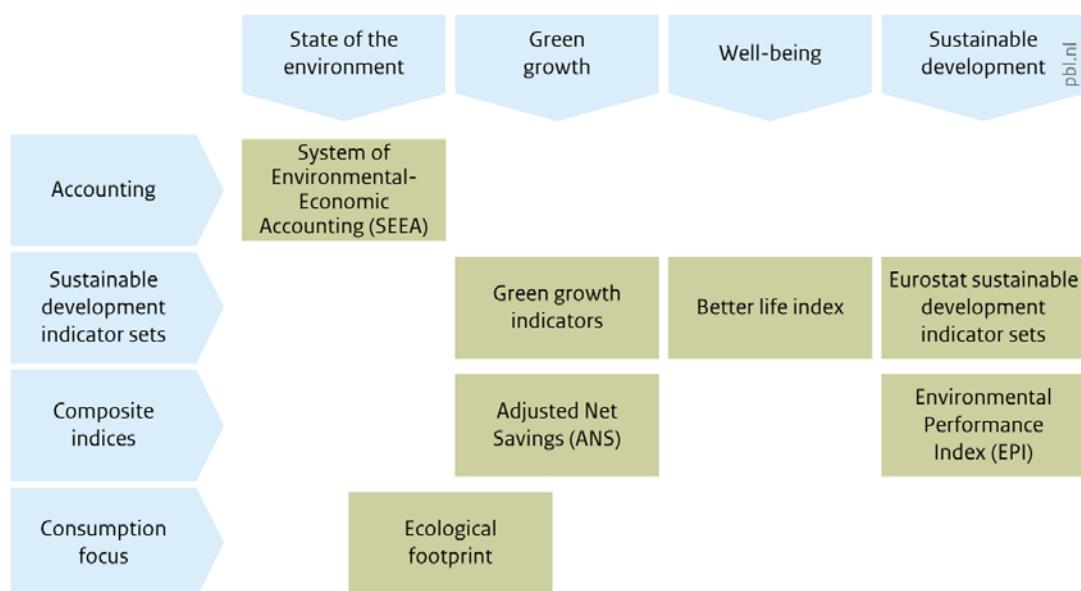
Framework / method	Organisation	Approach
Environmental:		
SEEA (System of Environmental-Economic Accounts) Central Framework	UN Statistical Division	A satellite account of the System of National Accounts, the SEEA framework provides standard, internationally comparable data on environmental-economic stocks and flows, and creates a link between the economy and the environment. Physical and monetary accounts are shown side by side for stock of environmental assets and environmental flows (e.g., mineral resources or energy flows).
ANS (Adjusted Net Saving)	World Bank	ANS results in large negatively adjusted saving rates for countries that rely on extraction of natural resources. ANS measures the wealth of a country by summing the capital stocks and flows, and includes natural capital, human capital (education expenses), and damage caused by pollution. Natural capital components are monetised requiring valuation techniques for natural capital components. Annually reported for most countries.
OECD Green Growth Indicators (GGI)	OECD	GGI is a relatively small dashboard of indicators to monitor national green growth. The approach is policy-oriented and pragmatic in the selection of indicators, and starts conceptually from production, inputs and resource productivity. It combines stock, flow and ratio indicators. Implemented for the Netherlands by Statistics Netherlands.
Ecological Footprint (EF)	Global Footprint Network	The EF goal is to assess current consumption against a boundary that defines sustainable use. The footprint uses average consumption data to compare national per capita consumption with the area of productive land needed to sustain that consumption. EF is distinguished by being consumption oriented, measuring transboundary impact, and including a concept of ecological boundaries. Data available for 152 countries.
Broader sustainability and well-being		
Eurostat SDI	Eurostat	This Sustainable Development Indicator set for the EU uses over 100 indicators for ten themes comprising economic, social and environmental aspects of sustainability. Seven of the 12 headline indicators are linked to natural capital. The indicator set assesses production and consumption effects on the environment.
EPI (Environmental Performance Index)	Yale University	The EPI assesses sustainability by measuring 22 variables per country. Ecosystem condition is linked to environmental health issues (e.g., air pollution). The underlying indicators and a composite EPI indicator are reported, the latter enabling a country ranking. Policy targets are used as a reference.
Better Life index	OECD	The OECD Better Life Index measures well-being based on material conditions and quality of life. A dashboard of indicators on 11 themes is presented. The link to environment is made through environmental quality that affects well-being (e.g., air quality and water quality). Current well-being is assessed, excluding effects of the present on future well-being, and the well-being of people outside national borders.

Source: (Stiglitz, 2010; OECD, 2011; Smith, 2012; Yale Center for Environmental Law and Policy & Center for International Earth Science Information Network, 2012; OECD, 2013; UNECE et al., 2013)

The environmental frameworks presented in Table 2.1 use different methods and have a different focus on sustainability, as also shown in Figure 2.1. The SEEA Central Framework is a national accounting structure that records the environmental flows and stocks of a national economy but has yet to be implemented widely in countries. ANS goes beyond GDP, adapting existing economic data to better reflect the exploitation of natural capital and to compare countries. The OECD Green Growth Indicators are oriented to policy and capturing trends ('greening' economies), for which policy-relevance determines indicator selection (OECD, 2011; OECD, 2013). It includes 'ratio' indicators, such as energy and resource productivity.<sup>5</sup> These three systems put emphasis on the production side of the economy. In contrast, the Ecological Footprint focuses on consumption and includes transboundary impacts on the environment.<sup>6</sup>

**Figure 2.1 Position of prominent frameworks by their method and sustainability focus**

#### Selection of national sustainability assessment systems



Source: PBL

#### Frameworks assess sustainable development in different ways

These frameworks assess sustainable development in one of three ways.<sup>7</sup> The first approach is to compare the state of consumption or production with thresholds or

<sup>5</sup> International comparisons of environmental or resource productivity, and efficiency should be used with caution, because the outcome may be influenced by differences in industry structure and geography.

<sup>6</sup> The Stiglitz Commission argued that 'rigorously defined footprints, such as the Carbon Footprint, may be better suited to national level use' (Smits, 2011), and that footprint indicators are best for global environmental goods, such as the climate system (OECD, 2011). PBL tries to break down the footprint into quantity and quality aspects for different environmental impacts (van Oorschot et al, 2013).

<sup>7</sup> Technically, sustainability is not the same as sustainable development. The first is static, while the latter refers to maintained improvement or growth. This paper uses both interchangeably.

boundaries, as in the Ecological Footprint. This approach requires knowledge of those boundaries which science is only starting to explore (Rockstrom et al., 2009; Baron, 2014). The second approach is to assess trends. Negative trends in natural or social capital indicators can indicate the direction in which society is heading. The SDI sets and the SEEA enable trends to be derived if monitored regularly. The third approach is to compare against policy targets. This requires setting targets at policy level, making the debate on what is sustainable political and not academic, as in the approach used by EPI (UNECE et al., 2013).

The conceptual model that underpins the approach influences how sustainability is assessed (Kulig et al., 2010). For instance, the ANS assumptions imply the possibility to substitute natural capital with human capital. In addition, indicators may be limited in their capacity to capture a component of sustainability but are included in absence of better indicators (OECD, 2013; UNECE et al., 2013).

#### *Composite indices or sets of indicators*

Sustainability can be monitored by a single, composite indicator or by a set of indicators, such as the Sustainable Development Indicator sets. The choice depends on the purpose of the monitoring. A composite indicator can be a powerful communication tool and provide a rapid indication of the state and trend in national sustainability. However, there are a number of drawbacks that invariably include weighing, as data sources require translating to one comparable measure (often monetary values), and the drivers of change are not explained (Stiglitz, 2011).

A set of indicators is immediately more complex, providing a number of quantities and trends that can differ in unit of measurement. Yet, indicator sets may provide a better perspective on changes to individual components of sustainability and thus easier understanding of the causes of changes in size or trend of indicators. The Stiglitz Commission argued that the fundamental task of sustainability measurement tools is to show whether current trends will enable us to maintain our well-being (Stiglitz, 2011). Because of the complexity of that question, the Stiglitz Commission argued in favour of a micro dashboard of stock and flow indicators for key natural stocks and measures of human well-being.

