

Western Australia Social and Affordable Housing Network Maps

See also:

Analysis and Findings from Mapping the Australian Social and Affordable Housing Network – Queensland and Western Australia

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EXECUTIVE SUMMARY

This Sustainable Built Environment National Research Centre (SBEnrc) project, *Mapping the Social and Affordable Housing Network* aims to contribute to improvement in the productivity, effectiveness and efficiency of this network in Australia.

The maps and supporting reference tables have been developed to facilitate a strategic yet pragmatic understanding of the complexities and associations in this network, to better leverage outcomes for those in need of social and/or more affordable housing (i.e. public, community and non-market rental housing). They are a snapshot in time (July 2019), and as such intended to provide a base-line overview of this network, and to form the basis for understanding and analysis for partner and industry use. They cannot be comprehensive due to the expansive nature of the network. As such they can become part of a living process for organisations to engage with partners and the broader sector to better understand the changing nature of the network. The intent has however been to identify all participants for the three tiers of government and for peak bodies/industry associations, whilst providing examples only for the remaining groups of participants involved in the network.

The maps were developed following desktop analysis by the research team, and three workshops with industry stakeholders in Brisbane and Perth. To enhance understanding and map legibility, participants were grouped into the following categories: Commonwealth, state and local governments; peak bodies and industry associations; advocates; community housing and other not-for-profit (NFP) providers; research providers; private sector industry organisations; and philanthropic and other informal participants.

Network maps were developed for two focal participants, the Western Australia Department of Communities (WA Communities), and the Queensland Department of Housing and Public Works (QDHPW). These maps draw upon the nine impact domains established in previous SBEnrc research, *Rethinking Social Housing*, along with more recent Working Group and Project Steering Group discussions. The impact domains highlight the complexity of the system and are used to guide the scope and selection of the 13 elements and to identify interactions and detail.

- 1. Policy drivers and players
- 2. Funding
- 3. Financing (private, institutional and individual)
- 4. Procurement and delivery
- 5. Metrics, indicators and data
- 6. Labour market dynamics and housing
- 7. Changing demographics

- 8. Housing typologies
- 9. Social and environmental systems
- 10. Integrated, shared and disruptive technologies
- 11. Housing asset management
- 12. Production supply chain
- 13. Skills, knowledge and capacity building

The analysis and findings which builds upon this research is available in the companion document *Analysis of the Australian Social and Affordable Housing Network: Queensland and Western Australia.* This analysis has been based on: (i) review of literature; (ii) desktop research; (iii) expert panel input and (iv) reflections and insights of the research team. This was guided by the intent to better understand: interactions, strengths and weaknesses; areas for improvement; gaps in knowledge to establish research priorities; skills development needs; and innovation opportunities.

1 INTRODUCTION

This Sustainable Built Environment National Research Centre (SBEnrc) project, *Mapping the Social and Affordable Housing Network*¹ aims to improve the productivity, effectiveness and efficiency of this network in Australia.

This series of Western Australia network maps have been developed to facilitate a strategic yet pragmatic understanding of the complexities and associations in this network, and to better leverage outcomes for those in need of social and/or more affordable housing. These high-level maps (focusing on public, community and non-market rental housing) aim to identify, understand and describe the various elements of this complex system. The maps are a snapshot in time, finalised July 2019, following desk top analysis by the research team, and three workshops with industry stakeholders in Brisbane and Perth. The intent has been to identify all participants for the three tiers of government and for peak bodies/industry associations, whilst providing examples only for the remaining groups of participants involved in the network.

The former Western Australian Housing Authority is now a part of the WA Department of Communities (WA Communities) with the WA Communities Strategic Plan launched in February 2019. These changes have been occurring at the same time as maps have been being prepared for the network in that State, and as such the maps do not fully reflect the integration of service delivery now occurring in WA. They do however provide an important base line from which further mapping can be undertaken, and have provided a strong basis for the analysis and findings included in this report.

These maps form the basis of an analysis phase to highlight: interactions, strengths and weaknesses; areas for improvement; gaps in knowledge to establish research priorities; skills development needs; and innovation opportunities.

1.1. Research approach

Network map development was guided by an early limited review of literature around network mapping theory undertaken in late 2018. Such use of visualisation techniques to help explain complex networks is widely supported. 'The lack of visual depiction of networks at the datagathering stage obscures data collection, because neither researchers nor respondents can see concrete representations of what they are discussing' (Hogan, Carrasco, and Wellman 2007). Limited literature was found which directly addresses mapping the social and affordable housing network. Considerable literature was found however in related and allied sectors. Based on this review, a hybrid *Social Network Mapping/Actor Network Theory (SNA/ANT)* approach has been used for this research. This approach enables us to identify the participants within this network in Australia, with an emphasis on the human and organisational actors. It enables a multilevel analysis of interactions and influences between multiple stakeholders within the network, to deliver on research objectives as identified in the Project Schedule.

The following steps were thus undertaken:

- 1. Identify the focal actors, i.e. Western Australia Communities, and Queensland Department of Housing and Public Works (QDHPW).
- 2. Confirm the 13 elements for considering the network to facilitate mapping clarity.
- 3. Identify participants (nodes) and links (e.g. flows of knowledge and the like).
- 4. Identify activities, connections and interactions (especially with the individual/household).

¹ <u>https://sbenrc.com.au/research-programs/1-61/</u>

- 5. Consolidate information into reference tables.
- 6. Develop draft maps.
- 7. Conduct expert panel workshops with key participants to test the draft maps.
- 8. Consolidate the network maps.
- 9. Analyse the maps to identify synergies, gaps and clashes in line with project objectives.

Further detail is provided in the accompanying report, Analysis of the Australian Social and Affordable Housing Network: Queensland and Western Australia.

The network maps have thus been developed for two *focal participants*: WA Communities (this report) and QDHPW (see companion report).

The following key points provide key information to the development and reading of the following maps and tables.

- 1. The **focal participant** is the key actor in network literature and refers to a single stakeholder around which many of the other participants are aligned (London and Pablo 2017, Sarker, Sarker, and Sidorova 2006, Palmer 2014). It is thus placed at the centrepoint of the maps. The network participant relationships have been established around this focal participant.
- 2. The **person and/or family** also plays a central role in this network, as it is for these that the focal participant and others provide services. They have been shown in the centre of the maps in recognition of this. The yellow arrows provide an indication of flows with participants other than the focal.
- 3. **Map boundaries** have been guided by several issues identified in an initial review. These include: role of participants; potential impact; funding; information sharing; spheres of influence; priorities; power dynamics; sources of conflicts; collaboration strategies and opportunities; and links (i.e. flows and interactions). These issues were considered as the maps were developed, interpreted and recommendations were made.
- 4. The Reference Tables (Section 4) provide details regarding network participants and interactions, and formed the basis for map development. These tables were compiled from desktop research, the knowledge of the research team, and input from stakeholder workshops held in Queensland on 1 May and 15 June 2019. The tables outline the relationship that each participant group has with the focal participant (in this case, the QDHPW); and where a direct relationship exists between the network participants and the person/family.
- 5. The **13 elements** used to develop these maps and aid clarity draw upon the nine impact domains established in previous SBEnrc research, *Rethinking Social Housing* project². They were further informed by Project Working Group discussions from March to August 2018, and then revised and confirmed at the first Project Steering Group meeting in October 2018.
 - 1) Policy drivers and players
 - 2) Funding
 - 3) Financing (private, institutional and individual)
 - 4) Procurement and delivery
 - 5) Metrics, indicators and data
 - 6) Labour market dynamics and housing
 - 7) Changing demographics

- 8) Housing typologies
- 9) Social and environmental systems
- 10) Integrated, shared and disruptive technologies
- 11) Housing asset management
- 12) Production supply chain
- 13) Skills, knowledge and capacity building
- 6. Participants were sorted into **11 groups and 3 sectors** to enhance map legibility. Table 1 highlights the groups and relevant icons, and the three coloured sectors representing

² <u>http://sbenrc.com.au/research-programs/1-31/</u>

government (orange), industry (green) and community (blue) are shown on the maps. In the Commonwealth and State Government sectors researchers sought to identify all current participants. In remaining sectors, where there are a large number of participants, representative examples of participating organisations are provided.

