







Introduction

Purpose of this document

The purpose of this document is to capture a synthesised summary of the conversations and activities that took place during the NSW Circular Economy Innovation Network Local Government Engagement Workshop held on 21 June 2019.

Please note that this document does not capture the conversation verbatim, rather it presents a snapshot of key discussion points and activities.

About the project

The core role of the Circular Economy Innovation Network is to provide connectivity and coordination between government, industry and research organisations to solve problems, foster innovation and deliver socio-economic benefits (skills, jobs and solutions) to the NSW community, through a more sustainable approach to the design of goods and services, use of resources and management of waste.

The NSW Circular Economy Network local government co-design workshop, aimed to build connections, excitement, and momentum that will energise and catalyse game-changing innovations.

Workshop agenda

Session theme	Presenter
Welcome	Professor Veena Sahajwalla, NSW CEIN Director
The circular economy: overview and challenges	Neville Stevens AO, NSW CEIN Steering Committee Chair
Introduction to NSW CEIN	Professor Margaret Harding, NSW CEIN Board Chair
Practical opportunities and industry case studies	Michael Sharpe, Director NSW and ACT Advanced Manufacturing Growth Centre
Workshop methodology	Rodger Watson
Problem explorationWhat are the barriers?What are the opportunities?	Facilitated group work
Problem framingWho has been involved?Who could be involved?What is important to them?	Facilitated group work
Innovation sprintWhat could the solutions look like?What are the big themes?	Facilitated group work
What are the next steps?	Rodger Watson Professor Veena Sahajwalla, NSW CEIN Director

Problem exploration: What are the barriers?

In the first activity, participants were asked to select a material of focus. Materials included low grade plastic, glass, textiles, household furniture, low grade paper and e-waste. Groups were formed around each material and asked to discuss the barriers and opportunities of each. Groups came together to generate a synthesized list of barriers that could be addressed in future activities. Barriers included:

Lack of understanding around waste

- · Shared definitions are missing
- · More education needed
- · Limited knowledge of outcomes
- Need to share emerging opportunities as they are identified

Not enough research about waste including:

- · Technical difficulties of recycling
- Technical limitations of materials
- Decreasing value of materials as they are recycled and reused
- · Detailed product analysis

Improved legislation and regulation

 Management of stock piles (Where can they be moved? How might we overcome time restrictions?)

Not enough use of materials

- · Lack of market
- Lack of economic incentives (can we remove GST for recycled and repaired materials?)

Need for stronger leadership

· Limited product stewardship

Need for more effective brokering between stakeholders

Volume of materials

· Abundance of low-quality products

Lack of collaboration

Often resulting from concerns around IP and commercial in confidence

High costs of:

- · Breaking down fibres
- Disposal
- Separation
- Repair
- Transport
- Recycled and reused materials can have a lower value

Inconvenience for consumers

Transport of materials

Contamination of materials

- Microfibre complications
- Washing cost
- · Removing cost
- Need for better collection systems and models for local reuse and reprocessing

Lack of people with skills to repair

Problem framing: Stakeholder mapping

To frame the problem participants were invited to remain in the same groups and consider the stakeholders in each ecosystem. Groups spent time answering the prompting questions, who has been involved in this ecosystem? Who could be involved in the future?

Who has been involved?

Federal Government (Product Stewardship Act)

Councils/Local Government

Environmental Protection Authority

Waste industry sorting and processing

Waste Contractors and Recyclers Association

of NSW

Industry Associations (APAC, EA)

Non-Government Organisations

Not for Profit Organistions

Social entrepreneurs

Community groups

The media (War on Waste)

Resource exchange (Facebook and Gumtree)

Collectors and Processors

Australian Standards

Australian Circular Fashion

Who could be involved?

Consumers (provide levies)

Federal Government

Treasury (Waste Levy)

Political leaders

Roads and Maritime Service

Regulators and legislators (to provide incentives)

GST regulators

Advanced Manufacturing Growth Centre

NSW Planning

Private sector, businesses and shops

Supermarkets

Standardisation Organisation

(local and international)

Construction industry

More manufacturers

Primary producers

Product designers and developers

Fashion Designers
Industrial Designers

Banks and superannuation firms

Imports/Exports Sectors

Repurpose organisations

Economists

Private investors

Research and development

Social enterprise

Charities

Waste services

Educators – universities, schools, teachers and

curriculum developers

Social Media Influencers

Sustainable events (e.g. Splendor in the Grass,

Dark MoFo)

Research Organisations

Repair Centres

De-construction companies

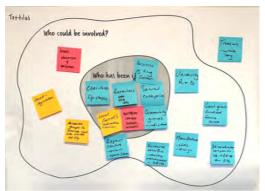
Consultants

Civil construction industry

Consumer lawyers

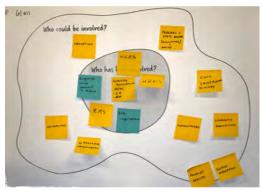
Agriculture industry

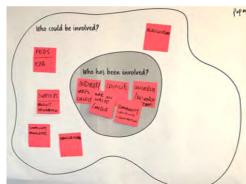
Problem framing: Stakeholder mapping





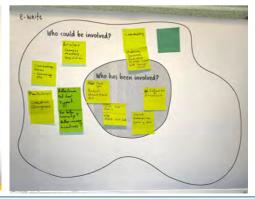












Problem framing: Motivations and drivers

To continue framing the problem groups were asked to explore the motivations and drivers of key stakeholder groups by answering, what is important to them?

