



Developing a Framework for Enabling Sustainable Procurement

Research Report #2

Authors

Yingbin Feng

Vasilios Papastamoulis

Sherif Mohamed

Tiendung (TJ) Le

Savindi Caldera

Peng Zhang

SBEnc P2.76 Sustainable Procurement

Date: 31 May 2021

ACKNOWLEDGEMENTS

This research has been developed with funding and support provided by Australia's Sustainable Built Environment National Research Centre (SBEnc) and its partners.

Core Members of SBEnc include BGC Australia, Government of Western Australia, Queensland Government, Curtin University, Griffith University and RMIT University.

Core Partners: This research would not have been possible without the ongoing support of our core industry, government, and research partners:



Project Partners: This project has been supported by:



Project Leader: Yingbin Feng, Western Sydney University

Researchers:

Sherif Mohamed, Griffith University

Tiendung Le, RMIT University

Vasilios Papastamoulis

Savindi Caldera, Griffith University

Peng Zhang, Western Sydney University

Wenchi Shou, Western Sydney University

Citation: Feng, Y., Papastamoulis, V., Mohamed, S., Le, T., Caldera, S., Zhang, P., (2020) Developing a Framework for Enabling Sustainable Procurement. SBEnc P2.76 - Sustainable Procurement <https://sbenrc.com.au/research-programs/2-76/>

TABLE OF CONTENTS

EXECUTIVE SUMMARY	5
1 INTRODUCTION	7
1.1 Background	7
1.2 Summary of literature review	7
1.3 Focus of this report	8
2 METHODOLOGY	9
2.1 Research strategy.....	9
2.2 Data collection method.....	10
2.3 Data analysis strategy	13
3 VALUE OF SUSTAINABLE PROCUREMENT	14
3.1 First-order analysis.....	14
3.2 Second-order analysis and data structure	21
3.3 Discussions	31
3.3.1 Drivers	31
3.3.2 Barriers	32
3.3.3 Enablers	33
4 STAKEHOLDERS' ROLE IN TRANSFORMING SUSTAINABLE PROCUREMENT PRACTICES	36
4.1 First-order analysis.....	36
4.2 Second-order analysis	37
4.3 Discussions	37
4.3.1 Behavioural Change	39
4.3.2 Cultural change	40
4.3.3 Change in process	42
4.3.4 The role of the context	43
5 COVID-19 IMPACT ON SUSTAINABLE PROCUREMENT	44
5.1 First-order analysis.....	44
5.2 Second-order analysis.....	48

5.3	Discussions	48
6	DEVELOPMENT OF FRAMEWORK FOR ENABLING SUSTAINABLE PROCUREMENT	52
6.1	Key steps	52
6.2	Best practices and key considerations	53
7	CONCLUSION	58
8	REFERENCES.....	60
9	APPENDIX	64
	Appendix A: 1st-Order Analysis on Value of Sustainable Procurement	64
	Appendix B: 1st-Order Analysis on Stakeholder’s Role in Transforming Industry Practices	82
	Appendix C: 1st-Order Analysis on COVID-19 Impact on Sustainable Procurement.....	107
10	AUTHOR BIOGRAPHIES	117

EXECUTIVE SUMMARY

Research aim

Sustainable procurement is increasingly on the agenda for purchasing and supply managers seeking to demonstrate corporate social responsibility in their supply chains. Driven by industry's desire to modify behaviours that contribute to unsustainable practices, the SBEnc's Sustainable Procurement project is dedicated to examining key issues across the procurement life cycle and focusses on finding practical ways to improve environmental, social, and economic sustainability outcomes in the housing, building and infrastructure sectors in Australia. This report aims to present the results of the empirical research, which focus on the following areas:

- understanding the value of sustainable procurement to meet organisational targets, across environmental, social, economic and governance dimensions;
- examining the role of clients, stakeholders and suppliers in transforming industry practices in procurement for sustainability in the housing, building and infrastructure sectors;
- examining the specific post COVID-19 impacts for achieving sustainable procurement and how these impacts may be ameliorated; and
- developing a framework for enabling sustainable procurement for organisations in the housing, building and infrastructure sectors.

Methodology

Focus group discussions were used to collect empirical data for this research. Participants of the focus group discussions were identified by the Project Steering Group and through the researchers' professional networks. A total of 22 participants were recruited for the focus group discussions involving commonwealth government, state government, private organisations and industry associations. Three primary focus groups and a supplementary focus group were conducted in March and April 2021. Gioia Methodology (Gioia, Corley & Hamilton 2012) was adopted to analyse the data collected from focus group discussions. The data analysis process involves five steps: (a) perform initial data coding, maintaining the integrity of 1st order (informant-centric) terms; (b) develop a comprehensive compendium of 1st-order terms; (c) organise 1st-order codes into 2nd-order (theory-centric) themes; (d) distil 2nd-order themes into overarching theoretical dimensions; and (e) assemble terms, themes, and dimensions into a "data structure".

Key findings

The motivations of organisation for practising sustainable procurement are driven by government interventions (e.g., public policy, incentives, and public concerns), client requirements (e.g., customer needs, investor confidence, and value creation) and organisational pressure (e.g., risk management, improving efficiency, and gaining competitive advantage). Constraints in organisation (e.g., staffing and resources, training and communication, and traditional measure of success), process (e.g., tools and procedures, post-contract evaluation, and competing targets) and context (e.g., supply chain transparency and traceability, social impact, and industry culture and awareness) are the main barriers for implementing sustainable procurement practices. Typical best practices (e.g., transforming industry practice, driving organisational change, developing tools and procedures, leadership and collaboration, engaging suppliers, training and communication, contracting innovation, pilot and championship, monitoring and reporting, and priorities and alignment) were identified to enable an organisation to move towards sustainable procurement.

Sustainable procurement is a major change to industry practices that requires a shift in culture, behaviour, and process of all stakeholders involved as well as a supporting context. The successful transformation will require synergetic efforts from government, client organisations and other stakeholders. Behavioural change requires a holistic approach and can be enhanced through

collaboration and raising awareness. Organisations can consider to adopt strategies such as enable, encourage, engage and enforce to enable behavioural change depending on their interests and influences in sustainable procurement. Defining value for money, engaging stakeholders early, fostering communication and collaboration and enabling innovation may contribute to drive cultural changes. Any transformation in industry practices will depend on the change in tools, policy and process, apart from the change in behaviour and culture. We have identified four strategies related to this element of the transformation model: 1) using tools and process, 2) defining goals and requirements, 3) managing performance and practices, and 4) incentivising & providing resources. The context plays an indirect, yet potentially powerful, role in transforming industry practices. For the private sector, “consumers have a big impact” and influence on sustainability practices. Legislation plays a role in enforcing the minimum requirements in sustainability and addressing the “laggards” who are late in adopting sustainably procurement practices. Community pressure (e.g., protests) may drive behavioural and practice changes in the government. Understanding the role of consumers and the public allows stakeholders to allocate resources appropriately to influence the transformation process of sustainable procurement practices.

Through the focus group discussions, it was evident that COVID-19 crisis has created severe disruptions to the supply chain and prompted both private and government organisations to re-think innovative approaches to address disruptions. Learning from the challenges related to COVID-19, government and industry needs to re-assess their supply chain risks and need to determine the supply chain design that will deliver the most resiliency in the event of another large-scale disruption. Several key levers including developing reliable, transparent, and local supply chains, leveraging innovative tools and DE approaches, creating a coalition between government and industry, purposeful integration of modern slavery act and procurement guidelines and assessing risks at multiple-level risk assessment were proposed. These levers are aligned with previous literature on actions (e.g., creating transparency on multitier supply chain, optimising production and distribution capacity, assessing realistic final-customer demands, leveraging technologies to support goals, utilizing multi-level risk assessment, and ensuring the organisations are aligned most innovative initiatives to support sustainability and the green economy) will enable government authorities and industrial practitioners to develop as targeted responses to address COVID-19 impacts and better prepare for possible future disruptions.

Enabling sustainable procurement in an organisation requires system thinking as it involves systematic planning and changes in organisational culture, behaviour, governance, and processes. By aligning the findings of this project to the principles of ISO 20400, a framework for enabling sustainable procurement was proposed to help organisations to gain an understanding of the holistic picture of sustainable procurement and align their culture, behaviour, organisation and processes to ISO 20400 principles. The framework identifies the key steps that help organisations get started with the sustainable procurement journey, the best practices that support the implementation of sustainable procurement, the role of stakeholders in transforming sustainable procurement practices, the responsibilities across various levels of staff, and recognises the core role of value and impact of sustainability in driving the sustainable procurement practices.

In the next stage of this project, case studies on five sustainability themes including green concrete, recycled contents, Modern Slavery Act, regional participants, and marginalised group will be conducted to test, refine and validate the proposed framework and identify best practice examples in the Australian context. A practical Guide for enabling sustainable procurement, a Best Practice Mapping Tool and a Stakeholder Interest and Influence Matrix will be developed to provide guidance for organisations that seek to integrate sustainability into their organisation and processes.

1 INTRODUCTION

1.1 Background

There is an increasing community expectation to support sustainable products and practices through the billions spent by government and industry in their commercial operations. Sustainable procurement is increasingly on the agenda for purchasing and supply managers seeking to demonstrate corporate social responsibility in their supply chains. Through the SBEnrc's National Industry Workshops in July 2019 and subsequent project development workshops in 2020, the major issues related to sustainable procurement in the building and infrastructure sectors have been identified by industry as:

- There is a lack of knowledge as to what actually constitutes sustainability in terms of the procurement application.
- It is difficult to verify the sustainability claims made by suppliers of products or services.
- It is difficult to identify the products or services that genuinely support sustainable procurement goals, achieve the targeted outcomes and concurrently represent value-for money in achieving those goals.
- Social sustainability issues are not commonly addressed.
- Local industry sustainability issues are not commonly addressed.
- There is a lack of clear guidelines, framework, processes and tool boxes for sustainable procurement across the national spectrum.
- It is necessary to set specific targets to assess the sustainability components and performance of suppliers.
- There is a need for an approach to monitor suppliers' practices, evaluate their sustainability performance (KPIs), and identify the risks.
- There is a need for better mechanisms that encourage recycled or sustainable products.
- There is a need for sustainability incentives by client organisations aimed at requiring /ensuring /promoting sustainable procurement including sustainable alternate materials use and to drive innovation.
- There is a need for data on the size and value of the opportunity in addressing sustainable procurement.
- Whole-of-life waste management and circular economy are important themes.
- 'Business as Usual' is deeper than a suite of guidelines and frameworks. It is changing the hearts and minds and evidencing this through changed project delivery practices.
- Consistency and simplification across various levels of government and private sector are needed.
- The industry needs to respond to changing practices including digitisation.
- Sustainable procurement in a post COVID-19 setting is an emerging challenge for government and industry. A post COVID-19 world will impact the landscape for achieving sustainable procurement.

1.2 Summary of literature review

The Project Report #1 (Literature Review) (Feng et al. 2020) presents a review of literature on key issues around sustainable procurement practices including, the definition, benefits, policies and guidelines, barriers and drivers, assessments, stakeholder's role, and COVID-19 impact on sustainable procurement, nationally and internationally. Key findings of the literature review are summarised as following:

- Although policies and guidelines have been developed to guide organisations' sustainable procurement practices, the implementation of the policies and guidelines remains problematic in practice.
- The complexity of identifying products and services that genuinely support sustainable development goals, while representing value-for-money presents a significant challenge to achieving the sustainable goals of organisations.
- Despite many efforts in measuring sustainability, most of them failed to consider an integrated approach taking into account of environmental, economic and social aspects. The previous research on sustainable procurement were clearly dominated by environmental dimension, while the social aspects are widely ignored. The shortage of quantitative procurement models concentrating on environmental and social responsibility was also noted.
- Sustainable procurement is a major change to industry practices that requires a shift in approach, priorities, and practices of all stakeholders involved. The successful transformation will require synergetic efforts from government, client organisations and other stakeholders.
- COVID-19 crisis has brought global economies to a standstill and has created unprecedented challenges too many sectors including housing, building and infrastructure, which highlights the critical need for right time, right place procurement decisions to be resilient and better positioned when the pandemic subsides. It is therefore critical to enhance the traceability and transparency of supply chain management and help to reinforce the path towards the UN's Sustainable Development Goals, setting new industry standards in sustainable practices.

The review has provided the foundation on which empirical study could further explore industry and government experiences of sustainable procurement.

1.3 Focus of this report

Driven by industry's desire to modify behaviours that contribute to unsustainable practices, the SBEnrc's Sustainable Procurement project is dedicated to examining key issues across the procurement life cycle and focusses on finding practical ways to improve environmental, social, and economic sustainability outcomes in the housing, building and infrastructure sectors in Australia. This report aims to present the results of the empirical research, which focus on the following areas:

- understanding the value of sustainable procurement to meet organisational targets, across environmental, social, economic and governance dimensions;
- examining the role of clients, stakeholders and suppliers in transforming industry practices in procurement for sustainability in the housing, building and infrastructure sectors;
- examining the specific post COVID-19 impacts for achieving sustainable procurement and how these impacts may be ameliorated; and
- developing a framework for enabling sustainable procurement for organisations in the housing, building and infrastructure sectors.

2 METHODOLOGY

This section provides an overview of the research strategy, data collection methods and data analysis methods.

2.1 Research strategy

The overall research strategy is shown in Figure 1. This research involves 5 major phases: (1) research design; (2) data collection; (3) data analysis; (4) development of framework; and (5) case studies. Case studies will be reported in the final industry report.

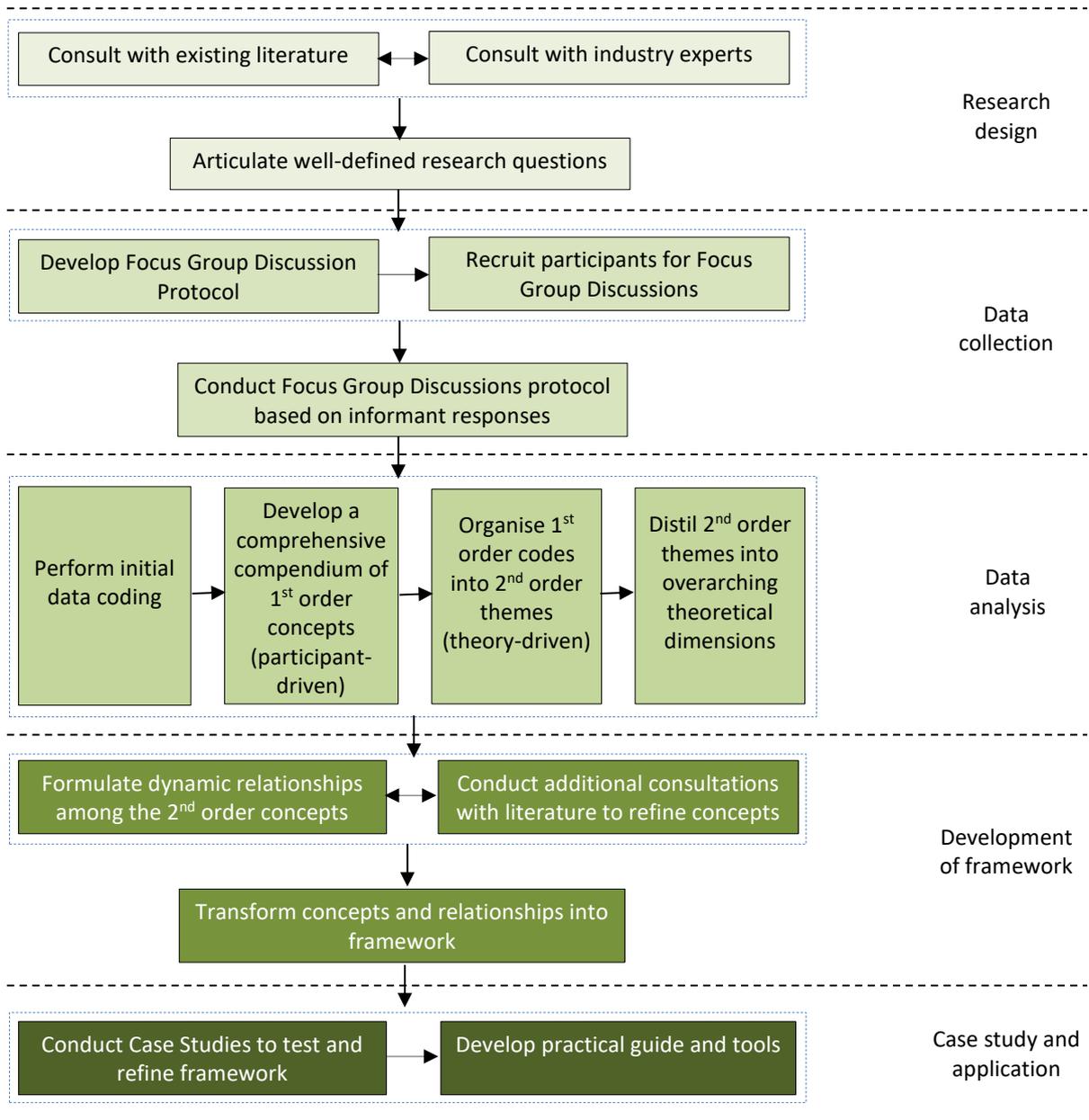


Figure 1: Research Strategy

2.2 Data collection method

Focus group discussions were used to collect empirical data for this research. Focus Group Discussion (FGD) is widely applied in qualitative research in order to investigate and understand in-depth social issues (Nyumba et al. 2017). The method is used to collect qualitative data such as verbal interviews and transcripts or minutes from a group of people, who are usually experts in their field. Focus groups provide a safe environment for groups of individuals who have mutual interest in a given theme. The advantage of focus group discussion is that it leverages the group context to create discussion and interaction among participants.

The participants of focus groups were not resulted randomly or selected as a statistical sample of a larger population. Instead, they were formed from the researcher intentionally with a specific synthesis and a size towards underpinning the aim and objectives of the research (Nyumba et al. 2017). Sustainable procurement embraces the social dimension and involves specific stakeholders, who play a critical role in decision making in the construction supply chain. Participants of the focus group discussions were identified by the Project Steering Group and through the researchers' professional networks. A total of 22 participants were recruited for the focus group discussions involving commonwealth government, state government, private organisations and industry associations.

Three primary focus group discussions were conducted in March 2021 to explore the following three research themes:

1. understanding the value of sustainable procurement to meet organisational targets, across environmental, social, economic and governance dimensions;
2. examining the role of clients, stakeholders and suppliers in transforming industry practices in procurement for sustainability in the housing, building and infrastructure sectors; and
3. examining the specific post COVID-19 impacts for achieving sustainable procurement and how these impacts may be ameliorated.

A supplementary focus group discussion was conducted to collection additional information from those participants who were unable to attend the three scheduled primary focus groups. The participants and schedule of focus group discussion are shown in Figure 2.

Focus group discussion schedules (see Table 1) were developed to guide the discussions. The schedules consist of a number of specific questions arising from each research themes. Amendments to the schedules were made according to the feedback from the Project Steering Group meeting.

Table 1: Focus Group Discussion Questions

Theme	Questions
<p>Theme 1: Value of sustainable procurement to meet organisational targets, across environmental, social, economic and governance dimensions</p>	<ol style="list-style-type: none"> 1. What sustainable procurement means for your organisation? (Modern slavery, Sustainable products, Marginalised group, Regional participants) 2. How would your organisation align sustainable procurement to organisational targets? How would sustainable procurement contribute to achieving organisational targets? 3. What mechanisms or approaches are there in your organisation to assess the value of sustainability? 4. What would impede the implementation of sustainable procurement practices in your organisation and wider industry? 5. How can we link the opportunity for more robust supply chains to Australian government initiatives?
<p>Theme 2: The role of clients, stakeholders, and suppliers in transforming industry practices in procurement for sustainability</p>	<ol style="list-style-type: none"> 1. How can clients incorporate sustainable procurement requirements into project goals? <ul style="list-style-type: none"> ○ Examples ○ With different project delivery systems 2. What can the supply chain do to align their business goals with requirements for sustainable procurement? <ul style="list-style-type: none"> ○ What matters to the supply chain? ○ How sustainable procurement is aligned with the goals? 3. What (financial and non-financial) incentives can clients include in the commercial frameworks to attract suitable contractors and encourage sustainable procurement practices? <ul style="list-style-type: none"> ○ Examples ○ Financial ○ Non-financial 4. How should the legislation be introduced to promote and ensure sustainable procurement practices through both push and pull approaches? <ul style="list-style-type: none"> ○ Current legislation ○ New legislation 5. In the perfect world, what should each stakeholder (e.g., the government, clients, the supply chain) do to transform industry practices in procurement for sustainability?
<p>Theme 3: Post COVID-19 impacts for achieving sustainable procurement and how these impacts may be ameliorated</p>	<ol style="list-style-type: none"> 1. How has COVID-19 impacted your industry and your organisation? (Prompt: positives and negatives) <ul style="list-style-type: none"> ○ How does COVID-19 impact on achieving sustainability goals in the construction industry? 2. What challenges are brought about by COVID-19 to your organisation's sustainability practices? 3. How can the impacts be ameliorated? 4. How can you use these COVID-19 related learnings to create an opportunity for more robust supply chains to Australian Gov initiatives? 5. What are Stakeholders' (government, client, contractors, suppliers and users) roles in shaping sustainable procurement practices in a post COVID-19 world? 6. Learning from the COVID-19 realities, how can you leverage your experience for future opportunities?

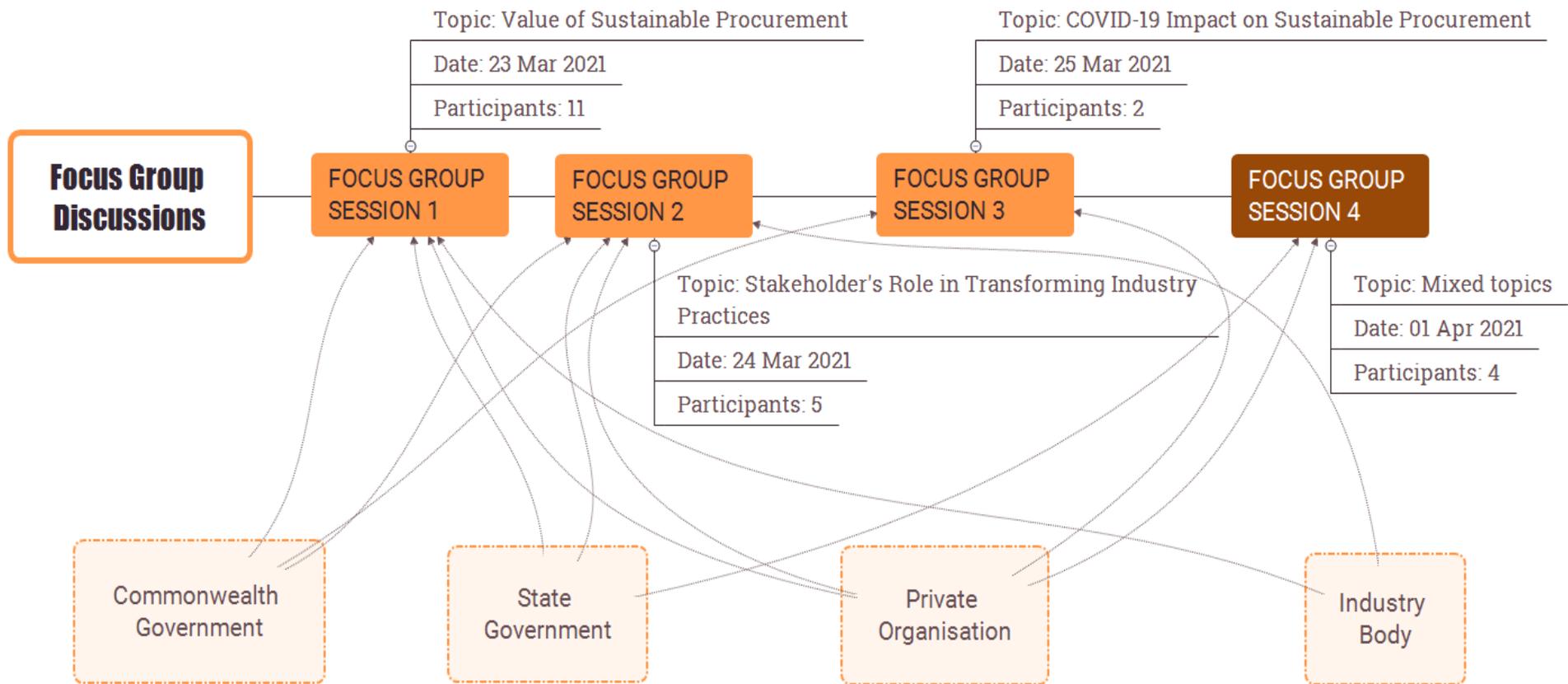


Figure 2: Focus Group Discussion Sessions

2.3 Data analysis strategy

Gioia Methodology (Gioia, Corley & Hamilton 2012) was adopted to analyse the data collected from focus group discussions. The data analysis process involves five steps: (a) perform initial data coding, maintaining the integrity of 1st order (informant-centric) terms; (b) develop a comprehensive compendium of 1st-order terms; (c) organise 1st-order codes into 2nd-order (theory-centric) themes; (d) distil 2nd-order themes into overarching theoretical dimensions; and (e) assemble terms, themes, and dimensions into a “data structure” (Gioia, Corley & Hamilton 2012).

After the focus group discussions had been conducted and transcribed, data were organised into 1st and 2nd-order categories to facilitate their later assembly into a more structured form. In the 1st-order analysis, we tried to adhere faithfully to informant terms and made little attempt to distil categories, which led to a large number of 1st-order terms for each focus group discussion session.

In the 2nd-order analysis, we were firmly in the theoretical realm and focused on organising the 1st-order terms into researcher-driven concepts and themes. We then examined the structure and interrelationships of the 2nd-order themes and further organised into 2nd-order aggregate dimensions.

Gioia et al. (2012) highlighted the importance of creating a robust data structure for a rigorous qualitative research for two reasons: the first one enables a better understanding and visualisation of the research data flow, while the second one may underpin the formation of new theoretical concepts e.g., ‘theoretical saturation’ (Glaser, cited in Gioia, Corley & Hamilton 2012). The full set of 1st-order terms and 2nd-order themes and aggregate dimensions formed the basis for building a data structure, which then informed the development of the new framework for enabling sustainable procurement.

3 VALUE OF SUSTAINABLE PROCUREMENT

3.1 First-order analysis

Focus Group 1 (FG1) discussion aimed to identify the value of sustainable procurement to meet organisational targets across environmental, social, economic and governance dimensions. Participants were asked to provide their insights in the focus group discussions which were guided by the questions as shown in Table 1. Participants were representatives from government, private and public clients, contractors and non-governmental organisations (NGOs). To facilitate the writing of this section, participants are grouped in two general categories: government participants belong to group (A), while non-government participants are allocated to group (B), respectively. In total, 77 original 1st-order terms were identified based on the responses given by participants (participants' driven themes), which are listed in the Appendix.

Question 1: What does sustainable procurement mean for your organisation?

All participants both from the public and private sectors agreed with the fact that the social, environmental, and economic impacts are considered by their organisation to procure sustainably. For instance, a government participant (A4) argued that *'I guess it's a form of sustainable procurement policy because it talks about our government advancing not just our economic, but our social and environmental objectives'*. Similarly, participant (B1) from the industry highlighted the social side apart from the economic perspective *'we also have bolstered our diversity and inclusion which supports our reconciliation action plan'*, while participant (B2) emphasised the environmental sustainability by stating that *'we've got actually pretty good data going back ten years on environmental footprint'*.

Also, the participants from both government and non-government sectors mentioned the importance of aligning their organisation policy with Modern Slavery Act and other regulations and standards such as ISO 20400;2017 to avoid any ethical risks throughout procurement. For example, participant (B1) from the industry pointed out *'...what we're doing is establishing minimum standards of how we practice in procurement with obviously modern slavery and the audit requirements from maintenance operations through to build for our health and safety...'*. On behalf of the government side, participant (A2) concluded that *'there's a whole lot of rules and requirements that touch on sustainability and aspects around modern slavery...'*, where stakeholder (A5) said that *'we also look at ethical considerations when it comes to procurement making sure our government's doing business with ethical suppliers'*.

Different organisations have different sustainability priorities. Some government representatives responded that the focus regarding the sustainable procurement is mainly on materials and how these can be recycled to support the circular economy and mitigation of their carbon footprint. In particular, participant (A1) mentioned that *'now we are looking at the updated procurement rules and modern slavery etc. But in our space we've been focusing primarily on materials'*. Regarding the increased interest of the government sector in recycling, representative (A2) highlights this matter by quoting *'But our guide is now much more focused on the in increasing governments user recycled content'*. In respect to materials' carbon footprint the government representative (A6) referred to this matter specifically by saying that *'So, for most part it's around lower environmental impact of what we're doing and driving the use of recycled materials and low carbon products through our supply chain'*.

Participants from the private sector emphasised that sustainable procurement ensures the growth of local businesses through inclusion as well as the effectiveness of investments in social and other types of infrastructure. Apart from that, sustainable procurement can contribute to the quality of products/services and mitigation of lice cycle costs in supply chain. Participant (B3) argued that *'it means making sure those investments in social or other types of infrastructure is able to meet social,*

environmental, economic needs now and into the future'. The same participant also highlighted the added value of sustainable procurement by arguing that *'It's about driving better outcomes whole of life outcomes, reducing operational costs, providing value for money'*. In relation to the opportunities that sustainable procurement can create to the local market, participant (B2) stated that *'there is local preference in the regions'*, while participant (B1) notified the supportive role of reporting mechanisms to local business.

In summary, themes related to the social aspect of sustainable procurement are dominant as they are common in both groups of participants. Specifically, *'Modern Slavery'*, *'Indigenous Procurement'*, *'Ethical Supply'* and *'Social Impact'* are such type of themes. Conversely, themes that are related to the economic aspect of the sustainable procurement can be found in the second group B mainly as only one representative from the governmental sector played direct emphasis on this matter. Such themes are *'Economic Impact'*, *'Circular Economy'* and *'Life Cycle Costs'*, respectively. Last but not least, themes associated with the environmental aspect such as *'Recycled Content'*, *'Low Carbon Materials'* and *'Environmental Impact'* exist in both groups in a balanced manner. Despite that, measuring the environmental and social impact that is associated with the procurement process is still at the early stage in both the governmental and non-governmental organisations.

Question 2 · How would your organisation align sustainable procurement to organisational targets?

This question aims to discover how sustainable procurement can contribute to achieving organisational targets. Various responses have been received regarding this matter as each organization has different targets and strategies. From a governmental perspective the alignment of sustainable procurement to organisational targets is shaped by the requirements set by the federal or state government as well as the organisational led policies/strategies and management process. Such social requirements could involve inclusion, equity and diversity, where clients need to underpin as part of their procurement contract. For example, participant (A6) stated that *'You might have indigenous engagement which is driven through a target that is set by the federal government. Or it will be quite local, which is the target that is set by the state government as the condition of our funding'*.

The dedication of the governmental sector to support the local and minority communities through sustainable procurement policies/strategies can also be navigated from participant's (A4) statement, who highlighted that *'any procurement activity shouldn't be pursued unless it is in line to the organizational targets...someone undertaking a procurement activity in area like Thursday Island would look first to see what they can do for the Aboriginal community before undertaking that procurement.'* Private sector also initiated policies to support the local and minority communities as indicated by a participant (B1) from the private client that, *"looking at Indigenous procurement before we go to the market, to see what's available so we can create a better engagement process in that supply chain and then the diversity and inclusion, being an actor in that space as well through our organisation"*.

Most of private clients align sustainable procurement practices to organisational targets through internal governance structure, individual performance targets as well as measuring tools, surveys and audits. For instance, participant (B1) said that *'we have our governance, we have our individual performance targets, particularly in their management, Senior Management Forum, to drive sustainability and sustainable procurement practices within the organization'*. In relation to measuring tools the participant said that *'we do a supplier selection survey and there's also audits that we conduct. That's one of the main ways that we will align sustainable procurement to organisational targets'*.

Further to this, participant (B3) argued that *'rating tools such as Green Star and ISCA can be used to align sustainable procurement to organisational targets and guide the users on how to deliver, measure and benchmark the outcomes'*. It is worth mentioning that government representative (A4) also referred to the importance of such tools by saying that *'having tools that effectively evaluate and measure social, financial and environmental outcomes that demonstrate real value is of significance to the sustainable procurement agenda'*. Though, government organisations need to prove the value for money by considering a life cycle approach according to participant (A1), who explained that *'for recycled options in our roads or whatever it is, we have to always prove that it's going to meet the performance requirements and we have to apply whole of life costing'*.

The need for considering a holistic approach to create value through sustainable procurement process is further mentioned by the industry's representatives. Particularly, they argued that procurement practices need also to be aligned to the value of the company by considering the customer needs and life cycle costs. Participant (B1) stated clearly that customer needs and share price are considered to balance sustainability cost and future benefits by saying that *'what does the customer want? Which is the driver without compromising the share price, right? Yeah, and the share price is...sustainability is an actor on the share price'*. Additionally, participant (B4) highlighted that *'So, simply there is a definite moving in the procurement professional world to look more holistically at the evaluation of what they're buying, and specifically trying to align that to the goals and values of the company'*.

The importance of adopting a life cycle approach in procurement process towards enhancing the value creation has also been highlighted by two government representatives. Specifically, participant (A4) *'so, I think the evaluation piece and having tools that effectively measure social, financial and environmental outcomes that demonstrate real value is such a significant piece with this agenda for whatever it works'*. Similarly, participant (A1) said that *'I think in government typically what we've seen is a more sophisticated approach that would involve looking to internal a whole of government policies or guides to find what objectives have been set, and from those you know what outcomes have been committed to, and making sure that those objectives or outcomes are considered at each stage of the investment lifecycle'*.

In summary, all participants agreed upon that aligning sustainable procurement practices to long-term organisational targets should be number one priority. This can be accomplished by embracing social requirements into their procurement policies and strategies as well as by integrating measuring and rating tools. By doing so, both public private clients can engage and evaluate suitable suppliers that are able to meet sustainable requirements. Key themes that have been extracted from the participants' responses to question 2 are synoptically listed below:

- Private clients use supplier selection survey and audits to align sustainable procurement to organisational targets.
- Private clients align sustainable procurement practices to organisational target through internal governance structure, individual performance targets, senior management forum.
- For private clients, customer needs and share price are considered to balance sustainability cost and future benefits.
- For government organisations, the alignment of sustainable procurement to organisational targets is shaped by the federal or state government requirements, organisational led policies and strategies as well as management process.
- Government organisations need to prove value for money and apply whole of life costing.
- Objectives set by government policies or guides need to be considered at each stage of the investment lifecycle.
- Rating tools (e.g. Green Star, IS rating tool) can be used both by government and clients to align sustainable procurement to their organisational targets and guide the users on how to deliver, measure and benchmark the outcomes.

- There is a moving in the procurement professional to align the procurement activities to the goals and value of the company.

Question 3: What mechanisms or approaches are there in your organisation to assess the value of sustainability?

Different mechanisms have been identified based on the responses of participants. The various mechanisms can be grouped into three main categories: 1) legislation; 2) tools and procedures; and 3) market. The first category mainly involves the legislations such as Modern Slavery Act which requires the organisations not just to identify and mitigate risks, but it requires organisations to measure the impact of these changes. The second category embraces tools and procedures through which organisations can utilise to measure the value of sustainable procurement and compare with other best practices and standards exist internationally. Such tools include tendering, key performance indicators, reporting standards and rating schemes. The third category refers to the need for documenting the market and customer needs by conducting market research and analysing the benefits of procuring sustainably.

Most of the participants highlighted the importance of tools and procedures in measuring the social, economic, and environmental performance. Measuring social impact has been identified by the participants as a challenge. Quantifying the social impact could be a challenge for their organisations as it seems that there is a complexity in what has to be particularly defined. For instance, the government representative (A4) mentioned that *'I think that's a challenge because there are many channels to delivering sustainable procurement...you don't have just a sustainable procurement tool that just comes in and perfectly measure every single avenue of what social and sustainable procurement can represent'*.

Assessing the value of sustainable procurement also presents complexity in terms of how it should be measured as both quantitative and qualitative criteria need to be employed according to participants. From a private client perspective, participant (B1) referred to this matter saying that *'we are still very much in our infancy and how we measure sustainable practices. We are trying to embed it in our tendering processes'*. Also, participant (B2) emphasised that *'there's compliance criteria, quantitative criteria...but we also have qualitative criteria in there as well, and we've just started. With the compliance criteria, we just started rejecting companies if they don't pass that test'*. Similarly, the government representative (A1) mentioned that its organisation is in its infancy regarding this matter by saying *'it is really a challenge for us at the moment. We are almost just trying to establish some baselines to understand where we are in a lot of areas'*. Therefore, both government and industry face challenge to assess the value of sustainable procurement.

