BUSINESS PLAN 2017 - 2020

April 2018

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Glossary

Term or Abbreviation	Definition
BBP	The Better Buildings Partnership is a collaboration between 15 of Sydney's largest commercial landlords and top 5 property management companies. Partially funded by the City of Sydney, it also includes NSW OEH and industry peak bodies the Property Council of Australia and Green Building Council of Australia.
BWRF	Better Waste Recycling Fund, a funding initiative of the NSW EPA
C&D	Construction and demolition
C&I	Commercial and industrial
CALD	Culturally and linguistically diverse
CRE	Community Recycling Enterprises are not-for-profits, social enterprises and co-operative groups actively involved in reducing waste generation, re-use and diversion from landfill while seeking to create training, employment and volunteer opportunities, particularly for those experiencing disadvantage.
ZWNA	Community Recycling Network of Australia
ZWN-S	Community Reuse Network of Sydney
EPA	The NSW Environment Protection Authority was established in 2012 as a statutory authority with an independent governing Board. NSW Government strategies and polices relating to waste stem from the objectives and requirements set out in the NSW waste legislation particularly the Waste Avoidance and Resource Recovery Act 2001.
IMT	Impact Measurement Tool
MUDs	Multi-unit dwellings
MSW	Municipal solid waste
OEH NSW	Office of Environment and Heritage protects NSW's environment and heritage, which includes the natural environment, Aboriginal country, culture and heritage, and built heritage. OEH supports the community, business and government in protecting, strengthening and making the most of a healthy environment and economy in NSW.
Re-use	Using second-hand materials without further processing, avoiding the costs of energy and other resources required for recycling.
ROC	Regional Organisation of Councils
SMA	The Sydney Metropolitan Area which consists of seven regional groupings of councils. Can also be referred to as Greater Sydney.
SSROC	Southern Sydney Regional Organisation of Council is an association of eleven councils, south of Sydney harbour covering a third of Sydney's population - 1.7m people. SSROC provide a forum for the exchange of ideas between member councils, undertaking regional projects that contribute to the sustainability of their councils and communities.
SUDs	Single-unit dwellings
WARR	Waste Avoidance and Resource Recovery. Usually in reference to the Act or Strategy, as directed by The NSW Environment Protection Authority

1. ZWN Sydney: Context and Background

In December 2016, the Southern Sydney Regional Organisation of Councils (SSROC) engaged the Community Recycling Network of Australia (CRNA) to establish a chapter of their network in greater Sydney**.** This business plan outlines the drivers, service offering, revenue model and expected impact of establishing a 'metro model' of CRNA, called Zero Waste Network Sydney (ZWN-S). Informed by research and interviews with key stakeholders, the ZWN-S network is also modelled on case studies and interviews with the most resilient and effective re-use networks internationally.

> The ZWN-S purpose statement is 'to build stronger community reuse, repair and circular economy sector pathways in Sydney that create meaningful social, environmental and economic benefits'.

Established in 2010, CRNA is the peak body representing Australian community reuse, repair and recycling enterprises (CREs). In 2017, it was re-launched as the Zero Waste Network Australia (ZWNA). CREs are not-for-profits, social enterprises and co-operative groups actively involved in reuse, repair and diversion from landfill, changing attitudes to consumption. Many CREs also seek to create training, employment and volunteer opportunities, particularly for those experiencing disadvantage.

Figure 1: Waste Hierarchy (NSW EPA, 2014)

CREs trade with a triple bottom line across all three waste generation sectors: domestic (municipal), construction and demolition (C&D) and commercial and industrial (C&I) waste. In 2012, a baseline study of CREs cited 63 operational locations diverting 152,000 tonnes from landfill, creating 1,500 jobs (Yousefpour, Barraket and Furneaux, 2012).

Using the same definition, 34 CREs have been identified across 46 locations in the Sydney Metropolitan Area (SMA). Incorporating 7 regional groupings of councils (ROCs) consisting of 45 Councils, a population of 5.5 million people must be serviced across 12,360 square kilometres.

Within this region, over 2.4 million tonnes of domestic waste are generated per year. Resource recovery rates range from 16%-73%, with an average of 40-60% diversion[1]. In 2014, a survey of 10 landfills and 4 transfer stations found that almost 1.8 million tonnes of waste were sent to landfill from C&I businesses across the regulated areas of NSW over 2013/14, of which 80% originated from the SMA (APC, 2014). Meanwhile, C&D activities account for more than 6.8 million tonnes of waste in NSW each year, of which a quarter is sent to landfill (NSW EPA, 2016).

The NSW Environment Protection Authority (EPA) is actively supporting the close or optimisation of landfills, and supporting councils and businesses to do this. There are 3 landfills around Sydney at or nearing capacity. Community support for new landfills is low. The NSW EPA Waste Avoidance and Resource Recovery (WARR) Strategy 2014-21 targets include: 70% recovery of municipal and C&I waste; 80% recovery of C&D waste; and an overall reduction in the amount of waste generated per person (NSW EPA, 2014).

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[1] Aggregated data from the 7 Sydney Metropolitan Area Regional Groupings of Council strategies (2015-2017)

Though it is noted the WARR Strategy does not set targets for waste reduction on a per person basis, waste prevention has a key role to play in meeting the State's waste diversion from municipal recycling target.

As the peak body for re-use and recycling social enterprises, ZWNA aim to develop an SMA chapter to strengthen advocacy, capacity and impact measurement in this region, shifting waste management and behavioural objectives into the 'most preferred range' of the Waste Hierarchy as outlined at Figure 1.

ZWN-S modelling draws most closely on an in-depth case study and interview with KOMOSIE (Federation of Environmental Entrepreneurs in the Social Economy) in Belgium (McNeill, 2017). Established for over 25 years, KOMOSIE services a region incorporating 6.47 million residents across 13,500 kilometres. Closely reflecting the service area of ZWN-S, KOMOSIE leveraged federal and local government stakeholders and diverse CRE members to build a highly-integrated network that today coordinates and supports 31 independent re-use centres that manage 120 re-use shops.

The KOMOSIE model has successfully mainstreamed reuse in the region from 1,400 customers in 1995 to over 5 million in 2014. The number of re-use stores has increased from 20 to 124, and the number of people employed has grown from 238 in 1995 to 5,145 in 2014, of which 80% are people experiencing disadvantage.

Other successful models informing the ZWN-S plan include ZWN-Auckland, a regional arm of ZWN Aotearoa/ New Zealand launched in 2015 in partnership with Auckland Council. ZWN-Auckland is aiming for zero waste through the establishment of a centralised ZWN re-distribution centre for reusable and recyclable items that now supplies 80+ CRE members creating an integrated re-use network across the region.

Both models highlight the activation of a range of stakeholders to create a robust and efficient network, working together to deliver integrated re-use, waste education and employment objectives.

'*The success of the KOMOSIE model demonstrates how the public sector can stabilise and institutionalise innovations, through establishing new norms amongst a broad range of stakeholders and how it can support a successful social innovation assemblage to adapt and prepare for changes in its operating context*' (McNeill, 2017).

2. Why we need ZWN Sydney: Purpose, objectives and key activities

What are we trying to achieve?	- Move citizens, local government, commercial businesses and CREs up the waste hierarchy with their values, choices and actions, with - Increase the recovery of resources to meet the NSW EPA 2021 WARR targets. - Increase engagement in the reuse and repair economy for households, councils and businesses, mainstreaming reuse and repair in the target region. - Provide local jobs and training in the reuse and recycling sector for people facing barriers to work.
How do we plan to achieve it?	- Establish a regional Chapter of ZWNA, ZWN Sydney, in the SMA over 2017-2020 "to build stronger community reuse, repair and circular economy sector pathways in Sydney that create meaningful social, environmental and economic benefits". - ZWN-S plans to support the scale-up of the reuse and repair sector, diverting 100,000 additional tonnes from landfill and creating 920 additional jobs by June 2020 among its network of CREs, while increasing reuse and repair as a percentage of CRE diversion rates.
What will ZWN Sydney do?	**Advocacy** – provide an effective voice and focal point for community re-use, repair and recycling in the SMA. Influence local, state and federal governments and communities in support of community reuse, repair and resource recovery. **Market Development** – build access to markets for CREs, and foster collaboration. **Address Barriers to Capital** – navigate and provide information on social financing and Government partnership models. **Capacity Building** – provide support, advice, training and mentoring to CREs across the SMA, and their stakeholders. Increase the profitability and/or scale of CREs. **Impact Measurement** – build an Impact Measurement Tool that delivers environmental and social reporting to member groups. **Viability** – Be financially self-sustaining within 3 years (2020/21).

CRN-S PROJECTIONS 2016 - 2020

These projections to 2020 are based on current 2016 data and trends. They represent the expected growth from CRN-S capacity building, as well as sector trends related to waste generation, market demand and opportunities.

WASTE DIVERTED
Resources reused instead of landfilled

30,000t

100,000t

ENTERPRISES
Community Recycling Enterprises

9

mature CREs

growing CREs

20
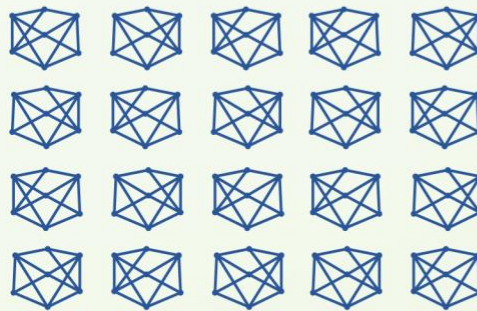
SITES
Reuse and recycling sites

16

48
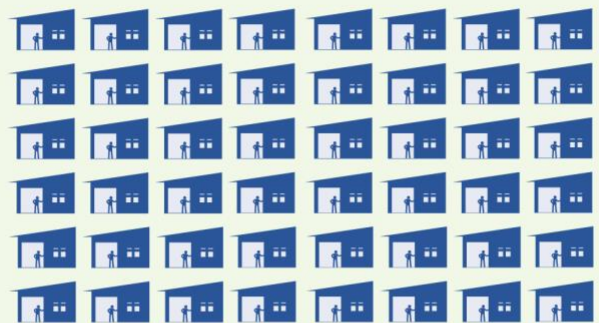
JOBS
Jobs for workers in processing and operations

295

920

Figure 2: ZWN-S Projections 2016-2020

3. CRE Service Provision in the SMA

3.1 Current CRE Service Provision

As at March 2017, there are approximately 34 social enterprises and cooperatives working in waste reduction, reuse, repair and recycling operating across 46 locations in the SMA. These CREs are listed by Regional Waste Group and site type at Table 1, and mapped across the SMA at Figure 3.

A full list of SMA CREs is at Appendix A.

As at June 2017, 9 of these CREs are paid up ZWNA members. Profiles of the 6 most established SMA CREs in the membership are detailed in Appendix B.

The SMA CRE list was compiled from a Swinburne University Centre for Social Impact (CSI) report on Sustainability Focused Social Enterprises, commissioned by the NSW Office of Environment and Heritage (McNeill, Barraket and Elmes, 2017). Enterprises classified by CSI as "waste enterprises" in type of operation were included. Additional desk top research by ZWNA was then added, and a map commissioned.

Category	All	Hunter	IPJO	MACROC	SSROC	WSROC	Total
Charity Sorting Facility			1	1	4		**6**
Event Recycling			1				**1**
E-Waste					1		**1**
Food Rescue	1				1		**2**
Household Clean Up					2	2	**4**
Household Goods and Furniture					2	1	**3**
Landfill		1					**1**
Mattress Recycling		1	1			1	**3**
Mixed Dry Recycling	1	1	1			1	**4**
On-line Market					2		**2**
Op Shop (non-major charity)					2	1	**3**
Pre Waste Art Materials					1		**1**
Repair and Upcycling Studio		1	2		5	1	**9**
Tip Shop		1	2				**3**
Transfer Station		3					**3**
Total	**2**	**8**	**8**	**1**	**20**	**7**	**46**

Table 1: CRE Overview by Regional Waste Group

CREs in SMA
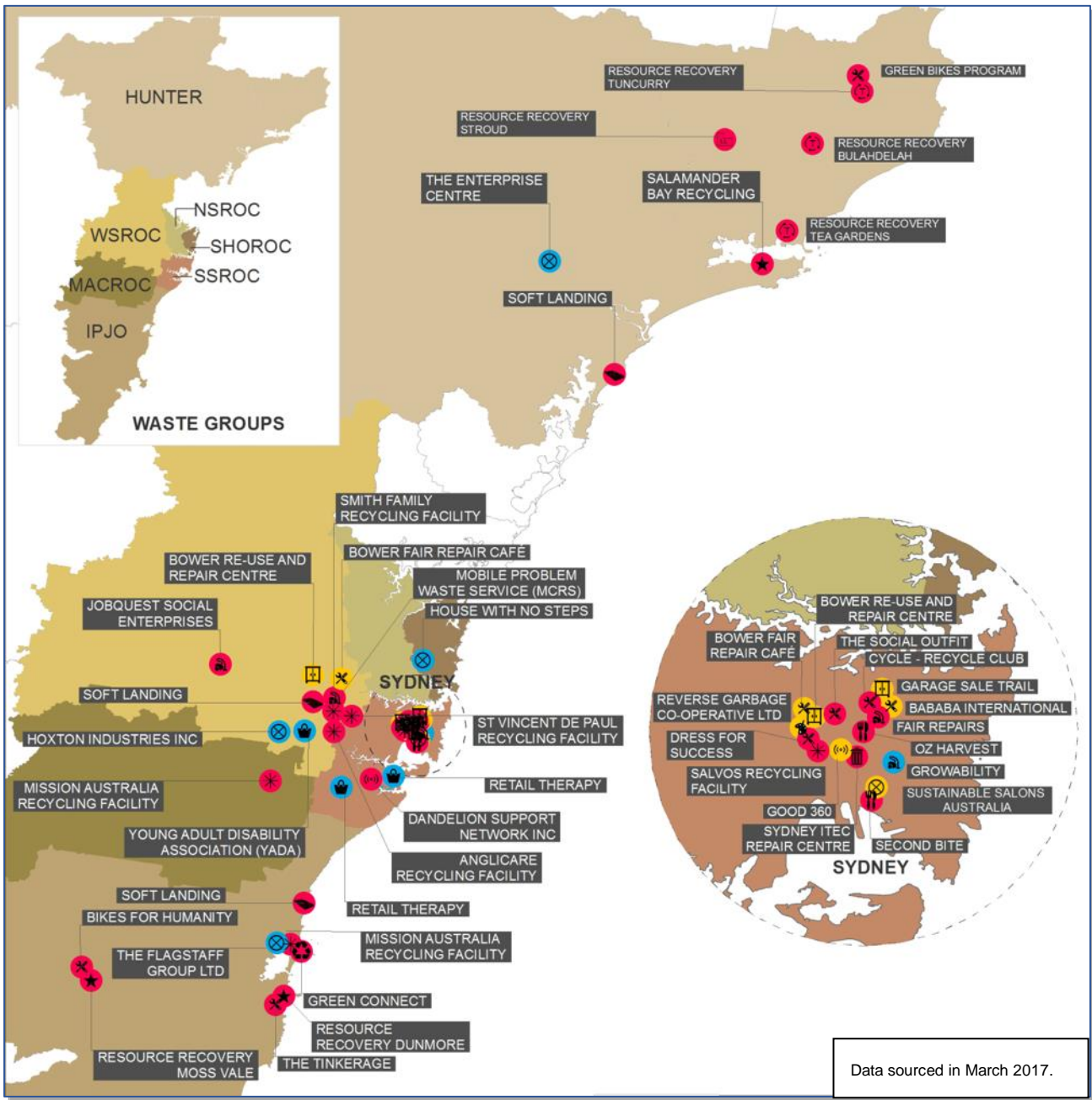
Figure 3: Map of CREs in Sydney Metropolitan Area and legend

Note: This map does not include Charity Op Shop Stores, of which there are approximately 185 stores in Sydney, 69 stores in the Hunter and 48 stores in the Illawarra. The major charity sorting facilities are however included.

CREs appear as 1 of 13 CRE category types - labelled by icon, and colour coded to highlight whether the enterprise has a dual focus on employing disadvantaged job-seekers.

