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Exploring diversity in sustainability assurance practice

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Exploring Diversity in Sustainability Assurance Practice: Evidence from Assurance Providers in the UK

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Abstract

Purpose - This paper aims to understand sustainability assurance, and diversity in that practice, by examining assurance providers' understandings of the practice and the influences that those understandings have on the actual assurance process. It focuses on the issues beyond the content of statements in sustainability assurance reports.

Design/methodology/approach - This paper employs semi-structured interviews, supplemented by textual data sources. Research participants are assurance providers in the UK, including those within and outside the accounting profession. Drawing on the perspective of actor-network theory, the study focuses on the associations between different actors and how those shape the assurance practice.

Findings - The findings indicate that providers' understandings of sustainability assurance practice vary significantly. This variation has a major effect on how the assurance practice is conducted. The study identifies four types of sustainability assurance engagements, which are designated as: social assurance, integrated assurance, formative assurance and compliance assurance. Such a categorization provides a broad-based understanding of the operationalization of sustainability assurance and the degree of heterogeneity within it.

Originality/value – This paper extends our understanding of sustainability assurance by focusing on the practice beyond the statements made by assurance providers, which have been the predominant focus of analysis in the existing literature, and by offering a categorization of the diversity in practice. The focus on the associations between assurance providers and other actors provides a new perspective for exploring the fundamentals of the practice.

1.   Introduction

The growing trend for major companies to issue sustainability reports has given rise to a need for a mechanism to verify the integrity of these reports (Jones and Solomon, 2010). Sustainability assurance (SA) has, therefore, emerged as a new service in the non-financial assurance market. Despite positive perceptions of SA amongst report users, the information usefulness of SA has been said to be limited by a considerable degree of diversity in SA practice, particularly differences in the scope and level of assurance offered as well as the content of the assurance statements (Low and Boo, 2012). This paper aims to enhance an understanding of, and provide a systematized view of, this diversity of practice.

Extant research points to a range of reasons for variation in the conduct of SA. Firstly, the plurality of reporting guidelines and reporting organizations' own reporting criteria (Hodge et al., 2009), has led to considerable diversity in the content of sustainability disclosures making it difficult, in turn, to apply a single approach to assurance (Manetti and Becatti, 2009). Secondly, there is no universal standard for SA practice, although there are two dominant standards used by SA practitioners - AA1000 AS (AccountAbility, 2008b) developed by AccountAbility, i.e. an international advisory and standard setting organization, and ISAE3000 (IAASB, 2013) set by the International Auditing and Assurance Standards Board (IAASB). The two standards are not only published under the auspices of two different standard setting bodies[1] but also arguably reflect different conceptions of SA (Iansen-Rogers and Oelschlaegel, 2005). ISAE3000 derives some influence and authority from its association with financial statement audit, focusing on assurance in general and risk assessment as one of the main concerns for financial auditors. AA1000 AS, on the other hand, places primary emphasis on the process of assurance, directing it towards the interests of stakeholders (Deegan et al., 2006; Manetti and Toccafondi, 2012). Lastly, the unregulated nature of SA practice means that it is provided not only by professional accountants but also by suppliers such as environmental and management consultancies and non-governmental organizations (Perego and Kolk, 2012).

While the above factors have been identified in the literature as significant drivers of diversity in SA (Perego, 2009; Perego and Kolk, 2012; Pflugrath et al., 2011), much of that literature has focused only on the content of SA statements as a means to infer the effects of those factors on practice (Farooq and De Villiers, 2017), effectively treating the SA process itself as a black box. There is limited research that has explored the development of SA by gaining insights from SA providers themselves. A study by O'Dwyer (2011) represents a significant exception by offering an in-depth view of the practice development and drawing on interviews with firms providing the service. The study revealed substantive differences in the practitioner's perceptions and practical conduct of SA, pointing to a range of factors such as professional and educational backgrounds as well as personal commitments as potential sources of variation. O'Dwyer's study, however, focused exclusively on accounting firms. In contrast, this study seeks to provide a more holistic view of the diversity of SA by focusing on accounting as well as non-accounting providers of the service. The study is motivated by two interrelated questions: "How do SA practitioners from different firms perceive the purpose of sustainability assurance practice and their roles as assurance providers?" and "How do these perceptions affect the process of delivering SA?" Particularly, the empirical focus of the study is on SA providers in the UK. One of the reasons to choose the UK as a research field is that sustainability reporting and assurance in the UK is relatively advanced and well-established compared to the practice in

some other countries (see KPMG, 2011; 2013; 2015). Also, the SA market in the UK is not monopolized by accounting firm assurance providers, but includes providers from other occupational backgrounds (Huggins et al., 2011; Hummel et al., 2017; Mock et al., 2007; Pflugrath et al., 2011; Simnett et al., 2009). The context, therefore, provides an appropriate setting to understand the SA practice.   Theoretically, we employ an Actor-Network perspective as a useful conceptual tool for understanding the sources of SA practice diversity. In particular, we utilize the notion of translation to capture the dynamic processes through which SA practitioners seek to establish a particular interpretation of SA by aligning their interests with those of other actors, both human (users and stakeholders) and non-human (assurance standards, reporting guidelines, firm methodologies) (Justesen and Mouritsen, 2011). We demonstrate how these translation processes also involve identity negotiations between actors (Cooper and Robson, 2006; Skærbæk, 2009) and how SA providers build networks of support to promote particular translations (Gendron and Barrett, 2004) and assign specific practical meaning to fundamental terms such as 'sustainability' and 'assurance'. The various understandings and interpretations SA providers place on these terms not only create associations with different other actors but, importantly, influence their approaches to the assurance process. We take account of these different perceptions and operationalizations in order to develop a systematized view of the different types of SA engagements. We, therefore, contribute to the extant literature and calls for in-depth SA studies by providing a comprehensive overview of the SA practice space, which includes different types of engagement reflecting varied roles, attributes and approaches to the conduct of SA (Farooq and De Villiers, 2017).

The paper is structured as follows. The next section introduces the framework of this study based on the actor-network perspective and the notion of boundary objects. Then the research methodology is presented. This is followed by the empirical findings discussing the role of SA providers, the meaning of 'sustainability' and 'assurance' as components of the assurance practice, and how such meanings are assigned to practical routines in conducting assurance engagements. The paper finishes with discussion and conclusion sections.

2.   Exploring SA from an actor-network perspective: A conceptual framework

As argued earlier, the emergence of the idea of SA has led to a new market for accounting and non-accounting firms to offer services. In order to populate this market, the service providers need to establish their identities and perceived expertise as well as assign particular practical meanings to the conduct of the SA process. These endeavours involve sustained negotiations, the building of relationships with other actors, and connecting to a variety of sustainability-related discourses (Power, 2005). ANT provides a particular conceptual lens through which these dynamics can be captured by directing attention to the processes through which the particular interpretations (in ANT terms, translations) of SA emerge and evolve and by assigning agency to both human and non-human actors as the essential agents through which this happens (Callon, 1986; Latour, 1987).

There is now an established body of literature that sees local adaptations of accounting technologies essentially as a process of 'translation' which is concerned with technical categories

but also is heavily reliant on the political and social conditions that constitute the context in which the technologies are implemented (Chua, 1995; Emsley, 2008; Gendron and Barrett, 2004; Miller, 1991; Preston et al., 1992; Whittle and Mueller, 2010). Jeppesen (2010), for example, utilizes the idea of moments of translation to demonstrate how the Danish auditing standard setting process is accepted by local actors as well as the dynamics of resistance among the marginalized constituents. In their study of sustainability reporting by Canadian companies, Caron and Turcotte (2009) represent sustainability reports as actors subject to tension between representations focused on sustainability ideals and those centred on traditional business interests.

In addition to the concept of translation, the 'boundary object' (Star and Griesemer, 1989) is another concept derived from ANT that has been usefully utilized by accounting scholars. In their study of the implementation of activity-based costing, Briers and Chua (2001) use this concept as a means to attribute a success/failure of a particular accounting innovation to the differences in actors' interpretations of the associated categories. Similarly, Andon and colleagues (2015) argue that the exploration of new assurance spaces involves a search for viable practical associations between auditing and objects relating to the new practice area (Andon et al., 2015).

In the context of this study, the concept of translation is useful in understanding how particular practical approaches to SA are created as "facts" (Chua, 1995; Whittle and Mueller, 2010), whereas the notion of boundary objects serves to highlight the existence of taken-for-granted categories around which translation occurs and which are subjects of negotiation. Figure 1 summarises the conceptual framework employed in this study.

Figure 1: Conceptual framework.
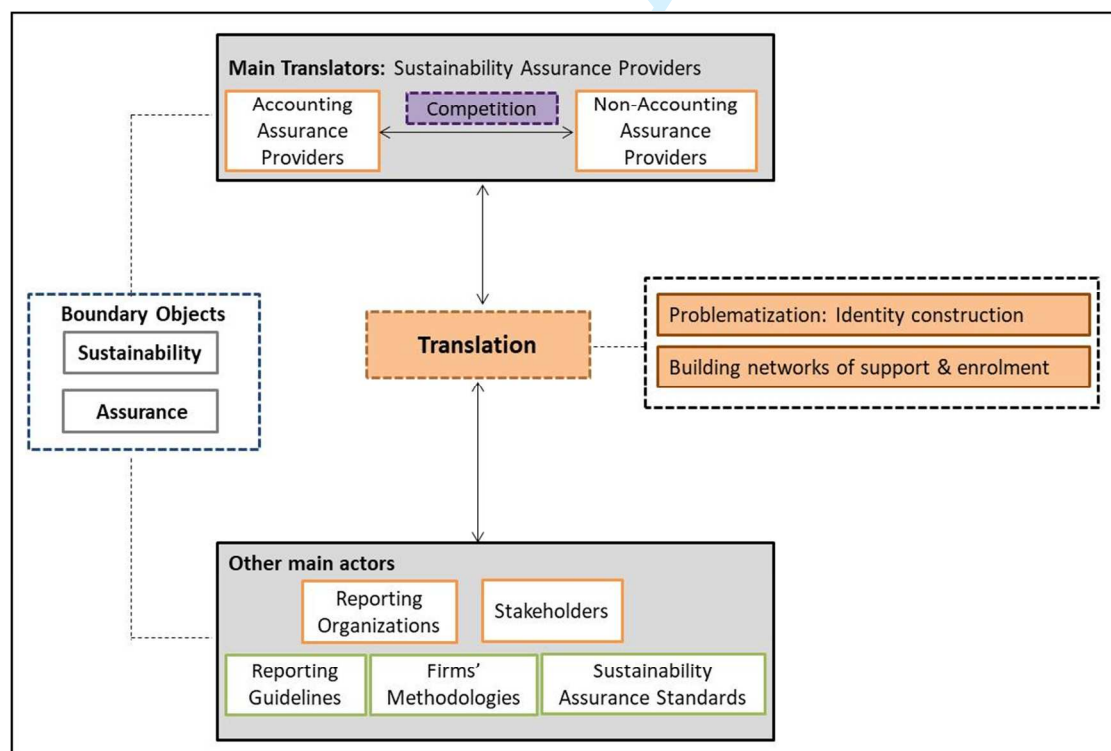
2.1   Translation

Translation occurs when a translator (or translators) manages to persuade other actors to accept their worldview (Ählström and Egels-Zandén, 2008). In the context of this study, the process of translation relates to how SA providers gain acceptance for the meanings they attribute to SA practice. This translation involves persuading other actors to see the importance of SA and formulating problems for which they can provide the solutions. SA practitioners, for example, may try to influence their clients to accept SA services under agreed conditions, such as the scope of assurance or the extent of data collection. This is called problematization and is a starting point of the translation process.

Identity negotiation is a part of the translation process (Cooper and Robson, 2006; Skærbæk, 2009), in which the main translator (i.e. SA providers) tries to persuade other actors to accept the roles that they assign to themselves and other actors. Gendron and Barrett (2004), for example, show how accountants' efforts to enrol actors to support a new web assurance initiative were designed to attend to different types of interests. All actors, including the main translators, get particular identities assigned to them as a result of their relationships with others (Justesen and Mouritsen, 2011). In other words, the relationship between SA assurance providers and reporting organizations can serve to indicate their identities. It is also possible that the attempts at identity negotiation can be unsuccessful if the problems introduced do not match with the interests of the target audience.

Identity negotiations targeting the perceived interests and demands of the target audience are ultimately designed, in ANT terms, to establish strong 'networks of support' around practitioners' claims of expertise to assist new practice development (Justesen and Mouritsen, 2011). The stronger the network of support, the more enrolment of actors this leads to. For example, the enrolment of investors (as one group of report users) into the network of SA practice may also have an indirect impact for the enrolment of sustainability reporting organizations. If the investors perceive that sustainability reports are credible only when accompanied by SA statements, the reporting organizations will not be able to avoid engaging in such a practice. This shows the chain in which the enrolment of one group of actors in the network might lead to the enrolment of others (Bergström and Diedrich, 2011). Furthermore, ANT also attributes agency to non-human actors and emphasizes their role as supporters of particular translations (Chua, 1995).

In this study, we explore the SA providers' efforts to enrol both human (e.g. reporting organizations and stakeholders) and non-human actors (e.g. practice standards and firm methodologies) as a means to problematize particular translations of their roles and the meaning of SA.