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<u> 22</u> 2	Person/Family	
	Focal particpant	QDHPW
	Commonwealth Government	All participants*
	State Government	All participants*
	Local Government	All participants*
$\overline{\land}$	Peak body/industry association	All participants*
0	Advocates	Examples only
	Community Housing Providers (CHPs)	Examples only
*	Not-for-profit (NFP) providers	Examples only
	Research	Examples only
8	Industry	Examples only
$\mathbf{+}$	Philanthropic	Examples only
	Informal	Examples only

Table 1 – Group icons and details

* At July 2019

7. Specific allocation into groups and sectors was made to faciliate map legibility. Some organisations receive funding from multiple sectors (e.g. SBEnrc), and thus sit across sector boundaries. Other organisations (e.g. Grattan Institute), were established from government funding but may now also receive funding from other sources, and for simplicity they remain in the government sector. Whether an organisation has been included as a peak body or an advocacy group has been based on their website details. Some organisations fulfil multiple roles. When this occurs they have been allocated in a specific group, with additional details being provided in the reference tables. This allocation is made to assist map clarity and does not broadly impact overall findings.

- 8. The **intensity of the relationship (i.e. primary, secondary or tertiary)** with the focal participant has been identified on the maps and in the tables. This has been established through desk-top research, expert panel workshops and research team knowledge. For example, the relationship between the focal participant (i.e. QDHPW) is, for example:
 - 1) Primary with other government agencies whose policy objectives are intertwined
 - 2) Secondary with many of the industry organisations who may lobby and inform policy but do not have a direct relationship with the focal.
 - **3)** Tertiary with, for example, realestate.com, who provide an important service to home buyers but not with the focal.
- 9. Links and flows with the focal discussed in the Reference Tables, but not shown on the network maps for sake of map legibility. Relationships in the tables are identified as *one-way or two-way*. The default flow is two-way. A one-way flow may occur where (for example in Element 2) funding flows from the focal participant to a service agency.
- 10. **Cross-flows** between the person/family and specific network participants of information, funding and/or services. These have been highlighted on the maps as yellow dashed arrows.

2 ACRONYMS - NETWORK PARTICIPANTS

AA - Australian Apprenticeships **AASN - Australian Apprentices Support Network** ABAB - Australasian BIM Advisory Board ABCB - Australian Building Codes Board ABCC - Commonwealth Department of Jobs and Innovation - Australian Building and Construction Commission ABS - Australian Bureau of Statistics ACNC - Australian Charities and Not-For-Profit Commission ACO- Aged Care Online **ACOSS - Australian Council of Social Services** ADHA - Australian Digital Health Agency **AET - Australian Executive Trustees** AHCWA - Aboriginal Health Council of WA **AHI - Australian Housing Institute** AHURI - Australian Housing and Urban Research Institute AIA - Australian Institute of Architects AIFS - Australian Institute of Family Studies AIHW - Australian Institute of Health and Welfare AISC - Australian Industry and Skills Committee ALT - Aboriginal Lands Trust AMC - Asset Management Council AMGC - Advanced Manufacturing Growth Centre ANUHD - Australian Network for Universal Housing Design ANZOG - Australian and New Zealand School of Government ASIC - Australian Securities and Investment Commission ASSDA - Australian Stainless Steel Development Association ASU - Australian Services Union ATO -Australian Taxation Office AUDRC-Australian Urban Design Research Centre AURIN – Australian Urban Research Industry Network Austrade - Trade and Investment Commission **BA** - Bioregional Australia **BALS** -Bond Assistance Loan Scheme **BCEC - Bankwest Curtin Economics Centre BDAA** - Building Designers Association of Australia **BGC-BGC** Australia BOMA -Building Owners and Managers Association International BoMaD - Bank of Mum and Dad CarersWA - Carers Assn of WA

CCA - Community Council for Australia CE WA - Catholic Education WA CFMEU - Construction, Forestry, Maritime, Mining and Energy Union CFRI - City Futures Research Institute UNSW CG - Carer Gateway CHIA - Community Housing Industry Association CHL-Community Housing Ltd CIA - Concrete Institute of Australia CMEWA - The Chamber of Minerals and Energy WA COAG - Council of Australian Governments COCIWA - Chamber of Commerce and Industry WA CoP - Committee for Perth COTA - Council for the Aging **CRA - Commonwealth Rent Assistance** CRC WSL - Cooperative Research Centre for Water Sensitive Living CRC LCL - Cooperative Research Centre for Low **Carbon Living** CSIA - Community Services Industry Alliance CSIRO - Commonwealth Scientific and Industrial **Research Organisation** CSIUWA - Centre for Social Impact UWA **CTF** - Construction Training Fund Curtin - Curtin University CUSP - Curtin University Sustainability Policy Institute DEE - Department of Environment and Energy DFES - Department of Fire and Emergency Management **DHA** - Defence Housing Australia DHmA - Department of Home Affairs **DHS** - Department of Human Services **DIRDC** - Department of Infrastructure, Regional **Development and Cities** DLGC - WA Government Department of Local **Government and Communities DLGSCI - WA Department of Local Government Sport** and Cultural Industries DMIRS - WA Dept. of Mines, Industry Regulation and Safety **DOT - Department of Transport DPIRD** - Department of Primary Industries and **Regional Development** DPLH - WA Department of Planning, Lands and Heritage **DSS** - Department of Social Services **DTA - Digital Transformation Agency**

DTWFD - Department of Training and Workforce Development EA - Engineers Australia EGT - Electrical Group Training EIM NRAS and CHP -Equity investment (private sector sale and leaseback) model + NRAS - CHP model EY - Ernst & Young FMA - Facility Management Association **FH-Foundation Housing** GBCA - Green Building Council of Australia GIHO - Goldfields Indigenous Housing Organisations HforH - Habitat for Humanity HfH – Homes for Homes **HIA - Housing Industry Association** HIFG - Housing Industry Forecasting Group HILDA -Household, Income and Labour Dynamics in Australia IA - Infrastructure Australia **IIP** - Insurance Injury Payment IPAA - Institute of Public Administration Australia IWA - Infrastructure WA KC- Kinship care LHA - Liveable Housing Australia LW - Lotterywest MA - Manufacturing Australia MBA - Master Builders Australia MCD – My community data MHC -Mental Health Commission MRA - Metropolitan Redevelopment Authority **MRNC - Murray River North Construction** NAHA - National Housing & Homelessness Agreement NCAFP - National Congress of Australia's First Peoples NDIA - National Disability Insurance Agency NDIS - National Disability Insurance Scheme NDS - National Disability Services **NHFIC - National Housing and Finance Investment** Corporation NHc -National Housing Co. NLR - Now Living Realty NPRH - National Partnership on Remote Housing NRAS - National Rental Affordability Scheme NS - National Shelter

NWAHF - North West Aboriginal Housing Fund

OQU - Overseas Qualification Unit OSA - OrangeSky Australia PCA - Property Council of Australia PC - Productivity Commission PHN -Primary Health Networks **PH** - Power Housing PIA - Planning Institute of Australia PMC - Department of Prime Minister and Cabinet -**Indigenous Affairs** PoA - Parliament of Australia PRBP - Private Rental Brokerage programs PwC – PricewaterhouseCoopers RBA – Reserve Bank of Australia **REIWA - Real Estate Institute of WA RSRU** - Regional Services Reform Unit **RW - Richmond Wellbeing** SA - Standards Australia SBEnrc - Sustainable Built Environment National **Research Centre** SCA WA -Strat Community Association SCC - Smart Cities Council SDA - Specialist Disability Accommodation **SDAPS - SDA Property Solutions** SDA - Specialist Disability Accommodation SHIP - Assisted Rental Pathways Pilot SIMNA - Social Impact Measurement Network of Australia STB - State Training Board SubA - Subcontractors Alliance SVA - Social Ventures Australia StJohn-St John of God Horizon House **TABMA - Timber and Building Materials Association** TSA -TrainSmart Australia UCW - UnitingCare West UDIA - Urban Development Institute of Australia WA DoF - WA Department of Finance WA NDIS - WA National Disability Insurance Scheme WACOSS - WA Council of Social Service WADCH - WA Department of Communities, Housing WADEE -WA Department of Environment and Energy WALGA - WA Local Government Association WAPT - WA Public Trustee WGV - White Gum Valley WP - Western Power

3 NETWORK MAPS – WESTERN AUSTRALIA

The network maps are intended to convey a high level view of activity in each of the 13 elements and present a simplified, graphical representation of the detailed information gathered in the course of this research. Further analysis of these maps is also provided in the accompanying report *Analysis of the Australian Social and Affordable Housing Network: Queensland and Western Australia*.

