

SUPPLY CHAIN SUSTAINABILITY



RDP

Waste, Resource Efficiency & the Circular Economy Workshop

21st June 2023 – 10.00 am -12.00 Noon

Welcome & introductions

Mark Turner
Sector lead for FM and
Waste & resource use



mark@actionsustainability.com



0207 697 1977



[@SupplyCSSchool](https://twitter.com/SupplyCSSchool)



Overview

1. Legislation
2. Financial Implications
3. Waste, Resource Efficiency and Circular Economy

Management Planning

4. Q&A

Introduction

Outcomes

At the end of this session you will:

- Have a better understanding of resource efficiency and the circular economy
- Have revisited some of your legal responsibilities under waste legislation
- Considered ways to improve site waste management and resource efficiency
- Be better placed to explain requirements to others.



Please Participate



If you have **QUESTIONS**, please shout up or write them down in the Q&A



Cameras on are helpful, mute mics if not speaking to help the sound quality



Remember to give your opinions too, plus links to any useful information for colleagues



SLIDES will be distributed afterwards

WE NEED YOUR
FEEDBACK PLEASE



YOU WILL RECEIVE A LINK AFTER THE EVENT:

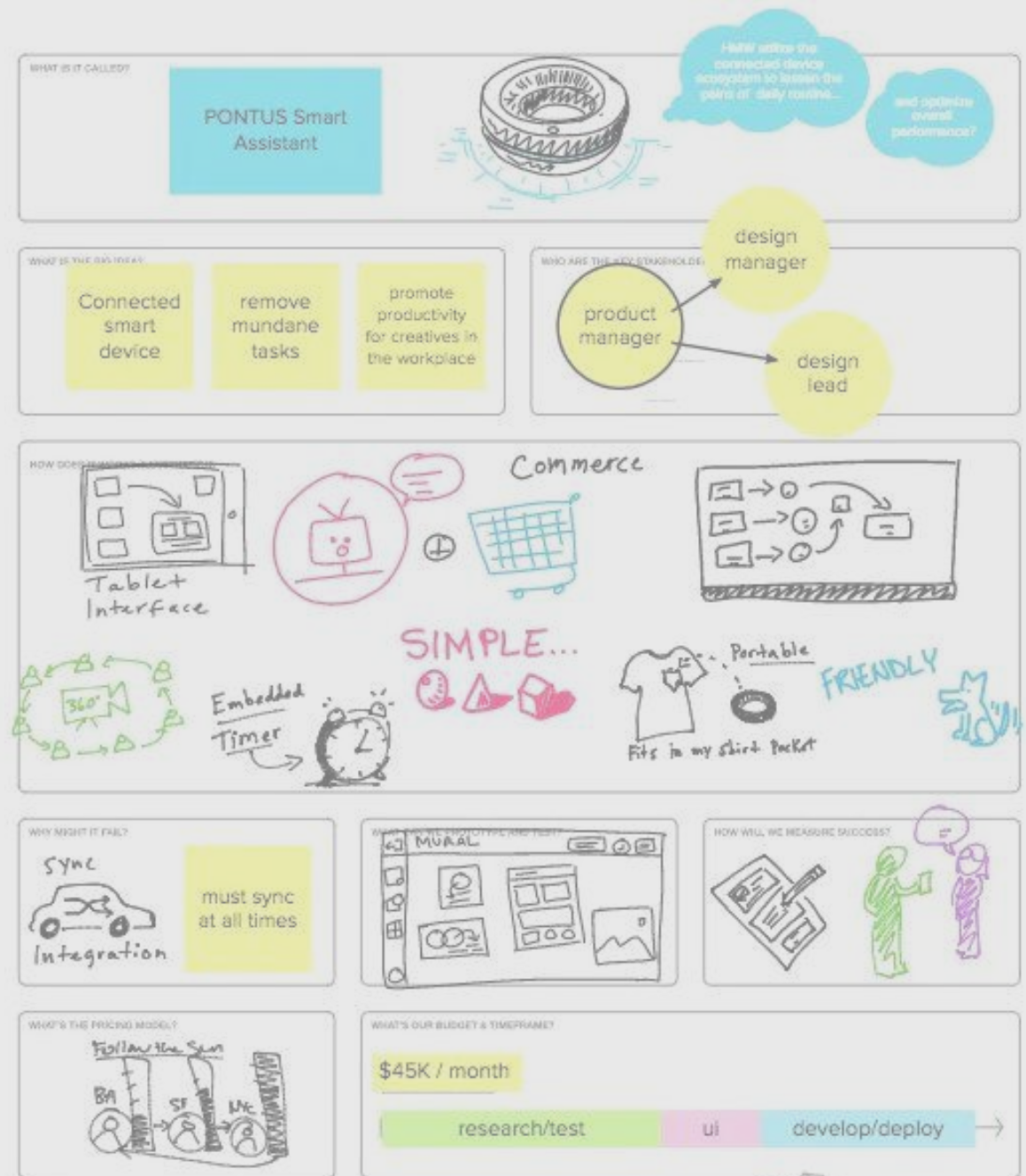
Using Jamboard and Chat box

- We will introduce Jamboard shortly – you have to open this as an interactive document via your browser – use the link we sent you by email or the one we have added in the Chat function of Zoom
- If you can't access Jamboard or have something else to ask us, just use the Chat function. Again this is in the Zoom toolbar. Use this to add other comments, add your questions, or just introduce yourself to the group
- Feel free to shout out – I am very happy to be interrupted!

<https://jamboard.google.com/d/1aAPL9LO8u1NM7fl60oit-0wVC11HIRIWG1d02730RfM/edit?usp=sharing>

Jamboard

- **FOLLOW** the **link** we sent to your email
- **CREATE** a post it note, double click on an empty space and start writing
- To **MOVE** your post it note around, click on and drag it
- To **DELETE** your post it note, click on it and press the 'Delete' button on your keyboard
- PLEASE DON'T press the "clear form" button!



The School is a common approach to...

1. Assessing supply chain sustainability competence
2. Developing suppliers' sustainability knowledge



190+ Partners

23,000+ companies

45,000+ individual learners

190+ Partners

23,000+ companies

45,000+ individual learners

Everything is...



What is Waste?

“Any substance or object that the holder discards, or intends to, or is required to discard.”

(Waste Framework Directive)



Stakeholders?

Who is interested?

<https://jamboard.google.com/d/1aAPL9LO8u1NM7f160oit-0wVC11HIRIWG1d02730RfM/edit?usp=sharing>

The School's Waste & Resource Use Category Group

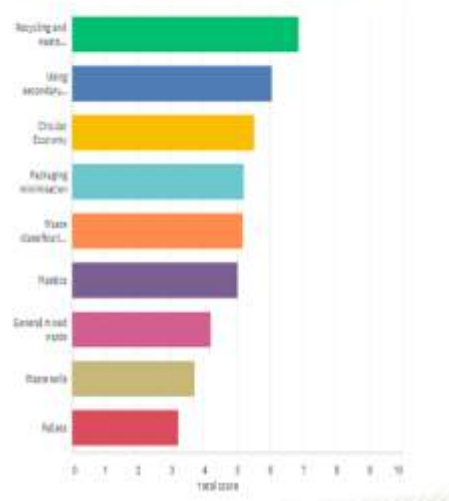


Refreshed
 -Landing page
 -Resources (new and old)



Material Exchange Platforms Mapping
 - Skanska collaboration

Q1. Which aspects of waste and resource efficiency are of interest to you and why? (Ranked from 1-9)



