

24 November 2022

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1. How does WasteMINZ become and encourage members to become Te Tiriti partners?

Barriers to Progress

- Accessibility & affordability of educational course/material
- Shame + guilt of coloniser
- Communicating benefits of having Te Tiriti integration
- Mismatch between tikanga and what's required with managing waste in modern city
- Language and space to talk about it
- Public health discussion
- Cultural acceptability
- General understanding of how this Māori world view applies to our sector
- Education
- Ensuring value is placed on enshrining treaty values in our work
- Lack of understanding of the Treaty
- Not following through on engagement intentions, e.g. final product loses meaningful content due to resistance due to traditional non-Māori societal attitudes
- Pakeha NZers being fearful of getting it wrong because we don't have enough knowledge
- Not currently within WasteMINZ strategic plan?
- No translators (advisors) – limited resource in this space
- Political influence – co-governance/co design/ consult
- Confidence -> = wall walk = te tiriti workshops
- Bring it into the processes people are working through
- Support to figure out how to do this
- WasteMINZ needs to be a good role model for members – will take time + energy
- WMMF – mana whenua -> no obligation to “consult” “include”
- Don't know where to connect in
 - Who are the right people to talk
 - Para Kore, Ropu, approached as proxy for mana whenua
- Learn from experience
- Processes does not equal fit for purpose
- Different between collaborate, engage, consult, inform, partnership, and how this happens in different communities + peoples
- Genuine recognition of Te Tiriti opens doors for Pacific peoples to create a safe platform for diverse, inclusive practice (also in potential solutions section)

Potential solutions

- Offer workshops – have a space to name + process colonisation in Aotearoa
- Offer te ao Māori wānanga to WasteMINZ members
- Co-design solutions

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- Developing communication about importance + relevance of Te Tiriti
- Recognising Māori expertise – apply for funding
- Develop relationship with mana whenua by contributing not taking
- Teach about value of te ao Māori
- Reflecting on what actual partnership means
- Highlighting stories of what our members are doing
- Listening + engagement
- Taking the time to develop long term relationships:
 - Layers
 - Manage self in processes
 - Organisational relationships
 - Task related relationships.
- Education
- Learning about the differences region to region
- Acknowledge past grievances
- Get input from tangata whenua early
- WasteMINZ can develop & facilitate training to present views of tangata whenua, the engagement process (how to guides). Can be tailored to different sector groups, issue specific
 - Help to communicate benefits to various sectors
 - Sharing success stories
- Build te ao Māori into WasteMINZ core values. Flows down to others in sector leader
- WasteMINZ could engage an advisor to team
- Options analysis – is it a critical success factor. What does this mean from a Māori perspective?
- Build capacity in our sector?
- Meetings in a marae – enabling experiences
- Key theme at conference/workshops
- Could start small - plan a journey (roadmap) to upskill i.e. 1. Webinar 2. Workshop 3. Conference theme
- Create a level of accountability – commitment
- Weaved into National Waste Data Framework
- Genuine recognition of Te Tiriti opens doors for Pacific people to create a safe platform for diverse + inclusive practice
- Framework in new or amended legislation for requirements: advocate for, invite + give spaces to workshops etc.
- Resource mana whenua to participate
 - Expertise & knowledge paid for
 - Build capacity + capability to participate/invest

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2. Modelling the behaviours we want from others is a good way of changing behaviour in your peers. What do you do, or what could you do, in your workplace or within your personal life to role model low waste behaviours?

Barriers to progress

- Effort (energy) to drive behaviour change
- Existing behaviours
- Excuses to not
- Can be more effort
 - Self-sorting
 - Odour
- Confusion - is it recyclable?
 - Correct place to put it
- Company attitude/culture
- Generational attitudes/measures of success
- Not everyone's focus/not everyone sees it as an issue
- Reuse is too hard
- I don't know how
- Don't want to stand out
- Different priorities
- Not accessible
- Everyone trying to do the same thing
 - Councils
- People think they know what they want/need
- There are many different behaviour change models & there is no one size fits all
- Cognitive dissonance
- Peer pressure (i.e. kids wanting thing because everyone else has them)
 - Corporate entities creating that pressure through consumerism & marketing
 - Greenwashing (people think they are using green products when they aren't)
- Lack of transparency from producers
- Role modelling burnout

Potential solutions

- Education
- Behaviour shift
- Drive cultural change within company - find allies
- Find the right champion
- Make positive behaviours easy
- Influence procurement decisions
- Be the change you want to see in the world

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- Simple consistent messaging
- Promote success
- Honesty
- Community champions #bininfluences segmented audiences
- People respond to what is happening around them, pack mentality
- Awareness of different behaviour change models & applying different one for different contexts
- Focus on positive outcomes in messaging rather than negative
- Role modelling waste minimisation through social media channels (Instagram, tik tok, etc)
 - Didn't show disposables on TV/film/social media
- Subtle not aggressive role modelling

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3. How can we build a circular economy for soil?

Barriers to progress

- A way to stream materials (soils) for quality is key
- We don't have a good risk framework in NZ for managing contaminated soils
- Need to move soils up to the top of the waste hierarchy, they're currently sitting at the bottom (landfill)
- Need to have different solutions for different regions
- Mapping unproductive land – as opportunities
- Opportunities for contaminated soil
- Biodiversity vs ETS – pine forest growing
- Managed soil/contaminated soil – health index – HAIL tags
- Soil use – recycle by development zone
- Criteria not fit for purpose – for evolving society
- Soil and water table – risks down stream
- Perception of contamination
 - Multiple audiences (regulator, SQEP, contractor)
- NES/legislation/regional
 - Past land uses
 - Investigation resolution
 - Dig & dump (costs)
- Risk awareness/councils/drivers
- Time, space & material
- Regulators – conservative
- Development practises (strip & remove)
- Available infrastructure
- Monoculture (verses regenerative)
- Soil additives limit reuse
- Short term thinking

