

Circular Economy Community Hubs

A prototype process for place-
based citizen co-creation

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Acknowledgement of Country

We at the Design Innovation Research Centre acknowledge the lands on which we work and live, the lands of the Gadigal people of the Eora Nation as well as the numerous Aboriginal lands from which we collaborate remotely. We pay our respects to Elders past, present and emerging, recognising them as custodians of knowledge on these lands. Sovereignty was never ceded.

About

Project conducted and report prepared by the
UTS Design Innovation Research Centre (DIRC)
for NSW Circular.

July 2021

About the UTS Design Innovation Research Centre

We at the UTS Design Innovation Research Centre use design as a research process to explore complex social and ecological issues. Our work sits across many problem spaces, such as justice, health, environmental transitions, and gendered violence. Integral to our approach is collaborating and co-designing deeply with a variety of stakeholders in order to understand problems from a variety of perspectives, and to explore ways forward together.

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Introduction

NSW Circular is seeking to transition the state to a circular economy. This involves developing approaches to designing waste out of our systems, keeping materials in use, and regenerating natural ecosystems.

It is a massive social, economic and technological challenge that requires input from all areas of our society. Recognising the important role that citizens play, NSW Circular have sought to understand how they can best involve them in this transition to a more sustainable future.

This document explores how different models of Community Hubs might contribute to the transition to a circular economy, and how NSW Circular could collaborate with local communities to bring them into being and take them forward.

How to use this document

This document has been synthesised from a combination of primary and secondary design research, most significantly from a series of multi-stakeholder co-design workshops facilitated by the UTS Design Innovation Research Centre in mid 2021 for NSW Circular.

It is divided into two main sections. The first section outlines key concepts and approaches for Circular Economies and Community Hubs, and frames the key theme of Care emerging from this research. The second section explores how this knowledge could be applied in practice. Different models of Community Hubs are conceptualised, and a prototype process to establish and sustain them, is articulated.

Recognising the important role that citizens play, NSW Circular have sought to understand how they can best work with communities to involve them in the transition to a regenerative future

Introduction

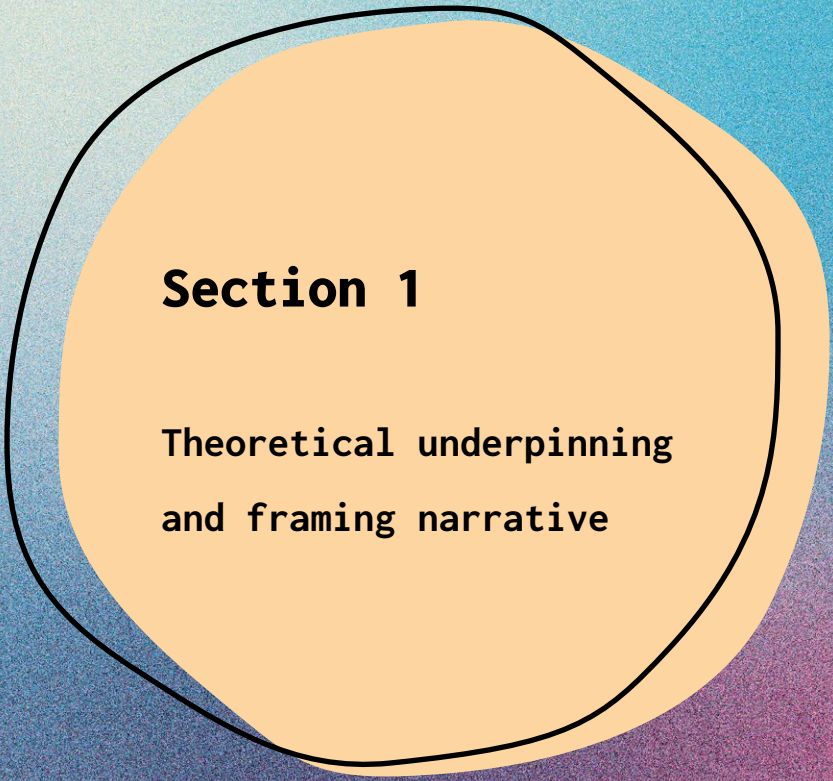
When could this document be consulted?

- When looking at policy and investment
- When developing strategic plans
- When designing or planning spaces or precincts
- When looking to fit out an empty space
- When looking to engage citizens with Circularity
- When looking at problem waste issues
- When looking to connect with a new or existing supply chain
- When looking to design a new solution to a social issue
- When looking to teach, learn or share a new skill about Circularity
- When hoping to connect new organisations or people
- When researching the Circular Economy as a key emerging trend

Who is this document for?

This document is designed to kick start conversations and provide guidance for how Circular Economy Community Hubs could be implemented in nuanced and inclusive ways within local contexts across NSW. It is intended to be accessible and informative to a wide range of relevant stakeholders across public and private spheres, including:

- Architects and Urban Designers
- Town Planners
- State and Federal Government Policy & Decision Makers, Economists
- Infrastructure
- Investors
- Chief Sustainability Officers
- Philanthropists
- Industry Bodies & Associations
- Start-Ups, Universities, Incubators, Accelerators
- Councils
- Place-Makers and Designers
- Artists, Makers and Creative Groups
- Existing SMEs
- Community Groups, both physical and digital
- Clubs, Associations and other Non-For-Profits
- Passionate Individuals
- Researchers/PhD candidates
- Futurists, strategists & innovations teams



Section 1

Theoretical underpinning
and framing narrative

Setting the context

The people of NSW face many interconnected challenges. This can be seen in the dynamics of the climate crisis, increasing social inequalities and mass extinction of wildlife. The bushfires of 2019/20 as well as the COVID-19 pandemic have revealed deep fissures in simply doing business as usual. With the devastation and uncertainty that these recent events have amplified, there are stronger calls to transform our socio-economic systems towards those which are regenerative and resilient.

The growing movement to build a Circular Economy in NSW responds to these dynamics, and has great potential to aid the shift towards cultures, livelihoods and infrastructures that are socially and ecologically responsible. The 2021 NAIDOC theme of 'Heal Country!' calls on us to deeply consider how we respect, protect, manage, sustain and connect with Australian Country now and into the future. Collaboratively developing and embedding a Circular Economy in NSW is a unique opportunity to do this, and a chance to imagine what a uniquely Australian Circular Economy might look like.

What does it mean to facilitate thriving communities and natural ecosystems through a circular economy unique to NSW?

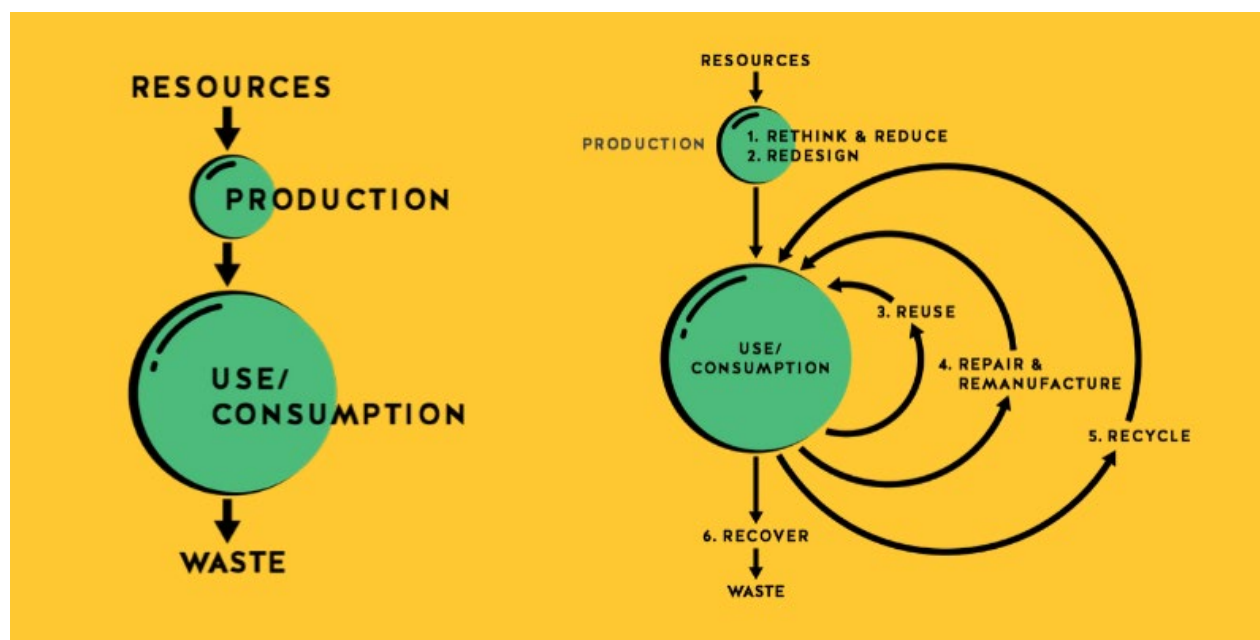
The circular opportunity

A circular economy aims to redefine growth, focusing on positive society-wide benefits. Gradually decoupling economic activity from the consumption of finite resources, and designing waste out of systems, it is based on three principles:

1. **Design out waste and pollution.**
2. **Keep products and materials in use.**
3. **Regenerate natural systems.**

NSW has rising waste volumes, plateauing resource recovery rates and some of the highest per capita emissions in the world - almost triple the global average (DPIE 2021). It has been identified that NSW will not reach its target of net-zero emissions by 2050 without a circular economy in action.

The circular economy opportunity is significant in Australia - estimated at \$2 trillion dollars over the next twenty years, with a saving of 165 million tonnes of CO2 per year. Currently, 35% of waste generated in NSW each year goes to landfill, costing businesses and households over \$750m in waste levies.



(Adapted from PBL Netherlands Environmental Assessment Agency. themasites.pbl.nl/circular-economy/)

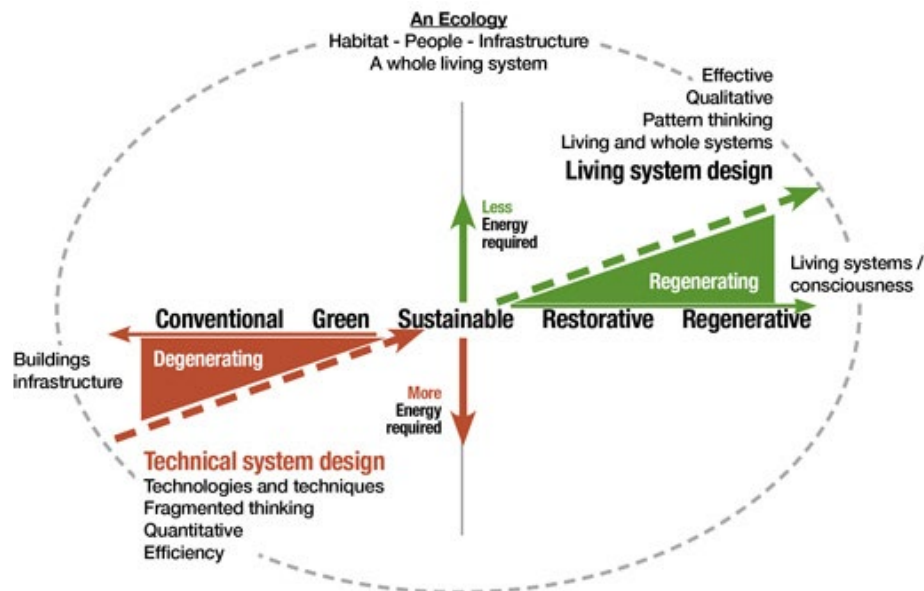
Key concepts and approaches

Circular Economy for regenerative systems

A regenerative Circular Economy can greatly help to tackle carbon emissions, biodiversity loss and overconsumption. As the following diagram by Bill Reed of Regenes Group depicts, aiming for sustainability is simply not enough; rather a regenerative circular economy is one that contributes to the wellbeing of its ecosystems as well as its human communities.

A Circular Economy could have the following qualities:

- Moving away from a 'take-make-waste' economy, to a 'take-make-recreate' economy where economic growth is not based on extracting finite resources, but on circular systems. This new economy disrupts linear approaches that encourage us to flush and throw away valuable resources.
- Keeping resources in use for as long as possible. Extracts the maximum value from resources whilst in use, then recovers materials at the end of their life to be used again in a new form. A continuous cycle of reinvention.
- Providing opportunities for material reuse through a circular system, where waste and pollution are 'designed out'. Utilities - energy, waste, water - are decentralised, and natural systems are regenerated.
- Systems transformed with a shift of focus from ownership to usership with sharing and reuse models. Products become services that allow us to use what we want, when we need it, saving money, resources and restoring our ecosystems.



(Source: Bill Reed, Regenes Group)

A Circular Economy shifts away from a linear 'Take-Make-Waste' model of production and consumption, and towards models that Design Out Waste, and regenerate our social and environmental systems.

Key concepts and approaches

Technical vs. cultural aspects to circularity

Most Circular Economy models and discussion focus on the technological shifts that need to occur to transition towards more sustainable, circular futures. Much of the discussion ignores the huge socio-cultural shifts that need to occur in tandem.

Technical

This involves building decentralised circular economies by optimising material flows and services to locally cycle materials, increase resilience and self-sufficiency as well as reduce waste. Shorter supply chains through distributed production reduces reliance on global production networks that externalise social costs onto other communities, whilst also bolstering local producers and manufacturers.

Cultural

This is primarily to do with bolstering individual and organisational practices of making, repair, sharing and commoning as alternatives to a reliance on passive consumption of goods that serves to increase GDP. These circular practices, lifestyles and infrastructures creatively embody the need for communities to slow down, build reciprocal relationships, consume less and live within ecological limits.