Surveys
 -Member interest
 - Partner plastic waste



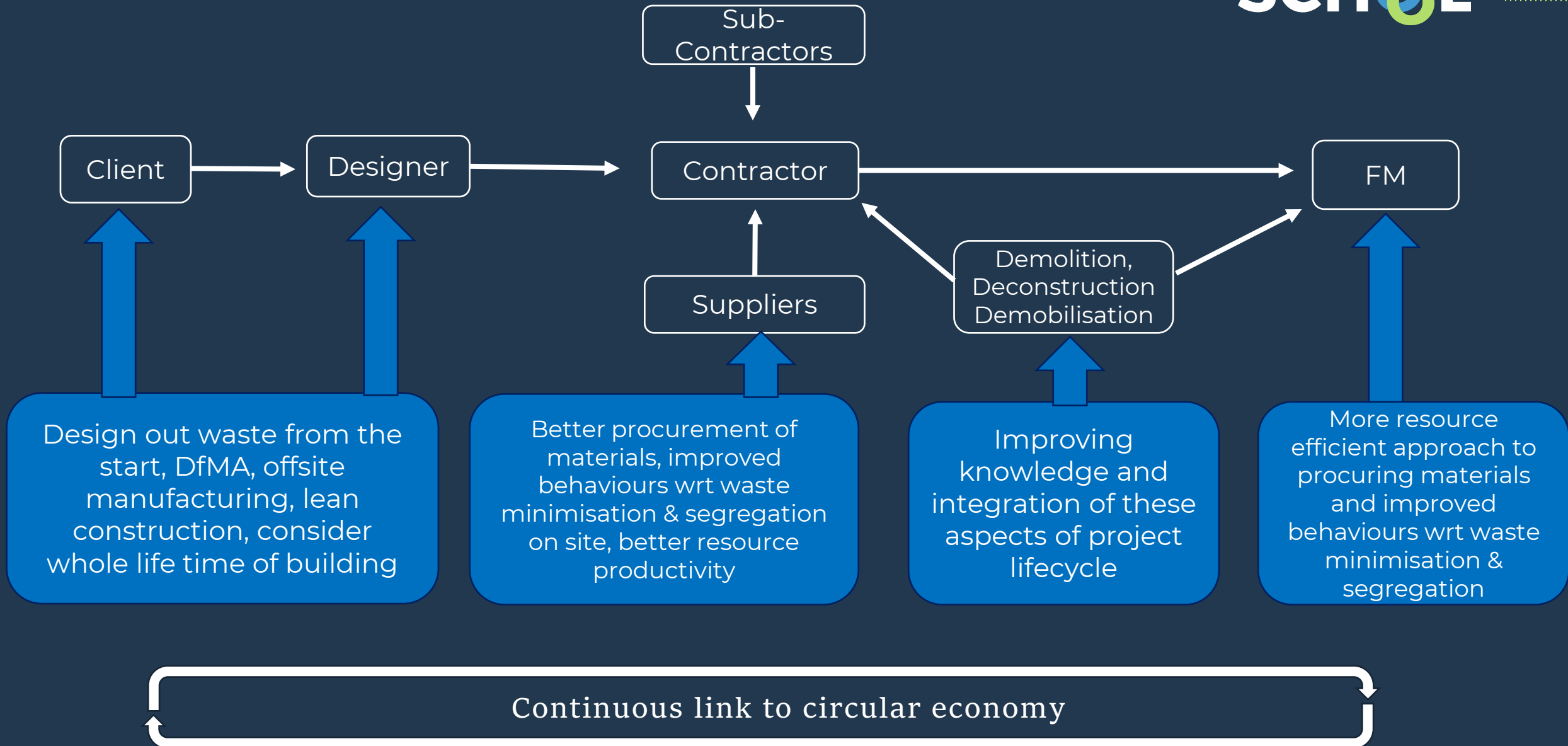
Partner case studies

Leadership group support

Our current priorities

Construction project lifecycle waste*	Developing resources to improve outcomes
Designing out waste and design for deconstruction	Guidance and events, promoting circularity
Understanding limitations of UK waste management infrastructure	So we can work within these and push for improvements
Supporting procurement processes	Developing model tender questions and responses
Materials consolidation centres	Implementing these will help to reduce waste and carbon
Plastics and aggregate reprocessing companies	Mapping and developing knowledge on how to engage
Data	material passports and waste performance reporting templates
Materials exchange platforms*	Set up and promote a map showing where these are, how to use etc
Zero waste to landfill	including greater input from waste management providers and demolition contractors
Embodied carbon and net zero pathways	Waste = carbon
Packaging projects	Guidance, events, collaboration, research – Infra/Fit Out/M&E?
Social value and supporting social enterprises	Research and collaboration opportunities
Soils and aggregates	Guidance and exchange platforms
Subcontractor guidance	Site practice and site waste management tools
Informing School on policy / legislative changes	Plastic Packaging Tax, Circular Economy, Producer Responsibility etc
Collaboration with other groups	Addressing SDGs, working with Carbon Group on scope 3 etc

INTERVENTION POINTS



The UN Sustainable Development Goals





Legislation

What type is it?



“Inert”

- Non bio-degradable material
- E.g. Non-contaminated subsoil, aggregates, etc.



Non-hazardous

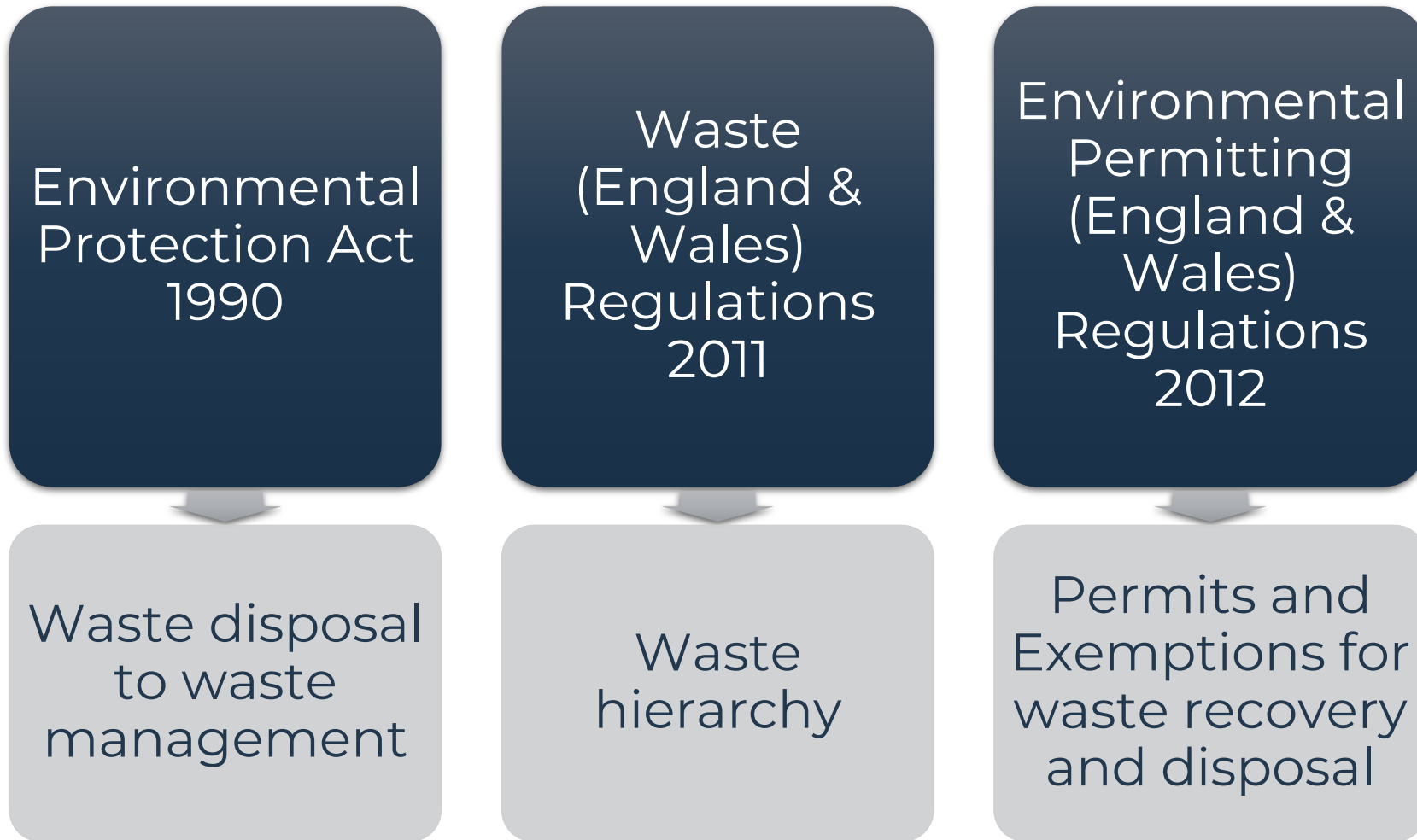
- Non-contaminated bio-degradable materials
- E.g. Topsoil, timber, metal, plastics