Stakeholder	What is important to them?
Federal Government	 Votes and public opinion International practice Economics Short-term politics Political alignment
State Government	 Reputation Avoiding risk Outcomes Strategies Legislative framework Levy revenue
Councils/ Local Government	 Community expectation / satisfaction / well being Public opinion Financial viability Roads, rates, rubbish Transparency Macro-scale engagement / inclusion Reputation and integrity Continuity / consistency Risk mitigation QBL outcomes Cost Ease Local, sustainable economy Consistency Avoiding risk Proven systems and technologies Best value – economic / environmental / social

Stakeholder	What is important to them?
Manufacturers	 Operational efficiencies Innovation Financial viability Market leading (environmental standards) Public perception (reputation) Market differentiation Continuity / consistency Resilience (security Market demand / conditions Profit Appropriate availability of resources Quality of products Retain customer base Product security Brand reputation Perception Market share
Regulators	 Elections Regulating Employment Leadership To provide support (resources / financial) – Innovation Accountability Compliance Manage risk Backlash Community

Problem framing: Motivations and drivers

Stakeholder	What is important to them?
Community /consumers	Incentives and convenienceItem longevityWhat it doesPeer group
Waste operators	CostTonnageMarkets
Disposers	CostEaseStigma
Purchasers	CostStyleNewAccessibilityEase
Retailers	 Cost Profit Ease Logistics Stand out brand
Reprocesses	 Clean stream Logistics Cost market Secure markets for product Adequate industrial land Intellectual property Low contamination input product
Social enterprise	Job creationFunding sources

Stakeholder	What is important to them?
Repairers	 Demand and skills Opportunity and design Design for repair and documentation Skills Parts supply
Disrupters	 Alternative delivery (what it does) Demand Business model User behaviour
Product designers	Markets and consumer behaviourLegislated incentivesUser feedback to inform designBehavioural change models
Charity	CostFunding of program
Educators	RecognitionQualityFunding
Researchers/ Universities	 Reputation Innovation Data integrity Financial viability Funding IP Commercialisation
Roads and Maritime Services	 Structural integrity Consistency of product supply Product spec Availability Cost efficient Proven use and durability

Problem framing: Desired outcome The final stage of the problem framing activity was to find common patterns across stakeholders to uncover the desired outcome. **Trust** Knowledge Reputation Low-risk / Innovation Value security Behaviour change Cost Collaboration and **Awareness** communication Market Quality Legislative Community support making a difference **Safety** Cradle to Accessibility cradle **Function** Sustainability Supply chain **Economics** Convenience Leadership efficiency Growth / maturity Ease / logistics Continuity / Buy-in Comfort consistency **Behavioural** Power Identity Belonging change Support





The second half of the workshop was an innovation sprint, dedicated to rapidly generating ideas. The ideas were voted on by participants. The following pages outline the most popular ideas.

Idea card #1 (4 votes)

Mandate recycled content

All manufacturers and importers are required to include the percentage of recycled content for plastic products.

Material: Plastics

Area of focus: Manufacturing and packaging

What are the barriers? Monitoring, product type specifications and rollout time

Who will it benefit? Federal Government and industry

Idea card #12 (19 votes)

100% levy hypothecation

More of a levy on landfill. Money returned to the Waste and Resource sector for avoidance, reuse, recycling, recovery and infrastructure to support.

Material: All

Area of focus: Funding

What are the barriers? NSW Government Treasury 4-year funding cycle, loads of \$\$, conflict of interest (we will not get a waste levy if there is no waste)

Who will it benefit? State Government

Idea card #51 (5 votes)

Legislate textile imports

Limit the type of textiles we import/create clothing with to ensure high quality and ease of recyclability. Maintain endmarkets (no point bringing in products that will just end in landfill). Establish watchdog to ensure standards.

Material: Textiles

Area of focus: Quality of recycling

What are the barriers? End-markets, legislation and regulation

Who will it benefit? Government

Idea card #31 (9 votes)

Hard look at Product Stewardship Scheme

Federal Government to mandate Product Stewardship and increase the number of materials on the scheme (mattresses, e-waste, clothing).

The second half of the workshop was an innovation sprint, dedicated to rapidly generating ideas. The ideas were voted on by participants. The following pages outline the most popular ideas.

Idea card #26 (8 votes)

Common standards and regulation for textiles

Common standards across councils and agencies for waste management and processing. Governance of waste management. Connectivity and education.

Material: Textiles

What are the barriers? Cost, private and public facilities, incentives, collection,

difficulty communicating

Who will it benefit? Councils and Consumers

Idea card #6 (4 votes)

Clothing library

Wearable clothing (that meet specified standards) can be borrowed using a membership and subscription service. Community social enterprise. Use existing infrastructure – libraries and op-shops. Could be extended to tools and camping equipment.