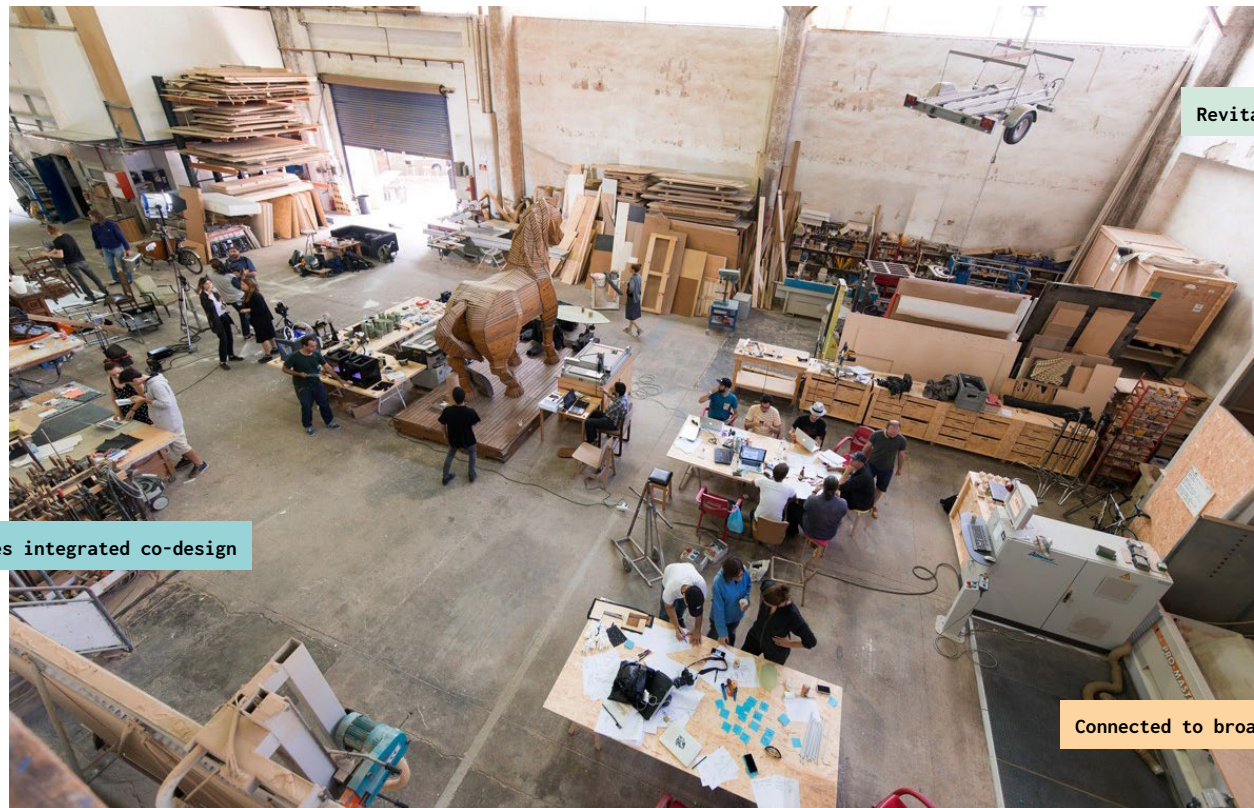
Key concepts and approaches

Local production practices

Case study: Fab City

The Fab City Global Initiative taps into the evolution of distributed production by fashioning a model for self-sufficient neighbourhood building (Diez 2017). Their test case in the neighbourhood of Poblenou in Barcelona shows what it would look like to embody a DIDO (data-in, data-out) model rather than the prevailing PITO (product-in, trash-out) model (Chardonnet 2019).

“Fab City focuses on the movement of data, use of local material supply chains and digital fabrication” (Armstrong et al. 2019, p. 13). In some cases, this has cut out the production-consumption supply chain altogether, with citizens having the ability to collaborate on an open-source design before the product is fabricated in their local makerspace. “For communities to locally produce material goods efficiently, physical products should follow open-source principles similar to the ones applied to the digital commons” (Lemos 2020, p. 172).



Community and industry voices integrated co-design

Revitalising neighbourhood spaces

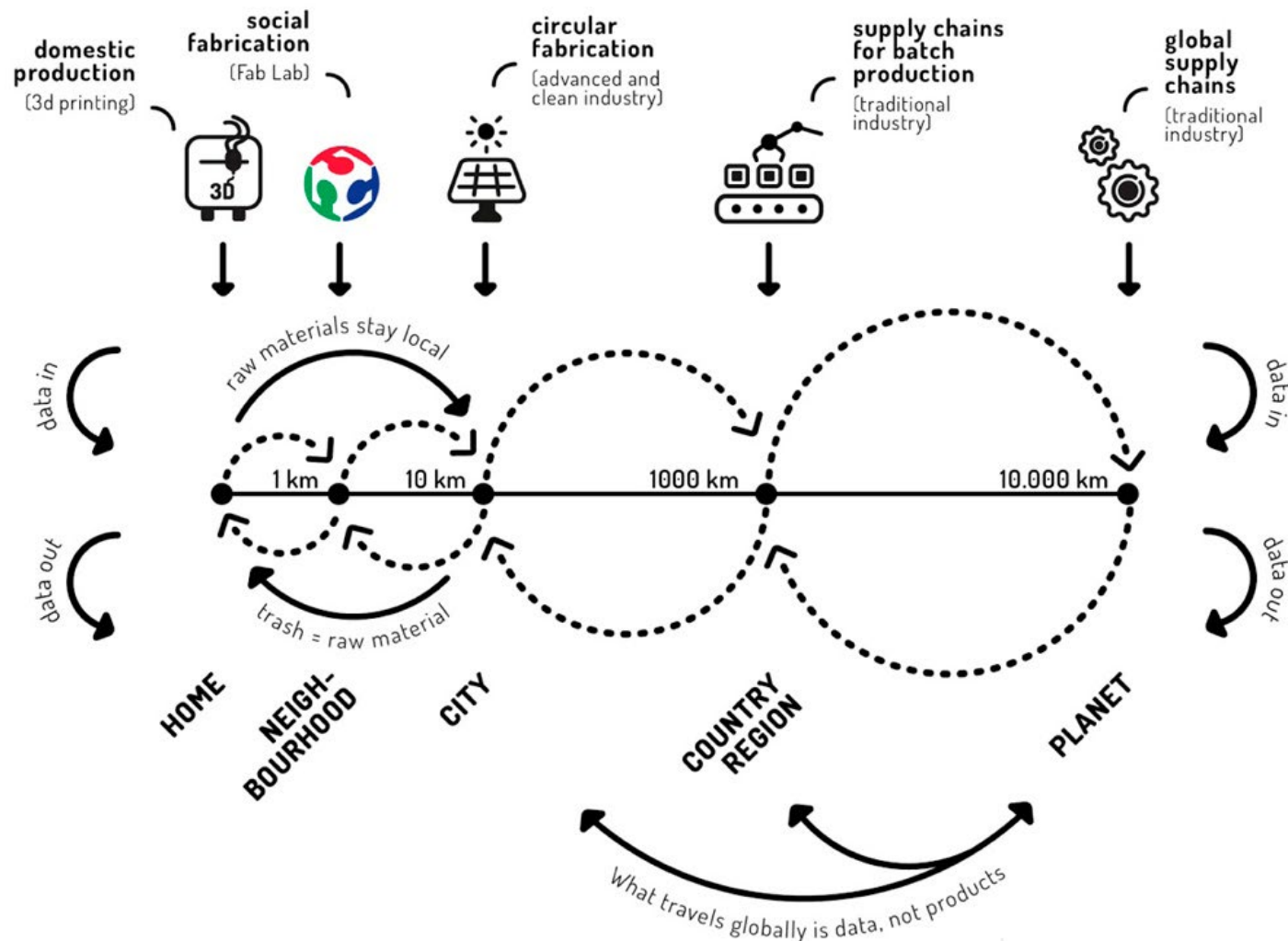
Connected to broader city transitions

(Source: Fab City Global Initiative. A photo of their maker/co-working space in Poblenou, Barcelona)

Key concepts and approaches

The diagram below shows the Fab City model for a distributed production ecosystem. With this it is easier to grapple with the multiple scales of Circularity that could make up our decentralised global economy.

How might local communities reconsider their underlying consumption and production habits at multiple scales?



(Rescaling global manufacturing - Fab City Global Initiative 2016, p. 5)

Key concepts and approaches

Repair culture

As depicted in the previous flow diagram, the various nested scales of distributed production work together to facilitate the development of local, circular economies and global collaboration on innovative methods. Biomaterial production along with thriving repair networks are important complements to makerspaces and distributed production networks in helping to localise our economies. Cultivating cultures of repair as a vital part of local material recirculation can offset industrial material recycling processes that are energy intensive and actually enable a continuation of our throwaway culture.

Case study: The Bower

The challenge is for makerspaces and designers to embrace and develop practices that subvert the prevailing stigma of unfashionableness associated with repair and refurbishment (Crosby & Stein, 2020). Repair needs to become synonymous with design and consumption as an expression of custodianship of the materials and resources we use. The Bower Reuse and Repair Centre in Sydney exemplifies the growing appreciation

of Circular practices. With The Bower, individual customers, partner organisations and local councils look to challenge consumerism and 'close their loops'.

The Bower is a not-for-profit organisation operating in four locations across Sydney, to bring together local communities through the repair and rehoming of landfill-destined furniture. The Bower takes donations of

unwanted furniture from individuals and 21 partnered local councils, which is then fixed and either sold to the community or donated to disadvantaged people. The emergence of these practices and networks is a step towards systems of local production and consumption, however their economic viability is hindered by poor policy.



(The Bower Reuse and Repair Centre. Image source: thejunkmap.com.au)

Key concepts and approaches

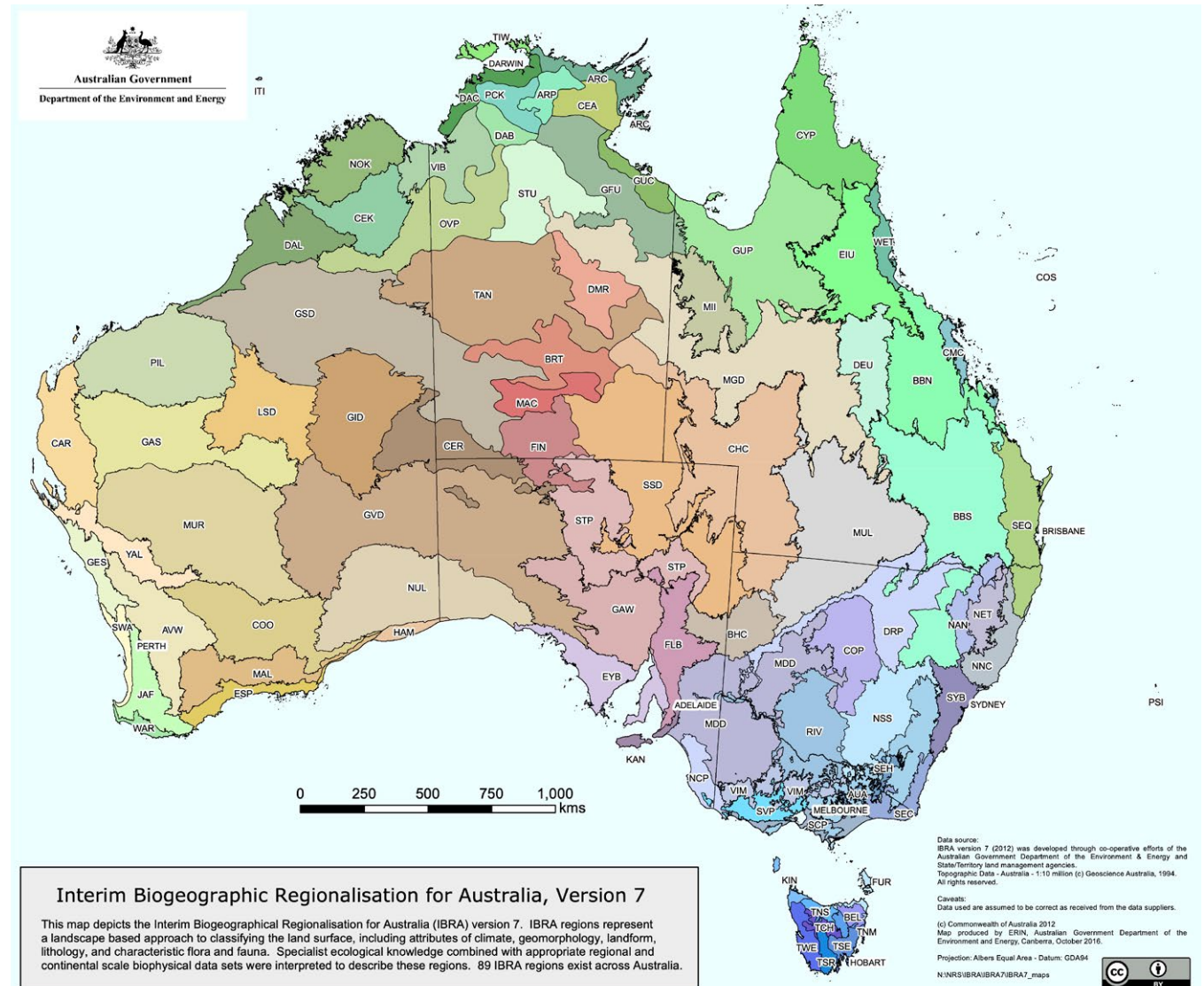
Bioregional localisation

The [following map](#) shows the 89 bioregions of the Australian continent, including the 18 bioregions of NSW state - these have been classified based on climate, geomorphology, landform, lithology and characteristic flora and fauna.

Adding nuance to calls for circularity, bioregionalists argue for a renewed emphasis on living in reciprocity with local places, their ecosystems and bio-geo-physical realities (Thackara 2019; Wahl 2020a).

Adapting to the bioregional realities of any given place would help communities shape their local economy. Bioregional adaptation of economies could see the emergence of distinct production cultures as they are uniquely fostered by the conditions of each bioregion (Wahl 2020b).

Rather than using the bioregional framework as a top-down solutioning mechanism, it would be preferable to use an understanding of bioregions as one way to provoke the community-led emergence of circular economies that are characteristic of their local ecosystems and bio-geo-physical contexts.



(Australian Government Dept. of the Environment and Energy - Interim Biogeographic Regionalisation for Australia, Version 7)

Project methodology

We undertook a number of primary and secondary design research activities over the course of this project. Design research processes consider and include as many diverse and unique perspectives as possible, to ensure the problem space is understood more comprehensively, and that any solutions are equitable and robust.

Over the course of the project, our team worked with over 40 workshop participants and external collaborators. These people had diverse professional backgrounds across local and state government, commercial and community organisations, and academia. It is important to recognise the limitations of this relatively short study with potentially

significant implications for NSW, such as the absence of regional and remote individual and organisational perspectives. This indicates the need for further validation of any concepts that are subsequently developed or implemented.



(Panorama of Co-Design Workshop #1)

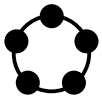
Project methodology

Key phases



Desktop research

Investigating Circular Economy models and circular social practices globally, as well as precedents for Community Hubs.



