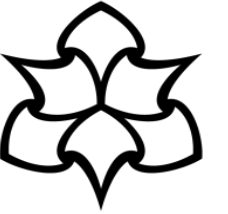


Waste to Resource Innovation Network

Amanda Reid BSc MCIWM
W2RIN Programme Lead
Science and Engineering





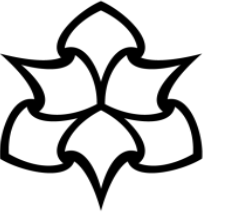
GIVE IT
DON'T
BIN IT

1st
place

people & planet

UNIVERSITY
LEAGUE 2017

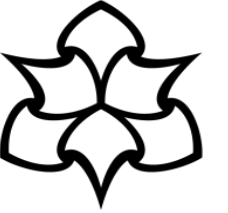
A vertical graphic divided into two sections. The top section has a yellow background and features three icons: a green t-shirt with 'GIVE IT', an orange mug with 'DON'T', and a blue bin with 'BIN IT'. The bottom section has a grey background with a cityscape and features the text '1st place', the 'people & planet' logo, and 'UNIVERSITY LEAGUE 2017'.



The Challenge

- The earth's resources are limited
- Our population is growing
- Economic growth MEANS greater consumption of resources and production of WASTE
- Need to de-couple economic growth from increasing resource consumption