What are the opportunities? Excess, systems, one off purchases

Who will it benefit? Consumers and charities

Idea card #7 (12 votes)

Mandate percentage of recycled content in civil works

Roads, footpaths, hard surfaces

Material: Plastic and other Area of focus: Civil works

What are the barriers? Specifications, availability, stockpiling restrictions

Who will it benefit? Government (State, Local and Federal)

Idea card #33 (8 votes)

Digital market place

Removing barriers to participate in Gumtree and Facebook. Create secure exchange places.

Material: Furniture

Who will it benefit? Community

The second half of the workshop was an innovation sprint, dedicated to rapidly generating ideas. The ideas were voted on by participants. The following pages outline the most popular ideas.

Idea card #53 (4 votes)

Learn from other markets

Look up and look around. Learn from more advanced countries and markets on how best to deal with waste.

What are the barriers? Cost, incentives and drive

Who will it benefit? Government, universities and waste industry

Idea card #4 (4 votes)

Government support for repair skills training

Repair certification. Incentive to repair. Subsidized investigation. Job Network Style. Include update/upgrade to reduce replacements.

Material: E-waste

What are the barriers? Lack of repair skills and cost to repair

Idea card #23 (4 votes)

Microfractory

Regional permanent facility. Sorting feedstock, shredding clothing. Taking back to market.

Material: Textiles

Area of focus: Recycling fiber recovery

What are the opportunities? Volume going to landfill, transport and accessibility

Who will it benefit? Local Government, consumers and charity shops

The second half of the workshop was an innovation sprint, dedicated to rapidly generating ideas. The ideas were voted on by participants. The following pages outline the most popular ideas.

Idea card #16 (4 votes)

Upcycling

Building products. Instillation products. Furniture. Padding and packaging.

Material: Low grade paper

What are the barriers? Volume, market value, contamination, transport, economy, lack of people with skills and facilities

Who will it benefit? CEIN, Smart Centre, Councils, Government, Industry

Idea card #47 (9 votes)

Support for sustainable manufacturing

GST Free. Introduce grading for manufacturing, lifecycles and materials. Provide subsidies based on results.

Material: Clothing and textiles

What are the opportunities? Empower consumers, access to sustainable products, improve quality and reduce volume

Innovation sprint: Where do they sit on the spectrum?

		_		
System enablers	Pre-product	Product use	Disposal	Recycle/ resource recovery
 #29 Legislate longevity #12 100% levy hypothecation #51 Legislate textile imports #13 CE Implementation plan #57 Changing government regulation #26 Common standards and regulation #56 Policy support #14 Guaranteed recurrent funding of the implementation plan #52 Government putting money where mouth is #35 Redefine waste #1 Mandate recycle content #7 Mandate recycle content in civil works #58 Q+A Hub like Whirlpool 	#5 Explore product stewardship #40 Product stewardship #41 Product stewardship #31 Mandate product stewardship #30 Product stewardship #19 Product stewardship take back #22 Research and development #4 Engagement between science and business school #18 Market research #53 Learn from other markets #46 Fibre research #45 Research recyclable materials #47 Support for sustainable manufacturing #40 Design so it lasts	#20 Use not own #44 Sharing economy #6 Clothing library #33 Digital marketplace #42 Bag exchange #28 Composting #27 Large scale, regional composting #43 Toy reuse, recycle and resell #60 Clothing collection system #9 Collection points #21 Grassroots alternative re0use #11 Take back scheme #36 Reuse-wash, go refill #37 Ilk delivery/return #61 Market identification	#17 Understanding disposal costs #10 Asbestos risk management	#49 New end life for recycled paper #59 Government support for repair skills training #32 Build plastic roads #15 Upcycling excess textiles #16 Upcycling #62 Textile recycling facility #23 Micro factory #8 Source separation #25 Use recycled content in building fabric #24 Compacting textile insulation #50 RDF
 #39 Consumer education #48 Community education #55 Sustainability education #3 Behavioural change #54 Power of positive behaviour #38 Fashion forward 	#34 Soft plastic packaging #2 Pull it down, put it back together			





Appendix

Idea Cards

System enablers

(5-7 words)

LEGISLATED LONGEUITY

Material type:

E-WASTE

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

MINIMUM WARRANTY (REPAR)

- DESIGN FOR REPAIR
- AUSTMAUAN STO CANNOT JELL WITHOUT



WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

OUERCOMING SBSGLESCENT DESIGN THROW AWAY

WHO IS THE IDEA FOR?

GOUT PRODUCER



GIVE YOUR IDEA A NAME	4.5 P. *
(5-7 words) / LEM	hypothecation
700.	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Material type:

Area of focus: Funding

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

More of levy on landfill & returned to the W+R sector for avoidance, reux, recycling, recovery + infrashucture to support.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

- NSW EMA GOVT. - Treasury

4 year funding cycle loads of \$8

- conflict inherest - wont get wask levy of no waste

WHO IS THE IDEA FOR?