Using quantitative indicators seems to be more attractive for both public and private sectors. For instance, participant (A1) stated that *'Late on trying to sort of quantitatively put a value on the broader social impacts and the support to local communities and all of other benefits that might occur very much in a place of trying to get some baseline in going on'*. The government representative (A5) specified these benefits from a monetary perspective saying that *'we try to look at a way that we can measure the economic benefit to a local community or the jobs supported by a particular project'*. Also, participant (A4) linked the monetary and quantitative approach with the social aspect of the value by clarifying that *'In the social procurement space we report on our spent with certified social traders, enterprises and also looking at reporting on us spend with social enterprises'*.

There is a constant moving from the industry to develop mechanisms that can measure qualitative indicators-criteria such as 'access to amenities', 'education and training of Indigenous', 'safety performance', etc to assess the value of sustainable procurement successfully. Participant (B3) argued that such mechanisms could be the GBCA and ISCA rating tools as they both incorporate

social sustainability and issues of resilience as well as economic sustainability indicators. The same participant highlighted that *'we recognize that a sustainable community is not just about environmental outcomes. It's also about things like access to amenities, access to fresh food, resilience'*. The contribution of these rating tools to better sustainable outcomes from large projects was also highlighted by the government representative (A6) who explained that these mechanisms *'can help us measure how broadly we're able to apply sustainability within our big contracts and big projects'*.

In summary, there is an increasing interest of the government and industry's stakeholders to assess the social impact of sustainable procurement towards accomplished its total value. According to participants this can be achieved by analysing the market to identify customers' needs, by complying with the Modern Slavery Act to avoid any ethical risks, by incorporating social requirements in the tendering process as well as by utilising rating tools. Participant (B4) emphasised that *'Objective evaluation of the sustainability impact is needed'*. The key themes about the mechanisms that are employed by stakeholders to assess the value of sustainable procurement and have been resulted based on the participants' responses are listed below:

- Reporting on the spend with certified social traders and enterprises and social enterprises
- Measure economic benefits to local community for major construction projects
- Compliance criteria and safety performance in tendering
- IS rating tool is used to measure the level of sustainability practices for infrastructure projects
- Green Star rating tool has been updated to broaden the focus on sustainability beyond environmental sustainability to incorporate in social sustainability and issues of resilience, also, economic sustainability
- Modern Slavery Act is forcing the organisations not just to identify and mitigate risks, but it actually requires organisations to measure the impact of these changes
- Private companies have an increasing interest in social procurement

Question 4: What would impede the implementation of sustainable procurement practices in your organisation and wider industry?

This question aims to identify the barriers that could be either from the internal or the external environment and prevent the successful implementation of sustainable practices. Potential opportunities for improving sustainable procurement practices were also observed in the focus group discussions. Several barriers have been identified based on the participants' responses to this question. From an overall perspective, these barriers can be grouped into three broad theme-categories: 1) poor data management, 2) lack of clarity in tendering including competing sustainable requirements, and 3) lack of organisation culture, including staff, procedures, and technology. These three broad categories are analytically explained over the next few paragraphs by presenting some of the most important arguments and quotes from participants.

Regarding the first category, data availability and robustness play a critical role to capture the value of sustainable procurement. The government representative (A6) highlighted that *'without data you can't measure what we were able to achieve or what impact you're making with that'*. Participant (B2) from the industry argued that cost data is essential to shift decision making from outsourcing to low-cost suppliers/countries to sustainable ones. Particularly, the participant said *'the data transparency and robustness of that resourcing is an issue here... EBITDA is a massive thing for us at the moment...so if it doesn't cost us anymore and hits the triple bottom line, no problems. But if it does cost a bit more and you need to pass that on... for housing, at least you lose jobs to the competition for a few hundreds of dollars. So, tragedy of the common, where you don't capture that value, that's a barrier'*. Also, cost data is at the top of the agenda for government organisations; participant (A2) argued that *'it is essential to factor the cost of sustainability activities in budget'*.

Apart from cost data, government representatives were also concerned about data which is out of the supply chain as missing such type of information may put an organisation at risk. Specifically, the representative (A6) said that *'within your contract being able to easily get from your contractors, the information that you need to assess what's going on there, but also the data, that is applied to different materials, so you can understand their carbon impact or what's the recycling impacts'*. Further to this, participant (B3) mentioned the importance of having post completion reviews pertained to government procurement. According to this participant such reviews help to understand the benefits of the sustainable procurement, particularly *'the lack of post completion reviews means there's less understanding around the benefits of sustainable procurement approaches where they are tried and seem to be effective, but they can't be applied to future projects because there's no data available to help build the case for reform'*.

Another significant barrier for implementing sustainable procurement is the lack of transparency and visibility in the supply chain, including its complexity. For example, participant (B4) highlighted that *'we don't even know what theory of our supply chain is...today it's hard enough to know what's in tier two level in fact. So I think that transparency and visibility is the other big issue.'* According to participant (A1) the need for setting clear sustainability requirements and a simplified guidance is also very important to foster the sustainable procurement. Particularly, the participant stated that *'So, we really have to focus on making it easy for people... they literally just want us to say: «here you go, here's what we want, here's the list of great products».'* Similarly, the government representatives (A2) and (A4) argued accordingly: *'we need to be influential and encouraging as we can and make it as easy as we can'* and *'you can guide people in the right way and steer them in when they're busy...make it easy for them, make it digestible'*.

The lack of transparency and simplicity in the tendering process could also lead to competing requirements as participants mentioned. Participant (A1) said that *'we often have this challenge of competing requirements (at least with infrastructure projects). But it comes up at the end of the project when there's not enough money and there's too many things that need to get done... so there's a scope and a budget, and then, we go 'all right, here's all the requirements on top of that'*. According to the same participant to overcome this barrier is to secure some funding earlier on or *'get a say in write early on in the piece'*. Furthermore, the government representative (A4) confirmed that by stating *'I want to say that never happens, there's never any competing priorities, but of course there is'*, and mentioned an example within state government *'in pursuing some environmental outcomes, it resulted in money ... this particular example being taken away from an Aboriginal business'*.

The third category involves the organisation culture, including staffing, education and training as well as the adoption of technology. Participant (A6) argued that the capability of an organisation (in terms of its resource) is the next most significant barrier after data availability that can impede the successful implementation of sustainable procurement. The participant quoted that *'being able to apply enough resources to managing or even driving outcomes, so resource just people in general or innovative ways of being able to do the practice of sustainable procurement. And to tie together with that is capability as well having enough practitioners and enough people who understand sustainable procurement and its value and how to drive it'*. The resource matter as a barrier for an organisation to promote the benefits of sustainable procurement was also highlighted by participant (B2) saying that *'with the data transparency and robustness of that resourcing is an issue here. So, I'll throw in culture.'*

Further to this, the critical role of the human resources to drive change management within an organisation towards fostering sustainable procurement has been highlighted by some of the participants. Particularly, participant (A7) emphasised that *'So, it's definitely a process of behaviour change, education and providing information and connecting with supplies and with industry to be able to identify opportunities for sustainability.'* The need for educating and communicating with staff effectively towards changing attitudes and behaviours has also been raised by participant (B4);

the latter stated that *'there are other priorities that people have. People often tend to focus on what they're measured by. So you should motivate people in some cases. So that human education and engagement is always going to be the most or the biggest barrier to overcome'*. Also, participant (B3) argued that the lack of qualified professionals on tender preparation team and assessment panel that can advise on sustainability aspects can impede sustainable procurement.

The importance of having competent people to apply the required steps to accomplish the sustainable procurement objectives in the relevant projects was emphasised by the government participant (A1). The participant stated that *'often we have these policies and requirements in there, but they don't get checked. We will sign off projects at the end and not check that we've got what we want, we paid for. So that is a big challenge, especially for big organizations.'* However, apart from people, participant (A7) from a government perspective argued that technology could be a barrier for promoting sustainable procurement. In particular, the government delegate mentioned that *'the fast development of technology essentially shortens the lifespan of a product'*.

In summary, the human factor was identified one of the most important barriers for implementing sustainable procurement. Data management and clear requirements were also highlighted as significant barriers regarding this matter. The key-themes that were identified based on the participants' responses are synoptically listed below:

- poor data (including KPIs); resources/capability for sustainable procurement
- lack of clear requirements and simply guidance on sustainable procurement
- fast development of technology essentially shortens the lifespan of a product
- culture and mindset of the industry
- government clients need to be influential and encouraging and simplify the process
- lack of understanding around broader social or environmental co-benefits
- lack of post completion reviews results in less understanding around the benefits of sustainable procurement
- lack of qualified professionals on tender preparation team and assessment panel that can advise on sustainability aspects.
- lack of education and communication
- lack of post-contract compliance check

Question 5: How can we link the opportunity for more robust supply chains to Australian government initiatives?

The last but not least theme for discussion describes the potential opportunities that can result from client-driven initiatives, and in particular government initiatives. Most of participants mentioned that to create opportunities around sustainable procurement a holistic perspective is required, which is to go beyond the compliance with the requirements of a procurement policy. Based on their responses opportunities can be group into two major categories: 1) market engagement and 2) government incentives.

According to the government representative (A4), whether the engagement of the local market can be successful or not it primarily depends on the level of the awareness of an organisation's staff about the benefits of sustainable procurement. In particular, these benefits should be translated as opportunities for the organisation, the local suppliers as well as Indigenous or other types of minority communities. Also, being ethical and aspire others has been identified as an opportunity by the same participant by saying that: *'it's about asking the market the right questions and you can ask: are they partnering with a social benefits supplier in their supply chain? So there's a real opportunity there, not just to be compliant, be aspirational and align all your procurement documentation accordingly'*. Similarly, representative (A7) highlighted the importance of the staff awareness of such opportunities by stating that *'...for staff really knowing what's the opportunity – what opportunities are available to procure goods and even particularly services'*.

Once these opportunities have been identified for the local society then an alignment of the procurement documentation to what the organisation aspires to achieve should be made. For instance, participant (A4) explained that, *'...9 out of 10 people are going to ask: What's the social benefits supplier? So then you provide some details in your tender documentation and you point people in the right direction.'* On the other hand, private client (B5) emphasised that these opportunities should come through market's collaboration. In particular, the participant argued that *'we also talk about market driven solutions...and the opportunity to grow business, opportunity through working with the private sector and encouraging outcomes that achieving the goal that we jointly looking for these benefits.'*

To enhance this collaboration and engagement, participant (B3) suggested two ways. The first way is to employ rating tools, particularly the Green Star, which incorporates credits that seek to reward the use of sustainable products. By doing so, the end users can be influenced to be engaged in sustainable procurement, apart from suppliers. The second way is that the state government should publicise the relevant initiatives such as workshops, forums etc, to actively engage stakeholders. Though, the participant mentioned that *'the industry is well aware of those policy objectives or commitments or initiatives that governments are trying to progress.'* The same participant also referred to an example on behalf of a state government regarding the reduction of embodied carbon within supply chain as best practice.

One of the most effective tools that can be used to engage the market and advocate sustainable procurement is the 'government incentives' according to most participants. More specifically, the industry's participant (B2) argued that each state government should use this tool to engage stakeholders to impose its policy and standards. To support this argument, the participant mentioned: *'...I just think immediately of carrots and sticks. So the government can offer incentives by preference certain criteria equally they can work with sticks, and bring in standards, whether those standards are transparency or rigor, and your contentions.'*

In summary, to engage stakeholders and foster the sustainable procurement effectively, a win-win strategy should be adopted both from the government and industry side. The former needs to incentivise suppliers and users by promoting the benefits of sustainable procurement and supporting the relevant opportunities in a transparent way; while the latter should be aware of and prepared for those incentives/initiatives and actively participate in them. The key-themes that have been extracted around this question are listed below:

- Go beyond just compliance, and proactively align all the procurement documentation to what the organisation aspires to achieve (e.g., asking the right questions)
- Publicise and promote government initiatives by actively engaging the supply chain (e.g., workshops, forums, community of practice)
- Incentives and market driven solutions for growing private businesses (carrots) - Government policies and standards (sticks)
- Using rating tools to influence both users and supply chain - Green Star Rating tools include credits that seek to reward the use of products that meet criteria that set out in the responsible products framework.

3.2 Second-order analysis and data structure

The second order analysis mainly involves the transition from the '1st-order concepts' to the '2nd-order themes' and 'aggregate dimensions'. Particularly, the '1st-order concepts' were developed after refining the original 'participant driven themes' to extract the essential information and simplify the data structure. The '2nd-order themes' or 'researcher-driven themes' have been derived from the synthesis of the '1st-order concepts' with the literature review around the value of sustainable procurement. The last stage of the second order analysis aims to organise the resulted

'2nd-order themes' into 'aggregate dimensions' to further reduce the data volume and build a comprehensive data structure.

As mentioned in the previous section regarding the 1st-order analysis, 77 in total 'participant driven themes' were originally identified. These 77 'participant driven themes' were then refined and 39 '1st order concepts' were eventually obtained. From these 39 '1st-order concepts' and after reviewing the literature around sustainable procurement, 16 '2nd-order themes' were generated. Finally, the '2nd-order themes' were grouped into 3 'aggregate dimensions' to form the data structure that can be used as a baseline to develop theory around the value of sustainable procurement. Figure 3 illustrates the data structure, which consists of 39 '1st order concepts', 16 '2nd order themes' and 3 'aggregate dimensions'.

The aggregate dimension 'Drivers' has been developed based on three '2nd order themes', particularly 'Government Intervention', 'Client Requirements' and 'Organisational Pressure'. These '2nd order themes' have been resulted after examining sixteen '1st order concepts' and reviewing the literature review around this topic specifically (Drivers). As can be concluded, the '2nd order themes' are related to both the external and internal environment; external drivers are connected to 'Government Intervention' and the need to meet 'Client Requirements' (Ruparathna & Hewage 2015), while internal drivers such as 'Organisational Pressure' are related to the higher management (Crespin-Mazet & Dontenwill 2012). Table 2 lists the 16 '1st order concepts' and 3 '2nd order themes' on the first and second column, respectively.

Table 2: Aggregate Dimension – Drivers

1st order terms (original participant driven themes)	1st order concepts (refined participant driven themes)	2nd order themes (researcher driven themes)
<ul style="list-style-type: none"> • The government has significant market influence. And for the supply chain, the motivation or incentive would be to win future work or ongoing opportunities. • Community pressure, e.g., protests, may drive behavioural/practice changes in the government. • Modern Slavery Act is obviously forcing the organisations not just to identify and mitigate risks, but it actually requires organisations to measure the impact of these changes. • Possible opportunities for waste trading to exchange products with good fit for purpose. 	<ul style="list-style-type: none"> • Legislation and regulations • Public concerns • Public policies • Governmental incentives 	Government Intervention
<ul style="list-style-type: none"> • Market research on customers is a way to assess the value of sustainability for private companies. • For private clients, customer needs and share price are considered to balance sustainability cost and future benefits • Government agency needs to prove value for money and apply whole of life costing. • The private client reports supplier performance publicly in terms of the sustainable procurement practice and that makes it transparent. • Upcycling of single use plastic waste material into a value-added product. 	<ul style="list-style-type: none"> • Customer needs • Investor confidence • Value creation • Stakeholder expectations 	Client Requirements
<ul style="list-style-type: none"> • The private contractor explains how priority for the project was set clearly and reflected in the contractual agreement and management. The choice of priority was determined by the long-term 	<ul style="list-style-type: none"> • Risk management • Gaining competitive advantage • Need to report to Investors 	Organisational Pressure

1st order terms (original participant driven themes)	1st order concepts (refined participant driven themes)	2nd order themes (researcher driven themes)
<p>future of the business and the relationship with significant suppliers.</p> <ul style="list-style-type: none"> • In the context of the government client, people are not willing to pay a premium for sustainability. However, if sustainability is phrased as a better risk management, people would be more willing to pay. • The private client uses public reporting against the GRI standards. As a listed company the private client has to respond to investor surveys with regard to sustainability agendas, supply chain, management, policy and processes. • The consumers are the market and the private sector is driven by that. The disruptive technologies also have an impact as companies thinking 2 or 3 steps ahead. Business is driven by opportunity so as consumers change, businesses will change. • Driving sustainability also improves efficiencies for the suppliers, not just ticking a box and saying we are doing the right thing. It's a big lever for the government to encourage sustainable business practices in the supply chain which includes a lot of SMEs. • The private client sets expectations for suppliers. Meeting the expectations and requirements puts contractors and suppliers in a list of preferred providers. This practice can be considered incentives (based on performance). • Initial cost premium for sustainability tends to decrease (the examples of LED lighting and solar) "being listed as a preferred contractor is enough incentive" • ESD requirements and 'Green Star' rating enable the organisation to cater to the customer demands 	<ul style="list-style-type: none"> • Decreasing in initial cost premium for sustainability • Long-term supplier Engagement • Innovation and technological advancement • Improving efficiencies for suppliers • Long-term supplier commitment 	

Studies have showed that costs, data availability, complexity in decision making, poor communication, lack of staff awareness around the benefits of sustainable procurement and absence of sustainability targets in policy and strategy of an organisation are considered some of the most important barriers for the implementation of sustainable procurement (Ershadi et al. 2021; Belfitt et al. 2011; Haake & Seuring 2009; Meehan & Bryde 2011; Ruparathna & Hewage 2015; Zaidi et al. 2019). Apart from that, the 1st order analysis disclosed some other barriers such as lack of training, absence of post reviews checks, traceability and visibility of the supply chain and technology, including outdated measuring tools. By considering the findings of the literature and '1st-order concepts', three '2nd-order themes' were obtained including organisational, process and contextual constraints. Table 3 displays the results of the 2nd-order analysis for the aggregate dimension of barriers.

Table 3: Aggregate Dimension – Barriers

1st order terms (original participant driven themes)	1st order concepts (refined participant driven themes)	2nd order themes (researcher driven themes)
<ul style="list-style-type: none"> • Private companies tend to focus on short-term goals. There is a challenge for procurement professionals as traditionally the primary measure 	<ul style="list-style-type: none"> • Traditional measure of success focuses on cost reduction 	Organisational constraints

<p align="center">1st order terms (original participant driven themes)</p>	<p align="center">1st order concepts (refined participant driven themes)</p>	<p align="center">2nd order themes (researcher driven themes)</p>
<p>of success focuses on cost reduction. There is a moving in the procurement professional to align the procurement activities to the goals and value of the company.</p> <ul style="list-style-type: none"> • There's still a lack of willingness to pay for sustainability. The value for money and cost benefits (apart from risk benefit) that sustainability can bring had to be communicated to various stakeholders in the government. It's even harder to pay more for sustainability in maintenance contracts due to the tight budget. • Rating tools like Green Star could have the cost premium to organisations. So, there could be organisations that still deliver sustainable solutions without achieving a Green Star rating • Businesses can be cost driven, especially during difficult economic times. There may be resistance from the cost point of view when sustainability is introduced. • Lack of integration of sustainability into organisational and personal performance indicators • Lack of trained and qualified professionals on tender preparation team and assessment panel that can advise on sustainability aspects. 	<ul style="list-style-type: none"> • Lack of dedicated staffing and resources • Lack of linking sustainability to performance indicators • Lack of training and communication • Financial difficulties • Willingness to pay due to tight budget 	
<ul style="list-style-type: none"> • Lack of chain of evidence for materials • Data availability and transparency to capture the value of sustainable procurement • Lack of understanding around broader social or environmental co-benefits • Different industry is at different stages of being able to provide products or goods that contain recycled content. Shortened lifespan of a product due to fast development of technology • Challenge in demonstrating value for management 	<ul style="list-style-type: none"> • Traceability of supply chain • Lack of supply chain transparency and visibility • Lack of understanding around broader social or environmental co-benefits • Shortened lifespan of a product due to fast development of technology 	Contextual constraints
<ul style="list-style-type: none"> • Data availability and transparency to capture the value of sustainable procurement • Data that help to drive sustainable procurement include data about supply chain and data about materials. • Lack of post completion reviews results in less understanding around the benefits of sustainable procurement • Rating tools like Green Star could have the cost premium to organisations. So, there could be organisations that still deliver sustainable solutions without achieving a Green Star rating. • Objective evaluation of the sustainability impact is needed. 	<ul style="list-style-type: none"> • Lack of tools and data for objectively evaluating the value and impact of sustainability • Lack of clear and simplified guidance on sustainable procurement • Lack of post completion reviews resulting in less understanding around the benefits of sustainable procurement • Competing targets 	Process constraints

Studies have shown that enforcing the industry to adopt sustainable procurement practices can trigger the sustainable procurement in a more effective way than voluntary initiatives. For instance, de Leonardis (2011) concluded that ‘invitations’ and ‘recommendations’ about sustainability may impact less than the ‘mandatory behaviour with corresponding liability’, accordingly. Also, Rugarathna and Hewage (2015) argued that ‘legislation’ and ‘governmental policy’ can foster the implementation of sustainable procurement rather than voluntary sustainability initiatives. However, Peenstra and Silvius (2017) suggested that apart from ‘regulations’, ‘market’, ‘technology/tools’ and ‘value network’ can further be defined as significant external enablers for sustainable procurement (Stewart, cited in Peenstra & Silvius 2017). Apart from the findings of the literature, 38 participant driven concepts from the 1st-order analysis have been considered and eventually, 10 major ‘researcher driven themes’ were obtained and an aggregate dimension Enablers was developed. Table 4 presents these ‘2nd order themes’ along with their related ‘1st order concepts’.

Table 4: Aggregate Dimension – Enablers

1st-order terms (original participant driven themes)	1st-order concepts (refined participant driven themes)	2nd-order themes (researcher driven themes)
<ul style="list-style-type: none"> • Having tools that effectively evaluate and measure social, financial and environmental outcomes that demonstrate real value is of significance to the sustainable procurement agenda. • Measure economic benefits to local community for major construction projects. • Compliance criteria is used for the go/no go decisions in tendering. • Safety performance and carbon costs are considered in tendering. • Government (Infrastructure) has developed Infrastructure Decision Making Principles that provides some high level guidance on best practice regarding valuation approaches, decision making, principles considerations. • Previous version of IS rating tool was used to assess the return on investment in terms of environmental impact. • Appropriate probe during the tender process can help drive particular policy objectives (both sustainable and social) through Tier 1 level and their supply chain. • Performance of local suppliers is evaluated using a survey where they respond to issues and provide evidence. It’s like an audit process. • Maybe we need to quantify the sustainability impacts to make more objective decisions. • Reporting on the spend with certified social traders and enterprises and social enterprises is a way to measure the impact of social procurement. 	<ul style="list-style-type: none"> • Demonstrating the value of sustainability • Measuring the economic benefits to local community • Evaluating the impact of sustainable procurement practices • Assessing tenders • Integrating sustainability into procurement process • Aligning sustainable procurement to organisational targets • Standardising operations 	<p>Developing and applying tools and procedures</p>
<ul style="list-style-type: none"> • Opportunities: 1) Behaviour change; 2) Education and providing information; 3) Engaging suppliers; 4) Publicise and promote government initiatives by actively engaging the supply chain (e.g., workshops, forums, community of practice) • Barriers: 1) Data availability and transparency to capture the value of sustainable procurement; 2) Culture and mindset of the industry 	<ul style="list-style-type: none"> • Changing behaviours • Changing culture • Changing organisation and process 	<p>Transforming industry practices</p>

<u>1st-order terms</u> (original participant driven themes)	<u>1st-order concepts</u> (refined participant driven themes)	<u>2nd-order themes</u> (researcher driven themes)
<ul style="list-style-type: none"> • For the public sector, it's also important to communicate the ambition and set expectations clearly 		
<ul style="list-style-type: none"> • The client can engage with the market through supplier briefings and expression of interest prior to the tender process to communicate expectations. This practice provides opportunities to probe the supply chain. This practice also enables innovative offerings prior to tendering. • There are opportunities for government clients to work with the market to collaborate and continually improve. By doing so, requirements are rationalised prior to the project. Market engagement activities help ready suppliers by communicating the requirements and listening the challenges the supply chain is facing. Early engagement could also facility local opportunities. • Early engagement with suppliers can bring in innovations and ideas. Having a long term partnership allows for better use of knowledge of the industry partner • Opportunity: Using rating tools to influence both users and supply chain - Green Star Rating tools include credits that seek to reward the use of products that meet criteria that set out in the responsible products framework. • Highlighted the importance of creating more reliable supply chains • The private client sets expectations for suppliers. Meeting the expectations and requirements puts contractors and suppliers in a list of preferred providers. This practice can be considered incentives (based on performance) • Incentives and market driven solutions for growing private businesses (carrots) • Government policies and standards (sticks) • The private contractor explains how priority for the project was set clearly and reflected in the contractual agreement and management. The choice of priority was determined by the long term future of the business and the relationship with the most significant supplier. • The government can give the market a lot of lead time prior to procurement of big projects by having a clear forward procurement schedule. The lead time allows the [local] market to prepare, get ready and take advantage of the opportunity. The government client should have a clear picture of what is being procured and then use category management approach (grouping different kinds of procurement) to improve efficiencies. A good example is the Commonwealth Games in 2018. 	<ul style="list-style-type: none"> • Early engagement of suppliers • Using early engagement to facilitate local opportunities • Long-term partnership • Incentives • Setting expectations • Stakeholders' role • Creating more reliable supply chains • Using category management approach 	Engaging suppliers
<ul style="list-style-type: none"> • The private contractor gives an example of how the use of cost plus reimbursement model with financial incentive for performance drives good performance 	<ul style="list-style-type: none"> • Early involvement of contractors/suppliers 	Contracting form

<u>1st-order terms</u> (original participant driven themes)	<u>1st-order concepts</u> (refined participant driven themes)	<u>2nd-order themes</u> (researcher driven themes)
<p>(environmental impacts in this case). It allows for the focus on performance, not cost.</p> <ul style="list-style-type: none"> Public client needs to be clear on the specific credits they need to target to drive sustainable procurement outcomes. Rating tool is an effective approach, which has been adopted by some government department. Alternatively, setting minimum requirements for specific aspects (e.g., materials) is another approach. Early engagement with suppliers can bring in innovations and ideas. Having a long term partnership allows for better use of knowledge of the industry partner. It is essential to factor the cost of sustainability activities in budget. 	<ul style="list-style-type: none"> Partnership and alliancing Innovations in contract model to allow for focus on performance rather than cost Setting minimum requirements for specific sustainability aspects. Factoring cost of sustainability activities in budget 	
<ul style="list-style-type: none"> Government clients need to be influential and encouraging and simplify the process. To promote innovation, procurement needs to be not too prescriptive. It could be a challenge in areas where things (materials) are well considered and well tested. Collaborative research could promote innovation from the government perspective as well, for example, potential regulatory barriers can be looked at. The government should and can play a role in facilitating industry and market opportunities. The government can work with industry bodies to understand the market practices and raise awareness. The government can even help facilitate the certification process to get the local market ready for tendering opportunities. These practices can be effective given the purchase power the government has. The government can have clear policy objectives around delivering local benefits and have selection weightings for them. The private client has to reply on the head contractor in influencing the supply chain. And this applies to many aspects including the use of Green Star rating tool, reconciliation action, indigenous engagement, social procurement, people of disability. Transitioning from policy to practice would need some time for the suppliers to adapt if we don't want to "shut them out" Industry bodies like Property Council of Australia play a coordination role in bringing organisations together to deliver solutions that meet all of their needs. Informed 365 is an example. Adopting sustainable procurement practices also depends on the individual in charge in an organisation. For government procurement, sustainability is broad therefore in some areas, mandatory requirements can be made, for many other areas the strategy is to influence, support and encourage. 	<ul style="list-style-type: none"> Client leadership Personal leadership Collaboration and partnership Stakeholders' role Mandatory requirements Collaborative supplier selection platform 	Leadership and collaboration

1st-order terms (original participant driven themes)	1st-order concepts (refined participant driven themes)	2nd-order themes (researcher driven themes)
<ul style="list-style-type: none"> • Procurement activities should be pursued in line with the organizational targets. • For government client, the alignment of sustainable procurement to organisational targets is shaped by Federal government requirement, State government requirement, organisational led policies and strategies and management process. • Objectives set by government policies or guides need to be considered at each stage of the investment lifecycle. • All levels of government have committed to setting targets according to the Waste Policy Action Plan. • Private companies tend to focus on short-term goals. There is a challenge for procurement professionals as traditionally the primary measure of success focuses on cost reduction. There is a moving in the procurement professional to align the procurement activities to the goals and value of the company. • Competing requirements exist in sustainable procurement, e.g., environmental outcomes vs. indigenous procurement. • Sustainability requirements come in after the project scopes being set, which results in competing requirements. • Go beyond just compliance, and proactively align all the procurement documentation to what the organisation aspires to achieve (e.g., asking the right questions). • Private client has a [new] policy and process around procurement with high level requirements related to sustainability • The private client responds voluntarily to what is happening globally (net zero carbon emissions, circular economy, avoiding and reuse of waster) in adopting sustainable practices without the requirements of the legislation (example of single use plastic). This approach is also aligned with their business strategy. • The private client has a Sustainable Procurement Guideline or Policy document that was initially developed for Green Star projects. It has not been embedded across the organisation. • Private clients use supplier selection survey and audits to align sustainable procurement to organisational targets • Market research on customers is a way to assess the value of sustainability for private companies. 	<ul style="list-style-type: none"> • Different organisations have different priorities in sustainability • Sustainable procurement requires alignment with legislation and regulations, public policies, organisational policies and strategies, management processes, and procurement processes. • Supplier selection survey • Conducting market research 	<p>Priorities and alignment</p>
<ul style="list-style-type: none"> • Private clients align sustainable procurement practices to organisational target through internal governance structure, individual performance targets, senior management forum. 	<ul style="list-style-type: none"> • Designing internal governance structure • Aligning individual performance targets to sustainability objectives 	<p>Driving organisational changes to enable sustainable procurement</p>

<u>1st-order terms</u> (original participant driven themes)	<u>1st-order concepts</u> (refined participant driven themes)	<u>2nd-order themes</u> (researcher driven themes)
	<ul style="list-style-type: none"> • Top Management commitment on sustainability 	
<ul style="list-style-type: none"> • The GRI framework has some sort of measures around supply chain performance. It could be hard to come up with consistent measures unless they are specific and narrow. Broad brush approach, sustainable procurement reporting and process measures may be helpful. • Data collection from suppliers to verify their conformance to modern slavery act 	<ul style="list-style-type: none"> • Monitoring and Reporting Requirements 	Monitoring and reporting
<ul style="list-style-type: none"> • There is a preference to act voluntarily than be legislated. That explains why the private client is proactive in adopting sustainable practices. They have their Sustainability Strategy and are guided by it. They start small when it comes to adopting a new practice. There is a place for legislation that can be used to address the laggards (not the early adopters). • The industry may act early, ahead of legislation to be on the front foot when there's an emerging or pending legislation. Once legislation arrives, it'll be a compliance-based environment. • The private client tends to try things and do small pilot projects when they want to adopt a new practice. Renewable energy is an example where small solar PV projects were trialled to understand infrastructure requirements and logistics. Trials benefit from partnerships and collaborations. • The industry body agrees that collaboration is needed, and trials should start small on project. Going too hard, too soon tends to backfire. 	<ul style="list-style-type: none"> • Being on the front foot by doing pilot projects, thus showing championship – Best practices 	Pilot and championship
<ul style="list-style-type: none"> • Opportunities: 1) Behaviour change; 2) Education and providing information; 3) Engaging suppliers; and 4) Publicise and promote government initiatives by actively engaging the supply chain (e.g., workshops, forums, community of practice) • Barriers: 1) Data availability and transparency to capture the value of sustainable procurement; and 2) Culture and mindset of the industry. • For the public sector, it's also important to communicate the ambition and set expectations clearly 	<ul style="list-style-type: none"> • Providing training opportunities and communicating clearly 	Training and communication

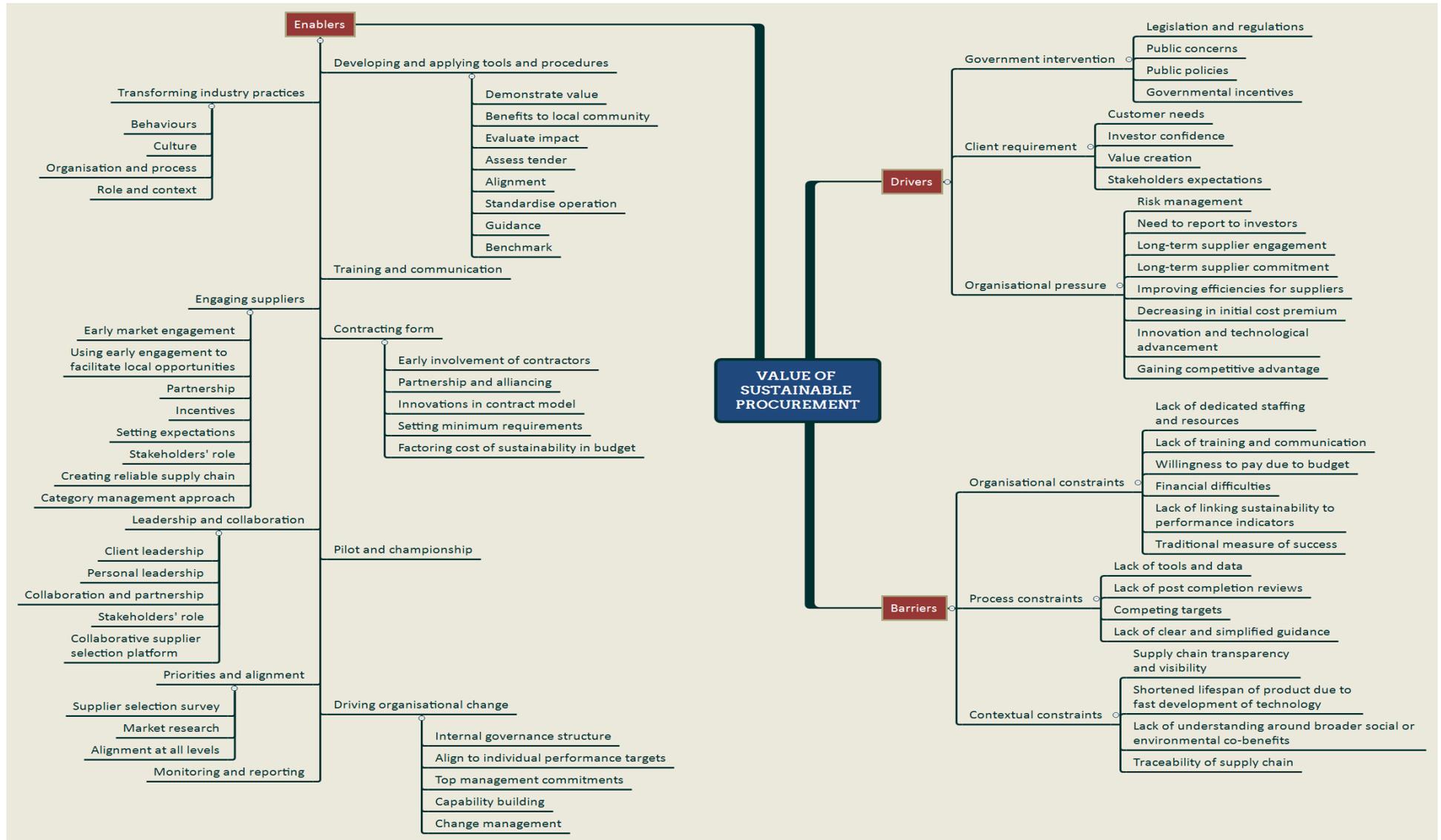


Figure 3: Data Structure for the Research Theme on Value of Sustainable Procurement

3.3 Discussions

3.3.1 Drivers

Government Intervention

As can be seen from Table 2, 'Government Intervention' is formed based on four '1st order concepts', particularly 'Legislation and regulations', 'Public concerns', 'Public policies' and 'Governmental incentives'. As mentioned previously, 'Government Intervention' belongs to the external drivers. Government requirements and policies regarding sustainable procurement can impact the decision making of organisations to align their policies, targets and strategies accordingly. For instance, governments can foster sustainable procurement by imposing mandatory environmental requirements (Wong, Chang & Wadu 2016; Belfitt et al. 2011). Apart from imposing enforcing measures, governments can successfully engage stakeholders in sustainable procurement through incentives (Namian, Karji & Tafazzoli 2020). For example, participant (A6) stated that *'There's a driver there in some way, whether it's viral policy or a funding arrangement. So condition of the funding that we receive that helps to drive action and an action that results in sustainable procurement, not necessarily the broad brush sense, but it will be a sustainable procurement activity.'*

Client Requirements

Another key driver, also linked to the need to recognise the triple bottom line and environmental advantages that can be gained, connects to the client / customer requirements for sustainable procurement and non-government organisational pressures (Wong, Chang & Wadu 2016). Table 2 lists the four '1st order concepts' from which the current '2nd order theme' has been derived. These concepts are 'customer needs', 'investor confidence', 'stakeholder expectations' and 'value creation'. Theron and Dowden (2014) argued that one of the key-drivers for the successful implementation of sustainable procurement is organisations to identify their customer needs and minimise the ethical, legal and economic risks for them. That is further underpinned by the industry's participant (B2) who argued that *'market research on customers is a way to assess the value of sustainability for private companies'*. Despite some government clients are immature in quantitatively measuring the value of sustainability according to participant (A1). Further to this, government agencies could need to prove value for money and apply whole of life costing. Regarding private clients, customer needs and share price are considered to balance sustainability cost and future benefits.