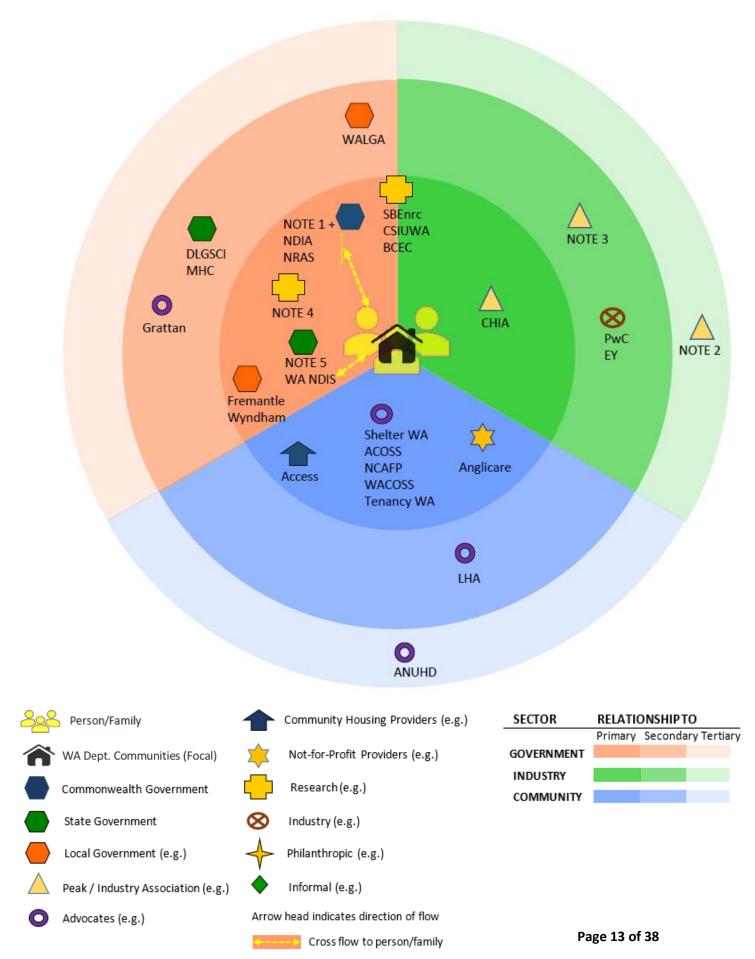
3.1. Element 1 – Policy Drivers and Players

This element aims to capture network participants with a role in developing policy agendas, and/or information which informs policy agendas across the social and affordable housing network. Key points to note in this element are:

- 1) Most state government and commonwealth government organisations possess a primary relationship with the focal in policy drivers with the Department of Local Government Sport and Cultural Industries (DLGSCI) and Mental Health Commission (MHC) having a secondary relationship.
- 2) In the commonwealth government, both the National Disability Insurance Scheme (NDIS) and the National Rental Affordability Scheme (DSS-NRAS) have a primary relationship with the focal.
- 3) The Western Australia National Disability Insurance Agency (NDIA) has a two-way relationship with person/family.
- 4) The Fremantle and Wyndham Councils are local government examples and have a primary relationship with the focal. Other Local Government organisations such as West Australian Local Government Association (WALGA) possess a secondary relationship with the focal participant.
- 5) The Australian Housing and Urban Research Institute (AHURI), Australian Urban Design Research Centre Austrade (AUDRC), Household, Income and Labour Dynamics in Australia (HILDA) and Curtin University Sustaiability Policy unit (CUSP) are examples of research partners in WA.
- 6) Industry relations are predominanly secondary in this element.
- 7) The Sustainable Built Environment National Research Centre (SBEnrc), Centre for Social Impact UWA (CSIUWA) and Bankwest Curtin Economics Centre (BCEC) are research organisations funded by both government and industries.
- 8) Most peak bodies have a secondary or tertiary relationship with the focal. Only the Community Housing Industry Association (CHIA) identified a primary relationship with the focal.
- 9) Most advocates have a primary relationship with the focal.
- 10) Apart from Grattan Institute, which originated as a government organisation, all the other advocates are in the community sector.
- 11) Anglicare is an example of a not-for-profit organisation with a primary relationship with the focal.
- 12) Access Housing is provided as an example of a Community Housing Provider in WA.

NOTE 1	NOTE 2	NOTE 3	NOTE 4	NOTE 5
AIHW	PH	CCA	AHURI	IWA
PC-Treasury	MBA	NDS	AUDRC	LandCorp
COAG	AIA	AHI	HILDA	Landgate
PMC	EA	PCA	CUSP	DPLH
ABCB	MA	NS		DMIRS
NAHA	CCA	REIWA		Metronet
IA	HIA			
AIFS				
NHHA				
RBA				



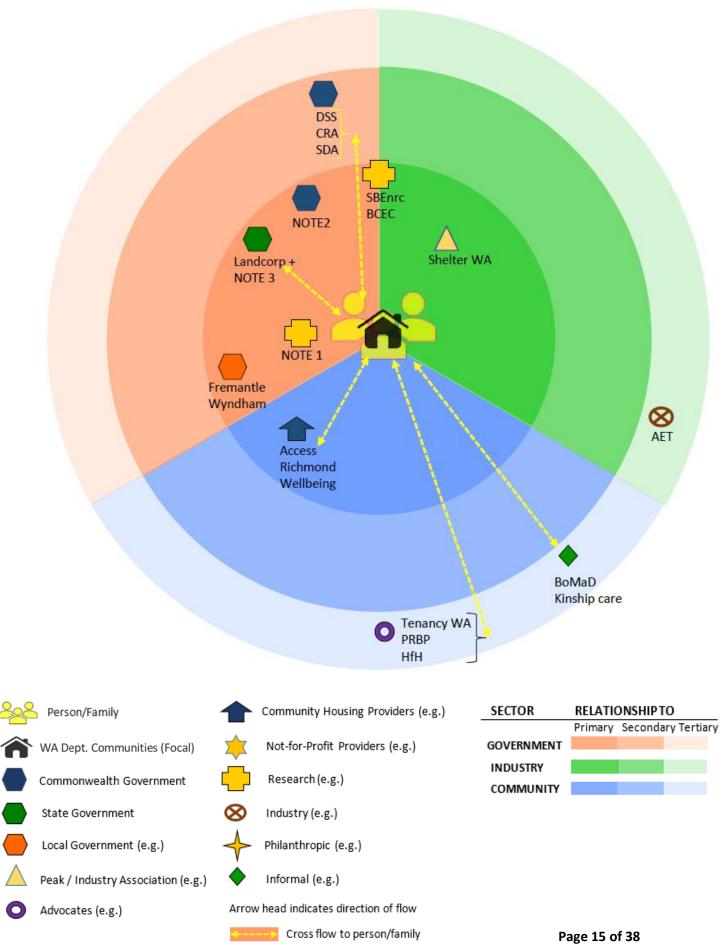


This element aims to capture network participants with a role in funding social and affordable housing throughout the network. Key points to note in this element are:

- 1) Most commonwealth government organisations possess a primary relationship with the focal
- 2) WA National Disability Insurance Scheme (NDIS) shares a relationship with person/family.
- 3) Assisted Rental Pathways Pilot (SHIP), WA Department of Finance (WA DoF), and Landcorp are examples of state government organisations with a primary relationship to the focal.
- 4) The Fremantle and Wyndham Councils are examples of WA local government agencies and have a primary relationship with the focal.
- 5) Sustainable Built Environment National Research Centre (SBEnrc), Bankwest Curtin Economics Centre, Australian Housing and Urban Research Institute (AHURI), Australian Urban Design Research Centre Austrade (AUDRC) and Centre for Social Impact UWA (CSIUWA) are examples of research partners in WA with a primary link to the focal. They are distributed according to their primary sources of income.
- 6) Lottery West (LW) is an example of an industry sector participant with a primary link to the focal and the person/family.
- 7) Department of Social Services (DSS), Commonwealth Rent Assistance (CRA) and Specialist Disability Accommodation (SDA) are examples of commonwealth government organisations with a secondary link to the focal and a link to the person/family.
- 8) North West Aboriginal Housing Fund (NWAHF) is a state government organisation with a primary link to the focal.
- 9) Access Housing and Richmond Wellbeing are examples of Community Housing Providers.
- 10) All advocates have a tertiary relationship with the focal in this element.
- 11) The Bank of Mum and Dad (BoMAD) and other kinship care arrangements are examples of organisations with informal links to the focal.