#	51
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GIVE	YOUF	RIDEA	ANA	ME
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(5-7 words)

legislate textile imports

Material type: TEXTIPE

Area of focus: Guality for recyclability

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Dimit THE TYPE of textiles we import/create clothing with to ensure High ouglity and ease of Recyclability

- D maintain our endmarkets -> no point bringing in products that will just end in our landfill.
- 1 NATUHOLOGY FOR STANDARDS

WHO IS THE IDEA FOR?

Government

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

endmarkers legislation & regulation

(5-7 words) An implementation plan for the Circular Economy Policy.

Material type: Low Grade Plastics.

Area of focus: Governance

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

We need the government to give us a comprehensive to connected approach that includes measurable/tangable actions that can be undertaken and gives all stakeholders confidence. Maybe even mandatory regulations on procurement, etc. & some accountability

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

It would resolave confusion around accountabilitée à maction WHO IS THE IDEA FOR?

The State a Feds

(5-7 words) Charging government regulation

Material type: low gracle pene

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

advocate + apply presure on State + federal government to make desicuois / take achon to increene value of low grade paper

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

lack of collaboration cost visability / Wasparency WHO IS THE IDEA FOR?

governert

everyone



Idea Card

GIVE YOUR IDEA A NAME (5-7 words)

Material type:

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

- · agreed standard for maste mangement 2 proceso
- connectivity/education · Governance

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

- · Cost

WHO IS THE IDEA FOR?





(5-7 words) Co-OPTHATION
GOVT REGULATORS

WITH STATE

Material type:

Area of focus: LEGISLATION / RECULTIONS

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

RECURSTORS TAKING A PRO LETILE APPROPRIATIONS
THE PROBLEMS OF USERS / RECYCLES S TO PROVIDE AND
BUNRONMENT OF PROPLEM SOUNK RATHER TAIN
PROSECUTION

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

REGULATORY

WHO IS THE IDEA FOR?

Au



Idea Card FUNDING THE



GIVE YOUR IDEA A NAME (5-7 words) Souventeed organ recorrent Material type: L.G. Plastics Funding of the implemention plan Area of focus: Finance	014
DRAW OR DESCRIBE YOUR IDEA	1
(How might you describe it to your grandma?) The things we need to do need money could be a variety of sources - prival public sectors, shared projects an injection capital, seed fonding is needed to get	te + ction of
things going.	

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS
IDEA ADDRESS? O a industry

a chives outcomes in a

flasonable time frame

WHO IS THE IDEA FOR?

Pobic Private sector.



GIVE YOUR IDEA A NAME (5-7 words) Government putting money who	Material type: FUNITURE. Area of focus: 15
DRAW OR DESCRIBE YOUR IDEA (How might you describe it to your grandma?)	d aryone they fund.
DRAW OR DESCRIBE YOUR IDEA (How might you describe it to your grandma?) Fed, State, local gov. pr	buy furniture that
someing to sh	iscular economy ow demand.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

provides market

WHO IS THE IDEA FOR?

government.





GIVE YOU	RIDEA	A NAMI	
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GIVE YOUR IDEA A NAME (5-7 words) Redefining definition Would Area of focus: Legislation.

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Waste converted to was resource = should no longer be

regarded as 'waste. + treated as

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

-generalised

who is the idea for?
- Fed + state







(5-7 words)

MANDATED RECEIT Manufacturing, packaging

DRAW OR DESCRIBE YOUR IDEA

All manufacturers required to include ! Reycled content for plastic products.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

Monitoring Product type specifications Rollout time

WHO IS THE IDEA FOR? Govt (mandate) feds. Impact on industry





Mandate 1. R content - civil wolks

Plastics + other Material type:

Area of focus:

CIVIL WORKS

Mandating / lecycled plastic content in (IVI) wolks - loads, Botporths, hard sulfaces



WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

Availability

WHO IS THE IDEA FOR?

State + local Govt + Feds.





(5-7 words)

Material type:

Area of focus:



DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

CEIN website acts as a this where people can bosc as and get answers like "How do I access Ill Haw do I access den empty continuer to ship produce abroad?

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

IDEA ADDRESS?

Finding out wha's available to enable businesses To overcome challenges . & Then create

WHO IS THE IDEA FOR?

Armore secting 9 answer to identity case studies

(5-7 words)

CONSUMUR Education

Material type: Textile

Area of focus: COTHING USE

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

High Federal Federal fundia State

State flowing

LOCA / community groups

D audity of textites

to Re-use and recycling

[] all people get the came message

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

lack of understanding inconsistencis visibility & transparency

awarevess

WHO IS THE IDEA FOR?

GOV'T and industry led for the community

(5-7 words) Community education

Material type:

low grade paper

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

- composting course

- paper maleing - reuse (community)

WHO IS THE IDEA FOR?

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?** collection

houspoort

leadeship

Cost



Idea Card EDU UATION - JUSTAINABILITY

GIVE YOUR IDEA A NAME

BUSINESS, PEOPLE, PLANET

Material type: Waste materials.

Area of focus: Community, Council

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

People need to but more sustainability

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

WHO IS THE IDEA FOR?