Organisational Pressure

On the other hand, the higher management of an organisation can also influence, along with their success are linked to the organisational structure, the availability of support and its influence on procurement decisions (Belfitt et al. 2011; Brammer & Walker 2011). A best practice of an organisational culture which supports the sustainable procurement practices can be extracted by the following quote that was given by the private client (B1) during the focus group discussion 1: *'On top of that obviously we have our governance, we have our individual performance targets, particularly in their management, Senior Management Forum, to drive sustainability and sustainable procurement practices within the organization. Also, public recognition is associated with the value of sustainable procurement, particularly with the social aspect which focuses on human rights, equity and wellbeing of the local communities (Ershadi et al. 2021; Haake & Seuring 2009; Meehan & Bryde 2011). For instance, government (B2) 'for our major projects, for bigger projects, it is around sustainable industry, Sustainability, and also, Indigenous engagement, so trainees, trainees' apprentices.'*

3.3.2 Barriers

Organisational Constraints

This '2nd order theme' is built on six concepts from the 1st order analysis after refining the original 'participant driven themes'. The six '1st order concepts' are 'Traditional measure of success focuses on cost reduction', 'Lack of dedicated staffing and resources', 'Lack of thinking sustainability to performance indicators', 'Lack of training and communication', 'Financial difficulties' as well as 'Willingness to pay due to tight budget'. These themes are in line with the literature review. Particularly, a plethora of studies have identified that lack of awareness, information, training, understanding, and commitment on behalf of staff on sustainability are amongst the major barriers for an organisation (both private and public) to successfully integrate sustainable procurement practices (Delmonico et al. 2018; Häkkinen & Belloni 2011; Mustow 2006; Namian, Karji & Tafazzoli 2020; Ruparathna & Hewage 2015; Sourani & Sohail 2011). Apart from staff, Theron and Dowden (2014) concluded that limitations of other types of resources such as cost and time are significant obstacles without ignoring the procedural complexity in an organisation.

Contextual Constraints

Four major concepts from the '1st order analysis' have been employed for the formation of this '2nd order theme'. In particular, these concepts are the 'Traceability of supply chain', 'Lack of supply chain transparency and visibility', 'Lack of understanding around broader social or environmental co-benefits' and 'Shortened lifespan of a product due to fast development of technology'. Participant (B3) suggested that organisations should utilise the existed rating tools to overcome the technical difficulties in quantifying the benefits of sustainable procurement; however, that it requires to understand firstly the broader social and environmental benefits. On the other hand, participant (B4) argued that even if the staff acknowledge the existence of this value, however, it is extremely hard to measure it due to lack of transparency and visibility, for example in tier two level. Also, participant (A7) mentioned that *'when we look at the procurement of major office machines like a photo copier, right now the feedback is that it's still quite difficult for us to be able to identify with in that machine, the proportion of recycled content coming off the production line how much it currently is.'* Further to this, by establishing transparency in construction supply chain the efficiency can also be improved in construction projects through the mitigation of ethical risks (Ruparathna & Hewage 2015; Theron & Dowden 2014).

Process Constraints

The particular '2nd order theme' has been resulted from another four '1st order concepts' such as 'Lack of tools and data for objectively evaluating the value and impact of sustainability', 'Lack of clear and simplified guidance on sustainable procurement', 'Lack of post completion reviews resulting in less understanding around the benefits of sustainable procurement' and 'Competing targets'. Regarding the latter, sustainability requirements come in after the project scopes being set, which results in competing requirements. That is underpinned by three participants (A1), (A4) and (B3). For example, participant (A1) provided an example of competing requirements saying that *'we often have this challenge of competing requirements (at least with infrastructure projects). But it comes up at the end of the project when there's not enough money and there's too many things that need to get done...so there's a scope and a budget, and then, we go 'all right, here's all the requirements on top of that'.* The importance of the post reviews in accomplishing sustainable procurement objectives also has been highlighted by the same participant as well as by Ershadi et al. (2021).

3.3.3 Enablers

Developing and applying tools and procedures

This second order theme has been derived from seven 1st order concepts as Table 4 lists. Having tools that can effectively evaluate and measure the social, financial and environmental outcomes is of great importance to demonstrate the real value of sustainable procurement. According to participants, these tools should be able to measure for example the economic benefits to local community from major construction projects as well as the employment, education and training opportunities for Indigenous or minority people. Participant (A4) argued that reporting on the spend with certified social traders and enterprises and social enterprises is a way to measure the impact of social procurement. Particularly, the participant said, *'so in the social procurement space we report on our spend with certified social traders, enterprises and also looking at reporting on our spend with social enterprises.'* Apart from that, the developed tools should be able to evaluate the performance of local suppliers on sustainable procurement towards minimising any ethical risks and maximising productivity and safety.

Transforming industry practices

Another important '2nd order theme' has been emerged from the second order analysis. In particular, the theme: 'transforming industry practices' has been resulted after analysing the content of three '1st order concepts': 'changing behaviours', 'changing culture' and 'changing organisation and process'. Sustainable procurement is a major change for an organisation and it requires a shift in approach, priorities, and practices of all stakeholders involved. The successful transformation will depend on how stakeholders fulfil their roles and responsibilities, thus a catholic participation in this change is required (Ruparathna & Hewage 2015). To achieve that, participant (A4) argued that it is required to go beyond just compliance, and proactively align all the procurement documentation to what the organisation aspires to achieve. Particularly, the participant mentioned that *'It really applies to everyone, because even if you have a small turnover those large organisations that are publishing their statements have to say 'we've identified any risk in our supply chain' and so even Tier 2 Tier 3 contractors should be ethical in their dealing. So there's a real opportunity there, not just to be compliant, be aspirational and align all your procurement documentation accordingly.'*

Engaging suppliers

Engaging suppliers early in the procurement phase through incentives or via a dialogue and participation in research and development is a strategy which has been widely adopted from many organisations (both public and private), in order to achieve socio-environmental and economic benefits. For example, in 2016, the city of Rotterdam, in the Netherlands, engaged suppliers through a dialogue regarding the transportation of construction materials to achieve zero carbon dioxide CO₂ emissions within its boundaries. This initiation was taken during the implementation of the pilot project 'BuyZET' funded by the European Union towards supporting the commitment of the Netherlands to reduce its CO₂ emissions by 49% until 2030 compared to 1990. The discussion focused on the selection criteria for contractors and tendering criteria concerning the quality of the contract (Nesterova et al. 2019). This example-best practice is in fully alignment with the eight '1st order concepts' through which the current '2nd order theme': 'Engaging Suppliers' has been resulted. As can be seen from Table 4, apart from inviting suppliers to a dialogue and participation, incentives can also be used as a strategic tool to engage suppliers early in sustainable procurement. For instance, participant (B2) argued that *'incentives can be used as 'carrots' to drive sustainable procurement and growing of private businesses'*.

Contracting form

Apart from the importance of engaging suppliers early, the 1st order analysis disclosed also that long-term partnership, innovation and setting clear and specific sustainability requirements are catalysts to enable sustainable procurement. Further to this, participants argued that it is essential to consider the additional costs of sustainability activities in budget. For instance, participant (A2) said that *'our recent budget proposals for some infrastructure departments doing, they specifically flagged and got funding for the ability to be able to use a bit more recycled content. So they knew upfront in and factor that in.'* As can be noticed, the aforementioned 'participant driven themes' are mainly included into a contract management. The latter must describe clearly the sustainability criteria that should be met by suppliers. Consequently, the 2nd order theme 'contracting form' has been developed based on the five '1st order concepts', which they are listed in *Table 4* analytically.

Leadership and collaboration

A committed leadership to sustainable procurement is considered by the U.K Department for Environment, Food and Rural Affairs as one of the internal key-enablers for driving change management to organisations (DEFRA 2006). Also, Ruparathna and Hewage (2015) argued that 'leadership and commitment of the project owners is the key to fully establish sustainable procurement in the Canadian construction industry' (Ruparathna & Hewage 2015, p. 417). Apart from leadership, an intensive collaboration with suppliers, project owners and other stakeholders is also an external key-enabler for triggering a successful and long lasting sustainable procurement (Stewart, Bey & Boks 2016). Looking at the original 'participant driven themes', as they are described in *Table 4*, leadership and collaboration can drive innovation in sustainable procurement, they can simplify procurement process as well as they can foster change management towards supporting the local market and disadvantaged communities. Considering the findings from the literature review and the '1st order concepts' of *Table 4*, 'leadership and collaboration' is the fifth 'researcher driven theme' that is extracted regarding the aggregate dimension 'Enablers'.

Priorities and alignment

The sixth '2nd order theme' is about 'priorities and alignment' and it has derived from the majority of the original 'participant driven themes', particularly 13 in total, as it can be seen from *Table 4*. That emphasises the importance of aligning the sustainable procurement practices with the organisational targets and business strategy according to participants' responses. Private clients use supplier selection survey and audits to align sustainable procurement to organisational targets, whereas the government participant (A1) argued that *'the alignment of sustainable procurement to organisational targets is shaped by Federal and State government requirement, organisational led policies and strategies and management process, accordingly'*. According to government participants (A1) and (A4), sustainable objectives set by government policies or guides need to be clear and considered at each stage of the investment lifecycle to avoid competing requirements. Particularly, participant (A1) said that *'sustainability requirements come in after the project scopes being set, which results in competing requirements'*, while, participant (A4) mentioned that *'in the procurement world, I think that's a bit like IT. They're often the last to thank the first to blame. And Government has so many competing priorities at times.'*

Driving organisational changes to enable sustainable procurement

As mentioned in section C2 previously, a transformation for an organisation regarding its culture and structure requires a catholic participation from their staff (Ruparathna & Hewage 2015). According to Stewart, Bey and Boks (2016) the human factor is a significant internal enabler that can drive major cultural and structural changes for an organisation (Peenstra & Silvius 2017). The cultural change solely relies on peoples' values and beliefs, while the structural one relates also the strategy and its targets as well as the policy and procedures that an organisation has set to

accomplish sustainable objectives (Peenstra & Silvius 2017). That is further evident from the results of the 1st order analysis, where three major 'participant driven themes' emerged: 'designing internal governance structure', 'aligning individual performance targets to sustainability objectives', and 'top management commitment on sustainability'. Based on these results 'the current '2nd order theme': 'driving organisational changes to enable sustainable procurement' has been resulted.

Monitoring and reporting

Any transformation that requires regulations will need some mechanism of evaluating and monitoring to be effective (European Union 2016). The importance of monitoring and reporting in strengthening the social benefits of sustainable procurement can also be identified into the original 'participant driven themes'. Especially, those which refer to GRI standards, sustainability rating tools and audits that organisations can utilise to measure, monitor and report their performance on sustainability requirements. For instance, the industry's participant (B1) stated that *'...establishing minimum standards of how we practice in procurement with obviously Modern Slavery Act and the audit requirements from maintenance operations through to build for our health and safety...we also have bolstered our diversity and inclusion which supports our reconciliation action plan, which we've reported on and gender diversity, and how our suppliers are reporting that space as well.'* Table 4 lists the relevant 'participant driven themes' from which the '2nd order theme' 'monitoring and reporting' has been derived.

Pilot and championship

The ninth '2nd order theme' is referred to 'pilot and championship' and it has been resulted after the completion of the 1st order analysis of 'participant driven themes' that relate the proactive strategies and action plans of organisations regarding sustainability. Generally, industry's participants argued that there is a preference to act voluntarily than be legislated. That explains why the private client is proactive in adopting sustainable practices. They have their Sustainability Strategy and are guided by it. They start small when it comes to adopting a new practice. There is a place for legislation that can be used to address the laggards (not the early adopters). Also, the industry may act early, ahead of legislation to be on the front foot when there's an emerging or pending legislation. Once legislation arrives, it'll be a compliance based environment. The private client tends to try things and do small pilot projects when they want to adopt a new practice. Renewable energy is an example where small solar PV projects were trialled to understand infrastructure requirements and logistics. Trials benefit from partnerships and collaborations.

Training and communication

The last but not least '2nd order theme' is related to 'training and communication'. Studies have shown that training and communication play critical role in enhancing the resilience of local communities. Bonham et al. (2016); Franks and Vanclay (2013) highlighted the importance of the 'capacity building training to the affected community to improve avenues for livelihood' (Goel, Ganesh & Kaur 2020). Barraket and Weissman (2009); Petersen and Kadefors (2016) argued that Australia is strongly promoting the use of local and employment criteria and is encouraging indigenous opportunity policies and improving opportunities for local people with limited employment and training opportunities. Apart from training opportunities, poor communication and co-ordination among stakeholders around the sustainable strategies for procurement can also be a significant barrier (Haake & Seuring 2009). Participant (B4) underpinned the importance of communication saying that *'it's often a behaviour change issue and letting people know that this is the change we want, that's something we're managing at the moment. It's about communication in one sense.'*

4 STAKEHOLDERS' ROLE IN TRANSFORMING SUSTAINABLE PROCUREMENT PRACTICES

4.1 First-order analysis

The first order analysis of Focus Group 2 (FG2) investigates the stakeholders' role in transforming industry practices in procurement for sustainability. Focus group transcripts were analysed to identify participant-led themes. It results in 94 unique first order concepts with a diverse range of topics mentioned by participants from the public and private sectors, from the client, contractor, and industry body organisations. The 1st-order concepts show potential clusters of themes that could be further analysed and categorised in subsequent analyses.

Figure 4 summarises the analysis process and results of Focus Group Session 2. The first step is elaborated in this section. Subsequent steps are discussed in sections that follow.



Figure 4: Data Analysis Process for Focus Group 2

The participant-driven themes highlight the roles stakeholders play, separately and collectively, in driving the transformation of industry practices. Participants emphasise the importance of communication and collaboration among all stakeholders. In response to a question about the early engagement of the supply chain, a participant from the government sector said, *"We established a working group and we have collaborated for about 6 to 12 months prior to a pilot trial be carrying and then led to the fact that the product was available. We had approved suppliers and then our projects were able to utilize the product when the time came."*

However, sustainability could be considered expensive and one has to pay to have sustainability. This mindset may impede the transformation of industry practices. A government sector participant pointed out that, *"Even if they're their backs against the wall in terms of value for money, they still **struggle with the concept of paying more for sustainability**. This terrific thing, maybe it'll take decades to work its way through."*

A significant focus has been on the role of clients in driving good sustainable procurement practices and progress. Participants emphasise the importance of incorporating sustainable procurement requirements in the selection criteria and process, followed by transparent and rigorous contract management. It is agreed that sustainable procurement requirements and goals need to be embedded in the organisational policy and process. A government agency participant pointed out that, *"A single thing is really about **embedding it into business as usual**. So, every business, every agency, every entity just embedding this and building sustainable procurement into their business plans and operational plans into business as usual, then it becomes mainstream."*

There seems to be a consensus among the participants that clients should leverage their "potentially significant market influence" to drive the sustainability practices of the supply chain through the procurement process. Clients need to make it clear that there is "sustainability performance" requirements as "part of the weighted criteria." A participant argues, *"Being listed as a preferred contractor is enough incentive."*

Apart from being the client, the government plays a special role in driving the industry practices through legislation. A participant from a private client organisation argues that legislation is less

required for proactive adopters but those organisations that are laggards in adopting sustainable practices. The participant stated, *“A there’s a preference to **act voluntarily than be legislated**. So I think we, we preferred to do these things for ourselves, although there is, there is clearly a place for legislation.”*

A participant from the government sector believes that legislation “does give the head of power for us setting goals and targets around reuse and recycling of materials.” The same participant elaborates the government role as, *“We need to consider whether there’s other guidance or public commitments that could be made around sustainable procurement before we start legislating things. So that’s probably take a step back, perhaps and look at other measures and other avenues trying to achieve the same.”*

The first order analysis also identified the importance of reporting and managing performance of the supply chain. A challenge is for the client to manage performance down the supply chain where Tier 1 contractors play a critical role. The supply chain also possesses unique know how. It highlights the fact that, in an innovation-oriented space like sustainability, clients may be highly dependent on the supply chain in delivering an innovative sustainable solution to a problem. The interdependence between the client and the supply chain necessitates collaboration and communication.

Another important finding is the role of consumers and the public as end users of project products. Their awareness and behaviour play a critical role in influencing, directly and indirectly, the action and strategy of clients (both private and public) and the supply chain. A representative from a contractor organisation argues, *“I think **consumers have a big impact** on that in many markets... That drives the behaviours because it is market. At the end of the day, private sector is driven by market. If there’s a market for sustainable products and sustainable marketing then they will follow.”*

The first order concepts provide rich data for the second order analysis and subsequent development of a framework, as elaborated in the following sections. The full list of 1st-order themes is provided in the Appendix.

4.2 Second-order analysis

The second order analysis synthesises the findings from the first order analysis and the results of the literature review to create 2nd-order themes that are further grouped into aggregated categories. The second order analysis resulted in 15 second order themes and 3 aggregate dimensions. Table 5 summarises the aggregated categories and the corresponding second order themes. The data structure diagram mapping the first order themes, the second order themes and the aggregated categories is described in Figure 5. The results from the second order analysis provide input into the development of the framework.

4.3 Discussions

The findings from focus groups and literature review are significantly, though not entirely, aligned and complementary. This alignment allows the research team to develop a cohesive industry practice transformation model that reflects both research findings and current literature on the topic. The model then becomes part of the framework for enabling sustainable procurement and provides input into the development of best practices in and principles for sustainable procurement.

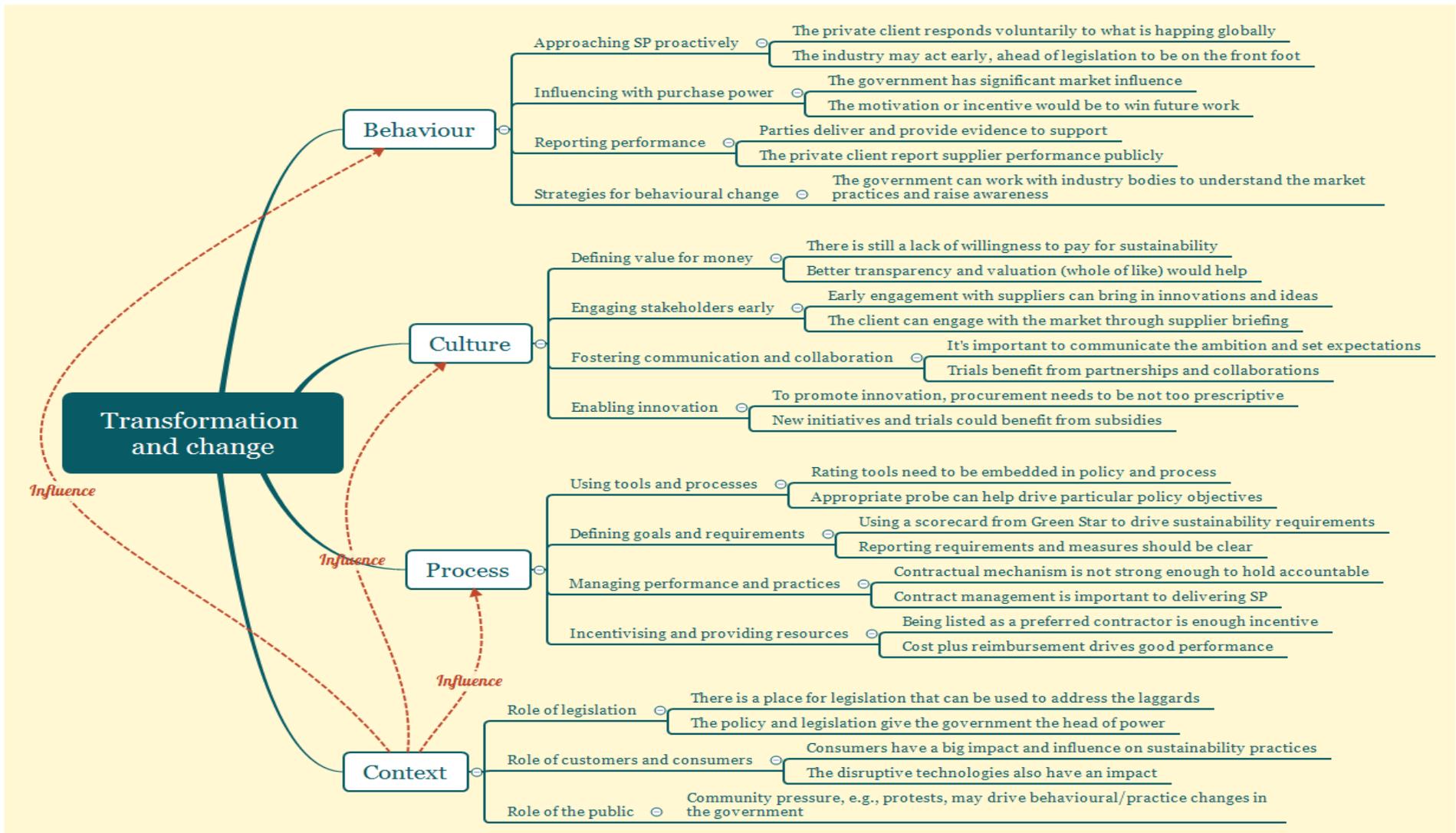


Figure 5: Data Structure for Stakeholder's Role in Transforming Industry Practices

Table 5: 2nd-Order Themes and Aggregate Dimensions from FG2

2 nd -Order Theme	Aggregated Dimension
Approaching sustainable procurement proactively	Change in behaviour
Influencing with purchase power	
Reporting performance	
Strategies for behaviour change	
Defining value for money	Change in culture
Engaging stakeholders early	
Fostering communication & collaboration	
Enabling innovation	
Using tools and process	Change in process
Defining goals and requirements	
Managing performance and practices	
Incentivising & providing resources	
Role of legislation	Role of the context
Role of customers & consumers	
Role of the public	

The industry practice transformation model has four elements (behaviour, culture, process, and context) that are complementary yet potentially overlapping. The first three elements (behaviour, culture, and process) have direct impact on the ability to drive change in industry practices while the last one (context) has indirect impact. The model is presented in Figure 6 and elaborated in the following sections.

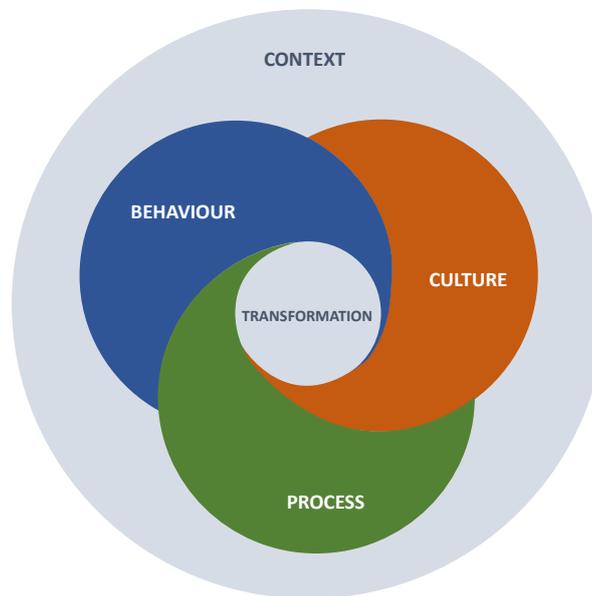


Figure 6: Four-Element Industry Practice Transformation Model

4.3.1 Behavioural Change

The first element of the industry practice transformation model is "Behaviour." Behavioural change requires a holistic approach and a significant amount of time. The research shows that this element entails: 1) approaching sustainable procurement proactively, 2) influencing with purchase power, 3) reporting performance, and 4) strategies for behaviour change.

Approaching sustainable procurement proactively

There is evidence in leadership of the private sector in adopting sustainable procurement. Their proactive approach to sustainable procurement can be explained by the need to respond to consumer requirements, to respond to the global trend, and "to be on the front foot when there's an emerging or pending legislation." The research finding also suggests that the government should play the enabling role providing guidance, information, and resource assistance. This observation is different from what is suggested in literature that argues the government should take the vital leadership role in driving sustainable procurement.

Influencing with purchase power

Clients, both public and private, have significant purchasing power that should be used to drive supply chain behaviours that are in favour of sustainable procurement practices. It is believed that the supply chain can be motivated and incentivised by the prospects of ongoing opportunities or being in the list of preferred vendors. The procurement policy and process should be clear and transparent in sustainability requirements.

Reporting performance

Sustainability performance depends greatly on stakeholder behaviours during the contract management phase because "parties deliver what was contractually committed and provide evidence to support." Reporting requirements and measures should be clearly communicated and documented. Clients can report supplier performance publicly to enhance transparency and accountability.

Strategies for behavioural change

Behavioural change can happen at both individual and organisational levels. Even at the organisational level, research findings suggest that behavioural change depends on the individuals in charge in the organisation. It is well said that "behavioural change takes time so maybe changes in sustainability may have to be gradual." Behavioural change can be enhanced through collaboration and raising awareness, as suggested by a research participant, "*The government can work with industry bodies to understand the market practices and raise awareness. The government can even help facilitate the certification process to get the local market ready for tendering opportunities.*" Figure 7 presents a example of strategies for behavioural change that were adopted from DEFRA (2006).

4.3.2 Cultural change

Organisational and industry culture plays a role in changing behaviours. For example, in the context of a government client, there seems to be a lack of willingness to pay a premium for sustainability. However, when sustainability is framed as a better risk management, there is more willingness to pay. Similar to changing behaviours, changing culture will take time. Strategies for positively influencing cultural change in sustainable procurement can be summarised into four main ones: 1) defining value for money, 2) engaging stakeholders early, 3) fostering communication & collaboration, and 4) enabling innovation.

Defining value for money

One of the participants claims that "the government people struggle with the concept of paying more for sustainability." The culture where sustainability is not considered part of value for money will take some time to change. To make sustainability part of the equation, clients should be explicit

in including sustainability in the definition of value for money. It should be part of the project and organisational goals. The way value is measured also affects how sustainability is treated. It is believed that whole of life valuation of project (in terms of costs and benefits) would help with industry transformation.

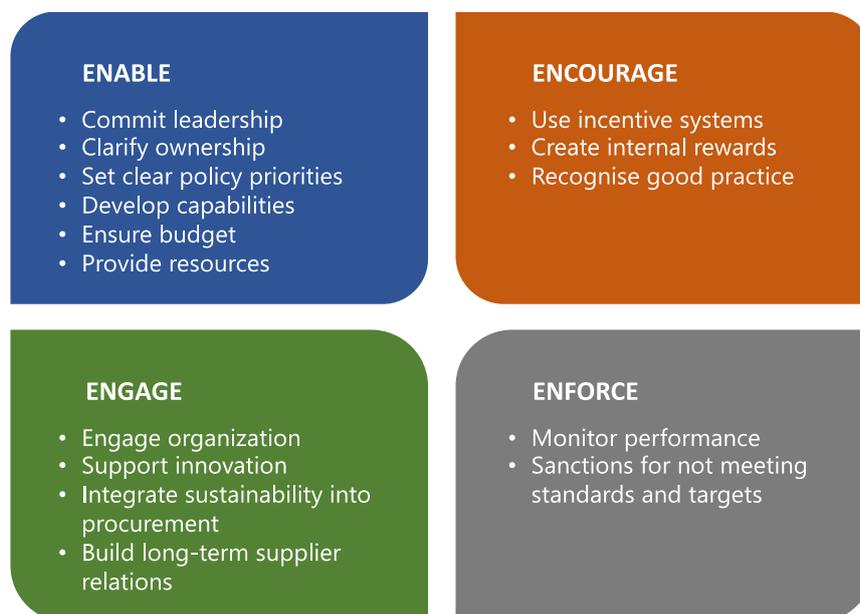


Figure 7: Example of Strategies for Behavioural Change

Engaging stakeholders early

Early engagement of stakeholders is particularly instrumental in encouraging the supply chain to collaborate to bring in innovations and ideas. It allows for the evolution and rationalisation of project requirements and solutions early so that changes can be made while the ability to influence project outcome is still high. According to a government representative, the government can give the market sufficient lead time prior to procurement of big projects by having a clear “forward procurement schedule.” The lead time allows the local market to prepare, get ready and take advantage of the opportunity.

Fostering communication & collaboration

There is a great consensus among research participants that sustainable procurement would benefit significantly from more transparent communication and stronger collaboration. It is argued that, for the public sector, it’s important to communicate the ambition and set expectations clearly. A representative from an industry body agrees that collaboration is needed, and trials should start small on project because “going too hard, too soon tends to backfire.” The trials will also benefit from partnerships and collaborations.

Enabling innovation

In response to the question about what the private sector can do that the government cannot, a participant said “innovation” citing they [the government] struggle to pay for it. A private client participant believes the private sector tends to try things and do small pilot projects when they want to adopt a new practice. The same person cited renewable energy as an example where small solar photovoltaic projects were trialled to understand infrastructure requirements and logistics.

To promote innovation, procurement needs to be not too prescriptive, argues a government representative, who also acknowledges that it could be a challenge in areas where things (e.g.,

materials) are well considered and well tested. While the private sector can be driven by their own agenda and strategies, a private sector participant suggests new initiatives and trials could benefit from subsidies. However, the government should not pay 100% percent to make sure "everyone's got to have skin in the game."

4.3.3 Change in process

Any transformation in industry practices will depend on the change in tools, policy and process, apart from the change in behaviour and culture. We have identified four strategies related to this element of the transformation model: 1) using tools and process, 2) defining goals and requirements, 3) managing performance and practices, and 4) incentivising & providing resources.

Using tools and process

It is widely believed that using rating tools such as Green Star is an effective approach in driving sustainable procurement practices. Rating tools are sometimes used as guidance. However, rating tools could have the cost premium to organisations. So, there could be organisations that still deliver sustainable solutions without achieving a Green Star rating.

Rating tools need to be "embedded in policy and process." Similarly, sustainable procurement should be embedded into organisations' business plans and operational plans for it to "become mainstream." However, sustainability could be treated as a "tick a box exercise" if a product disclosure or certificate is required without considerations for actual practices, argues a contractor representative. The same person gives an example of losing a project for not having green concrete disclosure, which was not considered to have practical value in the project.

Defining goals and requirements

Change in process can be driven by clients by using clearly defined goals and requirements. A participant gives an example where a private client uses a scorecard from Green Star to drive sustainability requirements down the supply chain through construction contracts. Clients should set and clearly communicate the expectations and requirements. They should be reflected in the selection criteria and process, as well as in performance measures and management. Sustainable procurement requirements can be formally included using tools like Green Star.

Managing performance and practices

Managing performance and practices goes hand in hand with defining goals and requirements. Goals and requirements are set during the selection process while performance and practice management is performed in the contract management phase. Research participants argue that contract management is important to ensure commitments in front-end tender be translated to implementation. Reporting requirements and measures should be clear so that parties deliver what was contractually committed and provide evidence to support. The contractual mechanism should be strong enough to hold suppliers accountable. A participant from a contractor organisation puts it, "*If you live in breathe that contract, that contract is written in the right way with the right intent, and they manage in the right way. Then I think it can be a powerful means of maintaining what you set out to do in the first place.*"

Incentivising & providing resources

It is acknowledged that cost is one of the biggest impediments to industry transformation in the sustainable procurement space. Ratings tool like Green Star could have a cost premium. Government agencies may find it difficult to justify paying extra for sustainability. Luckily, initial cost premium for sustainability tends to decrease (examples include LED lighting and solar energy).

It is, therefore, suggested that when analysing the cost of the sustainable options, life cycle costing should be looked at or incentives considered.

Incentives can be effective in driving change in the industry. The supply chain can be influenced through selection criteria and process and performance management. Subsidies, though partial, could work as an incentive for the market players to trial and innovate. Payment mechanism could play a critical role as well. A private contractor participant gives an example of how the use of cost-plus reimbursement model with financial incentive for performance can drive good performance (environmental impacts in this case). It allows for the focus on performance, not cost.

4.3.4 The role of the context

The context plays a relatively indirect, yet potentially powerful, role in transforming industry practices. Legislation plays a role in enforcing the minimum requirements in sustainability and addressing the “laggards” who are late in adopting sustainably procurement practices. Legislation can also give the government the head of power to introduce measures and “set goals and targets” around a particular aspect. In anticipation of legislation, the industry may act early to be on “the front foot.”

For the private sector, “consumers have a big impact” and influence on sustainability practices. The consumers are the market and the “private sector is driven” by that. “If there's a market for sustainable products and sustainable marketing then they will follow,” a contractor participant argues. Similarly, the public sector is influenced by the public. Community pressure (e.g., protests) may drive behavioural and practice changes in the government. Understanding the role of consumers and the public allows stakeholders to allocate resources appropriately to influence the transformation process of sustainable procurement practices. For example, industry bodies may choose to work on raising awareness of the public about sustainable procurement requirements and benefits to indirectly influence behaviours and practices of the supply chain.

5 COVID-19 IMPACT ON SUSTAINABLE PROCUREMENT

5.1 First-order analysis

The Focus Group 3 (FG3) were centred around the topic of “Post COVID-19 impacts for achieving sustainable procurement and how these impacts may be ameliorated”. Specifically, this session was guided by seven key questions. These questions include: 1) How has COVID-19 impacted your industry and your organisation?; 2) How does COVID-19 impact on achieving sustainability goals in the construction industry?; 3) What challenges are brought about by COVID-19 to your organisation’s sustainability practices?; 4) How can the impacts be ameliorated?; 5) How can you use these COVID-19 related learnings to create an opportunity for more robust supply chains to Australian Gov initiatives?; 6) What are Stakeholders’ (government, client, contractors, suppliers and users) roles in shaping sustainable procurement practices in a post COVID-19 world?; and 7) Learning from the COVID-19 realities, how can you leverage your experience for future opportunities?

Through the focus group discussions with representatives from federal and state government, private organisations, and industry bodies, it was evident that all participants understood the importance of sustainable procurement in their long-term business aspirations. However, a number of them acknowledged that they are still in the infancy of their sustainability journey. A total of 83 first order concepts emerged through the first order analysis of the focus group discussions. These 83 first order concepts were mapped across the three research topics (i.e., value of sustainable procurement; stakeholder’s role; and COVID-19 impacts) and the three procurement stages (i.e., planning; sourcing; and contract management). The following paragraphs describes the emergent first order concepts related to the COVID-19 topic according to the three procurement stages.

Also, since this section involves the results of the 1st order analysis for the third focus groups and part of the fourth one, the code Pi [FGj] is used to facilitate the articulation of the argument of this section. It is worth clarified that i and j refer to the sequence number that is allocated to each participant and focus group, accordingly. For example, P1 [FG3] refers to the first participant of the third focus group, P2 [FG4] to the second participant of the fourth focus group etc. Also, it should be noticed that the maximum value of i corresponds to the total number of participants of each focus group, that means (i=1,2) for the FG3, and (i=1,2,3,4) for the FG4, respectively.

Within the planning stage a variety of impacts were discussed in relation to supply chain disruptions, sudden spike in demand, emerging innovative approaches, leveraging digital tools, rapid shift of practice and implementation of safety measures. Particularly there was a major emphasis on rapid interactions and tasks such as pre-start checks and cleaning activities. For example, P4 [FG4] from the private sector shared, *“The first impact I noticed there was really around having to work very quickly with supplies on their working practices, prestart checks, cleaning all of those sorts of things about immediate safety measures and how safety took precedence over other priorities”*. From a governmental perspective, P2 [FG3] pointed out a positive cultural impact that emerged from the COVID-19 pandemic. For example, *“Perhaps the positives have been more on the cultural side. People are open to change in this time, and this is more generic. But one positive that’s comes out is this virtual working situation with been able to resource more, I guess, waste specialists”*.

In the sourcing stage, a range of insights were obtained related to feedback from contractors about limited supply, impacts including affecting the timely delivery by contractors, stalled maintenance activities and risk management through shifting the private organisation’s program to allow for the limited resources. For example, P1[FG3] from the private sector emphasised on managing risks, *“So, I guess how, in terms of risk, we manage the risk by shifting our program or extending our program to allow for the limited resources in certain areas. So, the industry would share, and I guess that*

would also maintain a certain level of cost for everyone". A government participant shared explained that they are very risk averse and therefore have over purchased resources. They have also rapidly transitioned to single use plastics in the as a COVID-19 safety measure. It is important to note that while the local manufacturing was highlighted as a potential opportunity, participants also raised their concerns about the associated costs. For example, P1 [FG3] mentioned that "So you're always driven onto the manufacturing ability locally and price, you know, can that happen? You know, do you push for a local manufacturer. We can perhaps prompt it as a developer, but we could definitely not, you know, entice our contractors or our suppliers to start local manufacturing"

The contract management phase captured a variety of COVID-19 impacts including possible adoption of digital approaches and introduction of a new system to electronically process information, proactive actions from contractors' specific initiatives and scope, and purposeful integration of Modern Slavery requirements to the contract. The purposeful integration of Modern Slavery Act, with a particular focus on indigenous engagement was emphasized by several participants. For example, P1 [FG3] stated that "We ask our suppliers to complete a series of questions disclose; and for, they had to disclose on this database, which the consortium had access to, who they supply with, where they get their products from, how do they ensure that, you know, Modern Slavery's met, you know, that they're not buying from Bangladesh where a five-year old is, you know, building something, you know, and in importing it. So, obviously we have to rely on their disclosures because we can't go and visit and check".