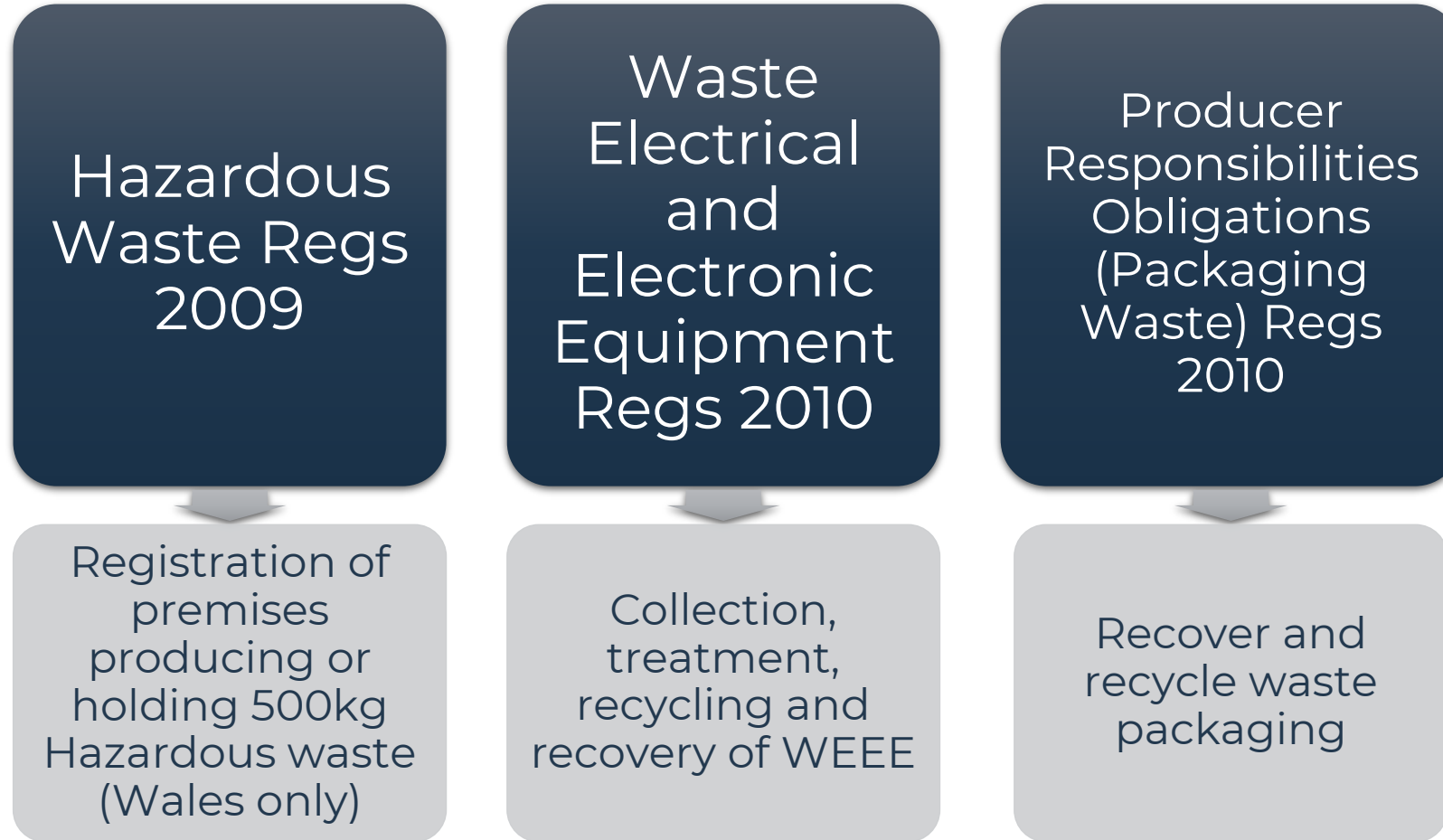
Hazardous

- Contaminated material and harmful materials
- E.g. Oils, paints and other organic liquids

Main Waste Legislation

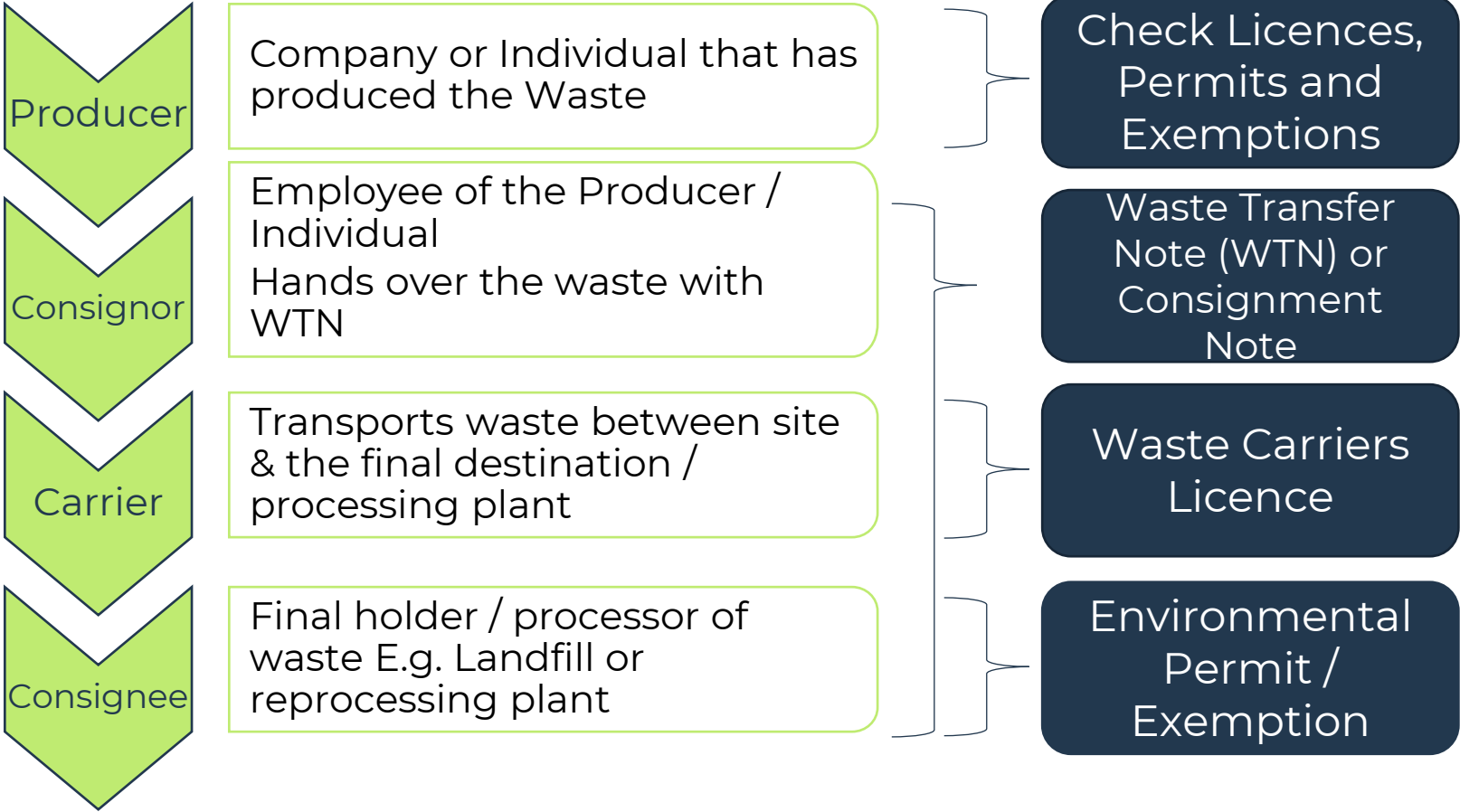


Main Waste Legislation



Environmental Protection Act 1990

Duty of Care



Environmental Protection Act 1990

Fines and Prosecutions

Deposit, treat, keeping waste in a manner likely to cause pollution of the environment or harm to human health