3.2   Potential CRE Membership and Impact in SMA

ZWN-S Numbers in Enterprises, Sites and Members: 2016 Data versus 2020 Projection

● 9	Enterprises increase 2.2X	20 ●	● Enterprises
● 19	Sites increase 2.5X	48 ●	● Sites
● 295	Jobs created increase 3.1X	920 ●	● Jobs

2016   2017   2018   2019   2020
Year
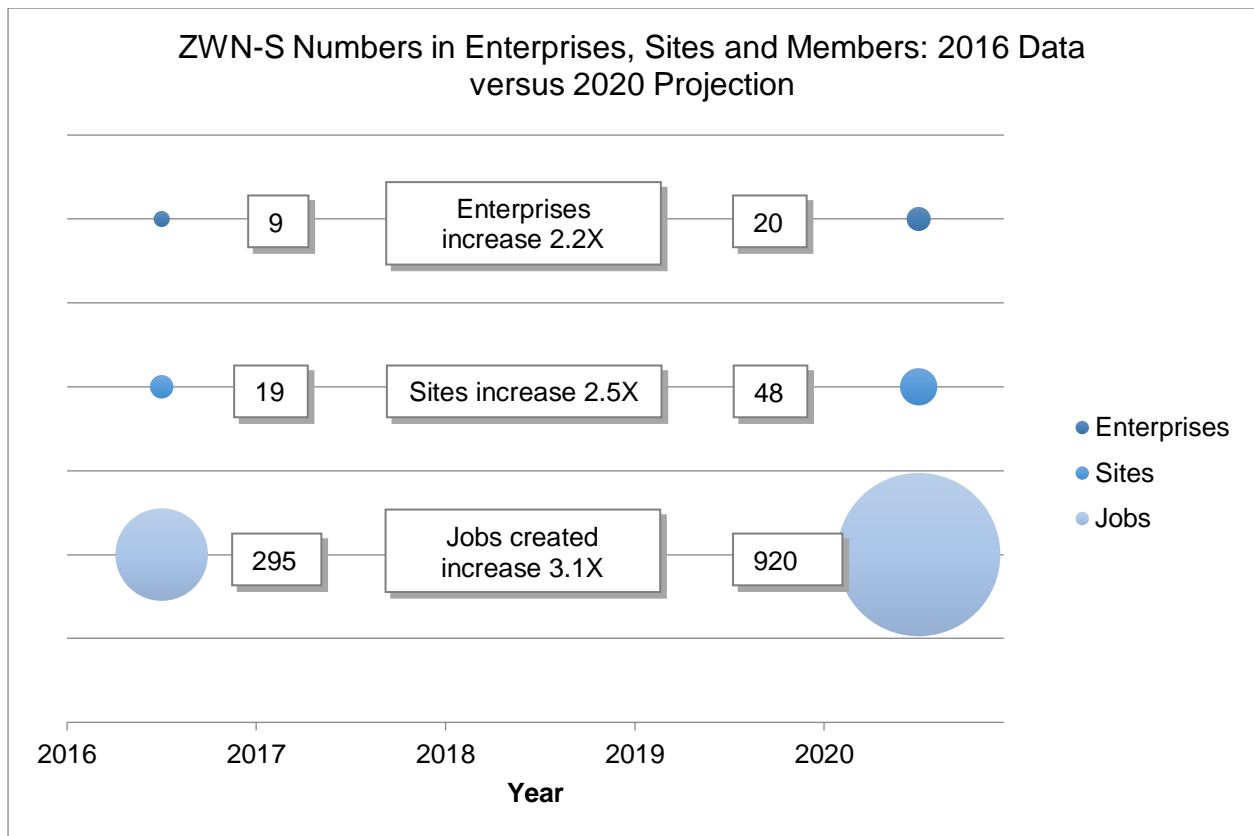
Figure 4: ZWN-S Numbers in enterprises, sites and members: 2016 data versus 2020 projection

ZWN-S Diversion from Landfill: 2016 Data versus 2020 Projected Tonnes

Diversion from landfill (t)

120,000 / 100,000 / 80,000 / 60,000 / 40,000 / 20,000 / -

- 2016: 30,000 (Tonnes diverted - waste data)
- 2017: ~47,000
- 2018: ~64,000
- 2019: ~82,000
- 2020: 100,000

(Projected tonnes diverted (Linear to 2020 estimate))

Year
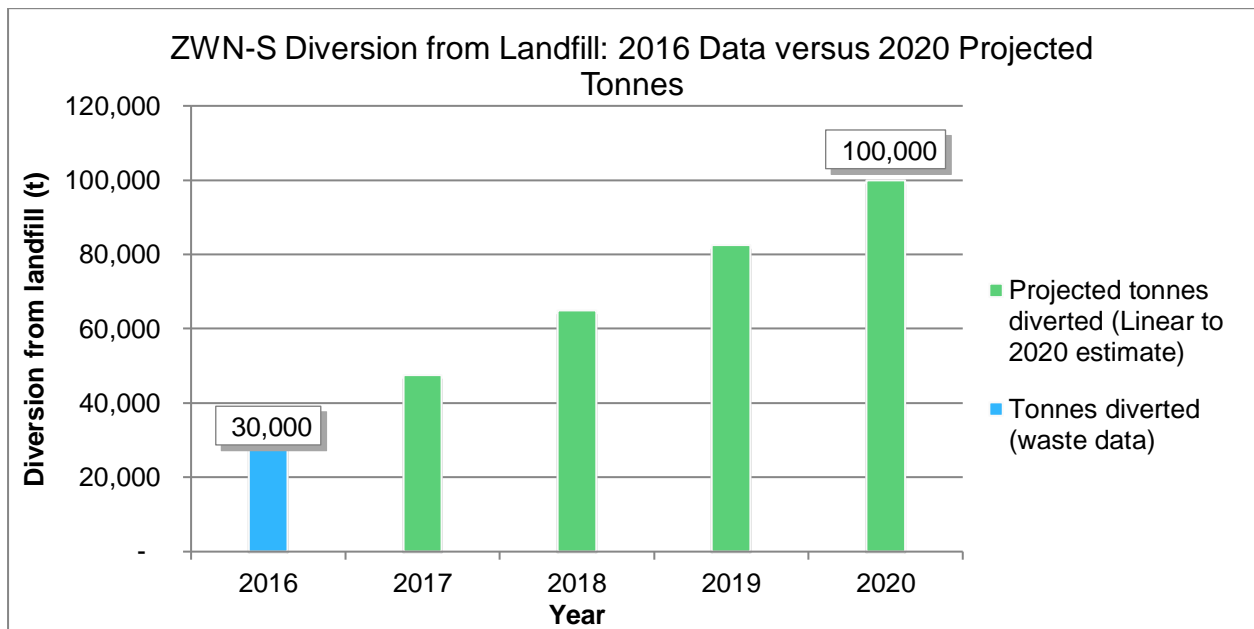
Figure 5: ZWN-S Diversion from landfill: 2016 data versus 2020 projected tonnes

Projections at Figure 4 and 6 require ZWN-S to attract 11 new CRE members by 2020, and for their average diversion and job creation to be in line with baseline data from the Centre for Social Impact report on Sustainability Focused Social Enterprises (waste enterprises) and the Baseline Study of Australian Community Recycling Enterprises as outlined at Section 3.3.

ZWN-S 2020 projections are conservative in that they do not account for an increase in the average tonnage diversion and job creation per CRE. The data instead focuses on capturing a core membership of 20 CREs across the SMA, with a combination of capacity building for less mature sites, and replication or adoption of mature high impact sites, as a focus over 2017-2020.

3.3   Data used for 2020 Impact Projections

Impact data collated from 6 mature SMA CREs at June 2016 aggregated to 16 sites diverting approximately 30,000 tonnes from landfill creating 292 jobs. Another 3 SMA members do not currently specialise in waste services, but are positioned to enter the market. A nominal figure of 1 site and 1 job, but no tonnes, has been included in the 2016 baseline data for these 3 ZWN-S members in Figure 4 and Figure 5.

Data from these 6 active SMA CREs correlates to 2017 CSI data (McNeill, Barraket and Elmes, 2017) on 10 diverse NSW CREs (represented in the NSW section of Tables 2,3 and 4) who collectively diverted 56,708 tonnes from landfill (averaging approximately 5,000 tonnes per CRE, primarily recycled) and created 364 jobs (with an average of 50 paid jobs per CRE).

The 2012 National Baseline Study of CREs (Yousefpour, Barraket and Furneaux, 2012) also correlates, with 28 CREs operating across 63 locations in Australia diverting 152,000 tonnes from landfill, creating 1,500 jobs.

Type	Quantification	Sydney	NSW	National
CREs	Number	6	10	28
Diversion	Total	30,000 tonnes	56,708 tonnes	152,000 tonnes
	Average	5,000t / CRE	5,671t / CRE	5,428t / CRE
Average across all sites is approximately 5,000 tonnes / CRE.				

Table 2: Sydney, NSW and national data and averages for diversion tonnages

Type	Quantification	Sydney	NSW	National
Sites	Number	16	23	63
	Average	2.7 sites / CRE	2.3 sites / CRE	2.3 sites /CRE
Jobs	Total	292	364	1,500
	Average	49 jobs / CRE	36 jobs / CRE	53 jobs / CRE
Average across all studies is approximately 46 jobs / CRE.				

Table 3: Sydney, NSW and national data and averages for jobs

> The ZWN-S 2020 projection for 20 SMA CREs forecasts diversion of landfill at 5,000 tonnes per site, and job creation at 46 jobs per CRE.

A further breakdown of tonnages reused versus recycled for the NSW CRE sample is also evidenced below from the CSI report. ZWN-S will work to standardise and better capture reuse data as part of our project plan to develop an Impact Measurement Tool. As outlined in Section 4.2.2, the Impact Measurement Tool will be designed to measure organisational and collective reuse, recycling, economic contribution and employment outcomes. We anticipate that with more effective data capture and measurement, along with an expansion of the reuse sector, there will be a net increase in goods reused as a percentage of total goods diverted.

Metric	Goods reused	Goods recycled	Total goods reused or recycled
Weight	9,687 tonnes	47,021 tonnes	56,708 tonnes
Volume	2,660 m^3	121,500 m^3	124,160 m^3

Table 4: Combined total volume of goods reused and good recycled in 2015/16 FY – NSW CRE IMPACT Report (CSI, 2017)

3.4 International comparison – KOMOSIE network in Belgium – Longitudinal Impact Data

Achieving a connected, customer friendly and efficient re-use ecosystem leading to increased recovery of materials, integrating job creation outcomes for disadvantaged people, has been most successfully documented and achieved by the KOMOSIE network in the Flanders region of Belgium.

KOMOSIE was established in the early 1990s servicing a region of 6.47 million residents across 13,500 kilometers –similar to the ZWN-S region. KOMOSIE worked with OVAM (Regional Waste Authority) and Federal Social Services in Belgium to action policy around two market failures:

-   Viable reuse centres that sell affordable second-hand goods

-   Job creation for the long term unemployed.

KOMOSIE coupled the two issues, and used the market shaping power of government to decentre the trajectory towards market failure in both these policy domains. OVAM invested in KOMOSIE to build capacity and professionalise member operations, including the development of impact measurement tools to capture credible re-use and employment data to drive evidence based strategy and policy.

OVAM and Social Services coupled wage subsidies for the long-term unemployed in KOMOSIE re-use centres (a commitment from the Federal Government) - to improve each store's ability to deliver quality and affordable re-use outcomes - with a reporting system owned by KOMOSIE. Once the tool was established, KOMOSIE members were required to provide impact data through the KOMOSIE system to OVAM (Waste Authority) to receive their wage subsidies from Social Services. This requirement bolstered KOMOSIE membership and enabled centralised data to inform policy for both the network and the waste authority. Annual growth in both reuse and employment for disadvantaged people has been consistent for 10 years.

Experience also identified that attempts to change behaviour around waste were most effective when people had close connection with the approaches adopted, allowing educative aspects to be integrated in practical ways at each centre at the point of contact (McNeil, 2017). Therefore, rather than simply designing a contract for the delivery of re-use and/or education services and putting these out to tender, OVAM and Social Services worked together to integrate re-use objectives, waste education objectives and employment objectives for the region

KOMOSIE Impact Data and Key Success Factors for the period 1995 to 2014 are outlined below (OVAM, 2015).
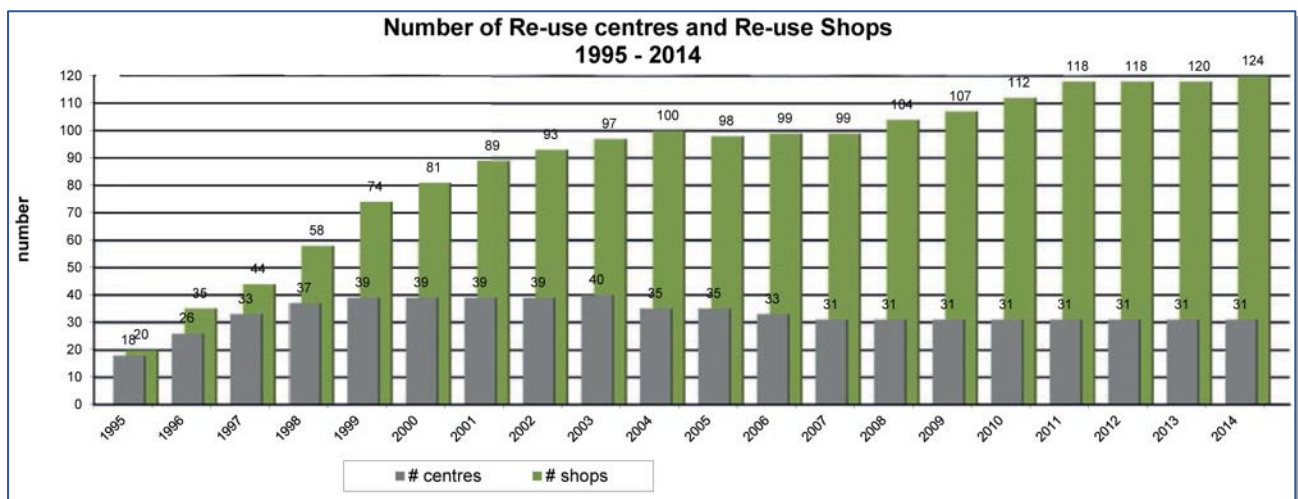
Figure 6: Number of Re-use Centres and Re-use Shops in Flanders region of Belgium 1995-2014
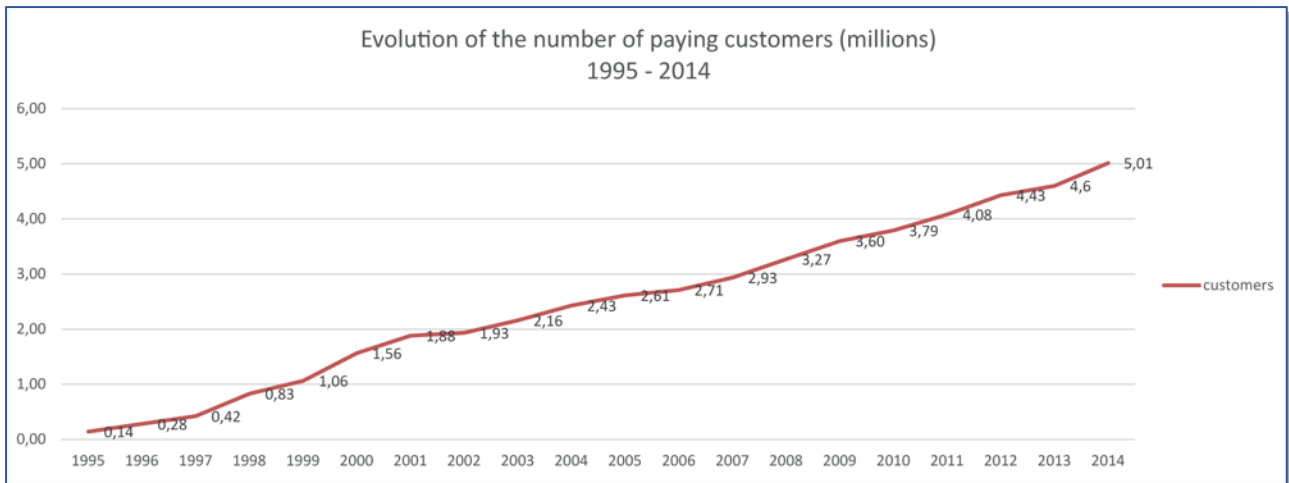
Figure 7: Evolution of paying customers at Re-use stores in the KOMOSIE network from 1995-2014
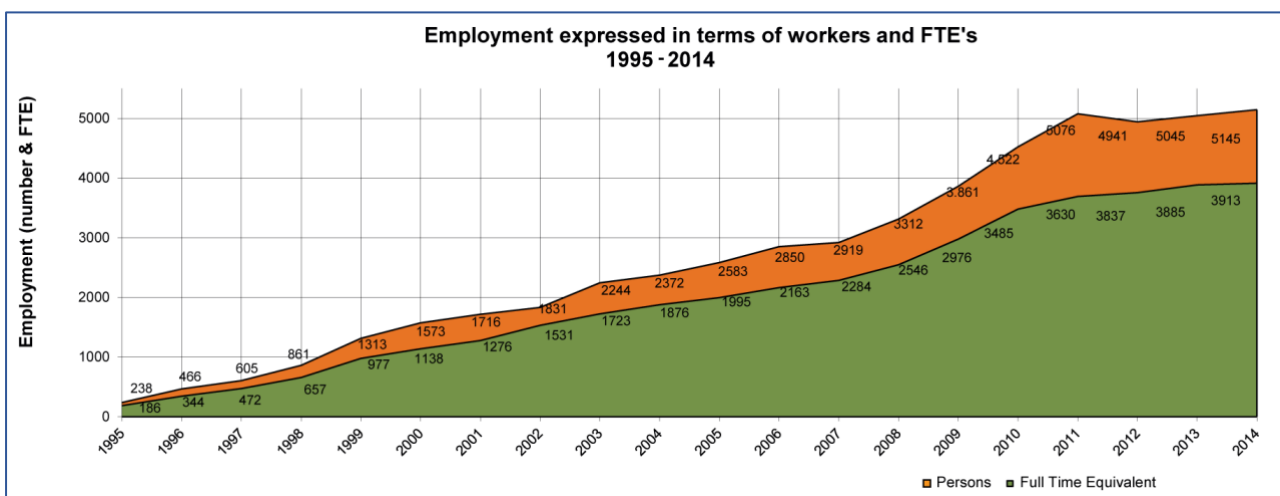
Figure 8: No. of workers and full time equivalent workers in KOMOSIE network 1995-2014

Success factors cited by KOMOSIE model :

1. Quite rapidly in the development of the Flemish re-use sector the link was established between re-use and social employment.

2. The incorporation of the Re-use Centres into the Flemish waste management policy also secured their embedment into the local waste policy.