NOTE 1	NOTE 2	NOTE 3
AHURI	NHFIC	SHIP
AUDRC	NPRH	WA DoF
CSIUWA	NHHA	Landcorp
	DSS(NRAS)	WA NDIS
		LW
		NWAHF

Figure 2 - Element 2 Funding

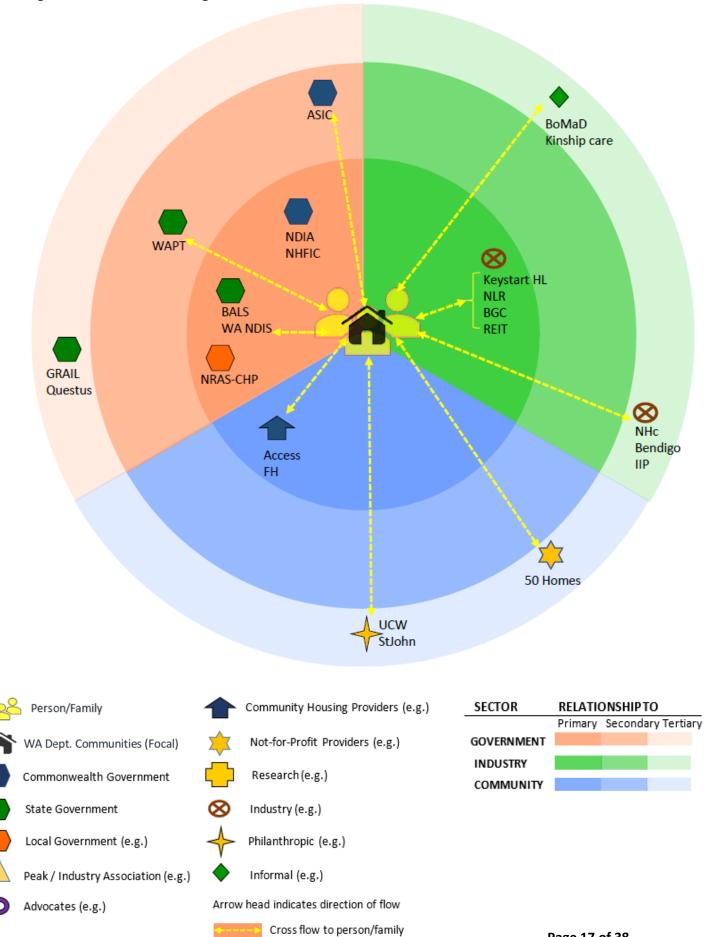


3.3. Element 3 - Financing (Private, Institutional and Individual)

This element aims to capture network participants with a financing role in the network, whether private, institutional or for the individual (in terms of private banking). Key points to note in this element are:

- 1) National Housing and Finance Investment Corporation (NHFIC) and the National Disability Insurance Agency (NDIA) are commonwealth government organisations and have a primary relationship with the focal particpant.
- 2) WA National Disability Insurance Scheme (NDIS) links to the person/family.
- 3) The Bond Assistance Loan Scheme (BALS) is a state government organisation with a primary link to the focal particpant.
- 4) Access Housing and Foundation Housing (FH) are examples of Community Housing Providers with a primary link to the focal particpant.
- 5) Keystart Homeloans, Now Living Realty (NLR), BGC Australia (BGC) and Real Estate Investment Trusts (REIT) are industry organisations with a primary link to the focal.
- 6) Australian Securities and Investment Commission (ASIC) is a commonwealth government organisation with a secondary link to the focal. ASIC also links to the person/family.
- 7) WA Public Trustee (WAPT) is a State Government organisation with a secondary link to the focal and links to the person/family.
- 8) National Housing Co. (NHc), Bendigo Bank and Insurance Injury Payment (IIP) are examples of industry organisations with a tertiary link to the focal participant.
- 9) 50Homes is a not-for profit organisation with a teriary link to the focal and person/family.
- 10) UnitingCare West (UCW) and St John of God Horizon House (StJohn) are examples of philonthropic groups with a with a teriary link to the focal and person/family.
- 11) Bank of Mum and Dad (BoMAD) and Kinship care are examples of organisations with informal links to the focal particpant.

Figure 3 - Element 3 Financing



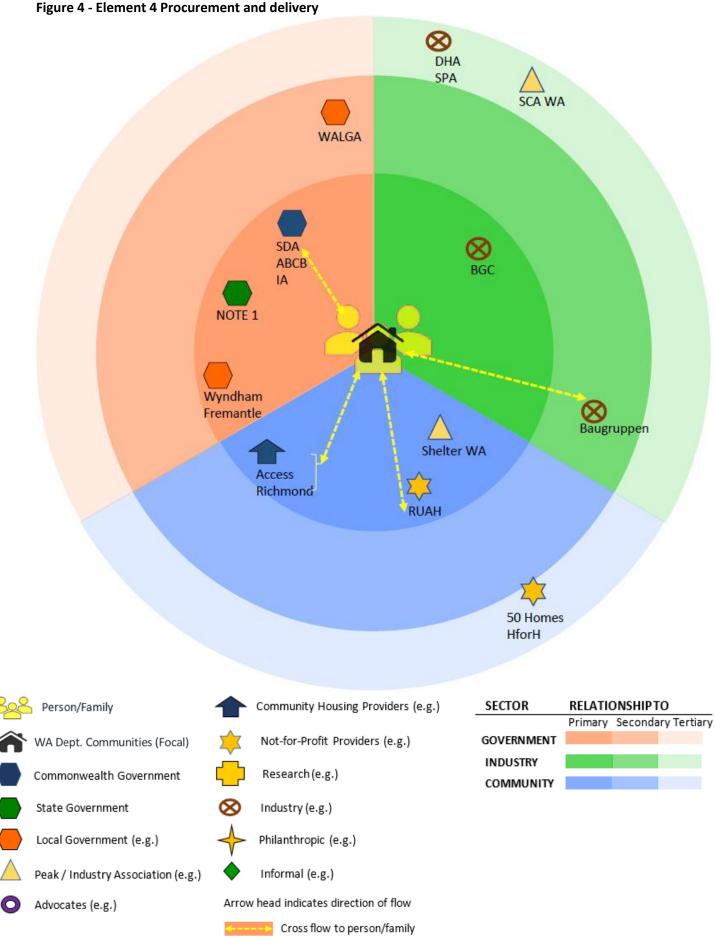
3.4. Element 4 - Procurement and Delivery

This element aims to capture network participants involved in the procurement and delivery of both assets and servcies. Key points to note in this element are:

- 1) Most government organisations have a primary relationship with focal participant.
- 2) Specialist Disability Accommodation (SDA), Australian Building Codes Board (ABCB) and Infrastructure Australia (IA) are examples of commonwealth government organisations with a primary link to the focal and SDA links to person/family. ABCB also comprises state government representatives.
- 3) Wyndham and Fremantle are examples of local government organisations with a primary link to the focal.
- 4) Ruah Community Services is a not-for-profit provider with a primary link to the focal and person/family.
- 5) Shelter WA is a peak organisation with a primary link to the focal.
- 6) Access Housing and Richmond Wellbeing are examples of Community Housing Providers with a primary relationship with the focal.
- 7) WA Local Government Association (WALGA) is a peak local government organisation with a secondary link to the focal.
- 8) North West Aboriginal Housing Fund (NWAHF) is a state government organisation with a primary link to the focal.
- 9) Industry organisations are presented at all 3 levels.