- £50,000 fine
- unlimited fine and/or 5 years imprisonment

Breach of Duty of Care - £5,000 or Unlimited fine

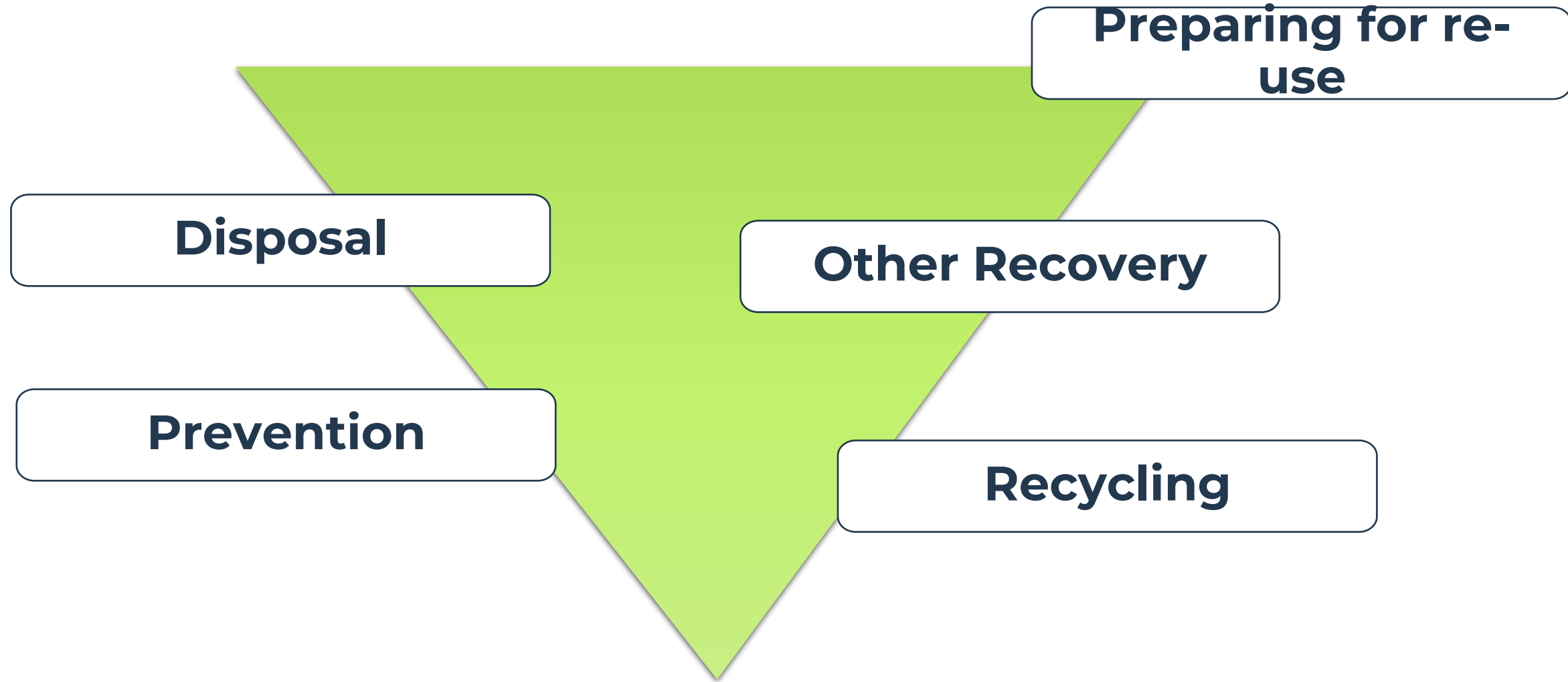
Directors' Liability

- May be punished in the same way as the company according to the offence

Fixed Penalty Notice - £300 fine

- 'civil sanctions / enforcement undertakings' can be imposed, legal action is avoided by 'voluntarily' making appropriate financial donations to environmental organisations.

The Waste Hierarchy



POLL: TWO QUESTIONS

1. Which do you think is the most sustainable option in the waste hierarchy?
 - Preparing for reuse
 - Other recovery
 - Recycling
 - Prevention
 - Disposal
2. Which do you think is the least sustainable option in the waste hierarchy?
 - Preparing for reuse
 - Other recovery
 - Recycling
 - Prevention
 - Disposal

The Waste Hierarchy



The Future?



What is a circular economy?

A circular economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life.

Ellen MacArthur Foundation

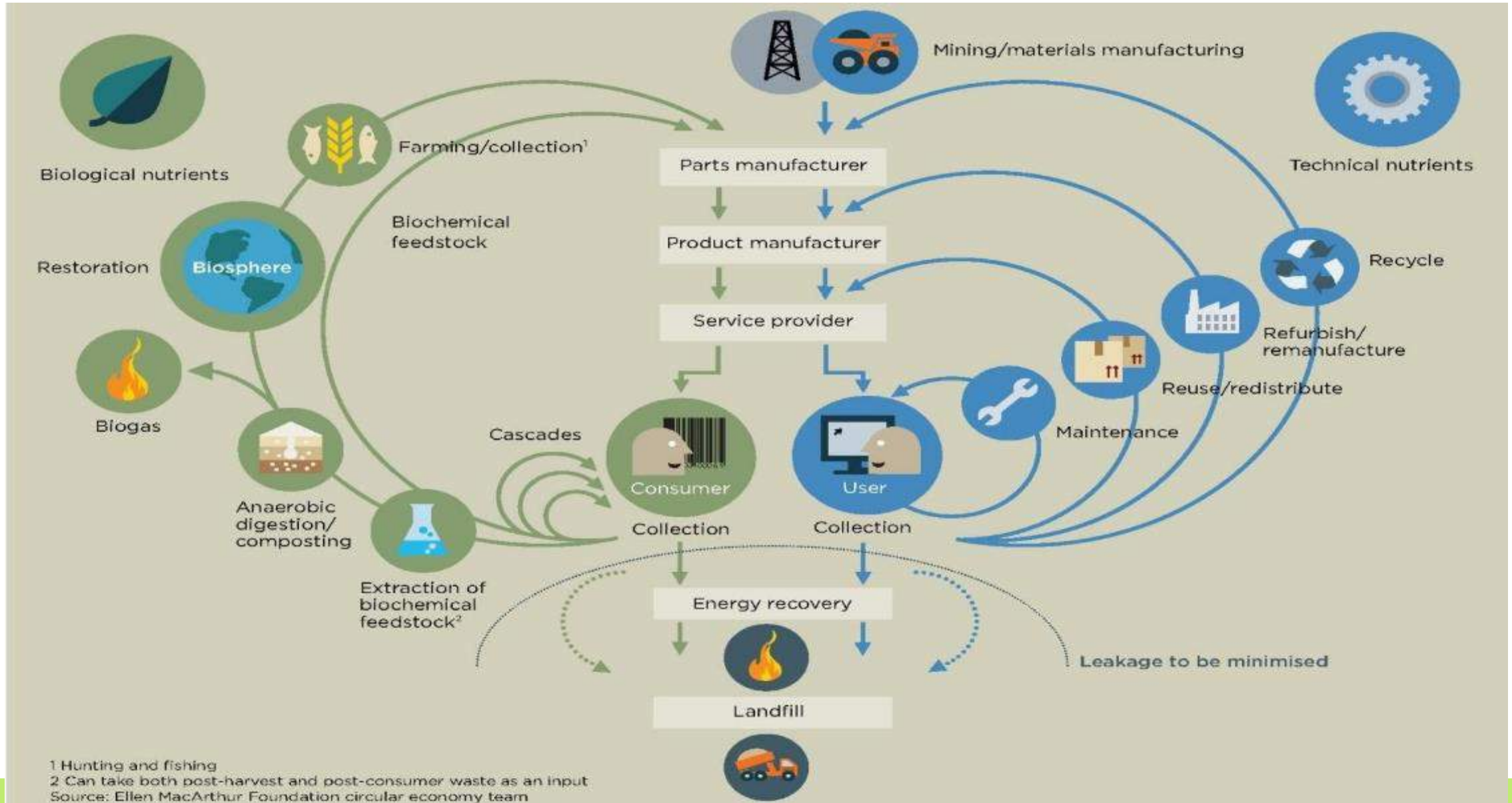
“The circular economy is based on three principles, driven by design:

- Eliminate waste and pollution*
- Circulate products and materials (at their highest value)*
- Regenerate nature*

It is underpinned by a transition to renewable energy and materials. A circular economy decouples economic activity from the consumption of finite resources. It is a resilient system that is good for business, people and the environment”

Source: <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>

More detail



New and future UK Waste Regulations

- THE LONDON PLAN (2019) includes requirement for all major construction projects to produce Circular Economy statements, including how the project will enable building materials, components and products to be disassembled and re-used.
- UK/EU Circular Economy Strategy
- UK ENVIRONMENT ACT framework for increasing recycling, power to make regulations relating to regulation of hazardous waste in England, import, export and transit of waste, littering enforcement powers etc
- Plastic Packaging Tax
- EXTENDED PRODUCER RESPONSIBILITY for packaging
- Net-zero by 2045 (Climate Change (Scotland) Act 2009)
- Scotland - Draft 4th National Planning Framework
- Scotland - Circular Economy Bill

Sustainability: Waste and Resource Efficiency - RDP

| What are we doing now?