- community - 10001 goot

BARRIERI

- too hard? Benaviour charge



803

GIVE YOUR IDEA A NAME

(5-7 words)

BEHAVIOURAL CHANGE

Material type:

E-WASTE

Area of focus:



DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

POST REPAR INFORMATION + OPPORTUNITY ON UNRELATED (BUT INTERESTED) ALTERNATIVE PLATFORM

IN COMMON USE + DISPERSION



WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

PROVIDE KNOWLEDGE

WHO IS THE IDEA FOR?

REPAIRERS



(5-7 words)

Paver of Postevé Behaver Area of focus:

Material type:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Promote positive behaviour by highlyblin Soccess and that its the norm

Slerse of involvement!

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

aetting dater, mightegetting good

behaver by anderiduals.

Barnel is party of reading processes com

atter 'wheat constitute's positive Samon,

WHO IS THE IDEA FOR?

Jude stry

(Augus also wants to recycle)

(5-7 words)

Fashion forward

Material type:

Clothung Fast Fastion

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Howard influencers | publications / medicing supportung responsible consumptions of fashion.

- Role modelling the desired behaviours

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

- taps unto 9spurationeur

WHO IS THE IDEA FOR?

consumers / Influencers



Pre-product

11	20
F	93

(5-7 words)

EXPLORE + PEUCLEP PROPULT STEWARDSKIP

Material type:

Area of focus:

FWASTE

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

MODEL > Function + Stokeholde USE ONLY - RESEARY +Requirement to permit stewardship TO WORK

- Follow up with Legislated Standards

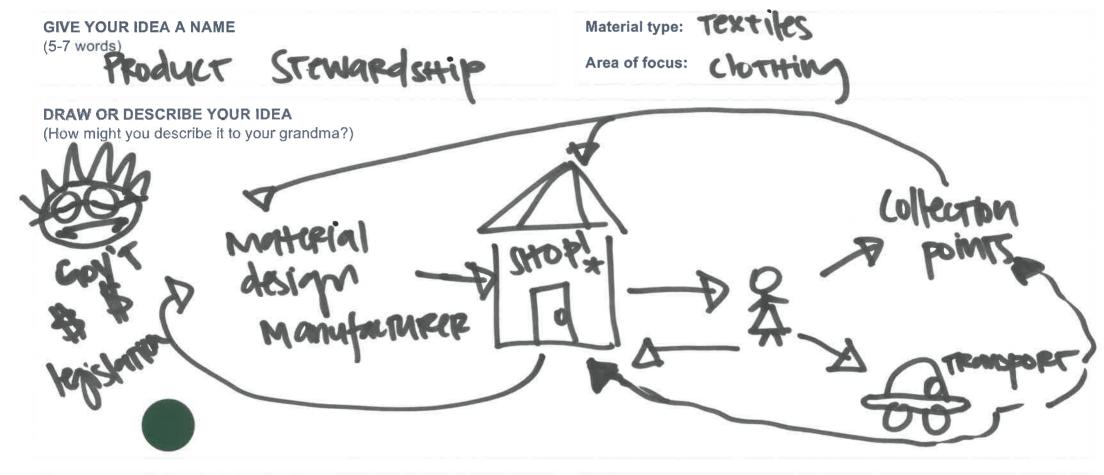
WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

CHAPLE TO CRAPLE PRUZONG MATERIAL UFE/USE

WHO IS THE IDEA FOR?

USERS PRODUCERS





WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

contentent facessibility
content watton
innovation
coll aboration
legislation

product stamplans olkaten systems

WHO IS THE IDEA FOR?

Excepted benefits
deiven by goit &

ThinkPlace

Idea Card Product Stewardship

GIVE YOUR IDEA A NAME

(5-7 words)

Product Stewardship (Full literate) Area of focus: Product Design

Material type: Low Grade Plastic

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Greating Standards + quidelines for end to end product hte cyle - making businesses responsible for what they create from end to end

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

Improves quality of product and CEar. removes in built obsoles cence

WHO IS THE IDEA FOR?

Industry Bookies





Material type:

Area of focus:

GIVE YOUR IDEA A NAME
(5-7 words)

PERA DESCRIBE YOUR IDEA
(How you describe it to your grandma?)

The PS - (mandany side) to be given
The Weight to do what it was
the signed to do I mathresses
Get 1 things on the scheme properly.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

WHO IS THE IDEA FOR?

product



Idea Card Stema rd Ship

by Manufachners

#<u>030</u>

GIVE YOUR IDEA A NAME (5-7 words)

PST

Material type: Clothon

Area of focus:

Fashori

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

When a clotheris manufacturer makes and sells a product, the customer can return to the supplier for reuse/recycling

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

. Dota exists

WHO IS THE IDEA FOR?

Government to leverage the levers they have.





Material type: Plastics (non-CDS

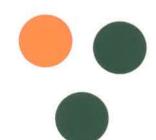
Product stewardship - take back.

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Incorporate cost of recycling into price of product & providing market incentive to return.



WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

IDEA ADDRESS?

+ CDS. cleaner

- impact on Kerbside - multiple systems

+ Need lower grade markets as CDS need markets



022

GIVE YOUR IDEA A NAME

(5-7 words) Commercialisation of R&D.