#### *Making the link between environment and well-being*

The broader sustainability frameworks presented in Table 2.1 mainly consider the link between environment and well-being from a quality perspective. Environmental indicators important for well-being are, for example, air and water quality. The EPI includes indicators for *access to drinking water* and *to sanitation*, which are aspects more related to distributional aspects that are included, for instance, in the headline indicators of OECD Better Life index.

Another approach to linking environment and well-being is to consider that the well-being of current and future generations depends on how available resources are used (UNECE et al., 2013). From that perspective, the resources available to society are economic capital, natural capital, human capital and social capital. Well-being draws on these types of capital; consumption is part of that and represents the utility derived from using goods and services. Production based approaches (such as, SEEA, ANS, and OECD) seem to be more attractive in assessing the use of natural capital in an economy. Consumption approaches are better suited to linking environment and well-being, through the use of natural capital for income generation, livelihoods and environmental quality.

## 2.3 Convergence in public sustainability monitoring and reporting

### *Harmonisation of public sustainability measurement approaches*

Various initiatives have tried to harmonise the different approaches to measure national sustainability (see box 2.1). The main argument for harmonisation is that the large number of frameworks, indicators and composite indicators may prevent their adoption by policymakers (Kulig et al., 2010). Using one specific index or dashboard facilitates communication of progress on sustainability (just as GDP facilitates communication on economic progress). In addition, more harmonised measures would enable better comparison of national sustainability performance.

From a research perspective, a widely accepted and reported indicator set could improve analysis of the links between domains of sustainability, for instance between social factors and the environment (see, for example, Dimitrova and Hametner (2013)).

### **Box 2.1 Main harmonisation initiatives**

*Commission on Sustainable Development.* Established in 1992, the Commission published the first set of sustainable development indicators. Many countries since have adopted this set to construct their own indicator sets, although these vary substantially from the original set.

*Beyond GDP.* Initiated by the European Commission in 2007, this conference intended to mobilise policymakers to debate new ways to measure progress.

*Stiglitz Commission.* Established in 2008 by the then French President Nicolas Sarkozy, the Commission on the Measurement of Economic Performance and Social Progress was chaired by Joseph Stiglitz. The Commission's report in 2009, which is widely cited, sets out 12 key recommendations.

*Taskforce on Measuring Sustainable Development.* A joint UNECE/Eurostat/OECD task force worked on harmonising approaches and indicators used by countries and international organisations to measure sustainable development (UNECE et al., 2013). The findings were published in 2013 and resulted in the CES Recommendations.

Recent developments in public monitoring systems indicate consensus is emerging:

- Statisticians in Europe are *including three dimensions of sustainable development: current well-being, future well-being, and effects on well-being of people in other countries* in Sustainable Development Indicator sets (UNECE et al., 2013).
- *The need for a limited set of indicators* to communicate efficiently with policymakers. The CES Recommendations propose a set of 24 indicators (see Annex II) that are common in existing Sustainable Development Indicator sets (UNECE et al., 2013). The Eurostat SDI set uses a framework in which 11 of the more than 130 indicators are headline indicators.
- A common approach is emerging to ensure *the same data and indicators are reported as widely as possible, while staying away from weighing or composites*. While the EC roadmap in 2009 called for 'highly aggregated environmental and social indicators', currently Eurostat does not report composite or weighted indicators. The CES Recommendations also propose the use of single indicators.
- The SEEA framework has achieved standardisation in environmental accounts (UN, 2014). It is up to individual countries to implement the accounts. The SEEA framework attempts to link physical and monetary accounts for every natural asset and flow. However, monetary aggregates are not commonly used in SDI sets (Smits, 2011).

## 2.4 Challenges in public monitoring of sustainable development

Notwithstanding the development of many frameworks and indicators, there are still significant challenges including:

- Sustainable development and well-being indicators have not yet been integrated into political decision-making and the media. Reports on air quality, forest loss, and income inequality appear in media and political debate but progress is still measured mainly by classic national economic indicators, such as GDP, employment, and purchasing power.
- Making a shift from measuring economic production to measuring broad sustainability requires *improved data collection and new indicators* (especially indicators on human and social capital are needed) and statistical techniques (for instance, on valuation or the accounting for quality of products).<sup>8</sup> The Stiglitz report, for instance, recommends considering income rather than production in evaluating material well-being, because material living standards are more closely related to net income and consumption than to production.
- While significant attention is given to integration of economic and environmental data (see below), integration of social and economic data is far less developed (UNECE et al., 2013), possibly because of the shortage of suitable social indicators.

### *Specific challenges to environmental accounting*

Some components of sustainability are hard to capture in an indicator, such as quality of ecosystems and biodiversity, and the concept of ecosystem functions or services (OECD, 2011; Edens, 2013; UNECE et al., 2013). SEEA is limited to reporting material, water and energy flows, and in the UN SEEA framework, an experimental ecosystem accounting system is being piloted.

The OECD identifies significant gaps in environmental-economic data at the industry level (OECD, 2011). This limits the quantification of environmental impacts of industry sectors and their potential contributions to impact mitigation.

Aligning physical data on natural capital with monetary data (as the SEEA framework aims to do) is a key statistical challenge (Smith, 2012). There is no consensus on the use of monetary valuation techniques in environmental accounting, although this seems the only way to make a clear link between environmental and financial accounts. The various harmonisation initiatives all refer to monetary valuation but have disparaging views on its added value and its robustness. Monetisation requires assumptions on future extraction rates, discount factors, and estimation of prices in the absence of market prices. Variations in valuation techniques and assumptions can affect the outcome significantly (UNECE et al., 2013).

A classic problem is the valuation of depletion of non-renewable raw materials. The System of National Accounts still used in virtually all countries is that the rents from non-renewable resources are recorded as income. There are various alternative approaches and the SEEA has adopted the approach that accounts part of the depletion as a cost

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<sup>8</sup> Though the local or sub-national level is outside the scope of this paper, there are sound arguments to extend well-being assessments to that level. Issues are more tangible and citizen involvement and engagement can be higher.

against income (Edens, 2013). Alternatively, the World Bank ANS method uses expenditure on education as investment in capital that can offset overexploitation of natural assets (which counts as capital depreciation). Accounting for mineral depletion as a cost can be a sensitive political issue and a potential barrier to SEEA adoption in countries heavily reliant on non-renewable resource extraction.

#### *Challenges in the international dimension*

Few indicators cover the effects of transboundary mechanisms on sustainable development. Themes for which there are no indicators include effects of migration (e.g., brain drain), knowledge transfer, and technology diffusion (Smits, 2011; UNECE et al., 2013). There are no indicators for the impacts of a national economy on the environment in other countries. The Ecological Footprint is considered more suitable for agenda setting than for policy setting (van Oorschot et al., 2013). More specific footprints, such as water and carbon footprints, are more useful but still suffer from differing assessment methods and assumptions (UNECE et al., 2013). Future development of footprint indicators will likely be based on multi-regional input-output (MRIO) models, which in part rely on official statistics (Hoekstra, 2013).

Data collection for national sustainability assessment and the statistical expertise needed to construct accounts such as the SEEA require significant capacity. This can be a barrier in developing countries where finance, know-how and infrastructure are limited (Stepping, 2013). Furthermore, developing country contexts differ from developed countries. This leads to a difference in relevant indicators, for instance, a food security indicator may not be relevant for an EU Member State but is important for other countries. Likewise, diversity in geography or culture may change the relevance of themes and indicators for countries.

### **3. Private sector sustainability rating and reporting**

Non-financial reporting by companies has grown over the last 20 years, especially after the first Rio Conference's Agenda 21 stated that '*business and industry, including transnational corporations, should be encouraged: (a) to report annually on their environmental records, as well as on their use of energy and natural resources*'. That was followed by the establishment of the Global Reporting Initiative (GRI) (Hohnen, 2012). Increasingly, governments have created policies to stimulate or to mandate sustainability reporting by companies in their jurisdictions.

Large companies are expected to report on sustainability aspects of their activities. A sustainability report is common practice for world's largest (mostly listed) companies. A recent survey showed finds that almost all of the 250 world largest companies and over 70% of the 100 largest companies in 41 countries publish a sustainability report. The uptake of sustainability reporting is global, with high rates of adoption in Asia and Latin America (KPMG, 2013). The number of sustainability rating systems has similarly increased. A study found that 108 of the 129 ratings assessed had been established since 2000 (Sadowski, 2010).