Our Net Zero Highways Plan

As part of our Net Zero Highways Plan, we are delivering a number of actions to address our energy use. For example, all of our plant used on site and in site cabins will be zero carbon by 2030. We are greening our depots, including upgrading heating and lighting systems. And we are developing a plan for power micro generation on our land to help meet our energy needs.

Resource exchange mechanism

We have conducted feasibility research to explore the viability of establishing a national resource exchange mechanism to facilitate the trade of surplus materials, products, components and assets across UK infrastructure projects.

Forum for Circular Infrastructure

We are active members of the Forum for Circular Infrastructure to encourage the widespread re-use of materials in construction to deliver a range of environmental, cost-saving and social benefits.

Sustainability: Waste and Resource Efficiency - RDP

| What will we do and when?



Some more Circular Economy and Sustainability Plans

Organisation	Aims/Objectives/Policy
Environment Agency 	2030 Goals - <i>Optimising our use of resources</i>
Network Rail 	Minimal waste and the use of materials – <i>We will reuse, repurpose or redeploy all surplus resources, minimise use of resources, design out waste and embed waste life cycle/circular economy thinking into the rail industry by 2035</i>
National Highways  	Manufactured capital – Circular economy – <i>We will push towards a ‘circular’ approach to our management of resources: minimising our demand for primary resources extracted from the ground, and maximise the reuse of the resources already in use on the network. Reutilising them in as high a value function as possible</i>
Palace of Westminster 	Circular Economy Policy – <i>sets out the Programme’s ambition to embed the principles of a circular economy into the Restoration and Renewal Programme</i>
HS2 	Circular Economy Principles – <i>keep resources in use for as long as possible; recover and regenerate resources at the end of each use; keep resources at their highest quality and value at all times</i>
Anglian Water 	Our Goals - <i>zero waste. Get it right first time, every time; to deliver a 70% reduction in capital (embodied) carbon by 2030 from a 2010 baseline</i>
Expo 2020 Dubai 	Programme wide Sustainability Strategy – <i>Minimise depletion of natural resources; Promote use of sustainable materials; Reduce wastes and minimise quantity of waste to landfill</i>

Plastic Packaging Tax

A tax of £210.82 per tonne applied to any plastic packaging which does not meet a minimum 30% recycled content threshold



- Applies to manufacturers, converters & importers
- Joint & several liability – someone in the supply chain needs to pay if not producer
- Tax is priced to discourage use of virgin material
- Applies now.

The Routemap for Zero Avoidable Waste in Construction

Introduction

Waste costs the construction industry an estimated £11 billion per annum and emits 3.5 million tonnes of CO₂e, yet waste can be reduced, materials used more efficiently, and buildings and structures at end of life repurposed, refurbished or dismantled to enable products and materials to be a resource for new activities.

This Routemap aims to catalyse actions by all parts of the supply chain to reduce and ultimately eliminate all avoidable waste. It adopts the interpretation of Zero Avoidable Waste in construction published by the Green Construction Board (GCB) in 2020 and adopts the principles of the waste hierarchy and life cycle assessment.

The Routemap is an interactive infographic identifying aims, actions, context and guidance. Click on an Aims button and a new page appears. Hover over Context and an explanation appears. Click Guidance and a new page links to published guidance.

It has been prepared by the GCB's Resources and Waste Task Group with the principal authors being Katherine Adams, Rob Pearce and Jane Thornback. The project received financial support from BEIS, and was in collaboration with Defra.

[Click for Context](#)

[Targets and Guiding Principles](#)

[Click for Acknowledgements](#)



Design out waste

Aim: The use of materials is optimised in the design of the buildings and structures and waste is designed out throughout the design and construction process

2020s

- Waste reduction targets are commonplace in most construction projects.
- Professional institutions develop training and CPD.
- BS8895 is widely adopted throughout the design process for major projects.

2030s

- By 2030 costs are reduced by 10% through designing out waste and material optimisation.

2040s

- The amount of waste generated from new build construction is minimal.

[Click for Guidance](#)

Act now

- Clients, design teams and contractors set project waste reduction targets during design and construction.
- Design teams share their learnings and best practice on designing out waste within their practices and externally through their networks.
- Design teams write up case studies on how designing out waste has been considered within the design process and what changed as a result.
- Design teams implement waste reduction practices in their design work.
- Design teams undertake material optimisation through design choices and material selection working with manufacturers.
- Professional institutions and universities and colleges include designing out waste in training, CPD and academic courses.
- If participating in environmental certification schemes, such as BREEAM, LEED etc pursue the credits that relate to waste reduction and material efficiency.
- At project level, contractors and quantity surveyors, reduce the wastage allowances that are set for materials and do not over order.
- Contractors incentivise subcontractors to reduce waste.
- Contractors and subcontractors manage materials on site carefully to avoid damage.
- Manufacturers and contractors collaborate to implement reusable packaging schemes.

Project lifecycle waste web feature

A practical guide to

Reducing construction lifecycle waste

These resources help users from all parts of the built environment value chain reduce construction lifecycle waste.

Explore themes and topics for practical examples, learning about the different stages and aspects of a wide variety of construction projects.

<https://www.supplychainschool.co.uk/partners/groups/waste-group/>

1. Pre Construction Clients & Design Teams

From procuring with zero waste in mind to encouraging refurbishment instead of demolition

2. Materials

Learn how to ensure materials are readily recoverable, and about the use of low carbon and circular materials.

3. Construction

Actions that can be taken on the construction site to reduce waste to landfill and encourage reuse and recycling

4. In Use and End of Life

Find out more about how waste can be mitigated during refurbishment and demolition of buildings.

5. Eliminating Landfill

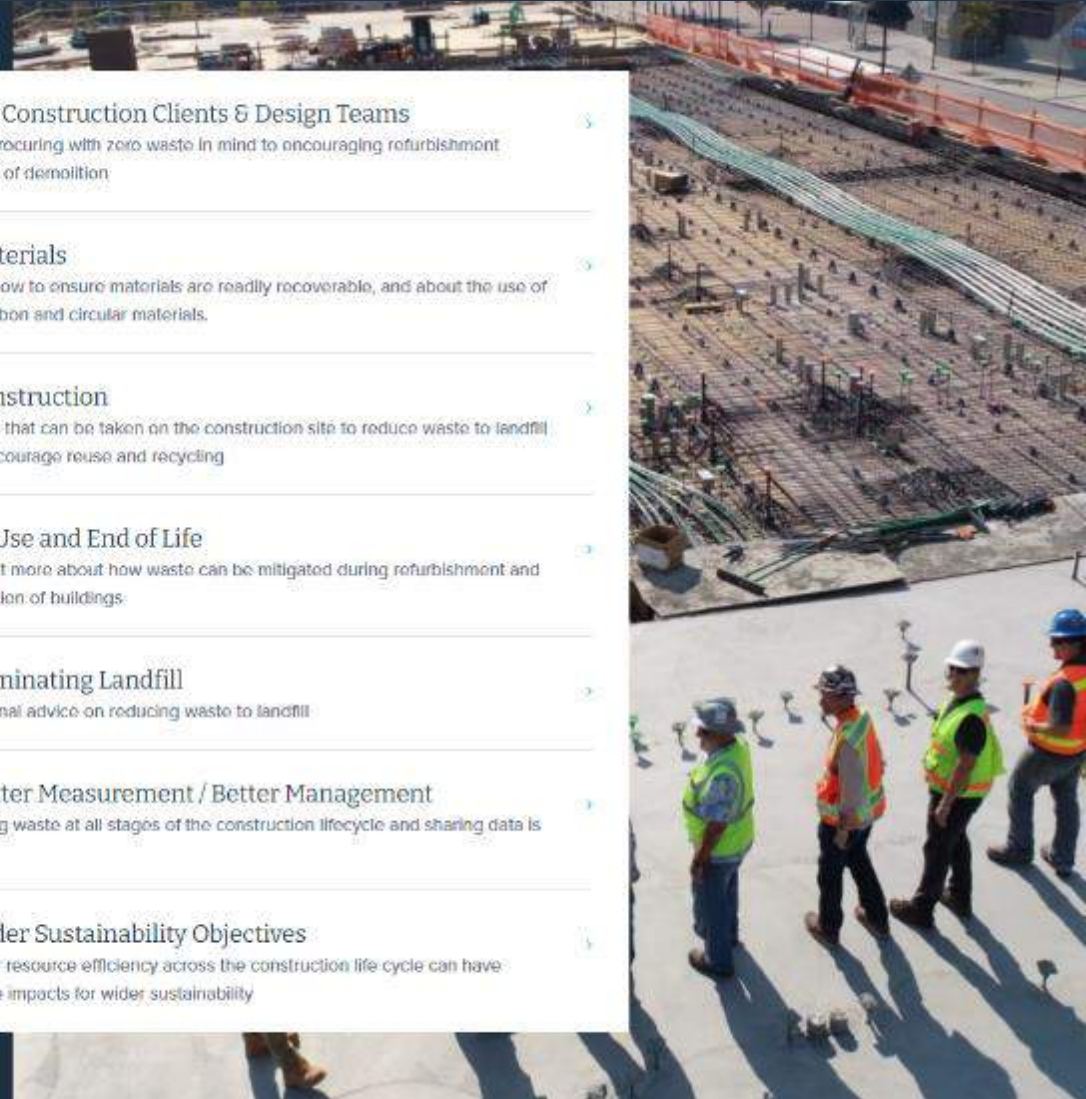
Additional advice on reducing waste to landfill