2.2   Boundary objects: Discourses around 'sustainability' and 'assurance'

Negotiations and debates on the subject of SA essentially concern the conceptualization of two key related issues, i.e. sustainability and assurance. These two notions are referred to widely in the SA field but are nonetheless subject to different interpretations by actors and, in ANT terms,

can therefore be seen as 'boundary objects' (Star and Griesemer, 1989). Boundary objects have been defined as:

> "conceptual objects that have a high level of legitimacy within a particular community. They can evoke similar emotive and affective responses from a wide spectrum of people; possessing a sacred quality that makes it difficult for a 'rational' person to go against them…But the precise identity of these objects is unknown until it is customized and tailored to specific settings." (Briers and Chua, 2001, p. 242)

Star (2010) identifies 'interpretative flexibility' as one of the key characteristics of boundary objects, in the sense that an object can have both a generic meaning which may resonate among different social groups and more tailored, localized meanings. Hence, it may be argued that a boundary object can tie actors with diverse goals together because it is common to multiple groups, yet capable of taking on different meanings within each of them (Briers and Chua, 2001). In the translation process, boundary objects play an important role in linking the translators with different actor audiences and mediating diverse interests (Briers and Chua, 2001), and serve as a connecting tool between different groups of actors through which to handle problems (Windeck et al., 2015). Managing a boundary object, or in other words promoting a particular representation of it, may serve as a means to align actors' interests, satisfy conflicting concerns and foster cooperation between and within actor groups (Star and Griesemer, 1989, p. 412).

For the purpose of this study, we conceptualize the notions of 'sustainability' and 'assurance' as boundary objects (Star, 2010) as a way to introduce a range of related issues that SA providers assign meanings to as they develop (differently) their version of SA practice (Cohen, 2012). The translation process helps providers resolve their commitments by creating representations (Star and Griesemer, 1989). Such representations, in turn, influence how they conduct the assurance and work with other actors. While negotiations around boundary objects may yield a consensus, such a consensus is precarious and may be subject to change and further translations. In the case of SA, what stimulates further translations is also the evolving nature of the practice itself as practitioners often engage in multiple and successive attempts to interpret various aspects of the practice. Therefore, treating sustainability and assurance as broadly defined boundary objects provides opportunities for capturing the ways in which actors such as SA providers attempt to redefine and reposition their interests relating to SA practice.

3. Methodological approach

Studies of SA that have been restricted to analyzing the content of assurance reports have been criticized for providing little understanding of the complexities of actual practice (O'Dwyer et al., 2011). In contrast, this study employs a qualitative approach which aims to capture the contextual imperatives that serve as a source of practice variation and perceptions of the practitioners as to the dynamics of practice development. The study relies on semi-structured interviews as a primary data collection method. In contrast to a more structured interview approach, such a method retains a degree of structure to ensure consistency in the range of topics discussed with the participants, yet allows for prompts and probes to follow up on important issues emerging during the discussion, and hence provides sufficient flexibility for collecting a

variety of viewpoints and differences in the manner individual practitioners conceptualize practice. The wealth of different views on, and experiences of, SA collected through the interviews was key to our ability to capture and make sense of the diversity of approaches to SA and the degree of segmentation characteristic of this practice space.

Data collection commenced with identification of potential interviewees. In particular, we consulted a market research report containing an exhaustive list of firms, both accounting and non-accounting, that are main SA providers in the UK (Verdantix, 2013). All firms identified from the list were contacted by email and invited to participate in the research project. Among the individuals from the firms who responded to our call, we selected those that satisfied the following key criteria: active engagement with SA, including the practical conduct of SA engagements, and at least five years of professional experience in assurance (audit). Also, preference was given to individuals occupying more senior positions within their respective organizations (senior associate and above). As a result of the above sampling approach, we conducted interviews with nineteen SA practitioners, including partners, directors, and managers with significant knowledge of SA. These practitioners represented both accounting (all Big4 and one second-tier accounting firm, indicated by letters A-E) and non-accounting (indicated by letters F-I) firms. In order to gain a general understanding of the issues influencing SA from the demand side, we also conducted some additional interviews with four stakeholders (indicated by letter S in the analysis section below) and one reporting organization (indicated by letter R) (see Table 1). Hence, the total amount of interviews conducted was twenty-one. The interviews were conducted either face-to-face or via telephone, and ranged in length from 40 to 95 minutes.

Table 1: List of research participants and details of the interviews.

#	Type of organization	Interviewee's position	Interview location	Interview date	Duration (min.)	Code name*
1	Big4	Director	London	25 April 2014	75	A1
2	Big4	Senior Associate	London	31 July 2014	65 Recoding not allowed	A2
3	Big4	Executive	London	21 May 2014	70	B1
4	Big4	Executive	London	23 July 2014	65	B2
5	Big4	Executive	London	24 October 2014	55	B3
6	Big4 (Group interview)	1 Director, 2 Senior Managers 1 Manager	London	21 May 2014	60	C1-C4
7	Big4	Partner	London	25 April 2014	80	D1
8	Big4	Manager	London	24 June 2014	65	D2
9	Big4	Senior Associate	London	25 June 2014	50	D3
10	Big4	Senior Manager	London	27 June 2014	60	D4
11	Big4	Manager	London	30 June 2014	65	D5
12	Second-tier accounting	Head of Sustainability	London	23 July 2014	60	E1
13	Non-accounting	Business Unit Manager - Sustainability Service	London	4 June 2014	60	F1
14	Non-accounting	SA Business Manager	London	3 September 2014	90	G1
15	Non-accounting	Corporate Responsibility Technical Manager	Skype interview	12 May 2014	70	H1
16	Non-accounting	Global Product Manager - Social Responsibility	Northampton	14 May 2014	95	I1
17	Institutional investor	ESG Research Analyst	Email	14 October 2014	N/A	S1
18	Institutional investor	Head of ESG Research	London	12 December 2014	55	S2
19	SROI	CEO of SROI Network	Skype interview	23 January 2015	40	S3
20	Accounting professional body	Director of Sustainability and Assurance	Edinburgh	9 April 2015	70	S4
21	Reporting organization	Group Sustainability Accountant (Listed Utilities company in FTSE100)	Edinburgh	9 April 2015	55	R1

* When the interview quotes are used in the analysis, the code names are used to identify the sources of evidence

An interview guide was followed in all interviews, allowing for differences in the interviewee's background, such as the type of assurance provider (i.e. accounting or non-accounting), and their engagement with the assurance practice (i.e. assurance provider, reporting organization, or stakeholder). In line with the chosen theoretical frame, interview questions were grouped in themes that addressed key aspects of negotiations over the objectives and practical conduct of the assurance process, also revealing a range of actors (both human and non-human) that shape the dynamics of such negotiations. In particular, these themes included the following: (i) initiation of the assurance engagement; (ii) agreeing on the scope and level of assurance; (iii) objectives and nature of the assurance process; (iv) interactions between engagement team members; (v) the use of assurance standards; (vi) communications with stakeholders during the assurance process; and (vii) final deliverables of assurance (see Appendix for a full list of interview themes and related questions). All interviews were transcribed, and the interview transcripts were then subject to several rounds of reading and analysis.

Data analysis involved a qualitative, interpretative approach, in which the transcripts were analysed using three sub-processes: data reduction, data display, and conclusion drawing (Miles and Huberman, 1994). More specifically, the initial stages of the interview analysis focused on areas such as actors, relationships, and activities. This is in line with key premises from ANT which present actors as 'actants' to emphasize that "agency is a relational effect" (Castree, 2002, p. 121) and therefore an actant is a relational field that is the effect of an array of relations and activities (Law, 2000). In particular, the analysis sought to capture practitioners' (who, in ANT terms, are also the main translators of SA) conceptualizations of themselves as assurance providers, the relationship between them and other actors during the conduct of the assurance process, and the various steps and activities relating to practice delivery.

Making sense of the findings generated through the above analysis enabled us to reduce the empirical data collected to those addressing a handful of specific issues that are key points of variation revealing the causes of diversity in SA practice. In particular, we identified three such issues, namely: the manner in which assurance providers translate their roles (including their professional identities and ethical stances); the way in which they translate the notions of sustainability and assurance - in ANT terminology, the *boundary objects* (Star and Griesemer, 1989) that together encompass the core essence of SA; and lastly, the effects of those translations on the different practical meanings practitioners assign to SA routines (including issues such as the scope and level of assurance, stakeholder engagement, and final deliverables). Finally, the empirical observations and analytical conclusions relating to the three points of variation identified as characteristic of SA practice have been relied upon to develop a systematic categorization of different types of SA engagements observed, which we present in the following section.

4.   Empirical findings

In this section, we present an analysis of the SA practice from the perspective of SA providers. We discuss their perceptions about their roles as SA providers, how they problematize the meaning of 'sustainability' and 'assurance' as components of the assurance practice [2], and how they assign such meanings to their practical routines in conducting assurance engagements.

4.1   *Translating the roles of an assurance provider*

Our interview evidence reveals variation in the way different SA providers translate their roles, ranging from an emphasis on acting as consultants to a focus primarily on data verification. It is possible for the same providers to consider themselves as serving different roles for different clients. As a director from an assurance provider argues, although "it's an assurance role, with the sustainability assurance there is a huge demand of advisory that's coming out of it compared to other types of audit" (Director, A1). The roles of assurance providers are reflected in the statement that SA services are advisory in nature. Reference to "other types of audit" shows the interviewee's acceptance that SA practice has unique characteristics compared to financial or other types of audit practice. This implies that they may present their roles in assurance differently from other types of audit. One interviewee stated that they establish hand-holding relationships with their clients to perform SA services like a "critical friend" (Director, A1). Another practitioner similarly describes their role as a "trusted friend" or "trusted challenger" (Manager, D2). The interviewees' emphasis on being a 'friend' as one aspect of their role provides an insight into how they translate the meaning of assurance not merely as a data verification exercise but something that also has a critical client dimension in terms of possible improvements to the operational aspects of the business. Furthermore, many SA providers also offer to their clients a pre-assurance service, which is advisory in nature, presenting it as a way to prepare them for a full assurance engagement in later years.

> "That's sometimes become a consultancy piece rather than assurance because you're giving insights and helping them improve how they manage reports and manage a certain issue." (Executive, B1)

Our evidence suggests that some SA providers make representations of assurance not only with reference to data accuracy for external audiences, but also for internal management purposes. A director states, for example, that they are engaged by the management of reporting organization; therefore, they are responsible to the management, not the public (Director, C1). Generally, assurance statements are addressed to the management of reporting organizations (Bepari and Mollik, 2016). However, there are also assurance providers who strongly emphasize that their role is to serve external stakeholders of reporting organizations. In support of this, for example, a manager from one interview mentions that, despite being answerable to the management, their firm allows reporting organizations to disclose their assurance reports publicly to be used by stakeholders. This is also evident in the content of SA reports with some statements being addressed to stakeholders, as opposed to an organizations' management.

Although one assurance provider strongly believes that assurance providers should be the voice of stakeholders, at the end of the interview he mentions that "we are business; we have to make money; make our salary, of course" (Business Unit Manager, F1). Despite the belief that they work for the benefit of external stakeholders, they also need to consider the demand of the reporting organizations in order that their service commissioned. Similarly, the following statement shows that, although the assurance providers translate their role as promoting sustainability and making reporting organizations (i.e. their clients) accountable for their corporate activities, their relationship with the client remains collaborative:

"I see it as making the companies do the right things, and helping ensure that they won't destroy the world *(laughing)*. It's more collaborative than I'm here to check all the work." (Manager, D5)

The laugh after the expression that their role is to save the world by making reporting organizations do the right things could be interpreted as implying that it is difficult to achieve such a role. The reason could be that their central focus needs to be on their clients, who are the main decision makers during the assurance process.

"So there are a number of aspects to it. I think there's core assurance service… But there are also a lot more that clients are looking for. So they are looking for my opinion. They are looking for my views. They are looking for a benchmark, how you do things to make companies better on their journey. That aspect to the role is very important." (Senior Manager, D4)

From the above responses, we can see a range of translations of the roles of an SA provider, with many providers seeing their job as not merely about improving the credibility of the information being assured but also about optimising the clients' general business operations. These responses also should be seen as conveying particular identities that assurance providers attribute to themselves in an attempt, in ANT terms, to enrol actors in their SA network, ranging from that of consultants to data verifiers (Callon, 1986). Furthermore, it is evident from the interview extracts above that the perceived identity as SA providers converges more strongly with the consultant side, rather than the verifier side, which raises important questions about the role of SA practice, the independence of SA providers, and also managerial influence on the assurance process (Smith et al., 2011). Understanding the different role translations by SA providers gives a good base from which to explore the practice. The next sub-section continues by discussing flexibility in the providers' problematizations of practice around the notions of 'sustainability' and 'assurance', which are fundamental to the practice.