Material type: Low-grade Plastic

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Tap into existing R&D projects and commercialise them so they can be utilised by broader industry other stakeholders.

get to minimum viable product faster and gather learnings.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

Commercialisation Share Intellectual property WHO IS THE IDEA FOR?

Industry Universities



Idea Card Engagement Between Science and Business School # 004

(5-7 words) Multidiciplinary Collaboration

Material type:

Area of focus: Commercialization of Research

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Science + Business = Sustainable/ Solution feasible

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

New Science and profit.

WHO IS THE IDEA FOR?

University



Idea Card MARKET REJEARCH

GIVE YOUR IDEA A NAME Creating New market (5-7 words)

Material type: Wastes . material .

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

7 Find out the new consumers/to product/process.
7 To make value from wastes.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

WHO IS THE IDEA FOR?

Idea Card Learn from other markets

#_053

GIVE YOUR IDEA A NAME

(5-7 words) Look up, Look around

Material type:

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Learn from more advenced countries/markets
on how to sest deal with waste.



WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

cost; incentives; drive

WHO IS THE IDEA FOR?

Government, universities,



GIVE YOUR IDEA A NAME FIXER RECEARCH LABORE MANYALIDAY

Material type: Textiles

Area of focus: Recycling

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

I learn now well various fibres recycle, including other ouglity/ longevior properties

1) Figure out what products can be made or extracted from

Dsed textiles

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

Volume. Research Technical limitations of materials Technical limitations of recycling WHO IS THE IDEA FOR?

Industry Researchers



645

GIVE YOUR IDEA A NAME

(5-7 words)

Design yestes Rularut Recyclate Materials

Material type: TEXTILES

Area of focus: ReCYCLING

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

DARWEL

I innovation to recycle mixed fibres for Re-Use

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

research Teutnical limitations decreasing value of material WHO IS THE IDEA FOR?

MOUSE PARTHER



Material type: Clothing

(5-7 words) SUPPORT 4 SUSTAINABLE Area of focus: + Extiles

DRAW OR DESCRIBE YOUR IDEA MANUFACTURING

(How might you describe it to your grandma?)

* grading(manufacturing) (life cycles)

(materials) + provide subsidies

based on results

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

empower consumers
access to sustainable

improve auglity 4 reduce volume

WHO IS THE IDEA FOR?

ThinkPlace

GIVE YOUR IDEA A NAME (5-7 words) Pesign 50 it lasts.	Material type: Furniture Area of focus:
DRAW OR DESCRIBE YOUR IDEA (How might you describe it to your grandma?)	It in obsolescence
	ent charges you if noduct does not last reasonable time frame.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

bad design fum over of furniture WHO IS THE IDEA FOR?

manufacturers designes





(5-7 words)

Soft plastics packaging

Material type: Soft Plastic

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Reduce use excessive plastics.

- eg peeled banana, mandarin, avocado (plaotic wrap)

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

ce + convenience

WHO IS THE IDEA FOR?

- retouloss



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G	IVE	YU	UK	IDE/	A	NA	(IVIE

Material type: Funtine

(5-7 words)

Pull it down Put it back togethere of focus: Design

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

. modular

resident can dismantle + recycle of repair

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS .

- maket - lack of repairers
- source separation
- clean stream.

WHO IS THE IDEA FOR?

· Furniture designer.



Product use

#<u>020</u>

GIVE YOUR IDEA A NAME

(5-7 words)

USE NOT OWN

Material type:

E-WASTE

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

PRINTING ON DEMAND - SNAPED RESOURCES

- SEGMENT THE MANKET
- e.g. oxly print etthe institution (students)

_ e.g. Coffee Shep Printer

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

CONVENIENCE + CULTURE

WHO IS THE IDEA FOR?

USER + PROVIDER



(5-7 words)

Share economy

Material type: Furniture

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

local - neighbourhood - resource Sharin

-tool library

to exchange

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

it can still be used and works but has little value.

WHO IS THE IDEA FOR?

Community

Clothing Library

606

GIVE YOUR IDEA A NAME (5-7 wor Material type:

Area of focus:



DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Hearable dothing (mets standards) can be borrands. Here - member based - subscription.

- . Community social entemprise
- . Use existing infractuative library/op shops

_ tools camping

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

- · Excess
- Opp: Stylists Iniche lide

WHO IS THE IDEA FOR?

- · consumers
- chanties

(5-7 words)

Digital market place.

Material type: Furniture

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Moreng barries patherpate growthere tracked

secure

exchange

Fred Frailers

to move it

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

movement of useable furniture through the co WHO IS THE IDEA FOR?

Community





(5-7 words)

sag exchange

Material type: Soft Plastic DOS

Area of focus: Collaborative Consumption.

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

drop diff + available @ retail points eg boomeroung bags

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

- hygeine / perceptions - storage + Hansport.

WHO IS THE IDEA FOR?

consumers retailers.



(5-7 words)

DEA A NAME

Material type: 10W gradle paper

Composting Local/ Area of focus:

boursehold / schools / community groups

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

compost bin

paper/bonour

Worm fam

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

contamination transport

WHO IS THE IDEA FOR?