NOTE 1
DPIRD
MRA
Metronet
Landcorp
NWAHF
ALT

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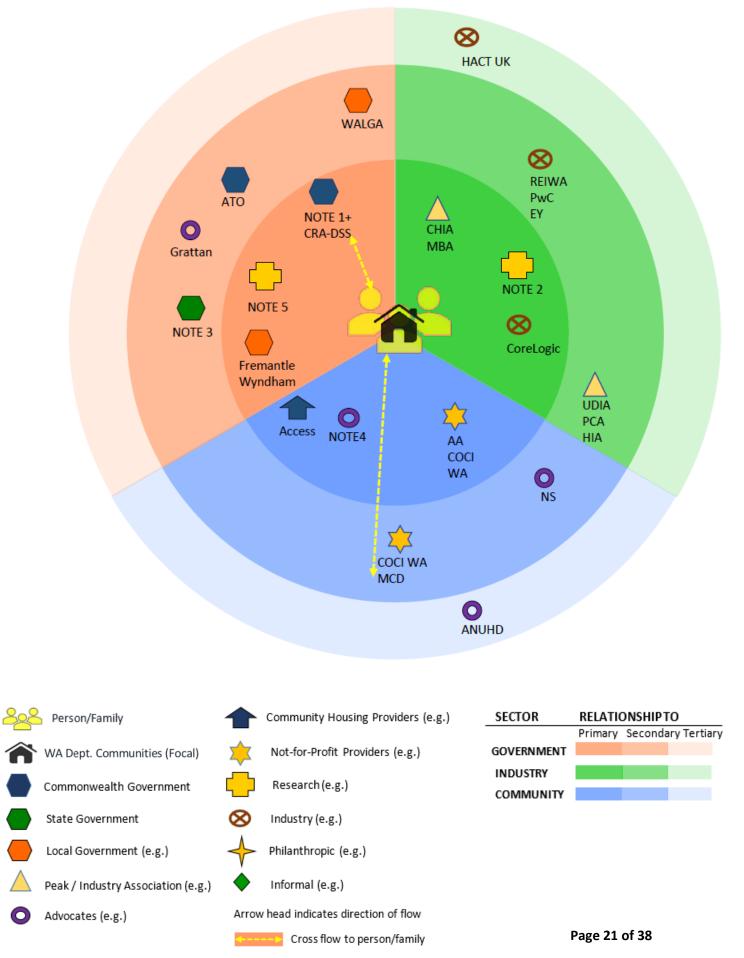
3.5. Element 5 - Metrics, Indicators and Data

This element aims to capture network participants involved in: (i) the collection of relevant data; and (ii) value-adding to this data to provide new data of value to network participants. Key points to note in this element are:

- 1) Organisations are spread across the three sectors and all the levels.
- 2) Many commonwealth organisations have a primary relationship with the focal participant.
- 3) Wyndham and Fremantle are examples of local government organisations with a primary link to the focal.
- 4) The Centre for Social Impact UWA (CSI UWA), Bankwest Curtin Economics Centre (BCEC), the Australian Urban Research Industry Network (AURIN) and the Household, Income and Labour Dynamics in Australia Survey (HILDA) are research partners with a primary link to the focal. Funding arrangements vary across the various research organisations.
- 5) CoreLogic is an example of industry orgnisations with a primary link to the focal.
- 6) The Community Housing Industry Association (CHIA) is a peak body with primary link to the focal.
- 7) Australian Apprenticeships (AA), Chamber of Commerce and Industry WA (COCI WA) are examples of not-for-profit providers with a primary link to the focal.
- 8) Shelter WA and WA Council of Social Service (WACOSS) are examples of advocates with primary links to the focal in the community sector.
- 9) Grattan institute is an example of an advocate which has a secondary link to the focal.
- 10) Chamber of Commerce and Industry WA (COCI WA) and My Community Data (MCD) are examples of not-for-profit providers with a secondary link to the focal.
- 11) Adocate organisations are presented in all three levels in the community sector.

NOTE 1	NOTE 2	NOTE 3	NOTE 4	NOTE 5
ABS	CSI UWA	DATA WA	Shelter WA	AURIN
AIWH	BCEC	HIFG	WACOSS	HILDA
PC-Treasury		ТКІ		
NAHA		DoMIRS		
DHA		RSRU		
NDIA		DLGSCI		
DHA		MHC		
AIFS				





3.6. Element 6 - Labour Market Dynamics and Housing

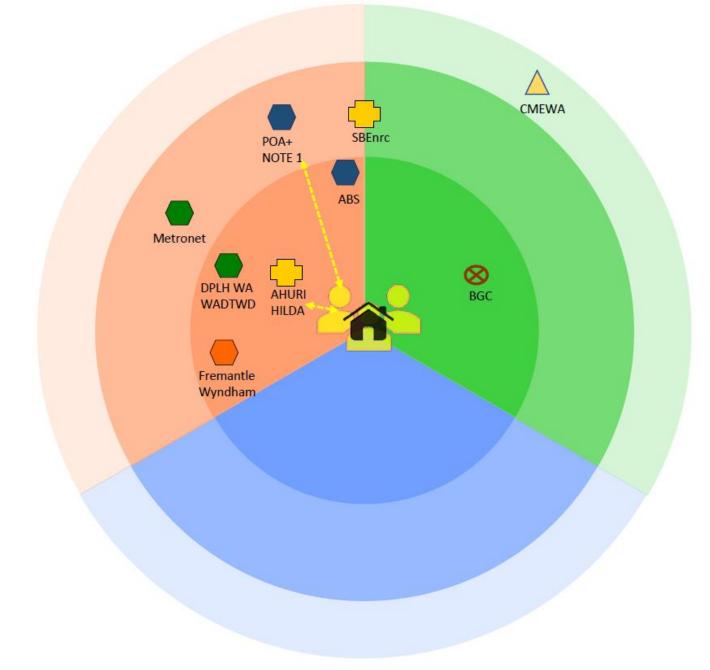
This element was included due to the links between the housing (both tenure and market characteristics) and the behaviour of those in the labour market (e.g. differences between home owners and renters). Key points to note in this element are:

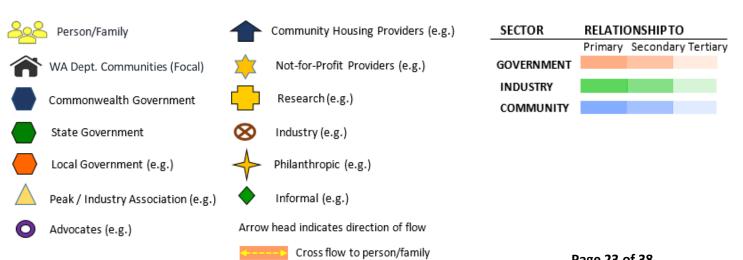
- 1) The majority of the participants noted are in government sector.
- 2) BGC Australia (BGC) is an industry example with a primary link to the focal participant. BGC Australia includes Now Living and Terrace.
- 3) Both the Australian Housing and Urban Research Institute (AHURI) and Household, Income and Labour Dynamics in Australia Survey (HILDA) do research which informs this element. See the AHURI report, Housing tenure, mobility and labour market behaviour (Whelan and Parkinson 2017).
- 4) Wyndham and Fremantle are examples of local government organisations with a primary link to the focal.
- 5) The majority of the commonwealth organisations represented have a secondary relationship with the focal.
- 6) The Chamber of Minerals and Energy WA (CMEWA) is a peak body with a tertiary link to the focal.