4.2   *Translating the meaning of sustainability assurance*

SA provider's problematizations of 'sustainability' and 'assurance', as the two key concepts underlying SA practice, influence how they persuade other actors to engage with the practice (Gendron and Barrett, 2004; Skærbæk, 2009). Differences in such problematizations between SA providers enable them to engage with actors with varying needs and interests and also lead them to assign different meanings to the practical elements of the task. As discussed earlier, we present the two concepts as boundary objects (Star, 2010; Star and Griesemer, 1989) which contribute to the core dynamics of the translation process by linking practitioners to other actors and interests, depending on how they problematize such objects (Star, 2010).

Problematizing 'sustainability'

The statements made by SA providers during interviews suggest that the way they problematize what 'sustainability' means is linked to the range of services that they seek to provide (Gendron et al., 2007). For example, some providers tend to place greater emphasis on the elements of

'sustainability' that relate to the environment and health and safety issues. This is because their main services are related to the verification of this type of subject matter (e.g. ISO verification engagements). In contrast, others, especially those from the accounting profession, tend to offer an expanded view of sustainability, including a range of possible issues around organizational sustainability, for example anti-bribery activities, reflecting a wider capacity for inter-disciplinary judgement-driven approaches to practice.

An assurance provider may have an *ex ante* expectation of sustainability-related issues that are specific to their clients' industries and to the nature of their expertise. However, in the context of an engagement, SA providers need to approach the concept of sustainability in relation to every client. Among other things, this means relating the concept to the notion of what is considered of material relevance in the specific client context. It is important to note here that the term 'materiality' in the relation to SA is used in a subtly different way from its conventional meaning in financial audit practice. For financial audit practice, although qualitative considerations may be relevant, materiality is largely used to identify the magnitude or scale of significant issues within the established scope of financial reporting. For SA practice, on the other hand, the notion of materiality can be used to influence the scope of organizational activities that should be included within sustainability reporting and assurance as noted by AccountAbility (2013, p.9) stating that "the definition of materiality is the notion that corporate information is material if its omission or misstatement would influence decisions made by general users of the information". In this paper, the meaning of materiality is more reflective of the qualitative way in which something is an *issue* that has an influence on decision-making and actions of organizations, as well as of their external stakeholders (AccountAbility, 2008a, p.12). Thus, it refers to scope than scale.

All of the interviewees mentioned that it is not possible for reporting organizations to report or assure every issue that affects their organization. Reporting organisations, therefore, need to consider reporting only the issues that are material because "sustainability' and 'CSR' is more about definition" (Global Product Manager, I1). Hence, this indicates that the way providers problematize and assign practical meanings to SA is strongly linked to the needs of their clients, who are key actors that SA providers seek to enrol in their network (Callon, 1986; Latour, 1987). In this case, the conception of 'sustainability' is a product of negotiation between providers and their clients. In other words, the management of a boundary object such as 'sustainability' is driven not so much by a desire to highlight the most important sustainability-related issues but by the need to respond to the clients' needs, interests, and budget constraints. This means that the providers exploit the flexibility or ambiguity over the meaning of 'sustainability' in order to enhance the perceived relevance of their services to their key actor group, i.e. their clientele (Gendron and Barrett, 2004; Jeppesen, 2010).

In addition, SA providers' problematization of sustainability is often focused on the sustainability of the reporting organization, rather than on matters such as environmental and social sustainability. Assurance providers employ this focus to persuade reporting organizations of the value of their assurance practice and related services.

"… all organizations cannot continue to operate in the way that they have done. And they need to recognize that. Those who are recognising it sooner than others, I think will continue to be successful. And potential will have longevity around being companies around for the future." (Partner, D1)

The prevailing meaning of sustainability reporting and assurance seems to emphasize most strongly the need for organizations to sustain their operations, and less the conventional notions of sustainability (of the planet). Further, this socially constructed nature of sustainability allows its definition to change across space and time in relation to the changing environment and new stakeholders' demands. This position gives rise to important questions about who actually determines the key sustainability-related issues and the extent to which they reflect organizational constructs endorsed by assurance providers or real existential dilemmas facing the world. There is a need to at least acknowledge a possibility that what sustainability means may be captured and managed by powerful organizations (Gray, 2010) as they seek to pursue their specific agendas, which may be at odds with the societal dimension of sustainability.

In summary, ambiguity around sustainability and how SA providers conceptualize the term may have both positive and negative effects on the development of SA practice. On the one hand, it can promote a greater range of assurance activities and services on offer for sustainability reporting organizations and other related stakeholders. On the other hand, however, it can also lead to misunderstandings as to what sustainability really means and its broader, societal significance.

Problematizing 'assurance'

In the same way as with sustainability, problematization of the term 'assurance' varies between different SA providers and is linked most strongly to the nature of their existing service offerings and firm culture. This variation is evident from the way the providers refer to the service itself. Assurance providers from accounting profession, for example, generally refer to SA as a part of 'assurance services' alongside their more regular service line of financial statement audit. Others, however, often describe SA as a 'verification service'.

In addition to these differences in terminology, providers also make different representations as to the nature of service. For some providers, SA practice involves understanding the key issues for the reporting organizations in addition to data checking exercises. They also appear more likely to emphasize the role of consultancy and present SA as part of a broader range of efforts to help clients on their 'reporting journeys' and to improve their business performance.

> "I often say it's an assurance with the little 'a' rather than the capital 'A', because YES, you're often helping and that's one of the key things." (Partner, D1)

However, some providers state that it is more or less a practice for checking the accuracy of the data and see SA as part of their verification business line and essentially a data checking service "to check whether the data is correct" (Global Product Manager, I1). Linked to this conception of assurance as a verification exercise, this group of assurance providers tend to attach far greater importance to the data *per se*. They can provide the service to any kind of data that their clients could request the service for.

> "You can verify a single word or a single number, up to a whole report, or anything between those two points… We have report verification that involves materiality, and report verification, or verification of anything, that doesn't involve materiality. We call those single projects. And the single projects really are: someone comes to us and says

we have this information or data and we have to verify it, simple as that." (Corporate Responsibility Technical Manager, H1)

The above interview extracts suggest that the nature of SA service is two-fold. The first type of engagement requires an assessment of material issues and, consequently, a form of negotiation between SA providers and reporting organizations as to the scope of the assurance derived from such an assessment. In the second type of engagement, however, the scope of SA is largely non-negotiable and is based mainly on the demands of reporting organizations. This demonstrates that, capitalising on the fluidity of the meaning of 'assurance', some providers opt for strategies for the enrolment of clients that do not explicitly challenge the client's materiality assessment. For this type of engagements, providers offer assurance within the scope set by the client, hence fuelling concerns about how some organizations may treat SA as a box-ticking exercise by effectively dictating what specific information should be assured.

Thus far we have shown the marked differences that exist in the ways in which SA providers problematize the terms 'sustainability' and 'assurance. The next section elaborates more on how these differences affect the conduct of the assurance engagement.

4.3   Assigning practical meanings to SA routines

This section focuses on how SA providers develop a certain practical view (translation) of SA by assigning particular practical meanings to the key concepts (Gendron and Barrett, 2004; Justesen and Mouritsen, 2011; Skærbæk, 2009).   In this regard, the development of SA is not a straightforward process and brings up a number of issues for negotiation around different meanings of 'sustainability' and 'assurance' discussed previously (Star, 2010). These issues include setting scope and level of SA engagements, making decisions on stakeholder engagements, and agreeing the final deliverables.

Scope and level of SA engagements

Reporting organizations are very diverse in terms of what they do and what they expect from an assurance service. They may, for example, conceive of assurance as an information credibility enhancement activity, a value creation practice, or even a box-ticking exercise to meet specific index rankings. The diverse nature of reporting is a result of organizations' sector affiliations, their organizational strategies, and/or the level of stakeholder pressure. As a partner from one provider argued, for example, organizations from the mining sector, which is one of most environmentally harmful, may put sustainability on the agenda more eagerly (Partner, D1). Similarly, as described by another interviewee, companies producing infant-formula baby milk may need to recognize the controversial issues they are facing because they are "pushing mothers not to feed breast milk", and "women not breast-feeding - that's a material, huge issue" (Business Unit Manager, F1).

Interviewees also referred to some clients who take assurance practice as merely compliance and prescriptive activities (SA Business Manager, G1). If reporting organizations take SA as a box-ticking exercise and ask for assurance on non-material or limited indicators, assurance providers

can either convince them to reconsider the scope of the engagement, or reject such engagements. Almost all of the interviewees stated that they try their best to convince reporting organizations to have material data assured. However, "at the end of the day it is the clients' choice what they want to have assured" (Director, A1). In some cases, firms may refrain from providing the service because they perceive an assurance engagement will add no value to the reporting organization or their stakeholders.

> "I have refused clients before doing assurance on particular occasions because I believed that it's not material issues and, therefore, it's a waste of our time going auditing that. And also I believed it to be the wrong message to be sent out by the company." (Partner, D1)

The above extract also demonstrates why agreeing the scope of SA may be a challenging task, at least in relation to some clients. It involves a series of meetings between assurance providers and reporting organizations. Although the ultimate decision on the scope of the assurance is made by reporting organizations, SA providers usually have a very significant influence on this decision (Manager, D2).

Therefore, the scope of a sustainability engagement is a product of negotiation between the SA provider and their client over a shared meaning of "sustainability" and "assurance", i.e. the boundary objects that define the conduct of SA (Star, 2010), and specifically, over the assessment of what is material. Ideally, SA providers would like to encourage organizations to assure the entire sustainability report. However, due to the costs and perceived benefits, some organizations are reluctant to do so. Therefore, they tend to select only some Key Performance Indicators (KPIs) for assurance on the basis that they are material to them and/or comparable to other organizations. There are also some reporting organizations that are more concerned with the value that SA can add to their businesses. In this type of situation SA practice is seen as a necessary complement to their reporting practice. This leads to a closer dialogue between the assurance provider and the reporting organization compared to the first type of context. Furthermore, the greater emphasis on value added from assurance may also mean that SA is viewed primarily as a managerial tool for the enhancement of internal efficiency, rather than a credibility enhancement tool for external stakeholders.

The level of the assurance engagement is also subject to negotiation between SA providers and their clients. There are two levels of SA: limited (or moderate) level, and reasonable (or high) level. Currently, the majority of SA engagements lead to limited level assurance. The main reasons include that reporting organizations "feel that their stakeholders get enough from limited assurance, and often their budget is quite restrictive" (Director, C1). Thus, the choice on level of assurance may be driven by the cost rather than more fundamental considerations about the value of information. However, some reporting organizations perceive that for some KPIs they need reasonable level assurance because those indicators are important to them and their stakeholders. As a result, in some engagements, a mix of assurance levels can be applied, with, for example, some KPIs assured with reasonable assurance, and the rest of the report assured with limited assurance. This might be relating to the highly subjective nature of the concept of *qualitative* materiality that affects the scope and level of SA engagements (Director of Sustainability and Assurance, S4)

Pre-assurance services

In relation to SA services, most providers offer a service called 'readiness assurance'. The scope and what is to be assured are similar to the full assurance engagement. However, the aim of this readiness service is to prepare reporting organizations for the full engagement. The main difference between the two services is that in the case of readiness engagements SA providers do not produce public assurance statements.

> "…what we would call a 'readiness assurance review'. That's a private report to management, not a public opinion, but a private report to management about the integrity of that data, how complete and accurate and reliable that data is." (Partner, D1)

Some providers may market the pre-assurance service differently but its purpose remains the same. One assurance provider, for example, offers a service called 'gap analysis', which provides only an internal management report to the reporting organization, not a public assurance statement. Another assurance provider stated that their firm do not usually provide such a service but adds that they would offer it if requested by a client.

Typically, providers offer the service to clients that are new to SA as a way to introduce them to the practice, and also to gain more understanding of the client before conducting an engagement leading to assurance that is reported publicly.

> "We would typically, first year, do 'readiness assurance'. So we wouldn't expect to produce a public assurance opinion. So it's like a practice to see whether their systems are assurable because we can't tell that when we're first going to a client." (Director, A1)

In addition to ensuring that reporting organizations are assurable, SA providers also use pre-assurance to discuss with the clients whether their disclosures focus on the "right issues" (Director, A1), or whether there are any major concerns that need to be resolved before conducting the full assurance exercise (Executive, B1). Similarly, a comment was made by a reporting organisation that they were working with one of the Big4 firms to "understand [their] sustainability aspect before [they] get to the formal process of assurance" (Group Sustainability Accountant, R1).

Another reason for the pre-assurance process noted by one provider has to do with clients that moved from a smaller provider and need some time to re-adjust:

> "… particularly if you've never had it before, or the worst case scenario, you've been using a niche consultancy to provide assurance... So we are engaging with our clients, what we call the 'readiness review', which is effectively an internal audit" (Director, C1)

The fact that a pre-assurance service is often used to help reporting organizations to have an assurable reporting system and solve major issues prior to the main assurance has decreased the occurrence of qualified or critical opinions following full SA engagements. Hence, the majority of the assurance reports provides an unqualified opinion (Bepari and Mollik, 2016). This is evident from the statement below by a provider who was asked about the frequency with which such opinions are issued in their firm:

"Not that often, because of the fact that we structure… the vast majority of our engagements to this readiness review, and then the public review. To the extent that you find issues, and we find a lot because you are not issuing a public statement, the public never get to see the qualification. So it's quite a safe environment, therefore, for the company to work and operate in, where it knows that it's not going to get a qualified opinion." (Partner, D1)

The above interview excerpts indicate that, in ANT terms, in these cases the readiness assurance practice can be described as stabilized. This means the idea of readiness assurance has become taken for granted (Latour, 1987), with the majority of reporting organizations accepting the fact that they need to commission the pre-assurance service before they engage in the full public assurance. In particular, the SA providers have had an important role in normalising the service as a necessity and having it accepted across the network of SA practice they are building (Callon, 1986).

