

Sustainability reporting in the Austrian, German and Swiss public sector

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Abstract

Purpose – The purpose of this paper is to investigate to what extent public sector entities in Austria, Germany and Switzerland apply sustainability reporting (SR) guidelines in line with the global reporting initiative (GRI) to respond to societal pressure. It further assesses the kind of data reported in order to illuminate whether well-balanced share of economic, environmental and social information are provided.

Design/methodology/approach – This study provides an empirical analysis of SR based on a documentary analysis of external reports by public sector organisations (PSO) included in the GRI's database for the years 2012-2014.

Findings – PSO applying the GRI guidelines comply to a relatively great extent but show considerable variations and a clear imbalance of information reported concerning the three pillars of sustainable development.

Originality/value – The paper offers insight into GRI reporting practices by PSO in Austria, Germany and Switzerland. Additionally, a country and sector comparison was conducted. As previous studies mostly focus on SR in private corporations, the results contribute to advancing research on SR in the public sector where PSO increasingly have to demonstrate their (sustainable) contributions to the public benefit.

Keywords Public sector, Germany, Austria, Accountability, Global reporting initiative, Documentary analysis

Paper type Research paper

Introduction

Since the 1990s there has been a growing relevance of sustainability reporting (SR) across all sectors (i.e. profit, non-profit and public sector). Historically, the term sustainability was developed in the context of forestry where it was used to argue that not more wood should be chopped than can be re-grown (von Carlowitz, 1713/2000). In the 1980s, sustainability had evolved as a key concept in global developmental policy. Now sustainable development is regarded as a necessary step towards ensuring intra- and intergenerational justice. In 1987, the Brundtland report (United Nations World Commission on Environment and Development, 1987) made this idea popular. Agenda 21, a non-binding programme approved by 172 governments at the United Nations Earth Summit in Rio de Janeiro in 1992, resulted in strengthening the focus on environmental aspects. The debate about corporate social responsibility (CSR) helped

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to re-adjust the orientation as voiced in the European Commission's CSR strategy 2011-2014. Therein CSR is defined as "the responsibility of enterprises for their impacts on society" (European Commission, 2011, p. 7).

When implementing the ideas of sustainable development and SR at a micro-economic level, organisations may subscribe to the triple-bottom line (TBL) as a wide-spread notion of sustainability referring to economic, environmental and social (reporting) needs. The think tank "AccountAbility" coined the term "triple-bottom line". Elkington (1997) made the term popular when he introduced TBL into the CSR-debate. Most current models for SR embrace this TBL-orientation. The global reporting initiative (GRI) developed the most popular TBL-based approach, which contains principles and guidance of disclosure for all types of organisations (Godfrey *et al.*, 2010).

Compared to the corporate sector, accountability expectations and obligations have always been higher in the public sector in general, especially with respect to state-owned enterprises (SOE) (Greiling and Grüb, 2014). New public management (NPM) reforms put pressure on public sector organisations (PSO), such as national, regional or local governments, autonomous agencies and public enterprises, to demonstrate their financial and non-financial performance. The demand is particularly relevant for SOE considering that they create public value while acting in an entrepreneurial way.

PSO are expected to disclose more social and environmental information than private companies as they are legitimated by public contracts (Cormier and Gordon, 2001). One may therefore expect comprehensive sustainability reports published by PSO, especially considering coercive isomorphism resulted from formal and informal pressures as addressed by institutional theory (DiMaggio and Powell, 1983).

However, examining sustainability reports published by PSO is an important step towards assessing whether and in what manner PSO try to meet accountability expectations in terms of sustainable development. Furthermore it is in line with the purpose of this special issue and the generally increasing interest in PSO to expand the knowledge of PSOs' accountability practise, especially considering that PSO receive a substantial proportion of public expenditure and have a major impact on progress towards sustainable development (GRI, 2005).

While there is an extensive body of literature focusing on SR in corporations (e.g. Quick and Knocinski, 2006; Fifka, 2011; KPMG International, 2013; Schwindenhammer, 2013; Lozano, 2013; Gatti and Seele, 2014), there are only a few publications examining SR in the public sector. Moreover, many public sector studies focus on selected issues, in particularly environmental disclosures or have investigated SR practices of a single country or specific type of organisation (Papenfuß *et al.*, 2015) (see also section "Prior empirical studies").

Based on these observations this study addresses the following research questions:

- RQ1. To what extent do Austrian, German and Swiss PSO applying GRI guidelines for SR comply with the GRI framework?
- RQ2. Do the assessed sustainability reports contain balanced shares of information concerning all three pillars of sustainability; i.e., the economic, the environmental and the social dimension?

The study is based on a documentary analysis of 42 sustainability reports by Austrian, German and Swiss PSO recorded in the GRI-database. For the purpose of assessing the sustainability reports the GRI framework was selected because it is the most established and most widely used one among TBL-standards that are very relevant for progressing from financial reporting to more holistic accountability. As PSO are

mission-driven enterprises which have to meet democratically defined accountability obligations, the single-bottom line perspective is not sufficient under governance and accountability aspects.

The discussion proceeds as follows; first, the literature on SR in the public sector is reviewed. Afterwards the paper provides some basic information on the GRI (framework). Then, the sample and methodology are outlined more in detail. The next section presents the findings followed by a discussion. Finally, the conclusion is summarised and implications, limitations and suggestions for future research are given.

SR in the public sector

(Sustainability) reporting by PSOs

The idea of ensuring accountability has acquired more and more importance across all sectors (Greiling and Halachmi, 2012). PSO are facing specific accountability obligations, particularly in terms of a managerial concept of rendering account to the general public and especially to citizens as tax payers demanding adequate delivery of value for money (Power, 2001; Moore, 2003). This aspiration increasingly includes accountability concerning sustainable public management as PSO are crucial for a continued development of sustainability because of their “traditional stewardship role for the physical environment and social infrastructure” (Dumay *et al.*, 2010, p. 533). While many private corporations have adopted non-financial reporting practices primarily for enhancing their reputation, PSO have been put under pressure to justify their pursuit of social and environmental goals (also) in economic terms (Gray *et al.*, 2009). In comparison with private sector entities, PSO are accountable to a larger variety of stakeholders with less clear prioritisation mechanisms and hierarchies. According to Cormier and Gordon (2001) state-owned firms are expected to provide even more social and environmental disclosures than private firms because of their public contracts legitimating their existence and actions.

DiMaggio and Powell (1983) stated that “coercive isomorphism results from both formal and informal pressures exerted on organizations by other organizations upon which they are dependent and by cultural expectations in the society within which organizations function” (DiMaggio and Powell, 1983, p. 150). Especially the expectations of the society under the core mandate of PSO to create public value put them under pressure to go well beyond the financial bottom line in their reporting. This is necessary to meet societal accountability expectations. The quest for measuring contributions to public welfare has a long tradition and dates back to the 1970s. It attempts to extend traditional financial reporting of PSO by measuring their social value added (for references see Greiling *et al.*, 2015). In the 1980s, NPM put service accomplishment reporting on the agenda (Greiling and Halachmi, 2012) with an individual focus on citizens as customers of public services. Summing up it can be stated that PSO are confronted with more holistic public accountability obligations than their for-profit counter-parts due to PSOs’ obligation to create public value. This also includes performance reporting which demonstrates how PSO meet societal expectations. Therefore PSO need performance reporting well beyond the single-bottom line.