3. The Federation of Flemish Re-Use Centres united nearly all Re-use Centres and figured as the driving force behind the development of the re-use policy in Flanders.

4. The professionalisation of the Re-Use Centres was important to consolidate the position achieved within the waste policy.

ZWN-S has established a peer learning relationship with the KOMOSIE network, as well as other international networks including ZWN Aotearoa / New Zealand and the Furniture Reuse Network (FRN) in the UK. These networks are leading the way in terms of professionalisation of CREs, cross-sector collaborations and/or impact measurement tools. Case studies at Appendix A.

Through a peer learning relationship with KOMOSIE (Belgium) and ZWN Aotearoa

(New Zealand), ZWN-S will leverage existing experience to inform and strengthen its position.

Research on the success of the KOMOSIE model (McNeill, 2017) highlights the importance of cross-sector collaboration with government and cooperative decision making within business practices to enable capacity and transformative outcomes:

> *Whilst not a cooperative in legal structure, in its business practices – owned by its members and with participatory decision-making processes – the KOMOSIE network shares many characteristics with cooperative forms of business and provides a strong case for strategies that encourage economic practices that build capacity into communities.*

> *Over time, this intentional strategy has potential to contribute to building a wider field of advocacy that would support the establishment and growth of more robust and bespoke social enterprises like KOMOSIE and its Members. I suggest that in turn, proactive and structured support for the development of the for-social-purpose sector could help establish and sustain robust and viable delivery partners well placed to engage in strategic commissioning programs that contribute to achieving some of the most complex public policy objectives.*

4. Business model

How ZWN-S will work - the membership model

ZWN-S is a membership, advocacy and professional development network for Community Reuse, Repair and Recycling Enterprises operating in the SMA. Membership categories are outlined below, including Associate and Individual membership categories in keeping with the broader ZWN Australia membership.

A target of 20 CRE members and 20 Associate members by June 2020 has been established. These figures are based on ZWNA membership figures, scoping of the 34 potential CRE members in the service region, interviews with local government representatives in the SMA (Jackson, 2017) and a commitment to secure project funding to scope, test and build an on-line impact measurement tool that goes live by April 2019. The tool aims to raise and consolidate member buy in and fees by FY 2019/20, and to better capture re-use data to inform ongoing ZWN-S policy and strategy.

4.1 Membership Categories and Fees

Category	Member Type	Annual Fee (Current 2017)
ZWN-S Membership Open to not-for-profits, charities, social enterprises and co-operative groups actively involved in reduce, re-use, repair and recycling projects across the SMA.	CREs under $100k turnover	$ 175 + GST
	CREs under $500k turnover	$ 250 + GST
	CREs under $1 million turnover	$ 375 + GST
	CREs under $5 million turnover	$ 500 + GST
	CREs over $5 million turnover	$ 1000 + GST
Associate Membership Open to local government, profit organisations and peak bodies providing tangible benefits to ZWN-S Members. Includes local Councils, waste management companies, consultants, private businesses and peak bodies.	Associate Members	$ 1000 + GST
Individual Membership For members of the public who support the work of the network.	Individual Members	$ 100 + GST

Table 5:

Membership categories, type and fees

Note: ZWN-S will allow 'recycling' as well as 'reuse' social enterprises in our membership. However, the focus of the ZWN-S project is to improve and mainstream the reuse and repair sectors in particular, with targeted efforts toward consistent reuse data driving greater reuse outcomes, policy and strategy.

4.2 Membership Benefits

ZWN-S will provide members with access to a range of products and services.

At an SSROC Stakeholder Forum *Growing Community Reuse and Recycling in Greater Sydney* in December 2016, twenty-three CREs contributed to information gathering on the drivers and barriers for CREs to better establish themselves in the market, and build their service offerings to meet the needs of local government and business.

The top priority needs identified by CREs themselves were:

1. Advocate for policy that supports CREs.

2. Coordinate access to markets for CREs.

3. Facilitate collaboration between CREs, and with Government and Commercial players.

4. Address barriers to capital for CREs to scale and compete.

5. Grow markets for CRE products and services.

The following list of products and services has been developed based on these priority needs, and by adapting international case studies including tabled information from local government research and interviews, and similar networks in Australia and internationally as outlined in Section 5, which covers market research, customer and stakeholder needs.

Access to each product or service by the three ZWN-S membership categories is indicated below (✓). An Implementation Plan at Appendix D provides the roll out plan for key products and services from 2017- 20.

4.2.1 Advocacy Services

Advocacy Services				
Area	**Description**	**CRE**	**ASSOC**	**IND**
Government Policy & Advocacy	ZWN-S will provide an effective voice and focal point for community re-use, repair and recycling policy and advocacy work. This will come in the form of submissions, reports and policy recommendations to all levels of Government that drive greater re-use, repair and employment generation for disadvantaged job seekers.	✓		
Seminars and Conferences	ZWN-S will provide representation of the sector / CREs - including scope, diversity, collaborations and impact - at sector seminars, forums and conferences.	✓		

Table 6: Advocacy services descriptions and access

4.2.2 Impact Measurement Tool

Impact Measurement Tool				
Area	**Description**	**CRE**	**ASSOC**	**IND**
CRE Impact Measurement Tool	A key product development over 2017-2019 for ZWN-S will be an Impact Measurement Tool. The tool will provide CREs and the sector data and trend analysis to inform policy and capacity building, as well as infographics and reports to communicate individual and collective impact.	✓	✓	
	A rapid prototyping approach to a pilot tool has been recommended using ZWN-S members over 2017-19, as outlined in research completed by CSI for OEH (McNeill, Barraket and Elmes, 2017).			
	Key stages of the ZWN-S tool development are outlined in the Implementation Plan in Appendix D.			
	An overview of the CSI research recommendations and suggested metric are outlined at Appendix E.			

Table 7: Impact Measurement Tool network application and access

The Impact Measurement Tool (IMT) will be used to quantify waste that is processed through recycling and reuse. This data is currently unable to be captured or is not standardised. The IMT provides a means of harmonising data management systems across the network and establishing metrics for continued planning, assessment and improvement.

The Impact Measurement Project was initiated through ZWNA in the form of a research project completed by the Centre for Social Impact (CSI), with funding from the Office of Environment and Heritage (OEH). The research culminated in a report that documents the state of play, steps towards a collective reporting framework and technical considerations (McNeill, Barraket and Elmes, 2017).

The IMT will draw on existing measurement frameworks and tools that have a proven track-record internationally. The FRN UK Weight Protocol (FRN, 2017) and software systems such as the Re-TRAC platform (Emerge, 2017) will be considered for the project.

Preliminary indicators for data input and output have been compiled and are included in Appendix E.
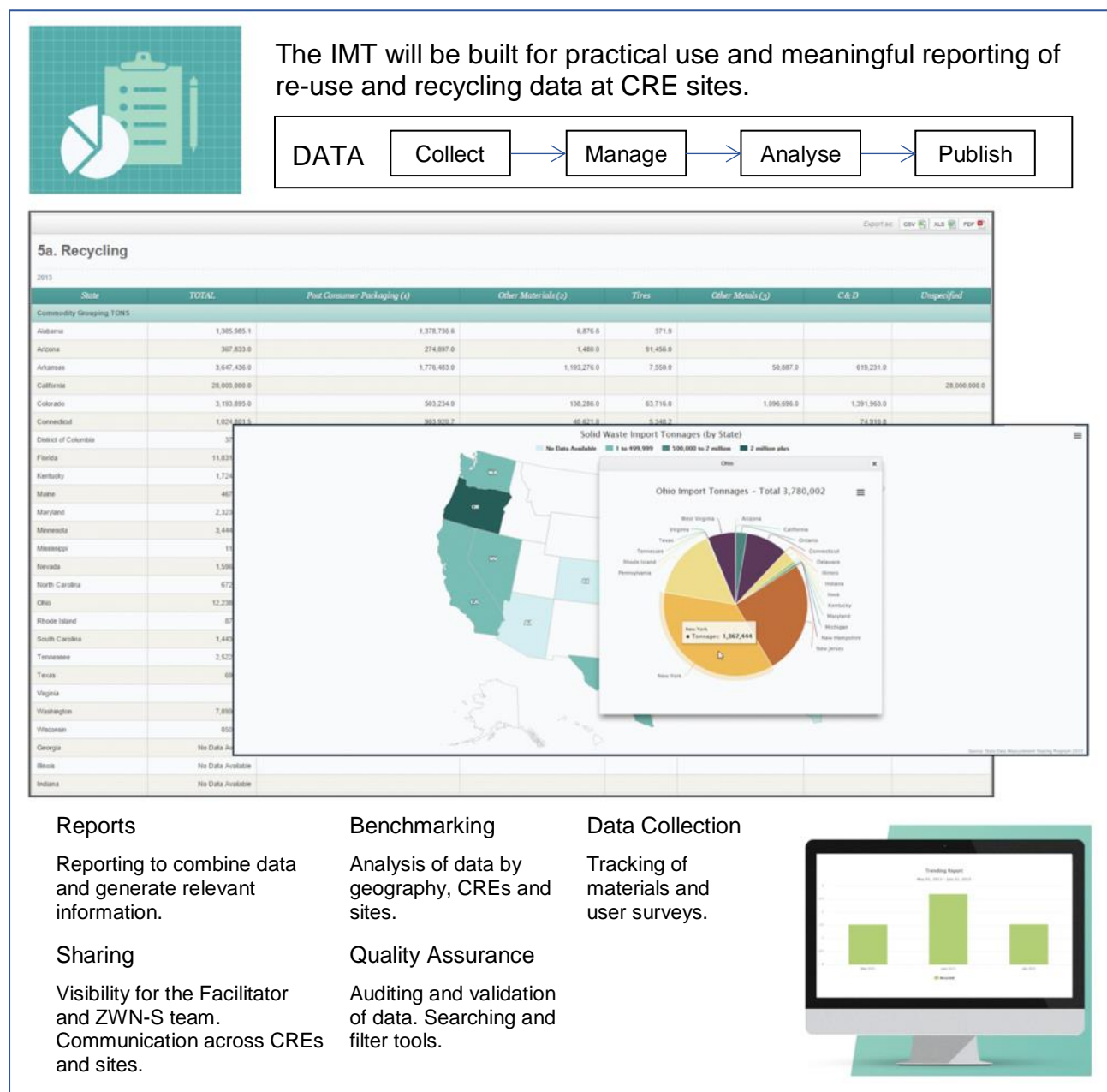
Figure 9: Representation of Impact Measurement Tool elements adapted from Re-TRAC (Emerge, 2017)

4.2.3 Capacity Building / Professional Development

	Capacity Building / Professional Development			
Area	**Description**	**CRE**	**ASSOC**	**IND**
CRE Resource Library	ZWN-S will provide NSW policy and regulation updates and information sessions, bulletins and training days as required. ZWN-S members will have access to the ZWNA resource library of best-practice policies, procedures and processes which will be updated for NSW CREs through ZWN-S.	✓		✓
CRE Training	An annual survey of member training needs will inform the training calendar. Stakeholder consultations indicate tendering workshops, impact measurement, managing compliance and risk, WH& S and best practice modelling. Annual webinar based training will also be made available through training partners. ZWN-S will scope a 2-day certificate in Resource Recovery operations and a 2-day certificate in Resource Recovery Kerbside Clean Up Audits, assisting re-use or recovery operations. ZWN-S will partner with RTOs in NSW to develop and deliver this training to CREs. ZWN-S will offer regular information sessions and training on the Impact Measurement Tool once it goes live.	✓	✓	✓
CRE Exchange	ZWN-S will facilitate consulting opportunities for experienced ZWN-S staff, and seek sponsorship for skill-sharing / worker exchange programs for new and emerging ZWN-S staff.	✓		

Table 8: Capacity building and professional development resources and access

4.2.4 Market Development

	Market Development			
Area	**Description**	**CRE**	**ASSOC**	**IND**
On-Line Reuse Distribution Platforms	ZWN-S will investigate online market collaborations, helping to increase the customer base for existing online markets and contributing to building a more connected and convenient online reuse ecosystem. This will provide residents with multiple platforms to engage in re-use and recycling, and Councils and businesses greater engagement with CRE platforms.	✓		
Cross Sector Collaborations	ZWN-S will identify and facilitate cross-sector collaborations between member CREs and peak bodies, commercial businesses, and universities.	✓	✓	
Promotional material	ZWN-S has established a strong network brand. A ZWN-S website linked to the broader ZWNA website will include mapping and promotion of all ZWN-S members and their brands, profiles and events, as well as an annual training and events calendar. Case studies will be developed and promoted in partnership with peak bodies including Social Traders and Social Procurement Australasia.	✓	✓	

Area	Description	CRE	ASSOC	IND
	ZWN-S promotional material will be developed for expos and trade shows, to promote reuse, repair and recycling social enterprises within the ZWN-S membership. ZWN-S will also promote local members at events and trade shows. Logos and promotional materials will be provided to Associate members with guidelines to endorse their affiliation.			
Market Development Training and Events	ZWN-S will run an annual training and event calendar in close consultation with members. Training will include social procurement and case studies for Councils and businesses, training on the new ISO 20400 Sustainable Procurement Standard, Impact Measurement for CREs and their stakeholders, and regional market places for buyers to come and meet CREs in the network. Member workshops and events will be promoted through the ZWN-S website calendar and social media.	✓	✓	✓
Investigate a Central Re-Distribution Centre	ZWN-S will facilitate CRE and sector stakeholder discussions toward a feasibility study for a sector Re-Distribution Centre in Sydney. The Centre would accept greater volumes of materials and second hand goods from both council and businesses, enhancing supply to ZWN-S members across the SMA region. See Appendix A for a case study on ZWN Auckland.	✓		
Quality Assurance Mark	ZWN-S will explore the demand for a quality assurance mark for member CREs. This project will be implemented subject to consultation and agreement among all major stakeholders. See the ZWN Scotland and Furniture Reuse Network (FRN) UK case study in Appendix A.	✓		

Table 9: Market development opportunities and access

4.2.5 Address Barriers to Capital

	Address Barriers to Capital			
Area	**Description**	**CRE**	**ASSOC**	**IND**
Social Financing	ZWN-S will provide information and access to advice on social financing products and services, including hybrid financing opportunities (grants and social financing) that are on the market for social enterprises to scale and grow.	✓		✓
Cross Sector Partnerships	ZWN-S will identify opportunities for CREs to form cross-sector partnerships with the private sector, government and philanthropists that create opportunities and address capital needs.	✓	✓	

Table 10: Services of the network to address barriers to capital

5. Market Research, Customer and Stakeholder Needs

The customer segments for ZWN-S are:

1. Community Reuse, Repair and Recycling Enterprises (CREs)
2. Local and State Government
3. Industry Stakeholders
4. Residents

Figure 10: Operating a Sustainable Community Recycling Enterprise workshop photograph

5.1 Community Reuse and Recycling Enterprises (CREs)

The top priority areas identified by CREs for ZWN Sydney at the SSROC Forum in December 2016 are outlined at Section 4.2.

According to a City of Sydney Benchmark Study on re-use organisations (Hyder 2012), barriers to growth for the commercial reuse sector differ from community reuse organisations. Of the 200 organisations surveyed, over 80% of community reuse organisations suffered from quality and quantity of product (41% for commercial), and 72% of community organisations were undermined by lack of funding and revenue (9% for commercial).

Other needs and challenges identified in the QUT Australian Centre for Philanthropy and Nonprofit Studies Baseline Study of CREs (Barraket, 2012) includes:

1. Buyers are slow to recognise the triple bottom line benefits of social enterprises, and have a systems reliance on landfill;
2. Lack of public receptiveness or interest in what the enterprise was trying to achieve;
3. Instability of markets for the re-sale of products;
4. Loss of commercial opportunities due to relatively higher prices of the enterprise.

This indicates that a commitment to targeted advocacy around policy and regulation, improving access to market opportunities and capital, support towards a feasibility study into a re-distribution centre that could increase supply and opportunity across the SMA, and greater opportunities for collaboration, impact measurement, marketing and promotion would best address priority CRE needs.

5.2 Local and State Government

At the SSROC Forum in 2016, twenty local government representatives attended, including SMA ROCs and Joint Organisations, as well as members of the NSW EPA and circular economy consultants.

Councils and State Government attendees reviewed the CRE Needs Analysis (outlined at Section 4.2), and agreed on the purpose statement (outlined at Section 2) and progression of ZWN-S as an entity.

5.2.1 Local Government

In June 2017, ZWN-S commissioned Jackson Environment and Planning to conduct interviews with 11 local government Waste Managers, including all 6 Regional Waste Coordinators across the SMA, to inform the ZWN-S service design. Regional Waste Groups have a unique capacity to leverage strategic opportunities and buying power within the industry. As the most populated ROC, and as start-up funder of ZWN-S over 2017, SSROC, for example, has shown leadership in their desire to move residents up the waste hierarchy to engage further with reuse.

Interviewees indicated that diversion rates were generally steady (55%), with the majority indicating that clean up tonnages presented at the kerb was increasing (82%). Seventy-three percent of interviewees indicated that waste generation was increasing across their region. Just over half (55%) indicated they had a strategy in place to increase reuse.