(5-7 words)

composting - large Scale

Material type: Low grade paper

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

composting for commercial - food

commercial sized composting facilities La proude infrastructure

economics

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

IDEA ADDRESS?

education

contenunation volume

warsport

WHO IS THE IDEA FOR?

industry



	0 - 10
GIVE YOUR DEA A NAME 5-7 words)	Roguell
Tous/	euse / Kocoll
(107)K	Large / Vose

Material type: Plastic toys

Area of focus: Collaborative Consumption

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

- Pot age hot stamped on product - safety regs. to increase reuse

- Recycled content in plastic toys

- take back for respected g plastic toys.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

- safety into + age - changed production Govt Mandate.



-) ldea Card	goes with #6	#60
GIVE YOUR IDEA A NAME (5-7 words) COSTUP CARRE	Material type:	
DRAW OR DESCRIBE YOUR IDEA (How might you describe it to your grandma?)		
35 Door to 2007	contector -e	P Fexhles
is solver to 2006 in ethical soural	endeprise	>males Lugs
within a neighbor 80b-cornal leve	e1.	les to library of
Council es provides be	makana	hai ot

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

WHO IS THE IDEA FOR?



GIVE	YOL	JR	IDEA	Α	NAME
		A 11 A	Figure 1 to 1	, ,	144 7145 2

(5-7 words)

collection points

Char Ity

Stoves

dextiles Material type:

Area of focus: residents / MUDS

schools

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

homes

communite events.

muds

Exerbside clothing

· Source

Olccoss

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

access contamination WHO IS THE IDEA FOR?

consumers/residence

(5-7 words) alternative re-une

Material type: low grade pape

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

ege certoir

bin line

weed mattry

walls

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

ry-in contamination

lack of collaboration

WHO IS THE IDEA FOR?

industry - landscaping beat governet - build en existing services

CI/	/F	VO	116	2 IF	$\Gamma = \Delta$	ι Δ	NI A	ME

(5-7 words)

false back scheme

Material type:

FUMFUNE

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

buy Juse

mark fact

repairée disassemble

bear the costs

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

- more who need to deal with it

WHO IS THE IDEA FOR?

Manfacturer/consumer





(5-7 words)

Reuse - wash + Go/Refill

Material type:

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Avoiding single use plastics by using rousable washable / standardised bottles/jars.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

IDEA ADDRESS?

- lightweighting - storage

- convenience

fed + State Gott. Industry



(5-7 words)

Milk delivery / return

Material type: Plashes

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Return glass bottles Washable. Return to store. eg. 1970s milk delivery

Keturn to Store.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

- Convenience

- administering

- light weighting / dwability / weight

WHO IS THE IDEA FOR?

ed + State Industry





(5-7 words)

MARKET IDENTIFICATION

Material type: Low Crade Plastics

Area of focus: MARKETS



DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Use CEN to network avenues for bying /selling materials

re-use.

Posh -> Poll

nechenism

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

Opening up solo's for end-products Industry -> Manufactures

WHO IS THE IDEA FOR?



Disposal

(5-7 words)

understanding disposal cost.

Material type: Funiture

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

-separate costs - users pays so for Bulk waste Bunderstood. Collection

link behavior w consequence/cost.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

-political.

WHO IS THE IDEA FOR?

Local government.

(5-7 words) ASBESTOS

RISE MANAGEMENT Area of focus:

Material type: GLASS

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

alass times were used in road sake for 30 agre - small amont of contain in alean mount disposal of glass stackych -> Commercial decision te move away tour glass

The roles are too extreme and the risk is manginitied beyond its reality.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

IDEA ADDRESS?

Better address risks soth & probability Barrier - un intermed audience. hess water of materials due to *assestos (contennination)

WHO IS THE IDEA FOR?

aovernment à cegis lections

Regulators

Bette education on risks and nemargement



Recycle/resource recovery

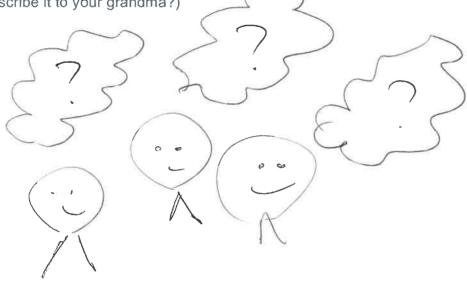
GIVE YOUR	IDEA A N	AME (dives	fre	α	- 1
(5-7 words)	new	end	when	aper	recycl	ea

low grade paper Material type:

Area of focus:



(How might you describe it to your grandma?)



Mule Tanks

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

IDEA ADDRESS?

lack of collaboration not enough une cost

incomeniere

WHO IS THE IDEA FOR?

#	59	

GIVE YOUR IDEA A NAM	Ε
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(5-7 words)

GOUT SUPPOR FUN NEPAN Area
DRAW OR DESCRIBE YOUR IDEA SICILLS TRAINING

Area of focus:

WHO IS THE IDEA FOR?

Material type:

E-WASTE

(How might you describe it to your grandma?)