6. Better Measurement / Better Management

Tracking waste at all stages of the construction lifecycle and sharing data is vital

7. Wider Sustainability Objectives

Greater resource efficiency across the construction life cycle can have positive impacts for wider sustainability





Financial Implications

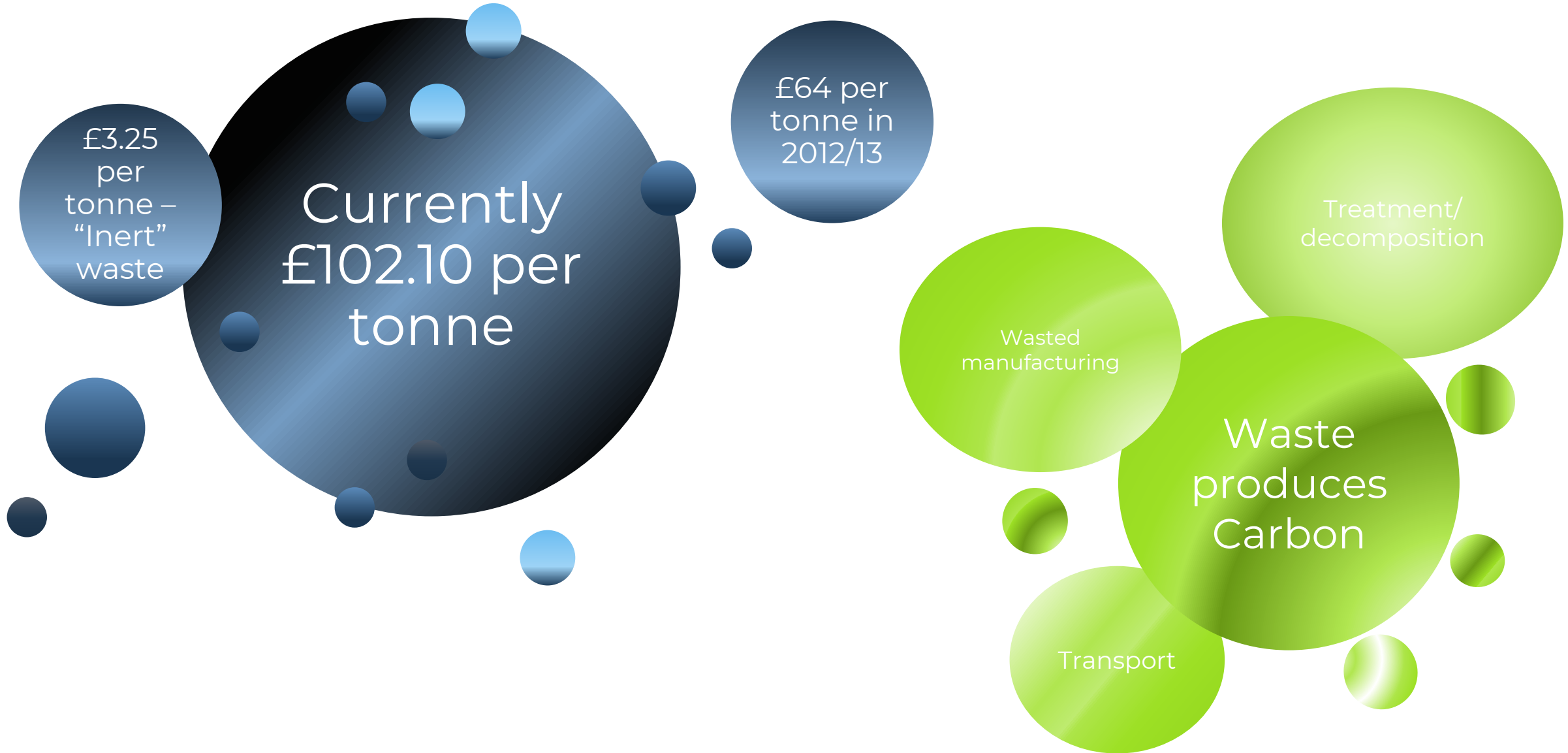
Waste Facts

Construction Demolition and Excavation Industry

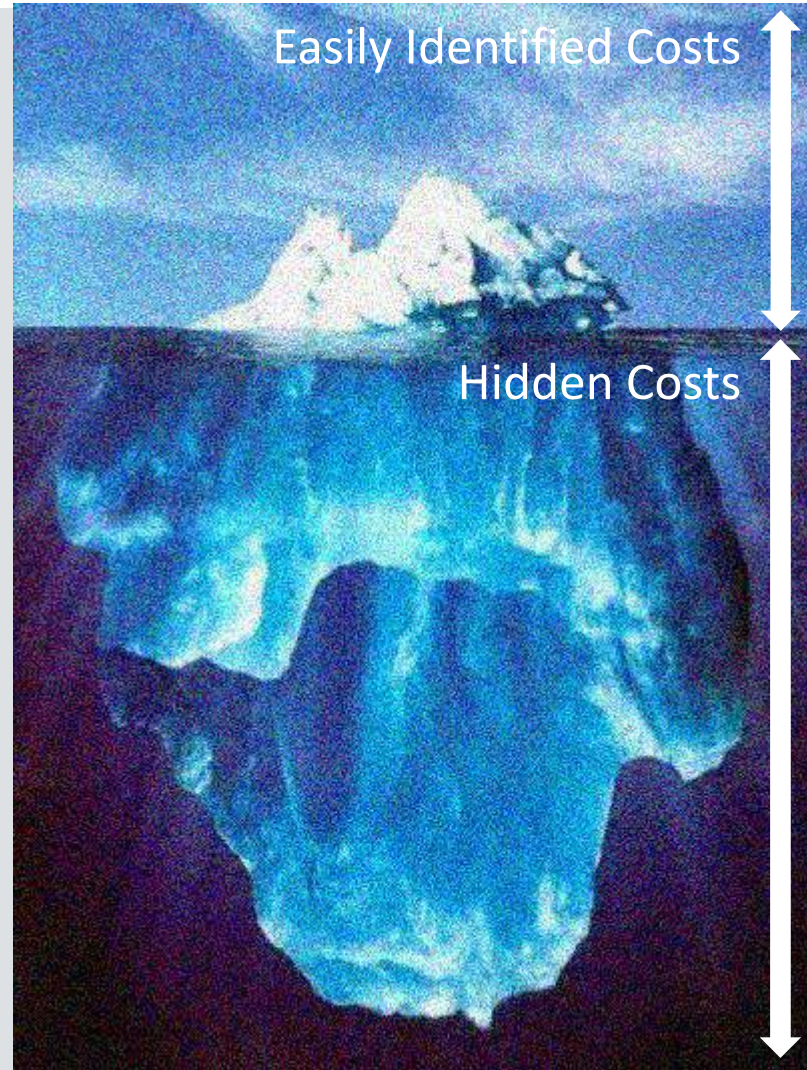
OVER 100m tonnes generated by C & D annually