What do you see as barriers to reuse being more achievable with residents?
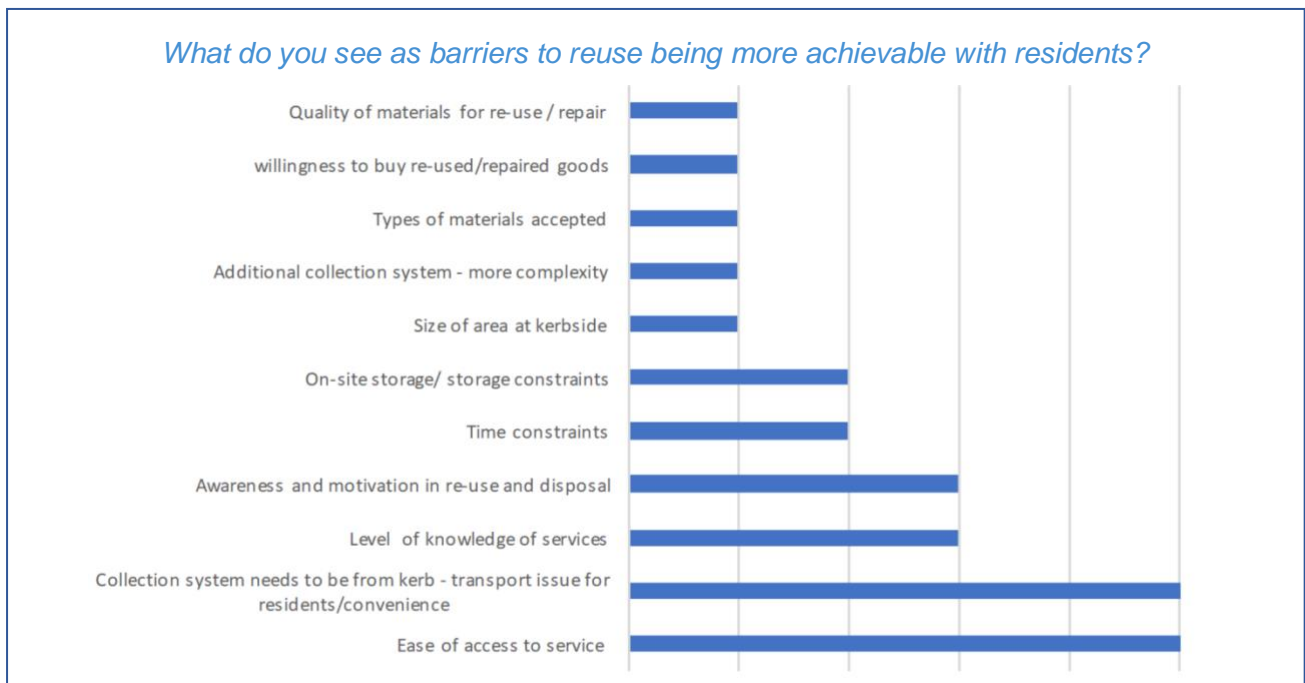
Figure 11: Survey responses: Barriers with residents

For local government, the main barriers to reuse being more achievable in the residential sector was ease of access for residents to buy and dispose of reusable materials e.g. collection and drop off points. This was matched with the need for convenience in terms of disposal of goods particularly in inner city areas where a large majority of residents do not have cars to transport materials. Other key points related to lack of awareness of the service offering, motivation to reuse and buy reused goods, storage requirements and time in separating reusable goods.

Key themes relating to this question were:

- Little incentive to take up reuse given the ease and convenience of the existing clean-up service;
- Perception that CREs will only take some materials e.g. not all furniture and the impact of this in sorting reuse and dropping it off e.g. time / space constraints; and
- Many residents do not think about reuse services.
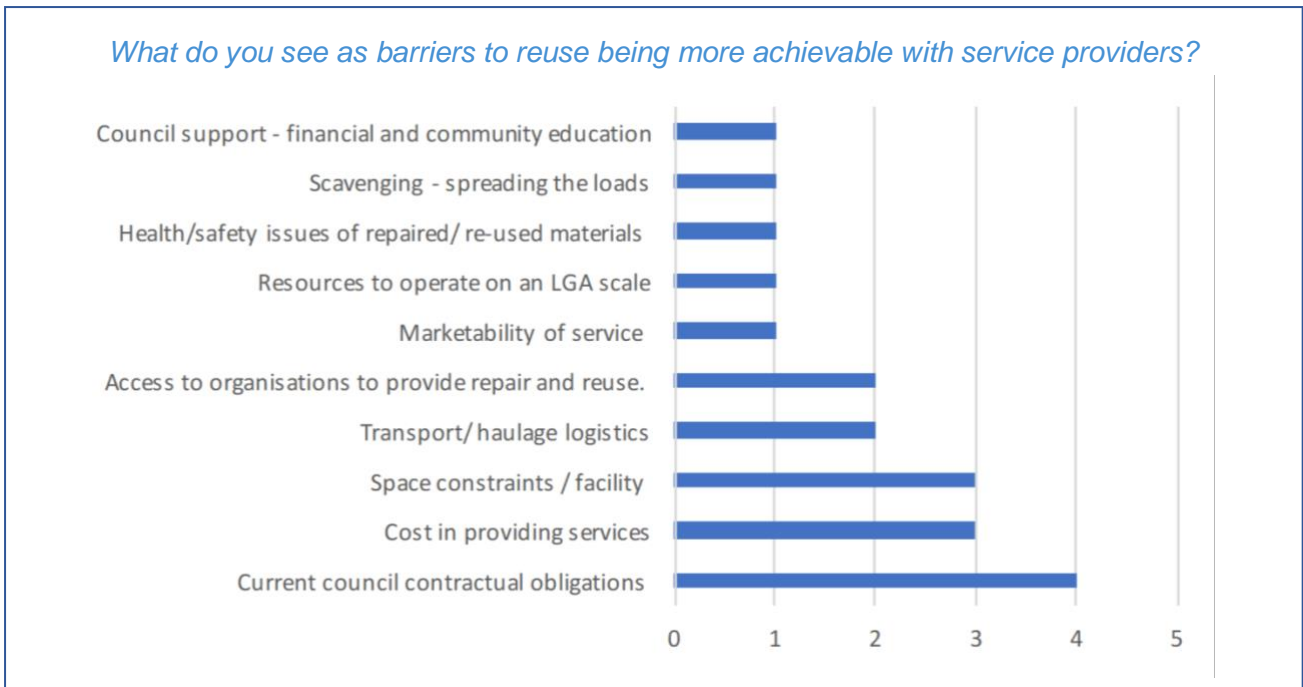
Figure 12: Survey responses: Barriers with service providers

The main barriers identified for service providers were current contractual obligation and where reuse may fit in with respect to collections, guaranteed tonnages, and allowable areas to place clean-up material at the kerb (spread after removal/scavenging). Costs relating to providing the service and associated logistics were also raised.

Key opportunities relating to this question for ZWN-S were the need for a value proposition attached to the reuse option, as tonnages are directly tied to contracts. The development of a ZWNA impact tool that captures not only tonnages diverted from landfill for reuse, but the social value of each enterprise and the network, could assist Councils in valuing CREs further. There is also a need for reuse services to increase their accessibility, including ease to drop off and collect. Further education is required on what is actually reusable.
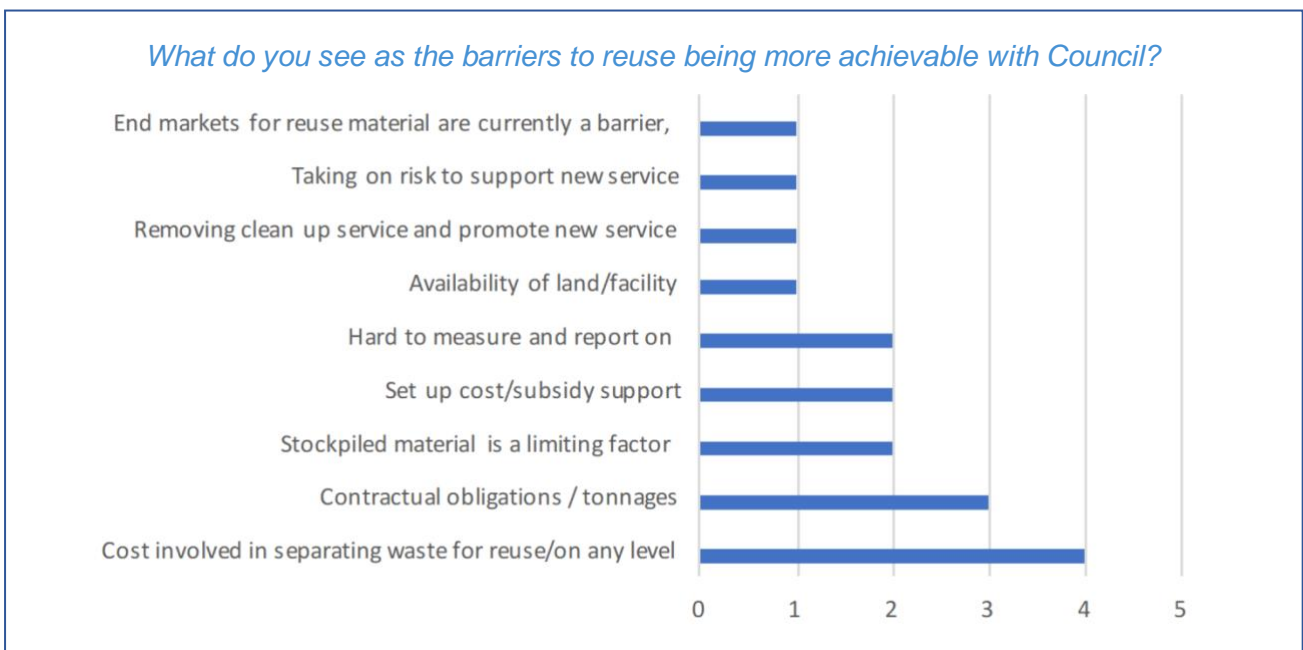
Figure 13: Survey responses: Barriers with Council

The main barriers identified for councils related to the cost involved in separating the reusable /repairable materials from the clean-up pile followed by contractual obligations with respect to guaranteed tonnages. Other barriers were difficulty in measuring the effectiveness of the service, set up costs that may fall to council, and stockpiling of non-consumed materials.

Collection and processing is considered to be the most successful with avoidance, reuse and recovery by seven respondents (63%) with three (27%) considering that behaviour and education campaigns together with collection and processing provide success. There was general consensus that collection and processing is the historical method and current most tangible form of measurement however it is also recognised that education is crucial for the success of collection systems.
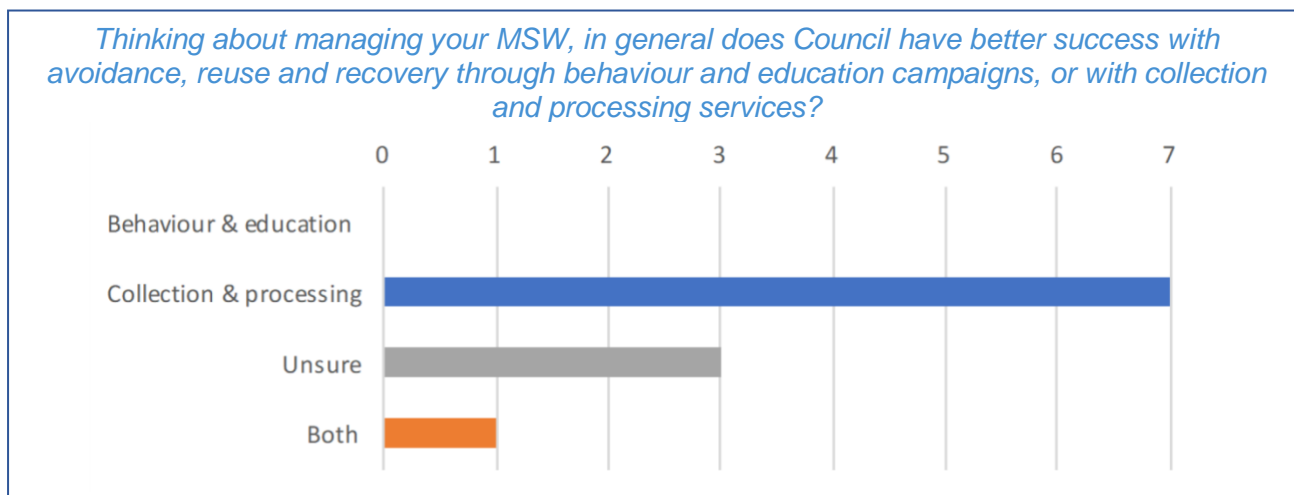
Figure 14: Survey responses: Council success with services

Key themes relating to the question were the difficulty in measuring the effectiveness of education programmes e.g. home composting versus collection and processing. Education is often seen as an add on, the challenge is to connect the two systems..

In terms of ZWN-S products and services, case studies and shared experiences are the most highly valued training product from membership bodies. This is followed by networking events, conferences and presentations.
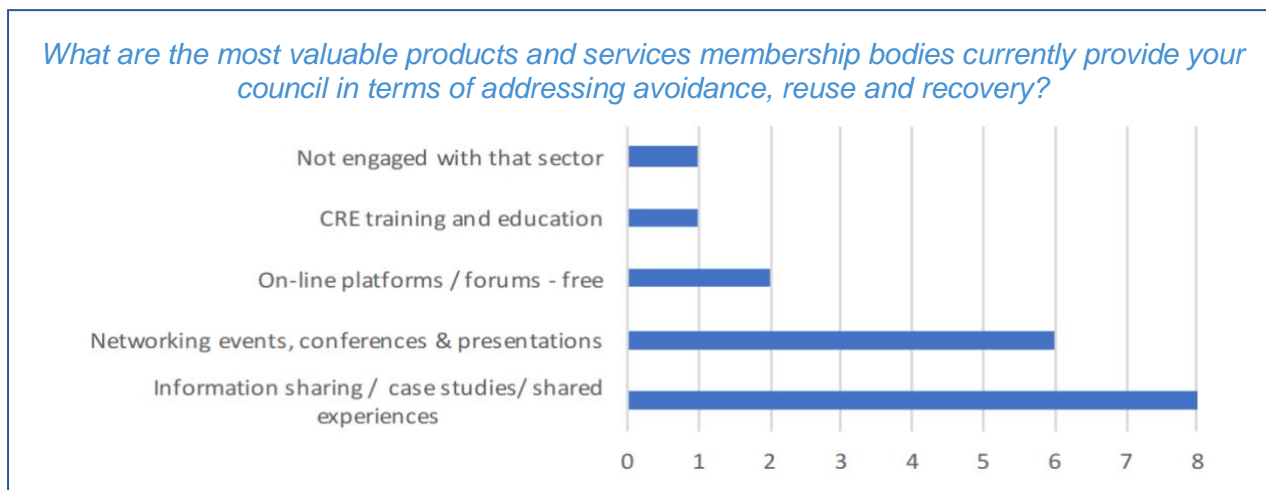
Figure 15: Survey responses: Value of resource recovery products and services

Key themes around this are there is a vacuum with industry bodies providing training and data on reuse and repair. There is a need for information on what CREs do and where to go to find out more information. This is a key driver for ZWN-S, to develop a portal that allows Councils, businesses and the community to navigate and

embrace the CRE market more readily. This process needs to include education, training and networking to share information, case studies and shared experiences from a mix of CRE's. Training on risk and compliance with reuse and repair logistics and materials is also needed to see how CREs will fit with council obligations, regulations and legislative requirements. Training on triple bottom line reporting to better inform procurement decisions and to emphasise best practice in resource allocation for avoidance and reuse (rather than collection and disposal) was also key for council staff and councillors. Training in regional areas was also recommended as it is often difficult to attend networking events in Sydney. ZWN-S will establish a partnership with the ERM Foundation who work with ZWNA to deliver accessible webinar training.

It was also identified that there is a gap at the EPA in terms of how to measure the impact of reuse. Development of systems to capture accurate re-use data, including standardised methods amongst ZWN-S members, is a key project for ZWN-S over 2017-2019.

The graph below shows the individual rankings for six statements in terms of their importance:

Could you rate the following 1-3 in terms of their importance to Council? 1=most important, 3=least important
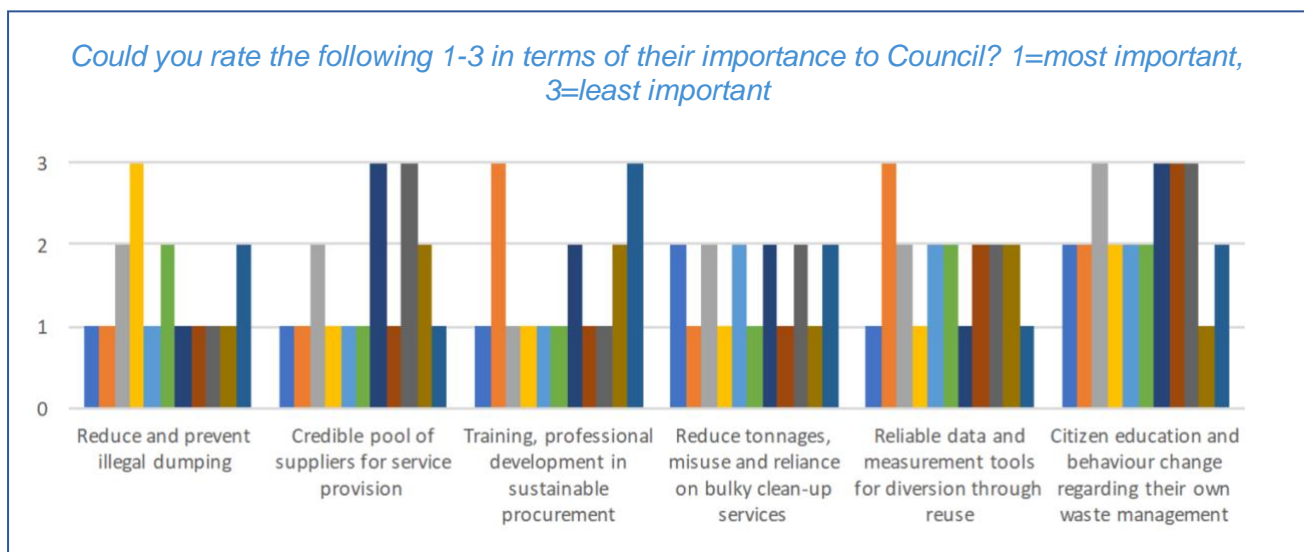
Figure 16: Survey responses: Ratings for Council activities

Reducing and preventing illegal dumping was at the top, followed by credibility of suppliers and training in sustainable development. Reducing tonnages, misuse and reliance on clean-up services is secondary to these statements. Reliable data and measurement tools for diversion through reuse is considered important and citizen education and behaviour change is seen as the least important.