Table 6 presents a summary of selected first order concepts and the exemplary quotes to demonstrate its applicability across the procurement stages of planning, sourcing and contract management.

Table 6: 1st-order Analysis for the Theme COVID-19 Impact on Sustainable Procurement

Procurement stage	First level concepts (selected)	Supporting quotes	Participant code
Planning	Rethinking innovative approaches	<i>One of the things these matters do is have a rethink about some of the innovation that we were asking to look at around more just in time.</i>	P3[FG4]
	Rapid interactions and tasks on prestart checks and cleaning	<i>The first impact I notice there was really around having to work very quickly with supplies on their working practices, prestart checks, cleaning all of those sorts of things</i>	P4 [FG4]
	Positive cultural changes such as virtual work engagements	<i>Perhaps the positives have been more on the cultural side. People are open to change in this time, and this is more generic. But one positive that's comes out is this virtual working situation with been able to resource more, I guess, waste specialists.</i>	P2 [FG3]
	Continuous efforts to put safety measures in place through the cleaning, increase resources or people	<i>You know, it was really very fortunate rather other than the supply chain change in how we operate like split shifts, for example, you know, we had to maintain distancing and hygiene. How is that are going to operate, increase the cleaning, increase resources or people, resources to deliver. And there wasn't that much of an impact.</i>	P1 [FG3]

Procurement stage	First level concepts (selected)	Supporting quotes	Participant code
	Prioritised and conducted on-site engagement as needed and where electronic alternatives were not viable	<i>It was really very fortunate rather other than the supply chain change in how we operate like split shifts, for example, you know, we had to maintain distancing and hygiene. How is that are going to operate, increase the cleaning, increase resources or people, resources to deliver. And there wasn't that much of an impact.</i>	P1 [FG3]
	Positively nudged the organisations to adopt IT tools	<i>Because it's so hard to get a change made; so, COVID-19 has been very positive actually. Cause it's just pushed that button, you know! It's really sped up a lot of the IT stuff out of necessity.</i>	P2 [FG3]
Sourcing	Received feedback from contractors about limited supply	<i>Once COVID hit, we realised well, because we've got a lot of feedback from our contractors with limited supply, and obviously they do not stockpile, and a lot of the supply was coming from overseas and that all stopped.</i>	P1 [FG3]
	Processes in this private organisation were insulated because of vertical integration	<i>I guess we're structurally we're kind of insulated a bit because we about vertical integration. So, we start at the quarries in it, all the way through to the concrete. I think looking at where we're at now that the stimulus is changed. It's flipped it on its head. We're doing bigger numbers than we've ever done</i>	P5 [FG4]
	Variety of impacts including affecting the timely delivery by contractors, maintenance activities, limited supply of products	<i>So that's what we found, you know, was the supply chain stock to the supply chain, which affected our contractors in being able to deliver, let alone, you know, and in the maintenance space, obviously, you know, running out of, out of products was, it was a big thing</i>	P1 [FG3]
	Potential price barrier for local manufacturing	<i>Yes, I guess that isn't when it goes on price, right. So you're always driven onto the manufacturing ability locally and price, you know, can that happen? You know, do you pushful a local manufacturer? You know, we can perhaps prompt it as a developer, but we could definitely not, you know, entice our contractors or our suppliers to start local manufacturing.</i>	P1 [FG3]
	Managed risk through shifting the private organisation's program to allow for the limited resources	<i>So, I guess how, in terms of risk, we manage the risk by shifting our program or extending our program to allow for the limited resources in certain areas. So, the industry would share, and I guess that would also maintain a certain level of cost for everyone.</i>	P1 [FG3]
	Rapid transition to single use plastics in the government organisation as a Covid-19 safety measure	<i>the main one, which was switching to a lot of disposable options at the safety. You know, it's harder when you suggest any alternative, I suppose.</i>	P2 [FG3]

Procurement stage	First level concepts (selected)	Supporting quotes	Participant code
	Changes to the supply chain timeframes and overbuying as a preparatory measure	<i>And I think that was a big one really, and then supply chain timeframes. I haven't heard specific examples of this, but Defence has a tendency to be very risk adverse, and I would guess that there's probably areas in Defence where you've probably done a bit of overbuying, because of this situation to sort of prepare for the worst.</i>	P2 [FG3]
Contract management	Possible adoption of digital approaches and introduction of a new system to electronically process information	<i>So, but anything else that wasn't required was done electronically . we introduced a new system to embrace you know, more processes electronically, and more information. So outside of 'Econex',</i>	P1 [FG3]
	Impacts on the timely delivery by contractor's maintenance activities	<i>So that's what we found, you know, was the supply chain stock to the supply chain, which affected our contractors in being able to deliver, let alone, you know, and in the maintenance space, obviously, you know, running out of, out of products was, it was a big thing</i>	P2 [FG3]
	Some contractors are proactive from their end and approaches the government organisations with specific initiatives and scope	<i>We've got Veolia is our main waste management contractor and they've been very proactive, and they'll come to us with, initiatives and scope it up and they'll just say, they know we've got money sitting around and then now we want to do this. So, they're proactive and they go, come to us.</i>	P2 [FG3]
	Prompt action and rapid forecasting to manage supply chain as well contractors	<i>We acted very fast internally in our project teams to identify, you know, straightaway as soon as something happens. It's you know, you're looking at the risks and you're looking at the forecast of program with the contractors.</i>	P1[FG3]
	Proactive actions were in place to manage the supply chain as well as contractors	<i>I mentioned earlier and how we manage the supply chain as well as people, as well as contractors, as well as split shifts, et cetera, we staggered the program, which then allowed us time and allowed everything time. To manufacturer deliver, you know and arrive.</i>	P1 [FG3]
	Embedding Modern Slavery requirements to the contract	<i>Embedded Modern Slavery requirements in the contract itself. How you do business. For instance, in [private organisation], we have a policy called 'What [name of the private organisation] Expects from its Suppliers', which is on our website and which we published to say, you know, Human Rights, Modern Slavery, you know, embedded Code of Conducts, you know, the Geneva Convention requirements like we really stepped through all of it right through.</i>	P1 [FG3]

5.2 Second-order analysis

This section presents the synthesis of the participant-driven themes into researcher-driven themes and the emergent aggregate categories. The 83 first-order concepts then informed 11 second order themes. These second order themes include:

- Supply chain disruptions
- Sudden spike in demand
- Triggers for cultural and structural changes
- Immediate safety and sourcing measures
- Fair and progressive operational approaches
- Selective on-site and digital engagement
- Reliable, transparent and local supply chain
- Leverage innovative tools and DE approaches
- Coalition between government and industry
- Purposeful integration of modern slavery act and procurement guidelines
- Multi-level risk assessment

Further to revisiting key literature and considering the theoretical constructs the second order themes were further refined. The three second order themes of supply chain disruptions, sudden spike in demand and triggers for cultural and structural changes were further aggregated into a category of *“Effects of COVID-19 on sustainable procurement”*. The three second order categories of immediate safety and sourcing measures, fair and progressive operational approaches and selective on-site and digital engagement were categorised into a theme of *“Rapid development of reactive procurement responses”*. Finally, five second order themes of reliable, transparent and local supply chain, leverage innovative tools and DE approaches, coalition between government and industry, purposeful integration of Modern Slavery act and procurement guidelines and multi-level risk assessment were aggregated into the category of and *“Levers for post COVID-19 sustainable procurement”*. Figure 8 shows the data structure and how each of the second order theme is linked to the aggregate dimension. These results are further discussed and compared with previous literature in the following section.

5.3 Discussions

Through the focus group discussions, it was evident that COVID-19 crisis has created severe disruptions to the supply chain and prompted both private and government organisations to re-think innovative approaches to address disruptions. Particularly, the focus group participants shared their lived experiences related to limited supply, delayed delivery by contractors, and disrupted maintenance activities. Representatives from private organisations emphasized on the need for targeted approaches to manage risk through shifting the private organisation’s program to allow for the limited resources. The government sector representatives described how safety took precedence over other priorities and how they engaged in immediate safety and sourcing activities. These findings were aligned with previous literature and it was indeed clear that the COVID-19 crisis and the associated regulatory responses have created another layer of complexity to sustainable procurement due to process delays, loss of efficiencies, and cost impacts (Loosemore 2020). Several private sector representatives raised a few positive impacts mainly connected to stimulus offered by the government and possible insulation due to vertical integration. However, they also shared their experience in delays in contractors delivering on time and suppliers struggling to meet their contractual obligations. To overcome this challenge multi-level risk assessment was suggested as a strategic approach.

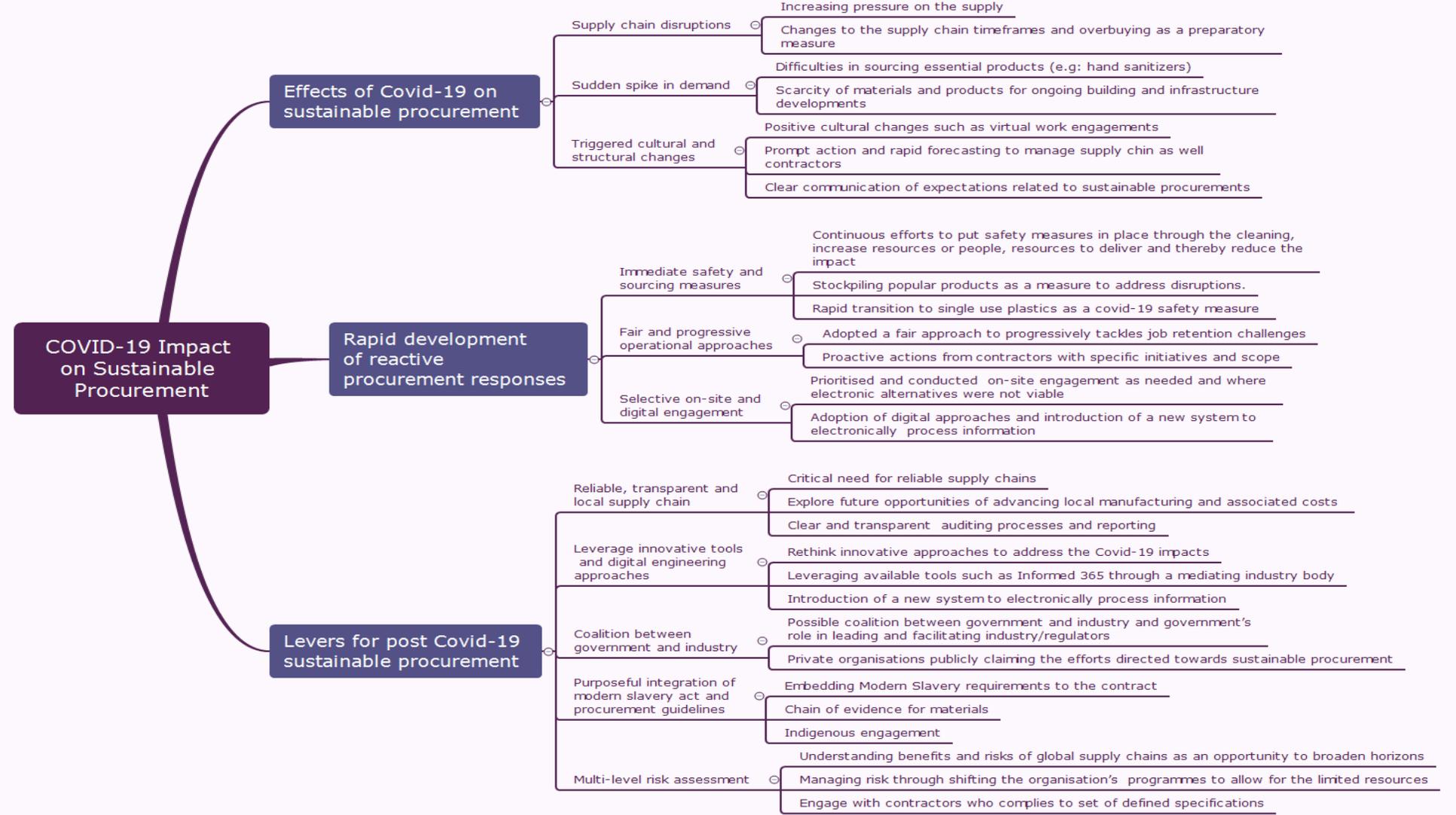


Figure 8: Data Structure for COVID-19 Impact on Sustainable Procurement

Most participants claimed that they are still in the early stages of their sustainable procurement journey and the COVID-19 crisis forced them to prioritise other safety and operations related measures, which sometimes led to overlooking sustainable priorities. This crisis has however created an impetus for some businesses to benefit from pivoting to more localized value chains, and some to do global supply chains. While the participants highlighted the importance of more local manufacturing they also argued about the potential cost barrier. The private sector participants highlighted the importance of creating a coalition between industry and government so that they can collectively address these challenges. This aligns with the literature on creating relationships between public granting authorities and private contractors will possibly change, with more focus on investing in delivery in a collaborative way (Organisation for Economic Co-operation and Development 2020b).

To achieve a more interest-aligned approach as opposed to an adversarial contractual relationship, both the public and the private sector should be investing in productivity measures, training, skills and capability, different risk allocations and new methods of construction and contracting. A private sector participant emphasized the importance of using targeted tools such as 'Informed 365' through a mediating industry body and to obtain authentic information from contractors. The authors observed efforts of private and public sector colleagues sharing information to create a joined-up approach to purposefully integrate Modern Slavery requirements and sustainable procurement guidelines.

Learning from the challenges related to COVID-19, government and industry needs to re-assess their supply chain risks and need to determine the supply chain design that will deliver the most resiliency in the event of another large-scale disruption. To achieve this the focus group, participants proposed key levers including developing reliable, transparent, and local supply chains, leveraging innovative tools and DE approaches, creating a coalition between government and industry, purposeful integration of modern slavery act and procurement guidelines and assessing risks at multiple-level risk assessment. These levers are aligned with previous literature on actions will enable government authorities and industrial practitioners to develop as targeted responses to address COVID-19 impacts and better prepare for possible future disruptions (Alicke, Azcue, & Barriball 2020; Queensland Government, Department of Housing and Public Works 2020a; Proxima 2020; UNCTD 2020). Literature uncovers actions include: 1) Creating transparency on multitier supply chain; 2) Optimising production and distribution capacity; 3) Assessing realistic final-customer demands; 4) Leveraging technologies to support goals; 5) Utilizing multi-level risk assessment; and, 6) Ensuring the organisations are aligned most innovative initiatives to support sustainability and the green economy (United Nations 2020).

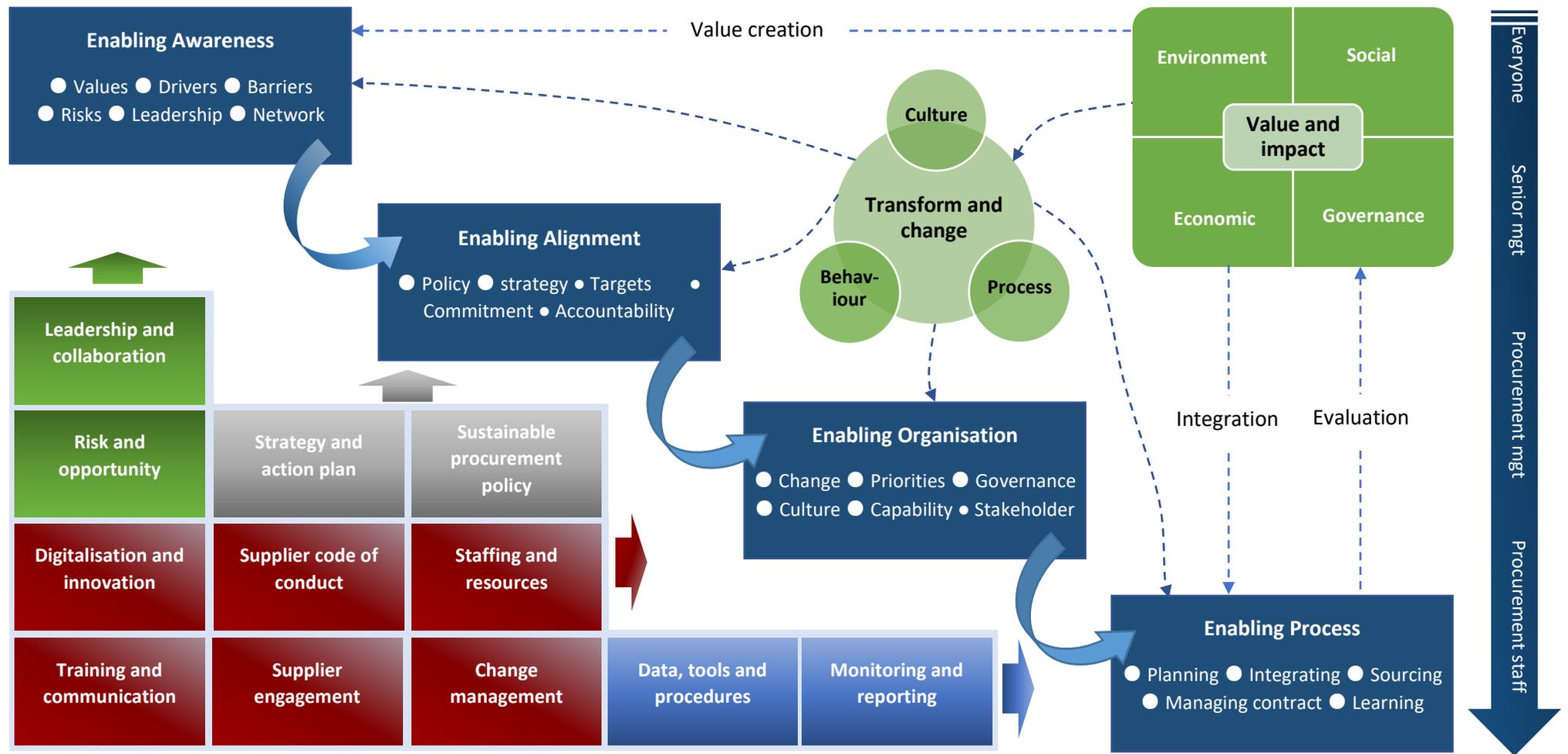


Figure 9: Framework for Enabling Sustainable Procurement

6 DEVELOPMENT OF FRAMEWORK FOR ENABLING SUSTAINABLE PROCUREMENT

As the world's first major international standard on sustainable procurement, ISO 20400 provides a framework to guide an organisation for implementing sustainable procurement and influencing their supply chain's sustainability activities and performance. By aligning the findings of this project to the principles of ISO 20400, a framework for enabling sustainable procurement was proposed to help organisations to gain an understanding of the holistic picture of sustainable procurement and align their culture, behaviour, organisation and processes to ISO 20400 principles.

As described in Figure 9, the framework identifies the key steps that help organisations get started with the sustainable procurement journey, the best practices that support the implementation of sustainable procurement, the role of stakeholders in transforming sustainable procurement practices, the responsibilities across various levels of staff, and recognises the core role of value and impact of sustainability in driving the sustainable procurement practices.

6.1 Key steps

Enabling sustainable procurement in an organisation requires system thinking as it involves systematic planning and changes in organisational culture, behaviour, governance, and processes. Figure 10 contains the key steps for enabling sustainable procurement in an organisation.

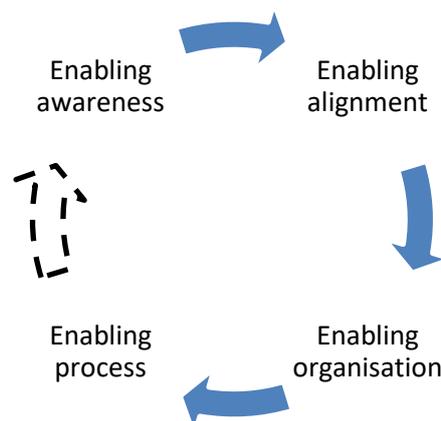


Figure 10: Key steps for enabling sustainable procurement

Enabling awareness

The first step for an organisation to implement sustainable procurement is to enable awareness, which involves developing a good understanding about what motivate the organisation to practise sustainable procurement, what impede the implementation of sustainable procurement, who are the key stakeholders, what are the benefits to stakeholders by practising sustainable procurement, how stakeholders would influence the implementation of sustainable procurement, and what are sustainability risks and opportunities across the value chain, and catalysing the change in mindset towards sustainability.

Enabling alignment

Having successfully developed the awareness of the fundamentals and context of sustainable procurement, top management should then seek to demonstrate commitment to sustainable procurement by aligning sustainability objectives to their organisational targets and developing a sustainable procurement strategy and policy. The sustainable procurement strategy should aim to

identify the key reasons for having a sustainable procurement policy. The policy becomes integral to an organisation’s procurement process to drive transparency, adherence to laws, minimum standards and continuous improvement. The sustainable procurement strategy and policy help to inform and shape the organisation’s public supply chain targets, supplier code of conduct and sustainable procurement policies.

Enabling organisation

Governance and capability are critical to successful implementation of sustainable procurement in an organisation. Targets and action plans for sustainable procurement shall be developed for short- and long-term improvement. Sustainability needs to be integrated into the existing governance arrangements. Procedures and systems (e.g., standards, templates, tendering systems, contract management systems and resource planning systems) need to be in place to support the implementation of sustainable procurement. It is important to advance people and capabilities in sustainable procurement through organisational culture, staffing, resources, training, collaboration, and incorporating sustainable procurement into performance management. This step also involves setting sustainability priorities and engaging supply chain and other stakeholders to ensure that sustainable procurement activities will result in the most impactful outcomes.

Enabling process

The final step is to embed the sustainable procurement practices in each step of the whole procurement process including, preparing a sustainable sourcing strategy, establishing specifications that address sustainability criteria, awarding the contract to supplier, integrating sustainability in contract management, and evaluating and improving sustainability performance. The outcome of post-contract evaluation will provide data to support the value and impact of sustainable procurement practices and enhance the awareness.

6.2 Best practices and key considerations

Typical Best practices and key considerations were developed to support each of the steps and summarised in Table 7.

Table 7: Best Practices and Key Considerations

Steps	Best practices	Key considerations
Enabling Awareness	Risk & Opportunity	Identify risks whether financial, legal, ethical, cultural, technological, reputational or operational in nature. This extends to customers, stakeholders and staff. Do not focus only on societal impacts linked to the company’s operations.
		Analyse main Drivers such as ‘Cost/Income’, ‘Compliance’, ‘Reputation’ and ‘Organisational’ (i.e., competitive advantage)
Analyse main Barriers such as ‘perceived costs and cashable savings’, ‘lack of time resources, knowledge and capacity’ or ‘lack of coherent corporate procedures, systems and approaches’		
		Identify potential binders and build capacity in the market (Demand Analysis & Market documentation)
	Leadership & Collaboration	Review some of the fundamentals regarding sustainable procurement and sustainable development generally: ‘ISO 20400’ ‘17 Goals of UNSDGs’ ‘Modern Slavery Act’ ‘The UN Sustainable Procurement Framework, ‘The World Bank’s Procurement Framework 2016’, ‘The UN Disability Inclusion Strategy (UNDIS)’

Steps	Best practices	Key considerations
		<p>'Paris Agreement' (regarding the climate change matter)</p> <p>establish a win-win collaboration with suppliers and a productive collaboration with clients (Client Leadership)</p> <p>Seek for innovative collaborative procurement methods such as 'Alliance Agreement', 'Relationship and Collaborative Contracting', 'Private Public Partnerships' etc</p> <p>Foster co-creation & innovation within your organisation boundaries, i.e. build Innovation Driven Procurement Groups (IDP) to maximise the end customers' experience-satisfaction (Collaborative Leadership)</p> <p>Change behaviours and transform organisation culture and practices by building trust, commitment for achieving a shared value and knowledge through teamwork as well as transparency and personnel development</p> <p>Motivate staff to become change makers within their organisation regarding SP value (Personal Leadership)</p> <p>Focuses on the long-term sustainability of suppliers and create a collaborative supplier platform</p> <p>Raise awareness about SP within organisation's boundaries (Internal pressure)</p> <p>Map and Pursue incentives offered by local and central government</p>
Enabling Alignment	Strategy & Action Plan	<p>Set out a long-term vision that is compatible with investment in sustainability</p> <p>Define clear Objectives incorporating the values of sustainable procurement</p> <p>Align Sustainable Procurement to organisational targets and to supply chain</p> <p>Legitimise Sustainability goals & align them from corporate level to the procurement level to create credibility and awareness to suppliers.</p> <p>Develop and Approve a Sustainable Procurement Action Plan</p> <p>Adopt international standards on SP such as ISO 20400 and GRI framework</p> <p>Promote the delivery of value for money through sustainable procurement practice and optimal use of procurement collaboration opportunities</p> <p>Ensure continued value, managed performance and minimal risk throughout the life of contracts</p>
	Sustainable Procurement Policy	<p>Establish Sustainability Principles, Standards and Requirements as well as Rewards. Also, include how to resolve potential conflicts</p> <p>Set out specific, attainable and realistic targets, including measurable KPIs</p> <p>Identify and prioritise the sustainability outcomes</p> <p>Incorporate Social Responsibility. A CSR assessment should be seen as a win-win situation: The customer gets to identify the risks of its supply chain and the supplier can demonstrate its efforts or correct its weaknesses</p> <p>Protect Human & Labour Rights by complying with Modern Slavery Act to avoid any risks associated with child labour and human trafficking. Set out Diversity and Inclusion Criteria, thus protecting minority's right.</p> <p>Ensure all legal requirements are met, including work health and safety standards. Promote workforce welfare in your organisation by considering safety issues and taking the relevant steps-measures to manage them early and effectively.</p> <p>Address key environmental and social impacts of the goods and services being procured</p> <p>Be specific and relevant to the procuring organisation</p>

Steps	Best practices	Key considerations	
Enabling Organisation	Supplier Engagement	<p><u>Engage suppliers early in SP by inviting them to participate in a Dialogue.</u> Discuss with the potential suppliers and explain to them the value of SP. F.ex., ask suppliers to participate in the design of products for recycling/reuse process of building materials or to their efficient transportation and receive their feedback before to start the tender process towards minimising the carbon footprint of the procurement phase.</p>	
		<p><u>Encourage suppliers to attend workshops, forums and webinars.</u> Inform suppliers of your new priorities and look for common ground on environmental and social issues.</p>	
		<p><u>Engage suppliers early through Incentives.</u> Incentivise Suppliers to benchmark performance and innovate, improve management systems to tackle challenges like diversity and anti-discrimination, working conditions, health and safety, environmental and climate impacts (i.e., Scope 3 GHG emissions), waste, and resource use. Also, incentivise through tax relief and simplify admin procedures.</p> <p>Also, <u>when procuring building design services public clients may provide incentives</u> for the development of design tools and management practices that lead to more sustainable buildings. Better skills and provider-selection methods among clients are needed for rewarding sustainable design practices more strongly.</p>	
		<p><u>Engage suppliers through Awards.</u> Embed sustainability responsibilities in procurement job descriptions and incentives. Use benchmarks such as 'SP Charter' based on which your organisation is committed to suppliers for its intentions.</p>	
		Training & Communication	<p>Aligning and Staffing the Procurement Function based on strong communication and relationship building skills, strategic thinking and a value focused approach.</p>
			<p>Alliance with Key Suppliers & establishes an effective two-way communication based on Respect; Trust; Mutual understanding, benefit and commitment; collaboration; Fairness, and Honesty.</p>
			<p>Encourage open and honest communication and ensure that suppliers can trust you to share their concerns and provide feedback in a safe manner</p>
			<p>Get the decision-makers (green team, procurement team & senior executives) together from the very beginning of the Procurement Process</p>
			<p>Do Proactive communications when issues are identified. Use authorised communication channels to manage complaints in regards to your suppliers and supply chain generally.</p>
			<p>Use the full suite of communication tools available not only emails, but also meetings, engagement dialogues, online and f2f conferences, webinars, social media, crowd sourcing and other online collaboration tools, including the 'Decent Work Toolkit for Sustainable Procurement' developed by the UNs.</p>
<p>Set out a clear Procurement Agenda and be always well prepared before meetings to influence and inspire your suppliers by promoting your strategic goals and vision for procuring sustainably.</p>			
<p>Raise awareness and foster a better understanding of Sustainable Procurement, and how important decent work is for your company, and for your ongoing relationship with them</p> <p>Educate staff about the value of SP and what procurement tools are available to support suppliers and minimise the risks in the supply chain related to unethical practices (sustainability risk assessment)</p>			

Steps	Best practices	Key considerations
		Provide face to face or online training to all staff on sustainable purchasing, i.e. through the Sustainability Leadership Program or through any other available online platform to improve their skills and knowledge on SP towards contributing to the capability and competency of the organisation as well as to its social impact.
	Supplier Code of Conduct	<p>Establish ethical values and requirements to minimise business risks throughout the SP lifecycle due to unethical behaviour on behalf of your suppliers.</p> <p>Codes of conduct should refer to an expected way of behaving and must show zero tolerance to any unacceptable practices such as modern slavery, human trafficking, child labour and fraud, bribery or any other type of corruption.</p> <p>Align Codes with your SP Policy, discuss it with suppliers and require from them to sign it.</p> <p>Outline how you will respond to violations by developing solutions, rather than terminating business relationships as a first response.</p> <p>Codes should respect international standards against criminal conduct such as the <u>UN’s Guiding Principles on Business and Human Rights and the United Nations Global Compact</u>.</p> <p>Use the four key categories of human rights, labour, the environment and anti-corruption, outlined by the United Nations Global Compact, as the main foundation of your code of conduct, and consider your company’s approach to whistleblowing.</p> <p>Tailor your Codes to the market, and explore sector specific areas such as science and technology, competition, taxation and consumer interest. Research the <u>OECD Guidelines for Multinational Enterprises</u> additionally.</p> <p>Choose the correct person to draft the guidelines, ideally senior leadership employees who can be accountable for the code of conduct, and incorporate “company values, awareness of current problems, and intentions to address them”. Ensure the draft is reviewed and confirmed by legal counsel and senior leadership.</p> <p>Keep your code realistic and honest – do not add requirements that are impractical or cannot be measured, and back up anything with an understanding of minimum requirements, context and examples.</p>
	Staffing & Resources	<p>Empower and Reward Staff to Commit them to the organisation goals. F.ex., ask suppliers to commit to waste reduction goals by explaining the socio-economic and environmental benefits (circular economy, land and water pollution, CO₂ emissions etc.) and provide incentives. Commitment through organisation goals is the foundation to accomplish these goals.</p> <p>Employee rewards should be used to recognise employee performance as well as customer experience</p> <p>Build a procurement cross-functional team dedicated to promote and support sustainable procurement</p> <p>Ensure the availability of resources to help corporations adopt green procurement including technology for construction purposes, references for green performance assessment, and proven green specification model clauses, green practices, or procedures (e.g., waste management)</p> <p>Do not allocate resources in developing a product that delivers little or no value to your company’s end users; instead it should aim to procure products which have the best value for the customer</p>
	Digitisation & Innovation	<p>Embrace Digitisation & Integrate intelligent systems</p> <p>Selecting the Right Technology which enables the use of historical data to create benchmarks for future performance</p> <p>Having access to more resources and better technology, product owners can focus on maximizing quality</p>

Steps	Best practices	Key considerations
	Change Management	<p>Drive behaviour change and become a role model for the industry. Also, locate your local role models-suppliers that will align their conventional practices to sustainable ones</p> <p>Be clear in your purpose by thinking about how you outline a purpose to somebody who has never procured sustainably in the past. (Think Different – Think Sustainably)</p> <p>Reinforce behaviour within the firm by incentivising and motivating teams to continue to pursue the value of SP</p> <p>Pursue sourcing excellence on behalf of your team and provide training on it</p> <p>Protect the reputation of your organisation by being the ‘ethical true north’</p> <p>Inform your associates in a way to win their hearts and minds to help them align to your vision and understand the consequences of not changing</p> <p>Bear in mind that not changing means failing</p>
Enabling Process	Monitoring & Reporting	<p>Develop or use existing KPIs to measure the sustainable performance of suppliers and monitor progress and pivot as needed throughout the procurement process.</p> <p>Ensure regular monitoring through audits, risks assessments, or conversations with suppliers to avoid any unethical procurement practices.</p> <p>Perform Audits to reduce errors during the sourcing stage to avoid recalls, and eventually ensure suppliers’ compliance.</p> <p>Reporting on sustainable results and impacts considering perhaps existing standards such as GRI 306 and 308 regarding waste and environmental assessment of suppliers, respectively.</p> <p>Evaluate Vendors based on their social & environmental performance. Support vendors who are socially responsible and adopt ethical practices, including those who offer inclusive opportunities and fight modern slavery and human trafficking.</p> <p>Focus on total cost ownership considering operating, storing, maintenance, training requirements, environmental impacts, transportation & disposal costs</p> <p>Identify replacements for hazardous chemicals and keep safety records to prevent accident during the procurement phase.</p> <p>Reduce travelled distance of products/services throughout the procurement process, thus achieving cost savings from the reduced fuel consumption as well as from the maintenance of the organization’s fleet. Also, it can save CO₂ emissions preventing the air pollution.</p>
	Data, Tools & Procedures	<p>Build a reliable database and use information from potential suppliers as ‘specification with care’ (Sustainable Procurement Analytics)</p> <p>Require suppliers to complete a ‘Sustainability Questionnaire’ and sign the ‘Sustainable Procurement Charter’</p> <p>Ensure that prequalified suppliers have undergone a rigorous open tender process that satisfies probity requirements of SP.</p> <p>Sourcing Local Materials; search the local market to find those domestic products that have been produced through sustainably managed resources</p> <p>Collaborative Strategic Sourcing to improve the acquisition process, supplier performance and minimizing costs and risks</p> <p>Work with subcontractors or suppliers that are committed to Sustainability and are certified by ISO 20400, thus they implement best practice.</p> <p>Produce or purchase products which may have less packaging waste.</p> <p>Learning by receiving feedback and building public confidence</p>

7 CONCLUSION

Embedding sustainability in procurement is a powerful tool for bringing about positive change in organisation's supply chains. This project examined key issues across the procurement life cycle and focussed on finding practical ways to improve environmental, social, and economic sustainability outcomes in the housing, building and infrastructure sectors in Australia. Focus group discussions with representatives from government and non-government organisations were conducted to achieve the research aim. This project will contribute to both the body of knowledge underpinning sustainable procurement and industry practices.

The motivations of organisation for practising sustainable procurement are driven by government interventions (e.g., public policy, incentives, and public concerns), client requirements (e.g., customer needs, investor confidence, and value creation) and organisational pressure (e.g., risk management, improving efficiency, and gaining competitive advantage). Constraints in organisation (e.g., staffing and resources, training and communication, and traditional measure of success), process (e.g., tools and procedures, post-contract evaluation, and competing targets) and context (e.g., supply chain transparency and traceability, social impact, and industry culture and awareness) are the main barriers for implementing sustainable procurement practices. Typical best practices (e.g., transforming industry practice, driving organisational change, developing tools and procedures, leadership and collaboration, engaging suppliers, training and communication, contracting innovation, pilot and championship, monitoring and reporting, and priorities and alignment) were identified to enable an organisation to move towards sustainable procurement.

Sustainable procurement is a major change to industry practices that requires a shift in culture, behaviour, and process of all stakeholders involved as well as a supporting context. The successful transformation will require synergetic efforts from government, client organisations and other stakeholders. Behavioural change requires a holistic approach and can be enhanced through collaboration and raising awareness. Organisations can consider to adopt strategies such as enable, encourage, engage and enforce to enable behavioural change depending on their interests and influences in sustainable procurement. Defining value for money, engaging stakeholders early, fostering communication and collaboration and enabling innovation may contribute to drive cultural changes. Any transformation in industry practices will depend on the change in tools, policy and process, apart from the change in behaviour and culture. We have identified four strategies related to this element of the transformation model: 1) using tools and process, 2) defining goals and requirements, 3) managing performance and practices, and 4) incentivising & providing resources. The context plays an indirect, yet potentially powerful, role in transforming industry practices. For the private sector, "consumers have a big impact" and influence on sustainability practices. Legislation plays a role in enforcing the minimum requirements in sustainability and addressing the "laggards" who are late in adopting sustainably procurement practices. Community pressure (e.g., protests) may drive behavioural and practice changes in the government. Understanding the role of consumers and the public allows stakeholders to allocate resources appropriately to influence the transformation process of sustainable procurement practices.

Through the focus group discussions, it was evident that COVID-19 crisis has created severe disruptions to the supply chain and prompted both private and government organisations to re-think innovative approaches to address disruptions. Learning from the challenges related to COVID-19, government and industry needs to re-assess their supply chain risks and need to determine the supply chain design that will deliver the most resiliency in the event of another large-scale disruption. Several key levers including developing reliable, transparent, and local supply chains, leveraging innovative tools and DE approaches, creating a coalition between government and industry, purposeful integration of modern slavery act and procurement guidelines and assessing risks at multiple-level risk assessment were proposed. These levers are aligned with previous literature on actions (e.g., creating transparency on multitier supply chain, optimising production and distribution capacity, assessing realistic final-customer demands, leveraging technologies to support goals, utilizing multi-level risk assessment, and

ensuring the organisations are aligned most innovative initiatives to support sustainability and the green economy) will enable government authorities and industrial practitioners to develop as targeted responses to address COVID-19 impacts and better prepare for possible future disruptions.