Principal-agent relationships in PSO are much more complex than in for-profit entities. The ultimate stakeholders in PSO are the citizens. In addition, public sector performance reporting may have parliamentary bodies, supervisory boards, public scrutiny committees, consumer councils, audit offices, public sector watchdogs, etc., as relevant users. Unlike in the for-profit sector with its shareholder value orientation,

PSO do not have a simplistic mechanism for prioritising a company's stakeholders. In the public sector one will find quite different and sometimes conflicting needs for information even within one particular stakeholder group. When citizens are asked in their role as consumers of public services it becomes apparent that their information-needs differ from the interests as tax payers. Looking at this situation of more pluralistic stakeholders and much broader performance reporting requirements from an institutional theory perspective, one would expect isomorphism regarding PSOs' SR. This has the consequence that sustainability reports are becoming more comprehensive in response to societal pressure:

H1. PSO provide comprehensive sustainability reports due to high-accountability expectations.

In all three countries SR is not mandatory but is to be found as a voluntary endeavour. Although differences exist with respect to the extent, outcome reporting for PSO is already a legal requirement in these three countries with Switzerland as the front-runner. Taking the common continental European legal traditions into account, which also provide for a two-tier corporate governance system, one would expect that there are no fundamental differences in the way German, Austrian and Swiss PSO respond to the pressure from external stakeholders. In line with the institutional theory, which addresses how organisations meet the expectations of their institutional environment, no fundamental differences in the countries under review regarding the extent of GRI reporting are to be expected:

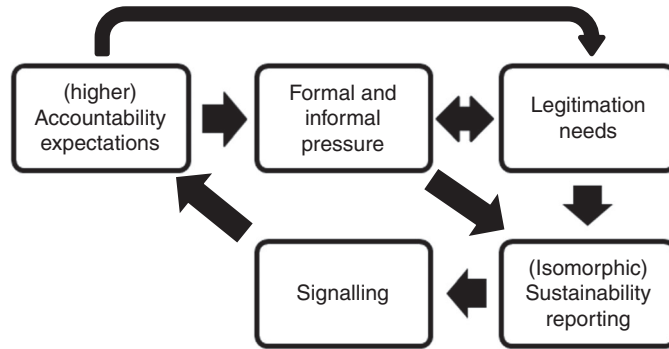
H2. German, Austrian and Swiss PSO applying the GRI guidelines to the same extent.

In 2007 Bovens introduced a definition of accountability in the context of European Governance. For him "Accountability is a relationship between an actor and a forum, in which the actor has an obligation to explain and to justify his or her conduct, the forum can pose questions and pass judgement, and the actor may face consequences" (Bovens, 2007, p. 450). Within the scope of SR by PSO the obligation to explain and justify arises from striving for organisational legitimacy. This obligation is strongly linked to the formal and informal pressures for accountability to meet the expectations of the institutional environment. The basic concept of legitimacy theory is that organisations aim at matching their value systems which are linked to their acting with commonly accepted norms of the social system. If divergences exist, the organisational legitimacy is threatened (Dowling and Pfeffer, 1975). To signal that the value system of the organisation is in line with the norms of the social system and thus responds to societal accountability expectations, organisations can use SR (Gray *et al.*, 1995). Figure 1 illustrates the linkage between the theoretical conceptions.

Despite the fact that all PSO are confronted with higher accountability expectations, it is obvious that these legitimisation needs depend on the field of activity. While it is generally expected that societal pressure regarding SR for the public sector as a whole will result in comprehensive sustainability reports designed to meet accountability expectations, the authors suppose that reporting patterns vary across the specific fields where PSO operate. Therefore, differences may exist between the fields.

PSO with a direct impact on the environment caused by production and consumption of natural resources are facing more pressure to signal their environmental sustainability contributions than others (Grüb and Greiling, 2015). Due to the heterogenic sector affiliation of the PSO in the sample, the authors created four different categories, namely public utilities, educational services, financial services and real estate. Among the public

Figure 1.
Theoretical
framework



utilities are energy suppliers, water utilities, waste treatment facilities and transportation providers. It can be assumed that all of them have a greater direct impact on the environment in common than the other PSO:

H3. Public utilities applying the GRI guidelines, focus more on the environmental dimension than the other PSO under review.

Furthermore the authors assume that larger PSO face greater legitimation needs caused by their higher visibility and influence:

H4. Larger PSO are applying the GRI guidelines to a greater extent.

Prior empirical studies

Table I shows a compilation of prior empirical studies examining environmental, social and sustainability disclosures in PSO. Many studies, particularly the earlier ones, primarily have an environmental focus (Gibson and Guthrie, 1995; Burritt and Welch, 1997; Fortes, 2002; Frost and Seamer, 2002; McElroy *et al.*, 2005). Moreover, a considerable contingent of the studies solely investigated public administrations (Marcuccio and Steccolini, 2005; McElroy *et al.*, 2005; GRI, 2010; Lodhia *et al.*, 2012; Galera *et al.*, 2014; Goswami and Lodhia, 2014) or public utilities (Larrinaga-González and Pérez-Chamorro, 2008; Gebauer, 2011; Papenfuß *et al.*, 2015). Additionally, the majority of the studies have a single-country focus (Gibson and Guthrie, 1995; Burritt and Welch, 1997; Fortes, 2002; Frost and Seamer, 2002; Marcuccio and Steccolini, 2005; McElroy *et al.*, 2005; Guthrie and Farneti, 2008; Larrinaga-González and Pérez-Chamorro, 2008; Gebauer, 2011; Lodhia *et al.*, 2012; Goswami and Lodhia, 2014).

In the following we take a closer look at the more recent studies (from 2008 onwards) which assess sustainability disclosures in order to get an overview of the empirical evidence.

Guthrie and Farneti (2008) examined the SR practices of seven Australian PSO which are applying the GRI guidelines. The authors used the G3 framework including the public agency sector supplement as an assessment tool. They concluded that SR by PSO is still in its infancy. Moreover, they noted that PSO are cherry-picking, since they merely report on indicators they want to disclose.

Also in 2008, Larrinaga-González and Pérez-Chamorro analysed sustainability disclosures of nine Spanish public water utilities. With the exception of the biggest water utility, all others had a very limited SR. However, the authors emphasised that the reporting-activities seem to be linked to strategic and operational activities.

Publication date	Author/s	Sample	Disclosure type		
			Sustainability disclosure	Environmental disclosure	Social disclosure
1995	Gibson and Guthrie	20 Australian companies		X	
1997	Burritt and Welch	60 Australian public sector entities		X	
2002	Fortes	205 Swedish public companies		X	
2002	Frost and Seamer	35 Australian entities		X	
2005	Marcuccio and Steccolini	12 Italian public administrations		X	X
2005	McElroy <i>et al.</i>	27 Australian local governments		X	
2008	Guthrie and Farneti	7 Australian PSO	X		
2008	Larrinaga-González and Pérez-Chamorro	9 Spanish public utilities	X		
2010	GRI	10 government agencies (worldwide)	X		
2011	Gebauer	12 German public utilities	X		
2012	Lodhia <i>et al.</i>	19 Australian public administrations	X		
2014	Galera <i>et al.</i>	33 English-speaking and Nordic local governments	X		
2014	Goswami and Lodhia	4 Australian local councils	X		
2014	Lopatta and Jaeschke	6 German and Austrian universities	X		
2015	Papenfuß <i>et al.</i>	12 German, Austrian and Swiss public utilities	X		

Notes: X = examined type of disclosure. ^aThe compilation is based on a literature review conducted by Papenfuß *et al.* (2015)

Table I.
Prior empirical studies^a

GRI (2010) investigated sustainability reports of ten government agencies from four different countries. In their investigation they used the public agency sector supplement for the assessment. GRI observed that SR by public agencies is still in an early stage. The study “[...] has revealed that reporting on the Sector Supplement items was fragmented and that the types of disclosures provided by the different public agencies were very diverse and predominantly narrative/descriptive, with little quantitative performance data” (GRI, 2010, p. 12).