Potential solutions

- Sophisticated approach to setting and streaming materials
- Stream materials to protect quality
- Mixing to reduce contaminant concentrations should not be part of the solutions
- Need to protect best agricultural and horticultural soils (top of hierarchy!)
- What systems do we need to create to support:
 - Mauri back into soil
 - Whenua – soil – taonga
- Strategic approach which will require funding and infrastructure
- Need solutions that are efficient and effective
- Best way to get suitable technology in a way that we don't get double ups

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- 'Carbon' characteristics of soil
 - Tools for decarbonisation?
- Restorative science on topsoil
- Testing lead solutions for secondary soil placement
- 'Soil bank'
- Cost + timing + resource volume = database
- National tool – to prevent “out of sight out of mind”
- Improved communication between TA/regional
- Is mass movement of soil necessary – solutions
- Soil mapping characteristics
- Education/sharing successful projects/workshops/landowners/developments
 - Property value perception
- Revision/ease/update to facilitate the CEFS
 - Redefine land & waste practises
- Use waste levy funding
- Limit products that negatively impact soil health
- More sustainable production models
- Larger thinking
- Nationalising SOL/AS
- Cross-industry collaboration

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4. How do we make sure the waste disposal levy collects the right data, so that we can understand the priorities for waste minimisation?

Barriers to progress

- Incomplete data collection e.g. requirement to record tonnage but not type of waste (or categories too blunt)
- Onus on landfill operators to understand waste but not disposers
- Collection of data from not only landfills but recycling facilities also
- 'Diversion' is not a true measurement of the minimisation of waste e.g. waste soil used as landfill cover is still going to landfill
- 'Diversion' may not result in 'good' environmental outcomes e.g. burning of waste still resulting in emissions

Potential solutions

- Collect more data
- Gain a better understanding of the 'un-diverted' portion of the waste stream. Because if this is the stream still going to landfill, we need to understand it better & figure out if more can be diverted
- Understand the materials going into recycling facilities (the diverted version) & transfer station to a fuller extent. What is it?
- Tracking of waste
 - What's being collected
 - What's being diverted
 - What remains waste
- New WasteMINZ sector group for government departments to co-ordinate waste minimisation efforts

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5. What waste streams/emerging contaminants have been identified as issues or potential issues at your facility or by your regulator, and how can we manage these risks?

Barriers to progress

- Coal tar
 - Used on roads, now when you dig up the road what do you do with that material?
 - Can it be reprocessed back into roading or into class 1 landfill?
- Old dump sites that need to be remediated
 - no funding for councils or for solutions
 - landfills near rivers + beaches
 - inconsistency with regional councils tackling these issues
- Treated timber specifications for buildings need to be longer
- Waste oil used in processing used in asphalt plants
 - What is going to happen in the future re carbon?
 - Can you find a new market for this?
- Human behaviour – why should I care?
- Solutions aren't available
- Move simple/consistent messaging
- Not enough product stewardship – too expensive/complicated
- Lack of understanding of the risks of contaminants
- Resource recovery/sustainability isn't a priority within government
- Food waste in recycling bins causing contamination even though food waste bins available
- Good behaviour isn't normalised
- Governing organisations are seen as dictators
- It's really hard to do the right thing
- Proper labelling of products
- Nappies are a massive waste stream
- Lack of data, and a lack of understanding of the impact/appropriate limits
- Communication of the key waste sources to stakeholders
- Liners in landfills not capable of concentration of contaminants
- Shifting of limits when consents are up
- Quantum + testing of contaminant i.e., leachate composition. Lots of streams, only some are testing i.e., PFAS
- Legislation dictates outcomes which isn't necessarily aligned to best practice
- PFAS measured, but not treatment, requires separate disposal. PFAS limits are over cautious by factor of x10
- No source treatment of leachate
- Over inflation of limits

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Potential solutions

- Government needs to fund removal of old dump sites at risk due to climate change
- All-of-government approach needed
- Circular economy is more than just waste/MfE
- Better specifications – performance based with length of lifecycle component
- Consider end of life in procurement
- Better support for product stewardship schemes
- Import controls – setting standards
- Increased customer experience
 - Make recycling easy instead of complicated product stewardship schemes
- #bininfluencers
 - Natural champions as cute as Zac Efron
- Make waste minimisation fun
- Making manufacturers tell the whole story
 - Can it really be composted in a decent timeframe
 - Plant based bottles aren't the same as recyclable
- Data collection + availability. Release to researcher
- Impact from data research. Research the impacts of EOC's to environment + human health
- Treatment at source of all contaminants i.e. leachate treatment
- Design out products causing contaminants
- Circular economy, way of treating historic waste?
- Link regulation limits to manufacturing. Think lifestyle of emerging contaminants to product
- Design products to break down into simple elements

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6. What are the broad principles that regional councils should consider for waste management and disposal in the future? How could or should data from the waste disposal levy reporting requirements inform councils' thinking about future planning for waste infrastructure?

Barriers to progress

- Future planning (what is needed)
 - Sufficient space in an appropriate location
 - Potential future requirements vs current use (size and frequency)
- Lack of communication between TA/RC
- Lack coordination of levy + reporting
- Location/accessibility – need to be close to development areas but far enough away to not cause issues
- Differing values between industry & regulating bodies
- Public perception + lack of education
- Traffic movement – lack of road infrastructure to cope
- Unclear future to plan
- Waste streams that aren't planned for – e-waste
- Rare earth materials
- Regions have little influence to direct
- Be aware that waste will be a NZ problem – world does not want it
- Cost of manufacturing in NZ
- Government's focus on R+D – is it in right focus areas
- Lack of resource to enable products to be managed/processed within NZ
- Legislation is not sufficient to deal with problems
- Lack of knowledge regarding what NZ can do – manufacture
- Challenge the recycle mindset – why can't all plastics be recycled?
- Zero waste not a reality
- Will always be a residue – but people do not want to acknowledge this
- How do we communicate this?
- Planning documents need to identify landfills, but will be public resistance to this
- Lack of expertise at council level
- Don't have funding for this to peer review
- Unpopular to approve landfills politically
- How do councils access the levy funds, expertise to put business cases together? Does not exist
- Impacts of WDL changes
 - Incorporates a lot more/different players
 - Wider lens needed from disposal industry + councils
 - Education of operators needed
 - Not enough people at MfE to process data

