



CENTRE
for **SOCIAL**
IMPACT



COMMUNITY RECYCLING ENTERPRISES

NSW Impact Measurement Project

FINAL REPORT

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ABOUT THE PROJECT

The project is funded by the NSW Office of Environment and Heritage (OEH), and is being delivered by the Centre for Social Impact (CSI) Swinburne in partnership with Community Recycling Network Australia (CRNA) and Resource Recovery Australia. Information about the delivery partners can be found at the end of this report.

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EXECUTIVE SUMMARY

Measuring and communicating impacts is of increasing importance to all sustainability-focused organisations, including those operating as social enterprises. Measurement can assist organisations to improve their sustainability performance, influence the behaviour of their customers and communities, and communicate their progress to a wide range of stakeholders. Yet, impact measurement is hard to do, costly for small to medium enterprises, and of limited value to organisations and their funders, customers, and communities when not done well.

This project was initiated by representatives from community recycling enterprises (CREs), who expressed interest in developing online tools to support the measurement and communication of the aggregate impacts of this group of organisations. The aim was to improve understanding of how the environmental and social impacts of NSW-based community recycling enterprises are currently measured, to use this information to suggest some common indicators against which they could more effectively document and report on their performance in these areas, and to consider the implications of this work for sustainability-focused social enterprises more broadly.

The research undertaken to inform this report included: an online survey of NSW-based CREs; a consultation workshop with CREs and CRE stakeholders; 11 telephone interviews with CRE representatives and core CRE stakeholders; and secondary research exploring relevant initiatives and reporting practices of CRE-style entities in other countries.

The research and consultation found that:

- CREs measure some common inputs, outputs and outcomes, but often do so using different metrics;
- there is a core group of interested CREs and external stakeholders that could support a pilot project to aggregate impact measurement and communication; and
- there are common and identifiable impact measures that matter to CREs that could provide the basis for such a pilot.

The process-related findings suggest that small steps, rather than immediately transformative 'leaps', are most likely to result in practical tools and a shared intent to use them by participating organisations. In addition, developing a taxonomy to underpin online visualisations of a sector's impacts requires shared organisational commitments to standardising some aspects of measurement.

Based on input via the workshop and interviews, a set of 'measures that matter' to CREs and their stakeholders are proposed as the basis for a pilot project. Indicators are suggested within three 'tiered' categories, with priority order reflected in the recommended tiers. Careful consideration has been given to proposing an approach that is realistic, caters for the needs and interests of those projected to be involved, and could be maintained and expanded over time.

A rapid prototyping approach to the pilot is recommended to get things started and integrate learnings generated through the practical use of these indicators by a core group of CREs. The focus of the pilot would be on improving the quality and reliability of data capture and reporting against a manageable number of environmental and social indicators. This approach is designed to ensure that there is time to develop a holistic framework around the core data matters, to allow broader scaling over time, and for learnings to potentially be adapted into other sub-fields of the social enterprise sector.

1. INTRODUCTION

Measuring and communicating impacts is of increasing importance to all sustainability-focused organisations, including those operating as social enterprises. Measurement can assist organisations to improve their sustainability performance, influence the behaviour of their customers and communities, and communicate their progress to a wide range of stakeholders. In the case of social enterprises, the latter is important in extending their market opportunities and accessing finance and support for their work. The establishment of the Sustainable Development Goals (United Nations 2015) has also created new imperatives to document sustainability practices at organisational, sector and national levels.

Yet, impact measurement is hard to do, costly for small to medium enterprises, and of limited value to funders, customers, and communities when not done well. The purpose of this project was to explore the value and potential of piloting a collective approach to measuring and communicating impacts by one type of sustainability focused social enterprises – community recycling enterprises (CREs).

Social enterprises are defined as “organisations that: are led by an economic, social, cultural or environmental mission consistent with a public or community benefit; trade to fulfil their mission; derive a substantial portion of their income from trade; and reinvest the majority of their profit/surplus in the fulfilment of their mission” (Barraket, Collyer, O’Connor and Anderson, 2010, p.16). Social enterprises are widely understood to form part of the social economy - which also includes not-for-profits, cooperatives and mutuals – and which are, together with the for-private-profit and public sectors, key economic actors in our communities (Haugh & Kitson, 2007).

CREs are defined by the Community Recycling Network of Australia (CRNA) as “enterprises that exist for the purpose of reducing waste to landfill while at the same time creating jobs and volunteer positions through the resale of materials and equipment” (Yousefpour, Barraket & Furneaux 2012, p.7). In this way, CREs are a defined sub-set of the wider social enterprise sector. From small tip shops in regional communities to large, multi-regional enterprises, CREs are also a significant contributor to waste minimisation, re-use and recycling in NSW and beyond¹.

CREs are also often the drivers of innovation in waste avoidance, reuse and recycling, being motivated by environmental and social impact in equal measure to achieving financial durability. CREs operate across a number of ‘problem waste’ areas – including household bulky waste collections, mattress recycling and fabric re-processing. Traditionally, these problem wastes have attracted limited interest from the private for-profit sector and local governments, and CREs have been at the forefront of efforts to find cost-effective solutions.

CREs are resourceful, creative, and scalable enterprises that are mission-driven and committed to collaboration. However, it can be a significant challenge for CREs to determine what data will support effective reporting on performance across their multi-faceted missions, and to meet the information needs of their often diverse stakeholder audiences. Exploring different tools and approaches can prove costly, too – in funds, in time and in draining people’s enthusiasm for the task. Baseline data and anecdotal evidence also suggests that the type and format of data captured varies between CREs. This dilutes the potential for, and effectiveness of, the type of sector-wide reporting that is important to stabilising and growing this sector.

¹ Another very substantial social economy contributor to resource recovery is charitable recycling organisations (CROs) – including op shops and reuse charities. There are thousands of CROs in NSW. While there are some overlaps between CREs and CROs, the two fields do not identify as one ‘type’ of organisation, in part because they place varying emphases on charitable versus enterprising activity. CROs are thus not included in this research, except where they explicitly identify as CREs.

This project was initiated by CRE representatives, who expressed interest in developing online tools to support the measurement and communication of the impacts of this field of organisations. In the spirit of collaboration that characterises the CRE sector in Australia, there is a clear opportunity to work together to develop a set of standardised indicators, tools and reporting methods that will make significant inroads to addressing these issues. By developing shared tools to measure and communicate environmental and social impact to stakeholders, the CRE sector could dramatically improve the visibility of its work, and also contribute to driving improvements in transparency and standardisation of reporting requirements across the wider waste management industry. The findings and insights generated through this project will also be useful to sustainability-focused social enterprises more broadly, to advance the demonstration of the positive societal impacts they generate.

2. PROJECT METHODOLOGY

The project team consulted with NSW-based CREs and some of their key stakeholders to determine what social and environmental performance data they currently capture and report on, and what future data needs they anticipate. An important focus of the consultation was determining what indicators and reporting methods might best facilitate ‘measuring what matters’ to CREs and to their key stakeholders, whilst also fostering a realistic implementation approach to improving impact measurement and reporting, both during early stage development and to build capacity over time.

In addition to the primary research conducted, secondary research was undertaken to determine how similar issues are being approached by CRE-related organisations and initiatives in other countries, and to identify examples of initiatives and approaches that could inform the next stage of development for the NSW CRE sector.

Each of the data collection methods is briefly outlined below, before the combined project findings and recommendations are presented in the following sections.

2.1 ONLINE SURVEY

The population of NSW-based CREs was identified via a review of: CRNA’s membership database (n=40); OEH’s 2015 sustainability-focused social enterprise mapping project (n=5 additional unique CREs); and Social Traders’ current data on sustainability-focused social enterprises (n=1 unique charitable recycling organisation).²

An online survey was distributed by direct email invitation to 41 of the identified 45 CREs on 19th April 2017. The 41 survey recipients included 37 CRNA members, and 4 additional CREs identified via the OEH mapping project. A total of four CREs were unable to be contacted, despite repeated efforts. The survey remained open until 22nd May 2017. A copy of the survey questions can be found at Appendix A.

A number of strategies were employed to encourage survey completion, including:

- Providing survey recipients with two reminders via email

² Identified charitable recycling organisations were not included except where explicitly identifying as CREs.

- Follow up phone calls to identified CREs to provide opportunities to ask questions about the survey
- Confirming via testing that there were no technical barriers to survey completion; and
- Extending the survey deadline to accommodate late responses.

These strategies resulted in the NSW CRE sector engaging with the survey in the following ways:

- 18 survey recipients visited the survey link;
- 16 participants completed at least part of the survey; of these
- 10 participants completed the full survey; and
- 2 respondents left the survey without participating.

Accounting for non-contactable organisations, the overall valid response rate is 24.4%. Although disappointing, difficulties encouraging participation is consistent with past efforts to survey CREs (see Yousefpour, Barraket & Furneaux 2012), and reflects some important realities of engaging busy small to medium social enterprises in data extraction exercises. These factors need to be taken into account in future approaches to impact measurement and communication within this sector.

Survey data were descriptively analysed. In the survey data presented, percentages relate to the number of fully completed surveys ($n=10$), unless otherwise indicated. Results are not generalizable due to the small sample size.

2.2 CONSULTATION WORKSHOP

Twenty-three people were invited to participate in a two hour workshop held in Sydney on 17th May 2017. Of these: nine were CRE representatives, four were CRNA representatives, and ten were non-CRE representatives. Invitees were either identified as key stakeholders for the CRE sector in NSW, or as having specific expertise relevant to the project objectives.

Ten people attended the workshop, which was audio-recorded and thematically analysed. The attendees included representatives from three CREs, two CRNA representatives, and five CRE-stakeholders. The workshop was conducted as a facilitated discussion, focusing on:

- What and how are data currently being collected by CREs in NSW?
- What measures really matter in communicating the impacts of CREs? Who are the key stakeholders for this information, and what are their views and requirements?
- How could the routine collection of existing and additional data be streamlined and standardised amongst CREs in NSW, to maximise quality and reliability?
- What practical considerations should be taken into account when designing a tool to document aggregate impacts of CREs?
- What appetite is there for developing such a tool? Who would be the users?

2.3 TELEPHONE INTERVIEWS

Eleven semi-structured telephone interviews were conducted between 17th and 25th May 2017. Interviews ranged from 29 to 70 minutes in length, with the average being 44 minutes in duration. Of the eleven interviewees, six represented CRE perspectives, and five represented CRE-stakeholder perspectives. Eight of the interviewees had also participated in the workshop.

Interviewees were identified via self-selection through an option in the online survey; and via recommendations from CRNA about key stakeholders and those with expertise in impact measurement in their industry.

The interviews were audio recorded and thematically analysed. The interview guides for CRE and CRE-stakeholder participants can be found at Appendix B.

Subsequently, several interviewees also provided copies of various examples and reports that they mentioned during their interviews (included in the following section).

2.4 SECONDARY RESEARCH

Direct email approaches were made to the following organisations, advising them of the project and seeking their input in the form of any relevant materials, documents or advice that they may be able to offer. Responses were as follows:

- Community Recycling Network New Zealand: a list of indicators for an 'info graphic project' currently being developed in partnership with Environment Centres and the NZ Community Energy Network; an example of an infographic currently being used (see Appendix D); and a copy of Zero Waste NZ 2016 Annual Report.
- Community Recycling Network Scotland: a copy of 2016 CRNS Membership Survey Report; three 'rolled up' info graphic examples (see Appendix D).
- Community Re-use Network Ireland: a confidential copy of the final draft report from the *Key Performance Indicators for the Reuse Sector* research project³ (Miller & Purcell n.d.).
- London Community Resource Network: no response.
- Community Enterprise in Scotland (CEiS) & The Social Value Lab: six reports on related issues - five focused on overseas programs⁴, and a Social Return on Investment (SROI) report on the Bairnsdale Tip Shop in Victoria, Australia (Harry Freeman & Associates 2016).
- Social Enterprise Institute Canada: links to social enterprise capacity building initiatives taking place in Canada, with a particular focus on building the demand side of purchasing relationships.

Other reports and documents identified through general desktop research are included in footnotes and in the reference list, and relevant information sourced from both these and the direct approaches outlined above are integrated throughout this report.

³ Project description: "The Rediscovery Centre is conducting collaborative research under the EPA's Green Enterprise programme to identify key social, economic and environmental indicators appropriate for measuring the impact of the reuse sector in Ireland. The study demonstrates the importance of sustainability monitoring for communicating impact and presents a methodology for the process. The indicators were validated using Rediscovery Centre operations and processes as an initial test bed site. The results were used to create a simple impact infographic to demonstrate the advantage gained through data collection with respect to impact communications. The report will be published shortly and will be made available here" (CRNI website).

⁴ See: Dene et al. 2007; Stevenson & Gmitrowicz 2012; The Furniture Scheme 2016; Valpak Consulting 2014; Weir et al. 2012.

2.5 LIMITATIONS

The primary limitation to the project was the challenge of completing consultation activities within a relatively short timeframe. However, those who did participate were highly engaged and provided rich insights.

The other broader issue which negatively impacts the project is the low response rate common when extractive approaches (such as surveying) are employed for research purposes in the social enterprise sector in general, and the CRE sector in particular. Common reasons cited for low response rates are lack of time to input data, and lack of understanding of the potential benefits that data availability may offer.⁵ These factors were also evidenced in the email response from CRN NZ, who provided a detailed description of the challenges they are facing in securing data on their sector's impact, which also confirms that the issue is not specific to NSW or Australian-based CREs.