Decisions on stakeholder engagement

A number of studies have advocated greater involvement of external stakeholders in the SA process (Edgley et al., 2010; Manetti and Toccafondi, 2012). Direct involvement may take the form of interviews with related stakeholders or independent surveys with them. However, the majority of interviewed assurance providers say their engagement with the stakeholders of their clients is more indirect because they believe the responsibility for direct engagement and dialogue with stakeholders rests with the client. They then can "attend those [stakeholder engagement] sessions and ask specific questions." (Director, A1). One provider commented that reporting organisations, "who [are] responsible for the content of the report" should directly engage with the stakeholder, not the SA providers (Director, C1).

Some interviewees expressed an opinion that direct stakeholder engagement may even lead to concerns about auditor independence and duty of care:

"It's not our role to go out to stakeholders and say what we should have been doing in terms of our assurance… And again, you need to be careful about your independence, because what you don't want to do is to perform the role in those meetings where you become a stakeholder, or influence the outcome." (Director, C1)

It is plausible that references to auditor independence may also serve as a means for some SA providers to justify why they do not want to go as far as to communicate with clients' external stakeholders.

Some providers place less importance on the role of such stakeholders in the assurance process, while others see them as central to assurance practice, even though they are officially commissioned by the reporting organizations. One interviewee suggests, for example, that "it is ideal [to] meet independently with external stakeholders" as a part of the SA process (Executive, B1). This involvement of stakeholders in the assurance process is perceived to be more important

when the required level of assurance is high (SA Business Manager, G1; Corporate Responsibility Technical Manager, H1).

The decisions regarding stakeholder engagement in the assurance process are loosely coupled with what SA providers do, but are symbolically linked to what they should do (Robson et al., 2007). The varying level of importance that SA providers attribute to stakeholder communication is directly linked to the client demands and, consequently, their desire to satisfy those as a means of extending the support network for SA they are building (Gendron and Barrett, 2004). As in the case of the assurance scope discussed above, this variation is rooted in differences in the providers' problematizations of 'sustainability' and 'assurance', i.e. the two boundary objects that constitute core dimensions around which translation occurs and that are negotiated in the assurance engagement (Star, 2010; Star and Griesemer, 1989). Direct communication is costly and requires significant resources. Several interviewees state that their clients do not think the benefits of direct stakeholder involvement by SA providers outweigh the additional cost. Other interviewees, however, point to their clients, usually leaders in sustainability reporting practice, requesting direct communication as a way to add "an additional level for transparency" (Director, A1).

Finally, our evidence suggests that SA providers' decisions on stakeholder involvement in the assurance process, in turn, influence their preference for different assurance standards. It is evident that assurance engagements based on AA1000AS include more extensive stakeholder participation than those based on ISAE3000, as the former standard places more importance on the assessment of materiality, inclusivity, and responsiveness. In order to apply these criteria contained in the standard, SA providers need to understand how reporting organizations engage with and respond to their external stakeholders.

Final deliverables

Previous studies have focused primarily on the statements containing an SA opinion as the final deliverable of SA, and used those statements as the basis to understand the quality of assurance delivered by different providers (see e.g. Hodge et al., 2009; Huggins et al., 2011; Hummel et al., 2017; Mock et al., 2007; Perego and Kolk, 2012; Pflugrath et al., 2011; Simnett et al., 2009). However, our interviews reveal that, apart from the SA statements, another output that is considered important is the management report delivered privately to reporting organizations as one of the final outcomes of the engagement.

> "There are two documents. There are two outputs. There is a report which is for the consumption of the client. And there is a statement." (Global Product Manager, I1)

These two 'deliverables' of SA are the outputs of the assurance process; however, they have different functions. A public assurance statement serves a symbolic purpose by showing that the specific content of the sustainability report is assured by an independent party. A private management report, on the other hand, points out those issues on which reporting organizations are doing well and those on which they need to improve. The management report therefore provides guidance on improvements needed in the reporting organizations' actions toward

sustainability. It stimulates further interactions and negotiations between SA providers and actors from within the reporting organization because, as noted by one interviewee, sustainability now is "becoming more a sort of board-level agenda topic, and some [reporting organizations] are seeing that moving to their auditors giving that assurance will help them on that journey" (Senior Manager, D4). Heads of sustainability departments can also use the third-party reports and opinions as a legitimising device to convince organizational actors such as CEOs, CFOs or audit committee members to authorise specific sustainability-related actions to improve sustainability performance.

Although the final deliverables above are produced independently by assurance providers, reporting organizations have an influence on how the providers produce those deliverables. It is worth noting that assurance opinions are worded positively or negatively, depending on the level of the assurance engagement. Typically, for an engagement with limited level assurance, assurance providers tend to use negative wording [3] to communicate an assurance opinion. This hence becomes a subject of negotiation between SA providers and reporting organizations as the former need to ensure their reporting practices adhere to relevant practice standards while the latter seek to avoid negative connotations that might be associated with the language used in the assurance statement. Some providers interviewed strongly believe that it is important to educate reporting organizations and other relevant actors regarding the language used in assurance opinions in relation to both the assurance level provided and the recommendations and observations included in the statements.

"The most common one is that we might write 'should' and they tend to prefer 'could'. They don't like we tell them they 'should' do something. They like us suggest that they 'could' do something… But on the whole, they tend to ask for rephrasing as opposed to direct the recommendations." (SA Business Manager, G1)

As mentioned earlier, because of availability of pre-assurance services, SA statements rarely contain modified opinions. In fact, our analysis of the reports issued by FTSE100 companies during 2000-2017 failed to detect a single modified assurance statement. One possible explanation for this may be the fact that, in the UK context, reporting organizations are not required to publicize their SA statements. Furthermore, some SA providers interviewed admitted that they avoid issuing modified opinions, which may leave open the possibility that the outcomes of SA engagements may be inappropriately influenced or manipulated in some ways. One director from the interview, for example, stated that a modified opinion does not benefit anyone.

"We don't allow that to happen because it doesn't help anyone. A qualified audit opinion doesn't help stakeholders; it doesn't help us; it doesn't help the clients." (Director, C1)

The above observation is intriguing and raises questions regarding the role of SA practice, SA statements, and SA providers. That said, we also found evidence of a different view on how giving a qualified opinion can be something that enhances SA providers' ability to build a constructive, questioning relationship with their clients:

"We think that by qualifying our opinion in the right circumstance, we push the clients forward. We do not have any situation where our clients have gone totally mad and said you can't qualify this. If you qualify financial statements, it's very-very bad. And on the

> sustainability side we are able to do that and still be seen in a positive light by the clients." (Director, A1)

The fact that there is no specific requirement for the public disclosure of SA statements may significantly weaken assurance providers' bargaining power when it comes to influencing the content of clients' SA disclosures as both parties know that a qualified opinion may be hidden from the public eye, helping the client to avoid negative publicity and scrutiny.

> "… because what happens is that when we have a situation of a qualified report, most common is the company asks us to stop the process and says 'OK, I won't make it public'. We cannot influence that. That's outside of our work… That is a strategic decision of the company." (SA Business Manager, G1)

Overall, it appears that, although SA providers can independently give an opinion on sustainability reports, they do not have a right to force the reporting organizations to publically disclose assurance statements. This position also highlights the fact that, in ANT terms, the issue of what goes into the SA statement is effectively a struggle around how the results of SA should be 'translated' into its final deliverables (Callon, 1986). SA providers generally want to be conservative and cautious to protect themselves in case of a legal dispute, whereas reporting organizations want much more optimism and positive representations, again in pursuit of their own interests. SA providers react differently to the clients' requests to change the wording in the assurance statement, depending on their firm's policies and risk assessment procedures. Hence, the outcome of these translation efforts is a compromise between a range of conflicting objectives.

5.   Discussion: Different perceived roles of SA providers and typology of SA engagements

In Section 4, through the analytical lens of ANT, we have demonstrated the way in which SA providers develop the practice. A variety of positions is evident regarding the degree of SA providers' involvement in their client's reporting process and the manner in which they represent their roles in the conduct of the assurance process (see e.g. Edgley et al., 2010; Manetti and Toccafondi, 2012; O'Dwyer, 2011; Owen et al., 2000; Beaulieu, 2003; Power, 1991; Smith et al., 2011). We have discussed above how the manner in which SA providers negotiate their roles with other actors is determined by reference to their conceptualizations of the assurance practice. These conceptualizations vary significantly between providers, depending on how they problematize key categories (in ANT terms, 'boundary objects') that constitute SA practice – 'sustainability' and 'assurance'. We have seen how the providers' problematizations of 'sustainability' range from a broad focus on sustainability of the society and the planet (i.e. social and environmental sustainability) to a significantly more narrow emphasis on organizational sustainability of the reporting entity. Further, the conceptions of 'assurance' range from a practice built on a holistic approach to data assurance involving materiality assessments and internal control checks to a practice that is primarily data-oriented and involves an agreed-upon set of procedures and/or specific datasets. Table 2 provides a summary of the findings presented in Section 4.

Table 2: Summary of findings.

Conceptions and routines	Spectrum			←	→
Conception of sustainability	Limited	⬌	Broad	Sustainability in the context of an SA engagement is limited to, more or less, environmental issues.	Sustainability in the context of an SA engagement is broadly defined to include a wider range of issues (environmental, bribery and other social issues).
Conception of assurance	Limited	⬌	Broad	Assurance is framed primarily as a verification exercise. The verification can be done based on the clients' requests.	Assurance promotes a holistic approach focused on assisting the reporting organizations in their reporting journey. This includes consideration of issues that should be subject to SA.
Scope and level of SA	Limited	⬌	Broad	Scope and level of SA is determined mainly by the clients. This includes a pre-assurance engagement (e.g. readiness assurance). A limited range of reported items is included in the scope of SA. SA reports use negative wording.	Scope is broader and includes material issues, or even the whole report. Important information is assured with reasonable or high level of assurance. SA reports use positive wording.
Stakeholder engagement in the SA process	Exclusion	⬌	Inclusion	Stakeholders are perceived to be the outsiders of SA. All communications in the course of SA occur between providers and management of the reporting organization only.	Stakeholders are considered to be part of SA so that decisions made by providers in the course of SA take account of the stakeholders' information needs.
Management influence on the deliverables	High	⬌	Low	Providers allow a degree of management influence over the content and presentation of the final deliverables of SA.	Providers take a rigid approach to prevent management from influencing the SA deliverables.
Roles of SA providers	Verifier	⬌	Sustainability promoter	Providers serve as information verifiers; SA engagements are carried out on terms agreed upon with the clients.	Providers see it as their role to promote the value of SA and challenge their clients on issues around SA scope and the level of assurance.

By reference to the findings of the above analysis, we have been able to identify three main categories of providers depending on the roles they assign to themselves, namely: information verifier, reporting consultant, and sustainability promoter (see Figure 2). These roles, however, are not exclusive, meaning that for a particular SA engagement, the provider can adopt more than one role. The SA providers may hold their role as an assurer to provide a verification service. This means they become involved in the sustainability reporting process mainly as a verifier of the accuracy of the information presented. They can also provide an assurance service that goes beyond pure verification and act as a consultant for the reporting organizations in their sustainability development journey. Finally, in some cases, their roles may go beyond those to promoters of sustainability to emphasize their commitment not just to organizational sustainability, as in the case of reporting consultants, but also to the (external) sustainability of society and the planet.

Furthermore, by taking account of the dimensions around which variation in SA practice is evident, we have developed a categorization of SA engagements (see Figure 2), noting how the four types of engagements identified (i.e. Social Assurance, Integrated Assurance, Formative Assurance and Compliance Assurance) relate to the three roles attributable to SA providers discussed above.