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- Data on composition of waste not being collected
- Geographic isolation
 - No access to infrastructure for organic reuse
 - Data can be used to identify where the material is being produced
- No market for materials. Landfill disposal is still too cheap
- Commercial sensitivity of data

Potential solutions

- Coordination of levy + reporting
- Effective site management & location choices
- Review levy info vs discharge & consent requirements
- Education?
- Waste composition study
- Quality of data retrieved from levy. Collecting useful & detailed information from waste to better information on decision making
 - Create trend information
 - Inform waste trends
 - Inform future waste policies
 - Provide community feedback
- Made in NZ aimed at key waste products
- Focus needs to improve regarding what NZ manufactures
- Group that can connect waste to a manufacturer in NZ
- Awareness of date from levy – so we know what is going to landfill
- Zoning areas for landfill in future
- Centralise planning decisions, nationally supported/local decisions
- Use import data to understand what is coming into NZ
- Flexibility of infrastructure for different uses as resource flows change
- Enabling/requiring markets for resources – e.g. asphalt/concrete
- Build infrastructure in areas where materials are being generated + account for geographic isolation
- Build on mapping of waste infrastructure to match with material generation
- Enable social businesses + local councils to create local solutions
- Product stewardship + producers paying for end-of-life costs
- Also a role for national direction, regional councils can't do it alone
- Require collection of geographic source reporting
- Enabling legislation that encourages better use of resources
- Regional level spatial planning to account for waste/resource management – transfer stations/soil treatment/ composting/landfills/fill sites

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7. How could we as industry promote and attract people into the industry (addressing both the resourcing gaps particularly for driver/operators, and enhancing the image of the sector)?

Barriers to progress

- Different rates for different industries
 - Low pay rates (above minimum wage)
- Waste has a poor image
- Little respect for waste operators/drivers
- Unacceptable working hours
- Small driver pool
- Global shortage of drivers
- Waste industry is quite closed – not sharing information & resources
- Competition, siloed, perception of value, lack of collaboration
- Perception that there isn't career progression in the industry
- Government has withdrawn some support in terms of training
- High competition for drivers/operators in the industry
- Closing boundaries – immigration policies
- High risk industry activities
- Lack of clear education path
- Lack of pre-employment training

Potential solutions

- Review pricing model. Pass the driver costs to the consumer
- Model with construction industry
- Hire healthy, reliable operators
- Rebrand the industry image. Stay away from “waste” image
- Nationwide advertising campaign
 - Who we are
 - What we do
 - How it benefits
 - Change industry image
 - Nice environment to be in – feel safe
- Educate our clients to respect our drivers
- Increase awareness of what a good service we do “we’re sorting their stuff out”
 - Clients, community – engagement
- Flexible working hours
- Encourage more women drivers
- Pre employment qualifications
 - Unit standards
 - NZQA

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- ITO
- Tap into the global labour/driver market
- Collaboration across supply chain – finding ways to work with other organisations to maximise staff & resources
- Technology to open up co-sharing drivers & trucks
- Create variety in roles – i.e. staff get tickets in multiple things so that can do multiple roles & be mobile
- Offer career progression opportunities – micro credentials, etc.
- Education: reframing the job. Promoting the good done in the resource recovery scene
 - Get children interested early – give experience with transportation
- WasteMINZ facilitating training within supply chain
- Connection to sustainability – “save the planet”
- Operators tell a sense of pride
- Lobby the government to hire more overseas drivers/operators
- Female drivers – tap into them to hire more
- Pathway model – future aspirations
 - Where drivers go/become after 5 years
 - So many opportunities – MRF, landfill, transport etc.
- Remove the word “waste”? “Resource recovery drive” sound better?
- Strong advocacy from WasteMINZ
- Lobby Hanga-Ara-Rau to create more unit standards – pre-employment qualifications/certifications
- Lobby Te Pūkenga (ITOs) for enhance training/delivery
- Implement a national register for operator/drivers
- Implement High Risk Licence (similar to Australian model)

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8. Should industry introduce and implement a compulsory training program across all waste companies and should training comply with the New Zealand Guide for Temporary Traffic Management?

Barriers to progress

- Lack of consistency of RCAs
 - PCBU
- Industry wide solution
 - No-one left behind
- Awareness of change from CoPTTM to NZGTTM/WorkSafe guide
- Ignorance of risks
- Lack of public awareness

Potential solutions

- Assessed risk profile
 - Pro rata structure for training
- NZQA standards
 - Industry led
- Address awareness issue
 - Webinars, news articles
- Industry standards
 - Minimum requirements
- NZTA to do more to educate RCAs and members of public
- Increase RCA engagement
 - Talking together
 - Consistent approach

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9. What should we be doing now to transition to a low waste future?

Barriers to progress

- Capitalism
- Consumerism
- Labour rates/cost of production
- Care factor/behaviours
- Education
- Lack of waste strategy (standardisation)
 - Lack of engagement
- Time pressures
 - Easy option
- Responsibility is on end user
 - Council/rate payer picks up the cost
- Manufacture overseas/influence
- Misinformation
- Social conscience
- Lobbying/power of sectors
- Waste considered a natural result of consumption (current linear)
- No control on new products
- No design for end of life
- Lack of trade barriers
- Penalties for wasteful behaviour not at producer/importer level
- Lack of standardisation
- Lack of life cycle data – democratised
- Cost: it is often cheaper to buy new than to source second hand or recycled goods or to repair - there can be a stigma attached to second hand goods
- Food waste: people aren't educated in how to manage food (i.e., meal planning, buying necessary amount of food, how to store, how to dispose etc). It takes time & money to do this
 - 1/3 food lost through food getting from producers to purchasers
- NZ relies on importing a lot of products; there are a lot of things we don't grow or manufacture here

Potential solutions

- Research
 - Industries
 - What others are doing
- Education: people informed of different options out there for minimising waste
 - Repair cafes, refurbished products, sharing platforms, leading options.