CERT FICATION

- INCENTIVE TO REPAIR SUBSIDISED INVESTIGATION
- INCENTIVE TO REPAR (a.g. Job Network Style)
- incusé reporte/upgrade & Disentive Replace

AT BARRIERS AND/OR OPPORTUNITIES DOES THIS

IDEA ADDRESS?

CABROF NEPAR COST TO REPARELS
UPPORTUNITY (NUESTIGATE PROJUCIERS



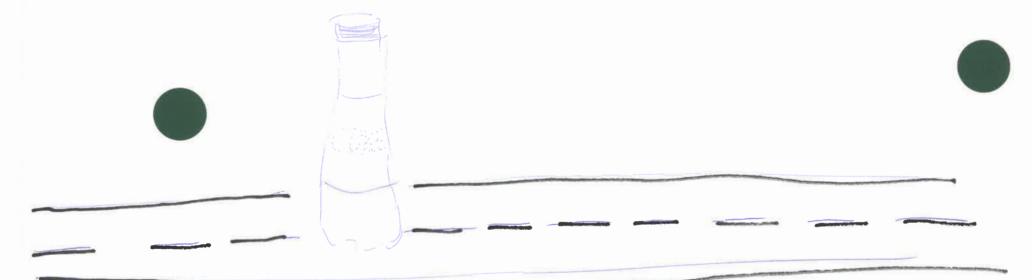
(5-7 words) Build Plastic roads

Material type: Lowgrade Plastics
Area of focus: Infrastructure

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Use plastic in reads.



WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

Makes use of recycled products a reality Sustainable procurement

WHO IS THE IDEA FOR?

Council RMS Engineers



Idea Card

locycling excess textiles

015

GIVE YOUR IDEA A NAME (5-7 words)

Material type:

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

. Upayde excess tentiles into things people)
wanteg. rugs / etc. for social anterpries

- style + status market sustainability
- high quality so long lived.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

- · LP needed on process
- · social enterprise app.

WHO IS THE IDEA FOR?

Entrepreneurs

Consumers



(5-7 words)

up excura.

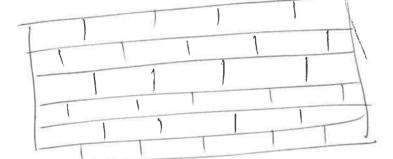
Material type:

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

building products



insulation products





WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

volume

transport

maket valve Knancial inconctive

Confamination

lack of

pegde win skuls + facilities

WHO IS THE IDEA FOR?

CEIN

Smart Centre

research

councils

government

62

GIVE YOUR IDEA A NAME

(5-7 words)

Textile Recycling faulty

TEXTILE Material type:

Area of focus: Perpenditor



DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

Destablish textile recycling facilities in Australia (not sorting for Re-sale, but breaking back down to new fibres again)

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

end maker

CONTENNI

WHO IS THE IDEA FOR?

MANSTRY government



GIVE YOUR IDEA A NAME (5-7 words) MICVO FUCTOVY
DRAW OR DESCRIBE YOUR IDEA (How might you describe it to your grandma?)
regional - permanent litinerant.

Material type: textile

Area of focus: recycling/fibre recovery

MARKET



SORTING FEEDSTOCK

Shredding

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS IDEA ADDRESS?

volume going to budfill transport a cressibility WHO IS THE IDEA FOR?

servicing consumers & charity stops led by local government

Gľ	VΕ	Y	OI	JR	IDE	A A	NA	ME
----	----	---	----	----	-----	-----	----	----

(5-7 words) Sowce separation

Material type:

Area of focus:

D

U

volume. 11

Nº Cu

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

WHO IS THE IDEA FOR?

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

contemnation transport decreasing rawe

ThinkPlace



025

GIVE YOUR IDEA A NAME (5-7 words) When the regular content in building fabric. Apea of focus: When the regular content in building fabric.
DRAW OR DESCRIBE YOUR IDEA
(How might you describe it to your grandma?) (Requirement terrequipment
Building specs - eg not just sound level (acoustic) but "waste/recyclip" in products.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS

IDEA ADDRESS?

legish + regulation

WHO IS THE IDEA FOR?

Architects

Material type:

texhites

(5-7 words)

Housile Installation Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

· Shredded + compacted waste made into blocks (like batts)
. Waste to help next sustainability
Habitements via BASICS Ctc.

WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

multiple fabrics types

WHO IS THE IDEA FOR?

G	N	/E	Y	0	U	R	ID	EA	A	NA	M	E
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RDF

Material type:

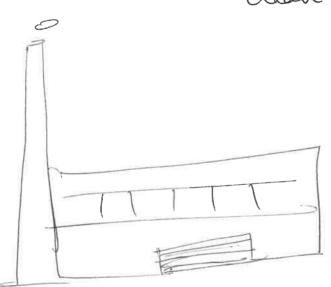
low grade paper

Area of focus:

DRAW OR DESCRIBE YOUR IDEA

(How might you describe it to your grandma?)

bridettes





WHAT BARRIERS AND/OR OPPORTUNITIES DOES THIS **IDEA ADDRESS?**

residual? leadeship decreasing value contenunation

WHO IS THE IDEA FOR?