NOTE 1	
CRA	
ATO	

Centrelink





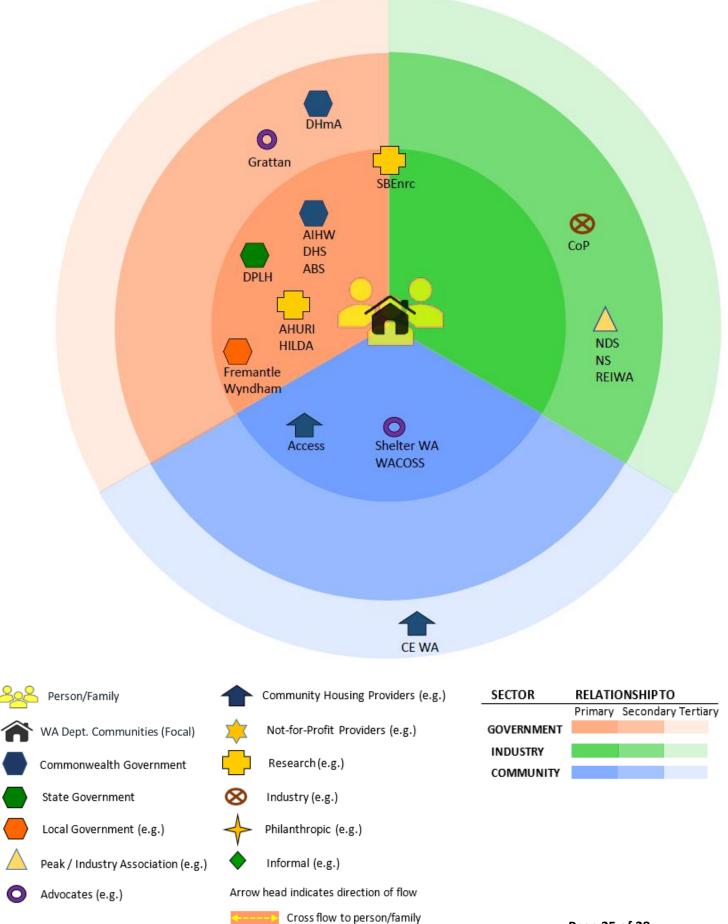


3.7. Element 7 – Changing demographics

This element aims to capture network participants involved in building understanding of changes in the demographics of those seeking social and affordable housing. Key points to note in this element are:

- 1) The Australian Institute of Health and Welfare (AIHW), Department of Human Services (DHS) and Australian Bureau of Statistics (ABS) are examples of commonwealth government organisations with a primary link to the focal.
- 2) The WA Department of Planning, Lands and Heritage (DPLH) is a state government organisation with a primary link to the focal.
- 3) The Australian Housing and Urban Research Institute (AHURI) and Household, Income and Labour Dynamics in Australia Survey (HILDA) and the Sustainable Built Environment National Research Centre (SBEnrc) have a primary relationship with the focal participant.
- 4) Wyndham and Fremantle are examples of local government organisations with a primary link to the focal.
- 5) Shelter WA and WA Council of Social Service (WACOSS) are advocates with a primary link to the focal in the community sector.
- 6) Grattan Institute is an advocate which has a secondary link to the focal in the government sector. It now also receives funding from other sources.
- 7) Access Housing is an example of a Community Housing Provider with a primary relationship with focal.
- 8) National Disability Services (NDS), National Shelter (NS) and Real Estate Institute of WA (REIWA) are community peak organisations with a secondary relationship to the focal.
- 9) Committee for Perth (CoP) is an example of industry orgnisation with a secondary link to the focal.
- 10) Catholic Education WA (CE WA) is a example of Community Housing Providers with a tertiary relationship with focal.



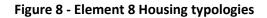


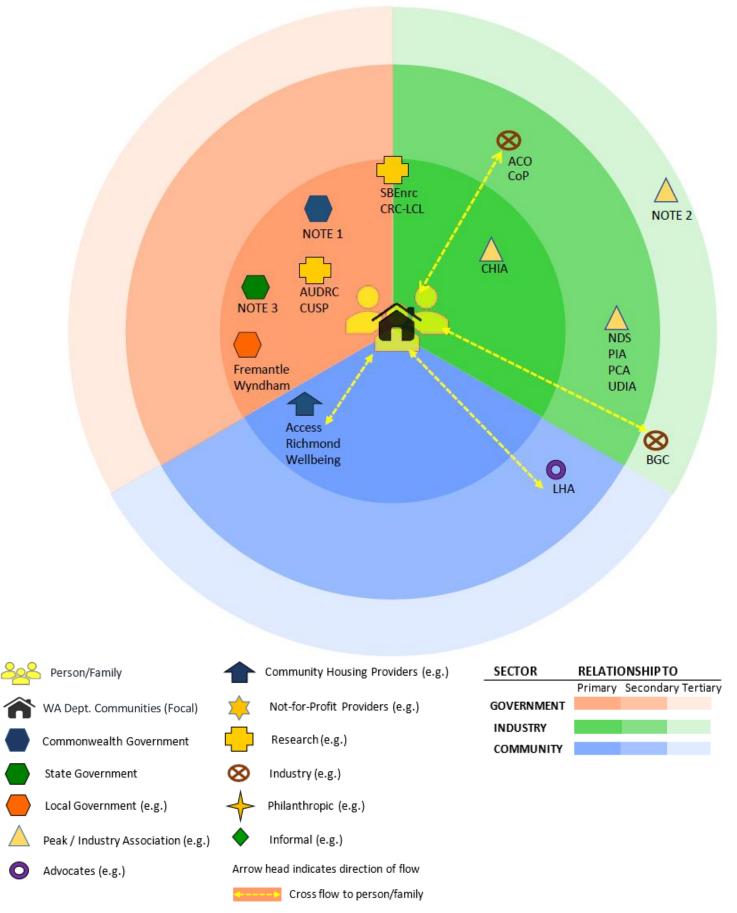
3.8. Element 8 - Housing typologies

This element aims to capture network participants with an understanding of or contributing to changes in housing typologies. Key points to note in this element are:

- 1) Most organisations in the government sector have a primary relationship with the focal participant.
- 2) Wyndham and Fremantle are examples of local government organisations with a primary link to the focal.
- 3) Access Housing and Richmond Wellbeing are examples of Community Housing Providers with a primary link to the focal.
- 4) The Sustainable Built Environment National Research Centre (SBEnrc), the Curtin University Sustainable Policy Institute (CUSP) and the Cooperative Research Centre for Low Carbon Living (CRC LCL) are examples of research organisations with a primary link.
- 5) Peak bodies are presented at all three levels.
- 6) Aged Care Online (ACO) and Committee for Perth (CoP) are examples of industry organisations with a secondary link the focal.
- 7) BGC Australia (BGC) is an industry orgnisation with a tertiaty link to the focal and a two-way link to the person/family.

NOTE 1	NOTE 2	NOTE 3
ABCB	MBA	DPLH
DSS	AIA	MRA
DHS	EA	Metronet
AIFS	BDAA	LandCorp
DSS	HIA	





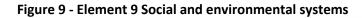
3.9. Element 9 - Social and environmental systems

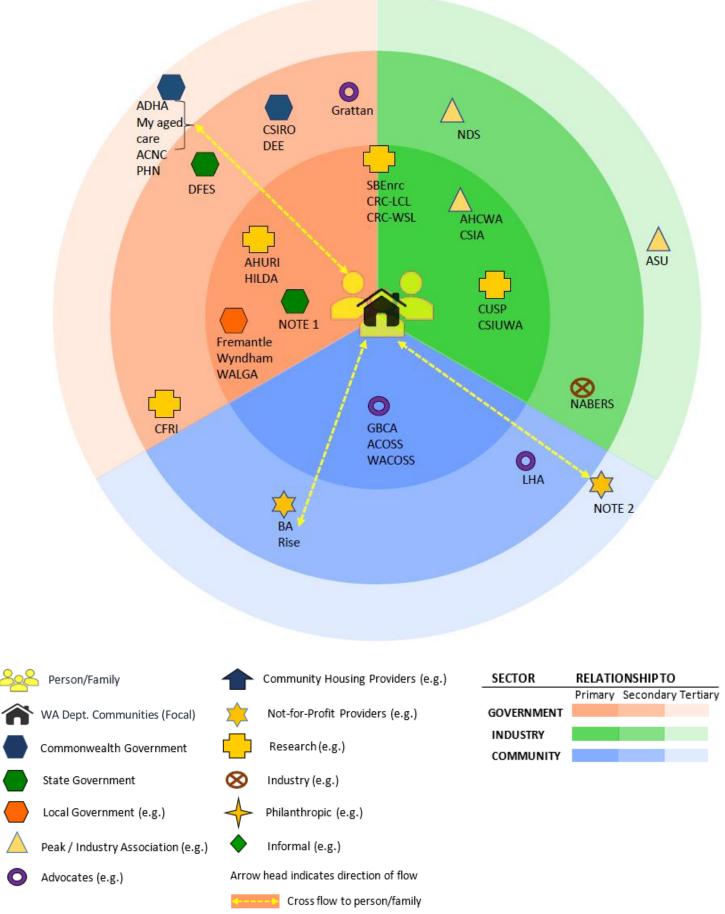
This element aims to capture network participants involved in socio/environmental systems not reflected in the other 12 elements, who provide critical services and/or knowledge which impacts on the social and affordable housing network. Key points to note in this element are:

- 1) There is a spread of participants across the government, industry and community sectors.
- 2) Wyndham and Fremantle are examples of local government organisations with primary links to the focal.
- 3) Several research organisations are active in this element inlcuding Sustainable Built Environment National Research Centre (SBEnrc), the Curtin University Sustainable Policy Institute (CUSP), the Centre for Social Impact UWA (CSIUWA), Australian Housing and Urban Research Institute (AHURI), Household, Income and Labour Dynamics in Australia Survey (HILDA), the City Futures Research Institute at UNSW, and the Cooperative Research Centres for Low Carbon Living and Water Sensitive Living (CRC LCL and CRC WSL). They all have primary relationships to the focal.
- 4) Not for profits and various government agencies have direct links with the person/household.
- 5) My aged care, Australian Charities and Not-For-Profit Commission (ACNC), Australian Digital Health Agency (ADHA), Primary Health Networks (PHN) all have a tertiary relationship with the focal. My aged care has a 2-way relationship with the person/household.