This desire for a highly trusted and credible pool of suppliers was responded to 100% unanimously yes. It was suggested ZWN-S consider how we interface with Local Government Procurement (LGP) and Procurement Australia. Having a panel should increase ease and accessibility using approved and qualified CREs.

Training on best model and practice for a social procurement policy and implementation within the procurement system is also considered important by Council. More information is needed with respect to articulating social procurement policy within the procurement system, e.g. how to weight and assess social benefits/ factors in terms of social value to the community and council.

All respondents are interested in social enterprises operating in their respective regions and 45% would like more of an understanding. Addressing all the tender requirements is seen as most important for CREs when responding to a tender or quote. Preparing a business like response including project management and budgeting, understanding Council's requirements and providing a competitive price is equally important.

The majority of respondents (64%) have some experience of partnerships with CREs.Trials are considered important to help demonstrate CREs performance and capability; councils are looking at this and are interested. Relevant case studies are important tools to educate and share experiences, successes and lessons learned.

The majority of respondents (82 %) agree that ZWN-S has a clear purpose statement.

How Reuse fits strategically with Local Government

A further review of the NSW EPA funded ROC Regional Waste Strategies under the sections waste avoidance and reduction, recycling and community engagement has been collated at Appendix A. While Reuse is not a category, it is covered by action items in each section to varying degrees. The summary provides further insight into where CREs can position themselves and build capacity to service Councils.

5.2.2 State Government

ZWN-S will position itself to advise the NSW EPA on sector requirements and policy recommendations toward a more robust, connected, accessible and efficient re-use and recycling ecosystem. The NSW EPA can support the CRE sector more readily if a representative is available to consult, collate and advocate for CREs regional needs. With significant investments going into building the infrastructure, technology and capacity to achieve waste avoidance, reuse and resource recovery outcomes across NSW until 2021 (as outlined below), it is an opportune time for ZWNA to establish ZWN-S. ZWN-S are part of an international network, enabling us to share best practice case studies, data and learning from our international counterparts. Cross-portfolio opportunities with government can also leverage the additional employment and training opportunities CREs create for disadvantaged job seekers. The KOMOSIE network has achieved this over 2005-2014, as summarised at Appendix G.

NSW EPA

The NSW EPA prepares a new Waste Avoidance and Resource Recovery (WARR) Strategy every five years. The NSW Waste and Resource Recovery Strategy 2014-21 was released in December 2014. It sets clear directions for a range of priority areas over the next seven years and aligns with the NSW Government's waste reforms in NSW 2021: A plan to make NSW number one.

In 2016, the NSW Government announced an extension of the Waste Less, Recycle More (WLRM) initiative, with a further $337 million over 4 years from 2017-21. This extension guarantees funding to continue the work already underway to transform the waste sector in NSW. The initiative is funded through the waste levy and is the largest waste and recycling funding program in Australia. WLRM Mark 1 awarded 292.3 million to 822 projects until July 2016, including the establishment of 101 new Community Recycling Centres (CRCs) and a range of infrastructure projects that will see 2,230,167 more tonnes of waste processed across NSW. The Circulate Industrial Ecology program will also continue to operate, with sector-facing grants to improve the collection and use of commercial and industrial waste.

Waste Less, Recycle More programs aim to:

- Encourage local communities to think differently about waste avoidance, recycling, littering and illegal dumping;
- Deliver conveniently located, value-for-money waste infrastructure to make it easier for households and business to do the right thing;
- Drive innovative regulatory approaches to protect the environment and support investment in new waste programs.

Waste Less, Recycle More funding priorities for 2017-2021 are:

- Local government waste and resource recovery – $70 million.
- Illegal dumping prevention and waste enforcement – $65 million.
- Household problem wastes – $57 million.
- Waste and recycling infrastructure – $48 million.
- Organics infrastructure – $35.5 million.
- Litter prevention and enforcement – $30 million.

- Business recycling – $22.5 million.

- Recycling innovation – $5 million.

- Heads of Asbestos Co-ordinating Authorities - $4 million.

ZWN-S can inform CREs of suitable funding opportunities through WLRM, advocate for innovative regulatory approaches that enhance reuse and repair in NSW, and facilitate collaborative partnerships that enable CREs to build capacity and infrastructure that result in improved education, re-use, repair and resource recovery. Building stronger evidence and data around CRE models through the ZWN-S Impact Measurement Tool will further support applications and opportunities.

5.3 Industry Stakeholders

5.3.1 NSW Office of Environment and Heritage (OEH) & Centre for Social Impact (CSI)

OEH has supported the CRE sector through a range of capacity building and market development projects. Some of these include Collective Impact Illawarra, a series of workshops to support collaboration between regionally grouped sustainability focused social enterprises, television profiles of sustainability focused social enterprises, and on-line case studies of social procurement under the OEH *Action Matters* Channel in partnership with Social Traders.

In 2017 OEH commissioned CSI to research impact measurement for CREs to inform an Impact Measurement Tool - as outlined at Section 4.2.2. 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.

5.3.2 Better Buildings Partnership (BBP)

The Better Buildings Partnership (BBP) is a collaboration between 15 of Sydney's largest commercial landlords and top 5 property management companies. Partially funded by the City of Sydney, it also includes OEH and industry peak bodies the Property Council of Australia and Green Building Council of Australia.

BBP has been working in partnership to shift industry recycling rates of building strip out waste from an observed 20% to an aspirational target of 80% by 2020, over the NSW EPA 70% target for C&D. The BBP has been working for the past three years to understand the volume, composition and opportunities to recover waste generated during an office strip out. As result of research and trials, they identified a need for a comprehensive advanced resource recovery operations centre for office strip-out waste, based on observed failures in current resource recovery from this construction waste.

Demolitions contractors in commercial office refurbishment are committed to separation and recovery of waste but operate in a time and space constrained environment that limits opportunities to sort and seek anything but the simplest recycling options for materials. With more time, improved access to secondary sorting and the right contract incentives, greatly improved rates of recovery can be achieved. Research and trials to date indicate that 60% recovery can be achieved. 80% recovery will require improved recovery pathways, especially for broadloom carpet and engineered timbers (BBP, 2017).

In close partnership with building owners Dexus Property Group, Lend Lease, The GPT Group and Demolition Plus, a waste diversion of 61% was achieved in an 8000m^2 office strip out at Governor Macquarie Tower (GMT Project). Operating within restricted timeframes and pre-contracted schedules, around 8.5 tonnes of furniture was removed for reuse by social enterprise Good360 and over 530 tonnes of material recycled.

Edge Environment, key consultants engaged in the BBP project, have summarised the market opportunity, and

engaged ZWNA to leverage social enterprises in the SMA to be part of the solution to this market opportunity.

Edge data highlights:

- Around 50-70 tonnes of waste is generated per 1000m^2 of office space demolished;

- Conservatively, around 400,000m^2 (8%) of office space churns annually in the Sydney CBD alone;

- This equates to 25,000 tonnes of strip-out materials from Sydney CBD alone annually;

- Nearly 43% of this is loose furniture and cabinetry (10,750 tonnes);

- Landfill disposal rates for contractors in Sydney CBD are likely to be around $170-190/tonne;

- Current strip-out industry recycling rates are believed to be as low as 20%;

- A target of 80% waste recovery rate would trigger a market need for new recycling infrastructure;

- With careful incubation of new recycling infrastructure the capacity to recycle over 80% of materials from building strip-out is very likely; and

- Contamination management is essential to the utilisation of these new recycling technologies making a processing and quality assurance facility essential.

ZWN-S can play a key role in BBP scaling with our proven history of re-use and employment for people experiencing disadvantage. Many members of BBP are members of Social Traders CONNECT program that links commercial and government buyers with certified social enterprises. BBP members will be targeted for Associate membership of ZWN-S given this alignment with our objectives. BBP has sought the services of ZWNA over 2015-2017 to attract CREs into the solution and supply chain for office de-fits. The ZWN-S Facilitator will be well positioned to progress these opportunities for CRE members in the SMA.

5.3.3 UNSW SMaRT Research Centre

The Centre for Sustainable Materials Research and Technology (SMaRT) UNSW brings together researchers from the Faculties of Science, Engineering, and Built Environment to work with industry on the development of innovative, sustainable materials and manufacturing processes. SMaRT is a partner to the BBP, and to ZWN-S social enterprises Resource Recovery Australia and Soft Landing. Opportunities exist for ZWN-S to develop case studies on these partnerships, and to open further collaboration between SMaRT, BBP and SMA CREs.

5.3.4 Social Traders

Social Traders is the peak capacity building and market development organisation for social enterprises in Australia. Social Traders seed funded the establishment of ZWNA following the Inaugural World Social Enterprise Forum in 2009. This acknowledged CRE's collaborative potential given their alignment around pursuing a dual social and environmental mission. Social Traders also seed funded Social Procurement Australasia (SPA), to progress the understanding of social procurement in Councils and businesses across Australasia. ZWNA became a member of Social Procurement Australasia in 2015. Social Traders CONNECT program launched in Sydney in 2016, and works closely with government and commercial buyers to activate procurement from social enterprises.

ZWN-S will continue to work in partnership with Social Traders and SPA to provide accessible training to Councils and commercial businesses on social procurement through a range of existing and future CRE case studies. ZWN-S will facilitate training events in partnership with Social Traders, SPA and ZWN-S members for Waste Managers and Procurement Officers as highlighted in the local government needs analysis.

5.4   Residents and Reuse

While the emergence of online reuse stores such as eBay and Gumtree have sought a greater share of the market, retailers of used goods are expected to face good trading conditions over the five years through 2020-21, with industry revenue forecast to rise by an annualised 2.0% over the period, reaching $2.9 billion (IBIS, 2017). The underemployment trend (ABS, 2015) is expected to also support demand for used goods during this

period, while competition from on-line websites will remain a key threat for reuse stores.

SSROC social research (SSROC, 2015) into community attitudes to re-use highlight there are four key types of re-users in the SSROC region. The physical re-user likes to visit re-use stores to purchase and donate their goods. The Family and Friend re-user passes re-usable items onto family and friends. The Online re-user buys and sells their pre-loved items through on-line platforms including E-Bay and Gumtree, and the non-re-users do not seek out a re-use option.

Of these, the online re-users are the most active and growing customer segment. Further findings were that 66% of residents feel Councils should take a major role in opportunities, drop-off facilities are the most preferred option and swap meets and markets are the least preferred option.

Over 69% of residents are willing to travel less than 3km to dispose of their waste items, 51% to travel less than 5km and only 22 % are willing to travel less than 10km:

4 Types of Re-Users

■ Physical   ■ Family & Friendly
■ Online   ■ Non-reusers
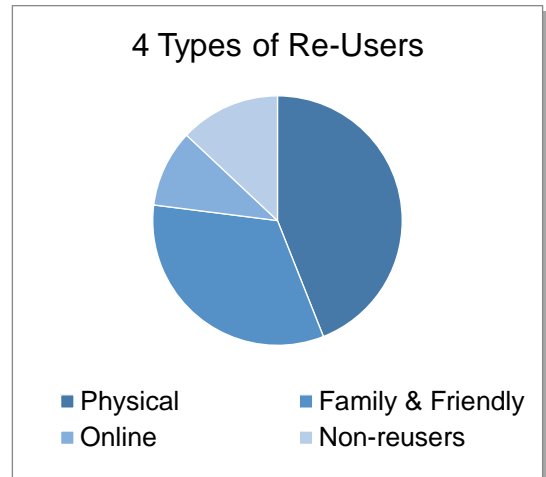
Figure 17: Types of re-users surveyed in SSROC

| Willingness to travel: | 69% < 3 km | 51% < 5 km | 22% < 10 km |
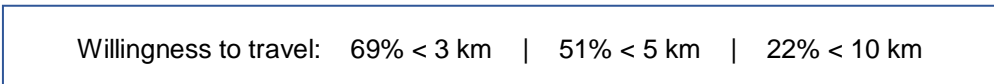
This research indicates that to maximise the uptake of reuse in SMA, ZWN-S should help its members establish a robust network of physical drop off facilities coupled with a strong on-line presence. Facilitating partnerships between on-line platforms and physical re-use centres is a key strategy of the ZWN-S Business Plan, as outlined at 4.2.4 in Market Development.

Disposal of large, bulky waste items by householders in NSW commonly occurs through kerbside clean up services provided by councils. In 2014, SSROC engaged in a regional audit of bulky clean-up waste (A. Prince, 2014).
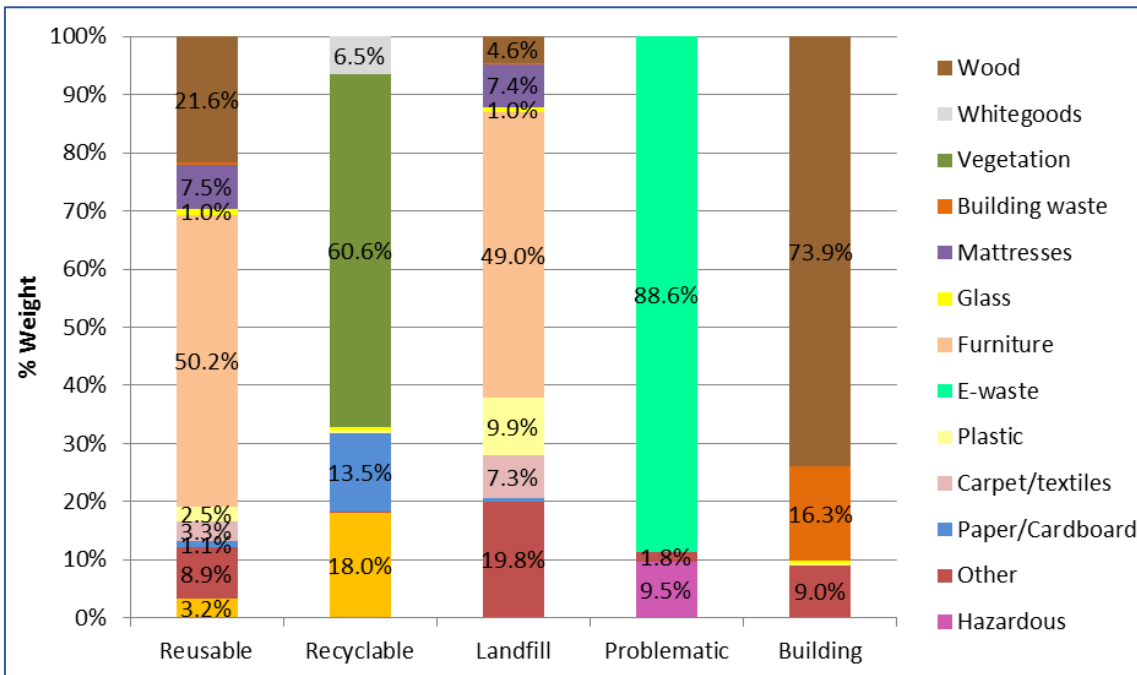
Figure 18: Composition of each category by weight - all dwellings SSROC (APC, 2014)

Figure 18 provides a snapshot on the composition of each waste category by weight across the SSROC region.

This dry bulky waste stream is another opportunity for ZWN-S members positioned to increase the amount of recovery and subsequent sale of these re-usable items and materials.

ZWN-S can facilitate consultations to explore the opportunity for CREs already operating in this space to explore new and advanced models already trialled by others in the ZWN national and international network.

These include booked pick-ups to the household by ZWNA member Finding Workable Solutions in Adelaide and ZWN New Zealand trials in Auckland. ZWNA will also seek to support innovative collaborations across public and private sectors, and across physical and on-line platforms.

Collaborations around fleet, logistics and co-location to better service the region will also be explored.

6. Organisational Structure

ZWN Sydney will be treated as a regional division of ZWN Australia, with ZWN-S responsibilities delegated to the ZWN-S Facilitator as per item 84 in the ZWN Australia Constitution.

The ZWN-S Facilitator reports directly to the ZWNA Directors, and is supported in day to day operations by a Sydney based Finance and Administration position and project contractors.