Co-design workshops

Two half-day workshops were facilitated by the Design Innovation Research Centre - one in person and one online using Zoom and the collaborative digital platform Miro. In these workshops, a range of stakeholders took part in a combination of individual, group and plenary activities and discussions on a number of topics:

- Exploring what Circularity means for an Australian context.
- Exploring Community Hubs and their connection to Place.
- Personas and social service journeys to consider how diverse citizen users might interact with community hubs.
- Testing a collaborative process for how community hubs can be established in local contexts.



Design synthesis

Thematic analysis, conceptualisation of concepts based on research data and narrative synthesis.



Conceptual report

Communicating the research, findings and prototype process to develop Circular Economy Community Hubs.



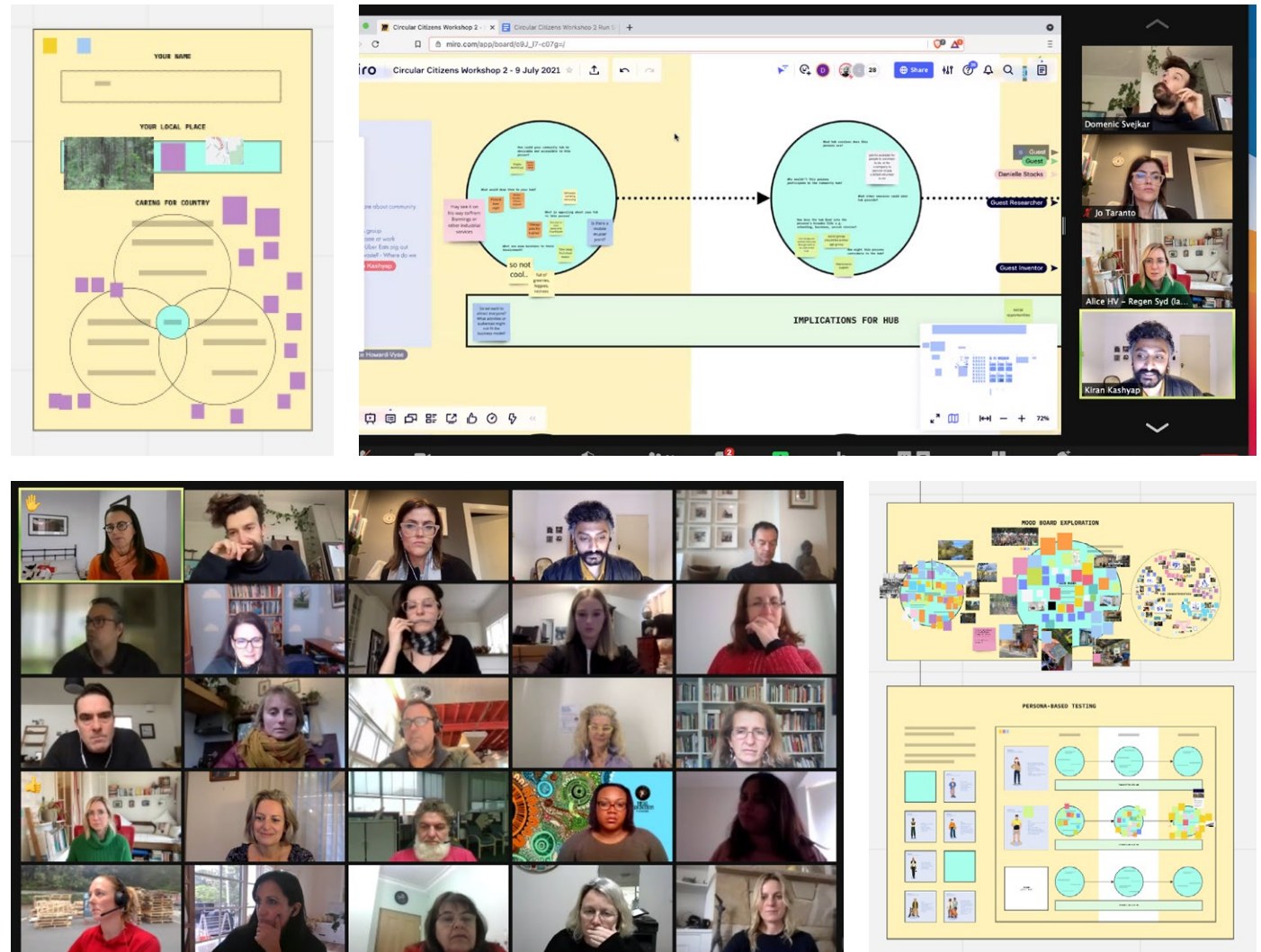
(Participants sharing knowledge during Co-Design Workshop #1)

Project Methodology

Limitations of this study

Prototypes, concepts and insights developed through this research should be used as artefacts to further develop context-specific approaches, rather than act as prescriptive or final solutions. This is primarily due to certain limitations of this study:

- Workshop participants had primarily urban or semi-urban backgrounds, meaning concepts may be better suited to these contexts. There is a need to better consider stakeholders from remote, rural, regional NSW contexts.
- Considering the size of NSW, only a relatively small sample of people were engaged in workshop discussions. Further explorations could also engage an increasingly diverse set of participants, as well as including the lived experience of citizen representatives from within the community. This would also contribute to deeper user testing of concepts by considering Community Hubs and Circularity in specific Places and contexts.



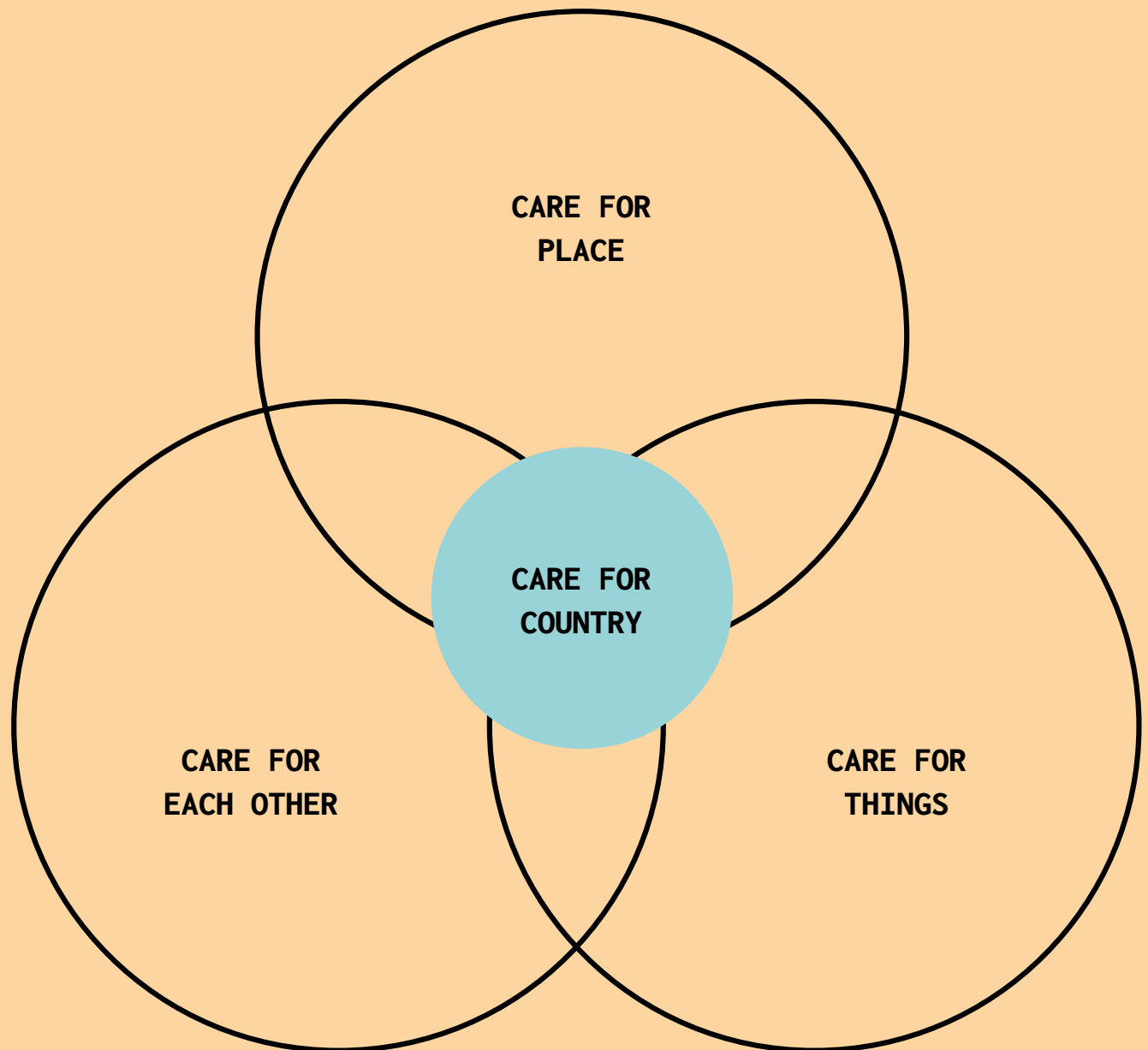
(Screenshots of Co-Design Workshop #2 activities conducted virtually - some imagery deliberately blurred)

Reframing Circularity

The workshop participants highlighted that whilst the Circular Economy model indicated positive shifts towards sustainable technological and infrastructural processes and policies, the term was ambiguous and did not resonate with the deeper socio-cultural reasons that people in communities around NSW would be motivated to be involved in the transition.

The theme of Care emerged from workshop discussions and activities as an underpinning driver to become a more Circular society. It was highlighted that Care and Circularity have a long history through Aboriginal Australian stewardship of land and culture, and that this should continue to be embedded in the way forward. These discussions caused deep reflection on what a uniquely place-based Circular Model might look like for an Australian context.

‘Care’ became the lens through which the workshop participants began to frame their deeper understanding of how Circularity could be enhanced in local communities. Individually and in groups, the participants reflected on the theme of Care, and how Care for Country, through local Place, Each Other and Things, could engage the community in more nuanced and diverse ways, rather than at a broader and more general level.



A frame through which to consider Circular Economy Community Hubs

Reframing Circularity

Understanding Place and local community

These workshop discussions highlighted the importance that understanding and strengthening connections to Place - through local socio-cultural and environmental relationships - plays in how aspects of the Circular Economy are established or enhanced in communities.

Before establishing a Community Hub within a local community, which could take many forms and functions, great thought and collaboration must occur with key stakeholders to understand what is already happening locally, what the community needs and wants for its future, as well as the distinct culture of the community. Alongside this a deep understanding of the ecological qualities of Place - the types of biologies, geologies and physical characteristics that constitute a locality - must be considered Carefully in the development of Circularity.

“Care is an active act, nurturing and improving the country around you”

“Building a relationship with community and listening to aspirations and needs first is crucial”

- Workshop participants



Circularity
is about
Care

What are Community Hubs?

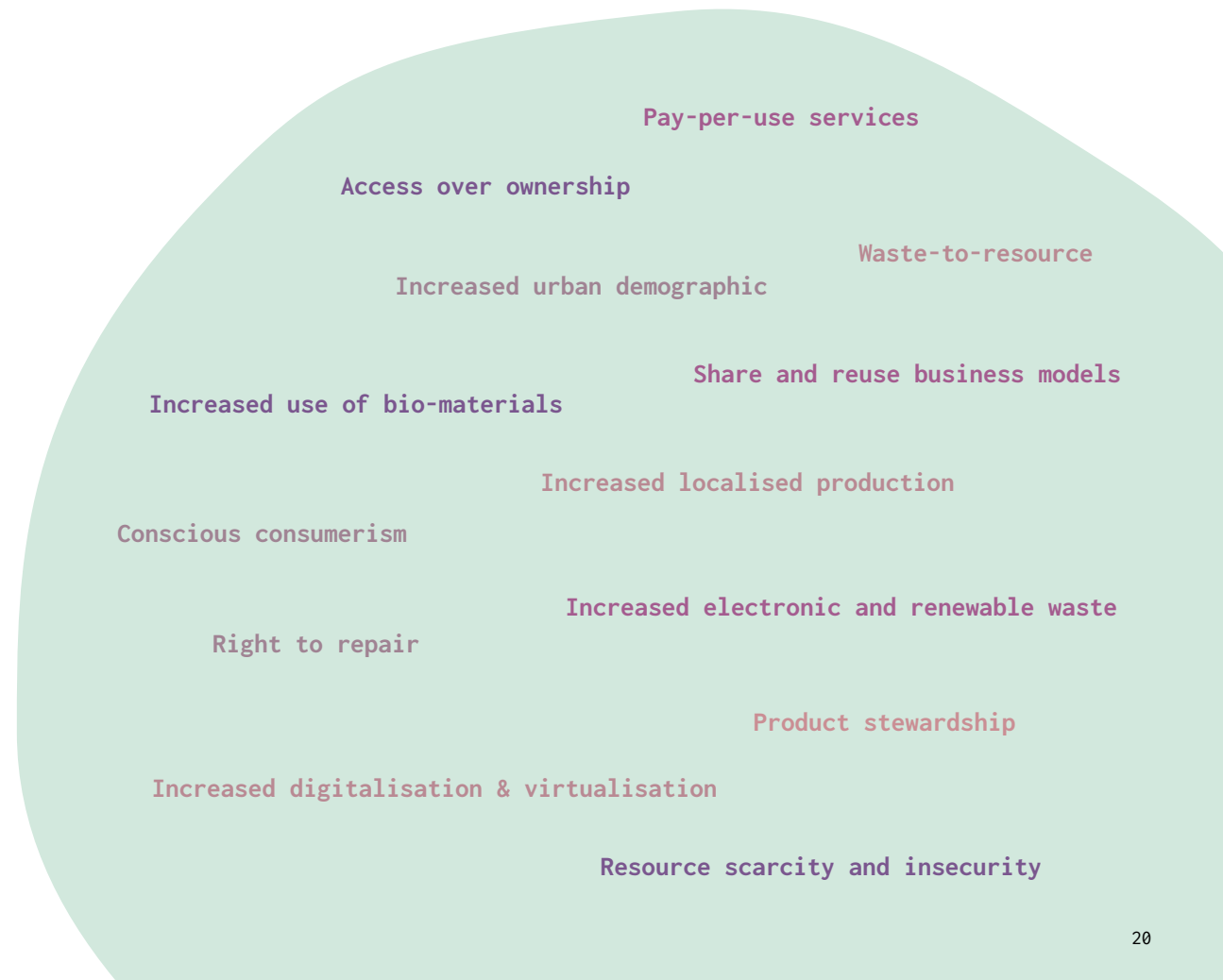
A Community Hub is a space used by a local community for various community events, gatherings and services. Community Hubs are simultaneously a physical building requiring particular attributes, a mechanism to facilitate service collaboration and integration as well as a place-making opportunity to build cohesive communities. A hub may also have a digital component which can foster the development of an online community.