NOTE 1	NOTE 2
WADEE	Home Care Assist
LandCorp	OSA
DPLH	CarersWA
	Centacare

Note: See acronym listing in <u>Section 2</u>.



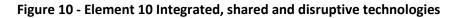


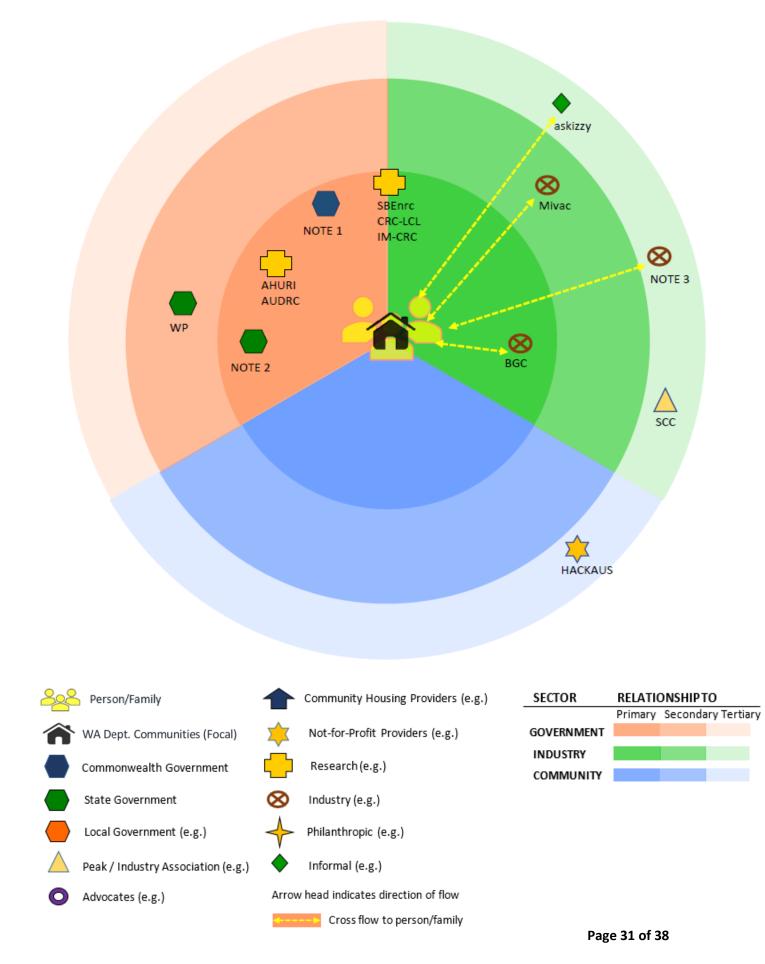
3.10. Element 10 - Integrated, shared and disruptive technologies

This element aims to capture details around emerging technologies (including approaches and strategies) which have the potential to distrupt (both positively and negatively) the housing network. Key points to note in this element are:

- 1) The majority of the commonwealth and state government organisations have a primary relationship with the focal.
- 2) The Sustainable Built Environment National Research Centre (SBEnrc), Cooperative Research Centre (CRC) and Innovative Manufacturing CRC (IM-CRC) are industry and government funded research organisations with a primary relationship with the focal.
- 3) HACKAUS is a non-profit organisation having a tertiary relationship with the focal.
- 4) Smart Cities Council (SCC) is a peak body organisation with a tertiary link with the focal.
- 5) My Aged Care has a tertiary relationship with the focal along with a 2-way relationship with the person/household.
- 6) NewLab, Drive my car, Wattblock, AirBNB and CityDash are examples of industry iniatives with tertiary relationships with the focal and links to the person/household.
- 7) Askizzy is an example of a organisation having an informal link with the focal.

NOTE 1	NOTE 2	NOTE 3
DTA	Digital WA	NewLab
PC-Treasury	Synergy	Drive my car
ATIC	WGV	Wattblock
DIRDC	Landcorp	AirBNB
CSIRO	DOT	





3.11. Element 11 - Housing asset management

This element aims to capture network participants involved in the management of the physical housing asset. Key points to note in this element are:

- 1) There is a spread of participants between government, industry and community sectors.
- 2) WA National Disability Insurance Scheme (WA NDIS) is a state-based agency having a primary link with the focal.
- 3) The Sustainable Built Environment National Research Centre (SBEnrc) and Australian Housing and Urban Research Institute (AHURI) have primary links to the focal.
- 4) Goldfields Indigenous Housing Organisations (GIHO) is an example of a not-for-profit orgnisation with a primary link to the focal.
- 5) Access Housing and Richmond Wellbeing (RW) are examples of Community Housing Providers with a primary link to the focal.
- 6) Community Housing Ltd (CHL) is an example of a Community Housing Provider with a secondary link to the focal.
- 7) The Property Council of Australia (PCA) and Facility Management Association (FMA) are peak body organisations with secondary links with the focal.
- 8) SDA Property Solutions (SDAPS) and Murray River North Construction (MRNC) are examples of industry organisations with secondary links with the focal. SDAPS also has a direct link with the person/family.
- 9) The Asset Management Council (AMC) is an example of a not for profit organisation with a secondary link to the focal.
- 10) Advocate organisations are at all three levels.
- 11) Building Owners and Managers Association International (BOMA) is an advocate with tertiary links to the focal.
- 12) Community Housing Limited (CHL) and OneHousing are examples of industry organisations with tertiary links with the focal from within the community sector.