In 2011, Gebauer examined 12 sustainability reports published by German public utilities. The author’s assessment was based on the IÖW/future-ranking (SR enterprise ranking). The investigation of the public utilities assessed showed a very unsystematic SR that has potential for improvement.

Lodhia *et al.* (2012) analysed sustainability and annual reports from all 19 Australian Commonwealth Departments. The authors focused solely on environmental disclosures. The assessment was based on the environmental indicators of the G3 guidelines.

Despite the different size and mission of the departments, the study revealed that there is no significant difference between the SR practices of the entities examined. The most disclosed environmental issues are energy, biodiversity and materials.

In 2014, Galera *et al.* investigated sustainability disclosures published on web sites from 33 Anglo-Saxon and Nordic local governments. The authors used the G3 guidelines including the public agencies sector supplement for their examination. The results revealed that the Anglo-Saxon local governments of the sample provide more sustainability information. However, in general the results show that there is room for improvement.

Goswami and Lodhia (2014) analysed the SR practices of four South Australian local councils. The authors used the public agencies sector supplement for assessing the extent of disclosed sustainability information. The study revealed that the four councils consider financial sustainability as the most important issue, followed by environmental and social sustainability.

In 2014, Lopatta and Jaeschke examined sustainability reports of six German and Austrian universities. The authors' assessment was generally based on the G3 guidelines. The results of the study show that "[...] environmental issues receive strongest emphasis [...]" (Lopatta and Jaeschke, 2014, p. 82). Moreover, the assessment revealed a limited scope of reporting on social issues. The universities under review had pioneering positions with respect to the disclosure of educational indicators (Lopatta and Jaeschke, 2014).

Papenfuß *et al.* (2015) investigated sustainability disclosures of 12 Austrian, German and Swiss public utilities. In their study the authors developed a theoretical and a SR-standards-based assessment tool. In general, SR practice by the public utilities analysed is still in need of improvement. Moreover, the results showed remarkable variations between and within the countries examined.

This brief overview makes it obvious that empirical research is in an early stage, due to several reasons. Merely Guthrie and Farneti (2008) investigated more than one specific field of PSO activities. Additionally, many of these studies have a single-country focus and do not carry out any comparison between countries (Guthrie and Farneti, 2008; Larrinaga-González and Pérez-Chamorro, 2008; Gebauer, 2011; Lodhia *et al.*, 2012; Goswami and Lodhia, 2014). Thus, this study contributes in two ways to the existing literature:

- (1) first, the authors investigated SR practices by PSO in three different German-speaking countries, namely Germany, Austria and Switzerland; and
- (2) second, the authors analysed different fields where PSO operate.

SR and the GRI

In 1997 the GRI was founded as a non-profit organisation in Boston (USA). The first GRI SR framework was published in 2000. Version 2 followed in 2002. In 2006, version 3 was published and updated in 2011 (G3.1). After intensive stakeholder consultation, the latest version (G4) was issued in May 2013 (GRI, n.d.). The GRI recommends that first-time reporting organisations should use G4 guidelines. Organisations that have already published a sustainability report could choose either G4 or G3/G3.1. All reports issued after 31 December 2015 should comply with G4 guidelines (GRI, 2013). Therefore, most available reports are in line with the G3/3.1 framework.

In German-speaking countries SR is still a non-compulsory practice. Thus the GRI framework constitutes an informal standard without any legal commitment. However,

a recent study by KPMG International (2013) analysing the reporting practices of the 100 largest companies in 41 countries, revealed that approximately 80 per cent of them are applying the GRI framework.

GRI aims at increasing an organisation's transparency and accountability and may thus contribute to building stakeholders' trust. The purpose of a GRI report is to render an account of an organisation's impact caused by its everyday activities and to demonstrate the link between its strategy and its commitment to a sustainable global economy (GRI, 2014b).

The GRI framework claims to be sector-neutral and applicable to firms of any size. Several sector supplements cover sector-specific sustainability issues (e.g. for electric utilities, financial services, non-governmental organisations). In 2005, a pilot version of a sector supplement for public agencies was published. It stresses civic responsibility of public entities as economically significant employers, providers of services and consumers of resources (GRI, 2005). This study does not use this sector supplement for assessing SR by PSO because it is based on an out-dated version of the GRI guidelines and has not been updated since. Furthermore, the intended key target group, at that time, was core public administration. In the sample there is only one report from this sector.

The G3.1 framework comprises three different sections:

- (1) Strategy and profile set the overall context for organisational performance.
- (2) Management approaches cover how an organisation addresses a given set of topics.
- (3) Performance indicators (PI) provide comparative information on the TBL-dimensions. The indicators are assigned to three categories – economic, environmental and social – with the latter split into the following four sub-categories: labour practices and decent work, human rights (HR), society and product responsibility (PR) (GRI, 2011a).

G3.1 includes 55 core PIs. These are regarded as universally applicable as they are considered to be of interest to most stakeholders. A sustainability report in line with G3.1 should provide a balanced and reasonable presentation of an organisation's sustainability performance including both positive and negative aspects (GRI, 2011a). Users can reach one of three application levels; level A, B or C, with level A indicating the most in-depth application of the framework. External assurance of the report (by GRI or by third parties) is recommended (GRI, 2011b; 2014a).

Methodology and sample description

The authors used content analysis as many previous studies demonstrated the usefulness of this method in the context of SR or CSR reporting (e.g. Quick and Kncinski, 2006; Gamerschlag *et al.*, 2011). The assessment of sustainability reports is based on G3.1. The authors chose this framework instead of G4 because the availability of sustainability reports in line with G4 guidelines is still very limited (cf. previous section). The reports are analysed regarding all categories (profile, management approaches and core PIs) and thus the assessment includes 42 profile disclosures (PD), six management approaches and 55 core indicators (Σ 103 assessment-items). The scoring used a two-stage scale (0 = a PSO does not report on a specific indicator/1 = a PSO does report on a specific indicator). Organisations not reporting on a specific

indicator because it is not material or applicable can still get a positive evaluation, if reasons are stated. This practice has made it possible that organisations with a limited area of activity can reach a high-compliance score. For each G3.1 subcategory a compliance level is calculated as shown in the following example:

Example: economic performance indicators	
Number of economic performance indicators (EC):	7
Organisation A reports:	6 of 7
Compliance level:	$6/7 \times 100 = 85.7$ per cent

As a source for sustainability reports the authors used the GRI-database (GRI, 2014c). The study includes available reports in line with G3 or G3.1 by PSO from Austria, Germany and Switzerland. As G3.1 was published in 2011, the authors focused on reports uploaded between 1 January 2012 and 29 August 2014. The sample consists of 42 sustainability reports (nine from Austria, 19 from Germany and 14 from Switzerland). In total, 27 PSO used G3, 15 reported in line with G3.1 guidelines. To avoid double counting of a single organisation, only its most recent report was used. Totally, 20 of the 42 PSO publish SR on an annual basis. In total, 11 organisations observe a biannual and five a triennial reporting cycle. The remaining six PSO follow another reporting cycle.

Concerning the application level most reports reached either level A (14 out of 42) or level B (18). Regarding assurance 24 organisations were audited by GRI while 13 chose third-party auditing (seven PSO use both possibilities). In total, 12 organisations relied exclusively on internal controls.