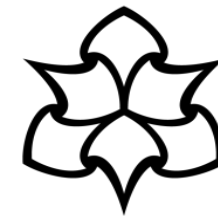




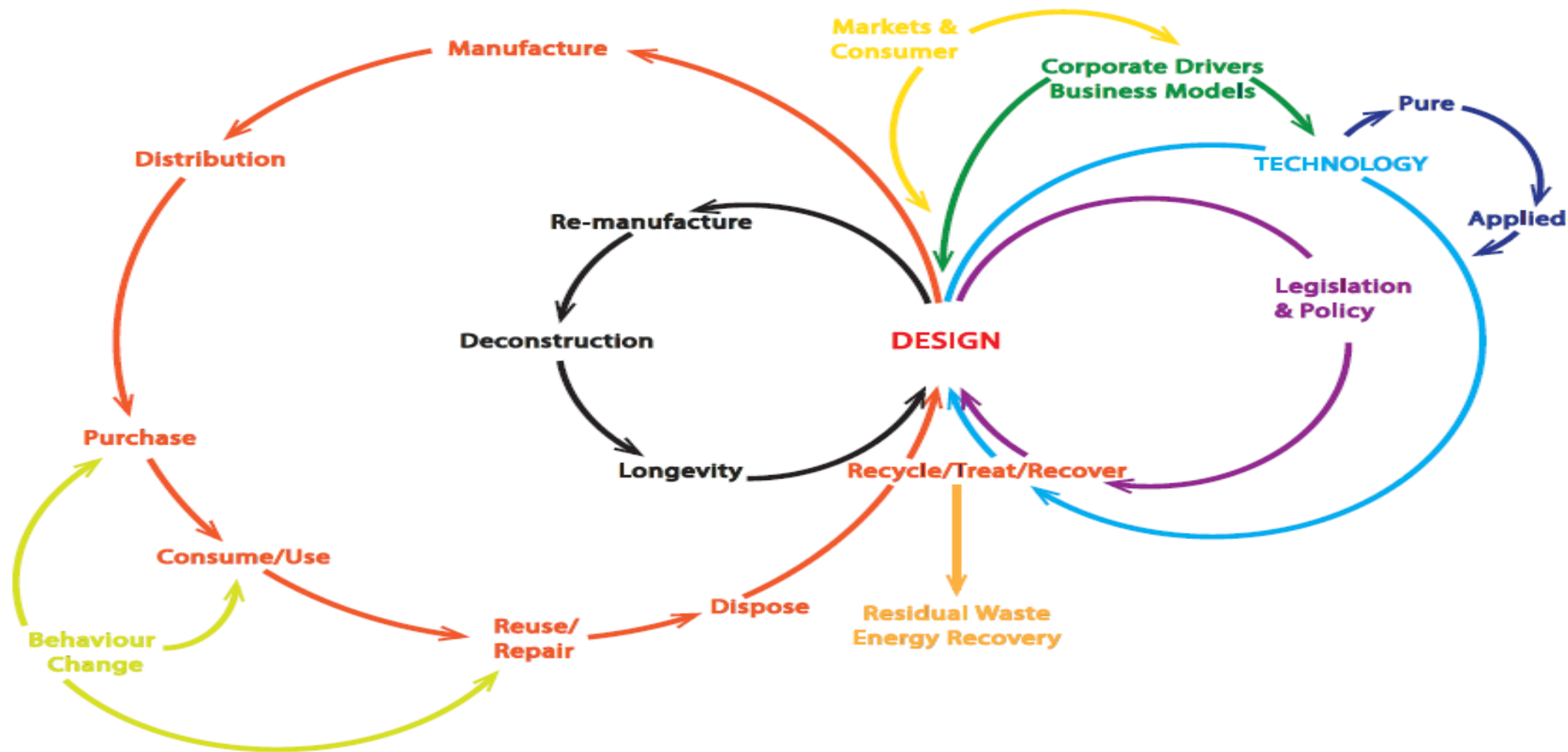
Transition from linear to circular

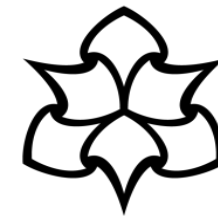
- Waste becomes an increasingly valuable resource
- Provides commercial opportunities for reuse/remanufacture
- Supporting sustainability and wealth creation.