The ZWN-S Facilitator meets with the ZWNA Directors and Committee each month via the ZWNA National Committee teleconference. Tailored support is further available through four sub-committee groups, as outlined below.
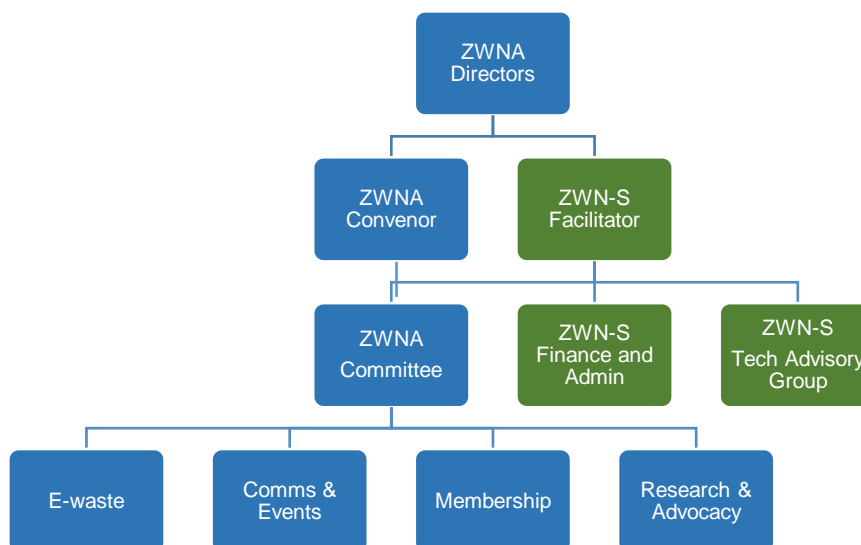
Figure 19: Organisational chart

ZWN Australia Ltd is a not-for-profit company limited by guarantee that is governed by a board of directors. ZWN Australia was incorporated in 2016. All directors and committee members are members of ZWN Australia.

6.1 Roles and Responsibilities

ZWN Australia Directors	ZWN Sydney Network Facilitator
Approval of strategic direction, vision, mission and project priorities.	Development of strategic direction, vision and project priorities; managing and monitoring and reporting on progress.
Endorsement of budgets. **Development of financial controls and delegations.**	Development of budgets for Board endorsement. Development of reporting framework.
Quarterly review of ZWN Sydney activities, including expenditure against budget and progress against milestones.	Preparation and reporting of information to enable to Board to have governance oversight of the operation and project.
Management of ZWN Sydney Network Facilitator, including to resolve disputes or issues where necessary.	Management of ZWN Sydney project staff, including appointment and supervision. Resolve disputes or issues as necessary, and escalate to Directors where necessary.

Table 11: Director and Facilitator responsibilities

ZWNA Directors will augment the existing group of experienced CRE directors with the appointment of an experienced specialist - either a solicitor or suitably qualified person - to become an Independent (non CRE) Director of ZWNA at the November 2017 elections as ZWN-S launches.

ZWN-S commenced business planning in January 2017 with a funding grant from SSROC. Funding provided a 0.4 full-time equivalent (FTE) Network Facilitator position, 0.3 FTE Finance and Administration Officer, and business planning and marketing consultants for the first 6 months. The ZWN-S Facilitator is also supported by a Technical Advisory Group (TAG) for the first 6 months of business planning. The TAG consists of representatives from 2 CREs, 2 Sydney Councils, SSROC, Local Government NSW and the NSW EPA.

A mentoring relationship has also been established between the KOMOSIE Network Facilitator in Belgium and the ZWN-S Facilitator via bi-monthly skype meetings, and engaged members of TAG may transition to Advisory roles on the relevant ZWNA sub-committees from 2018.

ZWN-S will initially be launched as a pilot chapter of ZWNA over 2017/18. While opportunities present in other states for regional ZWN facilitators, any expansion of this new regional model will be based on the learnings from ZWN-S over 2017-2020. Bi-annual monitoring and evaluation of ZWN-S outcomes against the project implementation plan, budget and KPIs will assist this process.

With revenue projected to expand under ZWN-S as the network attracts members and develops targeted projects, additional hours will be allocated to the project team and contractors in accordance with budget projections at Section 7.

6.2   ZWN Sydney Project Team

Matt Allen

ZWN Sydney Facilitator

Matt has been a part of ZWNA since early 2013, assisting with early stages of developing the network's formal structures and processes before taking on the role of Secretary for two years, followed by the role of Convener. During that time Matt led ZWNA through the process of becoming an independently incorporated non-profit, worked with ZWNA committee members to deliver an expanded and revenue-generating Annual Forum, and helping to drive increased collaboration between ZWNA and other organisations –including Social Traders, Australia Post, the Westpac Foundation, Resource Recovery Australia and SSROC.

Matt has a background in environmental and social justice projects and facilitation. As the Manager at Resource Work Cooperative (RWC) for 5 years, a re-use social enterprise in Hobart, Matt's leadership saw RWC through a major site upgrade, secure a long-term lease with Hobart Council and rank in the top 3 community recycling enterprises in Australia by QUT.

Matt is an MBA candidate at the University of New South Wales.

Farzana Kahn

ZWN Sydney Finance & Administration Manager

Farzana has over 8 years' experience working in Finance for not-for-profits organisations, in particular for UNICEF. Farzana also brings experience working for State Government, including the NSW EPA, Banks, Telecommunications and the service Industry.

Farzana has a Masters of Business Administration in Professional Accounting from University of Technology, Sydney and a Bachelors of Business Administration in Marketing and Management Information System, from North South University, Dhaka Bangladesh.

7. Financials

7.1 Forecast and Budget

	17/18	18/19	19/20
INCOME			
Memberships	$ 13,000	$ 21,000	$ 56,000
Consulting and Training	$ 25,200	$ 34,000	$ 40,000
Projects	$ 120,000	$ 150,000	$ 170,000
Total	**$ 158,200**	**$ 205,000**	**$ 266,000**
EXPENDITURE			
Staff	$ 50,700	$ 68,000	$ 90,000
Admin	$ 22,000	$ 23,000	$ 29,000
Consulting and Training Costs	$ 16,632	$ 22,440	$ 26,400
Project Costs	$ 40,000	$ 75,000	$ 90,000
Marketing	$ 22,000	$ 8,000	$ 10,000
Total	**$ 151,332**	**$ 198,440**	**$ 245,400**
Nett	**$ 6,368**	**$ 8,560**	**$ 20,600**

Table 12: Annual budgets 2017-2020

8. Marketing and Communications

LOGO DEVELOPMENT

We wanted to create a symbol and identity that signifies:

Strength, Activity, Innovation, Freshness Connectedness, Evolution, Movement Ecosystem - closed loop

- **Sophistication** is an important word
- Navigating sophisticated systems and governance is what you do
- The logo we propose speaks to the transition from CRNA to Zero Waste Network
- The Zero Waste Network is made up of people and places.

The line work of the three elements together represent the three entities and audiences who are part of the network:

Communities, Enterprises, Government

The three colours can be applied to the three groups:

- government / blue
- enterprises / red
- community / green

Sense of place - identifying as Australian
 The three colours represent our land:

- blue for the wet northern states / our oceans
- green - our pastures and forests
- red - the earth of our ancient land

web urls:

A web url availability analysis should be done. Our suggestion:

zerowastenetwork.co

R79 G92 B101   R177 G209 B139   R114 G189 B206   R223 G116 B85

Logo Master

This stacked version of the logo should be used in 99% of applications.

The symbol should not be moved to a different position or adjusted in size.

The font used in the logo is Freight Sans Pro Semibold.

8.1   Collateral Development

ZWN-S will build a range of marketing collateral to attract, and promote, our membership. The network will drive waste avoidance, reuse and repair across each customer segment – residential, local government and commercial businesses.

Audience	Collateral
Network members, public, waste generators, reuse and repair customers, industry stakeholders	Website including member mapping | locator, training calendar, digital stories and member case studies
CREs, Industry, ROCS, Councils	Membership Promotional Materials | Event Banners | Flyers | Case Studies | Business Cards
Network members, waste generators, re-use, repair and recycling users, stakeholders	Social Media Platforms, graphics

Table 13: Target audience and collateral descriptions

Our brand strategy will inform this work in the lead up to the Launch of ZWN-S on November 15, and annually.

ZWN-S recognise we currently represent a range of strong brands with loyal customers as profiled in Appendix B. ZWN-S anticipate building a network brand that enables members to continue to use their existing brands, while **launching a collective brand that better celebrates reuse and the full scope of our network and impact**. Better capturing and communicating our sites, facilities, services, events and platforms; as well as our social and environmental impact, is a key startegy to achieving long term growth across all member groups, and higher education, re-use, repair and material recovery outcomes.

9. Implementation Plan

Implementation of the ZWN-S is planned annually in stages for: Network Establishment (2017-18); Network Growth (2018-19) and Network Consolidation (2019-20), see Appendix D for details. The key features of this plan are indicated in Figure 20 and highlight the development of the Impact Measurement Tool, training and events, and evaluation and review of the ZWN-S.
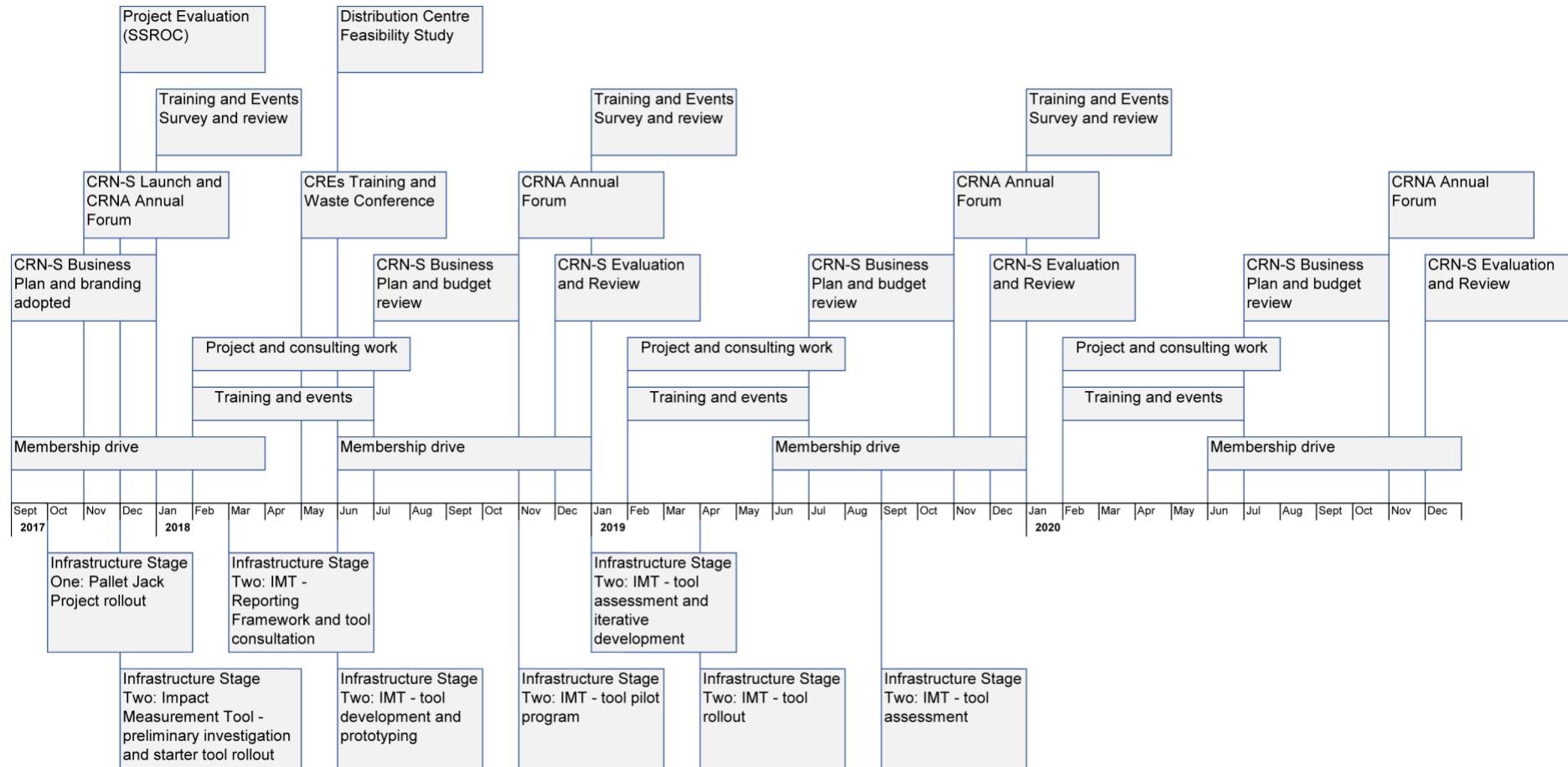
Figure 20: Implementation Plan 2017-2020 summary

10. Risk Management Plan

Risk	Likelihood	Mitigation
ZWN-S cannot attract base level membership levels	Unlikely	ZWN-S Facilitator provides quality membership communication materials, regularly updates members on network projects and training.
ZWN-S do not win grant funding for key projects	Possible	ZWN-S develop multiple high-level funding proposals for key projects, in line with funder policy objectives
ZWN-S cannot attract or retain appropriate staff for the positions available	Unlikely	ZWN-S sets reasonable goals and clearly communicates the expectations of each position in the network. ZWN-S provides quality performance management and support to all staff.
ZWN-S funders do not agree with the direction and agenda of the network	Unlikely	ZWN-S clearly communicates and reports on the direction and activities of the network to all key stakeholders. ZWN-S monitors and evaluates the implementation plan annually,

Table 14: Risks and mitigation measures

11. Evaluation

ZWN-S will conduct an annual evaluation of network achievements against the goals, activities and KPIs set out in the Business and Implementation Plan. Feedback will be sought from members at the monthly ZWNA teleconference, ZWNA Directors at the Annual Performance Review, and input sought from all members at the Annual ZWNA Planning Day.

Evaluation work will be conducted to ensure the network priorities the needs of the members, and that the Facilitator is maximising opportunities to build the capacity, professionalism and tools of the sector.

- Quarterly reports will be submitted by the ZWN-S Facilitator to the ZWNA Directors against targets in the Implementation Plan.

- Annual surveys will be distributed to ZWN-S members to evaluate the activities of the network and the performance of the Facilitator

- The ZWN-S Impact Measurement Tool will report on the aggregated re-use, recycling, waste education sessions, work experience and employment outcomes of the ZWN-S network by April 2019.

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Appendix A   Network

CREs in SMA – as at March 2017

Community Reuse, Repair, Recycling Enterprise	Service / Map Icon	Location, Coverage
Anglicare Recycling Facility	Charity Sorting Facility	Villawood 2163
Bababa International	Repair and Upcycling Studio	Redfern, 2372
Bikes for Humanity	Repair and Upcycling Studio	Moss Vale 2577
Bower Fair Repair café	Repair and Upcycling Studio	Marrickville 2204
Bower Re-Use and Repair Centre	Household Goods and Furniture	Marrickville 2204
Bower Fair Repair café	Repair and Upcycling Studio	Parramatta 2150
Bower Re-Use and Repair Centre	Household Goods and Furniture	Parramatta 2150
Community Market	On-line Market	On-line
Cycle - Recycle Club	Repair and Upcycling Studio	Waterloo 2017
Dandelion Support Network Inc.	On-line Market	Caringbah 2229
Dress for Success	Repair and Upcycling Studio	Marrickville 2204
Fair Repairs	Household Clean Up	Campbelltown 2560
Garage Sale Trail	Household Goods and Furniture	Surry Hills 2010, National
Good 360	On-line Market	Mascot 2020
Green Bikes Program	Repair and Upcycling Studio	Tuncurry 2428
Green Connect	Event Recycling	Port Kembla 2505
GrowAbility	Household Clean Up	Eastlakes 2018
House with No Steps	Mixed Dry Recycling	Belrose 2360
Hoxton Industries Inc.	Mixed Dry Recycling	Hoxon Park 2380
JobQuest Social Enterprises	Household Clean Up	Penrith 2751
Mission Australia Recycling Facility	Charity Sorting Facility	Goulbourn 2580, Cringila 2502, Campbelltown 2560
Mobile Problem Waste Service (MCRS)	Household Clean Up	Parramatta 2150
Oz Harvest	Food Rescue	Alexandria 2015
Resource Recovery Bulahdelah	Transfer Station	Bulahdelah 2423
Resource Recovery Dunmore	Tip Shop	Dunmore 2529
Resource Recovery Moss Vale	Tip Shop	Moss Vale 2577
Resource Recovery Stroud	Landfill	Stroud 2425
Resource Recovery Tea Gardens	Transfer Station	Tea Gardens 2324
Resource Recovery Tuncurry	Transfer Station	Tuncurry 2428
Retail Therapy	Op Shop	Engadine 2233, Caringbah 2229

Reverse Garbage Co-operative Ltd Sydney	Pre Waste Art Materials	Marrickville 2204
Salamander Bay Recycling	Tip Shop	Salamander Bay 2317
Salvos Recycling Facility	Charity Sorting Facility	Tempe 2044
Second Bite	Food Rescue	Botany 2036
Smith Family Recycling Facility	Charity Sorting Facility	Villawood 2163
Soft Landing Illawarra	Mattress Recycling	Bellambi 2518
Soft Landing Newcastle	Mattress Recycling	Redhead 2290
Soft Landing Sydney	Mattress Recycling	Smithfield 2164
St Vincent De Paul Recycling Facility	Charity Sorting Facility	Chester Hill 2162
Sustainable Salons Australia	Mixed Dry Recycling	National
Sydney ITeC Repair Centre	E-Waste	Mascot 2020
The Enterprise Centre - A Division of Mai-Wel	Mixed Dry Recycling	Telarah 2320
The Flagstaff Group Ltd	Mixed Dry Recycling	Unanderra 2526
The Social Outfit	Repair and Upcycling Studio	Newtown 2042
The Tinkerage	Repair and Upcycling Studio	Dunmore 2529
Young (YADA) Adult Disability Association	Op Shop	Liverpool 2170