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- People also need to be informed of the importance of waste minimisation in general – waste hierarchy etc.
- Create recycling technology in NZ
- Partner with Australia
- Modular products - repair rather than replace
- Retailers offering return
- Career opportunities
- Remove “best before” labels
- Engage parties driving consumption
 - Advertising agencies
 - Brand owners
 - Retailers
- Guide to product stewardship/recycling for FMCG (fast moving consumer goods)
- LC data/facts/visibility – democratised
- More support for projects based on elimination
- More leasing/hiring
- Repair Café Aotearoa has a petition to add a ‘repairable’ & ‘durable’ sticker to products
 - Make the repairability of products obvious
- Regulation: need government to step in & regulate importing etc.
- Transparency: in the impact of products & supply chains, so people can make informed purchasing decisions
- Food waste
 - Education: around food planning, how to store food, how to compost (if kerbside not available), the environmental impact of food waste. Fund educational programmes
 - Community initiatives: community crops/gardens, community composting
 - Reusable programmes: reusabowl, etc.
 - Food rescue: orgs like Kaibosh, etc
 - Local: promote & support local produce purchasing
- Infrastructure: investment in infrastructure to support composting & recycling + refurbishment

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10. How do we shift from waste minimisation and management to circular economy and waste prevention in the context of organic materials?

Barriers to progress

- Data
- Knowledge
 - What are organics?
 - What are the processes by which they break down?
- Finite markets
- Difficult 'organics'
 - E.g., treated timber, and why use timber that needs treating anyway?
- Regulatory, strategic environment
- Do we need to separate organics into different types? What are the different collection, processing needs for the different types
- Personal responsibility (decreasing)
- Affordability
- Consumption - preventable food waste
- Limitations of processing tech, government legislation (e.g kerbside standardisation)
- Contamination: no contaminant material is good enough only. No separation at source
- No extraction processes on "no value" waste. Mindset of maximise value vs minimise cost
- We only look at small piece of puzzle "food waste, compost" understanding the full picture
 - Education, grass roots education
- Community helpers + volunteers change. Kerbside doesn't work for small communities not scalable models
- Waste is defined by end fate not source (Australia struggles with this)
- Where is the most harm now?
- Need a mindset shift how do we extract the most value e.g. Insect farming \$1,500 tonne highly profitable
- Not considering the needs of the end market
- Getting & maintain quality of end products
- How we buy food
- Taking a narrow view
- Regulatory
 - Guideline to disposal to land not being finalised
 - PFAS
- Current focus in wrong place, e.g. waste out of landfill rather than soil health & growing cycle
- 'Quick fixes' can create more problems, e.g. School lunches creating wastage
- Not connecting dots between food and wellbeing
- Lack of NZ/localised research , e.g. for soil loss, application barriers & methods to overcome
- Lack of awareness of soil health issues in NZ

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- Links to lack of connection to growth cycle
- Synthetic fertilisers
 - Short term focus
 - Funding models for farming
 - Shift in approach?

Potential solutions

- Make it easier for people to do things at home - composting + growing
- Value the 'waste' - product stewardship approach
- Organics in ETS? Carbon credits?
- Change the question – not about 'waste', or management or minimisation – opportunities + solutions
- Increase personal responsibility
- Mana whenua partnerships
 - Define the problem together, co-design solution
 - Different context + decisions
- Councils driven towards the cheapest approach
 - Can we change this?
 - Best value does not equal cheapest - procurement
- Better evidence + information
 - Include economic considerations?
 - Timeframes?
- Adapting strategic direction to quickly changing industry
- Cheap alternatives
- Flexibility + continual improvement
- Procurement
- Take a holistic approach - inputs, process, carbon, outputs + benefits to soil etc.
Regenerative outputs
- Community gardens, paid community as opposed to volunteers - although one size doesn't fit all
- Understanding of what the market needs
- Understanding what can be separated + where
- Reframing the word waste/the conversation
- Is technology a solution
- Optimise distribution channels
- Economics of the ETS to make alternative solutions more feasible
- NZ specific carbon sequestration research needed
- Te ao Māori perspective & connection to land/soil
- Localised model - identify who's doing what, support & upskill
- Product stewardship model - apply to organic waste, in an authentic way – internalise externalities
- Market driven approach, e.g. for compost & soil health benefits

WasteMINZ Collaborative Workshop
Discussion table responses



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- Getting language right
- Promoting benefits
- Soil advocacy

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11. How can WasteMINZ support the move towards a stewardship economy?

Barriers to progress

- The bottom has fallen out of the recycling industry, the commodity price too low. Something needs to change to recover resources + fund it
- E.g. PET was \$700t now its \$150t. Cost of processing is higher
- Our borders are too open (quote – poor people can't afford to buy cheap, but we're all buying cheap)
- We're not united as an industry, e.g. CRS seems like a no brainer, but then we know members of WasteMINZ are advocating against it. Government is getting mixed messages from us
- Funding - not enough + doesn't provide the access to specialists who can unravel solutions to complex issues needing to be resolved across economy
- Coordination across industry + government - it's lacking
- Data
 - Understanding material flows
 - Open source information, open access to producer, consumption + waste flows is vital for people to make informed investment decisions
- There is a tension between WasteMINZ + its members - conflicting needs
- Procure materials that are circular, except by their own motivation
- No enforcement
- No infrastructure in NZ. Keep getting told NZ is too small to do proper recycling here
- Hybrid products with blended or composite materials. We don't want them!
- Recycling is the gateway to a circular economy. It has its place to produce clean source separated inputs for manufacturing
- Colour on materials – big problem. Use clear + staple your name on it
- We don't standardise enough in this country. Standard sizes, materials, too many anomalies
- Government aren't engaging enough with private business to find out what's already happening on the ground. There are opportunities to build on that but instead reinventing the wheel.
- The emissions profile of a network needs to be considered. The circular SMEs are not talking enough to the emissions SMEs
- We import way too much rubbish with no constraints which threatens any circular business investment here

Potential solutions

- Regulation at the border
 - Controls – only allow products to come into this country that are durable + last
 - Force manufacturers to make better decisions with their design + input materials; modular etc.