Enabling sustainable procurement in an organisation requires system thinking as it involves systematic planning and changes in organisational culture, behaviour, governance, and processes. By aligning the findings of this project to the principles of ISO 20400, a framework for enabling sustainable procurement was proposed to help organisations to gain an understanding of the holistic picture of sustainable procurement and align their culture, behaviour, organisation and processes to ISO 20400 principles. The framework identifies the key steps that help organisations get started with the sustainable procurement journey, the best practices that support the implementation of sustainable procurement, the role of stakeholders in transforming sustainable procurement practices, the responsibilities across various levels of staff, and recognises the core role of value and impact of sustainability in driving the sustainable procurement practices.

In the next stage of this project, case studies on five sustainability themes including green concrete, recycled contents, Modern Slavery Act, regional participants, and marginalised group will be conducted to test, refine and validate the proposed framework and identify best practice examples in the Australian context. A practical Guide for enabling sustainable procurement, a Best Practice Mapping Tool and a Stakeholder Interest and Influence Matrix will be developed to provide guidance for organisations that seek to integrate sustainability into their organisation and processes.

8 REFERENCES

- Alicke, K, Azcue, X, & Barriball, E 2020, 'Supply-chain recovery in coronavirus times—plan for now and the future', McKinsey & Company, viewed 22 May 2021, <https://www.mckinsey.com/business-functions/operations/our-insights/supply-chain-recovery-in-coronavirus-times-plan-for-now-and-the-future#>
- Barraket, J & Weissman, J 2009, 'Social procurement and its implications for social enterprise: a literature review', *The Australian Centre for Philanthropy and Non-profit Studies (ACPNS)*, eprints Queensland University of Technology, viewed 22 May 2021, <https://eprints.qut.edu.au/29060/1/Barraket_and_Weissmann_2009_Working_Paper_No_48_Final.pdf>
- Belfitt, R, Sexton, M, Schweber, L & Handcock, B 2011, 'Sustainable Procurement – Challenges for Construction Practice', Proceedings of TSBE EngD Conference: Technologies for Sustainable Built Environments 5th July 2011, TSBE Centre, *University of Reading*, viewed 27 May 2021, <https://www.reading.ac.uk/web/files/tsbe/belfitt_tsbe_conf_2011.pdf>
- Bonham, S, Chrysostomidis, I, Crombie, M, Burt, D & Christhiaan van Greco 2014, 'Local Community Benefit Sharing Mechanisms for CCS Projects', *Energy Procedia*, vol. 63, pp. 8177–8184, viewed 24 May 2021, Elsevier ScienceDirect Journals, doi.org/10.1016/j.egypro.2016.03.002
- Brammer, S & Walker, H 2011, 'Sustainable procurement in the public sector: an international comparative study', *International Journal of Operations & Production Management*, vol. 31, no. 4, pp. 452–476, viewed 20 May 2021, ProQuest Central, doi.org/10.1108/01443571111119551
- Bureau Veritas 2021, 'The Road to Sustainable Procurement with ISO 20400: What, Why and How', Australia & New Zealand Bureau Veritas, viewed 15 May 2021, <https://www.bureauveritas.com.au/newsroom/road-sustainable-procurement-iso-20400-0>
- Crespin-Mazet, F & Dontenwill, E, 2012, 'Sustainable procurement: Building legitimacy in the supply network' *Journal of purchasing and supply management*, vol. 18, no.4, pp. 207–217, viewed 24 May 2021, Elsevier ScienceDirect Journals, doi.org/10.1016/j.pursup.2012.01.002
- Department of Agriculture, Water and the Environment 2020, 'Sustainable Procurement Guide: A practical guide for Commonwealth entities', Commonwealth of Australia, viewed 15 May 2021, <https://www.environment.gov.au/system/files/resources/856a1de0-4856-4408-a863-6ad5f6942887/files/sustainable-procurement-guide.pdf>
- de Leonardis, F 2011, 'Green Public Procurement: From Recommendation to Obligation', *International Journal of Public Administration*, vol. 34, no. (1-2), pp. 110–113, viewed 26 May 2021, Taylors & Francis Online, <https://doi.org/10.1080/01900692.2011.536093>
- Feng, Y, Sherif, M, Le, T, Zhang, P, Shou, W, Bevan, W & Caldera, S 2020, 'SBEncr Project 2.76 Sustainable Procurement: Literature Review', Sustainable Built Environment National Research Centre, viewed 22 May 2021 <<https://sbenrc.com.au/research-programs/2-76/>>
- Franks, D & Vanclay, F 2013, 'Social Impact Management Plans: Innovation in corporate and public policy', *Environmental Impact Assessment Review*, vol. 43, pp. 40–48, viewed 24 May 2021, Elsevier ScienceDirect Journals, doi.org/10.1016/j.eiar.2013.05.004

- Gioia, D, Corley, K, & Hamilton, A 2013, 'Seeking Qualitative Rigor in Inductive Research', *Organizational Research Methods*, vol. 16, no.1, pp. 15-31, viewed 28 May 2021, SAGE Journal, doi.org/10.1177/1094428112452151
- Haake, H & Seuring, S 2009, 'Sustainable procurement of minor items - exploring limits to sustainability', *Sustainable Development*, vol. 17, no. 5, pp. 284–294, viewed 20 May 2021, Wiley Online Library, <https://doi.org/10.1002/sd.424>
- Häkkinen, T & Belloni, K 2011, 'Barriers and drivers for sustainable building', *Building Research and Information*, vol. 39, no. 3, pp. 239 – 255, viewed 20 May 2021, Taylors & Francis Online, doi.org/10.1080/09613218.2011.561948
- International Organization for Standardization 2017, *Sustainable Procurement – Guidance*, International Standard (ISO) 9001:20400, viewed 27 May 2021, SAI Global database, https://infostore.saiglobal.com/en-au/Standards/ISO-20400-2017-607508_SAIG_ISO_ISO_1392677/
- Loosemore, M 2020, 'How we can re-build our economy after COVID-19 through social procurement and construction', *The Fifth Estate*, 30 March, viewed 24 May 2021, <https://thefifthestate.com.au/articles/how-we-can-re-build-our-economy-after-covid-19-through-social-procurement-and-construction/>
- Ershadi, M, Jefferies, M, Davis, P & Mojtahedi, M 2021, 'Achieving Sustainable Procurement in Construction Projects: The Pivotal Role of a Project Management Office', *Construction Economics and Building*, vol. 21, no. 1, pp. 45-64, viewed 28 May 2021, UTS ePRESS, doi.org/10.5130/AJCEB.v21i1.7170
- Meehan, J & Bryde, D 2011, 'Sustainable procurement practice' *Business Strategy and the Environment*, vol. 20, no. 2, pp. 94–106, viewed 24 May 2021, Wiley Online Library, doi.org/10.1002/bse.678
- Mustow, E 2006, 'Procurement of ethical construction products', *In Proceedings of the Institution of Civil Engineers-Engineering Sustainability*, vol. 159, no. 1, pp. 11-21, viewed 24 May 2021, Thomas Telford Ltd, doi.org/10.1680/ensu.2006.159.1.11
- Karji, A, Namian, M & Tafazzoli, M 2020, 'Identifying the Key Barriers to Promote Sustainable Construction in the United States: A Principal Component Analysis', *Sustainability* vol. 12, no. 12, pp. 1-20, viewed 25 May 2021, ProQuest, doi.org/10.3390/su12125088
- Nesterova, N, Quak H, Streng, J & Léon van Dijk 2020, 'Public procurement as a strategic instrument to meet sustainable policy goals: the experience of Rotterdam', *Transportation Research Procedia*, vol. 46, pp. 285–292, viewed 22 May 2021, Elsevier ScienceDirect Journals, <https://doi.org/10.1016/j.trpro.2020.03.192>
- Nyumba, T, Wilson, K, Derrick, C & Nibedita, M 2018, 'The Use of Focus Group Discussion Methodology: Insights from Two Decades of Application in Conservation', *Methods in Ecology and Evolution*, vol. 9, no.1, pp. 20-32, viewed 28 May 2021, British Ecological Society, doi.org/10.1111/2041-210X.12860

- Peenstra, R & Silviu, G 2017, 'Enablers for Considering Sustainability in Projects; the Perspective of the Supplier', *Procedia Computer Science*, vol. 121, pp. 55–62, viewed 22 May 2021, Elsevier ScienceDirect Journals, doi.org/10.1016/j.procs.2017.11.009
- Petersen, D & Kadefors, A 2016, 'Social Procurement and Employment Requirements in Construction', In Chan, P & Neilson, C (Eds.) *Proceedings of the 32nd Annual ARCOM Conference, Association of Researchers in Construction Management*, vol. 2, pp. 1045-1054, viewed 22 May 2021, CORE, <<https://core.ac.uk/download/pdf/74357061.pdf>>
- Proxima 2020, '*Sustainable procurement: an opportunity presented by COVID-19*', Civil Service World, viewed 24 May 2021, <https://www.civilserviceworld.com/news/article/sustainable-procurement-an-opportunity-presented-by-covid19>
- Queensland Government, Department of Housing and Public Works 2020a, '*Procuring during the COVID-19 emergency*', Queensland Government, viewed 24 May 2021, https://www.hpw.qld.gov.au/data/assets/pdf_file/0018/11790/emergency-procurement-covid-19.pdf
- Queensland Government, Department of Housing and Public Works 2020b, '*COVID-19: building construction and maintenance procurement guidance for buyers*', Queensland Government, viewed 24 May 2021, <https://www.hpw.qld.gov.au/news-publications/news/COVID-19-building-construction-and-maintenance-procurement-guidance-for-buyers>
- Rajeev, R & Kasun, H 2015, 'Sustainable Procurement in the Canadian Construction Industry: Current Practices, Drivers and Opportunities', *Journal of Cleaner Production*, vol. 109, pp. 305-14, viewed 24 May 2021, Elsevier ScienceDirect Journals, doi.org/10.1016/j.jclepro.2015.07.007
- Sourani, A & Sohail, M 2011, 'Barriers to addressing sustainable construction in public procurement strategies', In *Proceedings of the Institution of Civil Engineers-Engineering Sustainability*, vol. 164, no. 4, pp. 229-237, viewed 24 May 2021, ICE Virtual Library, doi.org/10.1680/ensu.2011.164.4.229
- Stewart, R, Bey, N & Boks, C 2016, 'Exploration of the Barriers to Implementing Different Types of Sustainability Approaches', *Procedia CIRP*, vol. 48, pp. 22–27, viewed 24 May 2021, Elsevier ScienceDirect Journals, doi.org/10.1016/j.procir.2016.04.063
- Theron, C & Dowden, M 2014, *Strategic Sustainable Procurement: An Overview of Law and Best Practice for the Public and Private Sectors*, viewed 24 May 2021, Taylor & Francis Online, <https://doi.org/10.4324/9781351274487>
- United Nations 2020, '*Recover netter economic and social challenges and opportunities*', United Nations, viewed 21 May 2021, https://www.un.org/development/desa/en/wp-content/uploads/2020/07/recover_better_0722-1.pdf
- United Nations Conference on Trade and Development (UNCTD) 2020, '*Sustainable public procurement can help us build back better after COVID-19*', United Nations, viewed 21 May 2021, <https://unctad.org/news/sustainable-public-procurement-can-help-us-build-back-better-after-COVID-19>
- Organisation for economic co-operation and development (OECD) 2020b, '*Infrastructure and public procurement COVID-19 responses management of ongoing infrastructure contracts*', OECD

webinars, viewed 27 May 2021, <https://www.oecd.org/gov/public-procurement/ipp-webinar-management-ongoing-infrastructure-summary.pdf>

Zaidi, S, Mirza, F, Hou, F & Ashraf R 2019, 'Addressing the sustainable development through sustainable procurement: What factors resist the implementation of sustainable procurement in Pakistan?' *Socio-Economic Planning Sciences*, vol. 68, pp. 1-12, viewed 27 May 2021, Elsevier ScienceDirect Journals, doi.org/10.1016/j.seps.2018.11.008

9 APPENDIX

Appendix A: 1st-Order Analysis on Value of Sustainable Procurement

Question	Quote	1st-Order Terms
What sustainable procurement means for your organisation?	Now we are looking at the updated procurement rules and modern slavery etc. But in our space we've been focusing primarily on materials. Products and materials are a large part of ... that is in infrastructure. But we're looking across the board in all the products we purchased from health, health services, catering. Yeah, we do everything.	Government client: 1. Primary focus on materials 2. Modern slavery
What sustainable procurement means for your organisation?	So broadly at the Commonwealth level, under the Commonwealth procurement rules, there's a whole lot of rules and requirements that touch on sustainability and aspects around modern slavery, an indigenous procurement. In terms of the work we do. We maintain the government sustainable procurement guide and the Commonwealth procurement rules were updated last December to require agencies to consider our guide when there's an opportunity for sustainability or use of recycled content. But our guide is now much more focused on the in increasing governments user recycled content leading from the work (loop) [0:12:29]??? that's happened under the National Waste Policy Action Plan and the recent Waste export bans.	Government client: 1. Modern slavery 2. Ingenious procurement 3. Use of recycled contents
What sustainable procurement means for your organisation?	Yeah, I think there's the three limits??? [0:13:07] to it. There's a lot of discussion about the environmental, but it's also in terms of sustainable local industries and...But their inputs are coming from ethical supply.	Government client: 1. Environmental impact 2. Sustainable local industries 3. Ethical supply
What sustainable procurement means for your organisation?	I think the only thing I add is our overarching policy is that is the Queensland procurement policy and in essence I guess it's a form of sustainable procurement policy because it talks about our government advancing not just our economic, but our social and environmental objectives. What that means...What's important about that is that it gives government buyers a license to pursue. I'm finding the social procurement percept space [0:13:53]??? that license pursue doesn't always translate to the actions I'd like to say. But they've got the authority to pursue social and environmental outcomes when they undertake their procurement kind of leads into the next question you know. So it is the overarching policy. So as long as you can demonstrate that. Yeah, that's what we're really about. Yet that's why the main point I wanted to make there.	Government client: 1. Economic 2. Social 3. environmental
What sustainable procurement means for your organisation?	Just add to that. So I work in the same team is Rob. I'm just to add to what he was saying. We all in that space as well. We also look at ethical considerations when it comes to procurement and making sure Queensland Government's doing business with ethical suppliers. And we're currently looking at Co designing a response (to???) [0:14:56] the	Government client: 1. Doing business with ethical suppliers

Question	Quote	1st-Order Terms
	Queensland Government regarding modern slavery from procurement perspective.	
What sustainable procurement means for your organisation?	Yep, so for here in WA we government agencies will be guided by the State Supply Commission around their policy for sustainable procurement. But in terms of what it means for our organization, it can vary depending on the context. So for most part it's around lower environmental impact of what we're doing and driving the use of recycled materials and low carbon products through our supply chain. But also for our major projects, for bigger projects, it is around sustainable industry, Sustainability, and also, Indigenous engagement, so trainees, trainees apprentices...Making sure that the conditions we set for our subcontractors are ethical, or will the ethical ways they flow through the supply chain [0:16:08]?	Government client: <ol style="list-style-type: none"> 1. Lower environmental impact 2. Driving the use of recycled materials and low carbon products through supply chain 3. Social procurement (indigenous engagement, human rights, ethical supply)
What sustainable procurement means for your organisation?	So Stockland as part of its reporting mechanisms has advised the market that it's going to strengthen its social impact through supply chain. What we're doing is establishing minimum standards of how we practice in procurement with obviously modern slavery and the audit requirements from maintenance operations through to build for our health and safety. We're looking at circular economy practices from waste, say in our shopping centres, in our village and also...I think a term that someone mentioned to me a few months ago in this group, green concrete, so forgive me if I've got that wrong. On the other side and on the social side we also have bolstered our diversity and inclusion which supports our reconciliation action plan, which we've reported on and gender diversity, and how our suppliers are reporting that space as well. So we collecting that data, Which is great.	Listed private client: <ol style="list-style-type: none"> 1. Strengthen social impact through supply chain (e.g., modern slavery, diversity and inclusion) 2. Circular economy practices (e.g., waste, green concrete)
What sustainable procurement means for your organisation?	So I suppose practicing our organization is going through some major change, so it's really interesting. It was sort of working on a disaggregated business model basis for many years, and now that's sort of banking together. So our procurement Department is still being set up and not being on boarded as we speak and they get to pick up the kind of modern slavery policy that lawyers developed and bring that into Procurement terms, but from my perspective, I guess the environmental side we were working through our supply chain. We've got actually pretty good data going back ten years on environmental footprint and contemplating disclosures around that as well. Looking at the other three points on there so sustainable we're looking at doing, Formalizing LC, LCA and EPD [0:18:37], on our materials. we've always been sort of at the forefront with ...If you want to call a home a product, but you know in there advocating for six star, and you'll see it's probably doing it very shortly In a minimum seven	Private sector: Focused areas include Modern slavery and environmental sustainability

Question	Quote	1st-Order Terms
	star before that becomes mandatory. But the regional participants, we don't have a lot of role there. There is local preferencing in the regions, but there is no formal policy around at this point of time. xxx???[0:19:08] Treasury department have.	
What sustainable procurement means for your organisation?	I would say that our response is really guided by a lot of the work we've done in collaboration with governments to drive process change and procuring buildings and infrastructure. In terms of what sustainable procurement means for us, I think for us it means making sure those investments in social or other types of infrastructure is able to meet social, environmental, economic needs now and into the future, whether it's about those outcomes that you've identified or others. And it's also about creating more value for government investments. And it's also about value creation. It's about driving better outcomes whole of life outcomes, reducing operational costs, providing value for money, making sure that we're prepared for things like shocks and stresses. And I think someone else mentioned delivering on government commitments on things like climate change or resource efficiency.	<ol style="list-style-type: none"> 1. Investment in social or other types of infrastructure is able to meet social, environmental, economic needs now and into the future 2. Value creation 3. Driving better outcomes whole of life outcomes, reducing operational costs, providing value for money
How would your organisation align sustainable procurement to organisational targets? How would sustainable procurement contribute to achieving organisational targets? We know that each organization have various targets and strategies. As part of the strategy that how would sustainable procurement contribute to achieve those targets.	What I have proposed is we do a supplier selection survey and there's also audits that we conduct. That's one of the main ways that we will align sustainable procurement to organisational targets.	Private clients use supplier selection survey and audits to align sustainable procurement to organisational targets.
How would your organisation align sustainable procurement to organisational targets? How would sustainable procurement contribute to achieving organisational targets? We know that each organization have various targets and strategies. As part of the strategy that how would sustainable procurement contribute to achieve those targets.	On top of that obviously we have our governance, we have our individual performance targets, particularly in their management, Senior Management Forum, to drive sustainability and sustainable procurement practices within the organization and try not to make it as motherhood and trying to be a little bit more specific.	Private clients align sustainable procurement practices to organisational target through internal governance structure, individual performance targets, senior management forum.
How would your organisation align sustainable procurement to organisational targets? How would sustainable procurement contribute to	We actually have specific measures and that includes indigenous procurement models, how we've engaged a Supply Nation and adopting certified indigenous suppliers, and I know the Defence or the government are doing this, looking at Indigenous procurement before we go to the market, to see	Private clients look at indigenous procurement before going to the market.

Question	Quote	1st-Order Terms
<p>achieving organisational targets? We know that each organization have various targets and strategies. As part of the strategy that how would sustainable procurement contribute to achieve those targets.</p>	<p>what's available so we can create a better engagement process in that supply chain and then the diversity and inclusion, being an actor in that space as well through Stockland.</p>	
<p>When there are any conflicts between different goals and how would you ... are there any ways that you solve these kind of conflicts, like the economic benefits and the sustainability goals?</p>	<p>We are ASX listed for profit organisations. So obviously money is the driver. But our Board has committed to, also ensuring that we make sustainability and our sustainable practices are priority as well and that's what our shareholders want. They want to see that. So when it comes to a conflict, I guess we just have to balance that out from price to future benefits. Our customers, whether it be in shopping centres, whether it be for completed homes, medium density, they are looking...the younger generations are looking for more sustainable living opportunities and practices than cost. So I know it's a very roundabout way of saying it. I can go down into the minutiae, but will be here for a long time. And I guess that's how we deal with it. Yeah, what does the customer want? Which is the driver without compromising the share price, right? Yeah, and the share price is...sustainability is an actor on the share price.</p>	<p>For private clients, customer needs and share price are considered to balance sustainability cost and future benefits.</p>
<p>How would your organisation align sustainable procurement to organisational targets? How would sustainable procurement contribute to achieving organisational targets? We know that each organization have various targets and strategies. As part of the strategy that how would sustainable procurement contribute to achieve those targets.</p>	<p>Look, I think I'll keep it quite simple. We have an Essentially Enabled Agency Led procurement framework that sounds a bit like Utopia type of jargon there. But what it really means is ... the team that I'm in, we have the policy for all of government, but it's really for the agencies to pursue those three priorities I talked about earlier, the environmental, the social and the economic. So how? How was aligned well...it should be aligned, because if it's not aligned, they shouldn't be pursuing those activities in the first place. So, overarching category strategies. Each Department has a procurement plan. I'd love to say that they're all consistent, but if I turn my face sideways, you probably see my nose grow. So this is the idea that any procurement activity shouldn't be pursued unless it is in line to the organizational targets. A simple example would be without indigenous space, that policy references 3% of addressable spend, so someone undertaking a procurement activity in area like Thursday Island would look first to see what they can do for the Aboriginal community before undertaking that procurement. And by reporting on it, that therefore it's achieving organizational objectives.</p>	<p>Procurement activities should be pursued in line with the organizational targets.</p>
<p>How would your organisation align sustainable procurement to organisational targets? How would sustainable procurement contribute to</p>	<p>I'm just gonna, sort of backup Rob in terms of what he was saying in terms of that approach. So often for West Australia for what we target as an ongoing organization...There's a driver there in some way, whether it's viral policy or a funding arrangement. So condition of the funding that we receive that helps</p>	<p>For government client, the alignment of sustainable procurement to organisational targets is shaped by</p>

Question	Quote	1st-Order Terms
<p>achieving organisational targets? We know that each organization have various targets and strategies. As part of the strategy that how would sustainable procurement contribute to achieve those targets.</p>	<p>to drive action and an action that results in sustainable procurement, not necessarily the broad brush sense, but it will be a sustainable procurement activity. So, you might have indigenous engagement which is driven through a target that is set by the federal government. Or it will be quite local, which is the target that is set by the state government as the condition of our funding. Then there will be those formal arrangements that we will have. But then we'll also have organizational led policies and strategies that have their own form of objectives, and then management process is put in place. So we expect there will be a little bit tougher to drive through, because that's... there's not necessarily the resources that are applied to those organizational led activities. You get a lot more because of the condition of funding. It means that you can drive it through your major projects. So yeah, that's probably although I wanted to sort of mentioning that space.</p>	<p>Federal government requirement, State government requirement, organisational led policies and strategies and management process.</p>
<p>How would your organisation align sustainable procurement to organisational targets? How would sustainable procurement contribute to achieving organisational targets? We know that each organization have various targets and strategies. As part of the strategy that how would sustainable procurement contribute to achieve those targets.</p>	<p>So Defence I guess fairly committed to delivering against the national waste policy objectives and we've made our own waste and sustainable procurement policy to reflect those objectives. But at the end of the day, in Defence that we say capability is King, it's all about capability. So if you in private sector, it's about earning profit. Defence is about capability. So we have to...if we say going for recycled options in our roads or whatever it is, we have to always prove that it's going to meet the performance requirements. So that's a challenge we have, even if it's just perceived, it's often a challenge. Obviously as a government agency, we have to prove value for money and we have to apply whole of life costing. Which can work in our favour, sometimes that's another approach. And we also have a bit of a social licence to maintain in terms of, especially with regards to recruiting new people into Defence. And I don't know, it's a bit subjective, and sometimes it's a bit of a long voted draw. But you know, having the image of being more environmentally friendly, it's definitely something Defence conscious of. And then the other big one is that...the government is actually specifically come to Defence and pointed at us as a large procurer, probably the largest in the government. To assist in developing this is the circular economy. So they said you guys buy so much stuff we need you to be a big part of this process. And again, Defence is committed to that. So in that sense, there's some good alignment, I guess. Thank you.</p>	<p>Government agency needs to prove value for money and apply whole of life costing.</p>
<p>How would your organisation align sustainable procurement to organisational targets? How would sustainable procurement contribute to</p>	<p>I also support Rob's comments about aligning procurement practices with organizational targets. I think in government typically what we've seen is a more sophisticated approach that would involve looking to internal a whole of government policies or guides to find what objectives have been set,</p>	<p>Objectives set by government policies or guides need to be considered at each stage of the investment lifecycle.</p>

Question	Quote	1st-Order Terms
<p>achieving organisational targets? We know that each organization have various targets and strategies. As part of the strategy that how would sustainable procurement contribute to achieve those targets.</p>	<p>and from those you know what outcomes have been committed to, and making sure that those objectives or outcomes are considered at each stage of the investment lifecycle. So to give an example, it's about making sure that those objectives help to shape the design of the project or that it helps to inform the risk assessment at the business case stage.</p>	
<p>How would your organisation align sustainable procurement to organisational targets? How would sustainable procurement contribute to achieving organisational targets? We know that each organization have various targets and strategies. As part of the strategy that how would sustainable procurement contribute to achieve those targets.</p>	<p>One other thing I'll add is another way to align sustainable procurement to organisational targets is to use rating tools like Green Star or the IS Rating tool that aligns with the organization's targets. Because rating tools are essentially also a framework for defining social, environmental, economic sustainability, and it helps to guide the user on how to deliver those outcomes and also helps to you know, measure and benchmark those outcomes.</p>	<p>Rating tools (e.g. Green Star, IS rating tool) can be used to align sustainable procurement to organisational targets and guide the users on how to deliver, measure and benchmark the outcomes.</p>
<p>How would your organisation align sustainable procurement to organisational targets? How would sustainable procurement contribute to achieving organisational targets? We know that each organization have various targets and strategies. As part of the strategy that how would sustainable procurement contribute to achieve those targets.</p>	<p>I just want to add on what Sanders just said. But if we start the conversation on evaluating now we will probably lose a good 20 to 30 minutes minimum. But I just think it's such an important piece in this space because...maybe I'm... I try to not be naïve, 'cause the dollars to drive...that they have the heaviest weighting. I think at the end of the day, if I try to be short and sweet about it...so when people stop me in a corridor, this happened before, to say I look the Social Enterprise is going to be 20% more, Rob. Give me absolutely zero context and want just a quick yes or no 'Is that value for money?'. It doesn't work that way. so I think the evaluation piece and having tools that effectively measure social, financial and environmental outcomes that demonstrate real value is such a significant piece with this agenda for whatever it works [0:33:04]?</p>	<p>Having tools that effectively evaluate and measure social, financial and environmental outcomes that demonstrate real value is of significance to the sustainable procurement agenda.</p>
<p>How would your organisation align sustainable procurement to organisational targets? How would sustainable procurement contribute to achieving organisational targets? We know that each organization have various targets and strategies. As part of the strategy that how would sustainable procurement contribute to achieve those targets.</p>	<p>Yeah, sure, just to say that as part of the National Waste Policy Action Plan, the Government did commit to significantly increase the use of recycled content. So within our team we're currently doing some ground work on that, in terms of going through a process to identify and look at whole government procurement and to sort of establish what a baseline would be for that, as well as looking at potential targets as well.</p> <p>Under the Waste Policy Action Plan, all levels of government have actually committed to setting targets. But I think there's a bit of a route to travel on that just yet [0:34:04].</p>	<p>All levels of government have committed to setting targets according to the Waste policy Action Plan.</p>
<p>How would your organisation align sustainable procurement to organisational targets? How</p>	<p>What I guess from my experience generally is that corporate targets need to be almost quite clearly defined in the sense of the values that the company has. So I worked in companies where I've literally</p>	<p>Private companies tend to focus on short-term goals.</p>

Question	Quote	1st-Order Terms
<p>would sustainable procurement contribute to achieving organisational targets? We know that each organization have various targets and strategies. As part of the strategy that how would sustainable procurement contribute to achieve those targets.</p>	<p>been told any cash and profit are the measures of success and in that type of environment. Clearly you are not necessarily focused on sustainability. In a sense, they tend to be very short term goals. I think from a procurement perspective, I guess it's a much clearer aspiration in BGC to be more sustainable, and what we do is actually trying to find those goals within a function that align as close as possible, and that's really the challenge when traditionally a procurement professional focuses on cost reduction as it's primary measure of success. So, simply there is a definite moving in the procurement professional world to look more holistically at the evaluation of what they're buying, and specifically trying to align that to the goals and values of the company. But certainly my time in the company, I'm seeing a significant shift in that sense. So, not an easy thing to do, because there's always a translation, but that is certainly the way that we're heading.</p>	<p>There is a challenge for procurement professionals as traditionally the primary measure of success focuses on cost reduction.</p> <p>There is a moving in the procurement professional to align the procurement activities to the goals and value of the company.</p>
<p>What mechanisms or approaches are there in your organisation to assess the value of sustainability?</p>	<p>I think that's a challenge because there are many channels to delivering sustainable procurement. So in the social procurement space we report on our spent with certified social traders, enterprises and also looking at reporting on our spend with social enterprises that I'm calling self-declared. They have been certified by social traders but they could still be xxx??? [0:35:57] social enterprises. So that's how we would quantify actual spend and the impact in the percentage of that spend. It falls against the various marginalized groups, people with disabilities, etc.</p> <p>But that's a very different way of ...the way you then would measure some of the environmental benefits would be totally different to that. So I don't think you can have one... I wish you could, but I think you don't have just a sustainable procurement tool that just comes in and perfectly measures every single avenue of what social and sustainable procurement can represent, in my humble opinion.</p>	<p>Reporting on the spend with certified social traders and enterprises and social enterprises is a way to measure the impact of social procurement.</p>
<p>What mechanisms or approaches are there in your organisation to assess the value of sustainability?</p>	<p>If I can just add to that as well. One of our colleagues, XXX, my colleagues are currently working on the space at the moment to try to look at a way that we can measure the economic benefit to a local community or the jobs supported by a particular project. So at the moment this is targeted at the Townsville Stadium construction and the benefit for the local community of having a particularly high local workforce throughout the construction of that. So there is some work being done in that space. I probably don't have the in depth knowledge to share much more than that. But there's definitely working done to look into how we could measure that, when it comes to local benefits particularly.</p>	<p>Measure economic benefits to local community for major construction projects.</p>
<p>What mechanisms or approaches are there in</p>	<p>We are a private company so not as sophisticated as listed ones. But we've just got started...I guess we've got through our RFP processes, we ask questions,</p>	<p>Compliance criteria is used for the go/no go</p>

Question	Quote	1st-Order Terms
your organisation to assess the value of sustainability?	and there's compliance criteria, quantitative criteria if there is ...the target for this company. But we also have qualitative criteria in there as well, and we've just started. With the compliance criteria, we just started rejecting companies if they don't pass that test. So that's just where we're at in our evolution on the continuum.	decisions in tendering.
What mechanisms or approaches are there in your organisation to assess the value of sustainability?	In terms of assessing the value of sustainability, we also do market research on customers and some of the stuff that comes out of that is really interesting. so you can refer back to Maslow's hierarchy of needs. I'm still coming from my environmental perspective, but everyone wants it at the start and then they trade it off somewhere along the line. That's just the nature of that.	Market research on customers is a way to assess the value of sustainability for private companies.
What mechanisms or approaches are there in your organisation to assess the value of sustainability?	The other things that we're considering in the procurement process, we're also asking companies for safety lagging indicators now. We shadow carbon costs on our energy procurements and on our footprint overall, every time we do our National Greenhouse and Energy Report. So I think, maybe that contingency evaluation is something that hasn't been said just yet, but there is something we do measure.	Safety performance and carbon costs are considered in tendering.
What mechanisms or approaches are there in your organisation to assess the value of sustainability?	In addition to what I've already said in relation to Green Star and the ISCA rating tool, what I also would add is in the infrastructure Space, Infrastructure Australia has developed what they call Infrastructure Decision Making Principles , I think in 2018, that provides some high level guidance on best practice regarding valuation approaches, decision making, principles considerations. And to my understanding, I think state based infrastructure agencies have also started looking at what are some of the ways to value sustainability, and Treasury as well. State Government Treasury are starting to look at this problem. So I think it's being progressed, perhaps unevenly not very consistently, but it's definitely being looked at from different angles.	Infrastructure Australia has developed Infrastructure Decision Making Principles that provides some high level guidance on best practice regarding valuation approaches, decision making, and principles considerations.
From GBCA, are there any plans to look at it, like the measurement of the social impact?	Yeah, absolutely. We have recently updated our Green Star Rating tool to sort of broaden the focus on sustainability beyond environmental sustainability to incorporate in social sustainability and issues of resilience, also, economic sustainability. Historically, those considerations have also been part of our assessment tool for communities, because we recognize that a sustainable community is not just about environmental outcomes. It's also about things like access to amenities, access to fresh food, resilience. So there's already a lot of knowledge that we're really just building on. But the new tools that we released last year, looking at design and as built outcomes, which is called Green Star Buildings, takes a much more thorough approach to social	Green Star Rating tool has been updated to broaden the focus on sustainability beyond environmental sustainability to incorporate in social sustainability and issues of resilience, also, economic sustainability.