The system of sustainability monitoring and reporting in the private sector is described in Section 3.1, company motivation to engage in sustainability reporting and current trends in reporting in Section 3.2, an overview of sustainability ratings and their trends in Section 3.3, the challenges in sustainability monitoring and reporting in the private sector in Section 3.4, and the areas of convergence in Section 3.5.

#### **3.1 The system of private sector sustainability rating and reporting**

The private sector system of sustainability reporting comprises principles, guidelines and standards, reporting and accounting by companies, and ratings that assess companies (see Figure 3.1).

**Principles** set out the basic tenets on which specific tools are built, they are formulated in general terms and can focus on a particular area or target group. The UN Principles on Responsible Investment (UNPRI), for instance, focus on investors (UN PRI Initiative, 2014). The UN Global Compact Principles (UNGCG) provide companies with principles for responsible management for social and environmental sustainability. The OECD guidelines for multinational enterprises provide principles and standards for social and environmental sustainability. Principles and standards often form the building block of reporting guidelines and standards for sustainability reporting and accounting by companies, and for ratings.

**Guidelines, reporting frameworks and standards** provide more specific advice and recommendations for companies on sustainability reporting. For instance, the reporting framework issued by the Global Reporting Initiative (GRI) offers detailed guidelines on producing a sustainability report, including indicators and sector-specific recommendations. The International Integrated Reporting Council (IIRC) framework, and the Sustainability Accounting Standards Board (SASB) in the United States issue sustainability accounting standards for publicly listed companies to comply with mandatory disclosure to the Securities and Exchange Commission. Other standards include ISO 26000 and the Greenhouse Gas Protocol.

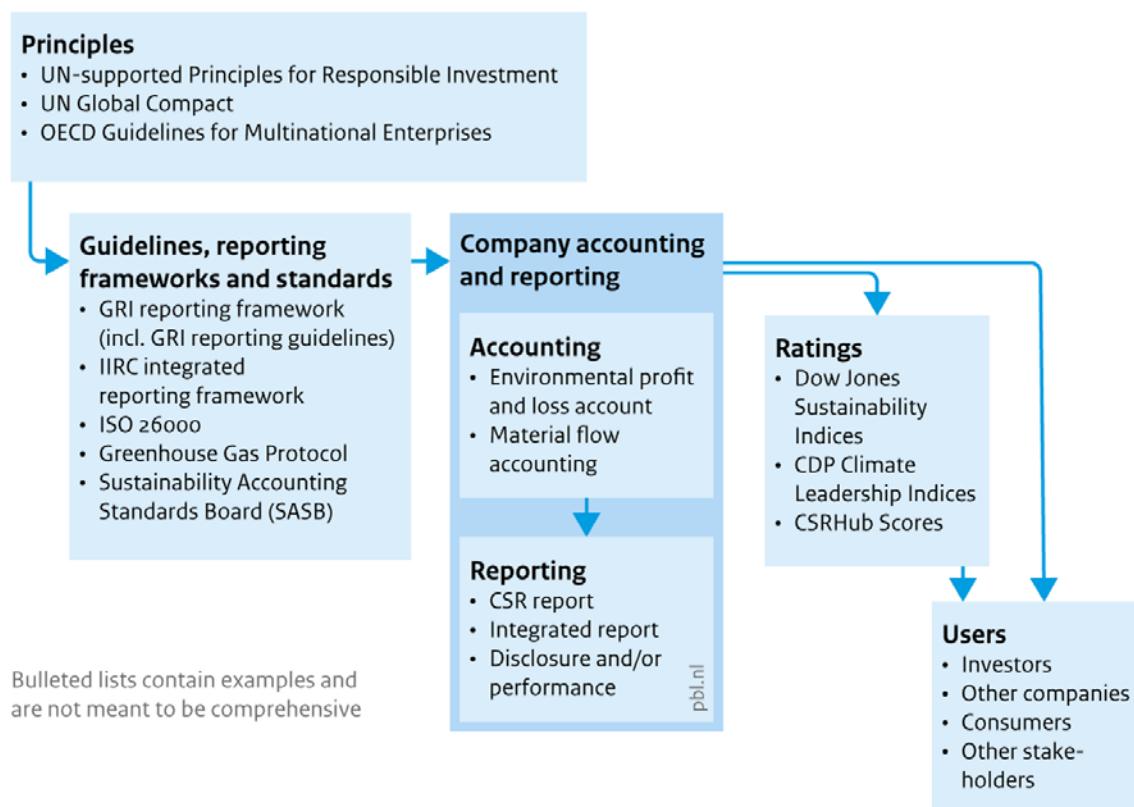
**Accounting and reporting** discloses and assesses sustainability impacts and performance of a company. Accounting in this context is used to describe internal company monitoring of sustainability indicators, material flows, and environmental and social impacts. Reporting is an information tool for the company's internal management

and employees and for company stakeholders externally who include investors, employees, other connected companies, civil society and clients (GRI, 2013).

**Rating systems** track company sustainability by collecting and analysing company data on their sustainability disclosure and performance. Some rating systems produce rankings that benchmark companies against one another. Some rating agencies focus on a specific issue, such as climate change (e.g., the Climate Leadership Index issued by the Carbon Disclosure Project), while others assess companies from a broader perspective, combining environmental, social and governance issues (ESG), for instance the Dow Jones Sustainability Indices and CSRHub Scores. Most rating agencies also include international standards and conventions, for instance, on human and labour rights that they use to benchmark companies (Sadowski et al, 2011).

Figure 3.1

### Private sector sustainability reporting and rating



Source: PBL

This section discusses company reporting and rating systems. Rating systems rely partly on company sustainability reports for their information, and follow and influence practices and trends in company reporting. The analysis presented in Section 3.4 is based on 22 of

approximately 150 sustainability ratings.<sup>9</sup> Ratings without an environmental component were excluded.

### 3.2 Drivers and trends of sustainability reporting by companies

#### *Drivers and use of sustainability reporting for companies*

A company may have various reasons to engage in sustainability reporting (Figure 3.2). From an external perspective, a company close to the consumer may be concerned to maintain their public image and boost their corporate reputation. Companies may also try to gain a competitive edge by showing that they engage in sustainability practices to attract clients, such as retailers wanting to clean up their supply chains. For listed companies, high scores on ratings and benchmarks can help attract investors and lower monitoring or transaction costs for clients engaging with them (INTOSAI, 2013). Another external reason could be the existence or anticipation of regulation, either on company activities or on mandatory reporting (McKinsey&Company, 2011).

**Figure 3.2 Company drivers for sustainability reporting**

#### **Company drivers for sustainability reporting and rater engagement**



Source: PBL

From an internal perspective, a company's reasons to engage in monitoring and reporting are usually performance oriented (INTOSAI, 2013). Internal drivers include finding ways to improve resource efficiency (Adams et al., 2010; McKinsey&Company, 2011) and identification of opportunities for eco-innovation and new products (for instance, GE with its Ecomagination product line). Risk management may also be a motivation, for instance, with respect to potential future resource scarcities (McKinsey&Company, 2011; Amirmostofian, 2014).

Recent studies have tested empirically the relationship between sustainability reporting and company performance. Different relationships need to be distinguished, for instance between sustainability reporting and financial performance, and between sustainability reporting and improvements in environmental and social impacts. Studies investigating

<sup>9</sup> 21 ratings were taken from the feature in the 'Rate the raters' report by SustainAbility (Sadowski, 2010), based on their quality and diversity (mix of audience, issue and geographical focus). One rating was excluded because it did not have an environmental component and two ratings were included that were mentioned in the interviews. It was beyond the scope of this paper to consider all 150 ratings.

these pathways include (Adams et al., 2010; Reddy and Gordon, 2010; Delmas et al., 2012; Eccles et al., 2013). A study in 2012 on 58 countries found significant positive impacts of sustainability reporting on sustainability performance but also highlights the lack of research on the effects of increased corporate sustainability reporting on corporate practices (Ioannou and George, 2012).