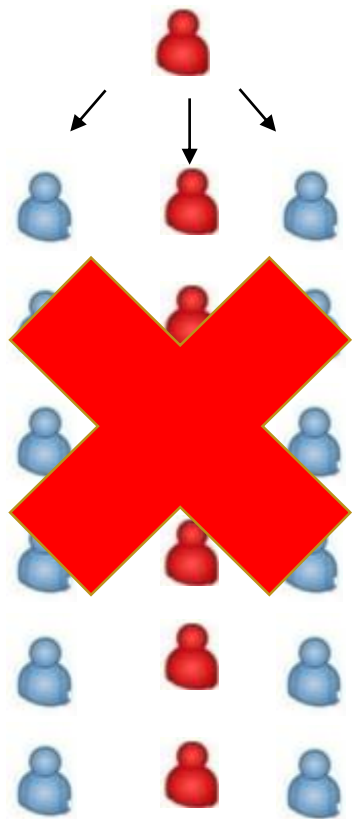


Zero Waste Circular Economy

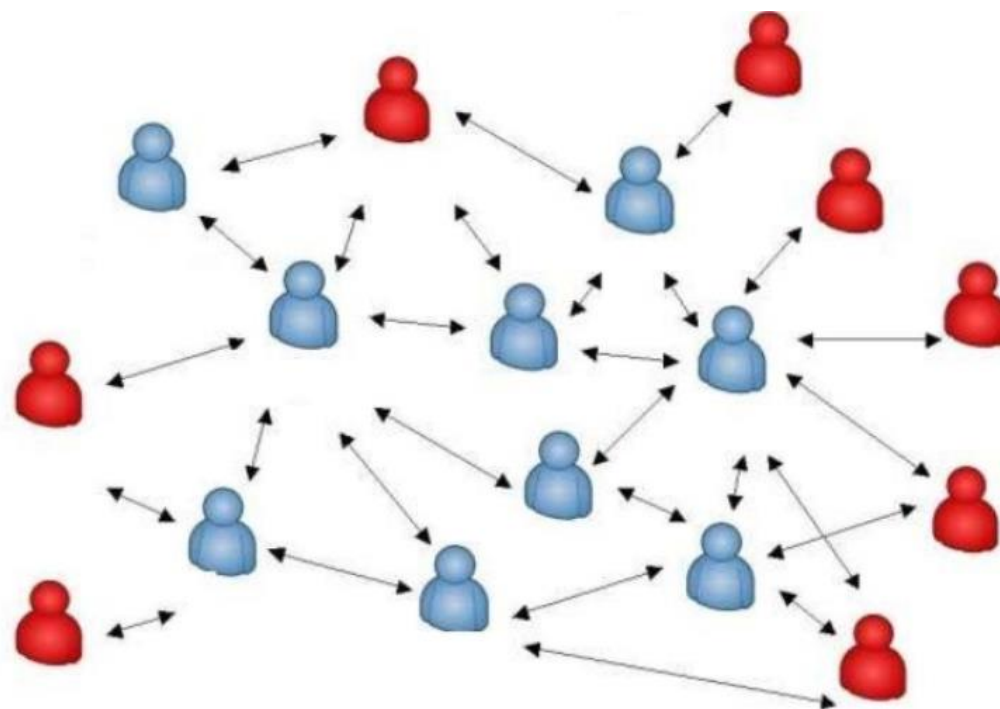




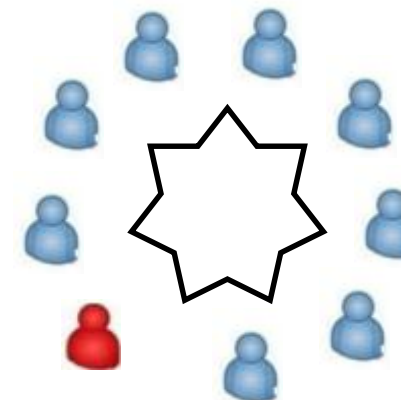
Multi-sectoral and multi-disciplinary



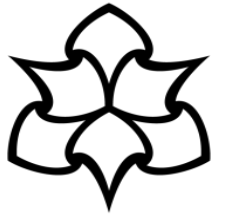
Silos – Academia / Industry
and Business



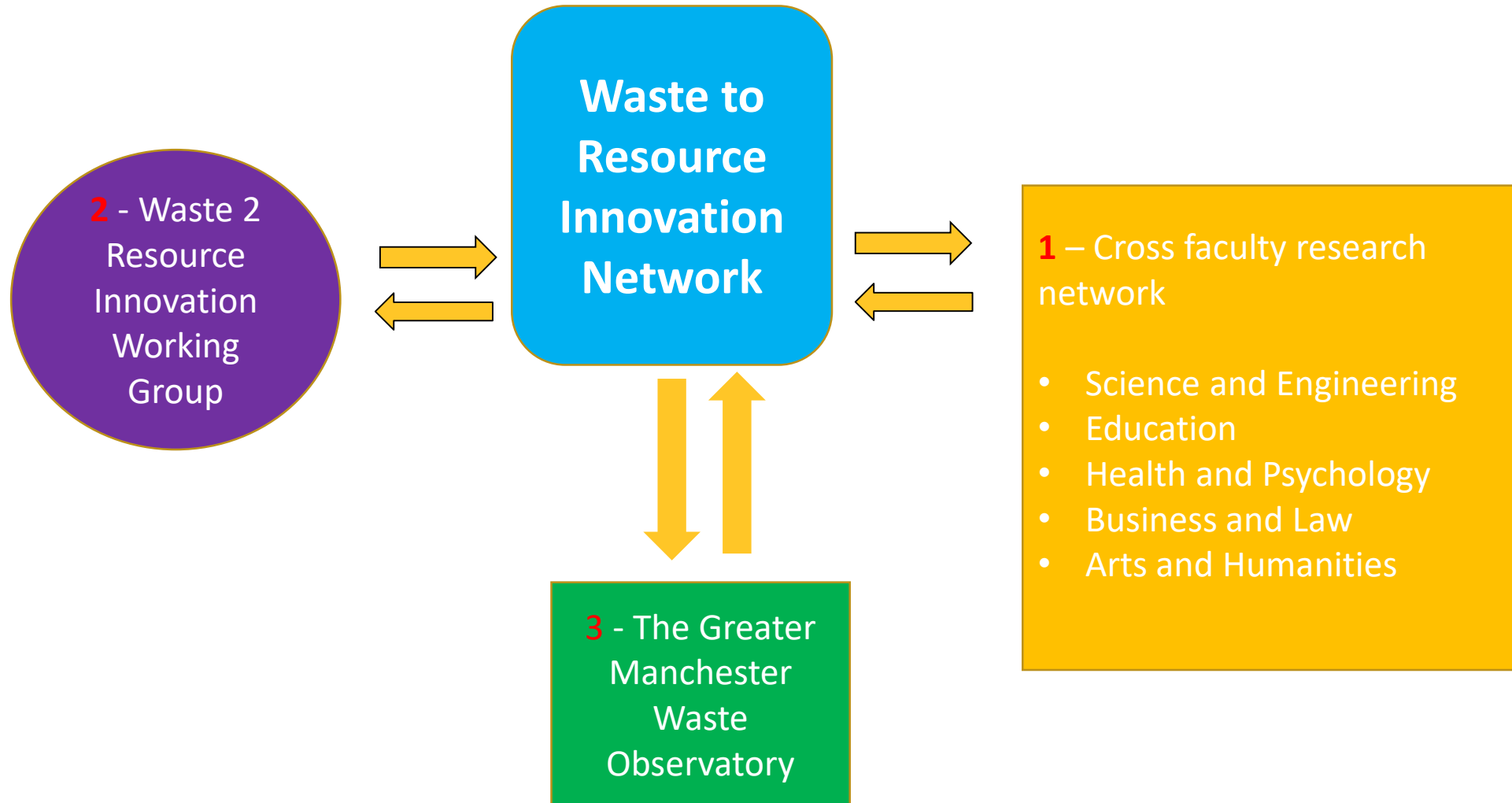
Cross Collaboration and
fertilisation of ideas