Community Hubs vary based on a number of factors, such as the social demographic of the community it is situated within, the cultural and historical significance of a physical space itself, as well as the resources available to effectively manage and promote the Hub. It may be a rejuvenated historical site turned events venue, a makerspace inviting local innovation, or perhaps a cultural incubator. The types of Hubs and their characteristics will be explored further in Section 2.

Community Hubs and Circular Economies must respond locally to changing social and ecological dynamics

Future Trends and Dynamics

As part of a long-term transition to circular models and practices, it is important that Community Hubs also adapt to and evolve with changing future eco-socio-technical trends and dynamics, whilst also responding to the current needs and goals of their local community contexts. This requires ongoing communication and collaboration between communities and NSW Circular to proactively plan pathways forward, and learning in both directions.



Section 2

Hub concepts and
co-creation process

Introduction to concepts and process

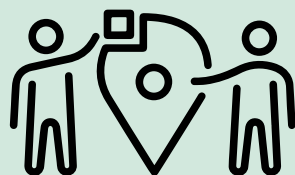
Section 2 of this document explores how community hubs might be conceptualised, established and sustained in local communities, for the purposes of enhancing the way they Care for Country and help transitions to more Circular practices. It takes learnings from both broader literature and workshop co-design activities and discussions. These principles,

catalysts, concepts, process, governance frameworks and insights are intended to prompt conversation, inspire and guide the development of Community Hubs in nuanced ways, specific to local community needs. They are not intended to be prescriptive in how they are applied, and do not ignore the potential for many other ways of implementing these types of spaces.

“Protecting a Place for future generations”

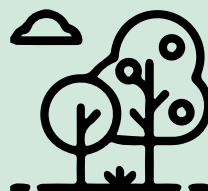
Design principles

The following principles are intended to guide the development of Circular Economy Community Hubs in the diverse localities of NSW.



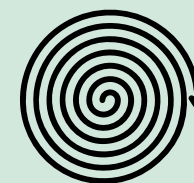
A community-led co-creation process

- Working inclusively with a diverse set of stakeholders from the local community to co-develop a Hub and Circular transition that works with and for them.
- Balancing community voices with other stakeholder groups, such as commercial and governmental organisations.
- Ensuring Indigenous voices are emphasised and help to direct transitions.



Place-based and context-specific Care

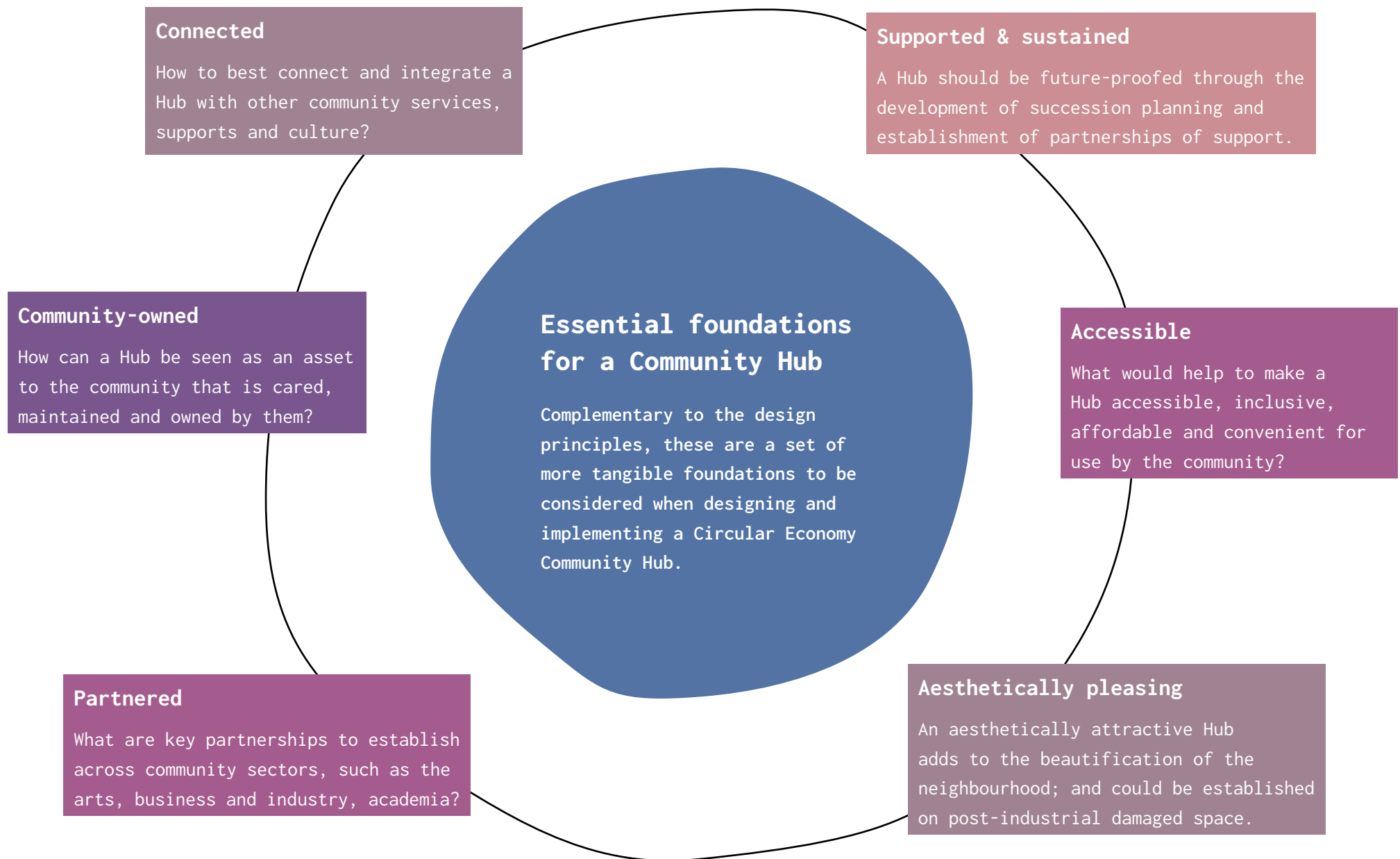
- Developing a Community Hub and Circular Economy that responds to and cares for local cultural and ecological conditions - Place, Each Other and Things
- Building the seeds of local Circular practices that are already in motion.



Sustained & developed over time

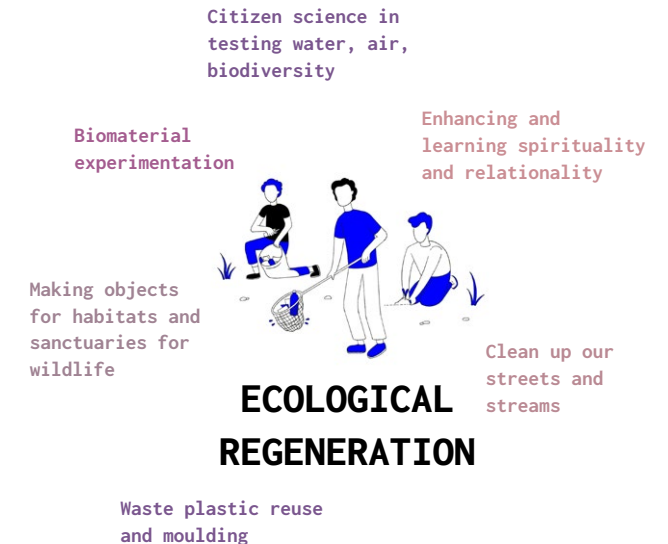
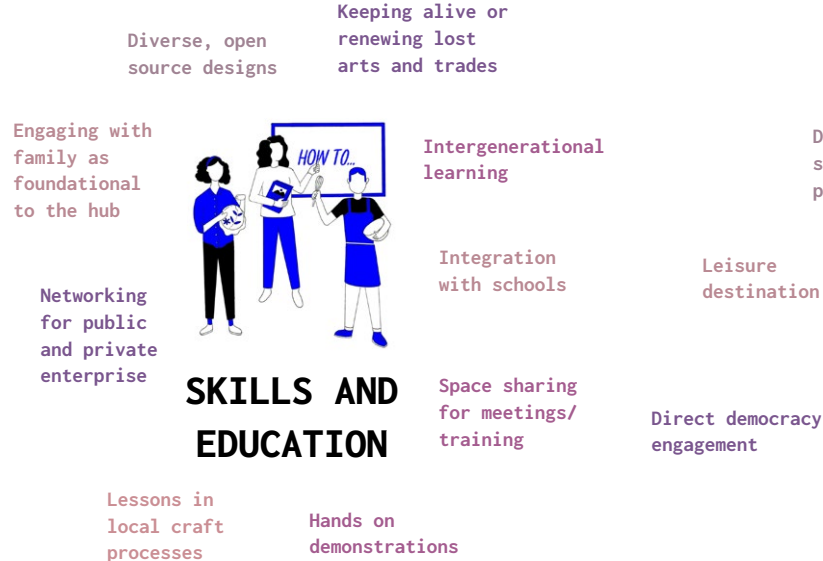
- Transitions to a Circular Economy are long-term, potentially multi-stage changes that feeds into many changing social and environmental dynamics.
- Planning proactively for future changes, as well as developing in the present.
- Connected and responsive to the everyday habits and routines of citizens.

Introduction to concepts and process



Hub catalysts

The illustrations and descriptions shown here are an expansive exploration of a diverse range of potential hub catalysts. These ideas attempt to capture and further inspire how Community Hubs could possibly function. Reflection on these qualities with regards to a specific context can help to explore their relevance and applicability in particular places and communities. The catalysts have been organised according to five hub typologies as they emerged from the first co-design workshop.



The lives of community members

By considering and engaging with the real human needs and experiences of people, Community Hubs can be better designed and implemented. The following personas were used in workshop discussions and activities to help test and refine concepts for Circular Economy Community Hubs.

These personas demonstrate just some of the diversity of people in communities around NSW. They are explored here to help unpack a greater variety of opportunities for Community Hubs to meaningfully impact the lives of citizens.

The text written around the personas describes potential hub functions and qualities that could be relevant to their needs and interests.

Events and talks to inspire new ideas in the community



HIGH SCHOOL STUDENT
14 Y.O. ZOOMER

- Participates in climate marches
- Feels pessimistic about the future, but wants to act somehow
- Has video gaming friends from around the world

A van that visits local schools and perform any number of activities, such as running programs on repair, developing fabrication skills, or education on the Circular Economy

Communication materials and networks that cover Circularity in accessible ways, demonstrate what is already being implemented, and elicit community input and feedback on future plans

Digitally connect people with others in the community to share skills and resources



EMPTY NESTER
60 Y.O. BOOMER

- Enjoys renovating for the sake of aesthetics
- Lots of free time
- Aware of social standing, keeping up with the Jones'

Repair-style stores situated amongst regular shopping centres to normalise up-cycling and re-use of vintage clothing, equipment and furniture

A space and service for skill-sharing with sessions run by a range of people - local community members, business holders, community groups, teachers etc.



GYM JUNKIE
28 Y.O. MILLENNIAL

- Tight knit friends group
- Talks about waste at work
- Loves a cheeky Uber Eats pig out

Community Hubs can partner with businesses and groups to create local platforms and initiatives for Circular practices

A place for 'waste-hacking' to explore the re-use, recycling and processing of local materials, waste and e-waste

Offering multilingual information that reflects the diversity of the local community



INTERNATIONAL STUDENT
22 Y.O. ZOOMER

- Multi-lingual; partially proficient in English
- Transient community member with rich parents overseas
- High digital literacy

Digitally encourage, educate and engage people in the community about how they can become more Circular in their lives, at home, work, and in other activities

A space and service for practical learning for students in courses connected to TAFE and universities

The lives of community members

A space that holds sessions in making and repair for the community, bringing in old resources and materials to build new equipment, textiles and other objects



SMALL BUSINESS OWNER

52 Y.O. GEN X

- Camera repair technician and tutor at TAFE
- Values her face to face profession
- Lots of film wastage

A service that can work with local businesses to develop and build Circularity into their operations

A space and service for practical learning for students in courses connected to TAFE and universities

Appealing and accessible maker and repair workshop experiences as a public leisure activity



OP-SHOPPER

36 Y.O. MILLENNIAL

- Lives on the spectrum with autism
- Follows all the zero waste Instagram pages
- Likes travelling to regional parts of country
- Wants more friends

A flexible, inclusive, intergenerational space for people to connect, as well as contribute to ideas and discussions about Circularity and Care for their local Place

Repair-style stores situated amongst regular shopping centres to normalise up-cycling and re-use of vintage clothing, equipment and furniture

A flexible, inclusive, intergenerational space for people to connect, as well as contribute to ideas and discussions about Circularity and Care for their local Place



YOUNG COUPLE WITH A KID

30 Y.O. MILLENNIALS

- Busy with work and children
- Need reprieve and leisure time, want to slow down
- New types of waste - nappies, clothes, food

Appealing and accessible maker and repair workshop experiences as a public leisure activity

Co-working spaces to enable the cross-pollination of experiences, and an extra social space for people that work remotely

Events and talks to inspire new ideas in the community



COUNCIL LIBRARIAN

45 Y.O. GEN X

- Works with migrant communities and holds events
- Active in local community garden
- Participates in seed saving

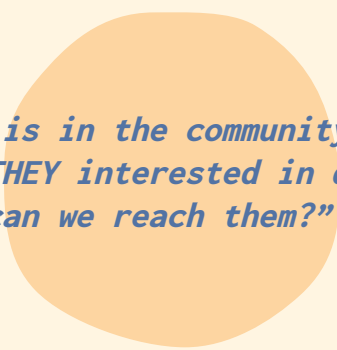
Sessions around skills sharing and stewardship of nature, such as through bush regeneration clubs and local native food production

A space for deeper discussions to inform infrastructure and for advocacy and policy changes

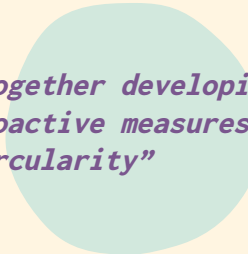
Hub concepts

The Hubs conceptualised over the following pages are developed and refined from a combination of literature and co-design research with workshop participants.