#### *Trends in sustainability reporting by companies*

As non-financial reporting by companies is still relatively new compared to financial reporting, many companies and organisations active in this area are looking to make improvements. A number of trends can be distinguished:

- *Sustainability reporting is the rule among the largest companies and is becoming increasingly global.* A survey of the 4100 largest companies in 41 countries (mostly larger economies) found 71 percent engaged in sustainability reporting, and 93 percent of the 250 world's largest companies (KPMG, 2013). Voluntary reporting by SMEs is also increasing (GRI et al, 2013).
- *Emergence of de facto standards.* The GRI framework has become the de facto standard for company reporting, with 82 percent of the 250 largest companies relying on this framework for their reports and in 2013, about 4000 companies relied on it compared to 44 in 2000 (Ioannou and George, 2012; GRI, 2014). Other initiatives to give companies guidance on reporting are the Sustainability Accounting Standards Board (SASB) in the United States and the International Integrated Reporting Council (IIRC). The Greenhouse Gas Protocol has become the standard tool for companies to account for greenhouse gas emissions (GHG Protocol, 2011).
- *Increased adoption of materiality and stakeholder involvement.* Materiality originates from financial accounting. An issue is material if it is considered relevant to report on. In the GRI framework, material aspects either reflect an organisation's significant economic, environmental and social impacts or are of particular importance in reporting to company stakeholders. (GRI, 2013; GRI et al, 2013). The newer IIRC and SASB reporting guidelines have alternative definitions for materiality, and limit materiality to issues relevant to investor decision making. Thus, the GRI framework takes a more expanded vision by including all stakeholders. IIRC and SASB stay closer to the meaning of materiality in traditional financial reporting as information that influences shareholder economic choices (Lambooy et al., 2012).
- *Increased attention paid to impacts throughout the supply chain.* The emphasis on materiality leads to more attention paid to impacts throughout the supply chain. Of the 250 largest companies worldwide, companies in the chemical sector are least likely to report on supply chain issues (60 percent do not), and electronics companies are most likely to do so (KPMG, 2013).
- *Integrated reporting* of financial and non-financial information (Baron, 2014) shows the financial implications of sustainability impacts. Monetary valuation of externalities is one method to integrate financial and non-financial information (IIRC, 2011; PwC, 2012), such as the Puma Environmental Profit and Loss account (PUMA, 2010).

### **3.3 Sustainability ratings**

Sustainability rating agencies compare companies to one another and benchmark them. Company data are compared within or across sectors to assess company exposure to risks, their disclosure of sustainability aspects, their adherence to principles and guidelines, and their performance on sustainability issues.

Rating agencies produce analyses and rankings that help investors decide which companies to finance. Some rankings emphasise risk and can be combined with country and portfolio rankings. Ratings originating from the media often aim at informing the general public, while ratings from NGOs inform the public and consumers, or pressure

companies to change.

#### *Similarities and differences in rating agencies*

Many rating agencies look for a niche while adopting practices and scoring systems from others where practical. An overview of similarities and differences in the rating systems assessed in this paper is presented below and in Table 3.1.<sup>10</sup>

- *Rating agency characteristics:* 16 of the 22 rating agencies considered were private sector companies. Some originated from larger corporations, such as Bloomberg, DJSI and GS Sustain, and some from social enterprises, such as Vigeo or EIRIS. NGOs. In addition, some media outlets have published their own ratings, for instance Newsweek Green Rankings). *Target group:* Of the ratings assessed, 10 were explicitly geared to investors. Ratings issued by NGOs were more likely to be single issue indices or include a product focus, raising awareness of a specific issue, such as climate change, water or the impact of consumption choices. Most rating agencies produced rankings and those geared to investors often also offered additional services. These included portfolio analyses, in-depth company assessment and country rankings based on risks for potential investors.
- *Data source:* The majority of the 22 rating agencies assessed relied on publicly available information provided by companies in their analysis, mostly sustainability reports. Some ratings, such as DJSI, included information obtained through questionnaires from companies.
- *Company size:* Most rating agencies focused on large listed companies, and some have over 1000 companies in their databases and ratings. A few rating agencies, such as Oekom or World's most ethical companies, explicitly consider unlisted companies or SMEs.
- *Issues covered:* Assessments are becoming more comprehensive and are increasingly including themes, such as biodiversity, eco-innovation and air pollution. Climate change has a prominent position, with several ratings focusing exclusively on climate change (Climate Counts Scorecard or Carbon Disclosure Project). Other rating systems have a separate climate change score (e.g., FTSE4Good Index Series) even if multiple issues are covered.
- *Materiality:* The majority of ratings assessed included materiality in their rankings, often in the form of a weighting system for different environmental risk factors, depending on the sector or region in which a company operates.

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<sup>10</sup> The information in Table 3.1 is based on publicly available sources. Private rating agencies often only grant access to clients on their exact methods and data.

Table 3.1

**Overview of sustainability rating systems**

Rating	Target group	Connects with other ratings	Includes some form of materiality	Number of companies rated	Data source	Includes country info
ASSET4 (corporate)	Investor	✓		3400	Public	
100 Best Corporate Citizens (social enterprise media)	Public & companies Extra: climate	✓		100	Public	
CSRHub scores (social enterprise)	Public & companies	✓		about 6000	Public	
Bloomberg ESG Disclosure Scores (corporate)	Investor	✓	✓	5000	Public	
The Global 100 Most Sustainable Corporations in the World (social enterprise)	Public & companies	✓	✓	market capitalisation >USD 2 billion	Public	
Dow Jones Sustainability Index (corporate)	Public, companies, investors		✓	2500	Companies	
FTSE4Good Index Series (corporate)	Public & companies Single issue: Climate	✓	✓	-	Companies	
Newsweek Green Rankings (corporate media)	Public/companies	✓	✓	1000	Companies	
Carbon Disclosure Project (Climate Performance Leadership Index (CPLI)) (NGO)	Single issue: Climate	✓		4000	Companies	
Murky Waters: Corporate Reporting on Water Risk (NGO)	Single issue: Water		✓	100	Public	
Climate Counts Scorecard (NGO)	Consumers Single issue: Climate	✓		145	Public	
World's Most Ethical Companies (social enterprise)	Public & companies	✓	✓	Incl. SMEs	Companies	
GoodGuide (NGO)	Consumers & companies		✓	-	Companies	
Maplecroft Climate Innovation Indexes (corporate)	Single: climate			360	Companies	✓
Trucost Environmental Impact Assessment	Investors & companies	✓	✓	4500	Public +additions	

(social enterprise)						
Oekom Corporate Ratings (social enterprises)	Investors, public, companies	✓	✓	3000 (+unlisted comp.)	-	✓
EIRIS Global Sustainability ratings (social enterprise)	Investors	✓	✓	about 5000	-	✓
Global ESG Leaders Indices (Sustainalytics & STOXX) (corporate)	Investors	✓	✓	4000	Companies	✓
Vigeo (social enterprise)	Investors & companies	✓	✓	2000	-	✓
GMI (social enterprise)	Investors & companies	✓	✓	6000	-	
MSCI ESG Indices (corporate)	Investors	✓	✓	5000	Public	
GS SUSTAIN (corporate)	Investors	✓	✓	1400, incl. midsize	Public	