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- Product redundancy + obsolescence needs to be built into the cost. Objects should be allowed to become redundant
- Product stewardship is a public good, it's a system in society that is independent of individual companies + protects consumers, particularly if a company goes out of business
- The government don't have to run the recovery solution, but they have to be the ones to set the parameters, rules etc. + ensure the money is paid at the front end
- WasteMINZ two stages of approach
 - 1, address the philosophical question – should government be regulating business? (Fox in control of hen house or farmer?). If government accepts its roles as a regulator, then a whole new social license to operate emerges
 - 2, then WasteMINZ can help shape what the scheme should look like operationally.
- WasteMINZ should be asking its members what they do agree on, not focusing on what we don't agree on. So could the thing we all agree on be that we want to stop the flow of cheap imported goods that break down + have no reuse/recovery now?
- Advocating for a dumping tax for those who do import goods that don't fit a durability criteria
- Build on the narrative about production + consumption rather than staying in the waste layer/ talk to framing why we are consuming all this stuff
- Infrastructure of WasteMINZ needs to change away from sector groups. Key issues we all agree on
- Needs to be way more conversations that WasteMINZ could be facilitating, industry by industry, that aren't being led by anyone else
- Also conversations between different government departments + WasteMINZ that need to influence the economic playing field, that we're not having + MfE are not having either - towards shared understanding
- Advocating for more priority products, but for a different design process for those that work further up the waste hierarchy + less onerous to get over the line
- Keep pointing out how flawed the current system is
- What other legislative levers that are less onerous
- Produce procurement guidelines for circularity, industry can use on material selection
- Information + labelling on products + goods is vital to let people know about repairability
- MfE needs to part levy fund WasteMINZ so there are more resources for project delivery managers, not coordinators, to ensure that outcomes are achieved; not relying on volunteers
- Power of advocacy can't be underestimated, but it needs to be very direct, organised. Neutral is never going to move the dial
- Board has to clearly set the agenda on what it will + won't do on behalf of its members
- WasteMINZ could think about how it could represent the views of less well financed community/grassroots advocates against the big guys equitably
- Do an analysis on which industry are missing from the members if they wanted to influence change in one area
- Finding sources of funding to do innovation/better design that doesn't rely on MfE funding

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- Pushing for a role to play/independent oversight of projects that claim to be circular + are seeking funding
- Evening up the inequities, both financially + capability wise, for groups wanting to apply for funding to innovate
- WasteMINZ could be an educator around what is product stewardship; producers can't access information readily so we can make it available; engage with them
- Understand all the different external pathways + legislation, influences, bring the connection + navigate those pathways
- Advocate for carbon border tax that would even us up with the other countries who are introducing the same
- Highlight the risks of NZ becoming a place where all the goods that don't meet other countries standards will come
- WasteMINZ needs to create criteria of what it means to be a stewardship organisation, + you can't claim to be circular if you don't meet those criteria
- Creation of guidelines for standardisation of products + product packaging. Glass is an example
- WasteMINZ supporting its members to adopt standardisation of materials, sizes, shapes, labelling, colours etc
- WasteMINZ needs to hold the Commerce Commission accountable for allowing greenwashing
- Society has gotten so complex, the R+D that has gone into making bespoke, use that R+D to flip the focus onto making things that are able to be broken down into raw feed stock again
- It's not about: recycling at end of life but recycling to reuse point
- The members of WasteMINZ should be following a set of guidelines – we will audit your product stewardship scheme to see if it meets these guidelines
- Material passports, using block chain right at the beginning point of a product's manufacture to identify what's in it, what it can be broken down into + rebuild into
- Advocating for a restriction of trade on products that can't meet these criteria
- How do you take products that don't have the same value as metals, take a long-term view
- Product stewardship schemes should be designed by independent entity, not by the industry/producers themselves without scrutiny

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12. How can WasteMINZ ensure it is involved in future co-design processes?

No responses

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13. How can the sector and WasteMINZ best gather evidence-based information to preemptively influence ministerial policy directions?

Barriers to progress

- Members not always connected
- We all ask different questions
- Government departments do have information – but not standardised
- The National Waste Data Framework not implemented yet
- Data reporting on waste not mandated
- Not very good at sharing

Potential solutions

- Proactively thinking about what the key issues are – and gathering evidence around best practise
- End of life for biosolids
- Aligned view of what our view is for NZ
- Sector groups to think about the issues then seek out information for the members

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14. How do we work with the producers so that they only bring into the market products that have their life cycle fully planned out and paid for?

Barriers to progress

- Reverse engineer business
- What is recyclable packaging? Communicate with people who need to know
- Access to information - share the resources
- Waste hierarchy v LCA
- \$\$cost\$\$ → fine line affordable <-> real cost
- Access > ownership
 - Who pays for it
 - How do we make it owned by collective
- Personal responsibility of waste
- Procurement policies - end of life in policy
- Current product not considering destruction/reuse
- Small country size
- Small/no industry to push in the right design direction
- No labelling on compounds (i.e. non-quality product, like batteries in small electric products)
- Need to get into trade negotiation phase to impact
- Mixture of products /complex mixture of new products (solar panels as an example)
- Solutions are not being supported early by government
- Perceived cost to business
- Take-make-waste - can see the circular instead
- Design phase - design out waste
- Rules/regulations
- Re-use possibilities – awareness
- Education
 - Impact of materials
 - Loop
 - Awareness of new models
- Levers for behaviour change
- Lack of mandatory product stewardship
- Economy of scale
 - Low cost of landfill
 - Low cost of imported products/recycle content
- Level playing field
 - Producers/importers not participation
 - Recyclers picking up products (valuable) at no value
- Producers have different sector group to waste/recycle sector group
- Difficult, as we are a small country