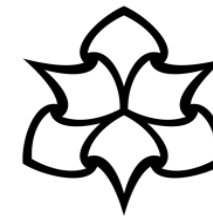
MMU Cross Faculty Network
and Steering committee



MMU RESPONSE AND RESOURCE

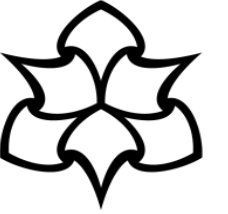


The Network and Group Relationship



1 - Cross Faculty Research Network

FACULTY	CAPABILITY AND EXPERTISE
The Faculty of Business and Law	<ul style="list-style-type: none"> • Future Economies Research Centre • Links to NW companies and SMEs • New business models approaches to achieving the CE • Can develop the business cases for change • Test innovative business models, products and services. • Identification of, and potential to influence, regulation and Policy.
The Faculty of Education	<ul style="list-style-type: none"> • New ideas to enrich schools programmes • Research on the acceptance of new developments by student groups Creating a population of waste aware citizens.
The Faculty of Arts and Humanities	<ul style="list-style-type: none"> • Design for deconstruction, remanufacture, consumerism • Slow and Fast fashion within the textile industry
The Faculty of Health, Psychology and Social Care	<ul style="list-style-type: none"> • The Behaviour Change Network • Interventions for behaviour change to encourage higher recycling rates linked to psychology



1 - Cross Faculty Research Network

Existing Research and Projects

PhD Students:

- Demonstrate barriers to effective policy implementation use for waste management
- Provide educational interventions to improve municipal recycling rates for LA
- Towards a more CE approach to food systems
- Addressing the issues of management and recycling engagement

ERASMUS+:

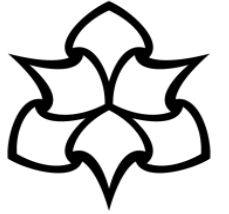
- Waste Citizen Behaviour change EU project – Best practice approach across 5 EU countries providing education to improve recycling

HORIZON 2020:

- Manchester Fashion Institute Resyntex - textile recycling and recovery project

Interreg:

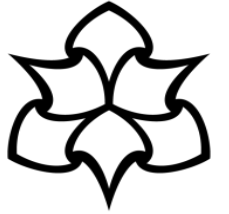
- Strengthening regional innovation policies to build sustainable food chains
- Benchmarking & Developing Circular Economy Business Models (tbc)