Question	Quote	1st-Order Terms
	<p>sustainability. I can dot point that for you in an email. It's probably too long to go into here.</p> <p>Given we touched on the potential of sustainable procurement to address organisational targets around sustainability, including objectives related to the circular economy, I wanted to let you know that GBCA has just released a circular economy discussion paper. The paper articulate our role and vision to drive the sector towards more circular outcomes. You may be interested in how Green Star (namely, our Green Star Buildings tool) currently helps to measure and promote circularity:</p> <ul style="list-style-type: none"> • Reduced upfront carbon emissions and other emissions (refrigerants and others), low energy consumption and energy sourced from renewables. • Diversion of construction waste from landfill, and effective operational waste management. • Use of low or non-toxic materials. • Responsible procurement of products and services for best practice environmental and social principles in building structure, envelope, systems, and finishes. • Low environmental impacts from resource use over the building's lifespan shown through comparative lifecycle assessment. <p>In addition, the Nature Category promotes a number of restorative outcomes such as conserving the ecological value of the site, restoring and enhancing the site's biodiversity value, encouraging wildlife moving through site, and protecting waterways</p>	
<p>What mechanisms or approaches are there in your organisation to assess the value of sustainability?</p>	<p>I think I mentioned them before and to call surprise even if we are listed we are still very much in our infancy and how we measure sustainable practices. We are trying to embed it in our tendering processes. It is currently being rewritten by my team and we have taken a copy of the Department of Defence just to see how your new document has taken up modern slavery, the indigenous policies on those social reporting plus all the other measure.</p>	<p>The listed private company has an increasing interest in social procurement.</p>
<p>What mechanisms or approaches are there in your organisation to assess the value of sustainability?</p>	<p>I was just going to talk a bit about how we measure sustainability at Main Roads. In terms of that assessment, I'm not sure we have done too much recently. But in terms of measures we utilized the Infrastructure Sustainability Council of Australia's IS rating tool and use that as a method to measure the level of sustainability practice within our projects above a value of 20 million.</p>	<p>ISCA's IS rating tool is used to measure the level of sustainability practices for infrastructure projects.</p>
<p>What mechanisms or approaches are there in your organisation to assess the value of sustainability?</p>	<p>But then there's a more for that. We get formal verification of full projects of a value greater than 100 million. I think that gives us that measures where things are at...It doesn't necessarily measure the value of actually pursuing sustainability in the first place. So for those not familiar with ISCA as well, a very broad brush tool that has many different</p>	<p>IS rating tool helps infrastructure clients to measure how broadly they can apply sustainability within their projects.</p>

Question	Quote	1st-Order Terms
	<p>categories. It's recently expanded out to more social categories as well, which I mean that helps us measure how broadly we're able to apply sustainability within our big contracts and big projects and for our project in development sort of structure those projects. In such a way that we can deliver better outcomes for sustainability and high rating scores.</p>	
<p>What mechanisms or approaches are there in your organisation to assess the value of sustainability?</p>	<p>We did many years ago look at return on investment when we were first getting into the space using the IS tool (this is probably 10 years ago) and its previous version on project and what it was driving as outcomes and whether there was a return on investment on that. That version of the tool was looking at environment practices and so it didn't have the social value and social return on investment that you might typically do, but it was looking at for doing this for saving energy, for saving water, for saving materials or recycling materials, and it is going to give the project a cost benefit. And that's not necessarily what I believe assessing the value of sustainability is because you're looking at more the overall impact on their economies, not just a financial benefit to doing it. Yes, I'll leave it at that.</p>	<p>Previous version of IS rating tool was used to assess the return on investment in terms of environmental impact.</p>
<p>What mechanisms or approaches are there in your organisation to assess the value of sustainability?</p>	<p>So just for interest I guess, in Defence, actually in terms of measuring in the first place, our procurement and our waste, it's very much in its infancy. We are almost just trying to establish some baselines to understand where we are in a lot of areas. Our general waste that goes out in the skips in the bins is measured quite well, but not much else there. Although lines of procurement and different systems, Defence is huge and just trying to get a handle on where we want to do some evidence based change here, we want to pursue these policy objectives, we want to work out where to put our energy. And even that is really a challenge for us at the moment. Late on trying to sort of quantitatively put a value on the broader social impacts and the support to local communities and all of other benefits that might occur very much in a place of trying to get some baseline in going on.</p>	<p>Government clients are immature in quantitatively measuring the value of sustainability.</p>
<p>What mechanisms or approaches are there in your organisation to assess the value of sustainability?</p>	<p>I don't think we do clearly align any metrics of ... if you like post contract award metrics other than we might actually include certain key performance indicators with the supply environmental ones, for example. But what I'm seeing is, modern Slavery Act is obviously forcing us not just to identify risks and not just to put in means to mitigate, but it actually requires us to measure the impact of these changes. I think we'll start to see that more often in other parts of the ESH environment. So when we're doing in an evaluation, we're starting to build in things like environmental considerations or certain things like safety factors, and so all of those come into the equation. And then with effective supplier</p>	<p>Modern Slavery Act is obviously forcing the organisations not just to identify and mitigate risks, but it actually requires organisations to measure the impact of these changes.</p>

Question	Quote	1st-Order Terms
	management tools, we can start to measure the impact contract by contract.	
What mechanisms or approaches are there in your organisation to assess the value of sustainability?	I think there's a danger with the... I mean, the qualitative can be useful, of course. But you have got to be careful that is not subjective. Subjective can be disguised as a warm and fuzzy feeling of we're doing the right thing. But that doesn't necessarily focus on the impact. And ultimately certainly in my experience, there's a lot more attention given to objective impact type measurement than to that more subjective side of things. So ideally it would be a quantitative outcome in measurement.	Objective evaluation of the sustainability impact is needed.
What would impede the implementation of sustainable procurement practices in your organisation and wider industry? what would be the barriers and enablers of sustainable procurement in Australia?	From my perspective, what does impede sustainable procurement is really around data and the ability to get information about various products or through supply chains of what is actually happening. It's probably one of the biggest impediments. Without that data you can't measure what we were able to achieve or what impact you're making with that. It then comes along that resource is another issue for me and being able to apply enough resources to managing or even driving outcomes, so resource just people in general or innovative ways of being able to do the practice of sustainable procurement. And to tie together with that is capability as well having enough practitioners and enough people who understand sustainable procurement and its value and how to drive it. Probably for me this is one of the largest things holding back. So the industry will be able to pick up on the tools that are already available to them.	Barriers: data availability; resources/capability for sustainable procurement
Thanks Lewis, can I just follow up the data. When you mentioned the data, so could you be able to give us a little bit more information about the data? Like what kind of data that you think are necessary to enable sustainable procurement.	So for me, there are two forms of data. One, it's out of the supply chain. So within your contract being able to easily get from your contractors, the information that you need to assess what's going on there, but also the data, that is applied to different materials, so you can understand their carbon impact or what's the recycling impacts. Quite often there's different products available, but you don't necessarily have an environmental product disclosure associated with it to make a decision around, to then base your decision on whether it has more impact, less impact, or even understanding its performance properties as well in terms of how long it will last and that sort of thing. It's a very general way of describing it, but we do need those two forms of data. There are a few issues, while we can't get that data at the moment.	Data that help to drive sustainable procurement include data about supply chain and data about materials.
What would impede the implementation of sustainable procurement practices in your organisation and wider industry? what would be the barriers and enablers of sustainable procurement in Australia?	I would agree with everything that we just said. I think for me, in the procurement world, I think that's a bit like IT. They're often the last to thank the first to blame. And Government has so many competing priorities at times. So, if Rob Law comes in a room and I don't have to do, but if I start talking up social, as if it's the one only thing, even though I kind of want to, there's so much competition for realistic there. It's like, OK, so we've got this one activity and	Barriers: lack of clear guidance on sustainable procurement

Question	Quote	1st-Order Terms
	<p>you want us to tick 10 different boxes. So I think it's just being mindful of that. I think also if you lined up 100 people and said what's sustainable procurement, you'd probably get at least 80 to 85 different answers. But I think to me people be on the same page and so I think when people are time poor, you really need to make it easy for them. So if I think about the social space, often there's a lot of supplies out there. Large suppliers Mrs already indicated today that they're doing this stuff or having an interest in doing this stuff. But I don't think people should conclude... So I guess Point 1 is just it doesn't hurt to always ask. And Secondly, I don't think a lack of knowledge or awareness is necessarily reflects a lack of appetite. I met with the CEO and IT company other day had no idea that he could divert his spend to a social enterprise and that could demonstrate a way of contributing to the social objectives of this Government. So wasn't that he didn't want to, he just had no idea. So I think perhaps in this space the 80/20 rule applies a little bit. Try to make it easy for people. I hate saying low hanging fruit because I suddenly feel like I'm an overpaid consultant, but I just did. But there's some low hanging fruit in this space where you can. You can guide people in the right way, and steer them in when they're busy. You just need to make it easy for people, make it digestible. This is where you should direct your energy and let's as a bit of a theme today. Let's just start there. Let's have the data. Let's report on it. Let's get a baseline and let's just seek to go North and always improve.</p>	
<p>What would impede the implementation of sustainable procurement practices in your organisation and wider industry? what would be the barriers and enablers of sustainable procurement in Australia?</p>	<p>So as part of our work at the federal level of being looking at where was would be like the procurement categories for Government that would have the highest opportunity to procure goods and services that contain recycled content. So I was just thinking I could share some of the things that we've been sort of identified through that process, and one example, we found that different industries are at different stages of being able to provide products or goods that contain recycled content. So one example, like paper. I mean now we can procure paper that's 100% recycled paper and also we can procure from an indigenous owned business. Whereas when we look at the procurement of major office machines like a photo copier, right now the feedback is that it's still quite difficult for us to be able to identify with in that machine, the proportion of recycled content coming off the production line how much it currently is. Also, for a photocopy, the life span is around five years that we can use them. However, they can be sort of used in the office for around 10 years, but when they are taken into apart and recycled and look at how they can be reused. They don't often match the technology that now is</p>	<p>Barriers: 1. Different industry are at different stages of being able to provide products or goods that contain recycled content; 2. Fast development of technology essentially shortens the lifespan of a product.</p>

Question	Quote	1st-Order Terms
	needed in the new machine. So I guess technology is also another barrier or challenge around this issue.	
What would impede the implementation of sustainable procurement practices in your organisation and wider industry? what would be the barriers and enablers of sustainable procurement in Australia?	I think also it's a behaviour change process (may be it has sort of been touched on by the other points) and also for staff really knowing what's the opportunity – what opportunities are available to procure goods and even particularly services. So in terms of procuring our services, where are the opportunities for sustainability within that? So it's definitely a process of behaviour change, education and providing information and connecting with supplies and with industry to be able to identify opportunities.	Opportunities for driving sustainable procurement: 1. behaviour change; 2. Education and providing information; 3. Engaging suppliers.
What would impede the implementation of sustainable procurement practices in your organisation and wider industry? what would be the barriers and enablers of sustainable procurement in Australia?	And I think as a as Rob said, I trust sustainable procurement is one thing in a sea of things people need to consider. So we need to be influential and encouraging as we can and make it as easy as we can.	Government clients need to be influential and encouraging and simplify the process.
What would impede the implementation of sustainable procurement practices in your organisation and wider industry? what would be the barriers and enablers of sustainable procurement in Australia?	Yeah, but what Louise said really resonated with the data transparency and robustness of that resourcing is an issue here. So I'll throw in culture. And it's not necessarily BGC's culture. It's far broader than that. They're focused on bottom line. EBITDA is a massive thing for us at the moment. We're beefing up the book value for sale. And also just consultants...So we've come off the back of a procurement transformation program about nine months using one of the top tier, one of the top 2 consultants in the world. They're going in for outsourcing low cost country with no consideration whatsoever of sustainability. So I just don't think it's the kind of conventional thing or it's not as conventional as it could be? The other one is probably a bit more specific to BGC, and that's the tragedy of the common. So if it doesn't cost us anymore and hits the triple bottom line, no problems. But if it does cost a bit more and you need to pass that on... for housing, at least you lose jobs to the competition for a few hundreds of dollars. So tragedy of the common, where you don't capture that value, that's a barrier.	Barriers: 1. Data availability and transparency to capture the value of sustainable procurement; 2. Culture and mindset of the industry
What would impede the implementation of sustainable procurement practices in your organisation and wider industry? what would be the barriers and enablers of sustainable procurement in Australia?	So, just related to the early discussion around data. Another issue is the lack of post completion reviews that we see in government procurement, which means there's less understanding around the benefits of sustainable procurement approaches where they are tried and seem to be effective, but they can't be applied to future projects because there's no data available to help build the case for reform. To Carl's comment, I think upfront cost versus life cycle cost is this consultation that we see in the procurement world. Some investments might have a higher upfront cost, which can be really	Barriers: 1. Lack of post completion reviews results in less understanding around the benefits of sustainable procurement 2. Lack of understanding

Question	Quote	1st-Order Terms
	<p>difficult to justify when they're not considered in the context of cost savings across the operational lifecycle of the asset.</p> <p>Another one is the lack of understanding around broader social or environmental co-benefits that might be harder to measure or quantify, but they still provide a lot of value. Risk aversion, I think that's already been touched on technical proficiency, and fully recognise the comment that Governments are resource constrained sometimes, and they have competing priorities. But I suppose for our interest in that space, it's about having the suitably qualified or experienced professionals on the tender preparation team or the assessment panel who can then help to ensure that the tender is structured to trigger the appropriate design responses from tenders and to be able to gauge whether tender responses can realistically achieve the stated requirements of the project. Yeah, so that's probably what I'll say for that.</p>	<p>around broader social or environmental co-benefits</p> <p>3. Lack of qualified professionals on tender preparation team and assessment panel that can advise on sustainability aspects.</p>
<p>What would impede the implementation of sustainable procurement practices in your organisation and wider industry? what would be the barriers and enablers of sustainable procurement in Australia?</p>	<p>In our case, it's often a behaviour change issue and letting people know that this is the change we want, that's something we're managing at the moment. It's about communication in one sense. But then, as Rob mentioned, everyone's busy and there are so many requirements. So we really have to focus on making it easy. So I was reviewing a multimillion dollars project yesterday and this subject is just one section of the environment bit of the list of 100 requirements they have to go through. So we really have to focus on making it easy for people or it just doesn't get done. Of which, we've had feedback quite a few times and some of that make it easy is...the message we get is 'sure, we'll do it, if that's what you want, no opposition, but can you let us know what products are out there or what we can use?' They literally just want us to say 'here you go, here's what we want, here's the list of great products.' This is Defence' issue. Defence has a good system in place called smart infrastructure requirements which covers renewable energy, water efficiency and materials etc. But what Defence hasn't done a great job of is doing compliance checks. So Defence has the task to make sure industries actually complying with our requirements. Often we have these policies and requirements in there, but they don't get checked. We will sign off projects at the end and not check that we've got what we want, we paid for. So that's a challenge and that is a big challenge in such a big organization.</p>	<p>Barriers:</p> <ol style="list-style-type: none"> 1. Lack of clear requirements 2. Lack of simplified guidance 3. Lack of post-contract compliance check
<p>What would impede the implementation of sustainable procurement practices in your organisation and wider industry? what would be</p>	<p>More often than not, it's at that kind of human engagement with the subject and that can be one of a number of things. It could be... there are other priorities that people have. People often tend to focus on what they're measured by. And so if a general manager at a business is measured on</p>	<p>Barriers:</p> <ol style="list-style-type: none"> 1. Lack of integration of sustainability into organisational

Question	Quote	1st-Order Terms
the barriers and enablers of sustainable procurement in Australia?	<p>profitability, that's going to be their focus. And these other sorts of measures are just not going to hit the mark then. So you should motivate people in some cases. But you have the cynics...I've had plenty of conversations against Modern Slavery in particular, where people are just.. 'it's not really an issue, is it?' or 'there's nothing we can do', or even the denialists, the one 'no no no...you know we're buying from an international reputable company, this can't be an issue' without actually wanting to understand that there are multiple tiers to the supply chain. So that human engagement in that... human education is always going to be the most or the biggest barrier to overcome. And I think one of the dangers is, we think that one size fits all. So there is a danger that actually one kind of message is going to be received in the same way across the business. I think we can't get away from the fact that every person is different, and we need to factor that into the communication. Other barriers I think the reality of the supply chains themselves with all due respect, we're not going to be out of change our supply chain readily. We don't even know what theory of our supply chain is. And so to actually build that transparency is extremely hard. I mean, ultimately, things like blockchain might assist with addressing some of these questions. But today it's hard enough to know what's in tier two level in fact. So I think that transparency and visibility is the other big issue. And I suppose that's focusing a little bit on modern slavery there. But the same could be said for environmental impact as well as political risks, economic risks, etc all the way down the supply chain.</p>	<p>and personal performance indicators</p> <ol style="list-style-type: none"> 2. Education and communication 3. Supply chain transparency and visibility
I'd like to start with the first one that's Tracey mentioned. When there's a clash or conflict between sustainability and viability, how is it balanced, especially at the Government agency ... when it is sustainable, it doesn't make sense from the bottom line perspective and we have to make a decision, right? Is there any example of good practices there?	<p>My bad sense of humour. I want to say that never happens, there's never any competing priorities, but of course there is. I don't have a best case, I don't have a perfect answer for you, except that I do think it does happen, it's going to happen. I think procurement all down to context, and I suppose it's down to, ultimately, what you wanted to achieve with that procurement. We talked about the evaluation piece, we talk about value for money. I love the align that Sandra mentioned. It's so true, like the cost now as opposed to the whole of life so. If I was found myself in that position, I would try to make an informed recommendation based on the option that represents the greatest whole of life value. But I do know of an example within Queensland Government in pursuing some environmental outcomes, it resulted in money ... this particular example being taken away from an Aboriginal business. So, by putting in a different target, ticking this box, you then had to cross out the other box. So it does certainly happen.</p>	<p>Competing requirements exist in sustainable procurement, e.g., environmental outcomes vs. indigenous procurement.</p>
I'd like to start with the first one that's Tracey mentioned. When there's a	<p>Yeah, just a quick one on that. So we often have this challenge of competing requirements (at least with infrastructure projects). But it comes up at the end</p>	<p>Barriers:</p> <ol style="list-style-type: none"> 1. Sustainability requirements

Question	Quote	1st-Order Terms
<p>clash or conflict between sustainability and viability, how is it balanced, especially at the Government agency ... when it is sustainable, it doesn't make sense from the bottom line perspective and we have to make a decision, right? Is there any example of good practices there?</p>	<p>of the project when there's not enough money and there's too many things that need to get done. So that's in some ways our fault, because these sustainability requirements sort of come in after the scopes being set. So there's a scope and a budget, and then, we go 'all right, here's all the requirements on top of that.' So what we're looking at is trying to get some designated funding earlier on, or get a say in write early on in the piece. This is one challenge we often experience and we're trying to address. It's just 'don't come in late with your requirements'.</p>	<p>come in after the project scopes being set, which results in competing requirements.</p>
<p>I'd like to start with the first one that's Tracey mentioned. When there's a clash or conflict between sustainability and viability, how is it balanced, especially at the Government agency ... when it is sustainable, it doesn't make sense from the bottom line perspective and we have to make a decision, right? Is there any example of good practices there?</p>	<p>We can find something similar. Because we're all required to comply with the Commonwealth procurement rules whose overarching requirement is value for money. And even though it states you consider financial and non-financial aspects in that assessment. There's not a lot of detail from then on down and each Department interprets it, and each procurement interpreted according to what's most important for that procurement. I've noted in one of our recent budget proposals for some infrastructure departments doing, they specifically flagged and got funding for the ability to be able to use a bit more recycled content. So they knew upfront in and factor that in. Now we've just got to work with them to find the materials and hope that it all translates to an end product.</p>	<p>It is essential to factor the cost of sustainability activities in budget.</p>
<p>How can we link the opportunity for more robust supply chains to Australian government initiatives? So this question is pretty much focused on the any changes though we can make in the future about the supply chains. We know that supply chain is the key player in transforming the industry practices and in achieving this sustainability goals. In your practices, did you find any issues or do you have any suggestions that you can improve the supply chains or are there any suggestions on the improvement on the tendering system or the contractor forms to achieve the sustainability goals and then to link to the Australian Government initiatives?</p>	<p>People in the right direction, like a lack awareness might not mean a lack of appetite. So again, in this social space, it's about asking the market the right questions and you can ask 'are they partnering with a social benefits supplier in their supply chain?' And then, wouldn't blame them if they scratch their head and said 9 out of 10 people are going to go 'What's the social benefits supplier?' So then you provide some details in your tender documentation and you point people in the right direction. So whether that's again context what you're trying to pursue, whether that's Mr. mentioned supplied from the Aboriginal businesses, whether that's social traders or here in Queensland the Social Enterprise Council for the social side of things by ability for disability enterprises.</p> <p>And even more recently it's clear that sadly it's a real issue in this country whether you steer them in the direction of femeconomy and we connect for women owned and led businesses. With the modern slavery, I guess it's for every organization. You can either do that as a ticket in a compliant sense of we got over the line, here's the ticket, or you can be a bit aspirational about it and really have your ... we talk about our ethical supplier mandate and ethical supplier threshold within Queensland Government and the way the modern slavery stuff raises... If I'm wrong it's been a little while since I've looked at it.</p>	<p>Opportunity:</p> <ol style="list-style-type: none"> 1. Go beyond just compliance, and proactively align all the procurement documentation to what the organisation aspires to achieve (e.g., asking the right questions).

Question	Quote	1st-Order Terms
	<p>But even if you have a...It really applies to everyone, because even if you have a small turnover those large organisations that are publishing their statements have to say 'we've identified any risk in our supply chain' and so even Tier 2 Tier 3 contractors should be ethical in their dealing. So there's a real opportunity there, not just to be compliant, be aspirational and align all your procurement documentation accordingly.</p>	
<p>How can we link the opportunity for more robust supply chains to Australian government initiatives? So this question is pretty much focused on the any changes though we can make in the future about the supply chains. We know that supply chain is the key player in transforming the industry practices and in achieving this sustainability goals. In your practices, did you find any issues or do you have any suggestions that you can improve the supply chains or are there any suggestions on the improvement on the tendering system or the contractor forms to achieve the sustainability goals and then to link to the Australian Government initiatives?</p>	<p>I suppose my response to that would be first to publicize those government initiatives and make sure that industry is well aware of those policy objectives or commitments or initiatives that governments are trying to progress. One good example is the work that the New South Wales Government is doing on embodied carbon and driving some demand side change for embodied carbon, through liaising with the supply chain. And that involves literally running workshops and forums to build a community of practice of likeminded companies, organizations, governments, that all to drive some demand side changing in procuring low embodied carbon materials and products.</p>	<p>Opportunities:</p> <ol style="list-style-type: none"> 1. Publicise and promote government initiatives by actively engaging the supply chain (e.g., workshops, forums, community of practice)
<p>How can we link the opportunity for more robust supply chains to Australian government initiatives? So this question is pretty much focused on the any changes though we can make in the future about the supply chains. We know that supply chain is the key player in transforming the industry practices and in achieving this sustainability goals. In your practices, did you find any issues or do you have any suggestions that you can improve the supply chains or are there any suggestions on the improvement on the tendering system or the contractor forms to achieve</p>	<p>So when I read this question I just think immediately of carrots and sticks. So the government can offer incentives by preferencing certain criteria equally they can work with sticks, and bring in standards, whether those standards are transparency or rigor, and your contentions ...that this blockchain technology, the solution here. And bringing up lowest common denominators, they both work.</p>	<p>Opportunities:</p> <ol style="list-style-type: none"> 1. Incentives and market driven solutions for growing private businesses (carrots) 2. Government policies and standards (sticks)

Question	Quote	1st-Order Terms
the sustainability goals and then to link to the Australian Government initiatives?		
How can we link the opportunity for more robust supply chains to Australian government initiatives? So this question is pretty much focused on the any changes though we can make in the future about the supply chains. We know that supply chain is the key player in transforming the industry practices and in achieving this sustainability goals. In your practices, did you find any issues or do you have any suggestions that you can improve the supply chains or are there any suggestions on the improvement on the tendering system or the contractor forms to achieve the sustainability goals and then to link to the Australian Government initiatives?	I can paraphrase, Carl, because I think he said that they both work. And I think that the important private sector message here is to make sure that we're not just talking about sticks that might or might not be from government, but we also talk about market driven solutions , that might be the carrots and the opportunity to grow business, opportunity through working with the private sector and encouraging outcomes that achieving the goal that we jointly looking for. Is that an elaborated response, Carl? I understand and I hear clearly. What do you think?	As above
How can we link the opportunity for more robust supply chains to Australian government initiatives? So this question is pretty much focused on the any changes though we can make in the future about the supply chains. We know that supply chain is the key player in transforming the industry practices and in achieving this sustainability goals. In your practices, did you find any issues or do you have any suggestions that you can improve the supply chains or are there any suggestions on the improvement on the tendering system or the contractor forms to achieve the sustainability goals and then to link to the Australian Government initiatives?	The other thing I forgot to add. I'd be remiss if I didn't say. The user rating tools can also help in that regard, because in Green Stars case I'm less familiar with the IS tool, but all Green Star Tools from 2020 onwards include credits that seek to reward the use of products that meet criteria that set out in our responsible products framework. So that framework outlines criteria for scoring how responsible a product is. That's our way of trying to influence both the user, but also the supply chain.	Opportunity: 1. Using rating tools to influence both users and supply chain - Green Star Rating tools include credits that seek to reward the use of products that meet criteria that set out in the responsible products framework.

Appendix B: 1st-Order Analysis on Stakeholder’s Role in Transforming Industry Practices

Question	Quote	1 st -Order Terms
How can clients incorporate sustainable procurement requirements into project goals?	...we have the new 2030 Sustainability Strategy, but what predated to that strategy was you know an earlier strategy, when we set various targets around carbon emissions reduction, energy intensity reduction, water and waste to landfill reduction targets. So, in the context of sustainable procurement, I guess, I’d talk from the point of view that we’ve always had a Policy and Process around Procurement in our Organisation, so if I could describe it, it would probably contain a number of sustainability related requirements, probably quite high level	Private client has a [new] policy and process around procurement with high level requirements related to sustainability
How can clients incorporate sustainable procurement requirements into project goals?	<p>...if I can say in the last 14 years our Sustainability Strategy, development, and how we embed that into our systems and procedures in our Organisation involved all the time, so I wouldn’t sit here today and say that we have a very thorough Sustainable Procurement Policy; so, I actually have a draft copy of something that we’ve used for Green Star, Emma? But, what we found with that it is not embed, so if I had to give an advice to all about Sustainable Procurement in an Organisation it’s need to be embedded, so if I think back the evolution of our Procurement Policy and Guideline as it is evolved over time, I think what am seeing now, and to be honest with you</p> <p>we use the Green Star, and if you like to come in our campus in terms of understanding what a Sustainable Procurement Framework looks like, and this is pretty much what my vision looks like, and now it’s the case of embedding it in our existing Process and Policy, yeah, if I could summarise and say that we had a Policy and Process that evolved over the time, and now it’s evolved everything and it’s a snowball rolling down the hills picks up things along the way, I think it picks up Sustainability along the way, but now we are looking to a frame in a much more structured and more comprehensive away to capture a lot more Sustainable Procurement Guidelines, I think there are some Standards referred to around that, which are certainly capture it, but as I say we’re using Green Star as our Guidance. I think it would be good to introduce that.</p>	<p>Using Green star as the guidance</p> <p>Rating tools need to be embedded in policy and process</p> <p>Sustainable Procurement Framework has been evolving and is now structured and comprehensive with a lot of guidelines</p>
How can those be translated into Project’s Goals? Do you have any examples of those where embedded Sustainability at a project level?	so and again it’s kind of emerging space for us; it’s largely, again I can say, it’s largely kind of influence, particularly with projects with Green Star, and we use two different Green Star tools, we use that was the Design and Build is now the Building Tool, which is a brand new tool and we don’t have any projects registered for yet, so under the old Design and As Built Tool, I think that there are some areas that we want to addressing using under the old version of the tools, I don’t think	Procurement policy is an emerging and evolving space where requirements for sustainability (such as Modern Slavery) are added over time and requirements start from voluntary to

Question	Quote	1 st -Order Terms
	<p>that necessarily Sustainable Procurement (? featured) [00:15:58] as a particular focus area, that's why I used the example of when we had a Procurement Policy that is kind of have Sustainability additions to it to capture things like Modern Slavery you know pretty much legislation now, but the things like looking at FSC Timber and looking at Supply Chain, Chain of Custody issues, in terms of the procurement of the construction materials for example, where now we are looking at the new Green Star Tool that's going to be much more comprehensive and a very targeted-credited Green Star, so I guess the example I give, this is an emerging space for us it is moving from what was probably a more kind of voluntary approach to something that we are now buying embedding, so, going back to embedding in a project by saying, using Green Star saying here is, here are the mandatory requirements including Sustainable Procurement in a project</p> <p>So for a project we use Green Star, we have a Scorecard from Green Star, and we'd highlight all of the credits that we assign mandatory or core credits, that's basically the Scorecard is used as a way of bidding our Builder, Contract partners into delivering on a project using the Green Stars as a driver for making that changes in construction contracts.</p>	<p>[now] compulsory [by legislation]</p> <p>Private client uses a scorecard from Green Star to drive sustainability requirements down the supply chain through construction contracts</p>
<p>How can clients incorporate sustainable procurement requirements into project goals?</p>	<p>it's that step beyond Policy to look at the practical implementation of resources, and that is where we're getting a little bit challenging, in terms of you know, for instance Queensland government has that 'Whole-of-Government Policy' to align procurement effort with zero net 2050 target, but how you actually do that at the Agency's level? And I think it's pretty well covered the rating tool option, so in terms of the implementation at project's level there is an opportunity to leverage Green Star or ISCA.</p>	<p>It's challenging for government to transition from policy to practical implementation of resources, for example, how to implement "Whole-of-Government Policy" at the Agency's level.</p> <p>Implementation of sustainable procurement at the project level can leverage Green Star or ISCA.</p>
<p>How can clients incorporate sustainable procurement requirements into project goals?</p>	<p>I think for the purpose of this conversation you need to get really clear on the credits within the Tool you need to target to drive Sustainable Procurement outcomes</p> <p>Because you know an undoubtedly conversation across government it can't be a bit of a choose of your own adventure type of process for a government project would simply require the Tier 1 to deliver an excellent escalating if that's all we say, we'll get an excellent risk escalating that it</p>	<p>Public client needs to be clear on the specific credits they need to target to drive sustainable procurement outcomes.</p> <p>Rating tool is an effective approach, which has been</p>

Question	Quote	1 st -Order Terms
	<p>won't necessary target the materials' credit or the Sustainable Procurement credits within the Tool so all you need is to be clear on the specific credits that you are going to drive, the outcomes that we are talking about today,</p> <p>The rating tool path, and I think it is a really good path, and it is the one that Transport and Maritime Roads Department has adopted, so they have a Policy to achieve an Excellence escalating for all major projects,</p> <p>Alternatively, if I get to the Rating Tool approach, and one probably goes beyond PPP on capital on infrastructure building projects is to set your own minimum requirements I guess for certain materials and what would require a project's level; a system analysis, what money you are spending on this project, what other materials flow within the supply chain, and then you know, what other high risk opportunity areas within the project spent, and another certain materials like cement, steel in this context that they really high impact for a priority, (? slack impact) [00:20:19] emissions, and you can set some minimum requirements or some national requirements...</p>	<p>adopted by some government department</p> <p>Alternatively, setting minimum requirements for specific aspects (e.g., materials) is another approach</p>
<p>How can clients incorporate sustainable procurement requirements into project goals?</p>	<p>...you can drive the tender process by asking appropriate questions, and obviously goes beyond the environmental tool, look at the social targets and all these kind of things, and there is an opportunity as well beyond these materials, you know, driving particular Policy objectives at Tier 1 level, you can also ask questions around supplier and their own supply chain management practices, to drive, you know, further to this supply chain, yes this is how we are procuring from you and how we need you to respond, but how you drive this supply chain through your own supplier Policies and Practices.</p>	<p>Appropriate probe during the tender process can help drive particular policy objectives (both sustainable and social) through Tier 1 level and their supply chain</p>
<p>How can clients incorporate sustainable procurement requirements into project goals?</p>	<p>I think, what we found challenging yesterday is that Sustainability is just of many things that the Department have to consider when procuring, and especially for us, we are not part of mandatory when we have to prepare people what have to do, the Modern Slavery, (? the background), [00:22:09], the Indigenous Procurement, and our Policy regarding Sustainable Procurement is much more influencing and supportive, so we can see where is some other mandatory things that we may have mandatory requirements like the use of recycled copy paper, you know that's easily done. But more broadly, it's more challenging, so our job is encouraging people doing the Procurement to think how they can build sustainability and try identify what aspects of Sustainability are particular important to Procurement, in terms of Building and Construction is different than that</p>	<p>Mandatory requirements Encouragement Materials (e.g. recycled copy paper)</p> <p>For government procurement, sustainability is broad therefore in some areas, mandatory requirements can be made, for many other areas the strategy is to influence, support and encourage</p>

Question	Quote	1 st -Order Terms
	with the Defence Department, as there are many different brands around State and experts in that area, but depends on how vary and detailed process may have	
What sort of process do we have in place for insurance compliances with those [mandatory] requirements?	So, it depends on, well, the Department of Finance would be monitoring and managing in terms of, once again a small example regarding the recycled copy paper, our Department would have to provide an annual report on the Department of Finance , because it sends to us estimations and asks questions about the copy paper for example, so that can turn a way, I am not quite sure how the other ones are managed by different Departments, so we do have a Policy and a Process for doing that.	Reporting is the means for monitoring and managing for specific requirements such as material use
How do you see, from the way you are sitting the compliance level going hand with hand you know with the implementation of these requirements?	...so you have the front-end tender piece but you need to back it up with your Contract management practices as well; so once again, you need to ensure whoever is committed to and respond to upfront translate it in fair commitments, clear commitments and is clear how the reporting would happen, and then you've got your contract management piece that I guess pulls through, when the report comes up, I think in setting these reporting measures there is a conversation how to we round you know, what other Policy Objectives and what other sensible and important questions to ask, cause you can ask a lot of supply chain around this kind of stuff, and it can be burns on you if you are not really clear or exactly what kind of reporting you want. But, I think this is when the value of these Industry's Tools like Green Star is really coming to play, and you have a third party supporting with kind of measures, you know, there is a framework there, within the Tool, to facilitate the reporting as well, and you've also got the external party who is monitoring your industry's practices to make sure you know your achievement level is keeping pace with the industry's practices and stay in that leading edge if you are targeting 5 or 6 Star outcome you know. I think that where is the Rating Tools add a lot of value in helping to define those measures and doing it consistently.	Contract management is important to ensure commitments in front-end tender be translated to implementation. Reporting requirements and measures should be clear. Third party support with tools like Green Star is helpful and valuable in defining measures and facilitating contract management in this space, especially when dealing with the supply chain
How do you see, from the way you are sitting the compliance level going hand with hand you know with the implementation of these requirements?	we are obviously doing lot of work in Green Star, and I said we use it as a Guide, but there are also lots of projects that we do that don't use Green Star. So, there might be some minor capital works projects in buildings or other building types that are where we don't pursue green staff. So, I think it's really important to ensure that, you know, your policy and processes embedded in you and your business process, and not just, you know, somebody that sits in a writing tool.	Green Star is used as a guide in a number of projects but for it to be used in all projects, it needs to be embedded in the policy and processes.
How do you see, from the way you are sitting the compliance level going hand	I think for Stockland (? involved) [00:26:45] think about the level of public reporting that we do, and where we use the GRI standard for our reporting.	The private client uses public reporting

Question	Quote	1 st -Order Terms
with hand you know with the implementation of these requirements?	So we, we do report against the GRI standards and there's a number of different areas. So, when it comes to the question of supply chain, and we explain how, what our management approaches to supply chain issues and particularly around procurement policy. And we report on that publicly. And then I guess, because we're in the property sector, we are listed company, and we do get expression to some of the investor surveys like Gray's and the Dow Jones sustainability index. So, we are asked questions around what our management approach and our policy and our processes, and in relation to all range of different Sustainability Agendas, but in particular to do with procurement and supply chain. So I guess there's, it's an informal audit process if you like responding to investor surveys, but it does kind of force your hand in terms of disclosing how you manage these issues.	against the GRI standards As a listed company the private client has to respond to investor surveys with regard to sustainability agendas, supply chain, management, policy and processes. This practice serves as an informal audit
How do clients use incentives, both financial and non-financial to really drive the supply chain, starting from Tier 1, contractors, to deliver sustainable procurement practices?	I'm not so sure that we offer incentives. I won't say that with certainty, but I'm not aware of any incentives that we offer. I think Stockland is very clear around. Um, and, and we've got a document that we call, you know, what 'Stockland expects from its suppliers'. So we were very clear about what we expect from our suppliers and if they don't meet those expectations, I guess we don't work with them. So, perhaps the incentive is you can work with Stockland, and if you follow our expectations. So, I'm sure that's not how we operate in terms of, you know, it's all carrot or stick in their carrot. I think what we do have is a panel of contractors and a panel of suppliers that we go to all the time. So if you're, if you meet our expectations then you're in that power of preferred contractors and preferred suppliers. So, I guess the incentive is meet these expectations and then you'll be seen as a preferred supplier.	The private client sets expectations for suppliers. Meeting the expectations and requirements puts contractors and suppliers in a list of preferred providers. This practice can be considered incentives (based on performance)
How do clients use incentives, both financial and non-financial to really drive the supply chain, starting from Tier 1, contractors, to deliver sustainable procurement practices?	...if we're rating incentives as motivate less so than, you know then some kind of financial sort of incentive or, or preference per say, but just making sure, asking the question of being really clear with the market on what our ambition and expectations are. I think that's the critical part that you ask the right questions consistently.	For the public sector, it's important to communicate the ambition and set expectations clearly
How do clients use incentives, both financial and non-financial to really drive the supply chain, starting from Tier 1, contractors, to deliver sustainable procurement practices?	And you get out and find it particularly if you're, you know, like, you know, in the position of a government, by the way, have significant potentially significant market influence . Just making sure that you're really, you're being really clear and you've got a clean policy position, I suppose, to provide industry some certainty around how they might invest in how they might start to respond to those questions that you're asking. I think that's kind of the critical piece and, I think there's, you know, just making it clear that	The government sector has significant market influence due to the purchase power. It's important to be clear on policy. Sustainability performance should be part of selection criteria. And this

Question	Quote	1 st -Order Terms
	<p>there's your sustainability performance will be part of the weighted criteria. And if you are performing well that the benefit for you is that you'll be in a better positioned to win the work. I think that's an important message to make sure, you know, it comes through really clearly.</p>	<p>inclusion should be made clear to the market</p>
<p>How do clients use incentives, both financial and non-financial to really drive the supply chain, starting from Tier 1, contractors, to deliver sustainable procurement practices?</p>	<p>And from our perspective, I suppose there's a range of ways you can support that beyond just the tender process. You can engage with the market, through supplier briefings ahead of a big tender process, would a big project, for example, just to really communicate those expectations. Yeah, we could elaborate more on how you can do that market engagement piece, and, I've seen some great examples in the past on projects that aren't necessarily construction-related, but where there's that you know, meet the buyer kind of activity in that early market engagement to brief on expectations and ask the questions, ask the question around what, you know, what can you offer us, you know, through an expression of interest processes, not just us saying these are our minimum requirements, but what sort of innovative offerings are there out there? How can we collaborate? And worked together, you know.</p>	<p>The client can engage with the market through supplier briefings and expression of interest prior to the tender process to communicate expectations.</p> <p>This practice provides opportunities to probe the supply chain.</p> <p>This practice also enables innovative offerings prior to tendering</p>
<p>How can innovation be promoted or encouraged?</p>	<p>...make sure that we're not being too prescriptive and that's a challenge. But, that targeting performance by specifications. That is a real challenge. It seems to be, it is particularly in the infrastructure sector where you have those, you know, really well considered and well tested specifications around certain materials because they have to perform under law, for example. So, it's hard to shift that top, but I think, you know, a shift towards more performance space specifications, and then that research piece as well. So our <i>Department of Transport and Main Roads</i> invest a lot in collaborative research projects. For example, with the Australian rights research board to look at how they can include more recycled content into pavements, for example, and other things. So, I think, you know, that's one opportunity to, to make sure you're doing that, that forward thinking in that research piece and from a government perspective as well, looking at potential regulatory barriers that may impede or potentially impede the uptake of things like recycled materials. So we have our end of waste codes, that they had to try and facilitate market opportunities around this about, you know, we need to consider whether, those assigned waste codes are actually holding recycled content up to a higher standard than a traditional material, for example. So there's lots of, sort of things we can do behind the scenes to make sure that we're facilitating industry.</p>	<p>To promote innovation, procurement needs to be not too prescriptive. It could be a challenge in areas where things (materials) are well considered and well tested</p> <p>Collaborative research could promote innovation from the government perspective as well, for example, potential regulatory barriers can be looked at.</p> <p>The government should and can play a role in facilitating industry and market opportunities</p>