Findings

The numbers in the following spider charts represent the PSO under review. For instance, Figure 2 shows that report No. 6 scores 100 per cent as it reports on every indicator of this category, while No. 7 reports on less than 40 per cent of all indicators. The inner circles in all charts illustrate the mean of each category. As for PDs (cf. Figure 2) the mean value of compliance is 89.9 per cent. PD include four different types of contents: strategy and analysis, organisational profile, report parameters and governance, commitments and engagement. They are covered by specific indicators such as nature of ownership, reporting cycle or governance structure of the organisation (GRI, 2011a).

Concerning management approaches, Figure 3 shows that the mean degree of compliance is 68.7 per cent. Here PSO either completely comply or do not provide any information due to the fact that organisations aiming at application level C do not have to report on management approaches. Disclosures on management approaches (DMA) should reveal an organisation's approach in principle (e.g. goals and performance, policy or monitoring) for each indicator category (GRI, 2011a).

Regarding EC indicators Figure 4 shows that the mean degree of compliance is above 75 per cent. This category covers three different issues, namely economic performance, market presence and indirect economic impacts. It includes specific indicators such as significant financial assistance received from government or direct economic value generated and distributed (GRI, 2011a). This TBL-reporting category rates higher than all other PI categories including environmental performance indicators (EN) amounting

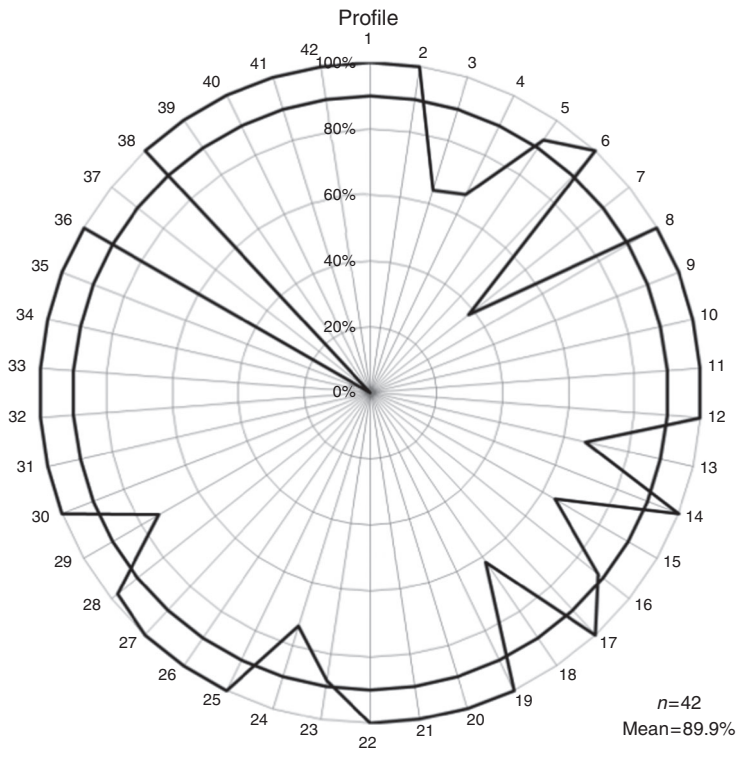


Figure 2.
Profile disclosures (PD)

to 67.5 per cent (cf. Figure 5). Environmental PI comprise materials, energy, water, biodiversity, emissions, effluents and waste, products and services and compliance. Typical indicators of the environmental dimensions are energy consumption or greenhouse gas emissions (GRI, 2011a).

Figure 6 shows that the mean degree of labour practices and decent work (LA) rates 73.3 per cent. This category covers six issues: employment, labour/management relations, occupational health and safety, training and education diversity and equal opportunity and equal remuneration for women and men. Selected indicators are, e.g., the percentage of employees covered by collective bargaining agreements, or average hours of training (GRI, 2011a). In comparison, HRs PI achieve the lowest mean degree of compliance (43.4 per cent) (cf. Figure 7). This category includes seven issues: investment and procurement practices, non-discrimination, freedom of association and collective bargaining, child labour, forced and compulsory labour, assessment and remediation. Examples of HR indicators are the number of incidents of discrimination and corrective actions taken, or the number of grievances encountered in the field of HRs (GRI, 2011a).

The mean values of the categories society (SO) and PR are almost the same with 57.4 per cent and 57.1 per cent (cf. Figures 8 and 9). Issues of SO PI are local communities, corruption, public policy, anti-competitive behaviour and compliance. Examples for indicators are actions taken in response to incidents of corruption or operations with significant negative impact on local communities. The category of PR includes four aspects: customer health and safety, product and service labelling, marketing communications and compliance. Exemplary indicators are significant fines

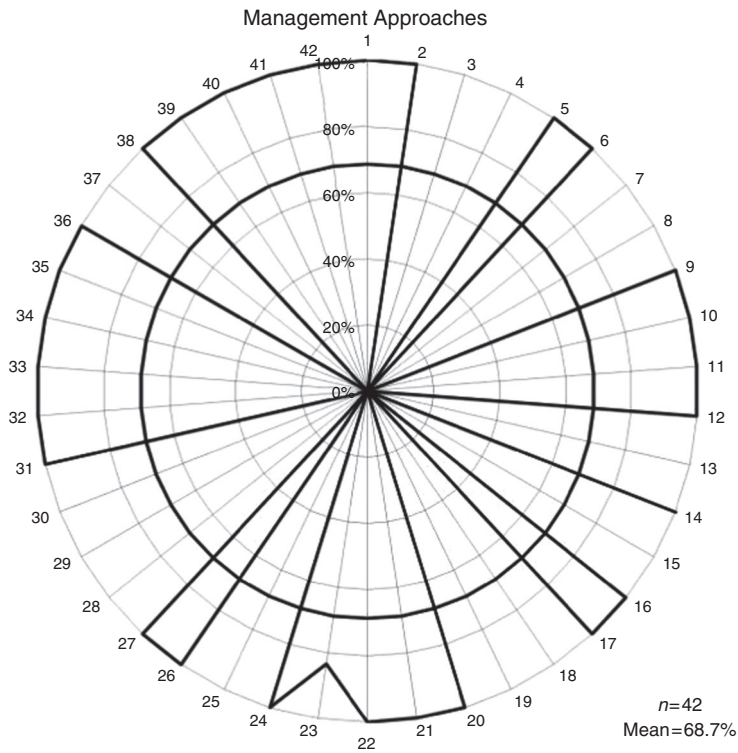


Figure 3.
Management
approaches (DMA)

for non-compliance with laws and regulations or programmes for adherence to laws, standards and voluntary codes related to marketing communications (GRI, 2011a).

Figure 10 gives an overview of the overall performance (Mean = 66.7/SD = 25.254). The authors calculated the total compliance rate (TCR) by including the results of all eight categories to the same degree. Ten organisations reach a level higher than 90 per cent. Within this group are nine German organisations and one Austrian. In total, 50 per cent of the reports analysed show a compliance rate higher than 75 per cent.

Figure 11 displays a cross-country comparison of the mean degrees of compliance in each GRI category which revealed that Austrian reports are the least advanced. Except for management approaches, German PSO reached the highest mean level of compliance. Table II provides descriptive statistics regarding the comparison of the three countries. However, analysis of variance showed that the differences between the countries regarding TCR are not significant (α level = 0.05) ($F(2, 39) = 2.710, p = 0.079$).