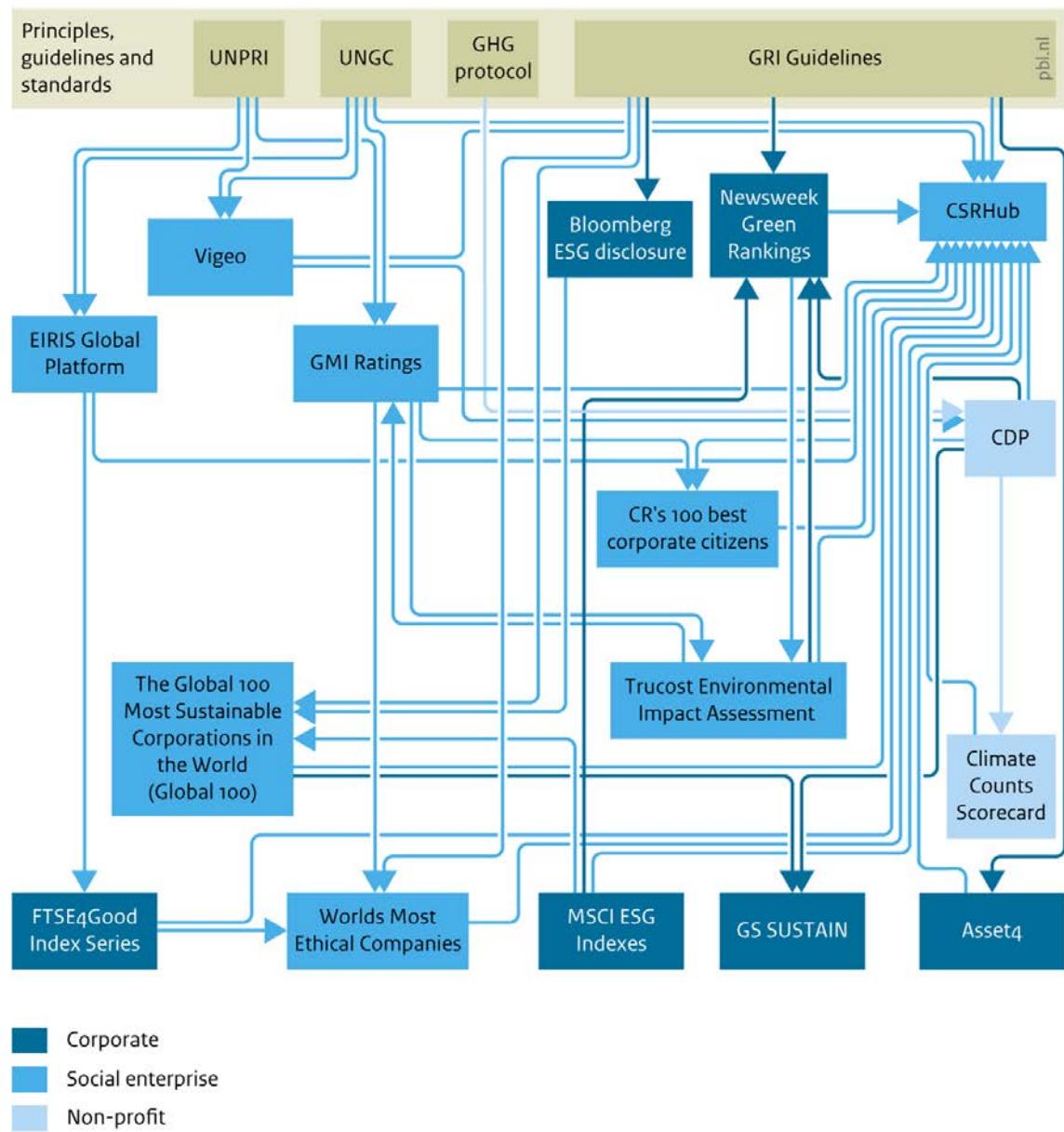
Source: (Vigeo; Bloomberg, 2010; Brooke Barton, 2010; Goldman Sachs, 2010; FTSE, 2011; Reuters, 2011; Sadowski et al, 2011; ClimatCounts.org, 2012; DJSI, 2012; Maplecroft, 2012; Newsweek, 2012; CDP, 2013; CR Magazine, 2013; EIRIS, 2013; GMI Ratings, 2013; Novethic research, 2013; STOXX, 2013; Sustainalytics, 2013; Carbon Disclosure Project, 2014; CSRHub, 2014; Goldman Sachs, 2014; Goldman Sachs, 2014; GoodGuide, 2014; Oekom research, 2014; Oekom research, 2014; Trucost, 2014)

### *Many connections between rating systems*

Currently, more than 100 rating systems are used to assess sustainability performance in the private sector, up from 21 rating systems in 2000. Many newer ratings build on older and more established ratings, with mergers and buy-outs occurring in the 1990s and early 2000s. Many ratings have connections to others, for instance through shared standards (see Figure 3.3). GRI reporting guidelines and sector guidance serve directly as the indicator basis for several ratings and indirectly for ratings that rely on GRI-based company reports. Many current rating systems also have partnerships (for instance, Trucost and Newsweek Green Rankings, and FTSE4Good Index Series and EIRIS), or have merged with another rating, such as Vigeo and GMI (Sadowski et al, 2011; Novethic research, 2013).

Figure 3.3

**Connections between selected company sustainability ratings, principles, standards and guidelines**



Source: PBL

### **3.4 Challenges in private sustainability rating and reporting**

Private sustainability rating and reporting is a relatively recent phenomenon, and there are a number of challenges as summarised below.

#### *The quality and comparability of sustainability rating and reporting*

Governments support non-financial reporting by companies because they assume that monitoring environmental, social and governance impacts will shift the company towards more sustainable practices (van den Berg et al., 2013). As expected, with government regulation in place more companies are doing non-financial reporting. The Danish Financial Statements Act, which makes it mandatory for larger companies to report on CSR measures, has led to an increase in the number of large companies publishing a sustainability report from about 50 to 95 percent (Hoekstra et al., 2014). The Grenelle Act I and II in France makes reporting mandatory for all companies active in France with more than 500 employees. Reports must be verified by an independent third party. The number of companies reporting increased from 54 to 94 percent in 3 years.

The impact of mandatory reporting on reporting quality is less clear. While sustainability reporting is a major trend among large companies, many reports lack quality (KPMG, 2013; European Commission, 2014), and improvements could be made especially in areas, such as supply chain analysis and stakeholder engagement.

Furthermore, with no official standard and quality assurance for non-financial reporting, a multitude of reporting approaches has arisen, making comparison between companies difficult (Baron, 2014). In the Netherlands, the government has instituted the Transparency Benchmark to rank companies on the transparency of their non-financial reporting (van den Berg et al., 2013). However, external quality assurance or third party verification of a sustainability report is not mandatory in most countries. There is no standard 'quality certificate' for assurance of sustainability reporting. Non-financial auditing is in an early phase (Eccles et al., 2013; GRI et al., 2013; KPMG, 2013).

In rating systems, external verification is possible but is not standardised. Some rating agencies verify information provided by companies through a third party, while others accept the information received without or with limited verification (Sadowski et al., 2011; ARISE, 2012). The relatively new Global Initiative for Sustainability Ratings aims to create a standard for sustainability ratings (GISR, 2013).

The multitude of ratings can create confusion, with companies rated high on one rating and low on another. Of the rankings assessed and which were publicly accessible, fewer than 20 percent of company names appeared in more than one ranking. This disparity is due to differences in methodology, with ratings using different indicators, weights, and definitions of industry sectors, and some ratings including regional distinctions.

#### *Disclosure, performance and impact*

Disclosure means that a company reports on the social and environmental aspects of its activities, and performance relates to actions to improve the situation. While reporting on disclosure is relatively widespread, performance reporting is a more recent development. For instance, a company can disclose air and water emissions, and report on actions to mitigate those emissions (performance). However, the impacts of emissions and mitigating actions on local air and water quality are usually not reported.

Most ratings include disclosure and management and performance scores. A company with a high disclosure score but only medium performance score may be relatively high in a ranking. For example, Bloomberg ESG Disclosure only considers disclosure. If a ranking only considers disclosure, the ranking reflects willingness to report but not performance on environmental or social aspects of company activities. In addition, many indicators reported by companies are result-based indicators (emissions, waste, energy

use) that do not provide information on risks and opportunities related to sustainability, for instance, through revenue generated from eco-innovative products (Mertens et al., 2012).

#### *Uptake by small and medium sized enterprises and non-listed companies*

The majority of companies in the world are SMEs and they create the majority of employment, but are lagging behind in sustainability reporting. Likewise, non-listed companies can be very large in terms of revenue and employment but fall outside of the scope of mandatory reporting (see new European Commission proposal, Section 5).

#### *Improving data collection for ratings*

A constant complaint is that companies are burdened with requests for sustainability data from NGOs and rating agencies, which assert that their added value is the analysis they provide in addition to the data. Harmonising data requests and specific data requests would limit the reporting burden on the companies. In addition, existing partnerships could be expanded and data sharing by rating agencies could help to reduce the burden. However, similar to experience with product certification schemes, competition between rating agencies makes data sharing schemes difficult to organise.