The survey was distributed to a total of 41 CREs, and this is used as the base-count for number of CREs in NSW. CRNA members comprised 37 of this core group to which the survey was distributed, and their make-up is quite varied. Through the CRNA interview it was confirmed that this group includes a number of organisations that have relationships with CREs and similar interests in some areas, but which are unlikely to consider themselves CREs per se. Examples of this include: Fair Repairs – a social enterprise providing household clean up services; The Social Outfit – a fashion manufacturer and retailer that uses recovered fabrics; and OzHarvest – a food rescue and distribution charity. Amongst the 37 CRNA members there are also a number that are quite small operations. Bearing this in mind helps to contextualise this report, and is also important information for future planning with regard to measuring and communicating the impacts of the sector.

All of these factors have clear implications for a CRE impact measurement tool-based project. The findings of this project reinforce that innovative and 'slow build' approaches to engaging the CRE sector and its stakeholders in conceiving and implementing any such tool will be critical to its long-term success. Early demonstration of the benefits of impact measurement and reporting will be a key part of this. What was clear through the consultation process is that there is a core committed and enthusiastic multi-stakeholder group that have the interest and capacity to drive a next-stage pilot project.

3. NSW-BASED CRES' ACTIVITIES AND CHARACTERISTICS: INDICATIVE FINDINGS

This study hoped to generate a baseline analysis of the social, environmental and economic benefits that NSW-based CRE's bring to their communities. As discussed above, the number of survey responses received was low; a reliable baseline cannot thus be confidently projected. There was, however, some useful organisational variation presented among the almost 25% of identified CREs in NSW who responded to the survey. We thus present survey data here specifically to support the project's primary purpose, which is to consider the possibilities of impact measurement and reporting within the sector, considerations that need to be taken into account, and the implications for sustainability-focused social enterprises more broadly.

⁵ See, for example: Barraket et al. 2010; Yousefpour, Barraket & Furneaux 2012.

3.1 ABOUT THE ORGANISATIONS

Based on the completed survey results, we can report the following organisational data on NSW CREs, noting that care must be taken in generalising from these findings because of the small sample size and the response rate.

Respondents who completed the full survey represented relatively well-established CREs, with 50% having been operational for more than ten years and 50% for five to ten years. From this we may construe that they are well versed in the day-to-day practicalities of their operations, and have achieved financial sustainability to date.

Approximately 75% of respondents operated only in NSW, with 25% also operating in other states⁶.

The majority of responding CREs in NSW are single site operators, with 60% having one location in NSW at the 30th of June 2016. In addition, forty percent of respondents reported that they are a single venture (e.g. a stand-alone community recycling enterprise). Data collection and reporting for these can therefore be assumed to be centralised.

There are, however, a number of CRE respondents that operate multiple sites, with 40% operating at two or more locations in NSW at the 30th of June 2016. These organisations presumably have multiple data recording points, and this was confirmed by the interviewees involved in this type of CRE.

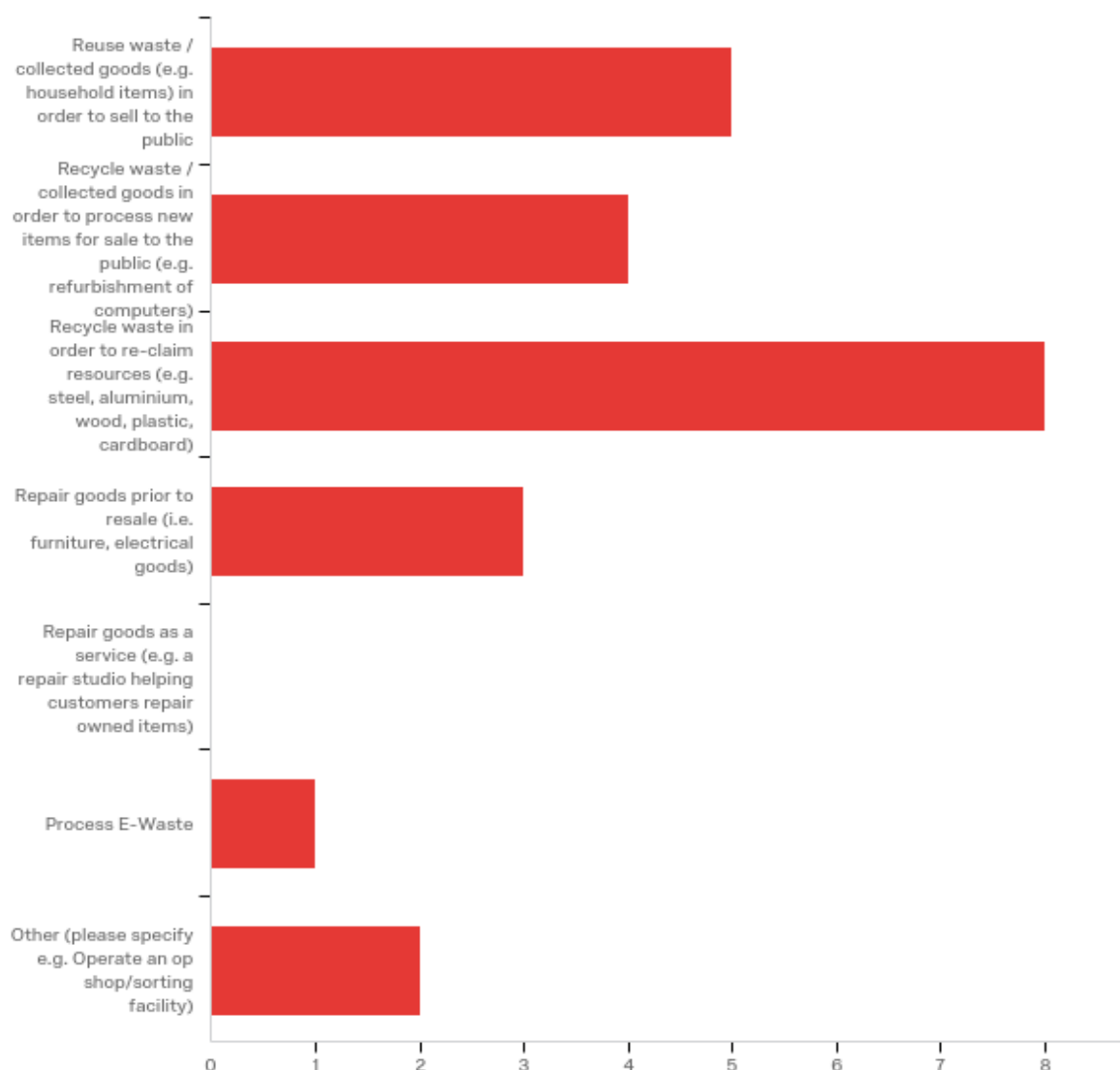
In addition, 30% of respondents reported operating multiple ventures of different types (e.g. a tip shop plus a reuse warehouse); while 20% operated multiple ventures of the same type (such as a group of recycling sites).⁷ These will likely have different data and reporting needs for the different types of ventures, and the complicated nature of data recording and reporting was emphasized by interviewees involved in this type of CRE.

As shown in Figure 1, the most frequently reported activity of CREs was recycling waste in order to re-claim resources (e.g. steel, aluminium, wood, plastic, cardboard). Within this, 60% of CREs reported multiple activities, while 40% reported doing only one of the activities indicated. Three of the four who reported only one activity are involved in recycling waste in order to re-claim resources (the most frequently reported category).

⁶ These figures are based on the 16 respondents who provided an answer to the initial survey question on state/s of operation

⁷ One response was missing for this question

Figure 1: Survey Q4 - Activities of Community Recycling Enterprises

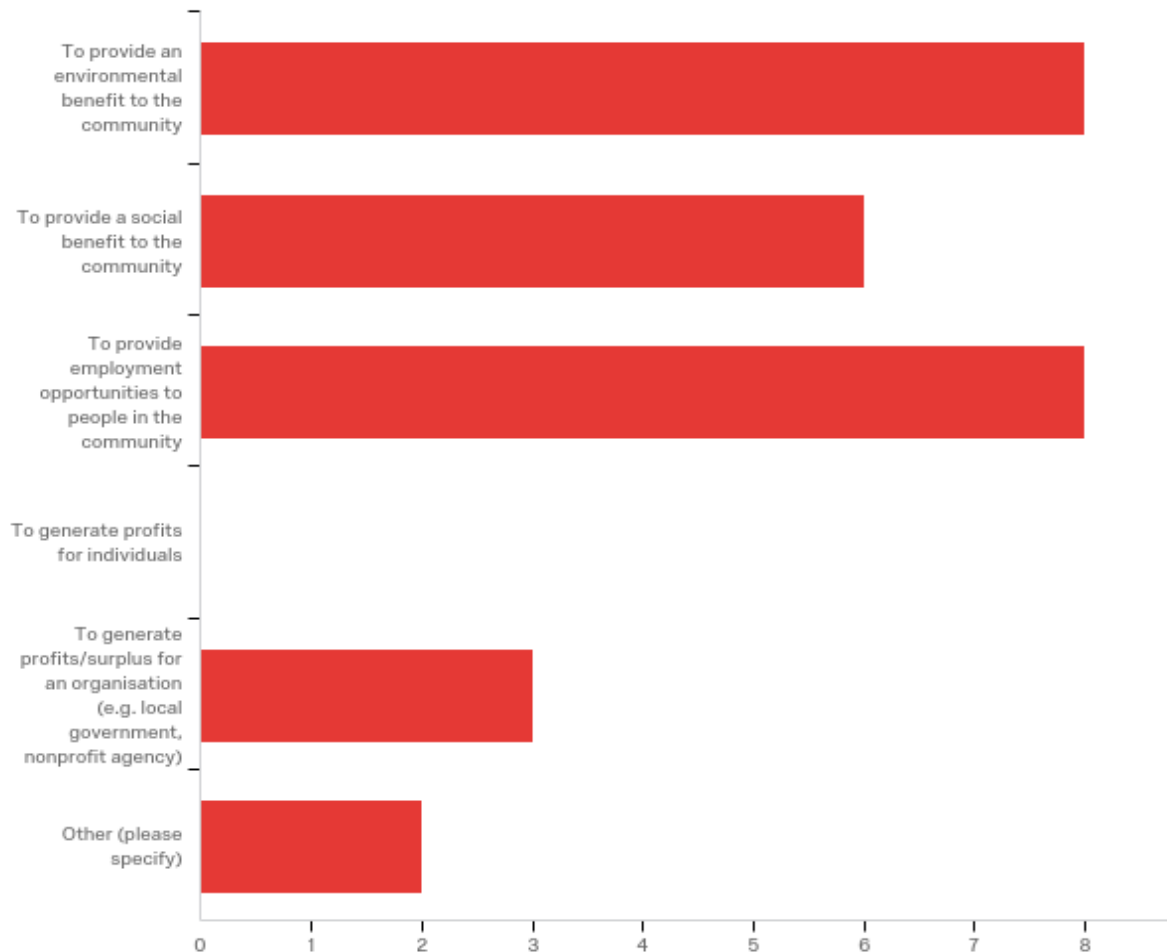


Fifty percent of responding CREs reported that providing employment opportunities to people in the community was their main reason for existing. Providing an environmental benefit to the community and generating profits for an organisation (e.g. local government or a nonprofit agency) were each reported as the main reason for existence by 20% of respondents. A final 10% reported that providing a social benefit to the community was their main reason for existing.

Respondents were also asked about the other reasons their enterprise exists. All respondents selected at least one and up to three further reasons for the existence of their CRE. 60% of respondents selected providing an environmental benefit to the community as an additional reason for their existence, while 50% selected providing a social benefit as another reason for their enterprise’s operation. This was followed by 30% who identified providing employment opportunities as another reason for their enterprise’s existence. 20% reported other reasons for their enterprise’s existence, including sustainability education, connecting the community and growing and distributing fair food. Finally, 10% reported that generating profits for another organisation such as local government or a nonprofit was another reason for their existence.

Taking into account the responses for both the main and other reasons reported for existing, the total percentage of respondents who selected each reason for their CRE's existence were calculated. The total frequencies for each of the reasons provided are shown in Figure 2.

Figure 2: Survey Q's 6 & 7 - 'Main' and 'Other' reasons for existence of Community Recycling Enterprises



The different combinations of purposes within and between the CRE respondents demonstrates the level of complexity and nuance that any standardised approach to recording and reporting data will need to accommodate. Insights into these aspects was a key focus for the workshops and telephone interviews, and these are discussed in more detail below.

3.2 ENVIRONMENTAL IMPACT DATA REPORTED BY CRE RESPONDENTS

Based on the ten fully completed survey responses, the following approaches to recording and reporting on environmental data have been identified:

- 60% only reported their measurements in tonnes.

- 20% reported their measurements in both tonnes and cubic metres.
- 10% only reported their measurements in cubic metres.
- 10% reported that their CRE used number of items sold as the basis for measurement.

The combined tonnage and cubic metre calculations for goods reused and goods recycled by CRE survey respondents are included at Table 1.