Table 15: CREs in the SMA

ZWN-S Geographic Scope

ZWN-S will service the seven regional organisations of councils (ROCs)2 that make up the Sydney Metropolitan Area (SMA) as outlined in the map below provided by the NSW EPA.
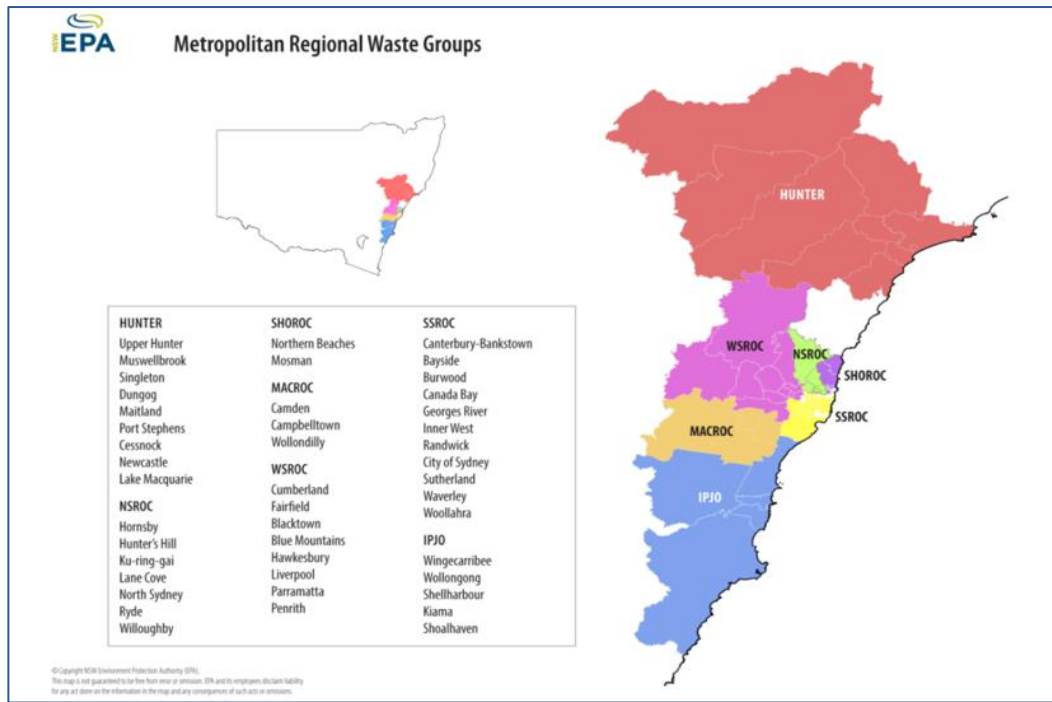
Figure 21: Metropolitan Regional Waste Groups

Around the SMA - Profile and Performance

Region	Population	Profile
The Hunter	605,735	• Total municipal waste generated 330,343 tonnes (2011/12). • Resource recovery rates range from 16% to 58%. Average diversion rate of 40% (2011/12)
Macarthur Regional Organisation of Councils (MACROC)	264,081	• Total domestic waste generated 125,000 tonnes • Resource recovery rates range from 68% to 73%. Average diversion rate of 66% for the region (2011/12)
Northern Sydney Regional Organisation of Councils (NSROC)	580,000	• Total domestic waste generated 265,046 tonnes (2011/12), • Resource recovery rates range from 42% to 70%. Average diversion rate of 56% for the region (2011/12)
Southern Sydney Regional Organisation of Councils (SSROC)	1,604,140	• Total domestic waste generated 655,000 tonnes. • Average diversion rate of 43% (2011/12).
Western Sydney Regional Organisation of Councils (WSROC)	1,600,000	• Total domestic waste generated 699,887 tonnes (2011/12). • Resource recovery rate ranges from 26% to 69%. Average diversion rate of 53% (2011/12)
Illawarra Pilot Joint Organisation (IPJO)	430,000	Total domestic waste generated 227,779 tonnes (2011/12) • Resource recovery rate ranges from 48% to 70%. Average diversion rate of 51% (2011/12)

Table 16: MRWG performance and profiles

Around the SMA – Regional Waste Strategies

Region	Waste Avoidance and Reduction	Recycling	Community Engagement
The Hunter	1. Campaign to increase public understanding	5. Develop education campaigns focused on	8. Develop education campaigns focused on

	and engagement of waste avoidance. 2. A regional reuse and waste minimisation program. 3. Promote reuse through existing charities, businesses and on-line platforms 4. Conduct feasibility study into the development of re-use shops at waste sites	improving the recycling performance of existing collection services 6. Explore and develop new markets for recovered resources (recyclables and organics) 7. Feasibility study to enhance operations of the dry recyclables collection system, expanding the range of materials accepted, improving material capture and/or quality, potential contract mechanisms	improving the recycling performance of existing collection services.
Macarthur Regional Organisation of Councils (MACROC)	1. Promote the "Love Food Hate Waste" program 2. Investigate other initiatives for food waste avoidance 3. Review opportunities for increased diversion of clean-up waste from landfill 4. Develop waste awareness and avoidance education modules for schools, adults and tertiary institutions	5. Increased recovery of resources from the general (red lid) waste stream 6. Investigate the feasibility of increasing public place recycling 7. Complete bin lid replacement program to comply with Australian Standard 8. Develop a recycling and garden organics bin contamination policy 9. Ensure appropriate waste management conditions are included in Council Development Control Plans (DCPs), including conditions for multi-unit dwellings and mixed use sites	10. Develop an education program to promote disposal of waste in the correct bins 11. Develop permanent bin stickers and temporary bin 'message tags' for educational purposes
Northern Sydney Regional Organisation of Councils (NSROC)	1. Manage waste generated in MUDs through regional planning policies, and through a supporting education program.	2. Manage waste and improve recycling rates from MUDs. 3. Establish baseline data on waste management in MUDs. 4. Develop regional approaches to waste management planning or MUD developments and update waste DCP 5. Develop educational materials for MUDs.	6. Develop a regional education campaign that provides consistent and relevant messaging and to promote active community participation and behaviour change in waste management 7. Develop business case and apply for Waste Less, Recycle More funding
Southern Sydney Regional Organisation of Councils (SSROC)	1. Research business models for sub-regional reuse centres (EPA grant) 2. Develop and deliver 'efficient consumerism choices' program	4. Design & deliver resource recovery improvement program for MUDs and property agents (BWRF) 5. Analyse kerbside red and yellow bins to	7. Education campaign on safe disposal of problem wastes 8. Design education program to improve SUD recycling. (BWRF)

	(BWRF grant) 3. Assess reuse and diversion of materials from kerbside clean up stream (BWRF)	understand types and causes of contamination to inform design of 'clean the stream' projects (BWRF) 6. Address planning and development issues regarding waste and recycling infrastructure (MUDs) across the region	9. Develop regional education initiatives to improve recycling practices (BWRF)
Western Sydney Regional Organisation of Councils (WSROC)	1. Regional education campaigns around waste avoidance 2. Investigate opportunities for resource recovery from clean up materials	3. Investigate bin capacity issues for households that have high leakage rate 4. Identify options to provide additional recycling capacity 5. carry out audits of waste and recycling bins to understand composition	6. Develop regional education programs using EPA publications 7. Develop central publications of waste education materials for CALD communities
Illawarra Pilot Joint Organisation (IPJO)	1. Audit all product reuse opportunities and programs across the region apply for funding 2. Promote reuse of unwanted & used products to reduce these items in the waste stream 3. Run LFHW program	4. Investigate options to increase public place recycling across region including the feasibility of deployment of consistent bin housing. Apply for grant funding.	5. Promote home composting education program and deliver regionally 6. Adopt a regional approach to community waste education across common waste issues such as illegal dumping, litter, waste avoidance and recycling 7. Appoint a regional Waste Educator

Table 17: SMA strategies for reduction, recycling and community engagement

Appendix B   CRE Profiles – SMA

The following are profiles of 4 key SMA CREs.

Each has data from 2015-16, so offers a baseline for improvement.

Garage Sale Trail

At its annual national event, the garage sale trail sells millions of items for reuse.

- **Service 150 Councils** nation-wide
- **Annual Garage Sale Event**
- **Anticipate 2 million pre-loved items to be sold in 2017**

Operating 7 years | National Campaign

Green Connect

Green Connect focuses on fair food services and food organics and garden organics (FOGO) processing.

- **Festival and event recycling, resource recovery labour hire and an urban farm** with weekly vegetable box deliveries
- **Service 64 Council and business customers** in the Illawarra and surrounds
- **Diverted 1,400 tonnes** of food and garden organics from landfill
- **Employed 129 people**, including 114 former refugees and young people

Operating 8 years | 2 SMA sites

Resource Recovery Australia

RRA delivers waste services and operates facilities for resource recovery, processing, transfer and disposal. With a focus on reuse, it conducts workshops, education and innovation programs.

Operating 26 years | 6 SMA sites

- **Operate 1 Landfill, 3 Transfer Stations, 4 Tip Shops**
- **1 Mobile Problem Waste service (residential)**
- **1 Men's Shed, 1 Bike Repair program, 1 Upcycling Studio**
- **Diverted 20,000 tonnes** from landfill
- **Employed 50 people experiencing barriers to work**
- **Engaged 110 community members** in 450 hrs of sustainability education and volunteering
- **Hosted 11 Upcycling workshops** with 97 participants

Reverse Garbage

Reverse Garbage focuses on industrial ecology through the reuse of primarily commercial discards.

Operating 26 years | 6 SMA sites

- **11 permanent staff and 6-8 casuals**
- **125 volunteers**
- **Donated $28,500** to community initiatives

- **815 pick-ups & 107 deliveries** to businesses
- **54,000 customers & 75,000 visitors**
- **Sold over 88,000 commercial discards & 68,000 industrial discards**
- **Sold over 9,500 building materials & 4,500 furniture items**
- **Sold over 8,000 upcycled & wholesale items**
- **Delivered 9000 people sustainability education programs**
- **Facilitated 36 school excursions & 36 community workshops**
- **Facilitated 12 *Train the Trainer* professional development sessions with educators**

Appendix C   ZWN-S Membership Eligibility Criteria

ZWN Sydney Full Membership criteria	Documentation required for eligibility assessment
Incorporated	Evidence of company form such as certificate of incorporation.
Purpose related to waste minimisation / reuse / resource recovery	Company constitution/rules/annual reports Social and/or Environmental Impact report
Not for profit	Company constitution/rules/annual reports Audited financial statements or annual accounts

Table 18: Full Membership criteria and assessment

ZWN Sydney Associate Membership criteria	Documentation required for eligibility assessment
Company Mission supports ZWN Sydney members work in relation to waste minimisation / education / re-use / repair / resource recovery / social mission	Company Constitution / annual report
Associate Membership Goal	Statement of Intention to support and grow the work and impact of CREs in greater Sydney
Evidence of Value Alignment	Annual Report

Table 19: Associate Membership criteria and assessment

Appendix D   Implementation Plan

ZWN-S planned activities apply to three implementation stages:

1. 2017-18 Network Establishment
2. 2018-19 Network Growth
3. 2019-20 Network Consolidation

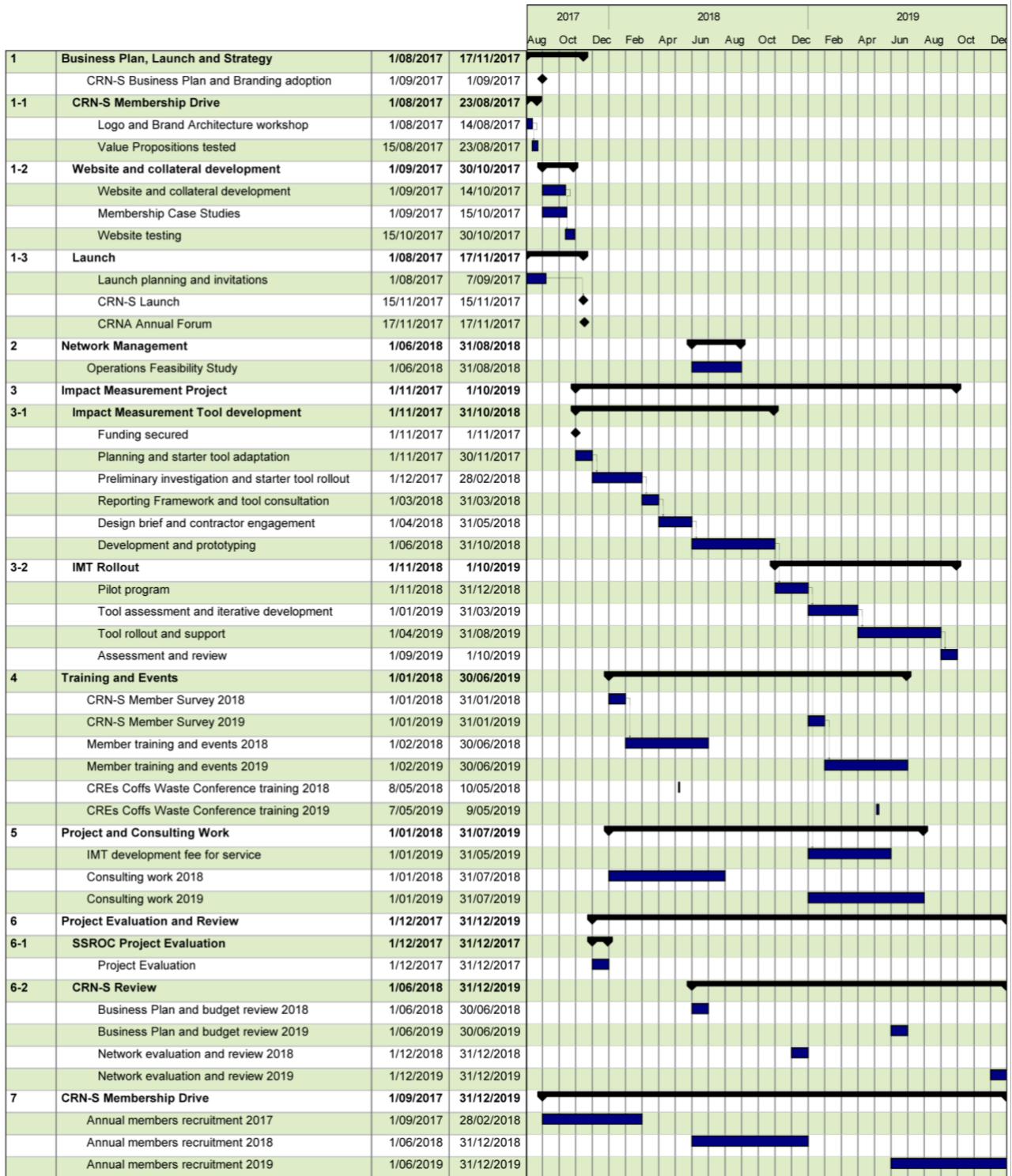|	Task	Start	Finish
1	**Business Plan, Launch and Strategy**	**1/08/2017**	**17/11/2017**
	CRN-S Business Plan and Branding adoption	1/09/2017	1/09/2017
1-1	**CRN-S Membership Drive**	**1/08/2017**	**23/08/2017**
	Logo and Brand Architecture workshop	1/08/2017	14/08/2017
	Value Propositions tested	15/08/2017	23/08/2017
1-2	**Website and collateral development**	**1/09/2017**	**30/10/2017**
	Website and collateral development	1/09/2017	14/10/2017
	Membership Case Studies	1/09/2017	15/10/2017
	Website testing	15/10/2017	30/10/2017
1-3	**Launch**	**1/08/2017**	**17/11/2017**
	Launch planning and invitations	1/08/2017	7/09/2017
	CRN-S Launch	15/11/2017	15/11/2017
	CRNA Annual Forum	17/11/2017	17/11/2017
2	**Network Management**	**1/06/2018**	**31/08/2018**
	Operations Feasibility Study	1/06/2018	31/08/2018
3	**Impact Measurement Project**	**1/11/2017**	**1/10/2019**
3-1	**Impact Measurement Tool development**	**1/11/2017**	**31/10/2018**
	Funding secured	1/11/2017	1/11/2017
	Planning and starter tool adaptation	1/11/2017	30/11/2017
	Preliminary investigation and starter tool rollout	1/12/2017	28/02/2018
	Reporting Framework and tool consultation	1/03/2018	31/03/2018
	Design brief and contractor engagement	1/04/2018	31/05/2018
	Development and prototyping	1/06/2018	31/10/2018
3-2	**IMT Rollout**	**1/11/2018**	**1/10/2019**
	Pilot program	1/11/2018	31/12/2018
	Tool assessment and iterative development	1/01/2019	31/03/2019
	Tool rollout and support	1/04/2019	31/08/2019
	Assessment and review	1/09/2019	1/10/2019
4	**Training and Events**	**1/01/2018**	**30/06/2019**
	CRN-S Member Survey 2018	1/01/2018	31/01/2018
	CRN-S Member Survey 2019	1/01/2019	31/01/2019
	Member training and events 2018	1/02/2018	30/06/2018
	Member training and events 2019	1/02/2019	30/06/2019
	CREs Coffs Waste Conference training 2018	8/05/2018	10/05/2018
	CREs Coffs Waste Conference training 2019	7/05/2019	9/05/2019
5	**Project and Consulting Work**	**1/01/2018**	**31/07/2019**
	IMT development fee for service	1/01/2019	31/05/2019
	Consulting work 2018	1/01/2018	31/07/2018
	Consulting work 2019	1/01/2019	31/07/2019
6	**Project Evaluation and Review**	**1/12/2017**	**31/12/2019**
6-1	**SSROC Project Evaluation**	**1/12/2017**	**31/12/2017**
	Project Evaluation	1/12/2017	31/12/2017
6-2	**CRN-S Review**	**1/06/2018**	**31/12/2019**
	Business Plan and budget review 2018	1/06/2018	30/06/2018
	Business Plan and budget review 2019	1/06/2019	30/06/2019
	Network evaluation and review 2018	1/12/2018	31/12/2018
	Network evaluation and review 2019	1/12/2019	31/12/2019
7	**CRN-S Membership Drive**	**1/09/2017**	**31/12/2019**
	Annual members recruitment 2017	1/09/2017	28/02/2018
	Annual members recruitment 2018	1/06/2018	31/12/2018
	Annual members recruitment 2019	1/06/2019	31/12/2019

Figure 22: Implementation Plan Gantt chart 2017-19

Appendix E   CSI CRE Impact Measurement Tool Research Findings – Suggested Metrics

A foundation study of the existing materials metrics, characterisation and types developed the following suggested indicators. These may be applied to the Impact Measurement Tool to aid in the standard reporting framework.