### **3.5 Convergence in private sustainability reporting and rating**

The landscape of private sustainability reporting and rating appears to be fragmented, with many different standards, guidelines, principles and ratings (IIRC, 2011; Novethic research, 2013). However, some convergence can be observed:

- *Some initiatives have become de facto standards.* The Greenhouse Gas Protocol has been established as a global standard for reporting on greenhouse gas emissions and forms the basis of the ISO 14064 emissions standard for corporations and organisations. The GRI framework has become the unofficial standard for sustainability reporting. Alternative guidelines for company reporting are being established (for instance, by IIRC and SASB), and it is to be seen to what extent this will complicate the picture for companies.
- *Increased emphasis on materiality and supply chain analysis.* Companies focus on reporting sustainability issues relevant to them or their stakeholders. The trend is increasingly to report on relevant issues and to address them more thoroughly, for instance by going deeper in the supply chain. However, the main reporting guidelines use different definitions of materiality and this may result in different aspects being reported by companies, making comparability more difficult.
- *Connections between ratings, guidelines and principles.* The number of rating systems is increasing, with most trying to find a niche and to differentiate themselves. Several use the GRI guidelines (e.g., CSRHub), the UN Principles on sustainable investment, the UN Global Compact principles or international conventions, such as by the ILO as their basis. Others link to one another and develop partnerships.
- *Government regulation can stimulate convergence.* Many governments are stimulating or regulating non-financial reporting for companies under their jurisdiction. A study identified 180 national reporting policies, two thirds of which were mandatory (GRI et al., 2013). A new EU regulation on non-financial reporting in the Accounting directive will come into force in 2014, and is estimated to cover some 6000 large companies in the EU. The regulation obliges companies to disclose information on policies, risks and results on a variety of social and environmental aspects. It explicitly refers to the use of guidelines and standards, such as UNGC, GRI and ISO26000, as the basis for the reporting (European Commission, 2014). Furthermore, the European Union is developing Organisational and Product Environmental Footprints (OEF & PEF), which

may lead to EU industry-sector wide standards for companies and their products.

#### *Benefits and drawbacks of further convergence in company reporting*

The diversity of reporting methods and rating systems has a number of advantages:

- More systems and approaches help to expand the market. Increased and differentiated supply of reporting standards and ratings can enhance demand, given different preferences and needs of companies and sectors.
- One standard does not fit all, considering that companies operate in very different sectors, are different in size and structure, and operate in different geographical regions. This is one reason that companies, even in the same sector or branch, can be hard to compare on sustainability performance.
- New methods and index compositions are still being tried out in reporting and rating. Such an experimentation phase may be useful to see what works, what captures relevant issues and what does not.
- Investors appear to find it useful to have not only one but several ratings to consider as a source. If a company appears high on the rankings of several rating agencies, this may increase investor trust more than if the decision had to be based on one ranking only. In France, for instance, investors consider three or more ratings before making their decision.

However, convergence of reporting and rating systems seems important to further establish sustainability aspects in business and investment. The ability to better compare sustainability reports on issues other than greenhouse gas emissions may help to shift attention to improving sustainability performance. For rating systems, harmonising collection of company data is likely to benefit rating systems, companies and investors by improving comparability and reducing costs.

## 4. Comparing public and private systems

As discussed in Chapter 1, little analysis has been carried out on the coherence of public and private systems of sustainability monitoring and reporting. An overview of national and company sustainability monitoring and reporting is provided in Chapters 2 and 3, respectively, and a comparison of these two levels in this Chapter. Firstly, the practices and trends in the public and private sectors are compared in Section 4.1, then the potential for closer alignment of these two levels is presented in Section 4.2, and how alignment could be furthered is discussed in Section 4.3.

### 4.1 Comparison of public and private sustainability monitoring and reporting

Comparison of frameworks, practices and trends in the public and private sectors (Chapters 2 and 3) reveals a number of commonalities.

*At conceptual level, national SDI sets and company reporting guidelines take a broad perspective on sustainability.* A principle of the GRI guidelines is that company reporting puts its contribution (positive or negative) into the context of broader sustainability. The CES Recommendations for SDI sets highlight current well-being, transboundary effects and future sustainability, even though indicators for some areas require improvement.

There is a *constant balancing of comparability and materiality* in national (public) and companies or sectors (private) reporting. Materiality is an issue at both public and private level, and national and company reports focus on issues relevant to them and in the case of companies, to stakeholders. Themes and indicators may be omitted that are not significant in their context but may be relevant from a global perspective.

Thus, while materiality suggests countries and companies monitor those issues most relevant in their sectors and region, different definitions of materiality could also increase the breadth of sustainability indicators and definitions. This could limit shared conceptual understanding of sustainability and comparability.

*A common search for harmonising data and data collection.* At national level this relates to the use of common indicators in SDI sets (UNECE et al., 2013). In the private sector, this is partly driven by the burden placed on companies by differences in questionnaires from different rating and reporting initiatives. There is an inclination in both public and private systems to create a common basis for data and indicators on which additional analysis can be based.

Both the public and private sectors *search for adequate ways to include targets, thresholds and planetary boundaries.* This is broader than sustainability monitoring and reporting and relates to goals and targets. At national level, these are often set as policy targets, for example, level of air or water quality. Companies increasingly connect Key Performance Indicators (KPIs) to sustainability performance (European Commission, 2014).

*The role of monetary valuation is increasingly debated in the public and private sector.* In sustainability monitoring and reporting, monetary valuation enables a link to be made between environment and economics (public) and to a company's bottom line (private). It is also a means of aggregating different measures and indicators. While techniques to monetise environmental externalities and the value of non-marketed assets are improving, monetisation may make reports more opaque as assumptions highly influence the result.

## 4.2 Comparison of themes and indicators

The categories, themes, and environmental indicators used in public monitoring systems and private reporting have been compared (see Annex II). Table II.1 shows the broad perspective on sustainable development by comparing the main categories and aspects of the GRI G4 reporting guidelines and the proposed ‘ideal’ SDI themes of the CES Recommendations comprised by the UNECE/Eurostat/OECD taskforce on measuring sustainable development (UNECE et al., 2013). The GRI guidelines are the *de facto* standard in company reporting. Table II.2 provides more detail on the environmental categories in both systems at the indicator level.

It is beyond the scope of this paper to make an extensive comparison of the indicators in the various systems. Nevertheless, a number of aspects are apparent from Table II.1 that compares the broad perspective on sustainability:

- Both the public CES Recommendations SDI set and the GRI G4 guidelines build from broad themes to indicators. The CES Recommendations distinguish dimensions, themes and indicators, while the GRI G4 guidelines distinguish categories, aspects and indicators.
- Both systems take a broad perspective on sustainability to include economic, environmental and social aspects. The CES Recommendations explicitly include international and future dimensions.
- Both systems seem to display a fair amount of overlap on aspects (GRI) and themes (CES), with the greatest overlap in environmental themes.
- In a number of areas, the GRI G4 guidelines specifically relate to international agreements, conventions and principles, such as the UN Declaration on Human Rights, ILO Labour Conventions, and the OECD guidelines on multinational enterprises. The UNECE proposed framework does not refer to existing agreements and conventions.

Likewise, for comparison of environmental categories and indicators (Table II.2):

- The GRI set includes productivity and efficiency oriented indicators. The UNECE set emphasises absolute indicators but also includes a number of productivity indicators, such as energy and resource intensity.
- The CES Recommendations emphasise final impacts, whereas the GRI indicators focus on the relative performance of a company and less on its final impacts (although these are not neglected).
- The GRI set includes indicators on the sustainability of a company’s supply chains. The CES Recommendations include a footprint indicator for land and imports of non-energy resources. The sustainability of supply chains might be especially interesting for countries where company information can contribute to informing governments about transboundary sustainability performance.
- The GRI set includes a number of indicators on compliance (value of fines and number of sanctions for non-compliance, number of grievances filed). Companies are bound by legal mechanisms set up by governments. In theory, CES Recommendations could also include indicators on international environmental agreements to which countries are bound.