Figure 2: Sustainability assurance engagement category map.
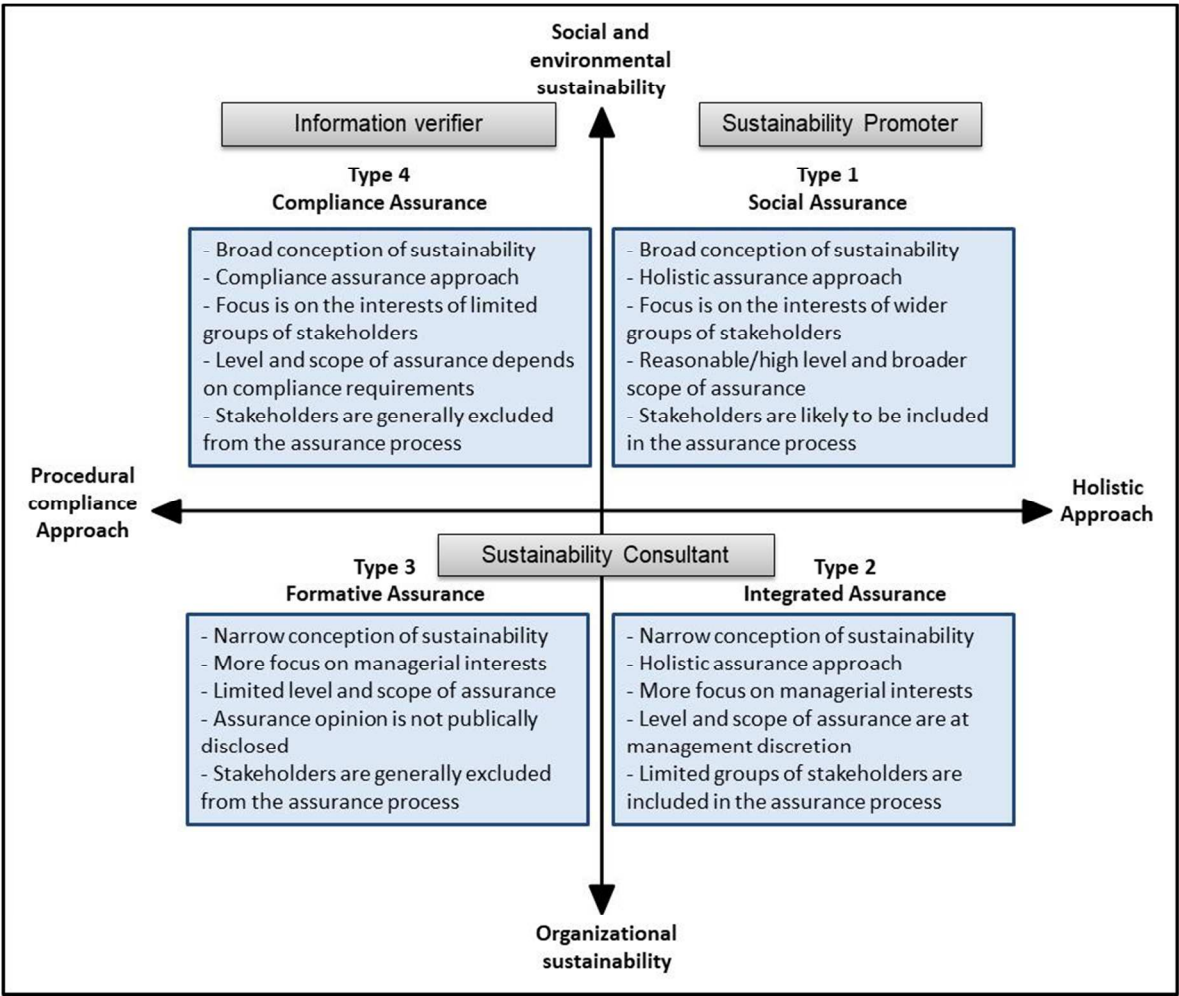
Type 1 SA engagements - 'Social Assurance[4]'. The role of the assurance provider as a 'sustainability promoter' can be matched with this type of engagement. Here, sustainability is perceived broadly and concerns the sustainability of society and the environment. Assurance practice under this type of engagement therefore aims to serve the interests of a variety of stakeholders, and follows a holistic view to set the scope of the assurance engagement. Reference to stakeholder panels and stakeholder consultation (i.e. direct engagement) are consistent with this type of SA, which places less emphasis on the benefits for management.

Type 2 SA engagements - 'Integrated Assurance[5]'. Here the conception of sustainability is narrowed to the sustainability of the assured organization. Management interests, rather than those of society and the environment, are emphasized to a greater extent and links are sought between assurance and organizational decisions. However, the engagement is still drawn with a broad holistic scope rather than a restricted set of selected KPIs. Approaches such as the triple bottom line or the six capitals referred to in integrated reporting, are relevant for setting the scope for this type of assurance engagement.

Type 3 SA engagements - 'Formative Assurance'. This type of SA assurance practice focuses on specific KPIs that are agreed upon between reporting organizations and SA providers.

It is the most flexible type of engagement compared to the others and is similar to 'pre-assurance' or 'readiness assurance' services discussed earlier in the paper. SA providers emphasize the importance of this service as a vehicle through which they can create an auditable environment for SA engagements (Power, 1996). However, the terms 'pre-assurance' and 'readiness assurance' are not used here because they could blur the boundary between consultancy services and assurance services. Moreover, assurance opinions from those services are normally not disclosed to the public. The term 'formative' is used to indicate the flexibility of the scope of this type of SA engagement to fit and serve management interests.

Under both types 2 and 3 engagements the role of the assurance provider can be seen as acting as a 'sustainability consultant'. This does not necessarily mean that SA providers lack independence, and provide a consultancy service instead of an assurance service, but the focus does tend to be mainly on the interests of management rather than those of external stakeholders. This approach is reflected in the comments in interviews where SA providers described their role as a 'critical friend' to reporting organizations.

Type 4 SA - 'Compliance Assurance'. This type of engagement focuses on a specific sets of data; however, it also aims to be relevant to the interests of external stakeholders rather than just the organization's management. Standardized criteria developed by qualified organizations (e.g. ISO or the Equator Principles) are used to set the scope of the assurance engagement and define the interests of particular groups of stakeholders, and the role of the assurance provider is one of acting as an information verifier', confirming compliance with the relevant criteria and standards.

The proposed categorization presented in Figure 2 offers a way to account for diversity in SA practice and, specifically, differentiates between different types of assurance engagements and providers. The intention here is to identify and categorize a variety of services that are otherwise collectively called 'sustainability assurance'. Furthermore, the typology is intended to highlight the different purposes of SA practice, comprising various types of assurance engagement. The categorization not only reflects the evidence of variation in the practice, but also makes sense of such variation.

While, in principle, it could be argued that all SA engagements should lie within Type 1, this may not be possible due to a range of factors, such as limits on resources. Our interview data suggest that a majority of assurance engagements fall into Types 3 and 4 assurance engagements. Our proposed typology is not intended to make claims about which type of SA provider or assurance engagement is superior. That said, it can provide a roadmap for reporting organizations to position themselves and work towards the category that they aspire to and also to achieve greater transparency to the range of activities currently undertaken within the umbrella of SA.

Hence, for reporting organizations, external stakeholders, regulators and other groups of users of assurance statements, the typology can be used to consider which form of assurance engagement, and which providers, are suitable for a specific reporting organization in terms of its stage of sustainability reporting, available resources, and the needs of external stakeholders.

6. Concluding remarks

Much of the existing literature on SA practice relies on SA statements to make broad conclusions about the characteristics of the practice and its functionality. In contrast, this study has responded to calls for research to examine the 'back stage' of different assurance practices, particularly those of an unregulated nature (Andon et al., 2015; Free et al., 2009; Gendron and Spira, 2009), and to directly engage with assurance providers (O'Dwyer and Owen, 2005). Empirically, this study has provided a holistic view of SA practice by focusing on a variety of different SA provider types. Our findings have revealed a considerable diversity in the way SA is conducted and a range of contextual imperatives that serve as sources of practice variation. They have showed, in particular, how this diversity is evident in the differences in the providers' perceptions of their roles and responsibilities as regards the assurance process, practical routines they develop to conduct such a process and the persuasive arguments they put forward to promote the relevance of SA.

The presented typology of SA engagements and provider types helps to make sense of this practice diversity and also to shift prior focus on the relevance of SA in general to more a contextualized understanding of which types of SA engagements may be relevant for which types of situations and audiences. In this regard, we question the purpose of an assurance function such as SA as primarily a device to legitimate organizational behaviour (Power, 2003). The different interpretations and practical adaptations of SA revealed in this study indicate that the practice may take a variety of other meanings, depending on the reporting organizations' environments, their objectives and the degree of progress they have achieved on their sustainability (reporting) journey.

Theoretically, we have utilized the premises developed in the ANT literature to present SA development as a negotiation between SA providers and other actors not only over the objectives and purposes of SA but also the localized translations of the meaning of the practical categories such as the scope of SA engagements, stakeholder involvement, and the nature of final deliverables, among others. In other words, actor expectations as to the SA providers' roles and the purpose of SA need to be agreed before the commencement of an SA engagement. Here, our typology of SA engagements is useful in making such expectations clearer. Furthermore, our focus on 'sustainability' and' assurance' as two 'boundary objects' that define the conduct of SA has enabled a more nuanced discussion of the underlying causes of variation in SA practice. Our study, therefore, points to the usefulness of ANT as a conceptual tool to understand the emergence and development of emerging practices and to highlight how diversity is maintained and managed in such practice fields (Akkerman and Bakker, 2011).

In conclusion, our findings have implications for the regulation of SA practice. From the point of view of regulators and professional bodies, they highlight the importance of making a distinction between different types of SA engagements so as to reduce the potential expectation gap associated with assurance services. Standardisation of SA practice as a whole is potentially far-fetched and may be implausible because of the complexity and varied nature of sustainability-related data. That said, there is a role for the regulators to play in giving appropriate consideration to the standardisation of particular types of SA engagements as well as of the format and content of SA statements. This is particularly important given that the reporting organizations operating in different industries may have different expectations with regards to

SA and are subject to different stakeholder demands. We believe that, although standardising the practice as a whole is problematic, there is scope for systematising and unifying the processes underlying each of the four assurance types identified in this study.

Notes

1. AccountAbility, was founded in 1995 by the Institute of Social and Ethical Accountability (ISEA), as an international non-profit organization providing sustainability solutions, including reporting guidelines and assurance standards, to various types of organizations. IAASB, is an independent body under the International Federation of Accountants (IFAC) and aims to provide international standards for auditing and assurance practice. It was, however, initially established to focus mainly on financial audits; therefore, it does not provide specific assurance guidelines for sustainability reporting.

2. The terms 'assurance' and 'audit' are sometimes used interchangeably in relation to the term sustainability. For the purpose of this paper, we use the term 'assurance' to distinguish this type of non-financial assurance (i.e. sustainability assurance) from the traditional financial audit practice. AccountAbility (AccountAbility, 2008a, p.23) describes 'assurance' as "the methods and processes employed by an assurance provider to evaluate an organisation's public disclosures about its performance as well as underlying systems, data and processes against suitable criteria and standards in order to increase the credibility of public disclosure". We take this definition implicitly because we would like to explore the given meanings of the term by the assurance providers in the context of sustainability assurance practice.

3. There are two types of assurance opinion; positive wording for high-level/reasonable-level assurance engagement, and negative wording for medium-level/limited-level assurance. An example of positive wording is 'the information indicated by * in the Report is fairly stated'. An example of negative wording is 'nothing has come to our attention to suggest that the information in the Report is not fairly stated'.

4. The term 'social' for this type of SA engagement comes from the traditional social audit that highlights "the tensions between maximizing return on investment and not violating societal trust", and "attempts to provide a mechanism for decision-makers to evaluate economic and social planning, facilitate popular involvement in economic decisions and identify social need as a primary criterion for resource allocation" (Owen et al., 2000, p.83).

5. The use of the term 'integrated' is not intended to indicate that this type of assurance engagement is only for integrated reporting. However, the term 'integrated' indicates a combination of individual elements, or KPIs, to set and form the scope of an assurance engagement.

Appendix: Interview themes and questions.

Theme 1: Initiation of the assurance engagement

Objective – to understand how sustainability assurance practitioners negotiate with their potential/current clients about the benefits of SA. Examples of questions:

- Do you think that your firm's clients need to be persuaded about the benefits of SA?
- Through what means do you persuade clients to use the sustainability assurance service you provide?
- How do you approach clients that have weak sustainability reporting systems prior to the conduct of assurance?
- Do you know the cases where your firm decided against taking on a new engagement? If so, can you tell me what were the reasons for this outcome?

Theme 2: Agreeing on the scope and level of assurance

Objective – to understand the nature of negotiations between auditors and their clients regarding the scope and level of assurance that is appropriate to the client's business. Examples of questions:

- How do you agree with your clients on what scope and level of assurance is appropriate?
- What are the factors that influence the agreed scope and level of assurance?
- What are the challenges in negotiating the scope and level of assurance with the clients? How do you resolve potential disagreements?

Theme 3: Objectives and nature of the sustainability assurance process

Objective – to understand the nature and practical conduct of the sustainability assurance process from a practitioner perspective. Examples of questions:

- In your view, what is the key purpose of sustainability assurance?
- How would you characterize your role as an assurance provider?
- What determines your firm's approach to the conduct of sustainability assurance?
- Can you characterize the process of sustainability assurance and describe its various steps?
- Is the nature of the different stages of the assurance process the same for all sustainability assurance engagements? If not, can you explain the differences and the reasons for those?
- Does financial audit methodology influence the conduct of the sustainability assurance? If so, in what way? (for accounting firms only)

Theme 4: Interactions between engagement team members

Objective – to understand how individual sustainability assurance practitioners interact and negotiate with other members of the engagement team about various aspects of the assurance process

- Are differences of opinion between team members a common occurrence during the conduct of sustainability assurance?
- If so, can you give me some examples of those differences?