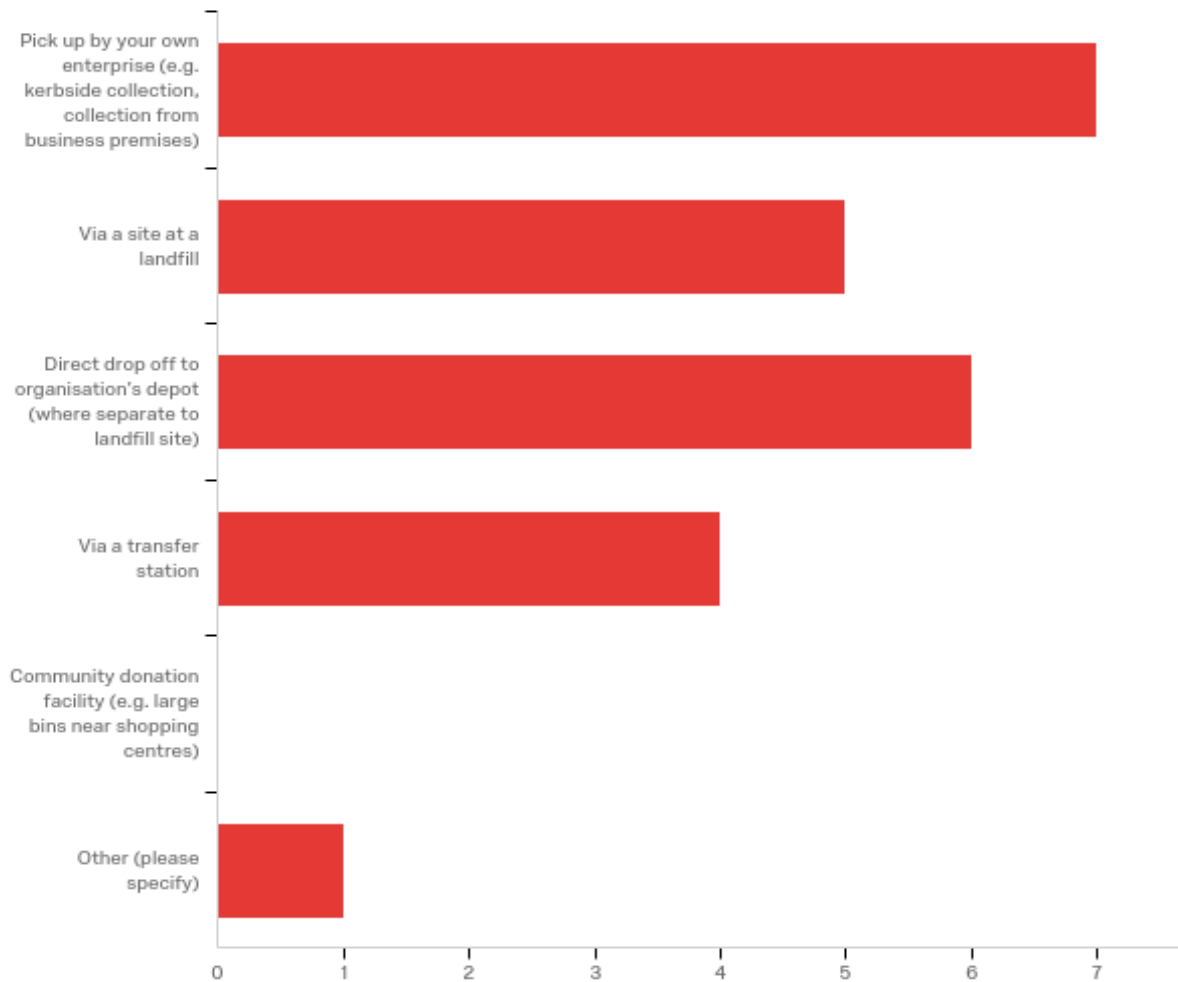
Table 1: Combined total volume of good reused and goods recycled in 2015/2016 financial year

Goods reused	Goods recycled	Total goods reused or recycled
9 687 tonnes	47 021 tonnes	56 708 tonnes
2 660 cubic metres	121 500 cubic metres	124 160 cubic metres

A breakdown of the source of the materials recovered for respondent CREs identified that for 40%, their major source of materials was private individuals; for another 40%, the major source was Government organisations; and a final 20% received the majority of recovered items via corporations/for profit businesses.

The majority (70%) of respondents reported using multiple methods of collection, with the most commonly reported method (70%) being pick-ups performed by their own enterprise (e.g. kerbside collection, collection from business premises). This was followed by direct drop off to the organisation’s depot, where this was separate to a landfill site (60%); collection via a site at a landfill (50%); and collection via a transfer station (40%). A final 10% reported collecting materials direct from households. This is graphically represented in Figure 3.

Figure 3: Method of collecting recovered materials in the 2015/2016 financial year



For 70% of respondents, the majority of recovered materials in the 2015/2016 financial year were recycled. For 20%, the majority of recovered materials were sold to the public (e.g. whitegoods, furniture, building materials). For 10% the majority of recovered materials were recycled from E-Waste (e.g. computers). Most CRE respondents (70%) reported that none of their recovered materials were placed in landfill or waste disposal. Across the ten respondents, the average percentage of materials reported as going to landfill was 3.56%.

3.3 SOCIAL IMPACT DATA REPORTED BY CRE RESPONDENTS

Providing training and employment opportunities for jobseekers was, at 90%, the social impact most commonly reported by CREs respondents. This focus on socio-economic impact through employment opportunities is also reflected in the responses presented previously in Figure 2.

The total number of paid staff employed by the CRE respondents ranged from one to 150. Half of the responding CREs were medium sized enterprises, with more than 20 employees. Forty percent were small enterprises, employing between 5-19 staff. One organisation reported that they employed fewer than 5 paid staff. From this

it can be extrapolated that the majority of CREs would, at the very least, be working with similar system and human resource constraints as those that any small-medium enterprise faces.

The average number of equivalent full time staff across the ten respondents was approximately 16. The number of staff who were trainees ranged from zero to six, with the average being one. The total number of volunteers and unpaid workers ranged from zero to 100, with the average being 15.

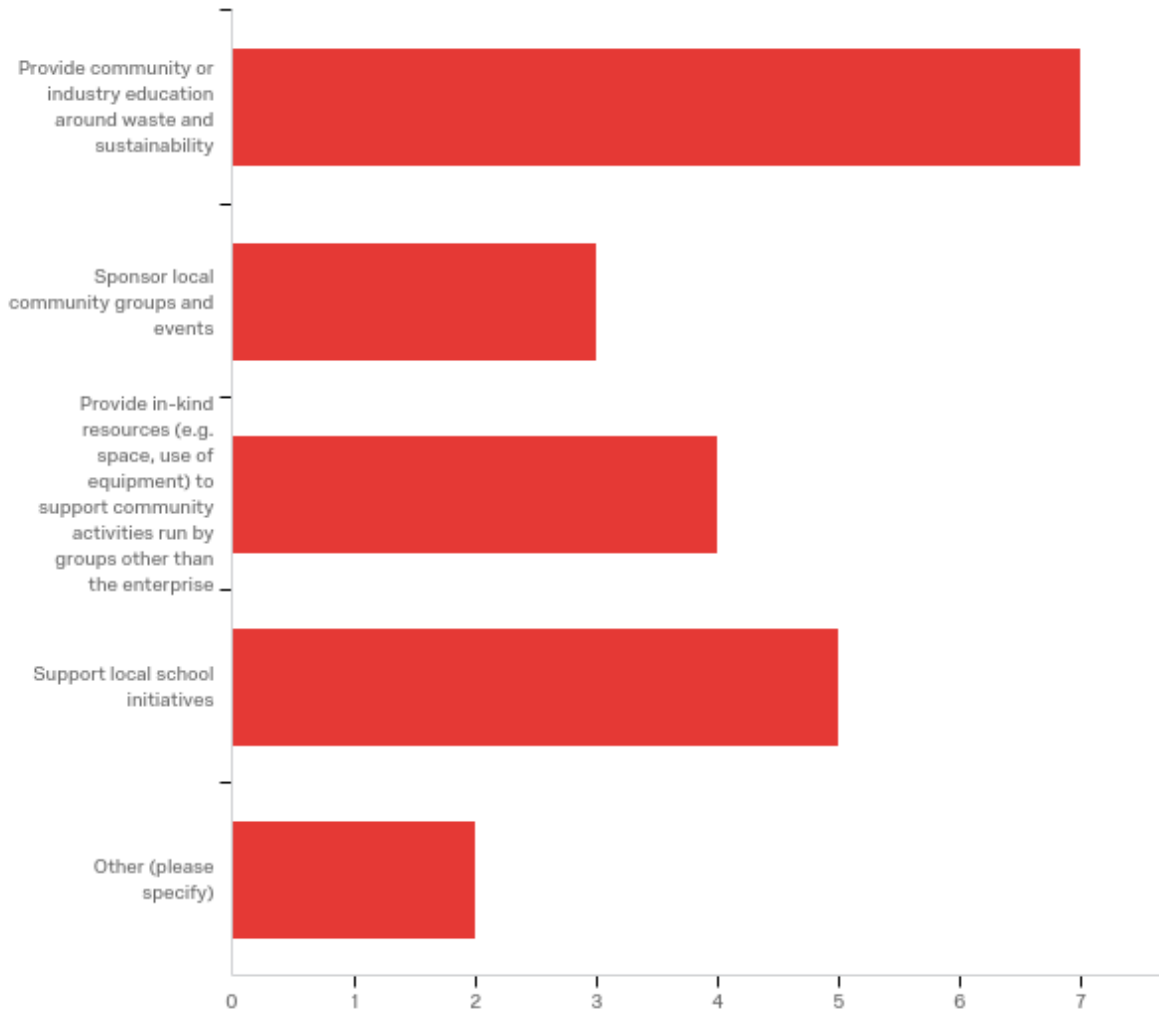
Seventy percent of the CRE respondents reported that their organisational structure includes positions held by disadvantaged workers. Of those with roles filled by disadvantaged workers, the number of positions ranged from 13 to 114, and the average number of positions provided for disadvantaged workers across this group was 52. The total number of positions for disadvantaged workers supplied by the ten responding CREs was 364.

The survey findings were reinforced through the workshop and telephone interviews, where CRE respondents also spoke about the range of participants that their social impact activities seek to involve. These include, for example, refugees and recently arrived migrants; ex-offenders; young people in regional areas; people with mental illness; and Aboriginal people experiencing disadvantage. In a number of cases, participants with multiple barriers to securing and/or maintaining employment represent a significant portion of those involved.

As shown in Figure 4, CREs also generate other forms of social impact, and in a variety of ways. Those cited included:

- providing community or industry education around waste and sustainability (70%)
- supporting local school initiatives (50%)
- providing in-kind resources (e.g. space, use of equipment) to support community activities run by groups other than the enterprise (40%)
- sponsoring local community groups and events (30%), and
- other (20%) – descriptions included providing volunteer opportunities (1); and disability services (1).

Figure 4: Other ways community recycling enterprises seek to support their communities



These results indicate that the social impact data produced by CREs are diverse, and that any approach to standardising indicators and reporting methods will need to incorporate nuanced understandings of complex issues.

3.4 CURRENT APPROACHES TO DATA RECORDING & REPORTING

Insights into how CREs are currently approaching data recording and reporting, from a processes and practices perspective, were primarily generated through the workshop and interviews. CRE participants indicated that a range of approaches have been adopted to meet the data needs of their operations. These approaches included:

- recording and monitoring sales related information;
- data tracking and manipulation for internal organisational reporting purposes - such as annual reports;
- data tracking and manipulation for external reporting purposes - such as to fulfil contractual and/or funding requirements; and
- for organisational development and learning purposes – such as better understanding how various programs and activities contribute to achieving objectives and targets.

Discussions with participants indicated that the most common approach to capturing and storing data used on a regular basis is combinations of various spreadsheets (typically produced in Excel). These are then usually manually manipulated to generate reporting outputs on an as-needed basis. The most common reporting frequency cited was annual; however, this varied across the CREs as some have quarterly or monthly reporting requirements as a result of specific contractual arrangements.

Whilst tonnage and cubic metres are the most common metrics used to record environmental impact data, as discussed above these are not standard across the whole group. Therefore, some CREs would require adaptations to current practices to move to a standardised approach in this area. This includes where smaller weight metrics are required – such as in e-waste; and also where volume metrics currently aren't recorded at all. In addition, lack of appropriate (often costly) weighing equipment was cited as a common barrier to reporting on environmental impact data, and to improving the reliability and validity of data reported.

Recording and reporting on social impact data varies considerably between CREs. This can be at least partly attributed to the diverse social impact objectives represented among participating organisations. However, even in the most commonly cited impact area of employment, it was evident that each CRE is currently developing their own interpretations of key reporting terms, such as 'full time' and 'disadvantaged' in relation to employment. How reporting against these terms is approached is sometimes imposed by external stakeholders, and often oversimplifies the nuances involved when seeking to aggregate complex outcomes across organisations undertaking this kind of work. This notwithstanding, the majority of participants indicated that a jointly agreed interpretation of some key social impact measures would be useful to them.

Several participants named specific information management systems they currently use to meet their data needs, and some of these are discussed further below in the context of a pilot for developing a collective approach to reporting. Those adopted can largely be characterized as open source license free systems, with a degree of customisability that allows their adaptation to the particular context of the CRE.