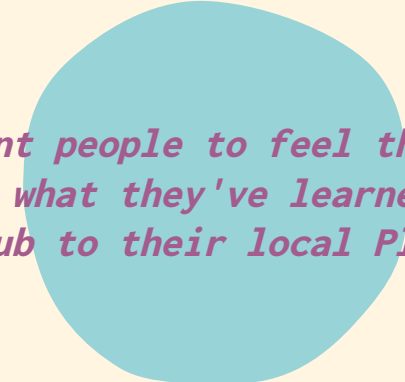
The illustrations are intended to reflect some of the key insights about the different forms Community Hubs can take depending on context, accompanied by annotations with considerations to take forward when applying any of these concepts in practice. They are intended to be used to provoke conversation and ideas about the potential features of a Community Hub in a specific context, not used prescriptively.



“Who is in the community? What are THEY interested in doing? How can we reach them?”



“Together developing proactive measures for circularity”



“I want people to feel they can apply what they've learned at the Hub to their local Place”

Hub concepts

Garden Hub

Community Hubs can be places that encourage the regeneration of the surrounding Country, as well as catalyse social Circular practices such as resource sharing. Communities may feel they want a Hub where people come together in nature for group activities and discussion, to think about Care for their Place and Each Other.

“Revolutionise local land care.. retrain current staff in Indigenous & regenerative landcare to enhance local biodiversity”

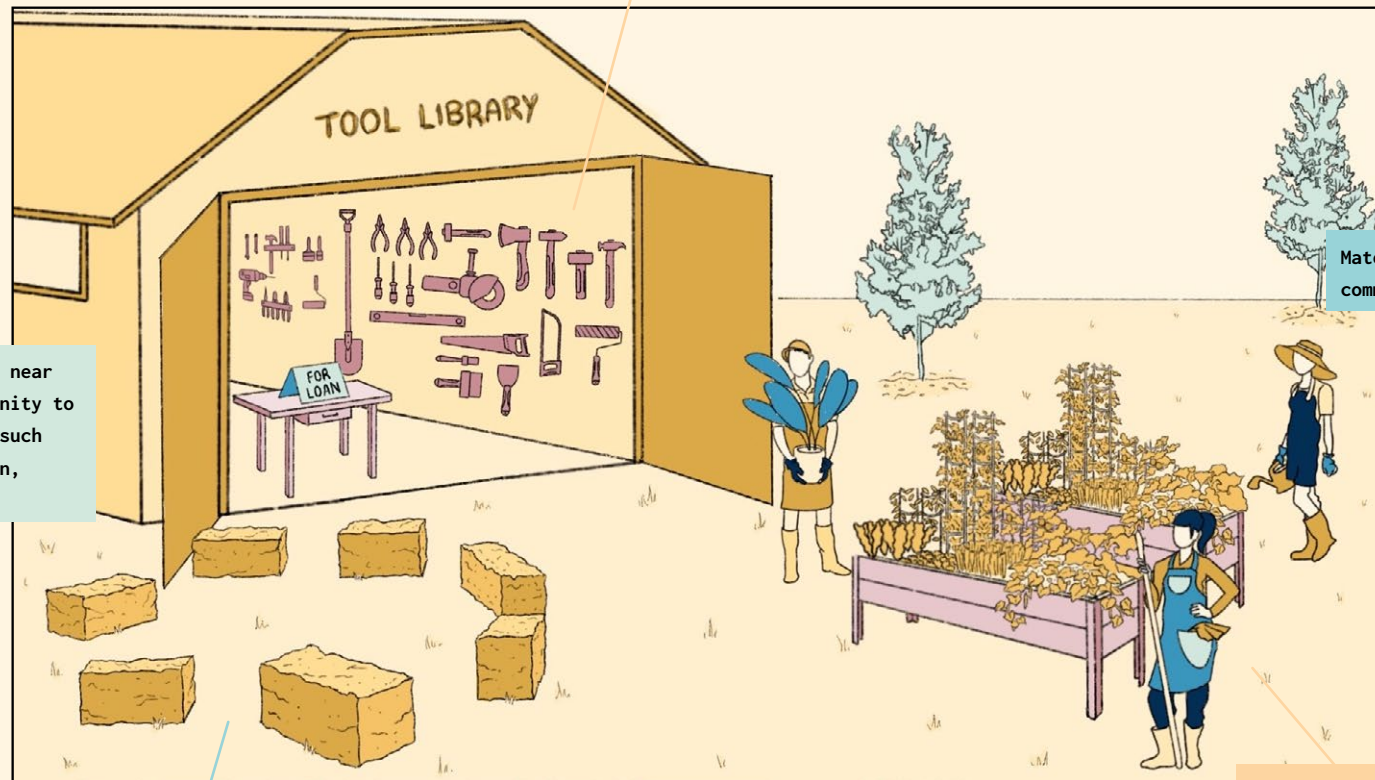
Garden Hubs can encourage the sharing of resources such as tools, appliances, and other collected or donated materials

Garden Hubs could be co-located near key visible points in the community to ensure they are seen and used, such as a school, park, train station, council, or aged-care facility

Materials can be sourced in regular community ‘musters’, or via drop-off

Garden Hubs can be places of tranquility, reflection and discussion

Garden Hubs can facilitate sessions around skills sharing and stewardship of nature, such as through bush regeneration clubs and local native food production



Hub concepts

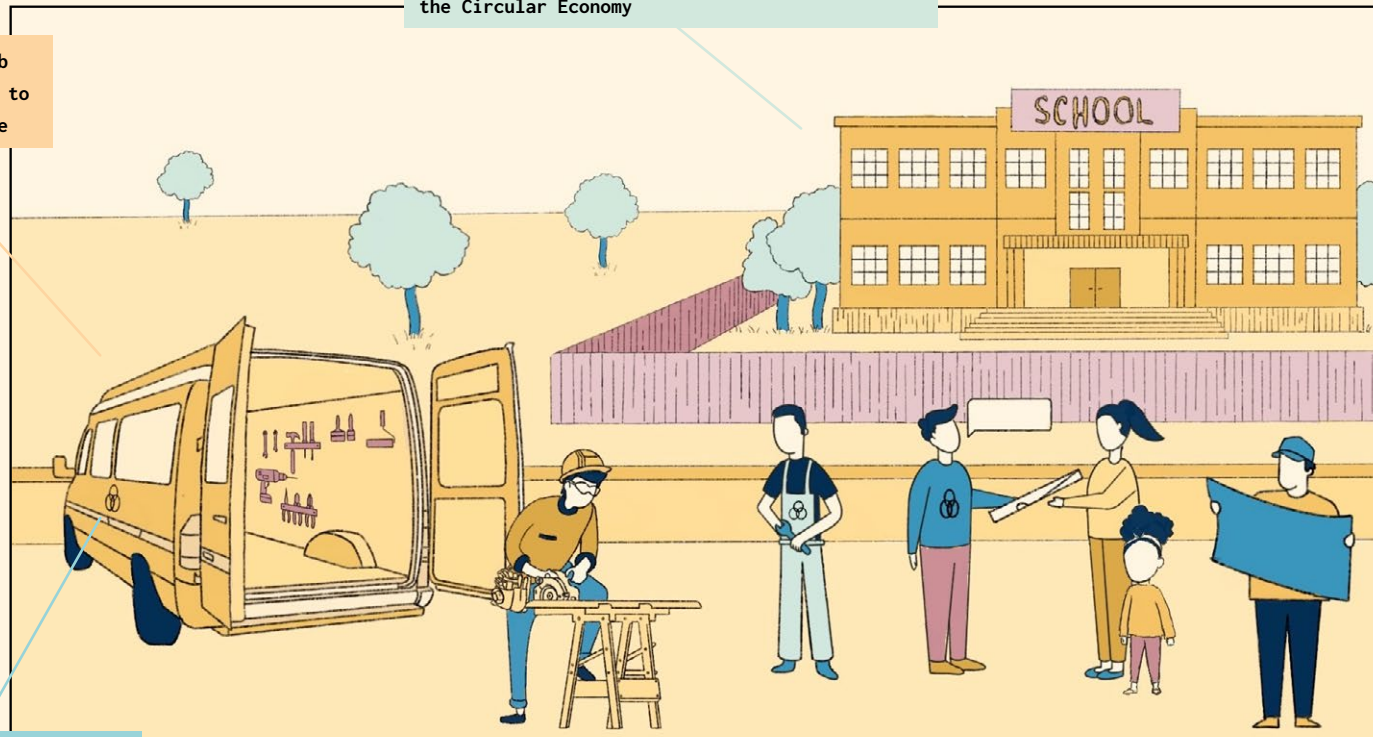
Mobile Hub

Community Hubs do not need to stay in one place. Communities may feel they want a hub that can move around to different areas of the community - such as schools, parks and businesses - and fulfill a range of useful functions.

“Storytelling within the community of stories of care and circularity”

A Mobile Hub may take the form of a van that visits local schools and perform any number of activities, such as running programs on repair, developing fabrication skills, or education on the Circular Economy

The aesthetics of the Mobile Hub should be developed and adapted to suit the local Place and Culture



The Mobile Hub can be branded by the local community Circular groups, or else by NSW Circular and connected cohesively to other initiatives in the area.

A Mobile Hub may create a bigger presence and visibility of Circularity in the community

Hub concepts

Digital Hub

Community Hubs can extend beyond the physical. Some communities may feel that having online resources may be an effective approach to engage citizens and increase understanding and awareness about Circularity.

“Welcome and awareness in different languages”

A Digital Hub can connect people with others in the community to share skills and resources.

A Digital Hub can encourage, educate and engage people in the community about how they can become more Circular in their lives, at home, work, and in other activities. Part of this could be a reuse database

Community Hubs can partner with businesses and groups to create local platforms and initiatives for Circular practices.

A Digital Hub could map all the Circular services and touchpoints within a community

A Digital Hub should dovetail with physical spaces and signals in the community, such as a local Circular brand or campaign

Transient community members might not always understand the nuances and expectations in Caring for Place. A Digital Hub may help in providing information to those people, such as international students in universities



Hub concepts

Social & Ideas Hub

A Community Hub can inspire new ways of being and doing in a community. Some communities may feel that a hub should be a space for people to understand and contribute to what is going on in their local Place in regards to Circularity, now and into the future.

“Orientation and welcome is critical. Finding a shared language, not necessarily ‘circular economy’”

“Place for people to connect”

A space for multi-disciplinary stakeholders across community, industry, business, academia and government to come together and map transitions to Circular futures

A Social & Ideas Hub can host events and talks to inspire new ideas in the community

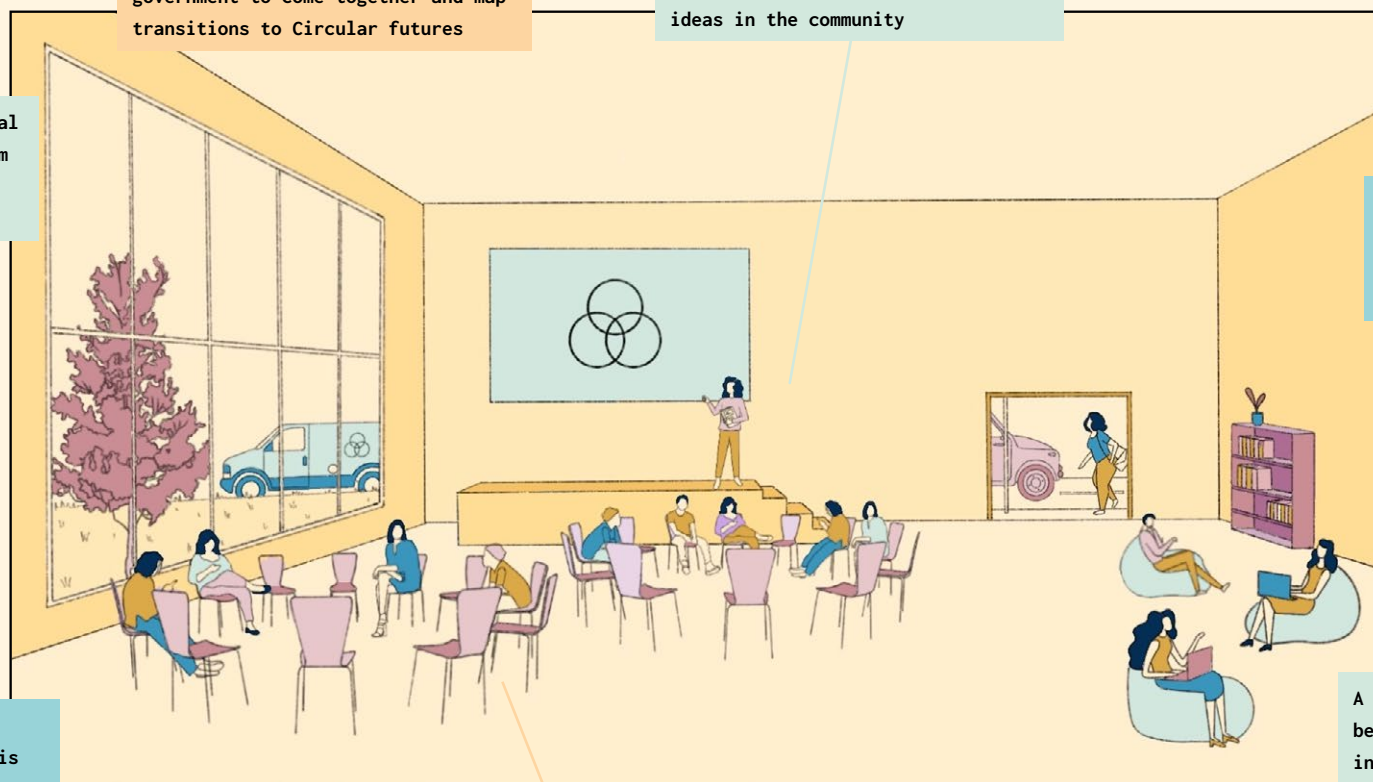
Deeper discussions about material & waste flows, as well as inform infrastructure, advocacy and policy reform

The Social & Ideas Hub can work with local businesses to develop and build Circularity into their practices and services

Communicate and demonstrate to the community what Circularity is already being implemented, and elicit community input and feedback on future plans.