- What do you think are the main reasons for these differences?
- How do you settle the arguments or reach consensus? (e.g. using standards to form consensus or using examples from previous engagements as solutions to the current engagement)

Theme 5: The use of assurance standards

Objective – to understand the role that sustainability assurance standards play in the assurance process, and potential differences in which standards are used by different providers. Examples of questions:

- Do clients have particular preferences for which assurance standard you use in the conduct of assurance? If so, what are the causes of those differences?
- Which sustainability assurance standard(s) do you mostly use for the assurance engagements? What are the reasons for this preference?
- How closely to you adhere to the standard(s) in the conduct of the assurance?
- Are there any challenges or concerns with applying the standards and practice guidelines in practice?

Theme 6: Communication with stakeholders during the assurance process

Objective – to understand whether and how sustainability assurance practitioners interact with their clients' stakeholders throughout the engagement. Examples of questions:

- Do your clients' stakeholders have any influence on the decisions you make during the conduct of the assurance process?
- Do you find it is important to involve stakeholders in the assurance process? Explain your views.
- Are there any challenges and concerns with engaging clients' stakeholders in the assurance process?

Theme 7: Final deliverables

Objective – to understand how individual assurance practitioners negotiate with other team members about the ways to deliver and communicate the final outcome of the assurance process. Examples of questions:

- What is(are) the main deliverable(s) of the assurance engagement submitted to client?
- How do members of an assurance engagement team reach a final opinion to be included in the assurance statements?
- How much flexibility is there for assurance practitioners to influence the content of the assurance statements?
- How much importance do you think your clients and their stakeholders place on the content of information communicated in the assurance statements?

References

ACCOUNTABILITY 2008a. AA1000 Accountability Principles Standard 2008.

ACCOUNTABILITY 2008b. AA1000 Assurance standard 2008.

ACCOUNTABILITY 2013. Redefining Materiality II: Why it Matters, Who's Involved, and What It Means for Corporate Leaders and Boards.

ÄHLSTRÖM, J. & EGELS-ZANDÉN, N. 2008. The processes of defining corporate responsibility: a study of Swedish garment retailers' responsibility. *Business Strategy and the Environment,* 17**,** 230-244.

AKKERMAN, S. F. & BAKKER, A. 2011. Boundary Crossing and Boundary Objects. *Review of Educational Research,* 81**,** 132-169.

ANDON, P., FREE, C. & O'DWYER, B. 2015. Annexing new audit spaces: challenges and adaptations. *Accounting, Auditing & Accountability Journal,* 28**,** 1400-1430.

BEAULIEU, P. R. 2003. Classification of Customized Assurance Services by Decision Makers: The Case of Systrust. *6.* Emerald Group Publishing Limited.

BEPARI, M. K. & MOLLIK, A. T. 2016. Stakeholders' interest in sustainability assurance process: An examination of assurance statements reported by Australian companies. *Managerial Auditing Journal,* 31**,** 655-687.

BERGSTRÖM, O. & DIEDRICH, A. 2011. Exercising Social Responsibility in Downsizing: Enrolling and Mobilizing Actors at a Swedish High-Tech Company. *Organization Studies,* 32**,** 897-919.

BRIERS, M. & CHUA, W. F. 2001. The role of actor-networks and boundary objects in management accounting change: a field study of an implementation of activity-based costing. *Accounting, Organizations and Society,* 26**,** 237-269.

CALLON, M. 1986. Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay. *In:* LAW, J. (ed.) *Power, action and belief: a new sociology of knowledge?* London: Routledge.

CARON, M. A. & TURCOTTE, M. F. B. 2009. Path dependence and path creation: Framing the extraY financial information market for a sustainable trajectory. *Accounting, Auditing & Accountability Journal,* 22**,** 272-297.

CASTREE, N. 2002. False Antitheses? Marxism, Nature and Actor-Networks. *Antipode,* 34**,** 111-146.

CHUA, W. F. 1995. Experts, networks and inscriptions in the fabrication of accounting images: A story of the representation of three public hospitals. *Accounting, Organizations and Society,* 20**,** 111-145.

COHEN, A. 2012. Rescaling Environmental Governance: Watersheds as Boundary Objects at the Intersection of Science, Neoliberalism, and Participation. *Environment and Planning A,* 44**,** 2207-2224.

COOPER, D. J. & ROBSON, K. 2006. Accounting, professions and regulation: Locating the sites of professionalization. *Accounting, Organizations and Society,* 31**,** 415-444.

DEEGAN, C., COOPER, B. J. & SHELLY, M. 2006. An investigation of TBL report assurance statements: UK and European evidence. *Managerial Auditing Journal,* 21**,** 329-371.

EDGLEY, C. R., JONES, M. J. & SOLOMON, J. F. 2010. Stakeholder inclusivity in social and environmental report assurance. *Accounting, Auditing & Accountability Journal,* 23**,** 532-557.

EMSLEY, D. 2008. Different interpretations of a "fixed" concept: Examining Juran's cost of quality from an actorϒnetwork perspective. *Accounting, Auditing & Accountability Journal,* 21**,** 375-397.

FAROOQ, M. B. & DE VILLIERS, C. 2017. The market for sustainability assurance services: A comprehensive literature review and future avenues for research. *Pacific Accounting Review,* 29**,** 79-106.

FREE, C., SALTERIO, S. E. & SHEARER, T. 2009. The construction of auditability: MBA rankings and assurance in practice. *Accounting, Organizations and Society,* 34**,** 119-140.

GENDRON, Y. & BARRETT, M. 2004. Professionalization in Action: Accountants' Attempt at Building a Network of Support for the WebTrust Seal of Assurance*. *Contemporary Accounting Research,* 21**,** 563-602.

GENDRON, Y., COOPER, D. J. & TOWNLEY, B. 2007. The construction of auditing expertise in measuring government performance. *Accounting, Organizations and Society,* 32**,** 101-129.

GENDRON, Y. & SPIRA, L. F. 2009. What Went Wrong? The Downfall of Arthur Andersen and the Construction of Controllability Boundaries Surrounding Financial Auditing*. *Contemporary Accounting Research,* 26**,** 987-1027.

GRAY, R. 2010. Is accounting for sustainability actually accounting for sustainability…and how would we know? An exploration of narratives of organisations and the planet. *Accounting, Organizations and Society,* 35**,** 47-62.

HODGE, K., SUBRAMANIAM, N. & STEWART, J. 2009. Assurance of Sustainability Reports: Impact on Report Users' Confidence and Perceptions of Information Credibility. *Australian Accounting Review,* 19**,** 178-194.

HUGGINS, A., GREEN, W. J. & SIMNETT, R. 2011. The Competitive Market for Assurance Engagements on Greenhouse Gas Statements: Is There a Role for Assurers from the Accounting Profession? *Current Issues in Auditing,* 5**,** A1-A12.

HUMMEL, K., SCHLICK, C. & FIFKA, M. 2017. The Role of Sustainability Performance and Accounting Assurors in Sustainability Assurance Engagements. *Journal of Business Ethics*.

IAASB 2013. ISAE 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information International Framework for Assurance Engagements and Related Conforming Amendments

IANSEN-ROGERS, J. & OELSCHLAEGEL, J. 2005. Assurance Standards Briefing. AA1000 Assurance Standards & ISAE3000. AccountAbility in association with KPMG Sustainability, The Netherlands.

JEPPESEN, K. K. 2010. Strategies for dealing with standard-setting resistance. *Accounting, Auditing & Accountability Journal,* 23**,** 175-200.

JONES, M. J. & SOLOMON, J. F. 2010. Social and environmental report assurance: Some interview evidence. *Accounting Forum,* 34**,** 20-31.

JUSTESEN, L. & MOURITSEN, J. 2011. Effects of actor-network theory in accounting research. *Accounting, Auditing & Accountability Journal,* 24**,** 161-193.

KPMG 2011. KPMG International Survey of Corporate Responsibility Reporting 2011.

KPMG 2013. The KPMG Survey of Corporate Responsibility Reporting 2013.

KPMG 2015. The KPMG Survey of Corporate Responsibility Reporting 2015.

LATOUR, B. 1987. *Science in Action: How to Follow Scientists and Engineers Through Society*, Harvard University Press.

LAW, J. 2000. *Objects, Spaces and Others* [Online]. Centre for Science Studies Lancaster University Available:

http://www.lancaster.ac.uk/sociology/research/publications/papers/law-objects-spaces-others.pdf.

LOW, K.-Y. & BOO, E. F. 2012. Do Contrasting Statements Improve Users' Understanding of Different Assurance Levels Conveyed in Assurance Reports? *International Journal of Auditing,* 16**,** 19-34.

MANETTI, G. & BECATTI, L. 2009. Assurance Services for Sustainability Reports: Standards and Empirical Evidence. *Journal of Business Ethics,* 87**,** 289-298.

MANETTI, G. & TOCCAFONDI, S. 2012. The Role of Stakeholders in Sustainability Reporting Assurance. *Journal of Business Ethics,* 107**,** 363-377.

MILES, M. B. & HUBERMAN, A. M. 1994. *Qualitative Data Analysis: An Expanded Sourcebook,* SAGE Publications.

MILLER, P. 1991. Accounting innovation beyond the enterprise: Problematizing investment decisions and programming economic growth in the U.K. in the 1960s. *Accounting, Organizations and Society,* 16**,** 733-762.

MOCK, T. J., STROHM, C. & SWARTZ, K. M. 2007. An Examination of Worldwide Assured Sustainability Reporting. *Australian Accounting Review,* 17**,** 67-77.

O'DWYER, B. & OWEN, D. L. 2005. Assurance statement practice in environmental, social and sustainability reporting: a critical evaluation. *The British Accounting Review,* 37**,** 205-229.

O'DWYER, B. 2011. The Case of Sustainability Assurance: Constructing a New Assurance Service. *Contemporary Accounting Research,* 28**,** 1230-1266.

O'DWYER, B., OWEN, D. & UNERMAN, J. 2011. Seeking legitimacy for new assurance forms: The case of assurance on sustainability reporting. *Accounting, Organizations and Society,* 36**,** 31-52.

OWEN, D. L., SWIFT, T. A., HUMPHREY, C. & BOWERMAN, M. 2000. The new social audits: accountability, managerial capture or the agenda of social champions? *European Accounting Review,* 9**,** 81-98.

PEREGO, P. 2009. Causes and Consequences of Choosing Different Assurance Providers: An International Study of Sustainability Reporting. *International Journal of Management,* 26**,** 412-425.

PEREGO, P. & KOLK, A. 2012. Multinationals' Accountability on Sustainability: The Evolution of Third-party Assurance of Sustainability Reports. *Journal of Business Ethics,* 110**,** 173-190.

PFLUGRATH, G., ROEBUCK, P. & SIMNETT, R. 2011. Impact of Assurance and Assurer's Professional Affiliation on Financial Analysts' Assessment of Credibility of Corporate Social Responsibility Information. *AUDITING: A Journal of Practice & Theory,* 30**,** 239-254.

POWER, M. 1991. Auditing and Environmental Expertise: Between Protest and Professionalisation. *Accounting, Auditing & Accountability Journal,* 4.

POWER, M. 1996. Making things auditable. *Accounting, Organizations and Society,* 21**,** 289-315.

POWER, M. 2005. The invention of operational risk. *Review of International Political Economy,* 12**,** 577-599.

POWER, M. K. 2003. Auditing and the production of legitimacy. *Accounting, Organizations and Society,* 28**,** 379-394.

PRESTON, A. M., COOPER, D. J. & COOMBS, R. W. 1992. Fabricating budgets: A study of the production of management budgeting in the national health service. *Accounting, Organizations and Society,* 17**,** 561-593.

ROBSON, K., HUMPHREY, C., KHALIFA, R. & JONES, J. 2007. Transforming audit technologies: Business risk audit methodologies and the audit field. *Accounting, Organizations and Society,* 32**,** 409-438.

SIMNETT, R., VANSTRAELEN, A. & CHUA, W. F. 2009. Assurance on Sustainability Reports: An International Comparison. *The Accounting Review,* 84**,** 937-967.

SKÆRBÆK, P. 2009. Public sector auditor identities in making efficiency auditable: The National Audit Office of Denmark as independent auditor and modernizer. *Accounting, Organizations and Society,* 34**,** 971-987.

SMITH, J., HANIFFA, R. & FAIRBRASS, J. 2011. A Conceptual Framework for Investigating 'Capture' in Corporate Sustainability Reporting Assurance. *Journal of Business Ethics,* 99**,** 425-439.

STAR, S. L. 2010. This is Not a Boundary Object: Reflections on the Origin of a Concept. *Science, Technology & Human Values,* 35**,** 601-617.

STAR, S. L. & GRIESEMER, J. R. 1989. Institutional Ecology, `Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39. *Social Studies of Science,* 19**,** 387-420.

VERDANTIX 2013. Global Sustainability Leaders Survey: Brands.

WHITTLE, A. & MUELLER, F. 2010. Strategy, enrolment and accounting: the politics of strategic ideas. *Accounting, Auditing & Accountability Journal,* 23**,** 626-646.

WINDECK, D., WEBER, J. & STRAUSS, E. 2015. Enrolling managers to accept the business partner: the role of boundary objects. *Journal of Management & Governance,* 19**,** 617-653.