## 4.3 Alignment of private and public systems

Development of public sustainability monitoring frameworks has been somewhat independent of similar developments in the private sector. The Measure what Matters initiative seeks closer alignment of corporate, national and global sustainability data

frameworks.<sup>11</sup> There are at least four reasons to support increased attention to closer alignment between public and private practices:

1. The current diversity of methods and frameworks produce a fragmented picture of what constitutes sustainable development, which limits acceptance of indicators by investors, politicians and the media.
2. It is increasingly accepted that because of its size, impacts and transboundary activities, the private sector needs to contribute to achieving public goals on sustainable development. Closer alignment of public and private reporting systems would enable companies to identify their contribution to public goals and set targets accordingly.
3. One of the drivers for companies to engage in sustainability reporting or rating is improving their reputation with the general public. However, trust in sustainability reports and ratings may be eroded because of the many different standards and doubts about reporting quality. Standardisation and alignment with public monitoring frameworks may improve the credibility of company reporting.
4. For governments, the detailed data from company sustainability reporting can improve insights into the sustainability impacts and performance of economic sectors when linked to national systems. This in turn can improve the information on which policies are based.

A corollary benefit of closer alignment between public and private systems is improvement in efficiency, by streamlining data collection by national statistical institutes, companies and rating agencies, for instance.

The current diversity of systems and methods also has benefits. For instance, the diversity of systems is likely to have contributed to quick uptake by countries and companies. It has also become clear that not all aspects of sustainability are relevant for all countries and companies, and this may also be the case *between* the public and private sectors. A potential barrier is the willingness to share company data when aligning company information with national systems. There are also examples of countries unwilling to share data, for instance, on mineral and fossil fuel reserves, and on the extent and severity of land degradation.

There are therefore two lessons for initiatives supporting closer alignment of national and company sustainability monitoring.

**Be clear about the alignment goal:** Closer alignment of public and private sustainability monitoring and reporting systems can serve different goals. Which goal is prioritised has implications for the way alignment can be implemented. For instance, if the goal is to improve shared understanding of sustainability to increase uptake by politicians and the media, alignment can be limited to concepts and themes. If the goal is full convergence to shared indicators and data harmonisation between the public and private systems then a more detailed effort is required.

**Maintain flexibility:** As not all aspects of sustainability are relevant for all companies and countries, and differences in situation or location may affect comparisons between countries or companies, there is need for flexibility. Examples of this are the GRI definition of the materiality principle to reflect all stakeholder interests, and rating agencies that assess the sustainability risk and performance of companies in the context of the location of their operations. Another reason to maintain flexibility is that

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<sup>11</sup> [www.measurewhatmatters.info](http://www.measurewhatmatters.info)

methodologies and indicators are still developing. For instance, some themes in the CES Recommendations do not have appropriate indicators that new methods may be able to cover. Yet another reason to maintain flexibility is that the constant flurry of new initiatives has expanded uptake of sustainability reporting and rating by creating exposure and alternatives.

Alignment can be gradual and does not necessarily lead to the adoption of the same indicators, methodologies and frameworks (Hoekstra et al., 2014). It is more a balancing exercise. However, there are the benefits of harmonisation in increased efficiency, shared conceptual understanding and increasing trust in the validity of measurements that create room to focus on achieving change instead of measurement. But there is the need to remain open to differentiation and to new methods.

#### **4.4 Potential pathways to better align public and private sustainability monitoring and reporting**

Better alignment of public and private monitoring systems can be explored in several ways:

- Initiatives that make an inventory of sustainability measures and methods provide essential information to assess the potential for alignment, such as the Meten van Duurzaamheid database in the Netherlands and the Netgreen initiative sponsored by the European Commission.
- Initiatives, such as Measure what Matters that bring together practitioners and experts to discuss alignment, could be supported by governments to increase their exposure.
- The starting point needs to be areas where there is already alignment, such as the OECD Guidelines for multinational enterprises and the UN Global Compact that seek to align company targets with public goals. The Greenhouse Gas Protocol attempts to create a bridge from company accounting to policy in a number of countries. The GRI reporting framework attaches references to a number of international agreements to specific indicators.
- Various investor-focused sustainability rating organisations develop national ratings to show the risks of funds invested in government debt, and to put company risk profiles in the context of their countries of operation. These actions may contain lessons for the integration of company and national sustainability analysis (Novethic research, 2013).
- The post-2015 Development Agenda provides an opportunity. Irrespective of the final goals and targets, these will influence companies and require private sector engagement. Issues, such as resource, water and energy efficiency and more sustainable production and consumption, need private sector innovation, investment and commitment. Aligning reporting systems to connect private sector contributions to public goals can support the implementation of the Sustainable Development Goals (SDGs).
- Many countries are still in the process of establishing environmental-economic accounting. Data reported by companies may be useful in filling data gaps in these new systems.

## 5. Conclusions and further questions

This paper scoped developments in public and private sustainability monitoring and reporting (Chapters 2 and 3), compared them and discussed lessons for alignment of national and company sustainability measurement (Chapter 4). The conclusions as related to the research questions for this study are summarised and a set of policy recommendations is proposed in this chapter.

### 5.1 Conclusions

#### *Limited research has been carried out on coherence between public and private systems to monitor and report on sustainability*

The number of sustainability monitoring and reporting systems in the public and private sectors has increased exponentially in the last 20 years. Yet, little research has been done on how developments in national monitoring and reporting relate to developments at company level.

#### *Initiatives to harmonise public sustainability monitoring systems*

Various initiatives have aimed at harmonising national sustainability monitoring. This has led to the CES Recommendations for national sustainable development indicator sets. The UN Statistics Commission has adopted the System of Environmental-Economic Accounts Central Framework (SEEA).

National sustainability monitoring also faces challenges on levels of adoption (by policymakers and the media), dimension (transboundary impacts and issues relevant to developing countries), methodology (e.g., monetary valuation) and theme (e.g., ecosystems). It might be useful to assess and analyse the uptake and use of various sustainability monitoring systems in the media and in public policymaking. The extent to which these indicators are internationally comparable, how they are presented and the regularity with which they are reported may influence their uptake (UNECE et al., 2013; European Commission, 2014).

#### *Diverse developments in the private sector*

The private sector has seen a large diversity of initiatives, from sector-based principles, reporting frameworks to different company rankings and ratings. Some standardisation is visible, notably through the reporting guidelines of the Global Reporting Initiative (GRI) and in greenhouse gas emission monitoring (GHG Protocol). New initiatives are regularly established, which bring benefits (new methods, exposure, and broader uptake) and also risks (fragmentation, reduced comparability, and confusion for companies, investors and consumers).

Increasingly, companies focus on the issues most relevant (material) to their operations and their investors or stakeholders. Following from this, companies are increasingly paying attention to the environmental and social effects in their supply chains. There is an emerging trend to move from disclosure of sustainability data to reporting on performance (what a company does to improve sustainability).

There are also challenges in company sustainability reporting and rating. These include the need to understand the links between sustainability reporting and performance, quality assurance of reporting, more standardised data, more meaningful integration of financial and non-financial information, and engaging small and medium-sized enterprises.

### *Similar trends and challenges in public and private sector sustainability reporting*

There is constant balancing of comparability and relevance (materiality) in public and private sector sustainability monitoring. Some indicators may not be relevant for a country or company but not reporting on them goes at the cost of comparability. There is a common desire to harmonise data to improve efficiency and comparability. Another common trend is exploring monetisation to integrate social and environmental information with economic and financial data.

### *Reasons for closer alignment of public and private systems*

Closer alignment of public and private systems could create more clarity on what constitutes sustainable development, potentially increasing acceptance of indicators by investors, politicians and the media. Because of its size, impacts and transboundary activities, the private sector needs to be engaged in achieving public goals on sustainable development. Closer alignment of public and private reporting systems would enable companies to identify their contribution to public goals and set targets accordingly. For governments, detailed data from company sustainability reporting could improve insights into the sustainability impacts and performance of economic sectors when linked to national systems. This in turn could improve the information on which policies are based.

### *Aligning public and private systems requires clarity about the goal and maintaining flexibility*

Closer alignment between public and private sector systems can serve different goals. Goals can range from building systems on a shared conceptual understanding of sustainability to complete harmonisation of data and indicators. Which goal is prioritised has implications for how alignment can be implemented.

Flexibility is required to enable countries and sectors to focus on what is relevant for them, to enable new methods and indicators to be developed, and to open the market for new initiatives because diversity in methods and frameworks can also contribute to expanding sustainability reporting by making it attractive for specific sectors or industries.

## **5.2 Policy recommendations**

Whether and how public and private systems of sustainability measurement can be more aligned is an emerging debate. Three policy recommendations are made on alignment and harmonisation of sustainability monitoring and reporting.