Circular Citizens Working Group discussions can be held in a Social & Ideas Hub

A Social & Ideas Hub could be a flexible, inclusive, intergenerational space for people to connect, as well as contribute to ideas and discussions about Circularity and Care for their local Place



Hub concepts

Experimental Hub

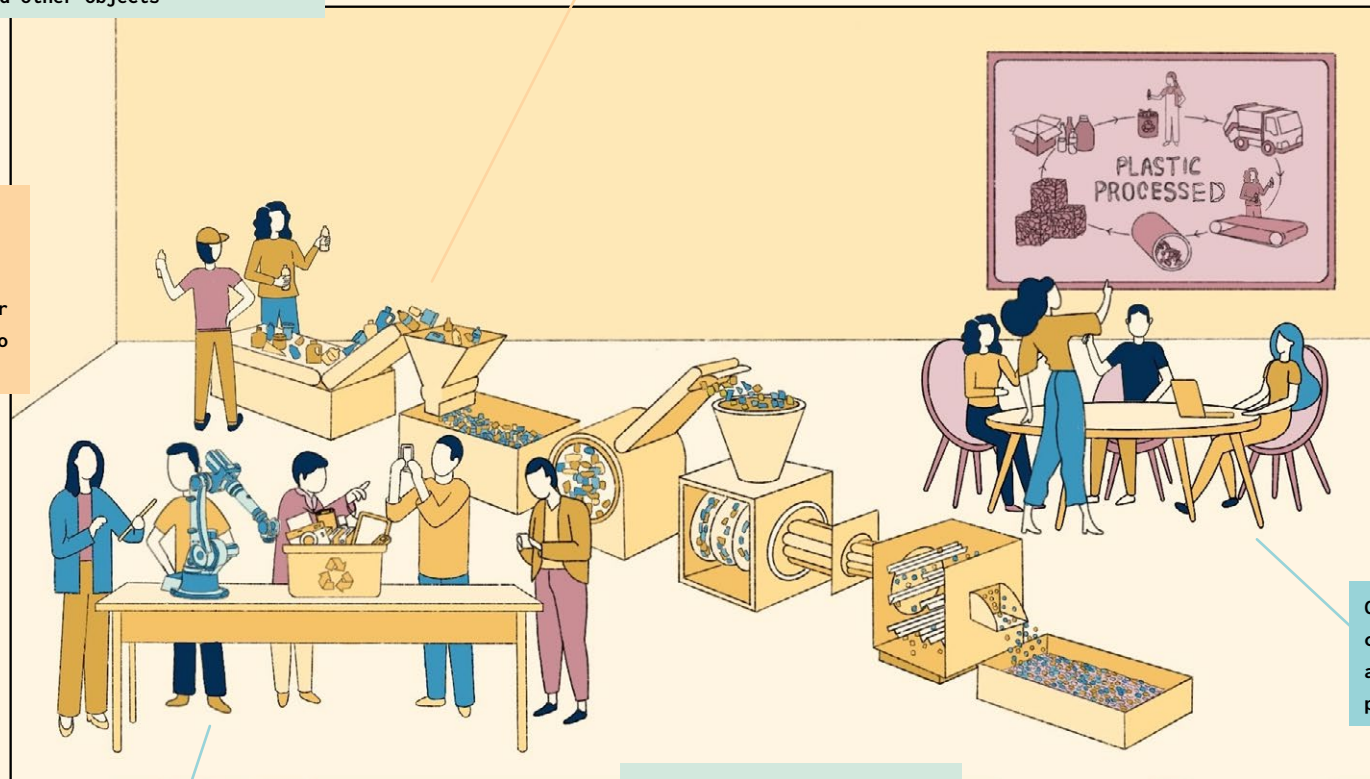
A Community Hub can be a place of experimentation and learning. Communities may want a Hub for local citizens to build awareness and share practices in reuse, recycling and repair.

"A place that holds knowledge but is also still learning"

An Experimental Hub can be a space that holds sessions in making and repair for the community, bringing in old resources and materials to build new equipment, textiles and other objects

A place to explore the re-use, recycling and processing of local materials, waste and e-waste with new technologies and methods

The Experimental Hub can be connected to educational institutions. It can provide a space for practical learning for students in courses connected to TAFE and universities



Co-working spaces to enable the cross-pollination of experiences, and an extra social space for people that work remotely

Sessions run by a range of people including local community members, business holders, community groups and teachers

A place for experimentation with biomaterials and methods e.g., hemp, algae, seaweed, and mycelium

Hub concepts

Retail Hub

A Community Hub can be connected to other services and practices. Communities may feel that a Hub should be co-located near high-pedestrian and consumer activity to help shift consumption and production behaviours.

“Shifting habits and mindsets around consumption”

Retail outlets can be encouraged to increase reuse and repair-style stores amongst regular shopping centres to normalise up-cycling and reuse of vintage clothing, equipment and furniture.

A Retail Hub can partner with local food and product-based shopping outlets to explore how they can create Circular initiatives



A Retail Hub can provide appealing and accessible maker and repair workshop experiences as a public leisure activity

Easy drop off for various types of materials for processing and repurposing

A Retail Hub can bring in local artists and creatives to facilitate and run sessions related to Circular and craft practices, especially attracting kids and families. These sessions can also be streamed digitally and linked to digital Circular platforms

Hub Concepts

Connected Hubs

A Community Hub is just one touchpoint amongst many in a Circular community. Communities may feel that multiple hub ideas are valuable to their area, and want to explore how various Circular touchpoints might work together cohesively.

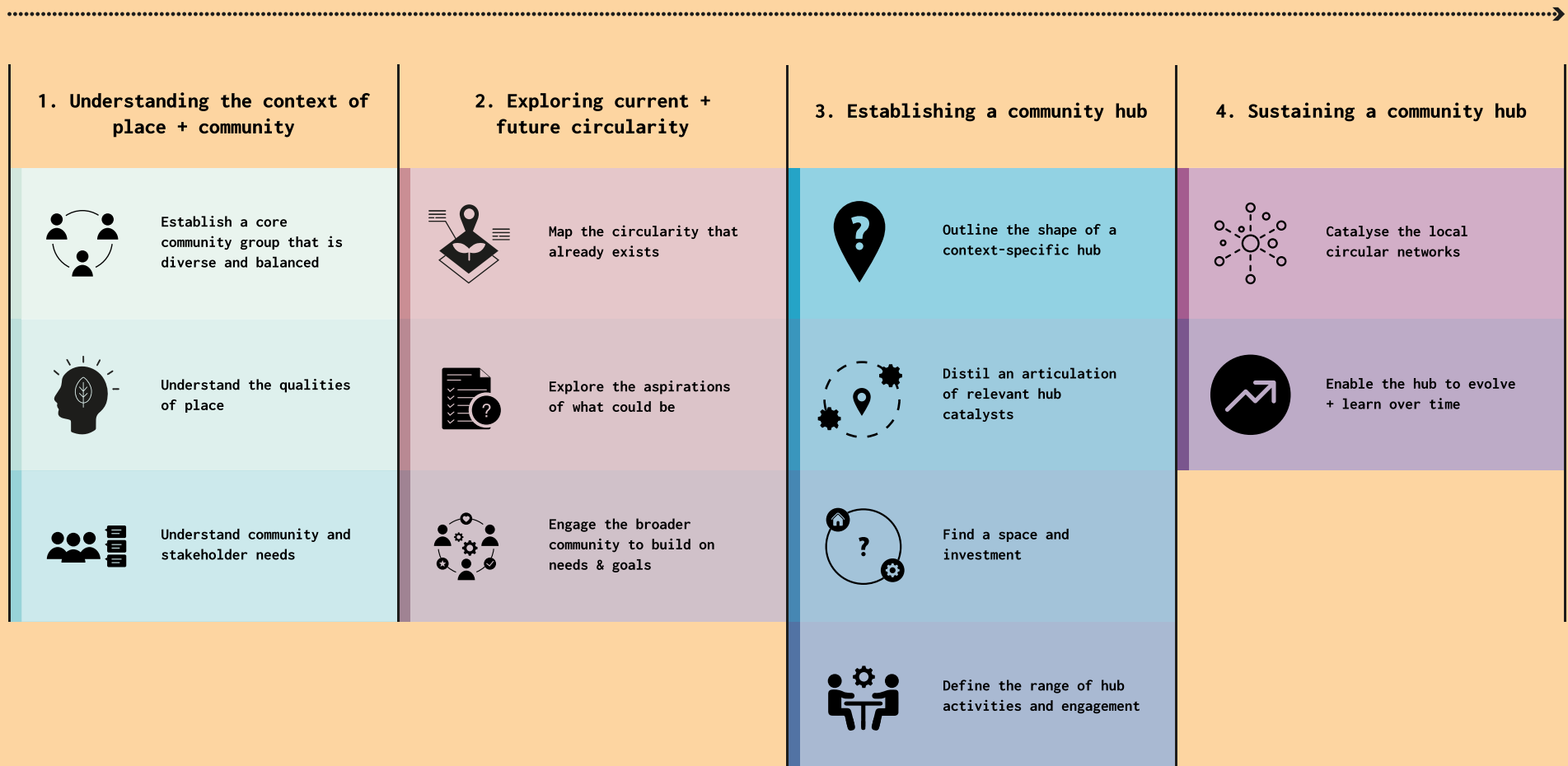
“Really important to consider all the behaviours of the residents in the community”



Co-creation process

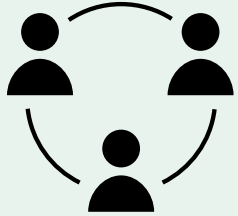
The co-creation process described over the following pages is a prototype for a community-led approach to establish and sustain Circular Economy Community Hubs in their local contexts.

We suggest that the co-creation process be creatively hacked as relevant to each context. A standalone summary of the co-creation process and an example activity template is provided in the Appendix.



Co-creation process

1. Understanding the context of place + community



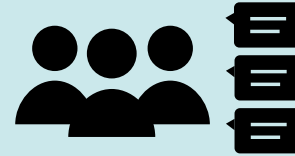
Establish a core community group that is diverse and balanced

- Who needs to be involved to help understand the place and people?
- How does NSW Circular establish this core group?
- What is the overarching circular vision and how can it be linked to this specific context?
- Core group is to lead community engagement
- Diverse types of people & representation



Understand the qualities of Place

- Explore what caring for Country means to the core community group
- What does it mean to care for Place, Each Other and Things?
- Philosophical underpinnings of why this is worth doing
- Describe the spirit of the place
- Describe the bio-geo-physical characteristics of the context
- Populate a map of the context with things the core team value and do in various locations



Understand community and stakeholder needs

- Who are the members of this local community, what are their demographics, livelihoods, types of business and industry?
- What are the needs of the community?
- What are the needs of relevant stakeholders e.g., business, industry, government?

Co-creation process

2. Exploring current + future circularity



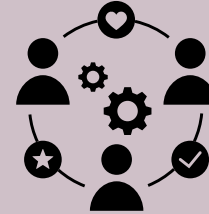
**Map the circularity that
already exists**

- Identify seeds for a circular economy that already exist - services, infrastructure, organisations, practices
- What are the key waste streams?
- What are the key barriers and challenges?



**Explore the aspirations of
what could be**

- What are the desires and aspirations for circularity in this place?
- Create measures, improvements and place-based goals (connecting to broader and longer term CE movement).
- What have other people done in other contexts?
- Draw from and feed into a NSW Circular collection of what other hubs have done
- How can circularity enhance local relationships?



**Engage the broader
community to build on needs
& goals**

- Validate the already discussed needs and goals
- Explore further articulations of needs and goals with community members and other stakeholders
- Participatory public engagements, surveys, town halls, etc.
- Involve scientists where possible as experts in social, ecological and technological research

Co-creation process

3. Establishing a community hub



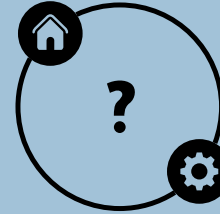
Outline the shape of a context-specific hub

- What could it be/do/look like?
- Core team explores what opportunities are for a hub?
- How could a hub help catalyse the previously determined goals/needs?
- Do we even want or need a hub here?



Distil an articulation of relevant hub catalysts

- Refer to examples of hub catalysts provided (grouped thematically as social, material, ecological, educational and innovative)
- Core community team to flesh out the shape of their hub using these examples
- Refer to previous explorations - 'map of seeds of circularity' and 'what could be'



Find a space and investment

- Where are the specific locations where the hub could flourish?
- Who is the hub to engage with in the community and what are its channels of engagement, e.g., physical or digital?
- What are its funding sources?

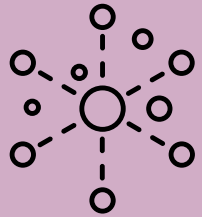


Define the range of hub activities and engagement

- What specific practices and services, infrastructures and networks does the hub enable?
- Refine the range of hub activities and engagement based on the following three prompts
- How well does the hub concept suit the place-context?
- How well does the hub concept suit the needs and aspirations of the local community?
- How well might this hub concept dovetail into the already existing seeds for a circular economy in the context?

Co-creation process

4. Sustaining a community hub



**Catalyse the local
circular networks**

- Who else is (or should be) involved in this?
- Who else could be involved that is not already in the core team?
- What are the supporting services, people and infrastructure?
- The core team engages with the rest of the community to connect up the seeds for circularity
- How can the hub be better connected to supply chains and industry?
- How does NSW circular support and connect with the hub?