Landfill Tax



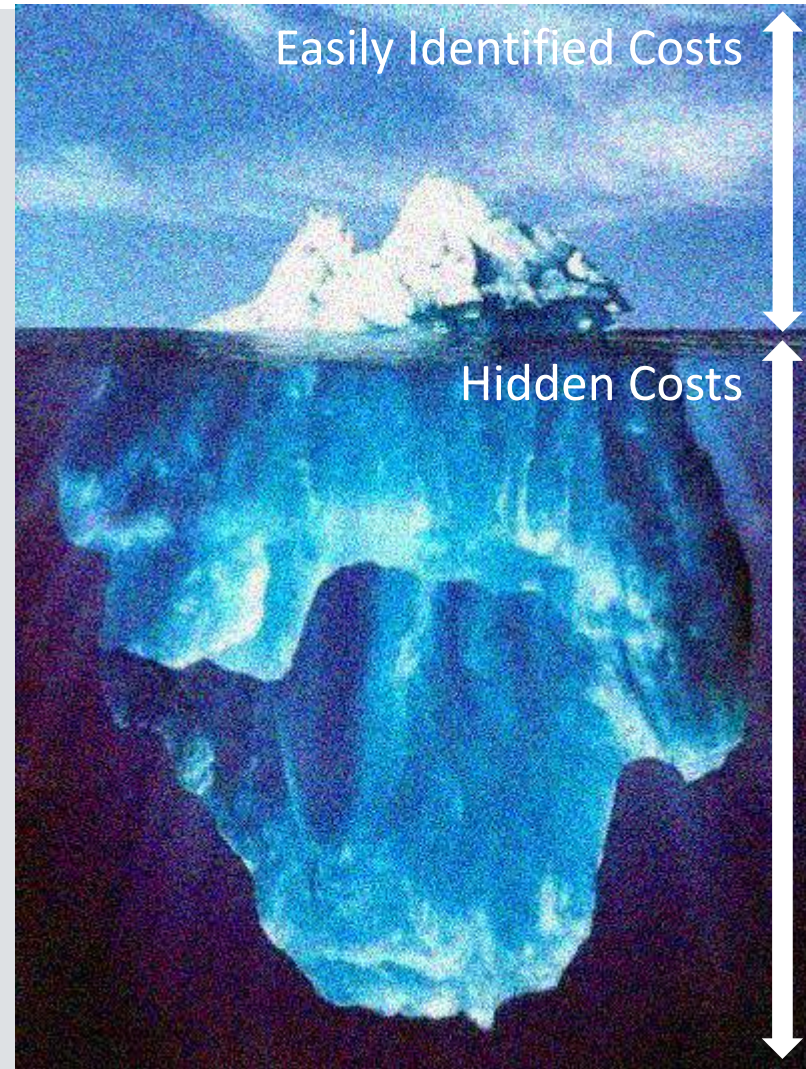
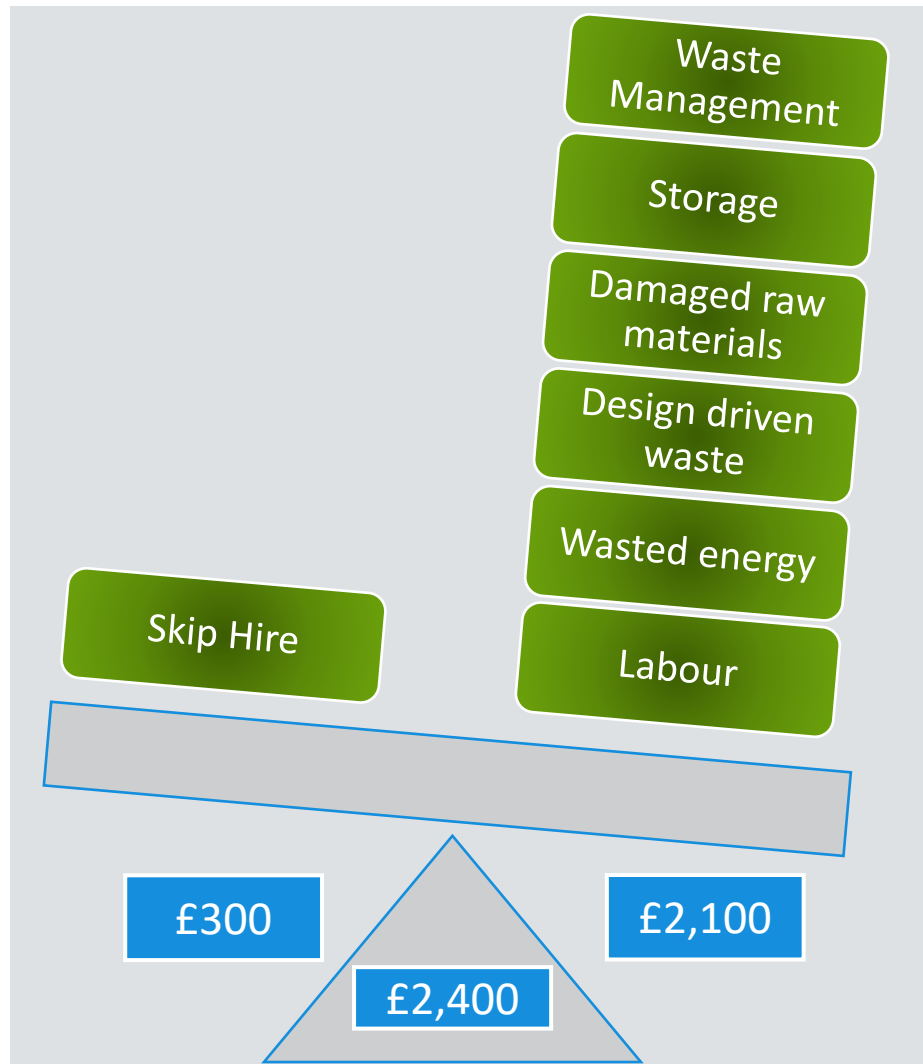
True Cost of Waste



USE THE JAMBOARD

What are the other contributing factors to the true cost of waste?