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Potential solutions

- Industry trialling some solutions as they see future markets
- Learn from other countries who are already recycling products
- Education of public on what they are purchasing and where it ends up
- Engage with local manufacturers
- External country changes cause improvements in NZ
- Design in recycling or reuse
- Making producers aware of the effect of their decisions
- Identify how it will save producers money, then they will find ways
- The public need to come onboard so producers can follow suit
- Education works in that the people demand the change – comes from the people
- Education as activism (no planet no profit)
- Government to listen to community
- Policy/legislation which changes products and incentivise, regulate positive change
- Eco modulations scheme - meets requirements, less fees – financial incentive
- If not circular - not able to be put on the market. Barriers to international trade
- Targeted marketing with large producers
- Universities have a component of this within study – role modelling the good producers. Strong suppliers have a realm of influence – your values – “morals” big companies on board
- Lots of cost to change packaging – support this – cost to re-tool – even the fund does not motivate this
- Connect to international markets
- Regulation – regulate the capitalist model and the business will find the answers. Tell them what it is & they will find a way
- One bite at a time, social license, achieve it”, big bang, targeted steady, start somewhere, but then law by law
- Zero carbon by 2050
- Theory of change – levers...
- Focus on quality + ability to repair
- Processes that involve full life cycle analysis in product design
- Inform producer families (employers, management, boards, investors) in full life cycle + impacts associated with social, cultural, environmental + local economic
- WasteMINZ
 - Data collection
 - Education for consumers + industry

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15. Thinking around infrastructure needs for the sector, what are the most critical needs you see for your organisation and how do you think those needs should be funded?

Barriers to progress

- Supply chain
- RR sector classified differently as hazardous waste to other products and therefore limited #/types of vehicles for transportation
- Lack of labour/truck types
- Barrier to entry - cost of logistics from remote areas
- Some products must be consolidated, so that they are economically viable to transport
- Who pays? How much? Taxpayer? Consumer?
- Limitations of waste levy funding use
- Plastics – high volume -> expensive to transport
- Are we benefiting enough locally i.e. in NZ
- Limitations of local markets
- Net M/Neve x of products in NZ
- Undervaluing job creation
- Product/material specific
- Southland -> remoteness -> cost of logistics limit opportunity
- Competing overseas economies of scale
- Optimising logistics
- Behaviour is always a barrier
- Remoteness/low decile -> getting products to end market is expensive
- Catching up -> upgrades bringing us to where we should be now not future
- Ownership of infrastructure – where does it sit?
- Current infrastructure
 - Not fit for purpose
 - Accessibility of processing facilities
 - Distances
- Central government
 - Struggling to get permission to 'help'
 - How to create regional collaboration?
- Difficulties of sub regional/regional
- What do we need to move beyond where everyone else is? E.g. re-use
- Trade rules too liberal -> no control over what things come to us
- Local circular loops important, use green waste locally
- Large geographic area/small rates base -> funding
- A lot of New Zealand is rural -> access issues
- Availability of land for facilities
- Need to partner with others to get funding, or help others to partner

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- CRCs
 - What are they going to do
 - Community - hHow do we get the community to make a difference?
- Who represents community?
- Voluntary nature of CRCs - funding! Who will pay?
- Procurement processes (changing in AKL -> partnership model)
- Tension between community/volunteer run infrastructure and larger commercial operators - need to facilitate upskilling
- Not getting submissions to ITT – spread too thin
- Framing of sector as “waste” – do not see self as waste - infrastructure/earthmovers/construction
- Need new language to describe materials that dealing with
- Economics - lack of specifications to enable reuse of products
- N/S Island differences -> cost models different
 - N Island – quarries ->\$ to quarry
 - S Island – alluvial - \$3/ tonne aggregate, \$5/tonne crushed concrete
 - National solution may not be one size fits all
- Scale
- Consistency of supply (fully electric crusher/screener -> re-use of materials -> roads -> only in Auckland due to scale)
- Reverse sensitivities or CRCs in heavy industry
- Restrictions of RMA consenting – narrow interpretation
- Price mechanisms during recession - drop \$/tonne for fill
- Repair
 - Recognise value higher up hierarchy
 - Pay/support
 - Not currently a government priority for funding
- Lack of funding - automated sort -> MRF unable to raise funds by self
- Linking/wider infrastructure needed not just individual pieces of ‘kit’
- Timing of funding - mismatch with business need
 - No retrospective funding -> too late
 - Self-funded not-for-profit
- Site visits - practical demonstration would help
- Lack of separation of glass @ Auckland – co-mingling = barrier to MRF
- Co-ordination between consumers + products (e.g. plastics) re type of product used for -> helps re-usability
- Clear strategic direction -> certainty re infrastructure needs
 - What needs to move up waste hierarchy
 - E.g. move away from traditional transfer station
- Regional issues = different – transport/distance
- Waste not seen as an infrastructure issue
- Slow pace of central government change

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- All channelled through minister
- Changing funding criteria/timing with business readiness

Potential solutions

- Change transportation classification legislation
- Consolidated transportation
- Hub + bespoke model
- Network
- Seeing 'mobile transport
- As part of infrastructure not just static assets - system for secondary raw materials
- 'Waste levy' to unlock S chain
- Higher value local products
- Not internalising full costs of products
- Extended Producer Responsibility
- Government legislation
- Product stewardship – longevity of products
- Retrofitting
- Leasing models -> (Zilch) – toggle between business + personal use
- Ownership - resolving where this sits for best long-term outcomes e.g. MRFs
- Commercialisation of profitable enterprises e.g. C+D - opportunity for council to step out
- Support from local government - training to grow business
- Regional vs local solutions
- Inter-regional skill sharing/collaborations/partnerships
- Introduce equitable ways to involve communities e.g. CRS (funding/opportunities income generation)
- Industrial/community scale - invest in groups that identified
- Be clear on vision + values for infrastructure
- Realistic procurement processes
- Easier application processing for funding
- Support for procurement
- Waste levy - local infrastructure
- H – truck – long haul
- Land availability (suitable) - resource consenting challenges for resource recovery facilities. RMA <-> WMA does not mesh well
- Consideration for multi-use facilities with spatial plans - outcomes focussed
- Peacocks – 30K homes - holistic views - case study
- Levy funding opportunities - as levy expands into new sectors e.g. C+D - then prioritise funding of those sectors to help reduce that waste stream, e.g., re-use of asphalt/quarrying
- Enabling investments
- Soils
 - Weighbridge code for soils - re-sell (clean soil already circular)