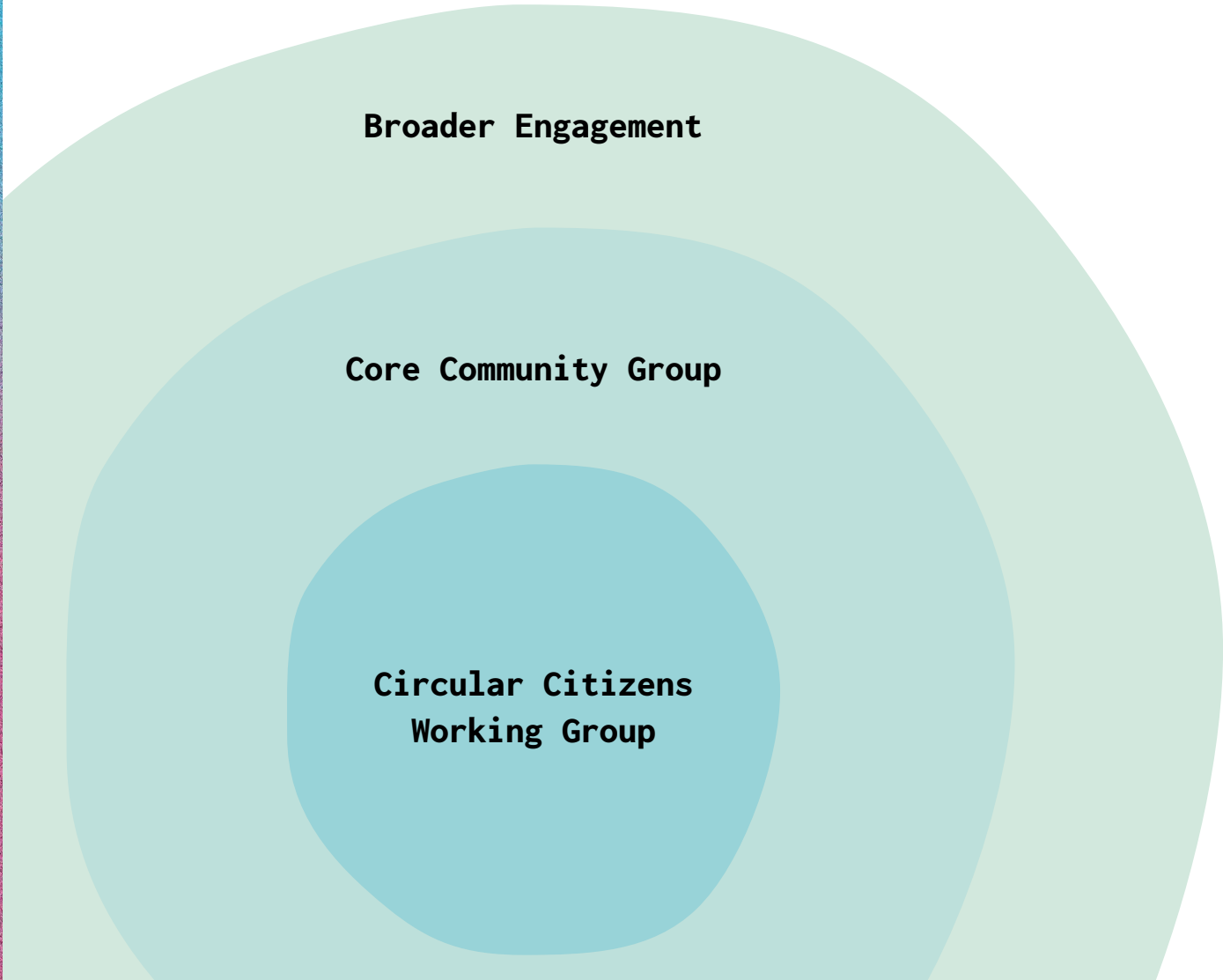


**Enable the hub to evolve +
learn over time**

- Check in and update goals and measures
- NSW Circular can abstract a growing set of practices and learnings from the different types of hubs around NSW
- Establish and maintain relationship with statewide network of community hubs
- What are the ongoing sources of funding?
- What are the emerging trends and dynamics that the community hub could tap into?

Working with stakeholders

It is important to consider the broad range of stakeholders that should be involved in the development, implementation and continued coordination of a Circular Community Hub. These stakeholders can be considered and involved at different levels, and engaged with in different ways accordingly.



Broader Engagement

Core Community Group

Circular Citizens
Working Group

Circular Citizens Working Group

The Circular Citizens Working Group is a group of experts affiliated with NSW Circular who have the role of shaping Community Hub development through the state, prioritising citizen-led approaches. **The name for this group was previously the Citizens Taskforce but this has been revised based upon feedback from workshop participants.**

How the Circular Citizens Working Group engages with and deeply listens to the needs, concerns and aspirations of the local community will determine the long-lasting success of a Community Hub, and a transition to Circularity.

A Circular Citizens Working Group ideally facilitates equal conversations between NSW Circular and key local community representatives to ensure that strategic NSW state approaches are met with local action and activities, as well as the exchange of knowledge and learnings about Circular transitions over time.

Working with stakeholders

Core Community Group

The Core Community Group are a set of committed citizens with connections to a particular community or district of interest. They have the desire, expertise and resources to help develop a local Community Hub in their particular context.

This diverse group of community members with various professional backgrounds are crucial in leading context-specific community engagement. They are crucial to deeply understand what is already happening in the area, what could be further explored, the nuances of the culture, and how to mobilise further action.

It is important for the Circular Citizens Working Group to establish a Core Community Group who will act as a bridge to work collaboratively with local community groups and individuals.

There is no one-size-fits-all model or blueprint for what Circularity looks like in any given context (Liaros 2019). The Core Community Group can help to form a deeper understanding of the qualities of their Place and the needs of locals.

Broader Engagement

Key groups to engage from communities could include the following:

- Aboriginal Land Councils
- Multicultural Centres
- Environmental Groups
- Local businesses and services
- Key local industry
- Schools, TAFE & Universities
- Local Council

Community Hubs and transitions to Circularity should be designed through engagement with the broader community to understand how to meet their needs, now and into the future.

Opportunities for community-led decision making can help to increase the community's economic self-determination (Carlisle & Gruby 2017). Key considerations for broader community engagement include:

- How does the hub reflect the culture, needs and aspirations of the local community?
- How is the hub being designed and developed to be appealing and accessible to the community?
- How do citizens of the community discover and engage with Community Hubs and Circular practices?
- What engagement methods will meaningfully include and respond to the voices of the community in the process?

“A genuine dialogue with stakeholders”

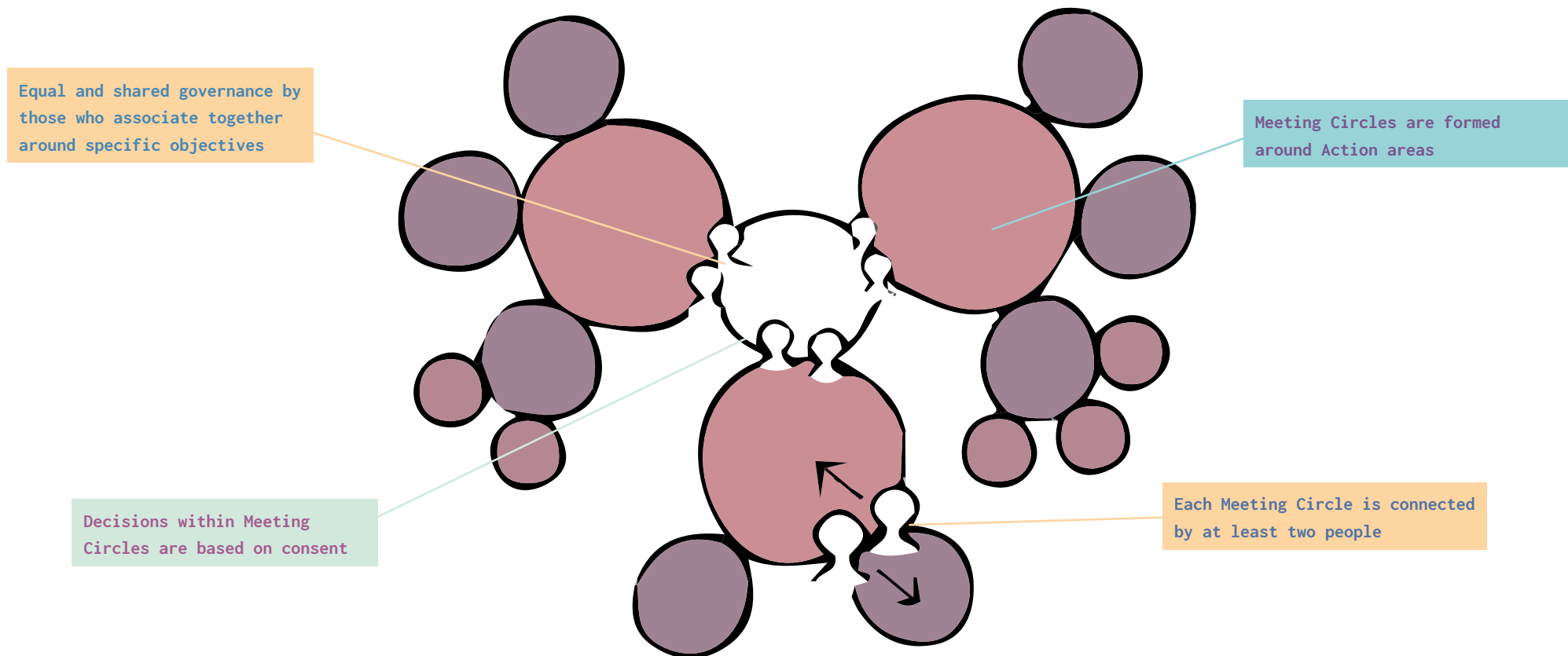
“Engaging the broader community too; not just the ‘greenies’”

Working with stakeholders

Governance

Governance plays a necessary role in enabling Community Hubs to effectively engage with their local communities as well as to develop strategic impact. **Sociocracy** is an example of dynamic and collaborative governance, which (1) promotes co-creation of shared objectives between stakeholders, (2) motivates and empowers self-governance and decentralised action, as well as (3) better shares and mediates power differentials. This governance model might be well suited to transitions to Circular Economies, with its ability to learn from and marry emergent and grassroots approaches in communities with strategic and top-down approaches.

A Sociocracy governance model calls on shared responsibility and action around agreed-upon objectives



(Source: sociocracyforall.org)

Further insights and considerations

The following list is a series of further questions and insights that arose from design research activities and literature, which are useful to consider in future work within this space.

- Challenging consumption habits and stigmas around reuse and recycling materials are long-term cultural shifts. These changes should not be the sole responsibility of individuals and communities.
- How can community hubs facilitate local discussions and change beyond social practices, towards influencing local Circular policy, services and infrastructure?
- What are the financial and operational models for Community Hubs, and how can they be supported and sustained over time?
- Citizens are often time poor. How can Community Hubs encourage people to take the time to care?
- How can Community Hubs operate in a way that encourages disengaged citizens to better consider aspects of Circularity?
- How can NSW Circular establish forms of governance that share power and responsibility with citizens and community groups, enabling local action and initiative towards Circular transitions?
- How can Community Hubs be connected to other regions and learning from each other?
- How will NSW Circular continue to support local Community Hubs and Circular transitions over longer time periods? How do NSW Circular and local Community Hubs engage?

Next steps

- Engagement with other taskforces - distributing/discussing Community Hub insights for feedback.
- Designing governance and engagement approaches of the Circular Citizens Working Group.
- Piloting a community hub in a local community context via the co-creation process.
- Refining the co-creation process itself - steps involved, descriptions, including development & testing of templates.

“How do we see consumerist behaviours and turn them into community behaviours?”

“Challenging convenience”

“We need to think about how to reduce consumption in the first place”

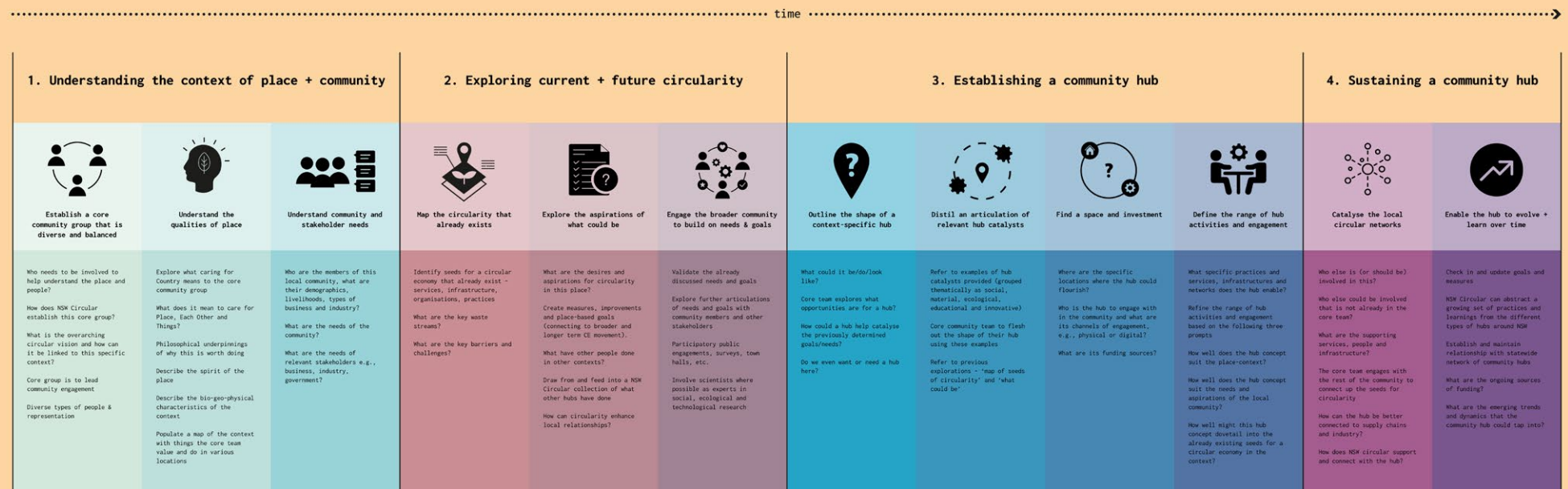
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Appendix A: Co-creation process standalone

Co-creation process for community hub development Facilitating the multi-stage emergence of context-specific circularity

This is a prototype for a community-led process to establish and sustain Circular Economy Community Hubs in the context of their place + community