Participants who have been engaged in customising existing systems advised that this approach was delivering an increasingly sophisticated ability to accurately record, manipulate and report on their activities. The most detailed explanation, and perhaps the most sophisticated example provided, also indicated that a substantial investment of time has gone into thinking through and then implementing the customisations. In this case, the CRE has been fortunate to secure the services of a highly skilled volunteer who is making the work possible. Whilst this is a positive outcome for that CRE, it also highlights that the additional skills and time required are often not available within the current resourcing structure.

4. TOWARDS A COLLECTIVE REPORTING FRAMEWORK FOR NSW-BASED CRES

Key terms common in the impact measurement arena are sometimes used interchangeably, which can cause confusion among those involved in developing and using frameworks. Understanding what all parties are referring to when they use a particular term is an important component in developing an effective impact measurement framework.

Some key terms needed to inform the framework at a structural level, and which can vary in how they are used depending on the context, include:

- Indicators, measures and metrics - are often used interchangeably, and in the context here usually refer to determining output performance in relation to goals;
- Targets or benchmarks - are a value expression of an indicator, often associated with a timeframe;
- Index - is a set of related indicators, designed to facilitate 'meaningful and systematic' comparisons within similar contexts;
- Standard - is a set of related indicators, benchmarks or indices designed to provide socially meaningful information regarding performance (BetterEvaluation 2013).

A first step in moving towards a 'standard' for reporting that encompasses the data reporting needs of NSW CRES, whilst also facilitating reporting on combined impacts, would be to come to a common understanding of key terms such as these. In addition, determining a common reporting framework should strategically consider what a 'right fit' for the CRE sector may be, in the early stages and as practices and expectations evolve and mature. As outlined in Burkett & McNeill (2017), a strategic approach involves careful consideration of matters such as who the audience is and what level of fidelity will satisfy their information needs. In many cases, transparency in how data were arrived at is as important as the data itself. Consideration of matters such as these can then be used as a platform to negotiate the scope of the network's reporting goals – over the short, medium, and longer-term.

The suggestions included in the remainder of this report focus on establishing a common reporting framework, which encompasses a range of activities designed to complement the whole. A centralised tool would be one component of this, but it is unlikely to succeed in its ambitions if it is not supported by a more holistic framework-based approach that concurrently seeks to address barriers to reporting, whilst also building the capacity of the CRE network and facilitating engagement with emerging market opportunities (such as in specific waste streams, as discussed below).

The following sections discuss how current and supplementary data could be routinely collected to maximise the quality and reliability of reporting by individual CRES and through collective approaches.

The focus here is on outlining a potential 'first-step' framework, that could be piloted by the group of 'early adopter' CRES that have emerged around this current project. A 'rapid prototyping' approach is well suited to the CRE context, where there are substantial time and other resource barriers to engaging in data recording and reporting. Integrating the learnings of users as they become familiar with the framework, and begin to understand more fully the benefits of data management activities, will allow for the iterative development of a 'right fit' approach.

Workshop and interviewee participants who have experience with building reporting tools and frameworks (in related, albeit different contexts) unanimously recommended that ‘keeping it simple’ at the start will be critical to success. They also stressed that a key part of this is ensuring that participants realise benefits for engaging as early as possible in the process. For example, OEHs National Australian Built Environment Rating Scheme (NABERS) program tool is currently in a six month pilot phase, with a selected group who are able to use the data to incrementally improve their performance – and learnings will be incorporated before it is opened up for broader use. A staged approach is also being used by Community Reuse Network Ireland (CRNI), who have recently completed a pilot project where a set of jointly negotiated indicators have been piloted with a key enterprise in the sector (Miller & Purcell n.d.).

For all of these reasons, it is suggested that rather than moving straight to attempting to develop and implement a bespoke and sophisticated tool, the first step in a next-steps project would be to focus on adapting some tools already in use to capture and report on some very specific data categories. Where possible candidates for this type of approach have been identified through this research, they are noted in the discussion below.

Focusing on refining a small number of indicators and reporting outputs will allow the benefits of data recording and reporting to be demonstrated relatively quickly, and with limited resources. This approach will generate greater potential to engage the wider group of NSW-based CREs through a broader engagement strategy in the subsequent stages. It is likely that various policy-related initiatives, such as the NSW Container Deposits Scheme, which comes into effect from 1 December 2017 (NSW Environmental Protection Authority 2017), will also contribute to stimulating interest in and demand for more sophisticated reporting over time.

Through this project a core group of committed and enthusiastic NSW-based CREs have been identified, who could potentially be enrolled in a pilot project. Whilst small, taken together this group encompasses the primary recycling and reuse activities CREs are engaged in (see Figure 1) and the range of social impact goals to which they are committed (see Section 3.3). With this composition, it would be possible to test indicators relevant to the breadth of CRE sector activity and purpose, to ensure they sufficiently represent the diverse nature of this sub-group of social enterprises. In addition, a small group of interested and engaged CRE-stakeholders in NSW have also indicated their willingness to remain involved in developments as they progress.

The sections below are tailored to engaging with and producing benefits for participating CREs and key stakeholders that have an interest in the data that could be generated by these two groups, to build ownership over the framework and to foster the energy and enthusiasm that will be a necessary ingredient to sustain the project over time.

Several overseas organisations contacted through this project have also indicated their interest in sharing experiences and resources with the CRE sector in Australia (Community Resources Network Scotland, Community Reuse Network Ireland, and Community Recycling Network New Zealand) as they all continue to develop their impact reporting practices and processes.

4.1 ENVIRONMENTAL IMPACT

NSW-based CREs are already operating across the waste hierarchy spectrum, and key stakeholders recognise the potential they have for contributing to improving citizen behaviours and to policy-related initiatives at the higher levels of the hierarchy - which is shown in Figure 5, and described by the NSW Environmental Protection Authority (NSW EPA 2015) as follows:

Figure 5: Lansink's Ladder - the waste hierarchy⁸

- Avoidance - including action to reduce the amount of waste generated by households, industry and all levels of government;
- Resource recovery - including re-use, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources;
- Disposal including management of all disposal options in the most environmentally responsible manner.



For CREs there are existing and emerging opportunities that the increasing interest and sophistication around waste management offer. Better – more reliable and more comprehensive – data reporting will be an important contributor to opening up and ensuring access to these opportunities as they continue to evolve. Regulatory practices and community expectations in Australia lag behind those evident in other countries - particularly Europe, the UK and Ireland - and there is much that could be learnt through collaborating with the overseas CRE sector enterprises mentioned above, and through exploring in more detail how reporting against specific indicators is approached.

4.1.1 Materials-related indicators

Through this project it has been identified that even at a very high level CREs are currently reporting materials-related data in different ways. It is therefore suggested that initial efforts are directed towards standardising the approach to reporting across three broad materials groupings. These 'broad brush' Tier One indicators would be most usefully reported in tonnes, and are shown in Table 2.

Table 2: Tier One materials related indicators

Indicator
Total annual tonnes of materials diverted
Total annual tonnes of materials recycled
Total annual tonnes of materials reused

⁸ Lansink's ladder is a waste management hierarchy originally submitted by politician Ad Lansink to the Dutch parliament in 1979. The ladder indicates actions to reduce and manage waste in preferential order. The image shown at Figure 5 is a redesign of Lansink's Ladder which was created in 2012 by Recycling.com, and published online in June 2016 at: <http://www.recycling.com/downloads/waste-hierarchy-lansinks-ladder/>

Drawing on the input of the CRE respondents and CRE-stakeholders the following materials categories are suggested as the focus for the first stage of more detailed environmental impact reporting.

The materials suggested are presented using the EPA categorisations, and represent an initial sub-set of those reported by the EPA for NSW Councils (the full list reported publicly is provided at Appendix C). This approach is suggested because: the EPA will be a key audience for collective CRE reporting; Councils are important stakeholders for those CREs that provide services under contract to them; and those CREs reporting on materials are currently already using some version of these categories.

Table 3 provides a listing of those materials identified as generating higher volumes, and of greater commonality across the CRE respondent group. It is suggested these materials would become the ideal Tier Two group of reporting categories that all those involved in the pilot group aim to report on in a consistent manner. This would represent a first step towards establishing a 'standard' for CRE reporting.

Table 3: Suggested Tier Two materials related indicators

Waste type	Code	Waste type description
Aluminium (non-ferrous)	AL	Examples: Aluminium frames, aluminium cans.
Bricks or concrete	BC	Bricks, mortar or concrete. Examples: bricks with mortar, concrete containing steel reinforcing. Excluding: fibre cement
Ceramics, tiles, pottery	CER	Examples: terracotta roof tiles, pottery, porcelain products. Excluding: bricks and concrete.
Commingled recyclables	COMM	Recyclable wastes such as plastic, glass and paper that have been collected for recycling
Ferrous (iron or steel)	FE	Examples: steel cans, scrap steel, car bodies, steel reinforcing. Excluding: gas bottles.
Glass	GLASS	Examples: glass in the following form - windows, bottles, plate glass, glass fines. Excluding: perspex, fluorescent tubes, light bulbs.
Non-ferrous (metals, not iron steel or aluminium)	NFE	Examples: lead, copper, brass. Excluding: aluminium, steel.
Paper or cardboard	PAPER	Paper and Cardboard
Plastic	PL	Examples: perspex, PVC piping, astro-turf, polystyrene, plastic weed matt, pool liners, polypropylene, extruded plastic, plastic crates.
Wood, trees or timber	WOOD	Examples: trees or tree stumps. Raw, treated or painted timber, sawdust, wooden crates, wooden packaging, wooden pallets, wood shavings, MDF, chipboard, particle board, masonite. Excluding: plastic coated timbers.

In materials form, it has been identified that it would meet the needs of most involved to report on these indicators in tonnes, and for smaller, higher value materials (such as those recovered from e-waste) in kilograms. It is suggested that each of the indicators be reported as:

- volume of diversion by material category
- volume of recycling by material category
- volume of reuse by material category

This ideal set would result in 30 Tier Two environmental impact reporting categories, which would represent a significant step-change for the CREs involved in the pilot, and so sufficient time and resourcing would need to be allocated to develop and then implement these. However, consideration should be given as to whether this number or combination may be too many to take on at once. If so, the pilot group could agree on an initial subset of these to start with, using those measures that matter most to the whole group and moving on to those that are relevant only to some group members once the collective processes and systems have been tested.

However, the opposite may also be true as some CREs expressed an interest and/or driver for breaking the ideal Tier Two categories down further, into sub-categories. It is suggested that for the first stage of the project that this level of detail is determined at the enterprise level rather than imposed through the pilot framework.

In particular, plastics is a strong candidate for new development and refinement by a CRE organisation/s with an interest in this material, as this is an area where 'disruptive innovations' are emerging and where policy interest is growing. Those that move forward in refining specific sub-categories could then share their knowledge back into the network group (and potentially beyond), as a contribution to continually improving the framework.

Through this project, a listing of materials that are of specific interest to some of the CREs in the potential pilot group, but not to all has also been identified. This list also includes items that could become specialist niche markets, as they are of particular interest to regulatory authorities (such as the EPA). The opportunities these offer are already being demonstrated in the area of mattress recycling; and textiles and compost/mulch are other materials that participants indicated have significant growth potential. This suggested Tier Three group of indicators is shown in Table 4, and volume metrics are also suggested as most useful for these.

Table 4: Suggested Tier Three materials related indicators

Waste type	Code	Waste type description
Batteries	BATT	Examples: Batteries separated from electronic devices and vehicle batteries.
Composts or mulches	COMP	Organic material that has been composted, chipped or shredded.
E-waste	EWASTE	Electrical goods, TV, Computers, Toaster, Radio, I-pod, game-boys, stereos, speakers, VCR, DVD players, small electrical, Power tools
Mattresses	MATT	Mattresses
Oil	OIL	Examples: engine oils, vegetable oils, cooking oil.
Problem waste	PROB	Paint (dry or wet), Chemicals, Fluorescent tubes; compact fluorescent lamps (CFLs), Household Chemicals, Gas Bottles. Oil filters,
Textiles, rags	TEXT	Synthetic or natural woven material. Examples: rags, fibreglass insulation, carpet and underlay.
Vegetation or garden	VEG	Soft vegetation/garden waste. Examples: grass clippings, small prunings, seaweed, leaves, non woody weeds, non woody agricultural waste. Excluding: food, compost, mulches, wood, sawdust, timber, trees and tree stumps.

With regards to how data on materials are captured and reported, it is suggested that the weighing system Resource Recovery Australia has developed and continues to refine, along with the Excel spreadsheet system it uses, be adopted as a starting point. If the other pilot group participants could introduce and trial this system, it would provide practically useful information on which to base further refinements and standardisations in this area. This obviously has resource implications for those involved, and these are discussed further below.

The other metric that participants indicated would be of interest is cubic metres of landfill saved as a result of diversion (and some are already doing some reporting in this way). However, it is suggested that at this stage (at least), the efforts of individual CREs be directed towards improving reliability and breadth of tonnage and kilogram reporting on Tier One categories and the Tier Two materials listed above. Cubic metre calculations could then be introduced once greater certainty over the reliability of weight data has been secured. The key issue with cubic metre calculations at present is that weight data are not reliable enough to determine with a useful degree of accuracy. Once this issue has been addressed to a 'right fit' degree, weight data combined with a standard conversion formula could be introduced in a relatively straightforward way across the group.