Owing to the different sector affiliations of the PSO under review, they are clustered into five groups (cf. Figure 12 and Table III): 21 PSO are public utilities, followed by educational services (eight) and financial services (seven). Four PSO belong to the real estate sector. Among the two others there is one public agency and one lottery. Beside these two organisations, the four PSO from the real estate sector reached the highest TCR with about 80 per cent. Both public utilities and financial services show values under 70 per cent. Providers of educational services reached a TCR below 50 per cent. Regarding PI categories, SO and PR show the highest group differences. In order to verify whether there is a statistically significant difference between public utilities and

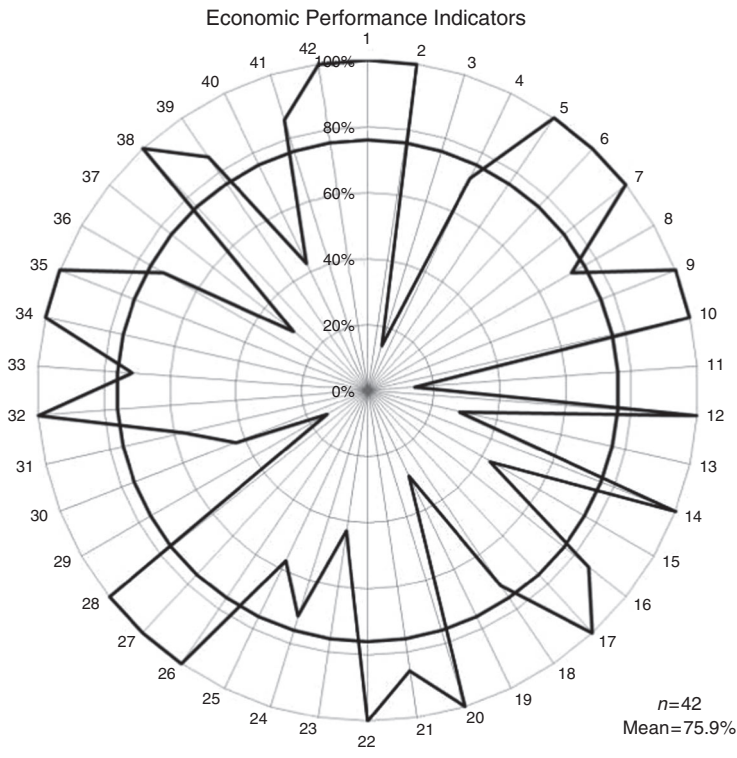


Figure 4.
Economic performance indicators (EC)

the other sectors (educational services, financial services, real estate and the two others) regarding the environmental dimension, a *t*-test was conducted. The results show no significant difference (α level = 0.05) between public utilities (Mean = 66.9, SD = 28.666) and the other sectors (Mean = 68.1, SD = 29.269) ($t(40) = 0.125, p = 0.901$).

To assess whether larger PSO apply the GRI guidelines to a greater extent or not, a correlation analysis was conducted. Due to the fact that revenue is not an appropriate measure for size in the sample examined (e.g. educational services) the authors decided to use the number of employees alone. The correlation analysis showed no significant difference (α level = 0.05) between the size of the PSO and the TCR ($r(40) = 0.197, p = 0.211$).

Discussion

Out of 42 sustainability reports assessed, 29 achieved an overall performance higher than 50 per cent, while 21 of them reached 75 per cent. Moreover, ten PSO attained a TCR above 90 per cent. This finding indicates that the level of adoption of GRI guidelines for SR by PSO show considerable variations. However, despite the variations these results can be interpreted as an indication that PSO provide comprehensive sustainability reports and that the pressure through expectations of the society has led to coercive isomorphism. Therefore, the results are in line with the first hypothesis.

On a descriptive level, reports from Austria are less advanced than Swiss and German ones. However, variance analysis shows that these differences are not significant. This result confirmed the second hypothesis, too.

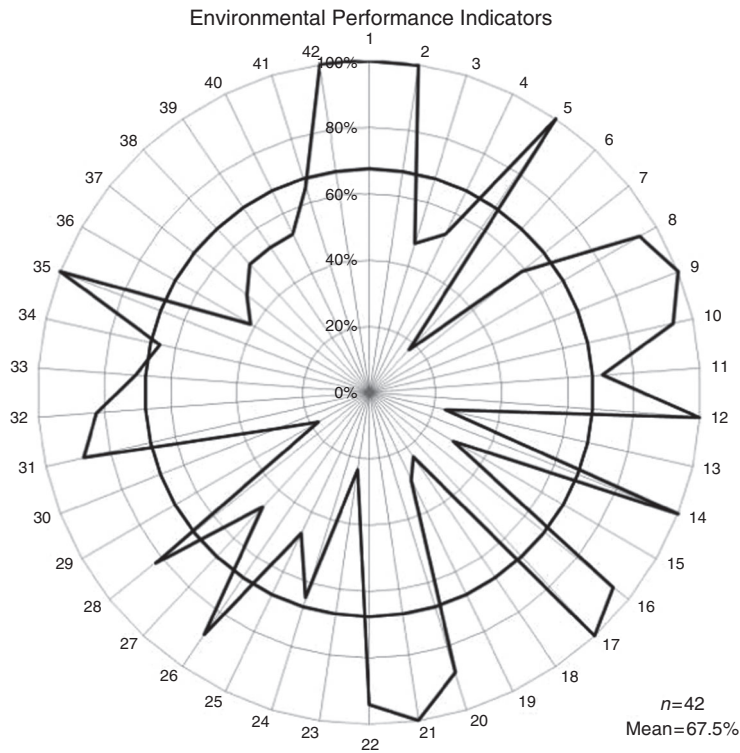


Figure 5.
Environmental
performance
indicators (EN)

Regarding sector comparison, the results of the TCR show that PSO belonging to the real estate sector, the financial services and the public utilities sector are report at a relatively similar level on average, but the results also show considerable differences within the sectors as Papenfuß *et al.* (2015) found in their investigation of public utilities. SR by educational services are lagging behind. This could be due to the fact that educational service providers are faced with less competitive pressure from private companies and that they have to compile other legally or contractually mandated reports. In Austria, for example, public universities have to produce a knowledge balance sheet.

With a mean degree of compliance of nearly 90 per cent, PDs rate highest in the study. This is hardly surprising as the respective information is often compulsory in other reports. Concerning management approaches (mean value approx. 69 per cent) PSO which decide to report on this category at all mostly provide complete information (see Figure 2).

First, regarding PI this study showed that the category of economic PI achieves a mean level of compliance above 75 per cent constituting the highest value within the PI categories. This relatively high rate may be attributed the fact that the data required are available from other (often mandatory) measurement systems. Most PSO are experienced in reporting on economic issues. The examination of Australian local councils conducted by Goswami and Lodhia (2014) also showed the specific importance PSO placed upon the economic dimension.