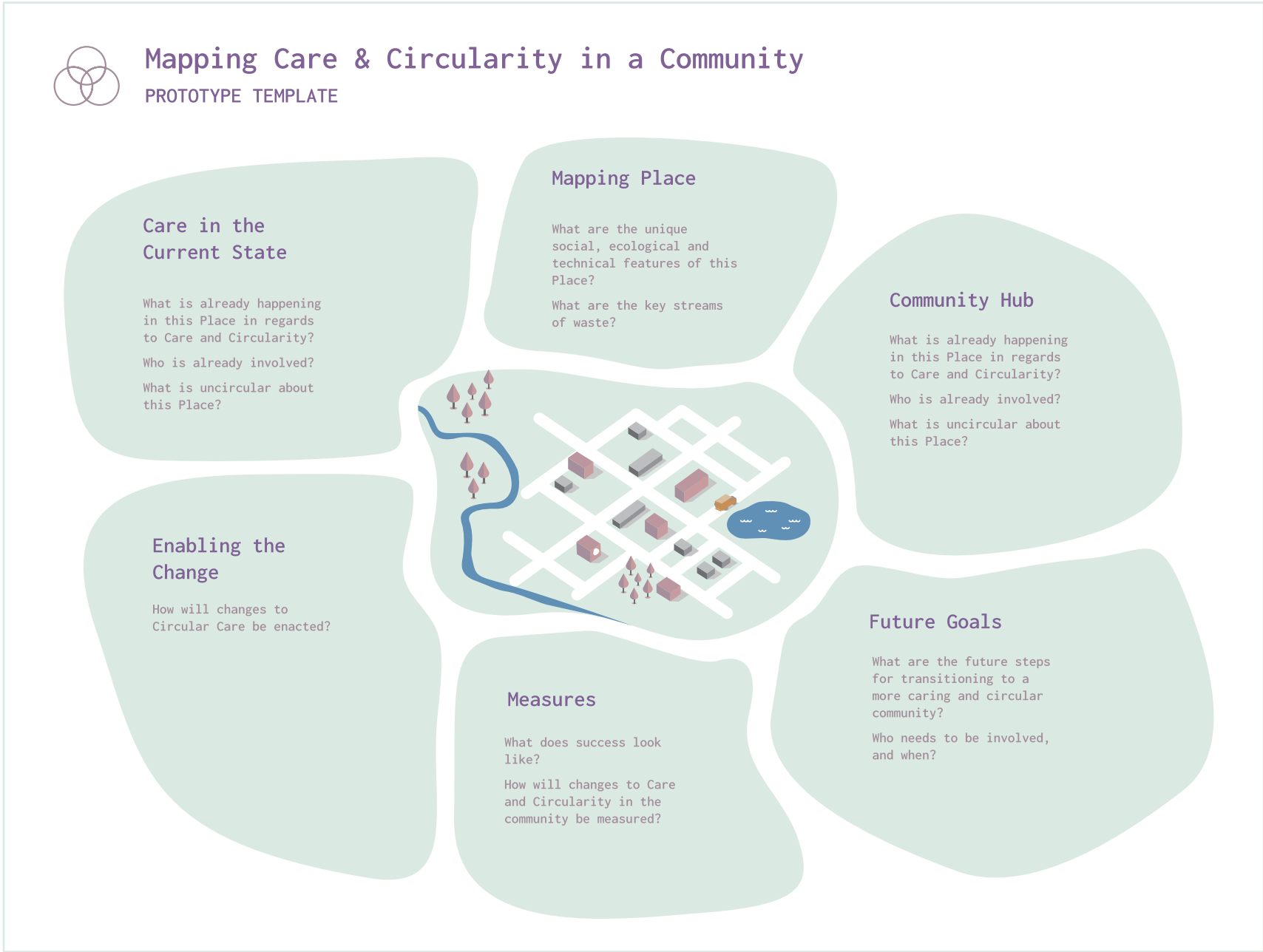


What are the conditions and context?

How can the hub act as a catalyst to support the seeds of circularity to flourish?

How can the community hub feed into the development of a local circular economy over time?

Appendix B: Template for Mapping Care & Circularity within a Community



Appendix C: Workshop #1 templates (printouts)

Circular Economy Community Hubs - Workshop 1
Intro activity

What does circular economy mean to you?

What does community hub mean to you?

Appendix C: Workshop #1 templates (printouts)

Circular Economy Community Hubs - Workshop 1

1. Exploring Circularity

Object

Practices

Services/ infrastructures

Stakeholders

Themes/ values

How is this object used over its lifecycle?

What are the social, technological and ecological support systems?

Who are the different people, organisations and environments involved over the lifecycle?

What are the underpinning values throughout this objects lifecycle? These could be conflicting.

Time

Discussion prompts

What is circular about this object ecosystem?	What is un-circular about this object ecosystem?
How could this system be more circular?	What are the key challenges in this space?

Circular Economy Community Hubs - Workshop 1

2. Exploring Community Hubs

Scenarios

Functions

People and relationships

Impact

Purpose

How does a community hub contribute to circularity?

What does a community hub do?

Who is involved and how?

How does it help a community become more circular?

What is the value and purpose of a community hubs?

Brainstorm a range of vignettes where a community hub model plays out

Work through the different layers of the diagram to help build detail in the hub

What possible functions could both physical and digital channels provide?

How does the hub deal with some of the challenges to circularity previously discussed?

What are different types of engagement e.g. policy, education, behaviour change, material infrastructure?

What are the different spaces, equipment, events?

How is it managed/ governed?

How does the hub interact with their local community?

What is the impact of a community hub?

Why and how are community hubs valuable for emerging circularity?

How does a community learn and evolve over time?

What values and principles underpin a community hub?

Appendix D: Workshop #2 templates (digital)

YOUR NAME

YOUR LOCAL PLACE

CARING FOR COUNTRY

PLACE

What does caring for this place mean to you?

How could this be strengthened?

PEOPLE

What does for caring for each other mean in this place?

How could this be strengthened?

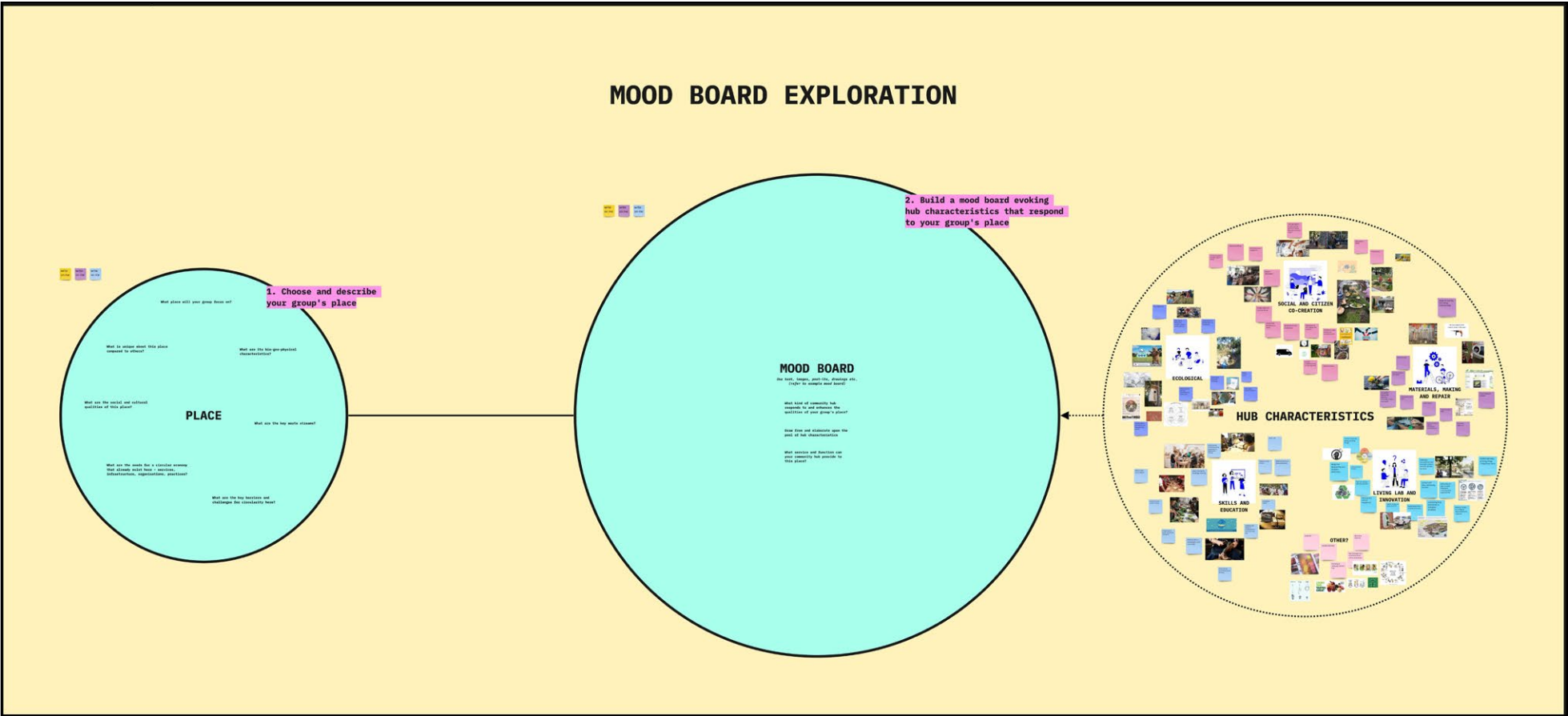
MATERIALS

What does for caring for materials mean in this place?

How could this be strengthened?

COUNTRY

Appendix D: Workshop #2 templates (digital)



Appendix D: Workshop #2 templates (digital)

Pick 3 personas from the pool and describe scenarios of how they might discover and interact with your group's community hub, and what the ongoing impact of the hub experience is on them

Use the prompting questions in the circles to build out your scenarios.

Use the rectangular box underneath to highlight the implications these experiences have on the details of your hub, and any other insights

PERSONA 1
Person 1 (14 yrs old)



- Likes to play video games
- Likes to hang out with friends
- Likes to go to the gym
- Likes to go to the movies
- Likes to go to the beach
- Likes to go to the park
- Likes to go to the mall
- Likes to go to the city
- Likes to go to the country
- Likes to go to the mountains
- Likes to go to the ocean
- Likes to go to the desert
- Likes to go to the snow
- Likes to go to the rain
- Likes to go to the sun
- Likes to go to the moon
- Likes to go to the stars
- Likes to go to the planets
- Likes to go to the galaxies
- Likes to go to the universe
- Likes to go to the everything

PERSONA 2
Person 2 (14 yrs old)



- Likes to play video games
- Likes to hang out with friends
- Likes to go to the gym
- Likes to go to the movies
- Likes to go to the beach
- Likes to go to the park
- Likes to go to the mall
- Likes to go to the city
- Likes to go to the country
- Likes to go to the mountains
- Likes to go to the ocean
- Likes to go to the desert
- Likes to go to the snow
- Likes to go to the rain
- Likes to go to the sun
- Likes to go to the moon
- Likes to go to the stars
- Likes to go to the planets
- Likes to go to the galaxies
- Likes to go to the universe
- Likes to go to the everything

PERSONA 3
Person 3 (14 yrs old)



- Likes to play video games
- Likes to hang out with friends
- Likes to go to the gym
- Likes to go to the movies
- Likes to go to the beach
- Likes to go to the park
- Likes to go to the mall
- Likes to go to the city
- Likes to go to the country
- Likes to go to the mountains
- Likes to go to the ocean
- Likes to go to the desert
- Likes to go to the snow
- Likes to go to the rain
- Likes to go to the sun
- Likes to go to the moon
- Likes to go to the stars
- Likes to go to the planets
- Likes to go to the galaxies
- Likes to go to the universe
- Likes to go to the everything

PERSONA 4
Person 4 (14 yrs old)



- Likes to play video games
- Likes to hang out with friends
- Likes to go to the gym
- Likes to go to the movies
- Likes to go to the beach
- Likes to go to the park
- Likes to go to the mall
- Likes to go to the city
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- Likes to go to the rain
- Likes to go to the sun
- Likes to go to the moon
- Likes to go to the stars
- Likes to go to the planets
- Likes to go to the galaxies
- Likes to go to the universe
- Likes to go to the everything

PERSONA 5
Person 5 (14 yrs old)



- Likes to play video games
- Likes to hang out with friends
- Likes to go to the gym
- Likes to go to the movies
- Likes to go to the beach
- Likes to go to the park
- Likes to go to the mall
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- Likes to go to the sun
- Likes to go to the moon
- Likes to go to the stars
- Likes to go to the planets
- Likes to go to the galaxies
- Likes to go to the universe
- Likes to go to the everything

PERSONA 6
Person 6 (14 yrs old)



- Likes to play video games
- Likes to hang out with friends
- Likes to go to the gym
- Likes to go to the movies
- Likes to go to the beach
- Likes to go to the park
- Likes to go to the mall
- Likes to go to the city
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- Likes to go to the moon
- Likes to go to the stars
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- Likes to go to the everything

PERSONA 7
Person 7 (14 yrs old)



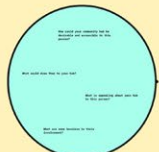
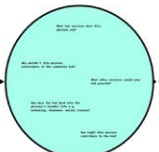
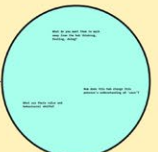
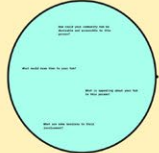
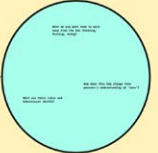
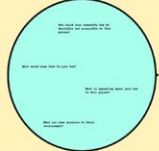
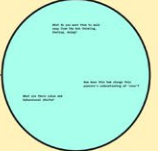
- Likes to play video games
- Likes to hang out with friends
- Likes to go to the gym
- Likes to go to the movies
- Likes to go to the beach
- Likes to go to the park
- Likes to go to the mall
- Likes to go to the city
- Likes to go to the country
- Likes to go to the mountains
- Likes to go to the ocean
- Likes to go to the desert
- Likes to go to the snow
- Likes to go to the rain
- Likes to go to the sun
- Likes to go to the moon
- Likes to go to the stars
- Likes to go to the planets
- Likes to go to the galaxies
- Likes to go to the universe
- Likes to go to the everything

PERSONA 8
Person 8 (14 yrs old)



- Likes to play video games
- Likes to hang out with friends
- Likes to go to the gym
- Likes to go to the movies
- Likes to go to the beach
- Likes to go to the park
- Likes to go to the mall
- Likes to go to the city
- Likes to go to the country
- Likes to go to the mountains
- Likes to go to the ocean
- Likes to go to the desert
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- Likes to go to the sun
- Likes to go to the moon
- Likes to go to the stars
- Likes to go to the planets
- Likes to go to the galaxies
- Likes to go to the universe
- Likes to go to the everything

PERSONA-BASED TESTING

	DISCOVERY	INTERACTION	IMPACT
PERSONA 2 High School Student (14 yrs old)  • Likes to play video games • Likes to hang out with friends • Likes to go to the gym • Likes to go to the movies • Likes to go to the beach • Likes to go to the park • Likes to go to the mall • Likes to go to the city • Likes to go to the country • Likes to go to the mountains • Likes to go to the ocean • Likes to go to the desert • Likes to go to the snow • Likes to go to the rain • Likes to go to the sun • Likes to go to the moon • Likes to go to the stars • Likes to go to the planets • Likes to go to the galaxies • Likes to go to the universe • Likes to go to the everything			
	IMPLICATIONS FOR HUB		
PERSONA (place here)			
	IMPLICATIONS FOR HUB		
PERSONA (place here)			
	IMPLICATIONS FOR HUB		

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