A key benefit that a tool could provide for users and stakeholder audiences is converting weight data input by individual CREs into cubic metre figures. These calculations would then be available for individual CRE use, and also as an input to collective reporting activities. An important activity for the tool development stage would be to identify and agree on a suitable approach to standardising this calculation, and drawing on the expertise of some of the CRE-stakeholder participants in this project would be a useful starting point for this. Over time, it may be possible to also introduce a similar approach for calculating CO₂ emissions saved through diversion activities, and interest in moving in this direction was also evident.

4.1.2 Whole-item-reuse indicators

In addition to reporting on materials recovered, recycled and reused, there is a need to incorporate measures for whole items diverted for reuse. The EPA advised that this data is not currently captured anywhere in its reporting frameworks, and that it would be interested in any reporting outputs that helped to fill this gap. Commercial operators are also increasingly interested in being able to report on their own performance in this area. Continued expansion and refinement of activities in this area, and parallel development of reporting approaches for this sub-set of environmental indicators therefore represents a significant market opportunity for CREs in NSW and around Australia.

As policy interest in Australia moves up the waste hierarchy, information about whole-item reuse will also become an important input to the development and implementation of waste education programs. An example from Sweden that demonstrates growing sophistication in waste policy initiatives, including around reuse, is provided in Figure 6.

Figure 6: Stimulating reuse behaviour through policy initiatives⁹

However, the diversity of reuse items currently being diverted is substantial, and there is no existing categorisation system in use in Australia that could be adapted for this purpose. It is suggested that a way forward would be for the pilot group of CREs to jointly negotiate a succinct list of the items most commonly collected and sold for reuse across the whole group. This could then be used as a Tier One list for reuse reporting, and added to over time as expertise, interest and motivating drivers develop.

In developing an agreed approach, a key consideration identified by participants is that financial returns on reuse items are usually quite low, and therefore high levels of handling at any stage of the process would not be viable. Initially, therefore, it is suggested that a simple count of the agreed group of items be the first step to establishing standardised measurement and reporting.

Waste not want not: Sweden gives tax breaks for repairs

Swedish government tackles 'throwaway culture' by reducing the VAT rate from 25% to 12% for the repair of bicycles, shoes, leather goods, clothing and household linen. A tax reduction will also be introduced for the repair and maintenance of white goods carried out in the home.

The incentives are part of a shift in government focus from reducing carbon emissions produced domestically to reducing emissions tied to goods produced elsewhere. Sweden has cut its annual emissions of carbon dioxide by 23% since 1990 and already generates more than half of its electricity from renewable sources. But emissions linked to consumption have stubbornly risen.

The policy is also designed to tie in with international trends around reduced consumption and crafts, such as the "maker movement" and the sharing economy, both of which have strong followings in Sweden.

This approach will obviously raise a whole host of questions, as there is significant variety even within tightly specified item groupings. Adequate attention will need to be directed to relationship management while the pilot group navigates this delicate process, and success in this area will require that sufficient time and other resources are available for these critical 'soft' tasks.

As the pilot progresses, the group could experiment with developing standardised average weights for some common items and trialing their introduction. Soft Landing is currently using this approach with mattresses, and we are advised that The Bower also currently uses this approach for some items. The Furniture Reuse Network in the UK has taken this approach to a sophisticated level,¹⁰ demonstrating what may be possible. In 2015, the

⁹ Sources: Ministry of Finance Sweden, 2016; and <https://www.theguardian.com/world/2016/sep/19/waste-not-want-not-sweden-tax-breaks-repairs>

¹⁰ For their full 'average weights' listing from 2009, see: <http://www.frn.org.uk/documents/FRN%202009%20Final%20average%20weights%20list.pdf>

accumulated expertise allowed the conversion of their listing into the *FRN Product Weight Protocol*, which includes a licensing model for use.¹¹

4.1.3 Source-related indicators

Another key environmental impact data set that a framework would need to capture is the source of materials and items. At present participating CREs are capturing some of this data, but from slightly different perspectives. It is suggested that the pilot framework include capturing and reporting on which major waste stream materials and items are diverted from. These are commonly categorised by regulators as: Municipal Solid Waste – primarily from households and Councils; Commercial & Industrial waste – produced by institutions and businesses; and Construction & Demolition waste.¹²

As a way forward for a pilot framework, it is suggested that the three core streams be adopted as the Tier One level. In doing this, it should be noted that in any reporting outputs, materials and items sourced through these streams will also be reported through the respective indicators for each of these categories (i.e. it should be ensured and made clear that data is not double counted, but presented with a different data lens).

As above, some CREs will have a focus on only one of these streams and others will cover multiple streams. Some will also likely find it useful to break these categories down further. For example, for Municipal Solid Waste whether an item is dropped off, picked up, or collected at the landfill site is important information for some CREs - and there is also growing interest amongst Councils for more detailed data on kerbside collections.

Some participating CREs will have a specialisation in particular areas. It is suggested that these enterprises take a leadership role in developing a succinct set of sub-categories for each stream that will meet the needs of the majority of the group without imposing overly complex requirements. For example, Reverse Garbage already has categories it uses to record the source of items recovered from the Commercial & Industrial stream - e.g. local businesses; schools; hospitals; etc.

An example of potential combinations of Tier One and Tier Two source indicators is provided in Table 5.

¹¹ For more information see: <http://www.frn.org.uk/product-weight-protocol.html>

¹² For more information see: <http://www.environment.gov.au/topics/environment-protection/nwp/reporting/national-waste-stream>

Table 5: Example Tier One & Tier Two source indicators

Primary source stream (Tier One indicators)	Example additional source stream (Tier Two indicators)
Municipal Solid Waste	<ul style="list-style-type: none"> • Resident delivers to CRE site • CRE collects from landfill site • CRE collects from residence • Kerbside collection
Commercial & Industrial Waste	<ul style="list-style-type: none"> • Local small businesses (postcode defined) • Large commercial businesses • Schools • Hospitals • Aged care • Hotels • Creative industries
Construction & Demolition Waste	<ul style="list-style-type: none"> • Industry sector • Geographic location (postcode defined) • Collection method

At present, it appears that industry reporting on the Construction & Demolition waste stream focuses primarily on the type of material (Environment Edge 2012; Department of Environment & Climate Change NSW 2007). For CREs there may therefore be an opportunity to develop capability to report on an additional level of detail around the source of the materials generated through this stream. Those suggested for the Tier Two level above are speculative and additional research into this facet of source reporting would be required to determine what would be most useful and also feasible.

4.1.4 Potential external data sources

Through the research, two opportunities to capture CRE-related environmental impact data through external systems and processes have also been identified. If these were developed, data generated through these channels could be integrated with CRE sector level reporting.

The first of these opportunities would be through the EPA’s annual *Local Government Waste and Resource Recovery Data survey*, which reports on domestic waste and recycling (the two major categories within the Municipal Solid Waste stream). If particular data that would contribute to improving reporting on the environmental impacts of CREs were identified as collectable through the survey, it has been advised that it would be possible to incorporate an additional question/s through a relatively simple approval process. The survey is prepared each June, for distribution to Councils each July.

The second opportunity would be through collaboration with OEH’s NABERs program. It has been advised that the addition of a field/s in its data reporting tool would be considered, to facilitate better reporting on the environmental impacts of CREs. In this case, a suggestion was to create a ‘tag’ for CRE suppliers, so that related data can be extracted quite easily. The tool is currently in the pilot phase, so discussions would be timely should this be of interest to the CRE sector. The focus of the NABERs program is national and so collaboration would also allow for scaling NSW efforts beyond the state boundaries.

4.2 SOCIAL & SOCIO-ECONOMIC IMPACT

CREs are already recognised as generators of positive social and socio-economic impacts. As reported above, 90% of respondents to the survey associated with this project cited providing training and employment opportunities as a key objective. In 2012, it was estimated that “CREs in Australia employ at least 1,500 people, a considerable proportion of whom are facing significant barriers to employment in the open labour market” (Yousefpour, Barraket & Furneaux 2012, p.4). The other key area where CREs have gained attention for their social impact contributions is in community participation and education around sustainability issues.

Whilst not all CREs participating in this study are involved in both these types of activities, all are involved in one or the other. These two dimensions of social impact are therefore suggested as the focus for the pilot phase of a CRE impact measurement reporting framework development project. Each of these dimensions also involve considerable complexity from an impact measurement perspective, and an iterative approach will be needed to develop and refine effective common indicators in these areas. As participants in the pilot become confident with the suggested indicators, opportunities to add further categories and refinements will no doubt emerge.

4.2.1 Employment-related indicators

Employment related social impact is a complex area of reporting in its own right, and an area where development is ongoing around the world.¹³ Too much detail and complexity at an early stage has the potential to derail the pilot, particularly given that not all the participating CREs have this as their primary social outcome goal. To begin to move to standardised data collection and reporting around employment impact in a manageable and sustainable way, the Tier One indicators suggested as a starting point for the pilot are shown in Table 6.

Table 6: Tier One employment related indicators

Indicator	
Award-wage (or plus) roles	<ul style="list-style-type: none">• Total full time equivalent
Full-time roles	<ul style="list-style-type: none">• Total number
Part-time roles	<ul style="list-style-type: none">• Total number
Casual roles	<ul style="list-style-type: none">• Total number• Average duration
Trainees and apprentices	<ul style="list-style-type: none">• Total number
Annual payroll	<ul style="list-style-type: none">• Total gross• Total tax paid by employees

¹³ See, for example: VanCity Community Foundation 2015.

Definitions for each of these indicators will need to be agreed among the pilot participants. In particular, determining what constitutes a full-time (38 hours per week or 35 hours, for example)¹⁴ award wage position is an important indicator on which the group should agree and report.

Reporting on casual roles is also an area that can become quite complicated quite quickly. Participants advised that casual roles can be established for a variety of reasons, which can lead to misinterpretation of data if some context is not included. As a first step, including both the total number and the average duration for each casual role is suggested as a way forward.

Including payroll data provides a mechanism for reporting on socio-economic impact, through demonstrating financial returns into communities.

For the pilot phase, this set of Tier One indicators is suggested to ensure that all are able to provide reporting data fairly quickly. Once definitions are agreed, it is suggested that the HR system of each organisation could be adapted to generate the suggested Tier One employment-related data in a relatively straightforward manner.

For a number of CRE participants it will be important that some of the Tier One categories outlined above be broken down into sub-categories. In particular, data on jobseekers who experience disadvantage in the labour market is central for this group. It is not included as a Tier One category however, as it is not the focus for some and would therefore create layers of complexity for them that could potentially affect their levels of engagement with the project.

The other issue considered here is the nature of reporting that occurs around this data. For those that it is central for, due to reporting obligations that form part of service contracts and/or funder agreements, the information is reported only at a very high level. In particular, there was concern amongst the group that a collective reporting framework take account of sensitivities that reporting on disadvantage can raise. Those CREs that are involved in creating or maintaining roles for people experiencing disadvantage hold strong views on reducing the type of stigma that more detailed reporting can exacerbate. It is also common that people experiencing disadvantage face multiple barriers, and are therefore not easily assigned to one 'box' or another.

A group of potential users of a CRE collective impact measurement and reporting framework that may have different perspectives on this issue are those that are also Australian Disability Enterprises (ADEs). If this is so, it would likely be due to the nature of the reporting obligations they have with the Commonwealth government. However, as no ADE representatives participated in this research project it is not possible to make comment on this aspect at this stage. It will require further exploration.

For those CREs that require data around jobseekers experiencing disadvantage as a core element in their reporting outputs, a set of suggested Tier Two employment related indicators are provided in Table 7.

¹⁴ See: <https://www.fairwork.gov.au/employee-entitlements/types-of-employees/casual-part-time-and-full-time>; and <http://www.abs.gov.au/ausstats/abs@.nsf/Previousproducts/6202.0Main%20Features4Sep%202013?opendocument&tabname=Summary&prodno=6202.0&issue=Sep%202013&num=&view>

Table 7: Suggested Tier Two employment related indicators

Indicator	
Type of barrier/s to finding & securing employment	<ul style="list-style-type: none"> For example: long-term unemployed; Aboriginal person experiencing disadvantage; refugee background; person with a disability; etc.
Mental health issues	<ul style="list-style-type: none"> As observed by the CRE and/or self-reported by employee
Payroll	<ul style="list-style-type: none"> Total annual into [SEIFA referenced] postcode/s
'Mandatory' volunteers (as optional addition to Tier One indicators)	<ul style="list-style-type: none"> Work for the Dole Community Service Order
Australian Disability Enterprise	<ul style="list-style-type: none"> Option to indicate if also an ADE

As with all of the indicator categories discussed so far, agreement on definitions will determine the accuracy and reliability of collective reporting outputs. For example, there are different interpretations of long-term unemployed, and it is suggested that 52 weeks be adopted as the standard for this as it is the definition most often used by the Australian government.¹⁵ In addition, it would be useful to review the NSW Government's social procurement targets when they become publicly available, to align the approach taken with these where relevant.

A central challenge here, and one not unique to the CRE sector, is how to record data for participants experiencing multiple barriers in ways that protect confidentiality and minimise stigma, whilst also reflecting the reality of people's cases. A number of CRE participants advised that mental health issues are a common additional barrier often experienced by those identified as being in one of the primary 'barrier' target groups. Recording mental health as a stand-alone category is therefore suggested as a way to begin to explore an appropriate style and level of data collection and reporting where multiple barriers are evident. A key consideration for the pilot phase (and beyond) will be to develop an approach that avoids accidental double-counting. Over the longer term, working towards an agreed definition of a 'complex need'¹⁶ employee would be one way to approach data collection and reporting for those experiencing multiple barriers.