Second comes the category of environmental PI (mean degree of compliance = 67.5 per cent). As some PSO have already practical experience in environmental reporting,

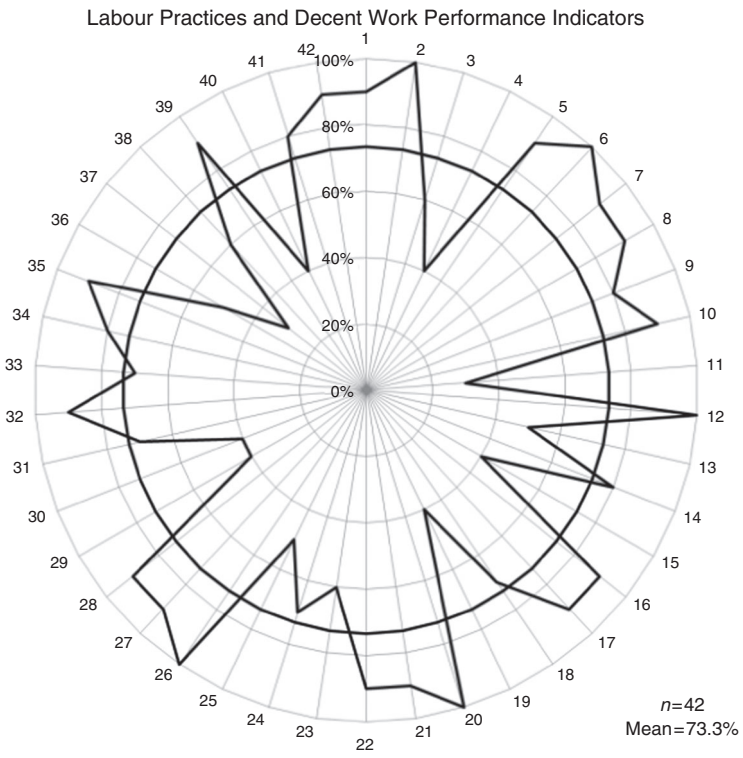


Figure 6. Labour practices and decent work performance indicators (LA)

they can partly draw on available data and existing information systems. Some German public utilities are well experienced with Eco-Management and Audit Scheme certifications. Another reason for PSOs' stronger focus on demonstrating their environmental performance rather than reporting on social issues might be that, historically, the concept of sustainability has its roots in the ecological dimension.

The third hypothesis was derived from the assumption that legitimation needs depend on the field of activity and related surrounding conditions and requirements. This is why, the authors assumed that public utilities have a greater direct impact on the environment, than the other PSO under review. Hence one expected a higher reporting level by public utilities regarding environmental PI but the *t*-test conducted has not confirmed this assumption. This result indicates that public utilities have some homework to do when it comes to meeting their field-specific legitimation requirements.

Considering specific or greater legitimation needs, the authors also assumed that larger PSO faced even greater legitimation needs caused by their higher visibility and influence. However, correlation analysis has shown no significant difference between the number of employees and the TCR. This result indicates that reporting PSO are generally trying to meet the high-accountability expectations, independently of their size. At this point it should be stated that the sample contains many PSO with a large number of employees (26 out of 42 have more than 1,000 employees).

The third dimension, social PI, is covered in the GRI framework by four categories: labour practices and decent work PI; HRs PI; society PI; PR PI. Labour practices and decent work achieve the highest mean compliance rate of these categories

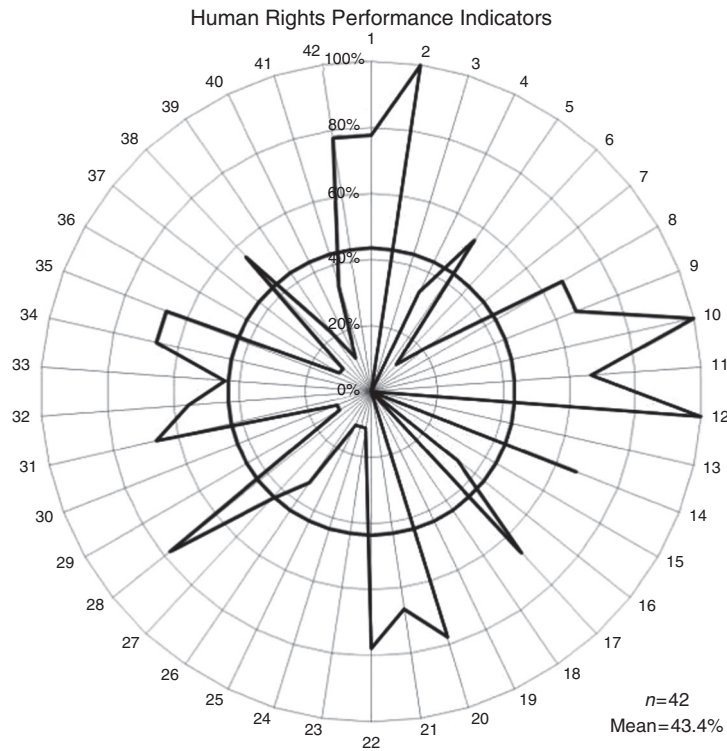


Figure 7.
Human rights
performance
indicators (HR)

(approx. 73 per cent). This result does not surprise when taking into account the long-standing institutionalised co-operation between the representations of employers and labour in the countries under review. Additionally, PSO have to cope with the (upcoming) shortage of highly skilled workers.

The category of HRs PI achieved the lowest compliance level (approx. 43 per cent). From the authors' point of view this result is surprising as the three countries under investigation maintain high-HRs standards in the areas where the PSO under review operate. The authors assume that some PSO do not report on these issues because they are regarded as self-evident. Another possible explanation could be that PSO often have a predominantly local and regional area of activity. Thus they maintain relations with mostly local suppliers and customers but not or only rarely with stakeholders in other (non-OECD) countries where respect for HRs is lower. Altogether, PSO may not perceive enough necessity or pressure to report on HRs in their SR. Most likely they demonstrate their compliance elsewhere. Additionally, accounting on HRs is a rather new accountability area for PSO and for for-profit entities alike and a majority might, therefore, be at the very beginning of this endeavour.

Both society PI and product responsibility PI reach a mean value of approx. 57 per cent. The latter result seems rather low as NPM has been stressing the relevance of service quality for decades. Concerning reporting on society PI, the findings show that PSO definitely have some room for improvement.

This applies to the whole social dimension which reached an overall mean of 57.8 per cent. To calculate this value the four means of the categories belonging to the

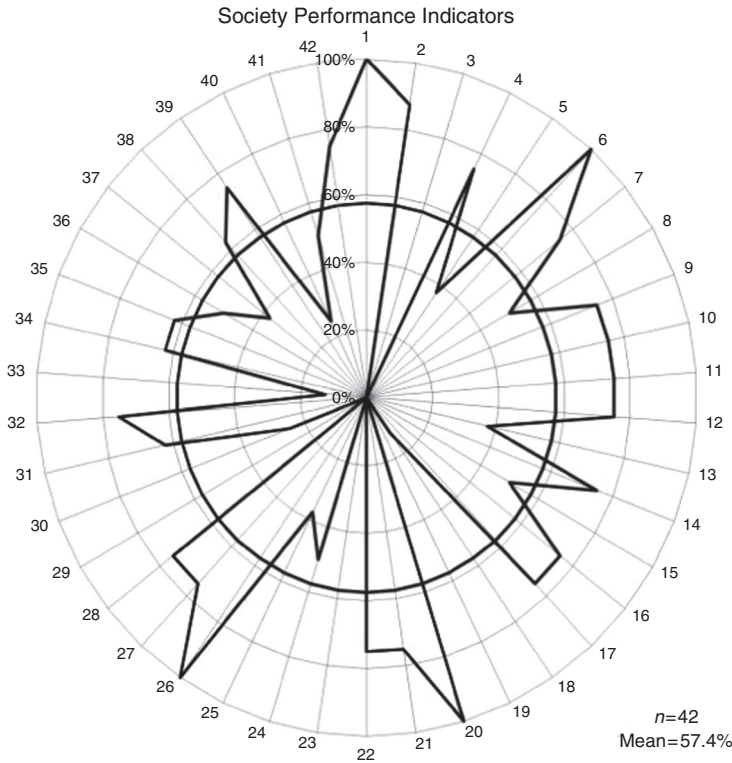


Figure 8.
Society performance indicators (SO)

social dimension were summed up (73.3 + 43.4 + 57.4 + 57.1 per cent) and divided by four. A reason for this underdevelopment may be that PI numbering among the social dimension are generally more difficult to measure and thus to report than environmental and economic PI. There are by far fewer generally accepted reporting conventions for measuring social impact than for accounting on economic performance.