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- Railway ballast - challenge. Kiwi rail - opportunity to classify soils more accurately so do not lose good soils to landfill
- CaPEX - opportunities vs OpEX - community funding
- Education
- Right to repair
- National RRN
- All money sits on supply side - use economic instruments
- Producer responsibility for end of life - cradle-to-cradle thinking
- Funding - very tight investment/funding criteria
- Assess on area need (differences in different regions)
- Overlaps - best use of what we already have
- Better understanding of full system (e.g. food map)
- Not incineration

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16. What can WasteMINZ do to help build capability and capacity for the upcoming needs of our sector/your organisation?

Barriers to progress

- Broadening membership base
 - Construction/infrastructure
 - Agriculture
- Expansion of waste levy is changing sector, is WasteMINZ redefining what that sector is & adjusting accordingly?
- Understanding what WasteMINZ's role is
- Competitors, conflicting interests
- The term "waste" has negative connotation - needs to be seen as a solution from the beginning and turned into a positive opportunity to recover valuable resources
- Cleaning up the streams so more valuable materials can be fed into the circular economy
- Lack of education
- Private businesses/enterprises are allowed to act badly - need to find new partners with restorative lens, e.g., product developers
- Lack of opportunities to have conversations/solutions brainstorming to solve common industry problems
 - Working groups
 - Ideation days – be able to attend online too
- Understanding needs in terms of sustainability, circular economy - do we need some gap analysis?
- Knowledge around emerging contaminants – technical understanding/knowledge
- Upskilling people
- Lack of understanding from universities as to the needs of industry
- Knowledge barrier of processes/systems
- Labour shortage
- Lack of waste industry experience for people applying for roles within local government
- Understanding opportunities in the waste industry
- Lack of understanding of circular economy/waste space - including senior leadership
- Cost – workshops, membership fee
- There is no vocational training programme currently (MITO -> workforce development council (Hanga-Aro-Rau)) - need to develop courses, qualifications + training delivery - 2024?
- Who else? Nobody
- Professional/academic training/quals – still no consistency, 'one degree' approach
- What training/qualifications are wanted/desirable by employers?
- Transferable skills? Barrier to entry in the sector
- Not an attractive sector? Seen as 'rubbish'
- Political changes (potentially) -> will this impact on availability of staff i.e. MfE

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Potential solutions

- Revisit sector groups, for any gaps - number/type of groups but also whether steering committees have suitable representation
- Identify which members are missing
- WasteMINZ have presence at other forums, e.g. construction
- Identify common issues across membership, e.g. Staff shortages, supporting/developing career pathway
- Facilitating learning opportunities - from one another within membership
- Education: schools, consumers to see the benefit
 - Kids teaching parents
 - Teaching younger kids what career pathways may be available in this industry
 - Create qualifications if they don't exist
 - Career development cross-sector by networking
- More awareness - community reach + diversity
- Community "systems" approach
- Procurement systems overhauls - e.g. Auckland Council – EOIs/funding agreements/lease agreements
- Sharing the passion for the space
 - At work
 - In personal life
- Working together + learning from each other's experiences e.g. product stewardship or the work Localised have been doing to "grow together", e.g. health + safety practices
- ERP/product stewardship levies to pay for EOL recovery infrastructure
- Connect universities with industry – early engagement
 - Internships
 - Scholarships – coordinated by WasteMINZ
- Central government collaborative groups (specialist)
- Connection with Engineering NZ
- Cross industry collaboration
- Webinars for updates for international knowledge/experience
 - Connect this with some form of certification
 - Presenters for webinars should be from area of expertise or well reputed in their speciality area
- Engagement with Immigration NZ
- National messaging around kerbside collections for consistent communications
- WasteMINZ lobbying Hanga-Aro-Rau of pushing for faster progress - beyond health + safety
- 'Zero waste' course – Massey – rename, publicise?
- Vulnerability of industry to political change – WRAP
- WasteMINZ (or someone?) going to graduate days etc. - promoting the sector - better 'reputation' (not just rubbish trucks)
- Employers – what do they want
 - Skills + especially transferable skills

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- Waste101 to apply the transferable skills
- Better connection between Zero Waste Network + WasteMINZ
- Recognition of prior learning – how does this fit? Who?
- WasteMINZ – person who is responsible for industry training, lobbying, coordination?

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17. If a Container Return Scheme, as proposed in MfE's transforming recycling consultation, goes ahead, how will it affect the industry?

Barriers to progress

- Council affected as reduction in kerbside collections
- Consumers potentially unable to afford rise in prices
- Producers likely to experience a drop in sales when they increase process (however this will likely return in following years)
- We don't have the recycling infrastructure in NZ to process all these materials
- Milk bottles not being included
- Glass Packaging Forum anti proposed CRS
- Council work will reduce + their logistics partners' too
- In NSW? \$50m of unclaimed deposits went to councils
- Lids separation and separate collection
- Fraud
- Security of collected product
- Requires space + servicing + adds cost to product (?)
- Change of customer experience
- Positive/benefit for the system and attracting customers
- Changes to some manufacturer's practices
- Standardisation of product
- Shift cost of product to producers, not end users
- Public perception
- Who owns the schemes?
- Wrapped up with wider waste legalisation has slowed the container scheme - separate as has such wide support
- "Queensland model" more attractive to the large operators, but cuts out smaller local/players - big risk at legislation process
- Who will run this?
- Infrastructure set up costs etc.
- Will people take items from recycling bins?
- Funding + governance
 - Clarity around systems
 - Everyone involved in governance not just industry
- Concern about huge variety of products/packaging on the market with no life cycle analysis/impacts on recovery industry
- Timelines
 - Cabinet approval/political consensus
 - Key stages up to 2025
- Inequity of advocacy/lobbying
 - Commercial voice against CRS vs. community voice seeing benefits