It is also suggested that the Australian Bureau of Statistics' (ABS) Socio-Economic Indexes for Areas (SEIFA) Index for Relative Socio-Economic Disadvantage¹⁷ be accessed to establish a standardised listing of postcodes identified as experiencing high levels of disadvantage. A Tier Two 'by postcode' payroll indicator could then be cross-referenced to this listing to provide CREs with a relatively straightforward and non-invasive mechanism for generating some representation of socio-economic impact in these localities.

¹⁵ Source:

http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp1516/Quick_Guides/LTUnemployed.

¹⁶ For information on how this is defined by Victorian government in relation to families see: <http://www.dhs.vic.gov.au/for-service-providers/children,-youth-and-families/child-protection/specialist-practice-resources-for-child-protection-workers/families-with-multiple-and-complex-needs-specialist-practice>

¹⁷ For more information and examples see: <http://www.abs.gov.au/websitedbs/censushome.nsf/home/seifa>

It is suggested that representatives of the CREs for whom this data is central form a sub-group within the pilot group to progress development around these elements, to integrate as optional data points within the collective reporting framework.

4.2.2 Community education & participation-related indicators

The community education and participation activity of CREs around sustainability issues is quite diverse, and is likely to be an area where approaches evolve quite significantly as a result. Careful consideration should be given to ensuring that the approach adopted for the pilot is not overly complicated or time consuming, as it is tempting to try and include the many dimensions that the diverse CRE sector is involved with. However, it will also be important that all those involved in the pilot can ‘see themselves’ in the data generated, and so some breadth will be required here. It is suggested that the pilot group consider and agree on some combination of the indicators shown in Table 8.

Table 8: Tier One community education & participation indicators

Indicator	
Volunteers	<ul style="list-style-type: none"> • Total number of ‘community volunteers • Total number of ‘community’ volunteer hours • Total number of work experience placements • Total number of work experience placement hours
Education & Awareness Raising	<ul style="list-style-type: none"> • Total number of activities led by the CRE - e.g. workshops, open days, in-service training, repair cafes etc. • Total number of participants involved in activities led by the CRE
Customer Transactions	<ul style="list-style-type: none"> • Number for institutional customers – e.g. Council contracts • Number for retail customers – based on number of ‘cash register receipts’ generated
Story Telling	<ul style="list-style-type: none"> • Each pilot participant to nominate a specific category (e.g. transition-to-work; role advancement; community open day etc.) and number of stories they will collect and report on over the duration of the pilot period

Customer transactions is likely a category where there is a high degree of divergence in the group, as some are primarily focused on institutional customers and others on retail customers. These two sub-categories are therefore suggested for inclusion in the Tier One pilot categories. Institutional customers will be relatively straightforward to collect and report on in the form of number of contracts. Retail customer data is likely more complicated; however, this has the potential to build a powerful data set over time. For example, increases in transactions could be used to demonstrate changes in consumer behaviour around reuse items and recycled materials year-on-year. This type of reporting has been used quite successfully in Belgium.¹⁸

¹⁸ See: OVAM 2015, p.17.

Storytelling is another form of data capture that all participants indicated they had a use for, and which many CRE-stakeholders are specifically looking for. In some circles, there is a perception that stories are somehow a lesser way of demonstrating impact. Stories are just another form of data, and in some areas can be the most valid way to report on particular indicators – not to mention bringing the work of CREs to life for those less familiar with the many nuances involved. For example, with regards to advocacy around policy and programs development, one interviewee experienced in this area noted that:

“People want the stories . . . When you get to DoE [Department of Employment] or Treasury and so forth, they know what a disabled person translates to in SROI-type language. You don’t have to do that work for them” (CRE-stakeholder telephone interview).

It is therefore suggested that the pilot group include a story generation component in the Tier One indicators and set some realistic targets around numbers of these. Each CRE could focus on stories that demonstrate aspects of their work that are most challenging to convey in numbers and/or those that really showcase what is possible through their models. This approach will ensure that the pilot doesn’t inadvertently ‘paper over’ some of the more significant differences between CREs, and which are an important characteristic of this sector. Agreeing a similar format for the collection and recording of these stories could be a way to use this component of the framework to begin to create a visual identity for CRE material. Several of the CRE participants are already engaged in collecting this type of information (text and video based) and no doubt sharing learnings and practical techniques would also generate positive results.

To capture and report on the Tier One community education and participation data it is suggested that two systems currently in use by CRE Members be explored as to their suitability. The first is Salesforce, which is currently being successfully adapted by Green Connect to track and report on data across its operations, and which could have potential for the group in tracking some of the categories above. The other is Vend point of sale software, which is currently being used successfully by Reverse Garbage for all sales related data. It might also be useful to explore whether CRNA could develop a partnership with existing providers like these, on behalf of its members and to centrally coordinate customisation activities.

4.3 SUGGESTED PILOT PROJECT PARTICIPANTS

As indicated throughout this report, a core group of CREs has been identified as having the interest, energy and commitment needed to develop and implement the pilot project that will be key to moving NSW CREs to the next level of data collection and impact reporting. This group is small, however the size is not considered problematic for the pilot phase, and in practice would facilitate some advantages in maneuverability, timeliness, and around resourcing implications.

The CREs represented in this group are: Green Connect; Reverse Garbage; Garage Sale Trail; Soft Landing; Resource Recovery Australia; and Community Recycling Network Australia (CRNA) as the sector representative.

In terms of the expertise and data content represented, the configuration of this core group is close to what is considered optimal for the proposed pilot project. It is suggested that in addition, representation from an Australian Disability Enterprise, from a Charitable Recycling Organisation, and from a CRE that has a specific focus on e-waste be sought for inclusion in the pilot. It may be that a single entity could represent more than one of these perspectives.

The most potentially significant issue with the suggested core pilot group is that two of the members are business units of one 'parent' entity (Great Lakes Community Resources - GLCR), and that through Resource Recovery Australia and Soft Landing, GLCR is also strongly involved with CRNA. For some in the sector, and beyond, this may be perceived as 'capture' by particular interests. However, it is suggested that GLCR has consistently demonstrated its commitment to progressing the development of resource recovery initiatives and practice in Australia, and that it is well positioned to continue to champion the fledgling CRE sector. It will be important for this issue to be carefully managed through the pilot and beyond, including through ensuring the voices of the other pilot project participants are given space for expression.

In addition to the core group of CREs who would need to be involved in testing the efficacy and feasibility of the suggested indicators, it is also recommended that an Advisory Group be formed to support their efforts. Through this project - for the environmental aspects - it has been identified that the following CRE stakeholder representatives would make useful members and are sufficiently interested that they may be willing to be involved: Southern Sydney Region Organisation of Councils (SSROC); Waste & Resource Recovery, NSW Environment Protection Authority (EPA); and Sustainability Programs Branch, Office of Environment & Heritage (OEH). In addition, it is suggested that an Advisory Group member with expertise in social and socio-economic impact is sought; and also one who can bring a level of expertise around on the development of visual data reporting outputs.

As mentioned, internationally there are three community recycling initiatives who are interested in sharing learning and resources, and it is also suggested that active relationships with these are sought and maintained – including through possible visits and exchanges, should that become possible at a future date. These entities are: Community Reuse Network Ireland, Community Resources Network Scotland, and Community Recycling Network New Zealand.

5. OTHER TECHNICAL CONSIDERATIONS

A number of technical considerations related to developing a pilot CRE impact measuring and reporting framework are discussed in the previous section. This section provides an overview of the more substantial challenges and opportunities that should be attended to in developing a taxonomy to populate indicators and methods for data collection and handling.

5.1 FOR INDIVIDUAL CRE'S

As noted above, the majority of CREs are in effect small-medium businesses and work within the same constraints common in that tier of the commercial sector. In addition, CREs face additional challenges associated with their social enterprise business models – these include “governance and management challenges related to the social enterprise models being used; industry challenges including price fluctuations, rapidly changing market needs and a lag in associated regulation; and the complexities of demonstrating within price competitive environments the significance of the social value added of the CRE approach” (Yousefpour, Barraket & Furneaux 2012, p.4). These issues are common across the social enterprise sector and therefore not unique to CREs.

These challenges do add to the constraints that effect current impact measurement and reporting practices in the CRE sub-group of social enterprises. Through this project, the key challenges related to improving impact measurement and reporting for individual CREs identified by participants revolve around:

- capacity to allocate resources (including time)
- access to appropriate processes and systems
- openness to adapting practices
- willingness to closely cooperate with others in the network.

The most common barrier to improved data recording and reporting in general was time. This will be an issue for the CREs involved in a pilot phase, and an ongoing issue for this group and for any additional CREs interested in joining the project once it moves to full implementation. The dimensions of the time barrier included:

- for those who capture data 'on the ground'
- for data cleaning and regular maintenance of inputs
- for data manipulation tasks to allow various types of analysis
- to generate the 'rolled up' info-graphic-style reporting outputs that are easily communicated to a wide range of audiences

To facilitate an effective pilot phase, as they will be required to take on additional tasks and working group activities - some way of securing resources that allow a contribution to the time needs of each CRE involved in the core group would have a significant quality and continuity impact.

Access to appropriate processes and systems is also a significant challenge for many of the CREs. For the CRE pilot group to engage in a collective impact measurement and reporting project they will almost certainly need to invest in new and/or different mechanical (e.g. weighing) and information system (e.g. software) equipment. The majority would struggle to do this without some resourcing assistance.

The pilot phase suggested in this report is designed to capitalise on the energies and enthusiasms of the core committed group identified through the research. A clear willingness to cooperate and to potentially adapt practices was evident, and harnessing this to develop some early demonstrations of the benefits that improved impact reporting can deliver, including at a collective level, offers the most promising route to engaging those not yet involved.

5.2 FOR TOOL DEVELOPMENT & CRE COLLECTIVE REPORTING

It is particularly at the collective level that it will be critical that a framework approach is taken to improving CRE impact measurement and reporting. In addition to the tool, for the framework to be effective and realise its potential it will necessarily involve strategies that encompass:

- ongoing relationship building across the network
- capacity building and skill development within CREs
- a marketing and communication plan for what the reporting outputs will be used for
- education and awareness raising amongst customers (both institutional and retail)

One of the CRE-stakeholder participants stressed the importance of ensuring there is a plan in place for how the data generated through a pilot project, and beyond, will be used. He cited the example of the platform that the first *Finding Australia's Social Enterprise Sector* report (Barraket et al. 2010) established for Social Traders, in positioning it as a key social enterprise capacity building and advocacy organisation. It is suggested that CRNA is best placed to coordinate this function on behalf of the CRE network around Australia. Given its limited ongoing resource base, some initial funding support would assist its capacity to undertake this in a timely manner. As the above participant noted, it is important to act quickly when data are current.

This function would overlap with the ongoing relationship and capacity building activities that will be needed, and CRNA would also be well placed to assist with coordinating these aspects. Particularly during the pilot phase there will be a need to apply for funding, to organise meetings and workshops, and to secure content from participating CREs (for example) - and having a central person performing these tasks would offer substantial efficiencies.

As advised by an interview participant, the most significant barrier to growing reuse activity is on the demand side – i.e. the number of customers interested in purchasing items. On the supply side, there are many channels and increasing numbers of those interested in donating items, but if there is no-one to buy them then the business model is not viable and also doesn't achieve its potential to drive behaviour change. In Belgium, a cooperative approach to tackling this issue at the retail customer level has been developed through a collaboration between 125 reuse shops. As described in Figure 7,¹⁹ working together they are changing perceptions and increasing customer demand, which in turn has delivered significant employment and waste diversion outcomes for the region (McNeill 2017).

¹⁹ Summary description prepared from material included in: OVAM 2015.

Figure 7: The Flemish reuse store De Kringwinkel

Increasing demand for reuse items using marketing & communication strategies

In Belgium, similar to many countries, reuse shops struggled with an image problem. The quality of goods differed from shop to shop, and Flemish consumers considered them messy, dirty and 'poor folks outlets'. Amongst the public at large, a lot of work was needed to change the negative image.

In 2002, 66 Reuse Shops then in operation combined forces and through a joint strategy and shared values developed the quality 'De Kringwinkel' brand. A clearly recognisable house style was developed, that was based on agreements about service and product quality. Through these agreements, and using the common brand, a Flemish communications campaign was implemented.

In 2015, there were 125 De Kringwinkel Shops in Flanders that communicate in an uniform way, abide by strict (self-imposed) quality management standards, and are basing their decisions on the principles of socially responsible entrepreneurship. Those involved report that the brand was an important strategy that has ensured the sectors' stability and growth.



At the institutional customer level, participants advised that what would be most useful would be some fairly high level 'info graphic' style visualisations of data outputs, produced on an annual basis. Some examples of these developed in Scotland and New Zealand are provided at Appendix D. With a centralised input model, it would be possible to generate these from data collected through an annual survey. The *Community Resources Network Scotland Membership Survey 2016* provides an example of what is possible in this vein, once the Membership is engaged and actively contributing (CRNS 2016).

In developing collective reporting outputs, consideration will need to be given to ensuring that the diversity of activity within the CRE sector can be reflected, without inadvertently fostering unhealthy comparison between enterprises. For example, using employment data for comparisons between those that do not focus on employment generation and those that do is not a useful measure. Therefore, in addition to agreed collective reporting outputs, CREs will need to be able to identify within the framework what the 'measures that matter most' are specifically for them, and to generate reports that reflect this priority.