The comparison of the results regarding the three dimensions of the TBL shows that the social and the environmental dimension lag behind the economic dimension. This imbalance is also found in empirical studies focusing on for-profit entities. The findings are in line with prior empirical studies, as there is a need for improvement, especially when it is assumed that PSO are expected to provide more social and environmental disclosure than private companies. SR is well on its way but does not respond sufficiently to the specific societal pressures created by the expectations on PSO concerning the creation of public value. This is a critical factor for meeting the specific societal legitimization expectations on PSO. In line with the theoretical considerations, PSO should improve their signalling as to how they meet their specific accountability obligations. Generally speaking, TBL-reporting standards are a good step forward as they advance well beyond the financial bottom line. A first caveat for PSO is that the GRI reporting is regularly updated in a multi-stakeholder dialogue which does not involve citizens nor democratically elected bodies in a systematic way. This presents a challenge for the democratic legitimization. This criticism of governance structures is something shared by GRI and International Public Sector Accounting Standards.

Figure 9.
Product
responsibility
performance
indicators (PR)

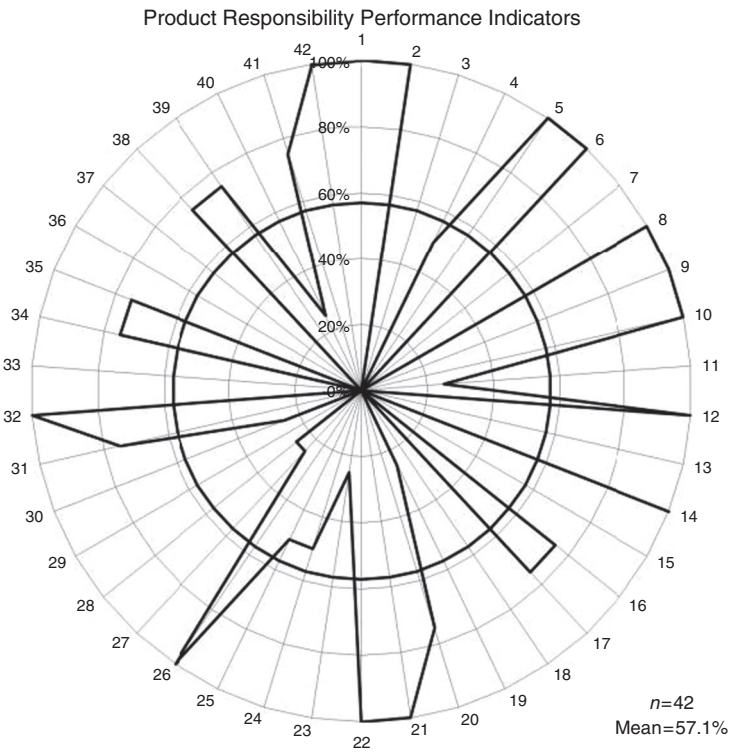
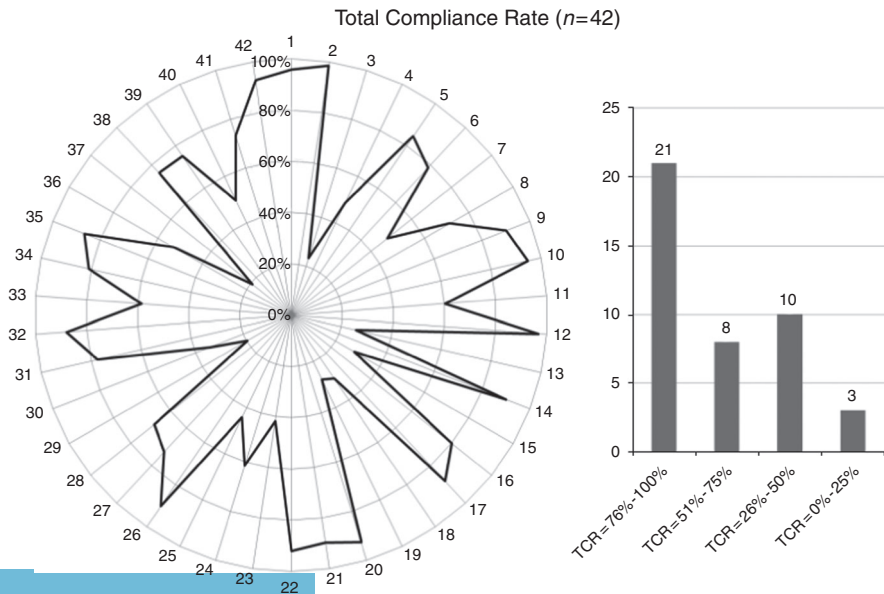


Figure 10.
Total compliance
rate



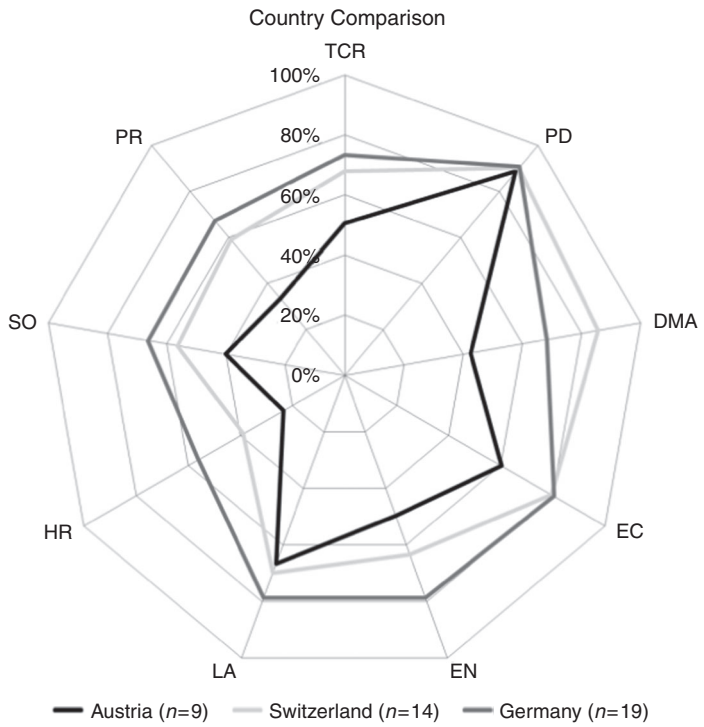


Figure 11. Country comparison

Country	Mean	TCR (%)	SD
Germany (n = 19)	73.4		27.316
Austria (n = 9)	50.6		23.961
Switzerland (n = 14)	67.8		19.480

Table II. Country comparison

Under legitimation aspects a second challenge arises, i.e. that today’s GRI-standards are sector-neutral. In the past decade a public sector supplement was developed but it has not yet been updated. Therefore, sector-specific dimensions with respect to the reporting of local, regional or national welfare creation by PSO are not well covered by the GRI-standards. An update of the public sector supplement is needed to improve the PSO SR practices in line with their specific accountability obligations.