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- Define 'industry' - needs to include whole sector/diverse views
- Producers lose sales/growth, e.g. Coca-Cola up to 18 months strong resistance to internalising cost. No recognition/engagement of social community or environmental benefits

Potential solutions

- Existing MRFs can pivot to accepting CRS items (potentially high value)
- Opportunities for producers to explore refillable bottles
- Could encourage producers to standardise product materials – 'purify' stream
- Can enable people in community to create own revenue
- Retail return
- High value deposit, e.g. Germany = 96% container return vs. S.A. 5c not so great - requires higher infrastructure to collect more material
- Behaviour change - litter reduction – waterways
- Different ways of returning \$, e.g. pay via PayPal/donate/ vouchers
- 3-5c handling fee helps fund communities collecting/sorting
- More pure streams collected by source separating
- Change council facility
- Change council procurement
- Make it convenient to customers, i.e., supermarket drop off location
- Potential ease due to NZ duopoly for supermarket chains
- Separate container scheme from other waste legalisation
- Utilisation of existing infrastructure - use current organisation in like industry
- Adding a value will attract bigger companies (i.e. Waste management/ EnviroWaste)
- Provides funding to small/local groups to develop other resource collection
- Needs "assistants" at automatic depots
- Less recyclables to landfill
- Value seen in items will create behaviour change
- Less littering
- New industry – another way to earn money
- Encourage more use of the resources
- Community sector welcomes CRS
- Great to finally have a product stewardship scheme - normalising product stewardship
- Feel that CRS will assist with standardising recycling of reuse/multiple use
- Needs to have governance/funding structures that are inclusive of all industry
- Legislate & compliance - how we do it
- Political leadership - direction of travel
- Leave the 'dinosaurs' behind
- Internalising the complete costs
- Do what's best for planet (environment), community, future generations

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18. What are the steps we need to take so that we have a low-carbon and low-waste future?

Barriers to progress

- We don't have a national strategy with
 - Up to date legislation + regulations
 - EZ Instrument toolkit
 - Need to get this package together
- Competing for market share at bottom of the hierarchy
 - MRF
 - Recycling layer – work on, instead of more on recycling
- Carbon footprints - no historic life cycle analysis to base decision making on - lots are partial
- Baseline - understand where we are at, e.g. map food system of AKL
- Relevant information + systems to support the transition
- People love ease
- Manufacturers have high food grade markets to meet – requires packaging
- NZ lacks the finance for large industry – so we create a whole lot of regional based ones that create more pollution + waste
- Too many trends
- Items aren't durable
- Definition of low carbon future. Does that involve reduction/omissions or carbon neutral
- Reducing a carbon equivalent to low waste (finding a solution for all encompassing)
- Products are not as biodegradable as they should/could be
- Lack of education around definition of low carbon + low waste – what does it mean for grass roots?
- Consumer behaviour still based on \$
- Waste minimisation is not a metric on a lot of projects
- How to prioritise a limited pool of funding with limited data
- What are the obvious or quick wins?
- Lack of value on 'waste'
- Lack of personal responsibility for 'waste'
- Consumption economy
- General mindset
- Lack of understanding – education
- Low carbon vs low waste – confusion
- Profit margins

Potential solutions

- Clear guidelines on what behaviour is okay, i.e. in terms of flights and buying clothes
- Local solutions
- Diversity

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- Just Transition (i.e. regionally lead solutions) <https://www.mbie.govt.nz/business-and-employment/economic-development/just-transition/>
- Need good measurement systems for materials impacts and carbon impacts
- Pacific – make use of backloading opportunities
- For large infrastructure projects – design criteria and good contracts that specify outcomes (to take it away from individual decision making), aim to design out issues, use of KPIs
- Education + behaviour change
- Reduction or elimination of ‘junk’ stores such as \$2 stores
- Businesses importing forced to create waste plans on the products they bring in
 - How much waste will these products create?
 - How will you mitigate the waste?
- Creation of lending libraries
 - Rental appliances
 - Rental clothes
 - These things exist but not known or readily available
- Digitisation - products fit for modern society
- Stronger more durable products - product stewardship - there needs to be a high standard of quality
- Learning who we are as industry can “twin” with and learn from each other
- More education of reduction of waste + carbon
- Design out the waste in products and procurement. Make this a procurement strategy by government. Procurement creates waste minimisation metrics on a project
- Shift consumer behaviour from \$ to other metrics. People are looking long term. Becoming socially acceptable
- Hold sessions on what procurement should look like
- Supply chain/lifestyle of products more of a priority than lowest price
- Carbon footprint tool as a standardised approach + made easily available to Joe Bloggs
- Right to repair – do we need to own things?
- Government: consistent comprehensive environmental strategy (although how to cope with political change?)
- Mana whenua partnerships
- EPR + product stewardship for more products
- Procurement
- Value waste (also repairing through reuse)
- CRS: move beyond containers – normalise this thinking/approach
- Organics – separation at collection. Composting processing
- Pricing carbon - when we bring it in, a tax on the carbon
- Build relationships with people who can influence
- Businesses take responsibility for this too - circular economy
- Designing out waste
 - Saves money
 - Saves resources

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- Make better manufacturing decisions
- Systems thinking
- Make use of capitalism, e.g. container return scheme – it will be priced in, industry will find the solutions
- Product innovation – e.g. Tetrapak carbon neutral by 2030
- Flip our economy
 - Circular
 - Local
 - Localise the market
- Range of solutions - not one size fits all
- Low carbon – food waste - meat, diet