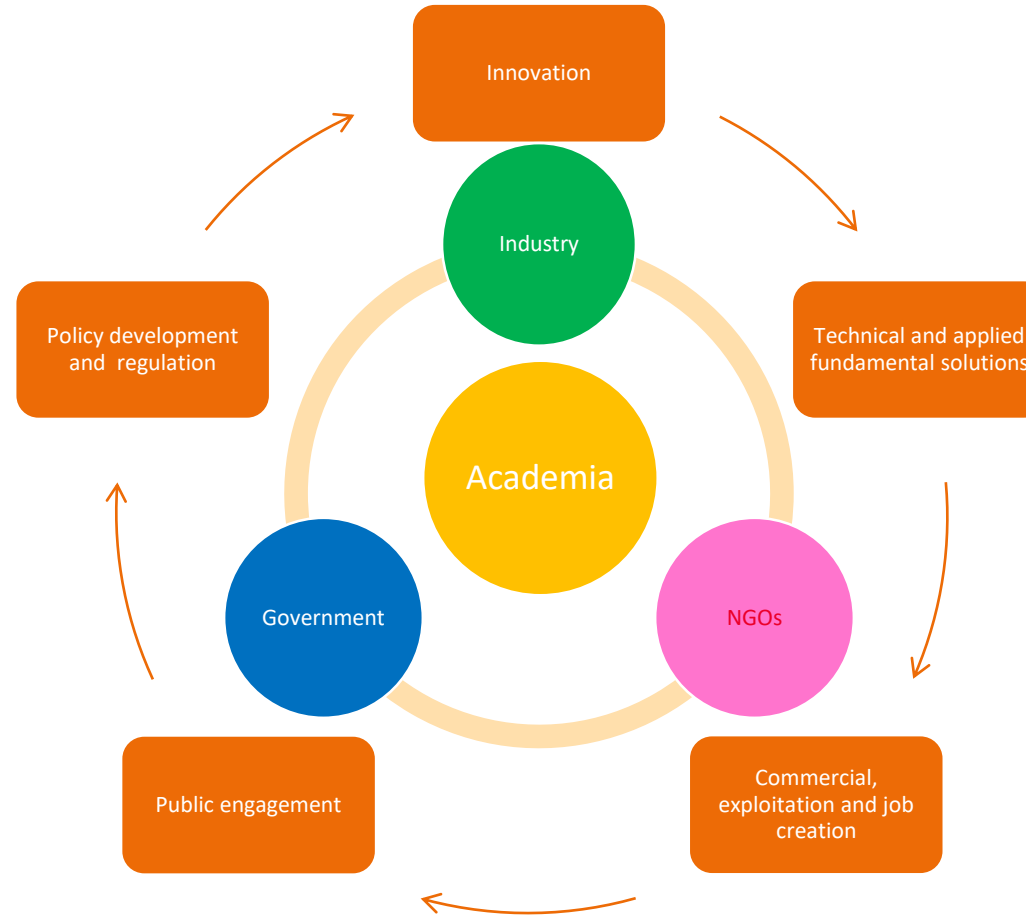
2 - Cross Faculty Research Network

Existing Research and Projects

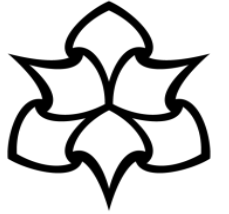
- AD Plant corrosion analysis for GMWDA waste contract
- Incinerator Bottom Ash Fines – loss of ignition test for alternative treatment route
- Viridor – Future waste streams & Transport assessment
- Textile industry – Duvets Pillows and Mattress Recycling - NBF - Valorisation techniques – Collection and Treatment strategies
- WRAP and GMWDA – Bespoke Carbon Literacy model for Waste and Recycling - TBC
- Food reduction systems – WRAP – Delivering new business modelling for the Robinsons Brewery Chain
- 3D Printing – Educational Hub and integration of recycled plastic



3 - The Greater Manchester Waste Observatory



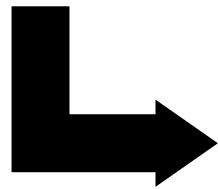
‘Supporting the NW to transition to a Zero Waste Circular Economy’



Critical Steps

Circular design

- Material selection
- Standardised components
- Designed for deconstruction
- Remanufacture
- Designed to last



New business models

- Innovative
- leverage vertical integration



Reverse cycles

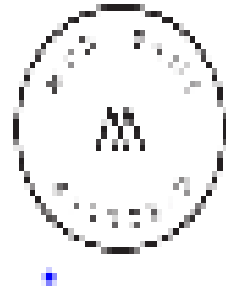
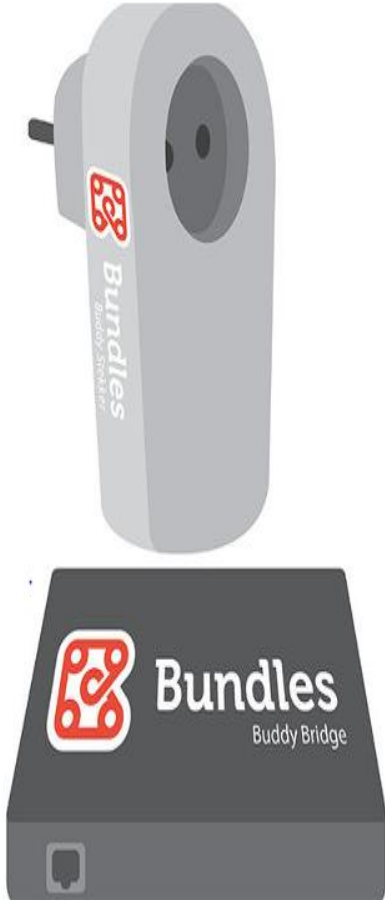
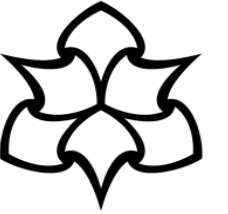
- New skills to return materials back into production systems



Enablers

- Higher resource productivity is commonplace
- Policy makers
- Education

Industry Examples



MUD JEANS