Conclusion, limitations and directions for further research

Almost a quarter of the SR analysed (ten) comply with the GRI framework, to a large extent (TCR > 90 per cent). These pioneers could serve as best practice examples of measuring sustainability performance at the organisational level. Another 11 reports achieve a TCR between 75 and 90 per cent. These results can be interpreted as an indication that societal expectations have led to coercive isomorphism regarding the implementation of SR. As SR disclosures are a voluntary activity in the

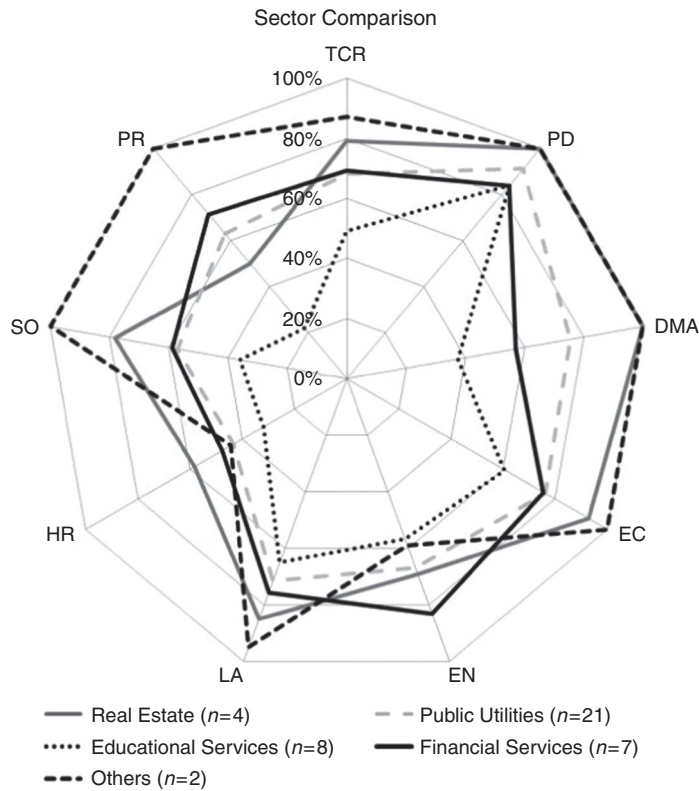


Figure 12.
Sector comparison

Sector	TCR (%)		EN (%)			
	Mean	SD	Mean	SD	Mean	SD
Public utilities (<i>n</i> = 21)	68.1	24.600	66.9	28.666	66.9	28.666
Financial services (<i>n</i> = 7)	69.2	27.491	83.2	24.824	68.1	29.269
Educational services (<i>n</i> = 8)	49.2	24.144	56.6	25.725		
Real estate (<i>n</i> = 4)	79.2	20.664	69.1	29.363		
Others (<i>n</i> = 2)	87.3	12.288	58.8	58.232		
Overall (<i>n</i> = 42)	66.7	25.254	67.5	28.619		

Table III.
Sector comparison

German-speaking countries under review, this high level of compliance on average could also provide an argument for (maintaining) voluntary disclosure. Nevertheless, a more in-depth look at the findings reveals high variations.

With respect to the second research question, the balance of the three TBL-dimensions, the assessment of PSOs' sustainability reports clearly reveals an imbalance. The economic dimension is on the fore (with a mean value of 75.9 per cent), followed by the environmental dimension (67.5 per cent), while the social dimension ranks third (57.8 per cent). Though it has to be noted that the GRI categories do not comprise an equal number of PI, it can be maintained that the social dimension is the least developed dimension in GRI sustainability reports by PSO. Assuming that all three dimensions are

of equal relevance, not only in the concept of sustainable development but also within the GRI framework, this finding shows that there is need for action.

The authors recommend fostering a balance between the three TBL-dimensions by increasing the reporting on both the environmental and the social dimension, but particularly concerning social aspects. This improvement could facilitate PSO communication, especially for those providing services of general (economic) interest, in order to better signal their characteristic role as stewards of society. Wherever possible, PSO should tailor the SR to their specific legitimation needs. As most PSO under investigation do not sufficiently report on PI associated with the social dimension, it is obvious that, in this respect, they are in the middle of an ongoing learning process. From the perspective of the legitimacy theory, the imbalance indicates that SR by PSO is not a proper response to the pressure to demonstrate public value creation. Therefore PSO should intensify reporting on the social and environmental dimension. Literature concentrating on SR practices in the private sector often criticises that companies only disclose information on selected issues (e.g. Kleinfeld and Martens, 2014; Kozłowski *et al.*, 2015). The lower scores in the environmental and especially the social dimension may be an indicator that SR by PSO is not in line with coercive isomorphism but show signs in direction of a mimic practice of private companies.

The study has its limitations (especially regarding sample size, time period under examination and regional focus on German-speaking countries). The study used the GRI framework as a coding scheme because it is the most widely used one. Thus, self-evidently, the study evaluates GRI compliance, but does not take into account other approaches to SR. A considerable caveat is that high compliance with (any) SR standards and high-sustainability performance are not the same thing. Compliance on paper – i.e., disclosure of economic, environmental and social performance indicators – does not necessarily tantamount to a profound implementation of sustainability principles in practice.

Finally, the conclusion can be reached that many PSO provide comprehensive sustainability reports as expected but, regarding TBL-dimensions, the reports show a clear imbalance. However, there is a need for further research investigating PSOs' motivations to publish SR. Additional research is called for to explore the reasons for the imbalances encountered between the TBL-dimensions although there are distinct societal pressures for a comprehensive SR in PSO. Moreover, as the study concentrates on PSO in selected European countries, an enlargement could be worthwhile, especially concerning the third sector as both PSO and private non-profits usually act for the public benefit. So far this investigation has been focused on reports as final products of SR. It may also be of interest to analyse internal processes and instruments regarding SR practices of PSO.

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Country	Organisation
Austria	BIG Bundes Immobilien Gesellschaft
	BOKU Universität für Bodenkultur
	Hochschule für Agrar- und Umweltpädagogik
	HTL Donaustadt Höhere Technische Lehranstalt Donaustadt
	Illwerke vkw AG
	Karl-Franzens-Universität Graz
	Österreichische Bundesbahnen AG
	Österreichische Nationalbank
	TIWAG AG Tiroler Wasserkraft AG
	Abfallwirtschaftsbetrieb München
Germany	Berliner Wasserbetriebe
	Bremenports GmbH & Co KG
	Bundesministerium für Arbeit und Soziales
	Carl von Ossietzky University Oldenburg
	DekaBank Deutsche Girozentrale
	Deutsche Bahn AG
	Dresdner Verkehrsbetriebe AG
	Entega GmbH & Co KG
	Gesobau AG
	Hamburg Port Authority
	HOWOGE Wohnungsbaugesellschaft mbH
	HSE AG HEAG Südhessische Energie AG
	KfW Bankengruppe Kreditanstalt für Wiederaufbau
	L-Bank Landeskreditbank Baden-Württemberg
	Leuphana University of Lueneburg
	Nord/LB Norddeutsche Landesbank
	Stadtreinigung Hamburg
Stadtwerke Frankfurt am Main GmbH	
Switzerland	Ara Region Bern AG
	Armasuisse Immobilien
	Basellandschaftliche Kantonalbank
	Die Schweizerische Post AG
	Elektrizitätswerke des Kantons Zürich
	EWB Energie Wasser Bern
	Energiedienst Holding AG
	EPFL École polytechnique fédérale de Lausanne
	ETH Zürich Eidgenössische Technische Hochschule Zürich
	EWO Elektrizitätswerk Obwalden
	IWB Industrielle Werke Basel
	Loterie-Romande
	SBB Schweizerische Bundesbahnen
Zürcher Kantonalbank	

Table AI.
Public sector
organisations
surveyed^a

Note: ^aThe order of the organisations in the Appendix does not equal the numbers in the spider charts to avoid any negative impressions of these pioneers in the field of SR

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