AAAJ-05-2017-2940 entitled "Exploring Diversity in Sustainability Assurance Practice:
Evidence from Assurance Providers in the UK"

Response to the reviewer's report

We would like to thank the reviewers for an extremely helpful and detailed set of comments on our paper. We have read them carefully and have undertaken a revision of the paper to fully respond to the reviewers' comments. We think the revision work has resulted in a better paper with a more detailed methodology and a clearer contribution. Below we detail specific reviewer comments together with a discussion of how we have addressed them. We hope you are satisfied with our revision and the responses to suggested improvements.

Reviewer comments	Authors' response
Reviewer 1 The article presents interesting arguments as a whole. However, there are flaws in the presentation and discussion of results. Some methodological gaps and an incomplete description of the method have been also detected. This study has provided a holistic view of SA practice revealing a considerable diversity in the way SA is conducted and a range of contextual imperatives that serve as sources of practice variation for practitioners. This paper extends the theoretical understanding of sustainability assurance by focusing on the practice beyond the statements made by assurance providers. For these reasons, in my opinion, the paper can meet the standards of the AAAJ if the suggested improvements are introduced.	Thank you for the supportive comments and suggested improvements. We have made revisions and amendments to the paper to fully respond to your comments. Please see below our responses for each specific point raised.
Reviewer 2 In my opinion the paper contains original material that is of interest to the audience of AAAJ and in particular to researchers of sustainability assurance practice. However, the paper needs some fine-tuning in terms of re-working data around key empirical findings and claims as indicated below. The paper is original and extends the research in this space beyond analysis	

of assurance statements and predominantly examines interview evidence, drawing on actor-network theory (unique approach) to understand the diversity of NFI assurance practice as perceived by those providers in practice (UK context). One of the key contributions of the paper is the categorisation/roadmap of accounting for and managing this diversity in practice- well done to the authors on this practical contribution and the novel use of ANT as a theoretical framework to frame the findings.

Methodology

Reviewer 1

My consideration is that the semi-structured interviews are adequate for the qualitative approach proposed by the authors. Nevertheless, the applied methodology it is not adequately explained and it is not appropriately associated with the results.

The interviews collection processes is too ambiguous. The authors mentioned about the interviews but the process has not been clarified. Interviews were conducted with twenty-one individuals that are described in the Annex, but the basis the participants were recruited and the main questions need to be clearly discussed. The authors need to provide a much more substantive rationale for the choice of the 21 key informants. The explanation of the interviews may also benefit from detailing the main themes to be explored. Rather than quoting sources, the authors need to first tell us which methodology for the qualitative analysis has adopted.

Reviewer 2

It would assist the reader with a list of general and specific discussion

We have significantly revised the methodology section to clarify the process of data collection and the way in which its findings are related to the discussion of results. In particular, we start by providing a rationale for the semi-structured interview approach as against a more structured method:

"The study relies on semi-structured interviews as a primary data collection method. In contrast to a more structured interview approach, such a method retains a degree of structure to ensure consistency in the range of topics discussed with the participants, yet allows for prompts and probes to follow up on important issues emerging during the discussion of those, and hence provides sufficient flexibility for collecting a variety of viewpoints and differences in the manner individual practitioners conceptualise practice depending on the characteristics of their specific environments. The wealth of different views on, and experiences of, SA collected through the interviews was key to our ability to capture and make sense of the diversity of approaches to SA and the degree of segmentation characteristic of this practice space".

Also, with regards to our approach to recruiting the interviewees, we state:

"*Data collection commenced with identification of potential interviewees. In particular, we consulted a market research report containing an exhaustive list of firms, both accounting and non-accounting, that are main SA providers in the UK (Verdantix, 2013). All firms identified from the list were contacted by email and invited to participate in the research project. Among the individuals from the firms who responded to our call, we selected to those that satisfied the following*

questions that were discussed with interviewees.

The methodology boasts in lines 42-44 that an array of documentary sources were included as data e.g. comments on Exposure drafts - these are not explicit anywhere in the paper and if you are bring together this so-need richness in qualitative data-may sure it is evident. These issues seem to be very broad by nature, raising concerns about consistency of lines of inquiry among different interviewees, especially important as you are trying to capture diversity in SA practice. I would like to see a justification for the chosen approach and how it is superior to a more structured interviewing process.

key criteria: active engagement with SA, including the practical conduct of SA engagements; and at least five years of professional experience in assurance (audit). Also, preference was given to individuals occupying more senior positions within their respective organizations (senior associate and above). As a result of the above sampling approach, we conducted interviews with nineteen SA practitioners, including partners, directors, and managers with significant knowledge of SA. These practitioners represented both accounting (all Big4 and one second-tier accounting firm, indicated by letters A-E) and non-accounting (indicated by letters F-I) firms. In order to gain a general understanding of the issues influencing SA from the demand side, we also conducted some additional interviews with four stakeholders (indicated by letter S in the analysis section below) and one reporting organization (indicated by letter R) (see Appendix 1). Hence, the total amount of interviews conducted was twenty-one. The interviews were conducted either face-to-face or via telephone, and ranged in length from 40 to 95 minutes."

Furthermore, we now elaborate in more detail on the interview themes that guided data collection, both in text and, in more detail, in Appendix 2 at the end of the paper. We state, in particular:

"An interview guide was followed in all interviews, allowing for differences in the interviewee's background, such as the type of assurance provider (i.e. accounting or non-accounting), and their engagement with the assurance practice (i.e. assurance provider, reporting organization, or stakeholder). In line with the chosen theoretical frame, interview questions were grouped in themes that addressed key aspects of negotiations over the objectives and practical conduct of the assurance process, also revealing a range of actors (both human and non-human) that shape the dynamics of such negotiations. In particular, these themes included the following: (i) initiation of the assurance engagement; (ii) agreeing on the scope and level of assurance; (iii) objectives and nature of the assurance process; (iv) interactions between engagement team members; (v) the use of assurance standards; (vi) communications with stakeholders during the assurance process; and (vii) final deliverables of assurance (see Appendix 2 for a full list of interview themes and related questions). All interviews were transcribed, and the interview transcripts were then subject to several rounds of reading and analysis."

We also show more clearly our approach to data analysis and

the way in which it relates to the results discussed later in the paper.

"Data analysis involved a qualitative, interpretative approach, in which the transcripts were analysed using three sub-processes: data reduction, data display, and conclusion drawing (Miles and Huberman, 1994). More specifically, the initial stages of the interview analysis focused on areas such as actors, relationships, and activities. This is in line with key premises from ANT which present actors as 'actants' to emphasise that "agency is a relational effect" (Castree, 2002, p. 121) and therefore an actant is a relational field that is the effect of an array of relations and activities (Law, 2000). In particular, the analysis sought to capture practitioners' (who, in ANT terms, are also the main translators of SA) conceptualizations of themselves as assurance providers, the relationship between them and other actors during the conduct of the assurance process, and the various steps and activities relating to practice delivery.

Making sense of the findings generated through the above analysis enabled us to reduce the empirical data collected to those addressing a handful of specific issues that are key points of variation revealing the causes of diversity in SA practice. In particular, we identified three such issues, namely: the manner in which assurance providers translate their roles (including their professional identities and ethical stances); the way in which they translate the notions of sustainability and assurance - in ANT terminology, the boundary objects (Star and Griesemer, 1989) that together encompass the core essence of SA; and lastly, the effects of those translations on the different practical meanings practitioners assign to SA routines (including issues such as the scope and level of assurance, stakeholder engagement, and final deliverables). Finally, the empirical observations and analytical conclusions relating to the three points of variation identified as characteristic of SA practice have been relied upon to develop a systematic view and detailed categorization of different types of SA engagements observed, which we present in the following section."

Finally, we have removed references to documentary sources as we do not mention them in the analysis.

Findings and data

Reviewer 1

In the results, the content of the interviews could be better summarized. The findings could make less use of direct quotations sourced from the interview and a summarized table with	Thank you for the suggestion. Following your advice, we developed Table 2 "Summary of Findings". The table summarizes key findings across a range of analytical themes covered in the empirical section of the paper. It has been designed to serve two key purposes: (1) to convey and

more frequent answers obtained could be added which in turn will add credibility to the results. I suggest the authors to consider the O'Sullivan and O'Dwyer's (2015) model as an interesting methodological approach, to enhance the robustness of the utilized model and the reliability of the obtained results and conclusions.

synthesize key messages coming out of the interviews and (2) to provide a means to demonstrate the basis upon which categories of SA engagements are drawn in Figure 2. The inclusion of the Table has also enabled us to limit the number of interview quotations to the most revealing/representative and avoid inserting additional quotations unnecessarily.

Reviewer 2
The Appendix and list of interviewees is also disjointed from the body of the paper-for example the Appendix has referenced D3, B2, B3 and there is no data in the body of paper with their perspectives? I have also noted that the Appendix includes reference to S1, S2, S3, S4 and R1 and they too are not referenced elsewhere in the paper.

Table 1 provides a list of interviews carried out. Cumulatively, they provide a wealth of information upon which we drew our findings and conclusions. That said, our objective was not to reference explicitly to all of the interviewees but merely to ones that we thought were particularly representative of the kind of issues and topics we wanted to highlight. As in most qualitative work, the attempt has been made to synthesize the key arguments and illustrations for those, rather than provide exhaustive representations of interviews and covered topics. It is also worth mentioning that, because of our focus on auditors (inspired by ANT) as the key "translators" of SA, the interviews with actors other than auditors (such as with stakeholders that are referred to in the comment) were used mainly as supplementary material to corroborate and extend findings from discussions with auditors.

The arguments and data in 4.3 are very informative to read. However, a slight issue I have is that in lines 19-23 of page 16, the authors claim that AA1000AS includes a broader focus on stakeholder participation, however the prior data is all from AAPs, do the authors have any data that could support such a claim as currently in prior pages 14-16 there is no data from NAAPs.

We have now incorporated more evidence from non-accountants into our discussion of stakeholder engagement by noting that "*involvement of stakeholders in the assurance process is perceived to be more important when the required level of assurance is high (SA Business Manager, G1; Corporate Responsibility Technical Manager, H1)*." Also, we want to clarify that the aim with this paper is not to compare the two provider types, but provide a general view of SA practice diversity. Hence, quotations from both accounting and non-accounting providers might not always be provided together to support a particular line of argument.

Finally, I found figure 2 the category map most helpful. As a stand-alone piece, I did not understand it. It was only after reading the explanation provided by the author that it made sense and can be useful in teaching assurance in addition to the usefulness to others.

Thank you for this observation. Following your comments, we have revised Figure 2 "Sustainability assurance engagement category map" by adding a more detailed explanation of each category of SA engagements to improve readability.