Tier One materials related indicators

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

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.

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 weeks, non woody agricultural waste. Excluding: food, compost, mulches, wood, sawdust, timber, trees and tree stumps.

Primary and Additional Source Streams

Example Tier One & Tier Two source indicators Primary source stream (Tier One indicators)	Example additional source stream (Tier Two indicators)
Municipal Solid Waste	• Resident delivers to CRE site • CRE collects from landfill site • CRE collects from residence • Kerbside collection
Commercial & Industrial Waste	• Local small businesses (postcode defined) • Large commercial businesses • Schools • Hospitals • Aged care • Hotels • Creative industries
Construction & Demolition Waste	• Industry sector • Geographic location (postcode defined) • Collection method

Tier One employment related indicators

Indicator	Metric
Award-wage (or plus) roles	• Total full time equivalent
Full-time roles	• Total number
Part-time roles	• Total number
Casual roles	• Total number • Average duration
Trainees and apprentices	• Total number
Annual payroll	• Total gross • Total tax paid by employer

Tier Two employment related indicators

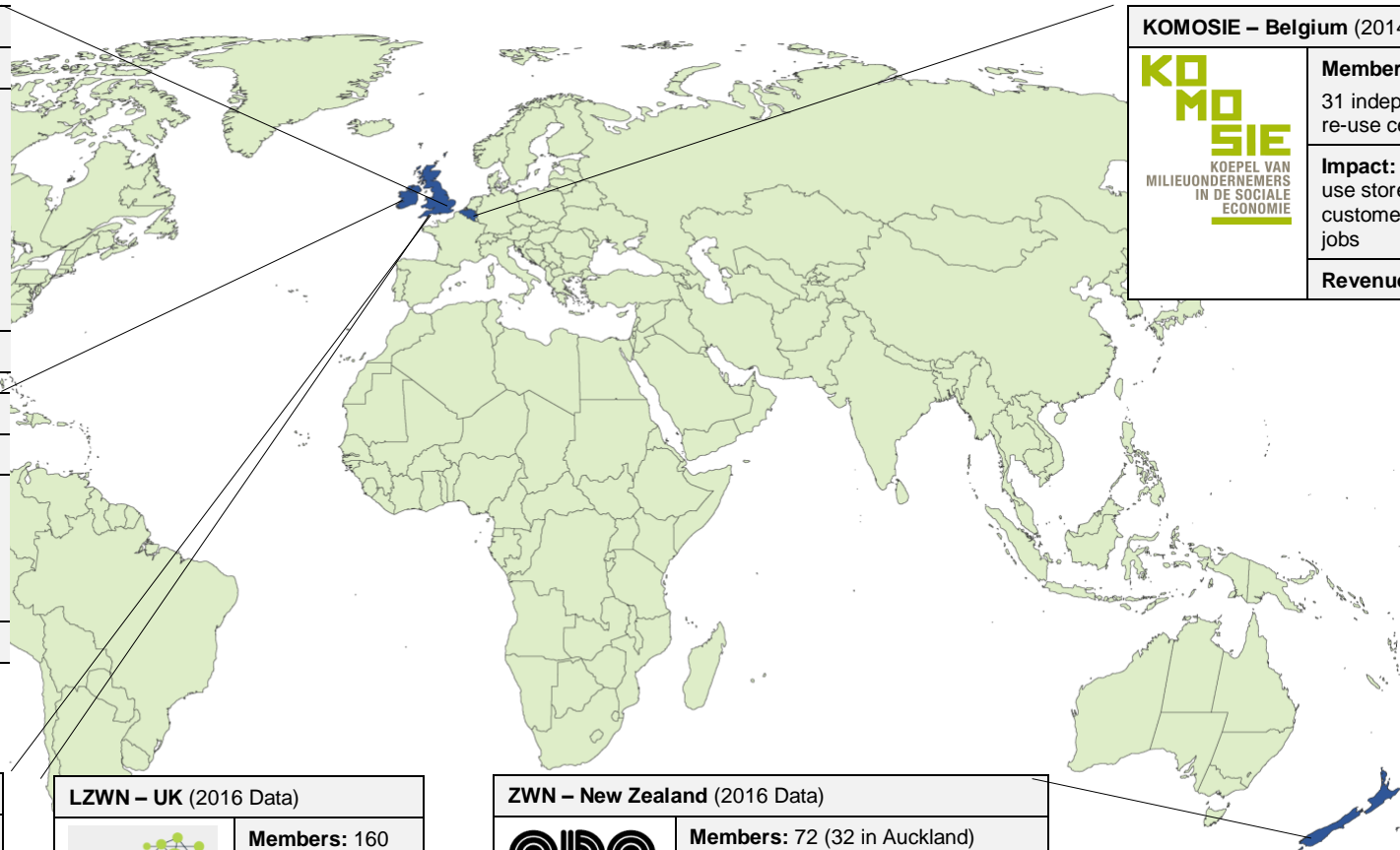| Indicator	Metric
Type of barrier/s to finding & securing employment	• For example: long-term unemployed; Aboriginal person experiencing disadvantage; refugee background; person with a disability; etc.
Mental health issues	• As observed by the CRE and/or self-reported by employee
Payroll	• Total annual into [SEIFA referenced] postcode/s
'Mandatory' volunteers (as optional	• Work for the Dole

addition to Tier One indicators)	• Community Service Order
Australian Disability Enterprise	• Option to indicate if also an ADE

Tier One community education and participation indicators

Indicator	Metric
Volunteers	• 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	• 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	• Number for institutional customers – e.g. Council contracts • Number for retail customers – based on number of 'cash register receipts' generated
Story Telling	• 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

Appendix F   Network Case Studies

ZWN – Scotland (2016 Data)

CRNS	Members: 119
	Impact: 20,652 t re-used 30,111 t recycled 460 t composted 1191 jobs, 772 training opps, 885 community service vols and 6059 vols,
	Revenue: £63 M

ZWN – Ireland (201 Data)

CRN	Members: 18
	Impact: 32,500 t re-used 17,800 t recycle 750 jobs, 210 training opps, 7,650 vols
	Revenue: €70 M

FRN – UK (2016 Data)

frn	Members: 200
	Impact: Diverts 118,350 t, 3.4 M items of furniture and electrical equipment re-used, 4,700 jobs, 48,800 volunteers, trainees and work placements
	Revenue: £308,463

LZWN – UK (2016 Data)

London Community Resource Network	Members: 160
	Impact: N/A
	Revenue: N/A

KOMOSIE – Belgium (2014 Data)

KOMOSIE	Members: 31 independent re-use centres
	Impact: 124 re-use stores, 5 M customers, 5,145 jobs
	Revenue:: €100 M

ZWN – New Zealand (2016 Data)

CRN	Members: 72 (32 in Auckland)
	Impact: Auckland network diverted 98% of waste from landfill: 35% Reusable 63% Recyclable, Illegal dumping decrease in Auckland of 8,500 tonnes
	Revenue: > $200,000

	ZWN NZ – Auckland Resource Recovery Network
	Brand change to Zero Waste Network – October 2017
	Overview: The **Resource Recovery Network** is a partnership between ZWN Aotearoa | New Zealand (NZ) and Auckland Council. ZWN NZ has built a regional network, largely to address Auckland Council's reformed bulky household clean-up service. This was achieved through a cooperative tender process with ZWN NZ and Waste Management Pty Ltd.
	Impact: ZWN NZ now operate a distribution centre (pictured below) in Auckland to supply the greater network of CREs in the region, and support the incubation and growth of CREs across the region. Auckland Council is now achieving 40% diversion through re-distribution of reusable and recyclable items to 80+ community re-use and recycling enterprises.
	The partnership has created jobs, developed recycling innovation, boasts over 75% customer satisfaction, and delivered growth in credibility and membership for the ZWN NZ.
	Auckland Councils inorganic service in partnership with ZWN can be viewed here

KOMOSIE (Federation of Environmental Entrepreneurs in the Social Economy) Flanders, Belgium

Overview: KOMOSIE was established in the Flanders region of Belgian in the early 1990s servicing a region of 6.47 million residents across 13,500 kilometres. KOMOSIE worked with OVAM (Regional Waste Authority) and DWSE (federal Social Services) to identify and action policy objectives around job creation and re-use to address the market failure in both policy domains.

Experience identified that attempts to change behaviour around waste were most effective when people had close connection with the approaches adopted, allowing educative aspects to be integrated in practical ways and at the point of contact. Therefore, rather than simply designing a contract for the delivery of re-use and/or education services and putting these out to tender, OVAM and DWSE worked together to integrate re-use objectives, waste education objectives and employment objectives for the region.

"The historical part of bringing social and environmental policies together - that seems to be the turning point. The two departments sat together and talked about their objectives, and worked out what the goals could be together. Things like the social employment goals, the kilos of reuse, the education of the customers . . . Because they saw the value of the low skills and long-time unemployed, saw manual jobs would be better and a good thing to start people with. . . So that every municipality, every inhabitant, could have access to do something with furniture and other re-usable items . . . they identified they wanted every municipality to have a Re-use Centre they could work with." (McNeil, 2017)

Impact: KOMOSIE built a highly-integrated network that coordinates and supports 31 independent re-use centres that manage 124 re-use shops. KOMOSIE facilitated and rolled out one store brand, De Kingwinkel, which has successfully mainstreamed reuse in the region from 1,400 customers in 1995 to over 5 million in 2014. The number of re-use stores has increased from 20 to 124, and the number of people employed has grown from 238 in 1995 to 5,145 in 2014, of which 80% are people experiencing disadvantage.

Governance: KOMOSIE is governed by a board of directors elected by a general assembly involving all members. The general assembly meets twice per year to provide input to the overall strategic directions. "*It's important to understand we have a bottom up structure. People often think the De Kringwinkel network has a headquarters that directs 118 shops [at time of interview]. Not so. There are 31 Re-use Centres all around the Flemish region, and most of them have several shops each. KOMOSIE is made up of 31 independent organisations. They do what they want*". (McNeil, 2017) Network management is not an easy task in any context, and the efforts required to do it effectively are often underestimated. This can result in reverting to 'obsolete' behaviour that 'frustrates the interactive process' (Klijn & Koppenjan 2012, p.593).

Staffing: KOMOSIE has been able to drive a collaborative network model that has led to a stable 10 person network team driving significant reuse and social outcomes.

A detailed analysis the model is in Chapter 8 of this 2017 thesis (McNeil, 2017)

Community Resource Network (ZWN) – Scotland

Overview: ZWN Scotland has been operating for 13 years. It has 119 full members who are active community-based resource management organisations across Scotland.

99 organisations (83% of the ZWNS membership) reported some form of reuse activity. 74 organisations (62% of the ZWNS membership) reported some form of recycling activity. 42 organisations (35% of the ZWNS membership) reported some form of education or waste awareness activity. 22 organisations (18% of the ZWNS membership) reported some form of composting activity. 55 member organisations do some form of repair or portable appliance testing activity. 48 member organisations offer a house clearance service. 42 member organisations deliver some form of waste prevention or education activity. 40 member organisations do some form of upcycling activity. 44 members reported having a formal partnership or contract arrangement in place with a local authority. 15 members reported having a formal partnership or contract arrangement in place with the private sector.

Impact: ZWN Scotland members divert in excess of 51,000 tonnes per year from landfill. Recycling tonnage is the largest proportion of that figure at 30,111 tonnes (59%) followed by reuse tonnage at 20,652 tonnes (40%) and community composting at 460 tonnes (1%). ZWN Scotland members reported 1191 employees, 6059 volunteers, 772 training placements and 885 community service volunteers.

Financials: ZWNS members generate a combined annual income in excess of £63 million per year

Staffing: 6 staff: CEO, Projects and Membership Manager, Communications and Marketing Manager, Projects and Events Officer, Finance Officer and a National Furniture Coordinator

ZWN Scotland – Member Accreditation

Revolve is Scotland's National Re-use Quality Standard for shops who sell second hand goods in Scotland.

37 members have Revolve accreditation. 17 are working towards it.

Furniture Reuse Network (FRN) - London

Overview: As the only national body for re-use organisations, FRN supports over 200 charity stores in the UK. These charities prevent over 100,000 tonnes of waste going to landfill and provide affordable, quality items to over a million households in the UK.

Established in 1989 to support the growing number of furniture re-use charities in the UK, FRN has been growing and adapting to the changing needs of both member charities and the people who rely on their services ever since. Over the past 6 years, partnerships have been forged with major UK retailers, including John Lewis, IKEA and Dixons Carphone, allowing charities to gain access to more essential household goods such as beds, cookers and washing machines.

By providing member charities with the direction and means to sustain and increase their activities, the FRN has established itself as the network that delivers change and provides opportunities, resources, support and money.

Impact: In 2015/16 the FRN calculated the entire furniture re-use sector:

- Employs over 4,700 staff
- Supports over 48,800 volunteers, trainees and work placements
- Helps around 1.5 million low income households
- Saves low income households £439 million to purchase essential goods
- Reuses 3.4 million items of furniture and electrical equipment
- Diverts 118,350 tonnes of waste from landfill
- Saves over 126,500 tonnes of CO2

Financials: Turnover last FY £308,463

Staff: FRN employ 7 full-time staff and two part-time Operations and System Assessors. The full-time roles are: CEO, Operations Manager, Business Support Officer, Marketing and Communications Officer, Office Administrator, FRNE Administrator, Finance and Contracts Officer

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FRN - Accreditation

FRN has 50 approved Re-use Centre organisations who have met their auditing requirements and are defined as **"Approved Re-use Centres"**.

FRN's intention to complement the marketing of the wider reuse sector with the marketing of those that are quality assured. This has been useful when securing national contracts and services with other sectors.

An early example of this is the listing on in-store leaflets of regional ARCs in each of the UK's IKEA stores.

Community Resource Network (ZWN) – Ireland

Overview: 15 members currently (numbers fluctuate slightly year-on-year)

ZWN Ireland operate on a nationwide basis, including Northern Ireland. The network has been in operation since 2011 but only with a full-time coordinator since 2013.

Impact: 32,500 tonnes re-used and 17,800 tonnes recycled
750 jobs, 210 training opportunities and 7,650 volunteers created

Financials: 2016 turnover was approx. €70K

Staffing: ZWNI has one full-time co-ordinator and a Board comprised of volunteers. The main funding for the network comes from the Irish EPA. If the network is successful in obtaining funding for additional project work it may take on another person specifically on a contract basis. For example, ZWNI received funding to run a feasibility study project for a Quality Mark in Ireland for reused/second-hand goods and a Project Manager was recently appointed.

	Deconstruction and Re-Use Network (DRN) – California
	Overview: DRN was established in 2007 to advance the practice of deconstruction and prevent reusable building materials from entering the waste stream. They average 35 to 60 deconstruction projects per year. DRN set out to build a collaborative network of complementary charitable organisations and for-profit reuse companies to expand the practice of reuse.
	ReUse Network, the back wheel, distributes salvaged items and surplus property to a network of local and international non-profit organisations for reuse. These include charitable organisations such as Habitat for Humanity, which retails the items at a significant discount through its various California ReStores, and Corazón, which incorporates donated materials directly into its home-building projects.
	Impact: Several large commercial projects helped DRN set diversion records for the organization in 2013. The 800,000 square foot, five-building Google campus in Sunnyvale CA diverted 24 tractor-trailer loads alone, totalling 287 tonnes of reusable materials, while the former 500,000 square foot Clorox R&D facility in Pleasanton CA diverted 48-tractor-trailer loads of materials, equaling 447 tons. These projects, combined with 48 others, diverted 222 truckloads, over 1,800 tons, of materials from the landfill, while supporting 22 local and international non-profits
	Staffing:10 staff

	London Community Resource Network – LZWN
	Overview: LZWN has 160 members and a strong support team
	LZWN runs a regular calendar of free and fee for service events.
	LZWN manages in-house CIWM Accredited Waste Smart Foundation and Advanced Courses
	In 2005, LZWN established a London Re-use Network which recently closed in February 2017.
	Further information was requested 06/03/17. To add when received

	Co-Act – National member organisation for not-for-profit employment service providers
	CoAct is a national network of locally-embedded, community-focused employment services providers working together to create social and economic opportunities for Australia's most disadvantaged.
	With over 200 member sites across Australia, CoAct are a member based network that has built up a range of member centred products and services over 20 years.
	CoAct was designed to provide stakeholders such as the Federal Department of Employment, or the NSW Dept of Education and Training, national /state based coverage, centralised tendering, contract management and compliance, while benefiting from the members localised service delivery and community asset based organisations on the ground.

Appendix G   Impact Measurement Tool
Graphic

Figure 24: Impact Measurement Project infographic

Graphic that describes the context for an impact measurement tool and its applications and benefits