If some form of centralised input portal is established so that both individual level and collective level reporting can be generated through one interface, participating enterprises will need to make decisions about what data is used at what level, and who has access to it. Some data will be drawn on only for

reporting outputs for the internal use of the individual CRE. Other data will be used to generate reporting outputs for the Membership group as a whole, but for use just within the network. Some data will be required for generating reporting outputs for specific customers or funders, but for their information only.

The outputs that would be publicly available at the broadest level are likely to be only a small portion of the reports a system would generate. Participants identified that at this level the most useful information would be fairly high level (see the discussion on institutional customers above). One of the interview participants provided some examples of the kind of 'dashboard' tools that can be generated through the systems they have developed, and which can be configured to accommodate these types of layered data management and reporting needs (see Appendix E).

If a centralised input portal approach were adopted, it would be imperative that it could integrate data collected through various systems (such as those mentioned throughout), rather than requiring users to double handle their data. This should be considered a key deciding factor in determining whether an input portal approach is viable or not – as due to time constraints it is highly unlikely that participants would engage over any length of time otherwise. The NABERs portal has taken this approach, and seeking input from those involved in its design would therefore be useful at the earliest stages of framework development.

It is also important that data collection and reporting is approached not just to benefit external audiences, but also to facilitate ongoing organisational and sector-wide learning and development. Once the pilot collective indicators have been tested and data collection and reporting processes for these have been standardised, an annual survey could be a key input to inform annual planning and the setting of targets and benchmarks to this end.

5.3 IMPLICATIONS FOR SUSTAINABILITY-FOCUSED SOCIAL ENTERPRISES

As CREs are a sub-set of sustainability-focused social enterprises (and these are a sub-set of the social enterprise sector as a whole), the process-based findings and considerations discussed throughout this report are highly relevant to their measurement and communications of impacts.

The process-related findings suggest that small steps, rather than immediately transformative 'leaps', are most likely to result in practical tools and a shared intent to use them by participating organisations (and the recommended pilot process will allow for these assumptions to be tested to determine whether they hold in practice). The findings also indicate that a core group of interested organisations, supported by external stakeholders with a genuine interest in seeing measurement of impacts occur, is critical to developing the momentum for these kinds of initiatives. Further, developing a taxonomy to underpin online visualisations of a sector's impacts requires shared organisational commitments to standardising some aspects measurement.

Those sections of this report that focus on social impact raise and discuss issues that will be similar in content and trajectory for other sustainability-focused social enterprises, albeit with a focus on some particular dimensions of social impact. Depending on the particular objectives and activities of the social enterprise, some of the content of the approach proposed for environmental impact reporting may also be useful.

The key consideration will be that an even more diverse array of environmental and social impact objectives will be represented. This obviously generates additional layers of complexity when attempting to establish

approaches for aggregate impact reporting. Attempts to extrapolate the findings in this report would therefore be most effective where a definable sub-set of sustainability-focused social enterprises with some core common objectives is identifiable. Determining 'measures that matter' first requires a determination of why and for whom we are measuring. These may differ according to business models, industry orientations, resource needs and social and environmental goals of particular types of sustainability-focused social enterprises.

6. CONCLUSION

This aim of this project has been to develop a research input on which a subsequent proposed project could draw. Despite the low numbers participating in the consultation activities, the high level of engagement and enthusiasm of the core group involved, combined with the secondary research activities, has allowed the distilling of key findings that will offer important insights for the continued evolution of CRE impact measurement and reporting in Australia.

The next phase of the project, separate to this one, was to begin the scoping work for the development of an online data-dashboard tool through which NSW-based, and potentially CREs nationally, would be able to capture, track and report on both their individual and collective environmental and social impacts.

The recommendation of this report is that any tool development be embedded within a holistic impact measurement and reporting framework. As discussed throughout, it is recommended that this be approached initially through a pilot project that facilitates the testing of a 'rapid prototype' framework. This approach will allow learnings to be incorporated on an iterative basis, and also for the benefits of improved individual and collective reporting to be demonstrated to pilot participants, to the CRE sector more broadly, and to its key stakeholders. Demonstrating benefit as quickly as possible will be key to maintaining and broadening commitment to the continuous improvement of CRE impact reporting.

By developing shared tools for CREs to measure and communicate environmental and social impact to stakeholders, the intention is to dramatically improve data collection about the work of the CRE sub-group of social enterprises, and through this, increase their visibility. As key innovators in the waste management industry, the leadership role CREs are taking in this area will also have flow on effects to improving the transparency and standardisation of reporting across this fast-evolving and increasingly critical industry.

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APPENDIX A – SURVEY QUESTIONS

CRE NSW Survey Questions

Please click on the link provided to read the CRE survey information and consent statement. You can then indicate below whether you would like to participate.

[CRE survey information and consent statement](#)

To indicate whether you would like to participate in this survey, please choose a response below:

Yes, I have read the survey information statement and would like to participate in the survey

No, I would like to exit without participating in the survey

Please read this before starting the survey: We are seeking one response per Community Recycling Enterprise; you may wish to clarify who is completing the survey on behalf of the enterprise before you start. We will be asking you some questions that require responses about enterprise activities related to the 2015-2016 financial year. You may want to make sure you have this information to hand before you start the survey. If exact figures are not available, please provide careful estimates. If your enterprise was not operating in time periods specified in the questions, please complete the survey to the greatest extent possible.

Preliminary questions

What state or states does your enterprise operate in?

- ACT
- NSW
- NT
- QLD
- SA
- TAS
- VIC
- WA

Main questions

How long has your enterprise been operating?

- It is not yet fully operational
- Less than 2 years
- 2 - fewer than 5 years
- 5 - fewer than 10 years
- More than 10 years

Does your enterprise: (Please check all that apply and/or add your own variant)

- Reuse waste / collected goods (e.g. household items) in order to sell to the public
- Recycle waste / collected goods in order to process new items for sale to the public (e.g. refurbishment of computers)
- Recycle waste in order to re-claim resources (e.g. steel, aluminium, wood, plastic, cardboard)
- Repair goods prior to resale (i.e. furniture, electrical goods)
- Repair goods as a service (e.g. a repair studio helping customers repair owned items)
- Process E-Waste
- Other (please specify)

Does your enterprise provide training and employment opportunities for jobseekers?

- Yes
- No

Which of the following best describes the main reason your enterprise exists? (Please select one only):

- To provide an environmental benefit to the community
- To provide a social benefit to the community
- To provide employment opportunities to people in the community
- To generate profits for individuals
- To generate profits/surplus for an organisation (e.g. local government, nonprofit agency)
- Other (please specify)

For what other reasons does your enterprise exist? (Please select as many as apply):

- To provide an environmental benefit to the community
- To provide a social benefit to the community
- To provide employment opportunities to people in the community
- To generate profits for individuals
- To generate profits/surplus for an organisation (e.g. local government, nonprofit agency)
- Other (please specify)

Please select the best description of the business structure of the community recycling enterprise you are reporting on in this survey: (Please select one only)

- A single venture (e.g. a stand-alone community recycling enterprise such as a tip shop, recycle shop or reuse warehouse)
- Multiple ventures of the same type (e.g. a group of recycling sites operating in different areas)
- Multiple ventures of different types (e.g. a tip shop plus a reuse warehouse)

What number of locations in NSW were operated by this enterprise as at June 30, 2016?

- 1 location
- 2 locations
- 3-5 locations
- More than 5 locations

What was the total volume of goods reused/recycled by your enterprise in the 2015/2016 financial year, that otherwise would have gone to landfill? (Please enter the relevant numbers below. If exact volumes are not known, please provide your best estimate):

	Number of Tonnes	Number of Cubic Metres
Total volume of goods reused:		
Total volume of goods recycled		

Please indicate the rough percentage % of recovered materials in the 2015/2016 financial year which were: (Please indicate the percentage in the boxes, with the total adding to 100%)

<input type="checkbox"/> Recycling of resources (e.g. aluminium, paper, wood, plastic, cardboard)	%
<input type="checkbox"/> Recycling of E-Waste (e.g. computers)	%
<input type="checkbox"/> Sales to the public (e.g. whitegoods, furniture, building materials)	%
<input type="checkbox"/> On-selling / donating items to other organisations	%
<input type="checkbox"/> Placed in landfill / waste disposal	%
<input type="checkbox"/> Total	%

Please indicate the source of recovered items (in percentage % terms) during the 2015/2016 financial year: (Please indicate the percentage, with the total adding to 100%)

- Private individuals
- Government organisations
- Nonprofit organisations
- Corporate / for profit business
- Other (please specify)
- Total

%
%
%
%
%
%

Please indicate how goods are collected: (Please select all that apply)

- Pick up by your own enterprise (e.g. kerbside collection, collection from business premises)
- Via a site at a landfill
- Direct drop off to organisation's depot (where separate to landfill site)
- Via a transfer station
- Community donation facility (e.g. large bins near shopping centres)
- Other (please specify)

We are interested to know a little about your paid and unpaid workers.

In the last pay period in June 2016 (please provide your best estimate if you do not have exact figures), what was the enterprise's: (Please type the figures into the boxes next to each item)

Total number of paid staff

Equivalent full time staff

Total number of staff who were trainees (that is, paid through federal or state government training subsidies)

Total number of volunteers and unpaid workers

How many positions in your organisation are held by disadvantaged workers (e.g. those who were long time unemployed before they worked with you)?

In what other ways does your enterprise seek to support its community? (Please select all that apply)

- Provide community or industry education around waste and sustainability
- Sponsor local community groups and events
- Provide in-kind resources (e.g. space, use of equipment) to support community activities run by groups other than the enterprise
- Support local school initiatives
- Other (please specify)

Would you be willing to provide further information about your organisation's impacts via a short interview

- Yes
- No

APPENDIX B – INTERVIEW THEMES

Community Recycling Enterprise Participants

- Can you tell me a little about your community recycling enterprise? How was it established? What is your core purpose? What aspects of resource recovery/recycling are you involved in?
- What resource streams do you recycle? At what point(s) in the waste stream do you work (prompts: collection at source; diversion from landfill)?
- How do you record your resource recovery amounts (prompt: by tonnage or cubic metres? Directly at the point of collection or by some other system)?
- Who is involved in recording information about your resource recovery types and amounts (prompt: site managers, drivers, others).
- By what methods do they record information? (prompts: manually for uploading later, directly into an online system via phone/tablet etc., some other way)
- Does your CRE seek to have particular social impacts? If yes, what sorts of impacts do you aim to have (prompt: for example, creating employment for disadvantaged people, providing space and resources to the community, educating community or school groups about sustainability issues)?
- Do you try to capture and record information about your social performance? If yes, what sorts of things do you capture and how?
- Do you use particular information systems to record and report your:
 - Environmental performance (if yes, what system or systems do you use)
 - Social performance (if yes, what system or systems do you use)
- Do you have particular reporting obligations related to your environmental or social performance (e.g. to funders, contractors, regulators)? If yes, what are these obligations and to whom do you have them?
- What are the major barriers to your organization measuring and communicating its impacts? What would help you overcome these barriers?
- Is there anything else you would like to tell me?

CRE-Stakeholder Participants

- Can you tell me a little about your experience with and interest in community recycling enterprises? What drives this interest? (prompt: for example, a regulatory reporting requirement; policy objectives).
- Is there a particular aspect of resource recovery / recycling you are interested in? Are there particular waste streams you are interested in? Are there particular points in waste processes you are interested in (prompts: collection at source; diversion from landfill)?
- In what metric form is/would resource recovery and/or re-use data be most useful to your organisation / role (prompt: for example, by tonnage or cubic metres; other?)
- Who (roles) in your organisation uses resource recovery and/or re-use data currently? For what purpose? Who else (roles) may have a use for it? What would facilitate their uptake (prompt: different metric form; better assurance of quality of data; data from a greater number of individual enterprises being available; rolled up data being available).
- Via what channel would data be most useful to your organisation? (prompt: through the annual reports of CREs; through a sector-wide annual report; via a 'dashboard' exportable report; other). How could you imagine

this being made available to you? (prompt: automatically sent a copy as becomes available; visit a website/online portal as I need it; other)

- Does or could your organisation/role also have an interest in the social impacts that CREs also often achieve? If yes, what sorts of impacts are of greatest interest (prompt: for example, creating employment for disadvantaged people, providing space and resources to the community, educating community or school groups about sustainability issues)?
- Do you currently access or seek out information about the social performance of CREs? If yes, what sorts of things are you interested in? What drives this interest? (prompt: regulatory reporting requirement; interest in exploring innovations that have multiple policy outcomes)
- What existing systems do you / your organisation use to capture and report on environmental and/or social performance data more generally? Can you tell me a little about what works about this approach, and what some of the challenges are?
- Are you aware of any systems for capturing and reporting on environmental and/or social performance data that are in development that may be relevant for this project, that it would be useful for us to know about? Internally or externally?
- What do you see as the major barriers to your organisation better understanding the contributions and impacts of CREs? What would help you overcome these barriers?
- Is there anything else you would like to tell me?