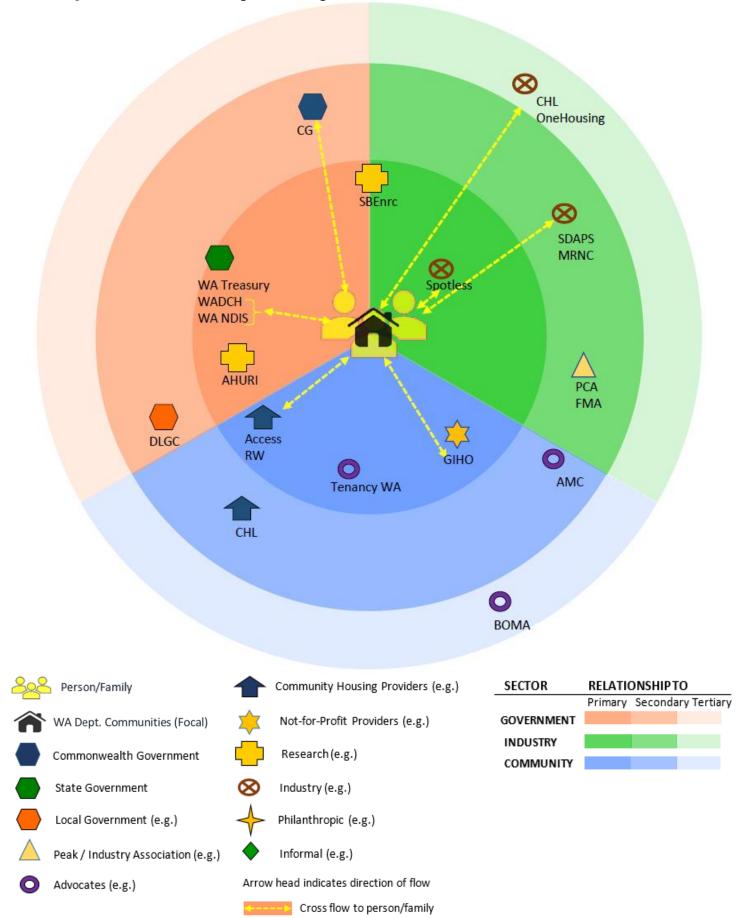


Figure 11 - Element 11 Housing asset management

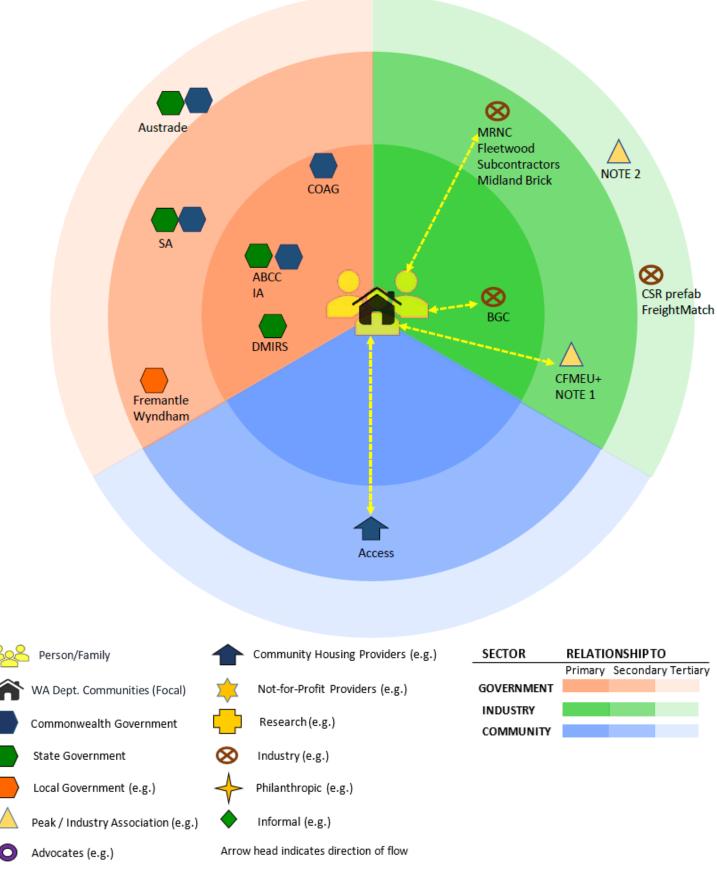
3.12. Element 12 - Production supply chain

This element aims to capture network participants involved in the production of the physcial housing asset. Key points to note in this element are:

- 1) The housing construction industry organisations, associations and peak bodies shown in this map are indicative of breadth of organisations involved. For more detail of this specific supply chain refer to other literature (Marceau, J., et al. 1999).
- 2) The Australian Building and Construction Commission (ABCC) and Infrastructure Australia (IA) are commonwealth and state government organisations with primary links to the focal participant.
- 3) Standards Australia (SA) includes representation from both commonwealth and state governments, with secondary links to the focal.
- 4) Wyndham and Fremantle are examples of local government organisations with a primary link to the focal.
- 5) There are many peak organisations in the industry sector at secondary and tertiary levels.
- 6) BGC is an industry example with links to the person/household.
- 7) Access Housing is an example of a Community Housing Provider with a secondary link to the focal.

NOTE 1	NOTE 2
PCA	TABMA
MBA	CIA
AIA	AMGC
EA	ASSDA
HIA	prefabAUS
	FreightMatch
	ABIMAB
	SA
	MA
	SubA
	BuildingSMART





Cross flow to person/family

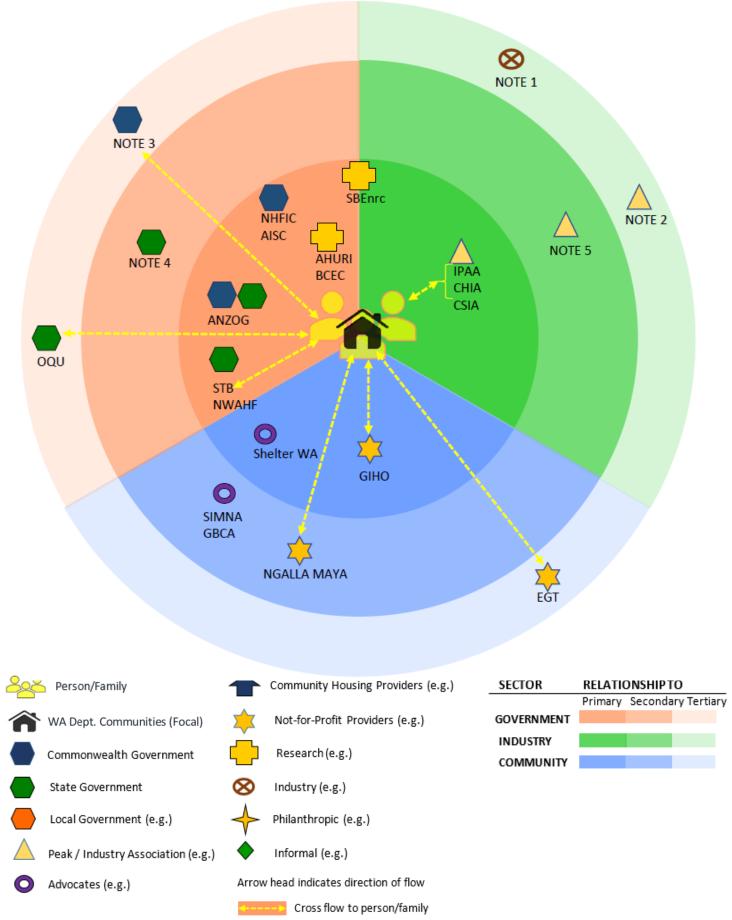
3.13. Element 13 – Skills, knowledge and capacity building

This element aims to capture network participants ivolved in developing skills, knowledge and capacity for both the physical housing asset and the socio-environmental systems necessary to support those in social and affordable housing.

- 1) Government organisations (commonwealth and state), peak bodies, research organisations, and advocate organisations all play an important role in this element, with examples only shown here.
- 2) The Australian and New Zealand School of Government (ANZOG) is both commonwealth and state government funded with a primary relationship to the focal.
- 3) The Australian Industry and Skills Committee (AISC) and National Housing and Finance Investment Corporation (NHFIC) are commonwealth government organisations with a primary relationship to the focal.

NOTE 1	NOTE 2	NOTE 3	NOTE 4	NOTE 5
ТАВМА	PH	ATA	MHC	NDS
ASSIDA	AIA	Curtin	NWAF	AHI
CIA	EA	AA	DTWFD	PCA
AMGC	BDAA	AASN	TAFE WA	PIA
MA	HIA			
buildingSMART	MBA			
	MA			
	REIWA			





4 REFERENCES

Hogan, Bernie, Juan Antonio Carrasco, and Barry Wellman. 2007. "Visualising personal networks: working with participant-aided Sociograms." *Field Methods* 19 (2):116-144. doi: https://journals.sagepub.com/doi/pdf/10.1177/1525822X06298589.

London, Kerry, and Zelinna Pablo. 2017. "An actor–network theory approach to developing an expanded conceptualization of collaboration in industrialized building housing construction." *Construction Management and Economics* 35 (8-9):553-577. doi: 10.1080/01446193.2017.1339361.

Palmer, J. S. 2014. "Network mapping of housing systems: The case of medium-density dwelling design in Australia." RSD3, Third Symposium of Relating Systems Thinking to Design., Oslo, Norway, 15-17 Oct 2014.

Sarker, Suprateek, Saonee Sarker, and Anna Sidorova. 2006. "Understanding Business Process Change Failure: An Actor-Network Perspective." *Journal of Management Information Systems* 23 (1):51-86. doi: 10.2753/MIS0742-1222230102.

Whelan, S., and S. Parkinson. 2017. "Housing tenure, mobility and labour market behaviour". Melbourne, Australia: Australian Housing and Urban Research Institute Limited.