Question	Quote	1 st -Order Terms
<p>Would the lack of incentives disadvantage the small and medium enterprises? In a sense that all what you're talking about market in terms of tendering, and basically it's a client contractor relationship, but we know that most of the work gets sub-contracted down the track. How would we ensure that without the right incentives?</p>	<p>outside of the tendering process, I think there's potentially a role for government there in working with industry bodies, you know, I've seen some examples of this in the past where a government project has worked with the sustainable print industry of Australia. For example, to say, look, there's a big tendering opportunity coming up, we know this project is going to target or deliver local benefits. Who's in the market locally, what kind of practices does that local market reflect in terms of sustainability? How could we support the local market by raising awareness of local accreditation's, for example, the <i>Sustainable Green Print Certification</i> that the print industry association of Australia offers, how can we, how can we provide some, you know, awareness raising around that certification standard and facilitate, a pathway into that certification for local suppliers to get them ready for this tendering opportunity? So there's those kinds of activities in terms of supply chain readiness, that you know, I guess government is in a unique position to coordinate, in terms of its broader offering and its broader market and local market benefit, you know, programs, in terms of you know, any other organizations, procurement practices, that's a difficult balance to strike, I suppose.</p> <p>And, I suppose from a governance perspective as well, we have clear, policy objectives around delivering local benefits and they receive weightings as well. And we drive that down subsequently and of our supply chain too. So, I suppose it all comes out and it makes sense. It's just about, trying to make your objectives clear and make sure that we're getting a balanced decision, you know, local benefits versus maturity on environmental or other social benefits, and all the other stuff that you need to consider in any good procurement practices as well.</p>	<p>The government can work with industry bodies to understand the market practices and raise awareness. The government can even help facilitate the certification process to get the local market ready for tendering opportunities. These practices can be effective given the purchase power the government has.</p> <p>The government can have clear policy objectives around delivering local benefits and have selection weightings for them.</p>
<p>Would the lack of incentives disadvantage the small and medium enterprises? In a sense that all what you're talking about market in terms of tendering, and basically it's a client contractor relationship, but we know that most of the work gets sub-contracted down the track. How would we ensure that without the right incentives?</p>	<p>So, if I think about how Stockland procures major construction contracts, for example, we'll go to, I've already talked about, you know, our supply chain and their policies and what our expectations are. But if we went to say a multiplex to deliver a \$400 million shopping centre redevelopment, then, I guess we're contracting with multiplex. So then it's, I guess the opportunity for multiplex to then influence their supply chain, but thinking about that and how that works, where sometimes that's outside of our influence, except for the way multiplex or the head contractor response. I think what we're saying, and I might lean on Emma here with my perhaps shortage of knowledge, but, what we're seeing now with the new Green Star rating tool, where we've got some credits around, you know, there's a responsible procurement</p>	<p>The private client has to reply on the head contractor in influencing the supply chain. And this applies to many aspects including the use of Green Star rating tool, reconciliation action indigenous engagement, social procurement, people of disability</p>

Question	Quote	1 st -Order Terms
	<p>credit, but there's also, credits around social procurement, social construction practices. So, where in our approach that we're looking at now where we've got the Stockland's reconciliation action plan. So how do we, how do we enact that on a project by having a first nations engagement strategy on our projects and then start to work with our builder partners. So it could be a multiplex too. To target some of those Green Star credits around social procurement in terms of indigenous, engaging with indigenous businesses or engaging with since I had a business that might be run by people with disability. I'm looking at social enterprises as another way of delivering on some of these things.</p>	
<p>Would the lack of incentives disadvantage the small and medium enterprises? In a sense that all what you're talking about market in terms of tendering, and basically it's a client contractor relationship, but we know that most of the work gets sub-contracted down the track. How would we ensure that without the right incentives?</p>	<p>So from the GBCA perspective, it is an area that has sort of things in the back of our minds for a number of years and Green Star buildings were a great opportunity to explore it, because as part of the GBCA strategy, we were looking at not just social infrastructure, but social construction practices in general.</p> <p>So, we did look at as Greg mentioned, the procurement of indigenous peoples looking at that Modern Slavery Act, and how we're actually introducing that to Green Star, where previously that sort of thing has been an optional extra that one of a better statement there. Even some basic things of like, you know, Themes as well on construction sites once that has been introduced. But then when we look at the products as well with sort of doing a lot of engagement with the Themes which like your Green Environment, Mental Choice Australia is yet eco specified as cradle to cradle. Those sort of organizations are really doing deal directly with products, because what we're do experienced in is that we get products and prices from suppliers and manufacturers three years going, how do I get my products certified? Because, I've just lost a contract, because it was about a Green Star building, and I don't have a certified product. So, it's then just closing the loop. And for us it's like, these are the types of organizations we would recommend you contact because it's just after them, they're just kind of like bottom line is I've just lost, you know, \$20,000 contract, and I have a Green Star and we're like, so this is how it all works with Green Star and really trying to move product industry into thinking out these types of certifications. But then we're also working with the certifications on how they can then transform the product and supply chains themselves because, sometimes it is just a tick box exercise for some organizations, which is, we want to see the drive to low carbon emissions and things like that.</p>	<p>Tools like Green Star are useful in formally including sustainable procurement requirements (e.g., procurement of indigenous peoples, modern slavery act). However, using tools could be only a tick box exercise.</p>

Question	Quote	1 st -Order Terms
<p>Do you have any examples or practices, how we can early engage market or supply team in their procurement process?"</p>	<p>...one of the project examples I could speak to firsthand, it was probably the <i>Commonwealth Games</i>, in 2018. So, obviously that was a big shiny opportunity for like local suppliers. And we had local procurement and indigenous procurement targets, including a range of other, you know sustainability related targets to achieve there. And, because we had that lead time leading into the event and we had a clear forward procurement schedule. So I think, you know, not to get into the technical needs too much, but I think that, you know, there's probably a conversation to be hang around, you know, category management and, and good procurement practice and its role to facilitate sustainable procurement too, because what we had for that event is a really clear picture of exactly what we were going to buy, we're using a category management approach, and a contract packaging plan approach as well, to realize some efficiencies through grouping different kinds of procurement. And then we went out to the market really early to say, look, we're going to procure this, the tender will go in six months' time, this is how you can be ready even more than six months. This is how you can be ready if you want to take advantage of that opportunity, this is what would need to see in terms of quality management in terms of environmental management, in terms of sustainability performance for that particular good or service. So, getting out in front of that it can deliver some really great outcomes.</p>	<p>The government can give the market a lot of lead time prior to procurement of big projects by having a clear forward procurement schedule. The lead time allows the [local] market to prepare, get ready and take advantage of the opportunity.</p> <p>The government client should have a clear picture of what is being procured and then use category management approach (grouping different kinds of procurement) to improve efficiencies.</p> <p>A good example is the Commonwealth Games in 2018</p>
<p>Do you have any examples or practices, how we can early engage market or supply team in their procurement process?"</p>	<p>I think there's another really interesting question just in terms of, you know, that collaboration and that opportunity to work with suppliers in looking at standing of arrangements as well, and panel arrangements, and talking to them about solutions design as well, so, how can we continually improve and work together on that, and how can we, you know, <i>Design Out Waste</i> for example, or you know, rationalize requirements, you know, ahead of a project and kind of thing. So, perhaps some opportunities there, but yeah, I think in terms of supplier readiness, that marketing engagement activity, it really, you know gave us the opportunity to really get out there and communicate with suppliers and hear what their challenges might be and where we might need to, maybe temporary ambition a little bit to make sure like Sherif were saying, we're not excluding locals. If, that's an area where we think we could really facilitate local opportunities, but also understand where we could maybe push a little bit harder with sustainability too. So, yeah, you get all that through that early engagement.</p>	<p>There are opportunities for government clients to work with the market to collaborate and continually improve. By doing so, requirements are rationalised prior to the project.</p> <p>Market engagement activities help ready suppliers by communicating the requirements and listening the challenges the supply chain is facing.</p> <p>Early engagement could also facility local opportunities.</p>

Question	Quote	1 st -Order Terms
<p>What's the point that you're trying to market to the supply chain? What's in it for them when it comes to sustainable procurement?</p> <p>Is there any finance or incentive any, when it be something can gain from it apart from having something good to have?</p>	<p>...it's about winning the work sometimes. That's the incentive and some of these opportunities, particularly if you're in the position of a Commonwealth games or government. You've got a bit market influence there. And if it's clear that that's going to translate to ongoing opportunities as well, I think that's, there's something in that for supplies. But it's interesting, you know, and it is worth touching on what we're trying to really drive in terms of sustainability practices, because for SMEs, a lot of what we're looking for, in terms of, you know, maybe sustainability accreditation is really evidence of practices that are going to deliver operational efficiencies for them as a business as well. So, you know, in driving sustainability managed supply chain, we're looking to, improve, operating efficiencies and, and all those kinds of things for our suppliers as well. It's not just about us ticking a box and saying we've done the right thing here. It's actually improving that performance for our suppliers. And I think that's a big lever for us in terms of, you know, from a government seat, in terms of trying to encourage sustainable business practices, considering most of Queensland business community are SMEs, you know?</p>	<p>The government has significant market influence. And for the supply chain, the motivation or incentive would be to win future work or ongoing opportunities.</p> <p>Driving sustainability also improves efficiencies for the suppliers, not just ticking a box and saying we are doing the right thing.</p> <p>It's a big lever for the government to encourage sustainable business practices in the supply chain which includes a lot of SMEs.</p>
<p>When you select tenders and the right subcontractors it should incorporate their past performance in sustainable procurement and its sustainability practices. Is that correct?</p>	<p>I think that's an important question to ask in your tender process, for sure. So there's that the expectation or some minimum requirements around certain accreditation, but also task the question, particularly on projects. Can you provide some examples of sustainability management or environmental management plans that you have applied to past projects? So not just at the organization level, but tell us what you're going to do when you're on my side. And I think that's important and it's a great point that you raise here because, that's come up a lot with conversations I've had around sustainable procurement. You might get a response, you know, from a certain supplier that will tell you about how they recycle their office paper, but they're actually cleaning your home, your hotel or your hospital. So, it's great to know what you're doing an organizational level, but you need that insight into their practices and what they're going to deliver for you. And I think, you know, asking those questions around, management systems and management plans to see that evidence of practice and implement a practice is really important.</p>	<p>It's important in the tendering process to ask the suppliers about examples of sustainability management or environment management in past projects. In other words, questions should be asked about management systems, management plans, evidence of practice</p>
<p>How you evaluate the performance of your local suppliers?</p>	<p>I've already mentioned that, you know, we've got a document that we distribute to 20 supplies that are very clear about what Stockland expects from its supply chain. At the point of, tender, we asked, we have a questionnaire or a survey that we asked them, asked suppliers to complaint that basically they provide answers to the questions that are</p>	<p>Performance of local suppliers is evaluated using a survey where they respond to issues and provide evidence. It's like an audit process.</p>

Question	Quote	1 st -Order Terms
	<p>based on what our expectations are. So there's, I guess a survey that provides that audits process, if you like, in terms of how they would respond to each of those issues and then they have to provide evidence about as well.</p>	
<p>Do you... pollicise their performance?</p>	<p>I'm just trying to think of, because you know, we do report publicly, so we're fairly transparent with that. So, we talk about our process and so on. I'm just trying to think now about how we demonstrate reporting, come sell yet. Is it a percentage of spend that you can demonstrate was sourced through your sustainable procurement policy? I think, I don't know. I'm not, it's not a space that I work in, so I'd have to probably consult with our procurement team. I could go and look at some of our public reporting and see what we report against. But, yes, I think the answer is, yes, we do a level of public reporting in terms of our sustainable procurement practice.</p> <p>But I think what I'm saying now is because I said earlier that we do, we never had a standalone <i>Sustainable Procurement Guideline or Policy</i> document, but we do now. We actually developed that for some of our Green Star projects. But what I said earlier was that that, that has it's been embedded for those projects, but it hadn't been embedded across the organization. So in every conversation now about embedding that, one of the things, one of the requirements for a Green Star is that once you start to aim high with some of your credit, so you're moving away from policy, where credits are to activity-based; you've got to be able to then demonstrate a reporting framework that does disclose what the spend is on your highest spend categories. So, I could go on and find out some more information on that.</p>	<p>The private client reports supplier performance publicly in terms of the sustainable procurement practice and that makes it transparent.</p> <p>The private client has a Sustainable Procurement Guideline or Policy document that was initially developed for Green Star projects. It has not been embedded across the organisation.</p>
<p>Do you... pollicise their performance?</p>	<p>So, the GRI framework, and it's evolved a bit since I last looked at this, but, that has some sort of measures around supply chain performance. They're mostly around process measures though, for example, you know, "number of respondents to high risk environmental categories that were screened for environmental performance", so, it sorts of requires that you've done the work early to identify what your high-risk areas of spend are, and then making sure you've got the criteria there and you've screened as many respondents, not necessarily the successful ones, but all respondents to those categories. It's those kind of measures, more than, you know, specific surrounds certain materials and those kinds of things. And I guess that reflects the broad nature of Sustainable Procurement, because it really does depend on the category. So I guess it's probably hard to really come up with those consistent measures, unless</p>	<p>The GRI framework has some sort of measures around supply chain performance.</p> <p>It could be hard to come up with consistent measures unless they are specific and narrow. Broad brush approach, sustainable procurement reporting and process measures may be helpful.</p>

Question	Quote	1 st -Order Terms
	<p>you were to take a narrow focus and define those measures for a sector or for a material, but broad brush, sustainable procurement reporting, same sort of all back to those process measures. So, how are you screening your supply chain and what are your practices like?</p>	
<p>Do you... pollicise their performance?</p>	<p>...from the perspective of Green Star, we try to actually encourage clients to do that. So, we would be encouraging out the products, manufacturers and suppliers to the disclosing, they reporting either publicly or not publicly to the certification body, if they are looking to get their products certified, know, escaped like that.</p>	<p>The certification body tries to encourage clients to disclose and report on the products, manufacturers and suppliers</p>
<p>Can we explore what barriers our stakeholders are experiencing in when it comes to adopting sustainable procurement, especially when it comes to aligning their business goals with requirements?</p>	<p>I just thinking about, I'd say the difficulty would be where you are transitioning from a policy. Based that possibly didn't have a sustainability focus. So you might have existing relationships with your supply chain that suddenly once you start to look through a Sustainable Procurement lens, in some of your existing suppliers might not satisfy that as they would, if you went out to tender with a strict, sustainable procurement policy. So, I think it's possibly a transitional piece. As you develop your commitments in your policy, if that makes sense. I know that we've got a particular focus on single use plastics and we procure a lot of materials through a large organization, I won't name. And so, when we start to do a deep dive on single use plastics in their product range is something like 3000 products there that would be classified as single use plastic. So if we suddenly put a policy in place where we say, well, we're not going to procure any practice that uses single use plastic, then suddenly, you know, you're shutting them out. So I think there's a transitional phase. If that's an example I can give is that how you migrate from the current status to a future status.</p>	<p>Transitioning from policy to practice would need some time for the suppliers to adapt if we don't want to "shut them out"</p>
<p>Does legislation have anything to do with the fact that you use single use plastic bag or it is because of your policy?</p>	<p>It's more of a strategic position for Stockland. So, we're responding to what we see happening globally in terms of, you know, net zero carbon emissions, circular economy, you know, avoiding and reuse of waste. So, it's less centred around our legislative response and more voluntary response. That's aligned to business strategy.</p>	<p>The private client responds voluntarily to what is happening globally (net zero carbon emissions, circular economy, avoiding and reuse of waster) in adopting sustainable practices without the requirements of the legislation (example of single use plastic).</p> <p>This approach is also aligned with their business strategy.</p>

Question	Quote	1 st -Order Terms
<p>I was aware that Stockland is a partner of the Australian Property Council, and the latter is partnering with Informed 365 to incorporate the social responsibility report platform. Is it possible for you to tell us a little bit more about the user of this system, and how do you think this may impact on your sustainability practices in your company?</p>	<p>It's an area that I wasn't directly involved in myself, but whilst we've been talking, I've just been opening up some of our public reporting. So, I know, in terms of the work of the Property Council did, was that, you know, we saw that Modern Slavery was the legislation that was coming at us. We knew it was a new arrival. And I think from a property industry perspective, there was a grey position that look, we can all go off and do our own things, and then we can fragment and have our own kind of approach to this that might split our industry, in terms of our spots, or we could work together and deliver something that meets all of our needs. So, the Property Council has a national round table where all the large property companies have a representative. I'm not involved in that, my bosses and my previous boss were involved in that, so, what I understand from that was that they did work with Informed 365 to develop a platform that could be then utilized by our industry. So that we're all doing the same thing. We're all looking at it the same way using this, this tool on this platform to manage how we respond to Modern Slavery. So just looking at one of our public reports here now there's a statistic that, um, jumps out of me that says now last year reporting, we undertook a detailed mapping exercise of <i>Modern Slavery</i>. And I know that would have been using the <i>Informed 365</i> tool. And we're reporting that we assessed 100% of our high risk and high spend suppliers against the <i>Modern Slavery</i> requirements in that tool.</p>	<p>Industry bodies like Property Council of Australia play a coordination role in bringing organisations together to deliver solutions that meet all of their needs.</p> <p>Informed 365 is an example.</p>
<p>Can we explore what barriers our stakeholders are experiencing in when it comes to adopting sustainable procurement, especially when it comes to aligning their business goals with requirements?</p>	<p>So, in the policy and legislation space we administer all aspects of the waste reduction and recycling act, which gives us the head of power for us to introduce measures, I guess, to deal with prior to products and waste; so, for example, that's when we would offend single use plastic items and single use plastic bags and the other provisions in the legislation that does give the head of power for us setting goals and targets around reuse and recycling of materials. So the head a power does exist, but perhaps a step before that is that's, we need to consider whether there's other guidance or public commitments that could be made around sustainable procurement before we start legislating things. So that's probably take a step back, perhaps and look at other measures and other avenues trying to achieve the same. In that respect, the biggest thing is the single use of plastic. So under the passive collision reduction plan, there is commitment for the government, for example, to...sorry, I can't recall the specific words at the moment. I was trying to bring up the pen. But there are commitments related to you know, increasing the uptake of recycled content presented in public infrastructures and so forth.</p>	<p>The policy and legislation gives the government the head of power to introduce measures, and set goals and targets</p> <p>Prior to legislating, guidance to and information for industry and supply chain are used to encourage commitments</p>

Question	Quote	1 st -Order Terms
	<p>So, before going down that legislators passed, I think they're trying to do the right thing for lack of a better term, making those commitments and, but also we need to put out I guess, guidance to industry and the sector around what they can do. I'm not sure if that space is saturated as yet, but it's probably wondering for more guidance and information around that.</p>	
<p>Do you think the legislation is behind or ahead of the industry practices?</p>	<p>I know having been involved in the property sector for a long time, there's a preference to act voluntarily than be legislated. So I think we, we preferred to do these things for ourselves, although there is, there is clearly a place for legislation. I think as I said, our responses are voluntary at this stage and it's more in response to our Sustainability Strategy and the particular movement that we see in there in the circular economy space. I think we're also seeing what the state society to do in some local councils are starting to do in terms of, you know, banning single use plastics. Our sponsor at the moment is we're starting small, we're just looking at our own workplaces at the moment rather than, you know, start small before we go to scale and given that they are 2030s strategies, kind of very new, where we're at, this is where we're pretty much on the starting line in a lot of ways, but we're doing some work around developing a circular process and strategy, you know, he loved the bonus strategy. So, yeah, we're acting voluntarily. It's not in response to legislation, but you could probably say that it's in response to avoid legislation to some degree; but, I think we would still believe there's a place for legislation. And I think what we see in the property sector is there's the people that move early and there's the people that follow, but then there's the laggards. There's always the laggards that have to be dragged. And I think the legislation is for when you get to that stage where you've got to address the laggards.</p>	<p>There is a preference to act voluntarily than be legislated. That explains why the private client is proactive in adopting sustainable practices. They have their Sustainability Strategy and are guided by it.</p> <p>They start small when it comes to adopting a new practice.</p> <p>There is a place for legislation that can be used to address the laggards (not the early adopters).</p>
<p>Would it be easier for you to work with the supply chain if you have better legislation?</p>	<p>China stop taking out our waste exports. So, you know, we, we haven't explored our waste anymore. We have the process of locally, so I think. I don't know, specific pieces of legislation, but what I've observed just as a consumer is that a lot of plastic packaging now is starting to show that it's manufactured from a hundred percent recycled content. I think someone said to me that that's more in response to the emerging legislation and the pending legislation that's coming from packaging stewardship, I think? I don't know a lot about it, but some I'm making an observation just as a consumer, an interested consumer because I'm, I'm a sustainability manager as well. So, I think its people are acting ahead of legislation, but maybe they want to be on the front foot. But I think once legislation arrives, it'll just take its own</p>	<p>The industry may act early, ahead of legislation to be on the front foot when there's an emerging or pending legislation.</p> <p>Once legislation arrives, it'll be a compliance based environment</p>

Question	Quote	1 st -Order Terms
	course. And it'll just be a compliance based environment.	
In a perfect world, what should each stakeholder do to transform industry practices in procurement for sustainability?	I think what I've seen work well, in our industry and particular for Stockland, and then certainly in some work that I've done over the years is just try things . You do small pilot projects and you look to see how they work, and then once you demonstrate how they work, then the opportunity there is to take them to scale. So, you know, I've done that with renewable energy, for example, you know, we started doing some small solar PV projects, and then we understood how that works. What are the infrastructure requirements? What are the logistics of doing this on an operating asset that type of thing? And then once you've done that, you can apply it in a larger scale. So I think. You know, doing, having partnerships and collaborations working together on, on pilot initiatives that that can then be scaled off, I guess in an ideal situation, I think there's always a cost to acting. So, there is a way of maybe demonstrating something in a small scale, and then sort of ratchet the cost of doing that as you start to scale it...	The private client tends to try things and do small pilot projects when they want to adopt a new practice. Renewable energy is an example where small solar PV projects were trialed to understand infrastructure requirements and logistics. Trials benefit from partnerships and collaborations.
Should the government have some sort of subsidies here or it would kick it out to the supply chain?	Subsidies are always nice for access to shared funding. You know, the government shouldn't have to pay a hundred percent. I think if there's funding available subsidies available, it should be co-funded. So, you know, everyone's got to have skin in the game. If someone came to me and offered a subsidized arrangement to implement a single use plastic program, avoidance program, that would be instantly appealing a bit like, you know, many years ago when the government was providing grants and subsidies for energy efficiency. Now energy efficiency has its own return on investment without funding. So, you know the ROI on an energy efficiency project is quite compelling. So if we can, you know, maybe replicate what's been done for energy and water efficiency in the waste sector, or materials sector, suppliers sector.	New initiatives and trials could benefit from subsidies. However, the government should not pay 100% percent to make sure "everyone's got to have skin in the game"
In a perfect world, what should each stakeholder do to transform industry practices in procurement for sustainability?	I think for me, that single thing which has been said already is really about just embedded it into business as usual . So, every business, every agency, every entity just embedding this and building sustainable procurement into their business plans and operational plans into business as usual, then it becomes mainstream. And that would have to transform the industry, I guess one of the biggest impediments to that might be cost . And maybe we need to start looking at pricing structures or different arrangements where the sustainable option isn't the most expensive. So, we reverse the story, so that's the more attractive, whether that's true incentives or maybe we need to look more closely at life cycle costing and how that affect into it. I'm not sure, but just change things around so that the most sustainable option,	Sustainable procurement should be embedded into organisations' business plans and operational plans for it to become mainstream. Cost is one of the biggest impediments to industry transformation in the sustainable procurement space.

Question	Quote	1 st -Order Terms
	<p>isn't the costliest, but possibly it's the more affordable option. And whether that requires intervention to fix that temporarily until the barriers open. But, yeah, to me, it's about making it business as usual by embedding it into your operational, business strategies, which again has been mentioned and discussed already.</p>	<p>When analysing the cost of the sustainable options, life cycle costing should be looked at or incentives considered.</p>
<p>In a perfect world, what should each stakeholder do to transform industry practices in procurement for sustainability?</p>	<p>Yeah, probably just re-stating what Greg sort of touched on, which is the collaboration piece and you know, starting smaller on Projects. So, we wouldn't be able to do what we do with Green Star and our rating tools without the collaboration we do with organizations such as Stockland. But some of the things we have learned is that by going too hard, too soon when it tends to backfire. So if we can focus on one area and sort of grow in that area and once, we accomplished that area; that's what we move on. But some of the things we've also learned is that having the right people in the right areas helps also as well. So what I've been in conversations with organizations where within a month that entire like, structure has changed, and at the end of that month, we're back at square one because the new person who's employed actually just really doesn't care about sustainability, and all what we've been doing has been sort of hit on a wall, because they just said, I don't want to hear about it like that back to the bottom line, business, financial, that's what they care about and just sustainability isn't on their radar. So that's probably is one of the biggest barriers that we can sometimes experience. Especially, when we are probably have to do with newer stakeholders than more experienced ones, who really have embedded sustainability into their organization and the strategic direction and process.</p>	<p>The industry body agrees that collaboration is needed, and trials should start small on project. Going too hard, too soon tends to backfire.</p> <p>Adopting sustainable procurement practices also depends on the individual in charge in an organisation.</p>
<p>Some small business, if you will, or medium businesses, they would be more concerned about the bottom line, and sustainability seems to be a luxury or too costly to be involved in?</p>	<p>Look, I think there's been some historical evidence of that. Yeah. During tough times, you know, sometimes sustainability is the first thing to go out the door and then it all becomes cost driven. I'll have to say I haven't seen that at Stockland, so we've always pushed on stuff. So, you live on, I think there's been evidence of that. I'd like to think that's changing. Because yeah, an example would be, you know, I've worked hard for a long time to convince our logistics development team that we should be doing Green Star ratings on our new logistics builds, and I've learned from talking to them that that can be very challenging sometimes to construct logistics like a warehouse building competitively against your peers. If you're starting to adding costs that might be attributable to Green Star rating. So, there was some initial resistance from our cost point of view; we can deliver a building that didn't have a Green Star rating, but arguably still was energy efficient and still have water tanks and solar panels in the solid heating</p>	<p>Businesses can be cost driven, especially during difficult economic times. There may be resistance from the cost point of view when sustainability is introduced.</p> <p>Rating tools like Green Star could have the cost premium to organisations. So, there could be organisations that still deliver sustainable solutions without achieving a Green Star rating.</p>

Question	Quote	1 st -Order Terms
	<p>and so on, but it just didn't have a Green Star stamp on it. So I guess there was a point in time where we were delivering as best we could and using good design principles. But, over time we've seen the industry move and then what Builders are offering now is the ability to achieve a Green Star outcome without the cost premium.</p>	
<p>Some small business, if you will, or medium businesses, they would be more concerned about the bottom line, and sustainability seems to be a luxury or too costly to be involved in?</p>	<p>So I think the industry's moves to costs have come down, product innovation like LED lighting for example, once upon the time it was considered as the cost premium, now it's a standard offering a design brief. So, as an example, cost of solar has come down. So I think now what I am seeing is an initial resistance based on cost to turning that around and now we're doing that. So, and we're about to certify our first Green Star rating, you know, logistics, you know. And I know that there's another three or four that are now in the pipeline to follow. So I just think the market has shifted and changed. I think there's a lot of influencing factors there around disclosure and Net Zero and Circle Economy. And I think people are just becoming more aware and I just think there's the drivers that are motivating people to build new business. You know, as I said, sometimes just being listed as a preferred contractor is enough incentive to drive that behaviour.</p>	<p>Initial cost premium for sustainability tends to decrease (the examples of LED lighting and solar)</p> <p>“being listed as a preferred contractor is enough incentive”</p>
<p>We'd like to hear your stories and examples of good practices, where clients or governments for that matter have done a good job of incorporating sustainable procurement requirements into the project goal or into achieving value for money?</p>	<p>...what have been working in my place is coming from the procurement contract management stage, whether people have actually done what they said they would do, and produce the evidence to support that. Too many times we get a beauty context on the way in. People tell us everything we want to hear. But then once you reach contractual clause on whatever it is that you're doing get into the job. The A team disappear and then B team turn up and you end up almost something like explain to answer what it is and what we thought we were going to be getting. It's not getting from me, it's getting for the taxpayers. It's their money. You're entrusted to do something for someone else. It's certainly not our... it's someone else's money and it's a lot of money. And the dollars are very competitively sort of after different things. But Government asks for particular social or environmental objectives, or community objectives In a particular transaction is massively disappointing, when you get into the job and you just say that that's going to be glossed over, you remedies under the contract. There're not always that strong. Like what are you going to do? You're going to kick him off the job. You're going to sue them. Those facilities aren't... we're not in the business of suing people anyway. Where I'm going with this is probably where I've seen it works best is where people have just done what they said they would do.</p>	<p>Contract management stage is important in delivering sustainable procurement. Parties deliver what was contractually committed and provide evidence to support.</p> <p>Contractual mechanism is not strong enough to hold the supplier accountable.</p> <p>The supplier should think about future jobs when performing the current job as their past performance will be considered.</p>

Question	Quote	1 st -Order Terms
	<p>... but the facility under the contract isn't that strong. It never is. And in terms of who we were picking in terms of winner, in terms of ... the winning offer it has often made some part of their offer where it is really attractive to us in terms of... it's not only price. It's the other features that we're looking for in a job. But we may not be able to insert those features into a contractual mechanism that compels them to do it. So we really uphold to that goodwill. So how to do that better? Yeah, it's a sad day when we've got to put everything in the contract. But it's...hopefully whoever has won the job that they're thinking of the next job as well. And we do remember with someone has not done what they said they would do.</p>	
<p>What do you think can be done, how contractors or supply chain for that measure, accountable for what they are supposed to do instead of just relying on the goodwill?</p>	<p>What unfortunately it does is to drag this back to a lot of tier one operators. Where we are also keen to try and get a lot of the procurement down through the supply chain, but we don't necessarily want to be dealing with tier one operators all the time. Well, there's plenty of Tier 2, Tier 3 firms. So we're trying to help stimulate all layers of offering so that it's a bigger market. But yeah, it has unfortunately dragged back to some of the bigger operators because they seem to have the support networks where they can produce better evidence of where they have followed through.</p>	<p>It'd be good if the government client can get access to a bigger market through lower tier firms in the supply chain. However, normally only Tier 1 firms have the support networks that can produce evidence and that's why the client tends to be dragged back to Tier 1 firms.</p>
<p>What do you think can be done, how contractors or supply chain for that measure, accountable for what they are supposed to do instead of just relying on the goodwill?</p>	<p>But in my narrow procurement area that I've worked in, as a client of basically energy companies, we've always put in as part of the selection criteria, sustainability considerations and they are less weighted than the commercial outcome. So for electricity, you can start to quantify which Martin mentioned earlier, the carbon intensity of electricity, so that over here in WA that comes down to the retailer's portfolio...So, when there's prices on or price signals on some commodities, then you can kind of consider that in your purchase as well. What I feel today is as an environmental manager from other parts of our company, what scenically I suppose it still feels like where it's a ticket box exercise. And you just got to respond to the criteria that are set and it feels like it's a ticker box exercise from the client. An example being like, we lost the job the other day because we didn't have an environmental product disclosure on concrete. We've got good concrete, quite green concrete, a lot of ground blast furnace, slag subjects. But we haven't quantified that. And it didn't matter that the job, the EPD[00:23:31] that was the rival company offered was actually concrete. It was an EPD based on Eastern states, based plants that</p>	<p>Sustainability can be part of the selection criteria.</p> <p>Sustainability could be treated as a tick a box exercise if a product disclosure or certificate is required without considerations for actual practices. The contractor gives an example of losing a project for not having green concrete disclosure</p>

Question	Quote	1 st -Order Terms
	were completely irrelevant over here in WA. But it ticked the box and they got the job.	
What do you think can be done, how contractors or supply chain for that measure, accountable for what they are supposed to do instead of just relying on the goodwill?	The other thoughts going on my head as we're going through this, we're talking tier one tier two companies, we've just purchased a company that I suppose was tier one. Once upon a time it was a listed company, was a private and through the due diligence process of just unpacked it's all spin no substance. Yes, I just think generally. We're not quite there, yet. What's the solution? Yeah, somehow we need to quantify the sustainability impacts in order to make more objective decisions that are... I still think we're in that subjective phase.	Maybe we need to quantify the sustainability impacts to make more objective decisions.
Is it true that [selection] was quantified?	Yeah, so we leave it open ended . They can respond to it as they wish. We weight it in terms of a percentage and we score it according to a Likert scale. You know one to 10. That's how we try and quantify it. There are certain elements that you can quantify a lot. You're lagging indicators for safety, that's starting to creep in from us now. That's how we've approached it today in terms of trying to make something that's a little intangible, more tangible .	Contractors are selected based on weighted criteria that include sustainability
Is it true that [selection] was quantified?	Actually I was kind of picking up on your point around the tier ones. I don't necessarily think there's an issue with that if those tier ones are working in partnership with you in some shape or form and that would be particularly hard in a government entity I've been there. It's hard to actually create long term relationships with key suppliers in that environment because of probity issues.	A private contractor: Probity issues may arise if the government establish a long term working partnership with key suppliers
Is it true that [selection] was quantified?	So I would tend to gear up for my approach to the supply chain based upon where they might fit in that environment, because no point in me pushing really hard on, for example a sustainability issue is fundamentally the \$1.00 widget. They're the only people who provide it in the world, if I don't get it, I might lose the business.[00:27:42] So I have to be kind of mindful of that when I go into sourcing process. But if I focus on the partners, I can often utilize their capabilities and their reach into the sub tiers and supply chain to actually look for solutions both to my problems and to actually bring that into sustainable issues.	The private contractor has to depend on the supply chain to look for solutions and sometimes there's only one company that can provide a solution
Is it true that [selection] was quantified?	I used to work for a mining company. We had a major partner who did the mining for us. So, we had a contract miner running the operation. When we did that contract, we shaped it from just a simple cost plus basis into a direct cost reimbursement contract. And we have a lot of control and a lot of visibility over how those costs were made up. So they could just dream up costs. But actually what we did for the profit element in that contract was created a scorecard. And by achieving certain performance thresholds, they	The private contractor gives an example of how the use of cost plus reimbursement model with financial incentive for performance drives good performance (environmental impacts in this case). It

Question	Quote	1 st -Order Terms
	<p>could earn more money. So there was a financial incentive. One of these measures was environmental impact, specifically around hydrocarbon spills and Saline spills. This is a remote camp. It was in the Australian Bush. That was really important to us. And a part of the profit was achieved by them, limiting or eliminating spills at that site. We saw a significant improvement in hydrocarbon spills. In fact, down to almost 0. And I would like to say this all the same in Saline, but actually quite interesting with that one. In one particular year, I think it was in February, they had a major spill and wiped out their ability to make any profit in that year on that particular element. So it did provide a good way of focusing on at least one key thing. And yes, it was financially based relationship determiner. And that was put in the contract.</p>	<p>allows for the focus on performance, not cost.</p>
<p>Is it true that [selection] was quantified?</p>	<p>So again, coming back to Ashley's point, it's not always easy to and shouldn't always be the need to put something in a contract. But if you live in breathe that contract, that contract is written in the right way with the right intent, and they manage in the right way. Then I think it can be a powerful means of maintaining what you set out to do in the first place.</p>	<p>It's important that the contract be written in the right way with the right intent and then managed in the right way</p>
<p>So was it more expensive for them to go sustainable in that contract?</p>	<p>Potentially I don't think we ever really quantified that. I guess the question would be, was it more costly for us to pay them to put in measures to reduce spills, for example, that it was to actually clean them up in the first place. And I said, I don't think we ever did that. I think for us in particular, the environmental impact was extremely important. As a mining company, that was one of our primary values. We were US based company and that featured very highly in the way we structure our business certainly in early days. So we wanted to pass on that value in some shape or form commercially contractually to our key suppliers. And this particular company was our most significant supplier. So I don't think cost was a factor for us. I think the impact was more important. I mean it innocently in the mining context in WA we've seen situations with Rio for example, if you don't get your practices right and the impact on either the environment or indigenous communities or whatever it might be, then people sit up and take notice and we certainly did not want that to happen with us. We saw a long term future and our license to operate this based upon doing the right thing.</p>	<p>The private contractor explains how priority for the project was set clearly and reflected in the contractual agreement and management. The choice of priority was determined by the long term future of the business and the relationship with the most significant supplier</p>
<p>How did you decide the weight of each criteria, like you allocate 30% for this criteria, and 20% for that criteria? Is there any reason</p>	<p>We did a waste management procurement and we had a selection panel and actually just threw it to them individually to weight according to their own perspective. But the weightings generally aligned with the points that we go out with our RFP's.</p>	<p>Selection criteria are weighted in the tendering process</p>