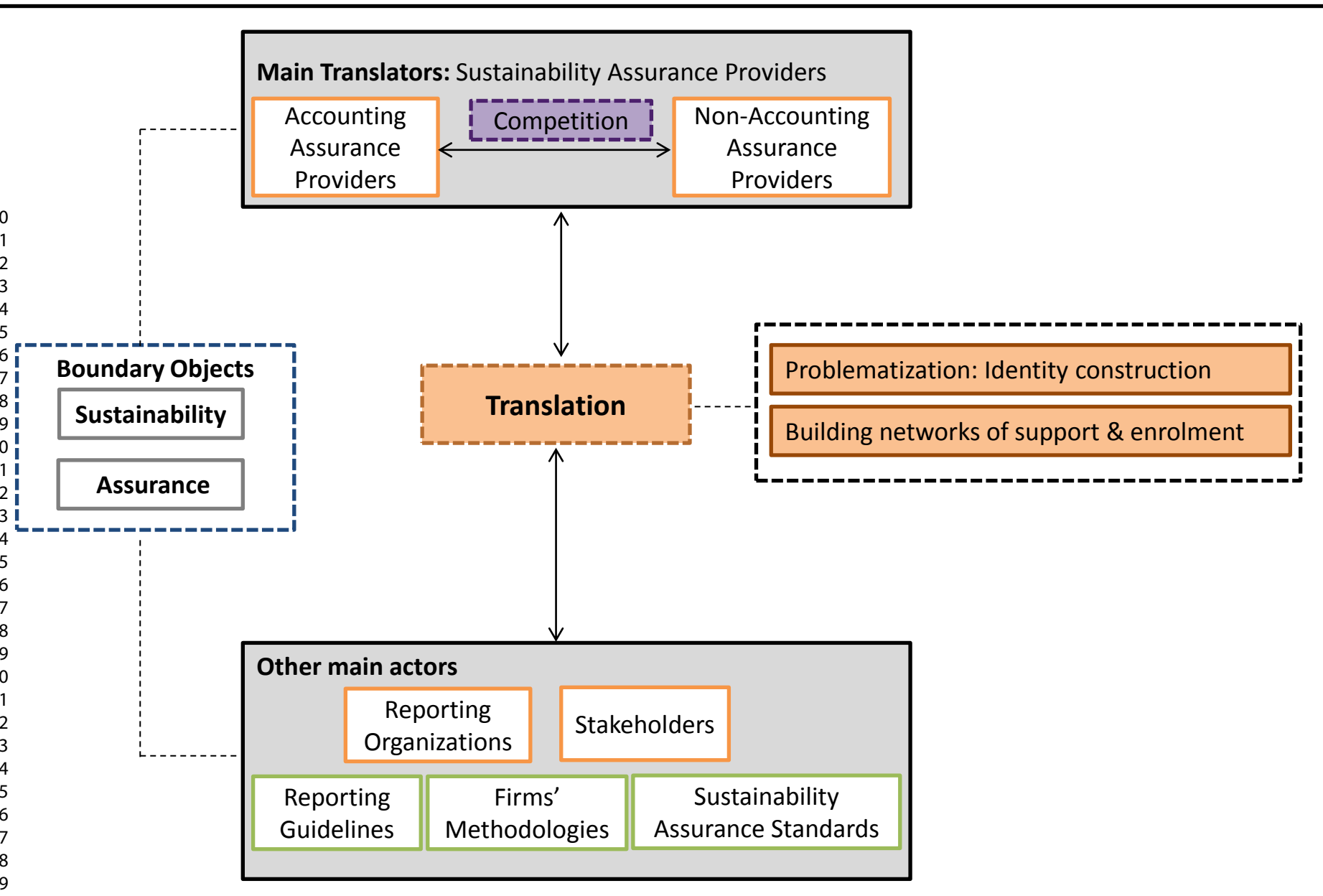| Literature	
Reviewer 2 The extant literature on SA is adequately reflected in the paper, however I think the reference to the leading work in this area, that is O'Dwyer, 2011 could be referenced sooner as part of your motivation on p2, given the strength of interview data.	Thank you for this note. We have included more discussion of O'Dwyer's seminal work earlier in the paper. The following text was added in the introduction: *"While the above factors have been identified in the literature as significant drivers of diversity in SA (Perego and Kolk, 2012; Perego, 2009; Pflugrath et al., 2011), much of that literature has focused only on the content of SA statements as a means to infer the effects of those factors on practice, effectively treating the SA process itself as a black box. There is limited research that has explored the development of SA by gaining insights from SA providers themselves. A study by O'Dwyer (2011) represents a significant exception by offering an in-depth view of the practice development and drawing on interviews with firms providing the service. The study revealed substantive differences in the practitioner's perceptions and practical conduct of SA, pointing to a range of factors such as professional and educational backgrounds as well as personal commitments as potential sources of variation. O'Dwyer's study, however, focused exclusively on accounting firms. In contrast, this study seeks to provide a more holistic view of the diversity of SA by focusing on accounting as well as non-accounting providers of the service."*
I also suggest that the authors should include some UK context of SA uptake etc and some reference to literature from analytical professional sources such as ACCA, KPMG Report 2013 and/or ICAEW publications thereby providing a visual for the reader of the UK context of firms with SA and split between AAP and NAAPS uptake.	We have added a text to address this point in the introductory section in page 3. The inserted text is as follows: *"Particularly, the empirical focus of the study is on SA providers in the UK. One of the reasons to choose the UK as a research field is that sustainability reporting and assurance in the UK is relatively advanced and well-established compared to the practice in some other countries (see KPMG, 2011; 2013; 2015). Also, the SA market in the UK is not monopolised by accounting firm assurance providers, but includes providers from other occupational backgrounds (Huggins et al., 2011; Hummel et al., 2017; Mock et al., 2007; Pflugrath et al., 2011; Simnett et al., 2009). The context, therefore, provides an appropriate setting to understand the SA practice."*
There are also a number of references below that you should also consider as part of the SA literature especially in terms of differences between AAP and NAAP providers and stakeholder impacts.	Thank you for the suggestions, we have included those.
Theory	
Reviewer 2	

I suggest that perhaps the authors need to clarify whether 'identity negotiation is another form of translation or just part of the translation process?	We have thought about this and revised the text as "Identity negotiation is a part of translation process". Excerpt from the text is in Section 2.1 page 5 as follows: "Identity negotiation is a part of translation process (Cooper and Robson, 2006; Skærbæk, 2009), in which the main translator (i.e. SA providers) tries to persuade other actors to accept the roles that they assign to themselves and other actors."
I would also like to see some reference in between lines 28-30, that whilst boundary objects are seen as adaptable to various perspectives, the notion that they also yield 'further translations' is also just part of an SA practice that is still evolving.	In response to this comment, we have revised the noted text as follows: *"While negotiations around boundary objects may yield a consensus, such a consensus is precarious and may be subject to change and further translations. In the case of SA, what stimulates further translations is also the evolving nature of the practice itself as practitioners often engage in multiple and successive attempts to interpret various aspects of the practice. Therefore, treating sustainability and assurance as broadly defined boundary objects provides opportunities for capturing the ways in which actors such as SA providers make continuous attempts to redefine and reposition their interests relating to SA practice."*
Other comments	
Reviewer 2 In 4.1, perhaps the authors also need to make a footnote re the differences between assurance and other types of audits , as in Australian context an 'audit' is synonymous with a Financial Statement audit.	Suggested addition to a footnote has been added. The text is in the footnote 2. (indicated as [2] on page 8) as follows: *"2. The terms 'assurance' and 'audit' are sometimes used interchangeably in relation to the term sustainability. For the purpose of this paper, we use the term 'assurance' to distinguish this type of non-financial assurance (i.e. sustainability assurance) from the traditional financial audit practice. AccountAbility (AccountAbility, 2008a, p.23) describes 'assurance' as "the methods and processes employed by an assurance provider to evaluate an organisation's public disclosures about its performance as well as underlying systems, data and processes against suitable criteria and standards in order to increase the credibility of public disclosure". We take this definition implicitly because we would like to explore the given meanings of the term by the assurance providers in the context of sustainability assurance practice."*
Whist the authors differentiate data between SA providers - i.e. accounting	2) We have put clarification in the manuscript that the paper is not trying to compare between accounting and non-

(AAPs) and non-accounting (NAAPs), it needs to be clearer to the reader that the study is not about comparing the differences between the providers.	accounting providers. The added text on page 1 is as follows: *"The distinction of the accounting and non-accounting providers shows the inclusion of different types of assurance providers; however, the paper does not try to compare their differences."*
Consistency required with words such as 'problematisation' in Figure 1 and use of 'z' elsewhere in paper for problematize and 'problematization', same for 'organisation' rather than organization or just keep consistent.	We have checked and revised the use of -ize and -zation to ensure consistency.
- Line 24 spelling of Borad - change to Board (page 2) - Make sure you cut out 'to' in line43 as it currently reads like Director 5 speaks poor English - Line18 where one AAP states….inverted commas missing if it actually is statement? - line9 last sentence needs to be refined as currently it reads poorly-'…it refers to scope as well as than scale'. - The acronyms of SA, ANT and various others are appropriate without detracting from contributions.	We have made some other revisions and adjustments according to other specific suggested editorial changes.

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Exploring Diversity in Sustainability Assurance Practice: Evidence from Assurance Providers in the UK

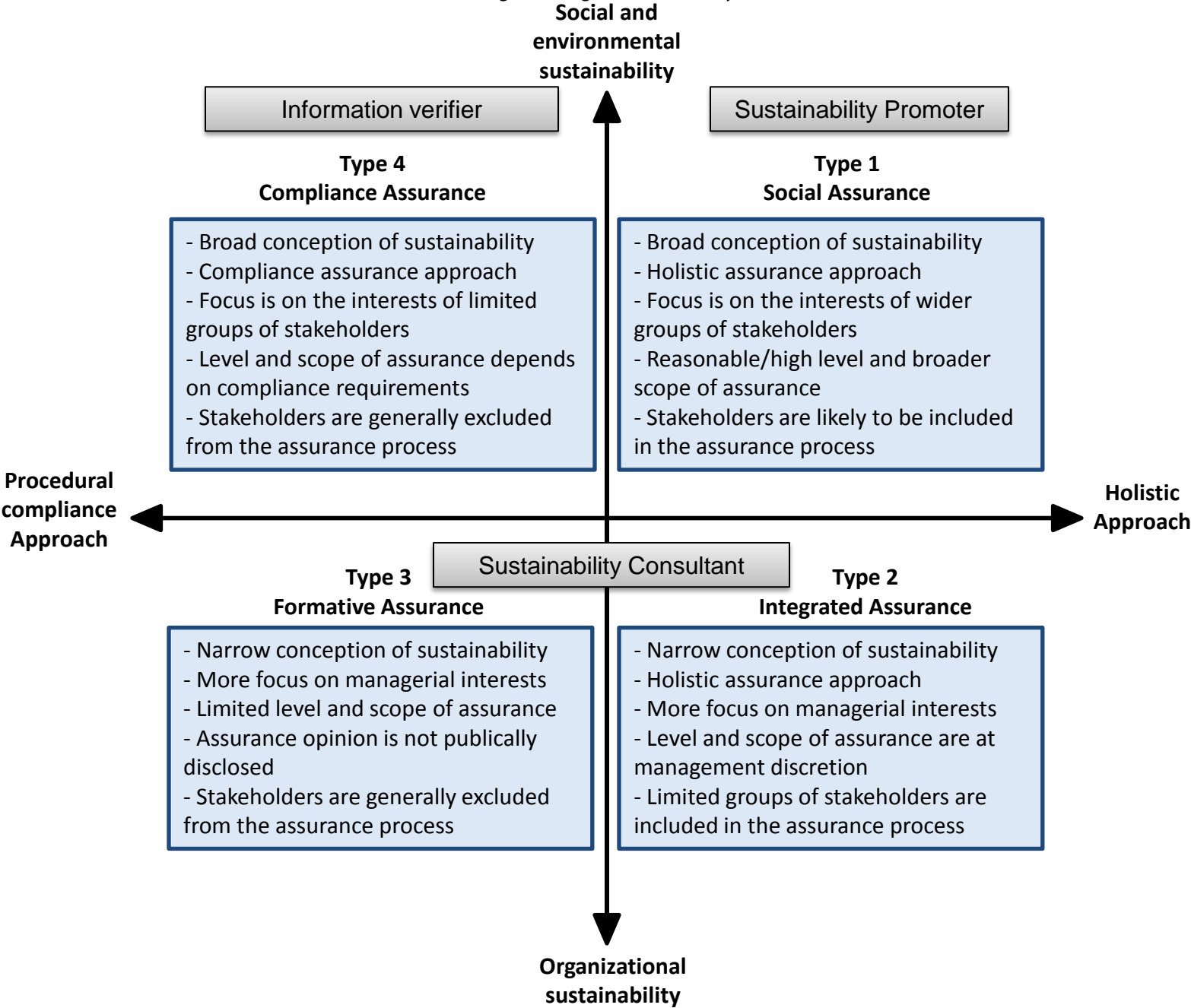AAAJ Submission - Figures

Figure 1: Conceptual framework.

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Social and environmental sustainability

Information verifier

Sustainability Promoter

Type 4
Compliance Assurance

- Broad conception of sustainability
- Compliance assurance approach
- Focus is on the interests of limited groups of stakeholders
- Level and scope of assurance depends on compliance requirements
- Stakeholders are generally excluded from the assurance process

Type 1
Social Assurance

- Broad conception of sustainability
- Holistic assurance approach
- Focus is on the interests of wider groups of stakeholders
- Reasonable/high level and broader scope of assurance
- Stakeholders are likely to be included in the assurance process

Procedural compliance Approach

Holistic Approach

Sustainability Consultant

Type 3
Formative Assurance

- Narrow conception of sustainability
- More focus on managerial interests
- Limited level and scope of assurance
- Assurance opinion is not publically disclosed
- Stakeholders are generally excluded from the assurance process

Type 2
Integrated Assurance

- Narrow conception of sustainability
- Holistic assurance approach
- More focus on managerial interests
- Level and scope of assurance are at management discretion
- Limited groups of stakeholders are included in the assurance process

Organizational sustainability

Table 2: Summary of findings

Conceptions and routines	Spectrum				
Conception of sustainability	Limited	⟷	Broad	Sustainability in the context of an SA engagement is limited to, more or less, environmental issues.	Sustainability in the context of an SA engagement is broadly defined to include a wider range of issues (environmental, bribery and other social issues).
Conception of assurance	Limited	⟷	Broad	Assurance is framed primarily as a verification exercise. The verification can be done based on the clients' requests.	Assurance promotes a holistic approach focused on assisting the reporting organizations in their reporting journey. This includes consideration of issues that should be subject to SA.
Scope and level of SA	Limited	⟷	Broad	Scope and level of SA is determined mainly by the clients. This includes a pre-assurance engagement (e.g. readiness assurance). A limited range of reported items is included in the scope of SA. SA reports use negative wording.	Scope is broader and includes material issues, or even the whole report. Important information is assured with reasonable or high level of assurance. SA reports use positive wording.
Stakeholder engagement in the SA process	Exclusion	⟷	Inclusion	Stakeholders are perceived to be the outsiders of SA. All communications in the course of SA occur between providers and management of the reporting organization only.	Stakeholders are considered to be part of SA so that decisions made by providers in the course of SA take account of the stakeholders' information needs.
Management influence on the deliverables	High	⟷	Low	Providers allow a degree of management influence over the content and presentation of the final deliverables of SA.	Providers take a rigid approach to prevent management from influencing the SA deliverables.
Roles of SA providers	Verifier	⟷	Sustainability promoter	Providers serve as information verifiers; SA engagements are carried out on terms agreed upon with the clients.	Providers see it as their role to promote the value of SA and challenge their clients on issues around SA scope and the level of assurance.

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