APPENDIX C – NSW EPA WASTE CLASSIFICATIONS

Source: <http://www.epa.nsw.gov.au/wasteregulation/waste-reporting-definitions.htm>

Waste type	Code	Waste type description
Aggregate, road base or ballast	AGG	Material such as rock and/or gravel. Examples: asphalt, road base, railway ballast, processed sandstone. Excluding: crushed concrete
Aluminium (non-ferrous)	AL	Examples: Aluminium frames, aluminium cans.
Asbestos (N220)	ASB	Asbestos means the fibrous form of those mineral silicates that belong to the serpentine or amphibole groups of rock-forming minerals, including actinolite, amosite (brown asbestos), anthophyllite, chrysotile (white asbestos), crocidolite (blue asbestos) and tremolite. Examples: any of the following made from asbestos - sheeting, roofing, lagging, pipes, rubble or soil.
Ashes	ASH	Examples: Ash from any incinerator or fly ash or bottom ash
Batteries	BATT	Examples: Batteries separated from electronic devices and vehicle batteries.
Bricks or concrete	BC	Bricks, mortar or concrete. Examples: bricks with mortar, concrete containing steel reinforcing. Excluding: fibre cement
Biosolids or manures	BIO	Biosolids: the organic product that results from sewage treatment processes (sometimes referred to as sewage sludge). Manure: any mixture of manure and biodegradable animal bedding (such as straw).
Ceramics, tiles, pottery	CER	Examples: terracotta roof tiles, pottery, porcelain products. Excluding: bricks and concrete.
Commingled recyclables	COMM	Recyclable wastes such as plastic, glass and paper that have been collected for recycling
Composts or mulches	COMP	Organic material that has been composted, chipped or shredded.
Contaminated soil	CONT	Soil that is contaminated and not suitable for reuse. Excluding: soil contaminated with asbestos
Dredging spoil	DSP	Spoil from dredging activities. Dredging is defined as the excavation of natural material to provide and/or increase the dimensions of a waterway, or ensure that existing channels, berths or harbour works area maintained at their design specifications.
E-waste	EWASTE	Electrical goods, TV, Computers, Toaster, Radio, I-pod, game-boys, stereos, speakers, VCR, DVD players, small electrical, Power tools
Ferrous (iron or steel)	FE	Examples: steel cans, scrap steel, car bodies, steel reinforcing. Excluding: gas bottles.
Food or kitchen	FOOD	Food waste from manufacture, preparation, sale or consumption of food. Excluding: agricultural waste
Glass	GLASS	Examples: glass in the following form - windows, bottles, plate glass, glass fines. Excluding: perspex, fluorescent tubes, light bulbs.
Mattresses	MATT	Mattresses

Waste type	Code	Waste type description
Mixed waste	MIX	Mixed waste is any waste that contains more than one of the material composition types (MCC's). Example: composite products such as light bulbs, plastic coated timber. Waste, mixed waste from commercial or industrial activities. Excluding: commingled recyclables.
Non-ferrous (metals, not iron steel or aluminium)	NFE	Examples: lead, copper, brass. Excluding: aluminium, steel.
Oil	OIL	Examples: engine oils, vegetable oils, cooking oil.
Paper or cardboard	PAPER	Paper and Cardboard
Plasterboard	PB	Gypsum based construction sheeting. Excluding: fibre cement, MDF, masonite, villaboard, chipboard, asbestos.
Pharmacy or clinical	PHARM	Clinical and related waste as defined under the <i>Protection of the Environment Operations Act 1997</i> .
Plastic	PL	Examples: perspex, PVC piping, astro-turf, polystyrene, plastic weed matt, pool liners, polypropylene, extruded plastic, plastic crates.
Problem waste	PROB	Paint (dry or wet), Chemicals, Fluorescent tubes; compact fluorescent lamps (CFLs), Household Chemicals, Gas Bottles. Oil filters,
Residues or rejects	RES	Residues from industrial or manufacturing processes. Examples: woolwash, drilling mud, pond waste, slag, filter cake, fibre cement, cell scale. Excluding: fly ash or bottom ash (Note: "Ash" has a separate material composition code)
Shredder floc	FLOC	Shredder floc
Soil (not contaminated or VENM)	SOIL	Examples: clay, sand, topsoil. Excluding: contaminated soil, VENM
Textiles, rags	TEXT	Synthetic or natural woven material. Examples: rags, fibreglass insulation, carpet and underlay.
Tyres	TYRE	Examples: whole, shredded or dewatered tyres
Vegetation or garden	VEG	Soft vegetation/garden waste. Examples: grass clippings, small prunings, seaweed, leaves, non woody weeds, non woody agricultural waste. Excluding: food, compost, mulches, wood, sawdust, timber, trees and tree stumps.
Virgin excavated natural material	VENM	Virgin Excavated Natural Material that is not mixed with any other waste (clay, gravel, sand, soil and rock) and that (a) has been excavated from areas that are not contaminated, as the result of industrial, commercial, mining or agricultural activities, with manufactured chemicals and does not contain sulphidic ores or soils, or (b) consists of excavated natural materials that meet such criteria as may be approved by the EPA.
Veterinary waste	VET	Dead animals and animal parts and any mixture of dead animals and animal parts.
Wood, trees or timber	WOOD	Examples: trees or tree stumps. Raw, treated or painted timber, sawdust, wooden crates, wooden packaging, wooden pallets, wood shavings, MDF, chipboard, particle board, masonite. Excluding: plastic coated timbers.

APPENDIX D - INFO GRAPHIC EXAMPLES



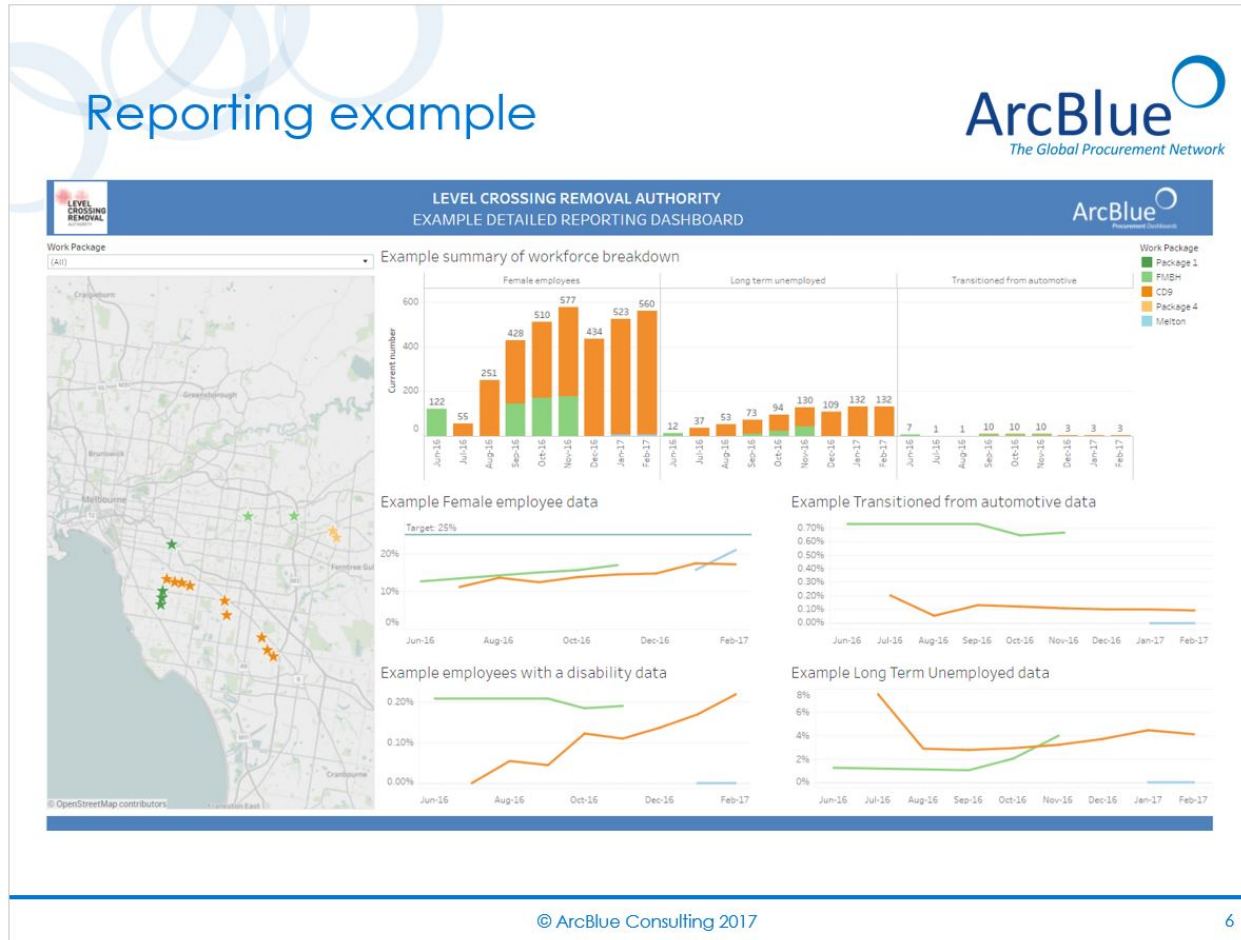
Info graphic examples (x 3) currently in use, provided by CRN Scotland by email



Info graphic example currently in use, provided by CRN New Zealand by email

APPENDIX E – DASHBOARD EXAMPLES

Examples of ‘dashboard’ style approaches to visualising data outputs available through ArcBlue portals (provided via email).



Supplier example

Filter shelf
Unselect "All" first

Date Range
4/07/2012 30/06/2016

Fin Year
[All]

PO Type
[All]

Capex/Opex
[All]

Form of Payment
[All]

Contract Group
[All]

Example Category
[All]

Sub Category
[All]

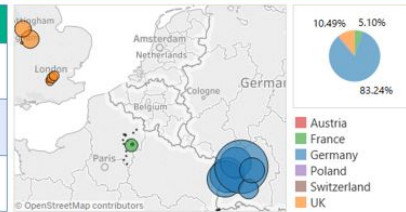
Supplier No
[All]

Supplier first used
[All]

Department
[All]

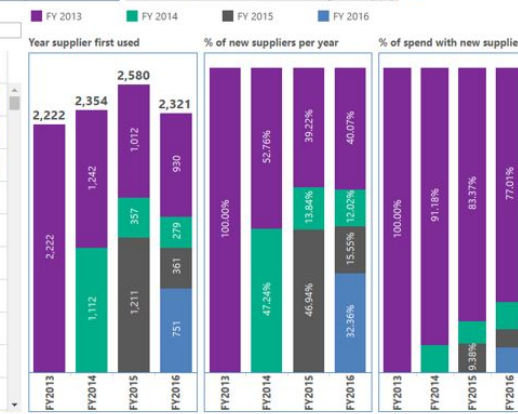
Account Description
[All]

	Amount	No of suppliers	Avg per supplier	No of transactions	Avg per transaction	No of POs	No of contracts
AP	\$306,073,657	2,045	\$149,669	86,071	\$3,556	24,020	585
PC	\$5,214,089	3,420	\$1,525	25,648	\$203	0	0
Total	\$311,287,746	5,296	\$58,778	111,719	\$2,786	24,020	585



Number of suppliers to display: 5,296

Supplier No	No of contracts	No of POs	No of transactions	No of Depts	Amount
2872	1	3	25	3	\$19,984,025
6341	1	7	29	4	\$19,969,667
1189	16	995	1,502	19	\$12,693,333
2509	7	20	89	3	\$10,669,417
2276	0	3	666	36	\$9,340,098
5703	0	0	329	6	\$8,190,529
1944	3	226	998	11	\$5,710,932
8325	0	1	1,436	17	\$5,300,085
2317	7	274	930	25	\$4,815,936
15195	0	1	12	6	\$4,683,162



ABOUT THE PROJECT DELIVERY PARTNERS

Centre for Social Impact Swinburne - www.swinburne.edu.au/research/social-impact

The Centre for Social Impact (CSI) Swinburne is a university research centre located within the Faculty of Business and Law at Swinburne University of Technology (SUT). We seek to grow social impact by advancing the systems that support progressive social change. Established in early 2014, CSI Swinburne forms part of the national CSI network, which is an unincorporated partnership between the Universities of New South Wales, Western Australia and SUT. CSI Swinburne integrates research, learning and engagement that thinks big – and delivers – on programs that contribute to social change. We produce high quality outputs that are dynamic, accessible and useful. CSI Swinburne has specialist expertise in social innovation; social enterprise; social investment and philanthropy; and measuring and communicating social impacts.

Community Recycling Network Australia (CRNA) - www.communityrecycling.com.au

CRN Australia exists to support and grow the CRE sector in Australia, by providing peer support, advocacy, resources and information for members. As the peak membership body for community re-use and recycling enterprises in Australia, CRN Australia provides an active peer support network and advocacy body for the sector. Since its formation in 2011, CRN Australia has made a significant contribution to the development of community recycling in Australia, delivering a range of practical projects to date.

Resource Recovery Australia (RRA) - www.resourcerecovery.org.au

RRA bring 25 years' strategic and operational experience in achieving economic, environmental and social outcomes from waste. RRA are multi-award-winning managers of landfills, transfer stations, tip shops and a problem waste mobile community recycling service, all in NSW, that incorporate community development principles. In 2012, RRA launched a Consulting and Training arm to provide access to Australia's leading practitioners in waste management and social enterprise to further advance the viability of the sector. RRA's partners, the Westpac Foundation and CRN Australia, share their vision that every town can have a viable community recycling enterprise.