Question	Quote	1 st -Order Terms
for those value? Or it's just their subject matter?	Second, it can vary depending on the nature of what you're buying or procuring.	
In a perfect world, what should each stakeholder, the government, private client, a supply chain, especially tier one...what should they do in their particular role to transform the industry practices in procurement for sustainability?	<p>I'm just thinking we've had an adventure with this before and it didn't go well. we tried to get some visibility. The premium that we would pay for something with stronger sustainability credentials. Yeah, it just didn't go well with their internal clients. I just didn't want it. They just don't want to pay for it. The end of the express price signal made them run a mile.</p> <p>Some of this is like human nature too. Even if they had more money, they just didn't seem comfortable paying for it. But if it was baked into other concepts of it was better risk management and ... Yeah, it was more likely that it was certain in terms of the outputs. It seemed to be more palatable. They are more accepting.</p>	In the context of the government client, people are not willing to pay a premium for sustainability. However, if sustainability is phrased as a better risk management, people would be more willing to pay for
What can the private sector do that the government can't do in that space?	Oh, innovation . Yeah, but now it's more brand packaging that it's not just sold in offer sustainability credentials, but it is bundled up with the holy provider goodies and that helps us then can convince internal stakeholders. I'm not saying they don't want it. It's just they struggle to pay for it .	In response to the question about what the private section can do that the government cannot, a participant said "innovation" because they [the government] struggle to pay for it
Is it part of value for money definition in the government when it comes to procurement, it must be part of value for money, right?	It is. Even if they're their backs against the wall in terms of value for money, they still struggle with the concept of paying more for sustainability . This terrific thing, maybe it'll take decades to work its way through.	The government people struggle with the concept of pay more for sustainability
Is it part of value for money definition in the government when it comes to procurement, it must be part of value for money, right?	In terms of sustainability, generally there was a clear driver that we had 15 years ago with it being government policy to implement sustainability overall. Where would I call a sustainability risk exposed organization, given that we're dealing with an industry that can have significant environmental, or even social impacts. So we've had protesters against our projects in the past and have them shut down because they're going through a significant web . I enter the community. Because of that, there's been a recognition within the organization that, well, what can we do to be demonstrating what we're doing? Is sustainable? and where can we get that? So we managed to get out policy around implementing a society insurance society running scheme on our major projects.	Community pressure, e.g., protests, may drive behavioural/practice changes in the government
Is it part of value for money definition in the government when it comes to procurement, it must be	But we still experienced the issue of people not wanting to pay . At the time it took a lot of convincing and continue communication back to the various stakeholders to make sure that they understood that there was value for money	There's still a lack of willingness to pay for sustainability. The value for money and cost benefits (apart

Question	Quote	1 st -Order Terms
part of value for money, right?	<p>benefit plus cost benefit in implementing sustainability through the supply chain. It's not just a risk benefit. We haven't been sort of embed the same level with sustainable procurement in our smaller projects though, and that is a continuing challenge. Even within our maintenance contracts, it was seen as something that was important court corporately, but we couldn't get corporate sign off to spend the extra money because there are a couple of reasons why... It's mostly State funding and State funding is tight for maintenance money anyway and maintenance is not sexy as well. So it doesn't need the branding of sustainability on it. From that perspective not the risk and there is less risk because the roads already there. We just maintain an acceptable level with service in maintaining the road and generally the impacts are minimally in that space.</p>	<p>from risk benefit) that sustainability can bring had to be communicated to various stakeholders in the government.</p> <p>It's even harder to pay more for sustainability in maintenance contracts due to the tight budget.</p>
So what's in it for the private sector to pay for sustainability that drives you to do what you've been doing? It looks like to me, at least from the conversation, that the private sector is a bit ahead of the Government sector in this space. So what's in it for the private sector 'cause the privacy is more driven by the bottom line, right?	<p>I think consumers have a big impact on that in many markets. And I think as consumers become more aware and more concerned, you have a generation growing up who clearly are much more achieved through social media to environmental impacts, for example. That drives the behaviours because it is market. At the end of the day, private sector is driven by market. If there's a market for sustainable products and sustainable marketing then they will follow. I think the other thing that's interesting is the growth of disruptive technologies. It is not just about incremental steps. You have companies who are perhaps thinking 2 to three steps ahead. I think there may be small today, but they see that as their breakthrough, because just trying to build a business, the barrier to entry against an existing organization is going to be hard. So I think where countries and particularly through the universities investment in sustainable technologies, for example, then I think that tends to lead to the big boys come along...so those technologies accelerate into the marketplace because again someone can see the market, benefits of that. Business is a driven by opportunity. So an opportunity is all about return to shareholders, sadly. And so, as consumers change, businesses will change and ...do you need government intervention?</p>	<p>For the private section, consumers have a big impact and influence on sustainability practices. The consumers are the market and the private sector is driven by that. The disruptive technologies also have an impact as companies thinking 2 or 3 steps ahead.</p> <p>Business is driven by opportunity so as consumers change, businesses will change.</p>
So what's in it for the private sector to pay for sustainability that drives you to do what you've been doing? It looks like to me, at least from the conversation, that the private sector is a bit ahead of the Government sector in this space. So what's in it for the private sector 'cause the	<p>On top of that was actually going to make a comment about the waste packaging regulations in the UK. And whether that I haven't checked, but I don't know what sort of impact that has had on behaviours. But there's clearly signs that if governments do create a longer term requirements for businesses to do something different, the removal of diesel for example in Europe from certain countries, all of that will actually incentivize businesses to do well, incentivize it, almost forces them to do something</p>	<p>The government also has a role. It can create long term requirements and incentivise business to do things differently</p>

Question	Quote	1 st -Order Terms
privacy is more driven by the bottom line, right?	very different. So I think it is a multifaceted approach. Consumers demand, companies respond to that. And where are the gaps? Governments could and probably should step in.	
So what's in it for the private sector to pay for sustainability that drives you to do what you've been doing? It looks like to me, at least from the conversation, that the private sector is a bit ahead of the Government sector in this space. So what's in it for the private sector 'cause the privacy is more driven by the bottom line, right?	Utopian sense, more transparency and better valuation . Whether that be contingent or consideration of law, whole of life valuation . It is lots of different tools out there to do it, so there probably needs to be some consolidation of that too.	Better transparency and valuation (whole of life) would help with industry transformation.
I'm not sure if anyone have any experiences or any good examples in this [early involvement of market] space? How does that help to improve the sustainability in the whole process?	I'm just trying to think of an example where we've done it. We've got some restrictions in our ability to be able to engage with suppliers directly. So we tend to engage with industry associations more so about new products and new methods of construction. We do have a history of doing that for various topics around sustainability. There has to be obviously that driver there. Probably the most recent example that comes to mind is we had a driver of the waste strategy 2030. We need to be able to use crushed recycled concrete under that strategy. To enable us to do it, we needed to engage with...we need a new specification, another government agency as well as the market to come on board and to adopt that specification, which is around health and environment and ensuring quality product, also having some processes in there. So then we could troubleshoot and mistake find problem find. We established a working group and we have collaborated for about 6 to 12 months prior to a pilot trial be carrying and then led to the fact that the product was available. We had approved suppliers and then our projects were able to utilize the product when the time came. And that process was completely independent to those the document processes of those construction projects.	Industry associations can play a significant role in transforming the industry. For example, a government agency collaborated with an industry body to develop a new specification and drive its adoption in the market
I'm not sure if anyone have any experiences or any good examples in this [early involvement of market] space? How does that help to improve the sustainability in the whole process?	Obviously early engagement with suppliers can be very helpful. I can think of plenty of examples, just sadly not sustainability related. So I've worked in manufacturing in the UK where we would engage key suppliers in the design process of Jake's tools fixtures as part of our long term manufacturing plan because they could bring innovations and ideas to that. But perhaps something a little bit more sustainability related is about utilizing those partnerships that I mentioned earlier. So where you have a long term relationship with a supplier you could start to use their knowledge of their specialist field to assist . Again, the mining	Early engagement with suppliers can bring in innovations and ideas. Having a long term partnership allows for better use of knowledge of the industry partner

Question	Quote	1 st -Order Terms
	<p>company example, we had a company that supported our River remote village management. They give accommodation and food and cleaning. And we actually built a pretty strong relationship with them and created a continuous improvement cycle that ran consistently through that contract. There was no real incentive other than building on the relationship. They brought back ideas of improving or changing the way we went about cleaning using different products that required less chemicals. They introduced reusable food packaging for the guys working on mine sites themselves. They would take a renewable sort of packaging that could be cleaned and that significantly reduce the amount of waste we were creating. And the key there I think is we were mining company when you had a big iron and we didn't know how to clean how to cook, how to do those sorts of things. Thankfully, we had a company that we work well with that could bring those ideas to us. And yes, there were cost benefits in some cases, but not always. Sometimes there were some investment required, but it is all about continuing to improve the environment, not just the environment at large, but for the people working at the site.</p>	
<p>It's basically... once this is finished and everybody's forgotten the great thing and then basically resort back to business as usual. So what are your thoughts on this and what experiences XXX has on this?</p>	<p>It's a really good point because I often say that a company has a culture, but ultimately is driven by the values of an individual and the character of individuals. So you're absolutely right. I can think of a perfect example of a company that we had an excellent relationship with. A particular person retired. New person came in. Relationship fell apart within six months. This is kind of a major business, \$200 million a year type relationship and it's quite amazing how just one personality can change. I think the challenge for us is how to embed these sorts of behaviours into the culture. And somehow you have to probably move the process of dialogue that partnership into, I'm going to say sadly, some objective measure again. Because I think values and culture... culture is built on what you value ultimately and then the behaviours that underpin that. So you somehow have to, even almost again, we have to measure people on those values in some shape or form to sustain those behaviours. We all come at it from different angles. No matter what you do with an organization, there are personality types like me and there are personality types like each of you here and we all approach these things in a very different way. It is not that easy that personality can make a big difference to that sustainability. It is a really good observation sharing... that I don't have an easy answer at the moment.</p>	<p>Organisational culture plays a role in drive behaviours. So does the role of individuals (in this case the leaders)</p>
<p>It's basically... once this is finished and everybody's</p>	<p>I was really after an answer but it was basically something that...I see it all the time in</p>	<p>Behavioural change takes time so maybe</p>

Question	Quote	1 st -Order Terms
<p>forgotten the great thing and then basically resort back to business as usual. So what are your thoughts on this and what experiences XXX has on this?</p>	<p>procurement in terms of successful stories and good practices. But the challenge for us is how to sustain them because ultimately it's all about changing behaviours. I'm talking about in general. All various stakeholders to change behaviours. Perhaps sustainability could be better off introduced or reintroduced in a piece meal fashion where it's step by step. Because you cannot really change behaviour from 180 degrees. You need to really gradually work on that and whatever changes in behaviour we've had and we celebrate it should be embedded in and built on rather than start revisiting the whole process in every project as we haven't had that experience. It just sometimes it's frustrating.</p>	<p>changes in sustainability may have to be gradual</p>
<p>It's basically... once this is finished and everybody's forgotten the great thing and then basically resort back to business as usual. So what are your thoughts on this and what experiences XXX has on this?</p>	<p>If you can work your supply chains throughout your contracts, you can continue to contribute to sustainable outcomes.</p>	<p>Working with the supply chain through contracts can contribute to sustainable outcomes.</p>

Appendix C: 1st-Order Analysis on COVID-19 Impact on Sustainable Procurement

Question	Quote	1 st -Order Theme
How has Covid-19 impacted your industry and your organisation?	One of the things these matters do is have a rethink about some of the innovation that we were asking to look at around more just in time.	Rethink innovative approaches to address the Covid-19 impacts
	It's going to stay the weakness in relying on things being available because they're not always going to be available, especially stuff that's coming offshore. Which is further emphasized or underlined the sustainable procurement drive around local supply and having more reliable supply chains close by.	Highlighted the importance of creating more reliable supply chains
	The first impact I notice there was really around having to work very quickly with supplies on their working practices, prestart checks, cleaning all of those sorts of things	Rapid interactions and tasks on prestart checks, cleaning all of those sorts of things.
	I don't think we had in that time much chance to think about the sustainability impact it was just issued, react, resolve, and try act as normal as possible.	Limited time to focus on sustainability impact and prioritise actions to do as much as business as normal
	I guess we're structurally we're kind of insulated a bit because we about vertical integration. So, we start at the quarries in it, all the way through to the concrete. I think looking at where we're at now that the stimulus is changed. It's flipped it on its head. We're doing bigger numbers than we've ever done	Processes in this private organisation were insulated because of vertical integration
	I guess on balance, COVID has been positive for BGC because of the stimulus. WA has been bit more insulated compared to other parts of the country.	Experienced positive impacts of the stimulus offered by the government
	Once COVID hit, we realised well, because we've got a lot of feedback from our contractors with limited supply, and obviously they do not stockpile, and a lot of the supply was coming from overseas and that all stopped.	Received feedback from contractors about limited supply
	for example, you know, in our civil infrastructure space, we were, you know, the conduit piping, we were going to run out of piping. We were going to run out of the ability to put up street lighting. For our, some of our developments.	<i>Increasing pressure on the supply</i>
	So that's what we found, you know, was the supply chain stock to the supply chain, which affected our contractors in being able to deliver, let alone, you know, and in the maintenance space, obviously, you know, running out of, out of products was, it was a big thing	<i>Variety of impacts including affecting the timely delivery by contractors, maintenance activities, limited supply of products</i>
	Even just hand sanitizer, trying to source hand sanitizer for our shopping centres was difficult. And so, the demand supply was higher, and we had limited resources.	Difficulties in sourcing hand sanitizers
	Yes, I guess that isn't when it goes on price, right. So you're always driven onto the manufacturing ability locally and price, you know, can that	Potential price barrier for local manufacturing

Question	Quote	1 st -Order Theme
	happen? You know, do you pushful a local manufacturer? You know, we can perhaps prompt it as a developer, but we could definitely not, you know, entice our contractors or our suppliers to start local manufacturing.	
	The only thing, the positive that it did come out for Stockland was potentially looking at the stockpiling, the more popular products, materials like pipes. And we have a lot of land.	Stockpiling popular products as a measure to address disruptions.
	I think that impacted us from a sustainability you know results perspective, mostly around some of our operational activities and the use of, single use items. So all the messages went to, you know messes that have hundreds of people, thousands of people go through every day switched to all disposable stuff, which is not so good for my perspective.	Rapid transition to single use plastics as a covid-19 safety measure
	Defence is all about capability and looking after the soldiers, and of course, safety takes precedence	Safety takes precedence
	From the infrastructure side of things, I think it was a little bit the same, some delays, and supply chain shortages and delays in time frames.	
	well. Perhaps the positives have been more on the cultural side. People are open to change in this time, and this is more generic. But one positive that's comes out is this virtual working situation with been able to resource more, I guess, waste specialists.	Positive cultural changes such as virtual work engagements
[Sub question- TJ] How did the pandemic affect the risk attitude or aptitude of the organizations when it comes to let's say supply chain procurement and things?	You know, it was really very fortunate rather other than the supply chain change in how we operate like split shifts, for example, you know, we had to maintain distancing and hygiene. How is that are going to operate, increase the cleaning, increase resources or people, resources to deliver. And there wasn't that much of an impact.	Continuous efforts to put safety measures in place through the cleaning, increase resources or people, resources to deliver and thereby reduce the impact
	everyone negotiated with everybody to be able to do their best they could. And as you know, and what we did was delay delivery. So, we shifted the program to, you know, push it out by a couple of months so we could see how, what the pandemic was, you know, what was going to happen. And it also allowed the contractors to continue working at a slower pace, but we all, everyone just continued	Additional time leeway to contractors to continue working in a slower pace
	So, I guess how, in terms of risk, we manage the risk by shifting our program or extending our program to allow for the limited resources in certain areas. So, the industry would share, and I guess that would also maintain a certain level of cost for everyone.	Managed risk through shifting the private organisation's program to allow for the limited resources
[Sub-question- Vasilios] To what extent your organization have embraced	Yeah. I mean, everything was electronic. I don't think we moved away from site attendance where required as part of the tendering process for pricing. We couldn't do that. We had to,	Prioritised and conducted on-site engagement as needed and where electronic

Question	Quote	1 st -Order Theme
digitization in procurement practices?	obviously there's certain things that inspections need to take place. And then that was planned, appropriately through work, you know, through shifts, splits through, you know, looking at different ways of how contractors could come to site for their, you know inspections. So, they had to test soil, they had to dig that you never got to do certain things that you just can't do it electronically, yeah.	alternatives were not viable
	So, but anything else that wasn't required was done electronically, we introduced a new system to embrace you know, more processes electronically, and more information. So outside of 'Econex',	Possible adoption of digital approaches and introduction of a new system to electronically process information
	Because it's so hard to get a change made; so, COVID-19 has been very positive actually. Cause it's just pushed that button, you know! It's really sped up a lot of the IT stuff out of necessity.	Positively nudged the organisations to adopt IT tools
	people can benefit and leverage and, you know, work in a better place together through 'Teams' for example	Leveraging online video conferencing tools like teams
	part of Sustainable Procurement is also your whole work health and safety, your wellbeing, you know, et cetera. So, but it has, I think it's, I think it's brought people together generally, you know, from something disastrous, like the pandemic has brought most people together, not physically though, but socially and professionally together, you get to see people.	Brought people together socially and professionally
What challenges are brought about by COVID-19 to your organisation's sustainability practices?	So it's part of our strategy to have more sustainable housing and minimum seven star ratings before it becomes mandatory down the track... And right now we're just trying to pump up houses as fast as we can. And so I suppose sustainability is not a higher consideration as just getting the houses on the ground	Sustainability is not a higher consideration as just getting the houses on the ground
	the main one, which was switching to a lot of disposable options at the safety. You know, it's harder when you suggest any alternative, I suppose.	Rapid transition to single use plastics in the government organisation as a Covid-19 safety measure
	And I think that was a big one really, and then supply chain timeframes. I haven't heard specific examples of this, but Defence has a tendency to be very risk adverse, and I would guess that there's probably areas in Defence where you've probably done a bit of overbuying, because of this situation to sort of prepare for the worst.	Changes to the supply chain timeframes and overbuying as a preparatory measure
[Sub-question- Yingbin] Any complaints from their supply chain in regard to the COVID-19?	I think we were more concerned about our ongoing employment, you know, as on, I think everyone was concerned more about the ongoing employment, what was going to happen?	More focus on job certainty
	So, our approach was, well, let's all be fair and take, you know, you've got three months to progressively take one-week leave, for example.	Adopted a fair approach to progressively tackles

Question	Quote	1 st -Order Theme
	And we all did it, doesn't matter who you are. So that was our approach. And no one complained about that either	the covid-19 related challenges
	Stockland do all the talk in that respect, and it comes from the top down. But yeah, so that was an improvement, I guess, you know what they did, they demonstrated the culture that Stockland has to everyone, to all us employees.	Implemented a top-down approach and inculcated a fair culture
[Sub-question- TJ] Does it have any impact on how funding for sustainability is directed?	I would say our problem is not money, when it comes to Sustainable Procurement ... So, you've got the money, you've got the willing, you know stakeholders. Our challenge is really the logistics, finding the products that are suitable, making sure people know that. What we want, none that we have a sustainable procurement policy.	While there is sufficient funding for this government organisation logistics, finding appropriate products was a challenge
	We find out contractors again, they're not trying to not do not comply with our policies. It's just that they've got so much to deal with, like a list of hundreds of, um, requirements. It's just that they would need to be clear on. We need to be clear in telling them what we want. Um, so that's really our challenge	Clear communication of expectations related to sustainable procurements to contractors who are already dealing with a myriad of other requirements
	we've got Veolia is our main waste management contractor and they've been very proactive, and they'll come to us with, initiatives and scope it up and they'll just say, they know we've got money sitting around and then now we want to do this. So, they're proactive and they go, come to us.	Some contractors are proactive from their end and approaches the government organisations with specific initiatives and scope
Sub-question [Savindi] Were there any instances or examples where the suppliers or the contractors were unable to meet the contractual obligations during that time? So, in that case, were there any other alternatives for them?	we acted very fast internally in our project teams to identify, you know, straightaway as soon as something happens. It's you know, you're looking at the risks and you're looking at the forecast of program with the contractors.	Prompt action and rapid forecasting to manage supply chain as well contractors
	So, that was done proactively and how I began, like I mentioned earlier and how we manage the supply chain as well as people, as well as contractors, as well as split shifts, et cetera, we staggered the program, which then allowed us time and allowed everything time. To manufacturer deliver, you know and arrive.	Proactive actions were in place to manage the supply chain as well as contractors
How can this impact be ameliorated improved, enhanced?"	We're still very much in the, in the phase of just trying to get projects, to think about how they can incorporate sustainable procurement. So, I can't even say, well, we used to be, you know, every project used to be doing this and this year we weren't able to do that because it's all new,	It is still a new journey for the government client and therefore the actions are still in its infancy
	We don't use this to our advantage in one case at a remote site in South Australia, they needed a lot of crushed concrete, but they've got sort of a dump there where they dump all their construction waste. So, it was sort of an easy sell anyhow, but we sort of sold the idea that we should just crash and reuse the material that's on site. And there's a bit of a COVID was that the right time when people couldn't move around	Prompted creative thinking around re-using and re-purposing waste material

Question	Quote	1 st -Order Theme
	Like, we are very much in our probably, you know, earlier than infancy in implementing sustainable procurement practices in Stockland	Private organisation was positioned within the early than infancy phase in terms of implementing sustainable procurement practices in private sector organisations
	We obviously have had to, you know, tiles are really big for us. We've had to look at how we resource that and locally that is one take away. Yeah. For us even in a maintenance space for the shopping centres, everywhere tripping falls, I break it's something that you said it's ongoing for us here. But, otherwise to think about the supply chain, you know, sustainable procurement practices now is that I can't to Australian government initiatives	
	You know how we ameliorate that process on behalf of our contractors. So, as a developer, we engage our contractors and says, you got to do X, Y, Z, here's the specifications, it is usually a development construction contract; so, we go, you got to finish the design and, you know, tell us how you're going to build it, cause you're completely responsible, and we have no risk.	Engage with contractors who complies to set of defined specifications
How to make supply chain more robust?	The government and the leaders in certain industry sectors actually come together and have a forum.	Possible coalition between government and industry and government's role in leading and facilitating industry/regulators
	And that it's all the issues are put on the table and we discuss, you know, can we bring back manufacturing? You know, and to what extent we've just finished getting rid of all the manufacturing, you know, to overseas. And what does that look like? Obviously as a cost, because cost of labour here and cost of leasing cost of everything and import of materials to pull everything together is expensive.	Explore future opportunities of advancing local manufacturing and associated challenges related to costs
	Although COVID probably played into the picture, it's more in the case of the national waste policy and the export ban that's driving us.	Waste policy and export bans drives industry practices
	We need you to start thinking about buying recycled products so that we can support industry, you know, to build up their manufacturing capabilities.	Shifting buying behaviour and considering recycled products
	And it's good because the government is sort of holding us accountable, I suppose; we have to report on that and say what we're doing and which is good, which is good because it's working.	Increasing accountability towards sustainable consumerism and manufacturing
	There are opportunities to continue driving you know, the modern slavery initiatives across the board in how we operate in sustainable	Opportunities to continue driving you know, the modern slavery initiatives across

Question	Quote	1 st -Order Theme
	procurement and our sustainable procurement practices.	the board in how we operate in sustainable procurement
	I was part of a consortium and a working group with the Property Council of Australia. And we took off, I think, about 15 to 20 contractors, developers, I think we had a few government representatives. And a list of questions, et cetera and built by 'Informed 365'. And I'm just, it's called the Modern Slavery questionnaire, which is a mandatory requirement for, at the moment for our construction-built form contractors, because obviously they have the most supply for our cleaners, for our security.	Purposeful integration of modern slavery act, mandatory requirements and engage key stakeholders
	And then we ask our suppliers to complete a series of questions disclose; and for, they had to disclose on this database, which the consortium had access to, who they supply with, where they get their products from, how do they ensure that, you know, Modern Slavery's met, you know, that they're not buying from Bangladesh where a five-year old is, you know, building something, you know, and in importing it. So, obviously we have to rely on their disclosures because we can't go and visit and check.	Data collection from suppliers to verify their conformance to modern slavery act
[Sub-question Yingbin] So how did you find this system going? So, do you think that it was very useful to improve the Sustainability outcome?	Well, what it does, it provides us with the acknowledgement. And so, we go there and audit and report again, it's only just started. So, it's slowly building. We have to educate our, our suppliers	Receiving acknowledgment from the suppliers and increased awareness
	So, it's like a little report that, you know, we get spit out, kind of going, how many suppliers have registered? Who's answered all the questions? Things that suppliers in Australia, you know, sometimes they don't, they are not willing to answer all the questions.	Suppliers willingness to disclose information varies
	We've published our statement at the end of last year, so that was one of the requirements we had to do. So that was our first step plus start, you know, embedding Modern Slavery in what we do day to day	Private organisations publicly claiming the efforts directed towards sustainable procurement
Robust supply chains [Sub-question Yingbin] From the government, from the Commonwealth government, are there any initiatives being the suspect, in this stage? Are they any initiatives to policy or it could be a regulation or policy initiative or any, anything from the planned activities to improve the sustainable practices	So, one thing we, it's only just signed to work through is there's been an update to the Commonwealth Procurement rules that, put some more requirements around Sustainable Procurement and where. Looking at how do we embed that into our documents	Demonstrating commitment to update the Commonwealth Procurement rules
	Defence being such a big place, big organization, it's a bit of a tricky task. But one of our big challenges is the reporting, as I mentioned, we've got the requirements and, but we have to be able to prove that we're making progress, and that's actually quite challenging.	The large scale of the government organisation poses challenges in the reporting process

Question	Quote	1 st -Order Theme
	You need our system. That's our system is very good. Because like I said, there was a consortium rules, it was everybody	Possible opportunities to benchmark best practices in the industry
	But it is a system, which was developed by 'Informed 365', which is the organization that may be able to help you get it right.	
	Embedded Modern Slavery requirements in the contract itself. How you do business. For instance, in Stockland, we have a policy called 'What Stockland Expects from its Suppliers', which is on our website and which we published to say, you know, Human Rights, Modern Slavery, you know, embedded Code of Conducts, you know, the Geneva Convention requirements like we really stepped through all of it right through.	Embedding Modern Slavery requirements to the contract
	I think we touch on pretty much all high-level touch points of ISO 20400 on sustainable procurement. Yeah. We can really road mapping out our gaps.	Integrating ISO20400 sustainable procurement guidelines to organisational processes
	It's probably about linking up the, you know, the government with this applies to let us know what's out there. Just on the annual maintenance program. And he said, guess what a big chunk of that is? Just carpet and paint. If we could find some great products out there for the carpet and paint yeah. Have a big win.	Identifying the salient features and exploring local opportunities to fulfill the demand
	Yeah, that's a good comment because, in terms of showcasing people doing good stuff as a government agency, we can't ever specify a particular company or a particular product because that's not fair. So, we need someone else to champion people doing some great stuff.	Championing sustainable practices with the support of professional institutions
	Green Building Council to perhaps post, you know, that type of discussion forum event, you know, or even to, you know, pull together a meeting with a few people to go, okay, what do we think? Yeah, I think it's great. I think that's the only way you can move forward is leveraged from everyone that, like Dan has leveraged the 'Informed 365' from me today	Leveraging available tools such as Informed 365 through a mediating industry body
Robust supply chains [Sub-question Yingbin] What do you think about the early engagement of the stakeholders and, possibly users how a big impact on sustainability practices or the procurement decisions?	You know, ordinarily procurement in any of its forms is never given enough time. And you end up having to compromise somewhere to meet the delivery targets, and it doesn't matter who you work for. I think that happens because you need to push, you know, deliver on time. That's what's the driver and within or under budget. And so, I think it is an old chestnut. And I don't know how to change it, but we can set, you need, you need all this time so we can leverage better suppliers. We can, you know, do our due diligence to, can probably get better pricing, but all of that, you know?	Having to compromise somewhere to meet the delivery targets,
	I've experienced this over the years, not specifically with Sustainable Procurement, but trying to bring ESD requirements into	Challenge in demonstrating value for management

Question	Quote	1 st -Order Theme
	infrastructure projects. The challenge is as I said, is this a value managing out?	
	So, our ESD requirements, are at the forefront of our design because we were obviously, as a developer, we want our product to sell and people want say in our buildings, they want a Greenstar, you know, for 4.5 or greater Greenstar and how, and how we do business is important to us.	ESD requirements and Greenstar rating enable the organisation to cater to the customer demands
	We can really push the whole of life aspect, which is, which is very good for energy and water, because it's generally, it's easy to make a case the sustainable procurement and alternative materials is a little bit trickier to make that whole of life argument.	Pushing the integration of whole of life evaluation through streams such as energy and water
	Could you imagine that you recycle your single use plastics, which has been generated from COVID into clothing, which is supplied to the Force? Obviously, there'll be certain clothing that won't meet, you know, that may not meet the spec file or whatever in certain areas, but generally	Upcycling of single use plastic waste material into a value added product
What are Stakeholders' (government, client, contractors, suppliers and users) roles in shaping sustainable procurement practices in a post COVID-19 world?	Negotiation has to be much more collaborative, much more win-win, again, much more transparent in terms of understanding that supply chain. But it also drives some other behaviours around a combination of source local. So, is local supply a much better solution? We might have to pay a bit more for it.	Trade-off between the cost and availability
	I think it thanks to stakeholders in the procurement professional world to actually start shining the spotlight on broader evaluation criteria that must be considered, when they can make decisions, not just about that, it is a long term thing.	Broader evaluation of criteria aiming for a long term impacts
	We're now in a time when that's not as easy as it sounds because somewhere along that supply chain it could be a country that's forced into lockdown, it shut down their factories, restricted logistics, paying twice as more for a container because all of the empty containers are in the wrong place in the world at the moment.	Unexpected business disruptions causing severe impacts
	There's so many other knock on effects of supply chains that people have suddenly recognized, and I think that supply chain risk will become a much bigger factor in decision making going forward.	Understanding supply chain risks
	From the government perspective on that subject, there's a real danger if that message is handled badly, you end up with nationalism... I think there's a way that can be politicized in the wrong way. I think we just have to be careful with that messaging.	Possible nationalism issue if the message is expressed incorrectly
	So, we need to be able to understand the origins of the materials and products will they have of recycled content. So, when digging to our	Chain of evidence for materials

Question	Quote	1 st -Order Theme
	Procurement records, how hard is it going to be it to dig out this information at the moment	
	Reporting, through audits through our supplier orders.	Clear and transparent auditing processes and reporting
	Mean, at Stockland we've started the Indigenous Procurement process with, you know, social resources like supply nation, you know, having them available, you know, then becoming a partner with us	Indigenous engagement
	Waste trading - I hope so. Well, it would help us 1) to meet our objectives 2) for reporting, presumably make things quite easy. And I think the volumes. Would make it worthwhile for us to participate as well	Possible opportunities for waste trading to exchange products with good fit for purpose
My question is the government sector is another big client there. Who are the equivalent consumers in the government sector in this case? [TJ]	Technically, voters. Maybe a group of people and the end of the day the same people that are consuming general sort of products ...they don't necessarily see the direct impact of that consumption. You drive along road and it's nice to smoother recently asphalted the road feeling pretty good. You don't actually question as a voter 'did my local authority use sustainably sourced materials to make this road?' I think in a sense we're never going to get to that level of impact. But as sustainable issues increase their presence in the psyche of people, they will expect that of politicians	Importance of consumers / voters as they would expect positive change from politicians
	They're not consumers, but they're change agents...shareholders... change happening, now more than ever within listed companies. I talked about ticking a box personal experience with the banks.	Banks were identified as a another key player
So learning from this realities, how can you leverage your experience for future opportunities in the context of Sustainable procurement? Any thoughts on that?	I think it's really short of spotlight on both the benefits and risks of global supply chains. I suppose it's an opportunity to broaden horizons	Understanding benefits and risks of global supply chains as an opportunity to broaden horizons
	I think a lot of people are in lockdown and spend a lot of time shopping on Amazon and doing things like that. So actually in some respects it's actually become even more convenient, or at least more of a spotlight on convenience buying	Popularity of convenience buying
	So people could become more aware that if you're going to favour this particular brand, you need to understand that there are risks associated with that. There are people that will perhaps be abused to make that product for you. Where this particular brand is making efforts. So I think the lessons is everyone's personal	More ethical solutions uncertainty element in purchasing and procuring our service and products became too visible for everyone
	I can probably only talk about this at a very high level. I think what we have done is probably implemented procedures to safeguard against, short supply or what, or what we need to do when something happens, you know, like the pandemic you know,	Learning from implemented procedures to safeguard against limited supply or other higher-order impacts

Question	Quote	1 st -Order Theme
	<p>we know that we had the pandemic before that we had the Commonwealth Bank, you know, completely, you know, not meeting its risk profile. Therefore, the banks wouldn't give money and therefore no one could buy a house. You know, everyone's loans were going belly up and everyone was going to be affected.</p>	
	<p>So, which again, for us, it affected our, whole residential portfolio, you know, and I guess for us, and I kind of like disaster management, but I guess it's along those principles that when something does strike, like a pandemic, you know, how quickly can we shift and what do we need to consider immediately?</p>	<p>Developing disaster management strategies to better manage disruptions</p>
	<p>Generally speaking, we're just, we're learning the whole process, the whole concepts from scratch almost.</p>	<p>Learning many concepts from scratch as a required change during the pandemic</p>

10 AUTHOR BIOGRAPHIES

Associate Professor Yingbin Feng is Associate Professor of Quantity Surveying at Western Sydney University. He has been conducting research into the issues surrounding the management of civil and building construction and built environment, in particular construction health and safety, sustainable procurement, and adoption of BIM and robotics in construction. He has been awarded over \$1.0 million research funding supported by Sustainable Built Environment National Research Centre of Australia, SafeWork NSW, Landcom, Vietnamese Ministry of Education and Training, Royal Institute of Chartered Surveyors (RICS), and National Natural Science Foundation of China (NSFC). He has over 100 peer reviewed publications. He was the winner of the Premier Award at the prestigious Chartered Institute of Building (CIOB) International Innovation and Research Awards 2014.

Dr Vasilios Papastamoulis has almost 20 years of experience in the construction industry participating in several sustainable constructions projects such as green buildings, wind parks, hydroelectric dam, thermal and steam power plant. He obtained his PhD in construction waste (C&D) management from the University of South Australia with the University of South Australia Postgraduate Award. His thesis involves the development of a prototype based geospatial model towards the minimisation of the carbon impact of C&D waste materials and supports the circular economy. He also had an Executive MBA (Project Management) and an MSc in Geoinformatics (GIS).

Professor Sherif Mohamed is Professor of Construction Project Management at Griffith University. He is actively engaged in scholarly research focusing on the development of theoretical knowledge and operational tools needed for effective implementation and evaluation of process improvement initiatives. His research employs a variety of qualitative and quantitative techniques, thus ensuring that he is well grounded in most of the modern research tools. He has received funding from the ARC, and external bodies such as government departments, industry and research centres. He has supervised 26 successful PhD completions addressing a variety of topics related to project management, construction sustainability, and construction workplace health & safety.

Dr Tiendung (TJ) Le is a dedicated educator who is a pioneer in using the case method in project management education. TJ conducts research in procurement, front end planning, agile project management, and risk management. He runs postgraduate programs in project management at RMIT University and serves on the board of the Project Management Institute Melbourne chapter. He has 17 years' experience working in different capacities in industry and academia in Australia, Thailand, the US, and Vietnam. He holds a Master of Project Management degree from University of Technology, Sydney and a Ph.D. from the University of Texas at Austin.

Dr Savindi Caldera is a Research Fellow in the Cities Research institute, Griffith University (Brisbane Australia). For the past 8 years Savindi has been working with colleagues in Australia and overseas to build capacity for lean and green thinking, resource efficiency, and sustainable business practice. She completed her PhD in Environmental Engineering (Lean and green thinking) from the Queensland University of Technology (QUT) in 2018 and received the QUT Siganto Foundation Medal for demonstrating excellence in engineering-related research. She has teaching experience in both undergraduate and postgraduate levels and she is a Fellow of the Higher Education Academy UK.

Dr Peng Zhang is an Associate Lecturer of Construction Management at Western Sydney University. He received a PhD degree from RMIT University. He was a research fellow at Deakin University and prior to that he was a research associate at the University of South Australia. He has experience in conducting quality research in the area of productivity, technology adoption, sustainability and competitiveness. Peng has been working on 14 research projects (more than \$1m) and published more than 30 research outputs. His current research is around Building Information Modelling in Work Health and Safety Management, Sustainable Procurement, Stakeholder Management, and Waste and Circular Economy. He is the Strategic Project Manager of the Lean Construction Institute – Australasia (LCIA). He is the Secretary and Research Officer of the Australian Housing Supply Chain Alliance.