### *Encourage further testing of alignment between public and private sustainability monitoring and reporting*

Several reasons for and possible reservations on alignment of public and private sustainability reporting are presented in Chapter 4. However, there is as yet little practical experience with alignment. Testing applications of alignment through combining databases and indicators will help to explore applicability in practice, for instance, in specific industry sectors. From a policy perspective, it is also necessary to consider what company information would contribute to improving public sustainability information and policies. Findings from initiatives, such as Measure what Matters, OEF and PEF, could serve as input in formulating new pilot projects.

### *Ensure developments in company non-financial reporting align with public interests*

Company sustainability reporting is rapidly developing with evolving standards and ratings, and with more companies reporting on the environmental and social externalities of their activities. Non-financial company reporting has a direct connection with many public interests. The policy theory of governments stimulating expansion of non-financial reporting is that it leads to more sustainable performance, thereby contributing to public goals.

Key issues in non-financial company reporting are: i) the development of standards and indicators for reporting (see Chapter 3); ii) the need for better integration of complex or location-specific topics, such as biodiversity, natural capital and water, and the creation of standards for these; iii) the need to safeguard the quality of non-financial reporting; and iv) the need to understand whether and how non-financial reporting leads to changes in company performance, which is poorly understood but is crucial from a policy perspective. Thus, policymakers need to be involved in these key developments and safeguard links with public sustainability interests, through the topics covered, the standards developed, the indicators used, and the reporting systems set up and adopted by companies.

*Consider how alignment of public and private sustainability monitoring and reporting can support implementation of the Post-2015 Development Agenda*

The Post-2015 Development Agenda will provide goals and targets to create an integrated global agenda for sustainable development. Sustainable Development Goals (SDGs) are expected to replace the current Millennium Development Goals (MDGs). One of the strengths of the MDGs was that the goals were measurable and could thus be monitored. This provided a sense of accountability, aided by international comparisons of which countries were advancing on specific goals.

Moving from a pure development agenda to a sustainable development agenda requires new indicators and also increased understanding of the interactions between goals, targets, and indicators in different domains. Part of the ideal indicators may be unavailable on a global scale at the adoption of a post-2015 goal framework. Therefore, in aligning public and private sustainability monitoring and reporting, the following two questions are relevant to the post-2015 discussion:

- 1) how can company monitoring and reporting usefully contribute to monitoring SDGs by contributing data and indicators;
- 2) how can company monitoring and reporting systems be used or adapted to reflect the potential contribution of individual companies to the SDGs, thereby engaging the private sector with the SDGs.

This could, for instance, be discussed in regional consultations, such as organised by UNECE.

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### **Annex I: List of persons interviewed**

Information from the literature search was supplemented with interviews with the following experts and people involved in sustainability monitoring and reporting. We are grateful for their willingness to share their knowledge and insights. They are not responsible for the contents of this paper.

Bram Edens	Statistics Netherlands
Michael Sadowski	SustainAbility
Esther Hougee de Vet	Sustainalytics
Jerwin Tholen	KPMG Sustainability
Pietro Bertazzi	Global Reporting Initiative
Koen Boone	The Sustainability Consortium
Eva Zabey	World Business Council for Sustainable Development
Annemarie Kerkhof	Ecofys
Karen Maas	Rotterdam School of Management, Erasmus University Rotterdam
Nicolas Bernier-Abad	DG Internal Market, European Commission

## Annex II: Side-by-side overviews of sustainability and environmental frameworks

Table II.1 Side-by-side overview of sustainability aspects and themes in the GRI G4 guidelines and the CES Recommendations proposed SDI set			
GRI G4		CES Recommendations	
Category	Aspect	Dimension and sub-dimension	Theme
Economic	Economic performance	<i>Human well-being (current generation)</i>	Subjective well-being
	Market presence		Consumption and income
	Indirect economic impacts		Nutrition
	Procurement practices		Health
			Labour
Environmental	Materials		Education
	Energy		Housing
	Water		Leisure
	Biodiversity		Physical safety
	Emissions		Land and ecosystems
	Effluents and waste		Water
	Products and services		Air quality
	Compliance		Trust
	Transport		Institutions
	Overall		
	Supplier environmental assessment	<i>Capital (future sustainability)</i>	
	Environmental grievance mechanisms	Economic capital	Physical capital
			Knowledge capital
Social - Labour practices and decent work	Employment		Financial capital
	Labour/management relations	Natural capital	Energy resources
	Occupational health and safety		Non-energy resources
	Training and education		Land and ecosystems
	Diversity and equal opportunity		Water

	Equal remuneration for women and men			Air quality
	Supplier assessment for labour practices			Climate
	Labour practices grievance mechanisms	Human capital		Labour
				Education
Social - Human rights	Investment			Health
	Non-discrimination	Social capital		Trust
	Freedom of association and collective bargaining			Institutions
	Child labour			
	Forced or compulsory labour	<i>Transboundary impacts</i>		
	Security practices	Consumption and income		Consumption and income
	Indigenous rights	Economic capital		Physical capital
	Assessment			Knowledge capital
	Supplier human rights assessment			Financial capital
	Human rights grievance mechanisms	Natural capital		Energy resources
				Non-energy resources
				Land and ecosystems
Social - Society	Local communities			Water
	Anti corruption			Climate
	Public policy	Human capital		Labour
	Anti-competitive behaviour	Social capital		Institutions
	Compliance			
	Supplier assessment for impacts on society			
	Grievance mechanisms for impacts on society			
Social - Product responsibility	Customer health and safety			
	Product and service labelling			
	Marketing communications			
	Customer privacy			
	Compliance			

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**Table II.2 Side by side overview of environmental categories and themes in the GRI G4 Reporting guidelines and the CES Recommendations proposed SDI set**

GRI G4		CES Recommendations; based on set of 90	
Aspect	Indicator*	Theme	Indicator
Materials	Materials used by weight or volume	Land and ecosystems	Land assets
	Percentage of recycled materials used		Protected areas
Energy	Energy consumption within the organization		Nutrient balance
	Energy consumption outside the organization		Emissions to soil
	Energy intensity		Bird index
	Reduction of energy consumption		Threatened species
	Reductions in energy requirements of products and services		Land footprint (foreign part)
Water	Total water withdrawal by source	Water	Water resources
	Water sources significantly affected by withdrawal		Water abstractions
	Percentage and volume of water recycled and reused		Water quality index
Biodiversity	Operational sites near protected areas or high biodiversity value areas		Emissions to water
	Significant impacts on biodiversity areas		Water footprint (foreign part)
	Habitats protected or restored	Air quality	Urban exposure to particulate matter
	Number of red list species in affected habitats		Emissions of particulate matter
Emissions	Direct greenhouse gas emissions		Urban exposure to ozone
	Energy indirect greenhouse gas emissions		Emissions of ozone precursors
	Other indirect greenhouse gas emissions		Emissions of acidifying substances
	Greenhouse gas emissions intensity	Climate	Global CO2 concentration
	Reduction of greenhouse gas emissions		Historical CO2 emissions
	Emissions of ozone-depleting substances		GHG-emissions
	NOx, SOx, and other significant air emissions		GHG-emission intensity
Effluents and waste	Total water discharge by quality and destination		Carbon footprint (foreign part)
	Total weight of waste by type and disposal method		State of the ozone layer
	Number and volume of significant spills		CFC emissions
	Weight of handled hazardous waste and % of internationally transported waste	Energy sources	Energy resources

	Description of water and related habitats affected by waste discharges			Energy consumption
Products and services	Impact mitigation of environmental impacts of products and services			Energy intensity
	Percentage products and packaging reclaimed			Renewable energy
Compliance	Value of fines and number of sanctions for non-compliance			Imports of energy resources
Transport	Environmental impacts of transport			Energy dependency
Overall	Total environmental protection expenditures and investments	Non-energy sources		Non-energy resources
Supplier environmental assessment	Percentage of new suppliers screened using environmental criteria			Domestic material consumption
	Actual and potential negative environmental impacts in the supply chain			Resource productivity
Environmental grievance mechanisms	Number of grievances about environmental impacts filed			Generation of waste
				Recycling rate
				Imports of non-energy resources

Sources: GRI (2013); UNECE (2013); \*See GRI (2013) for full text of indicators

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