True Cost of Waste

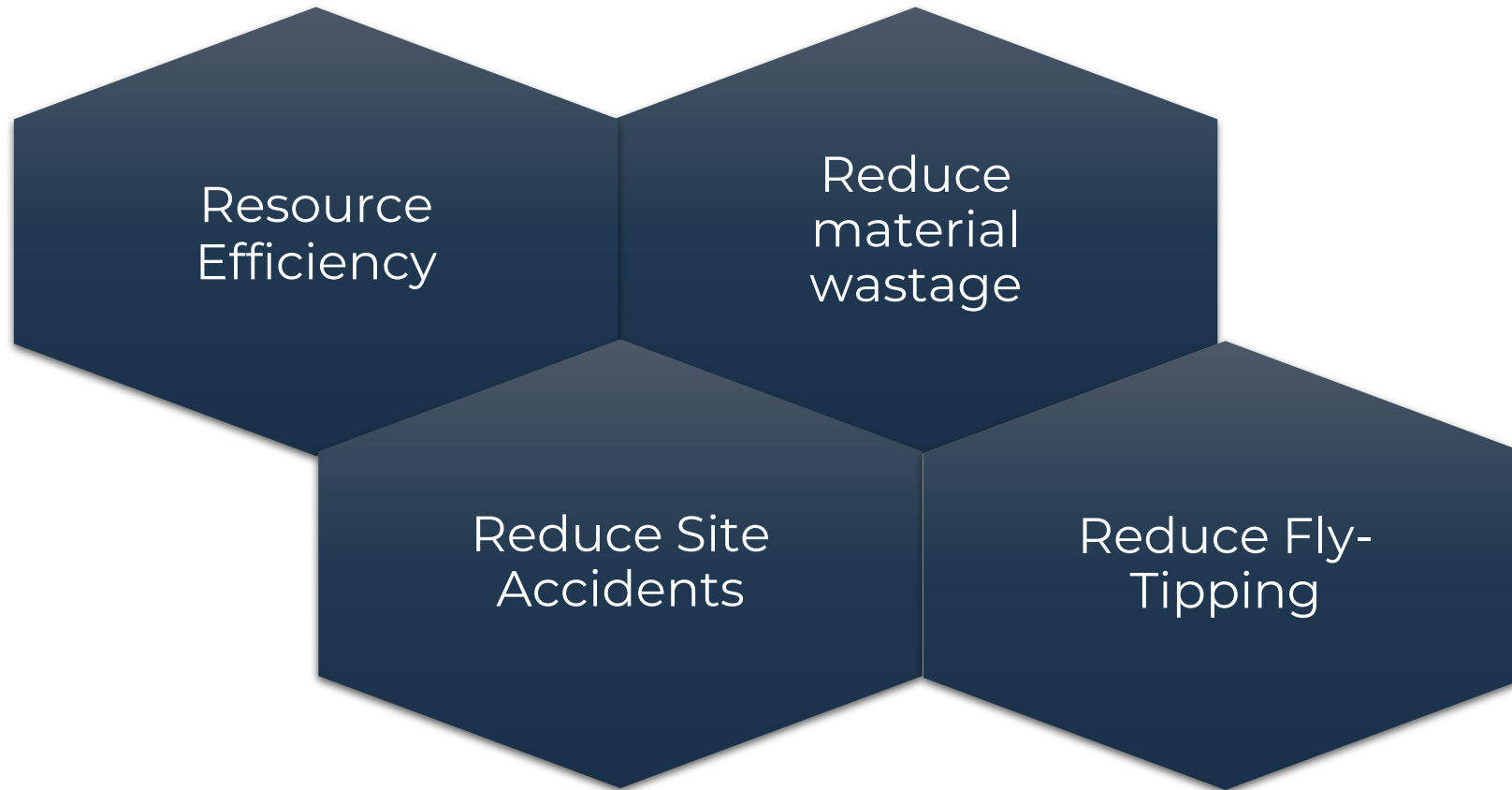




Waste Management & Reduction

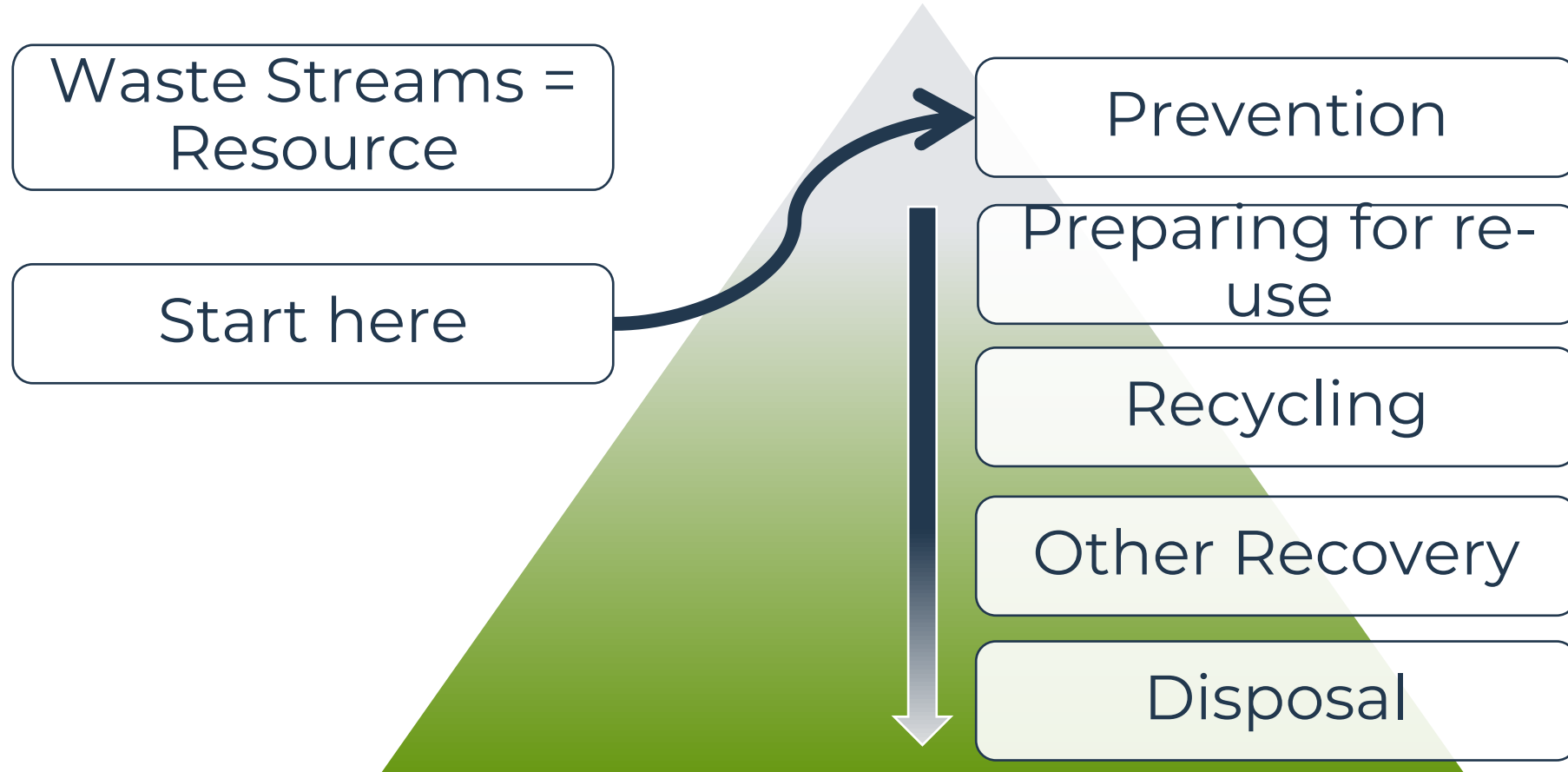
Waste Management Planning

Why bother?



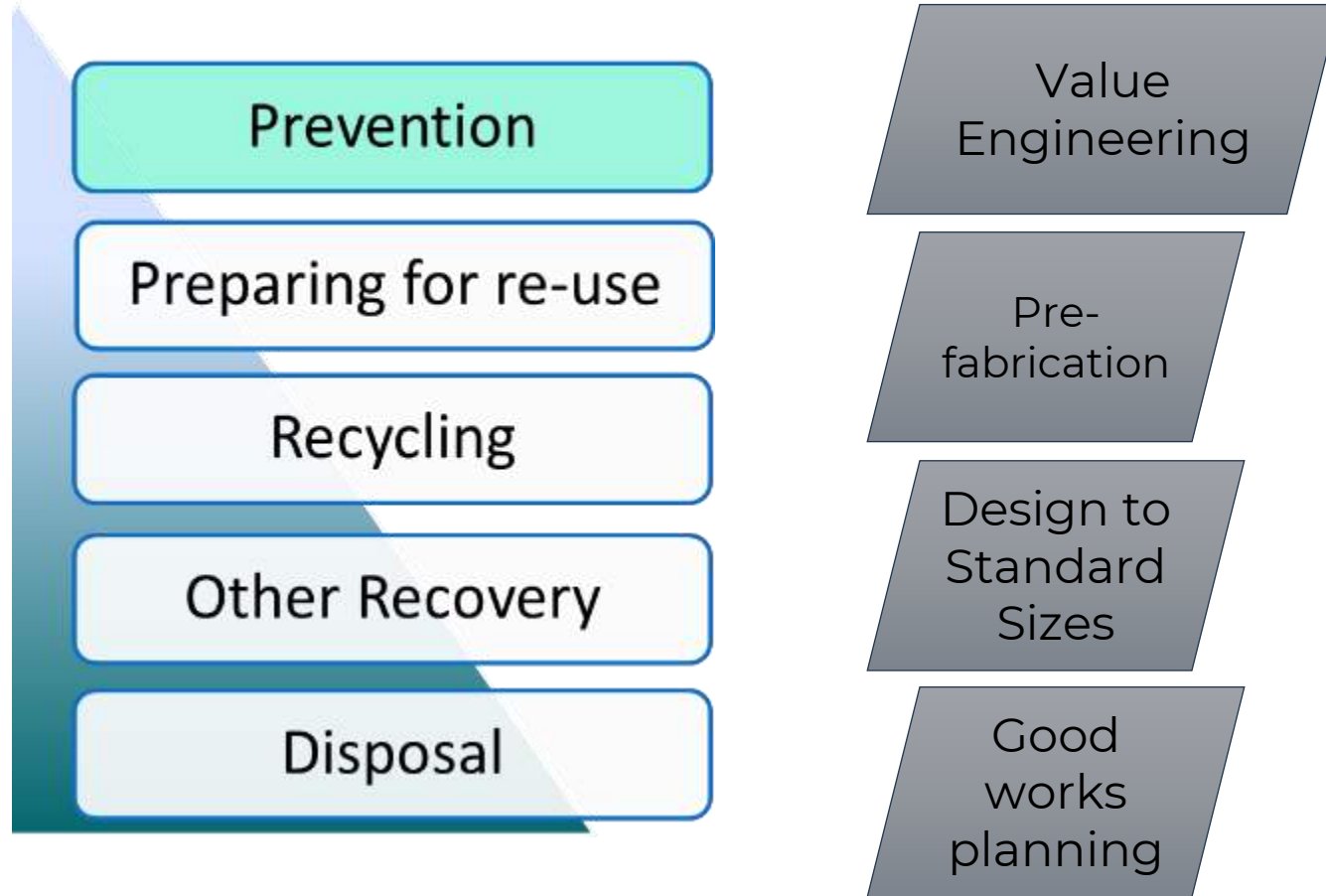
Waste Management Planning

Hierarchy - legislative requirement!



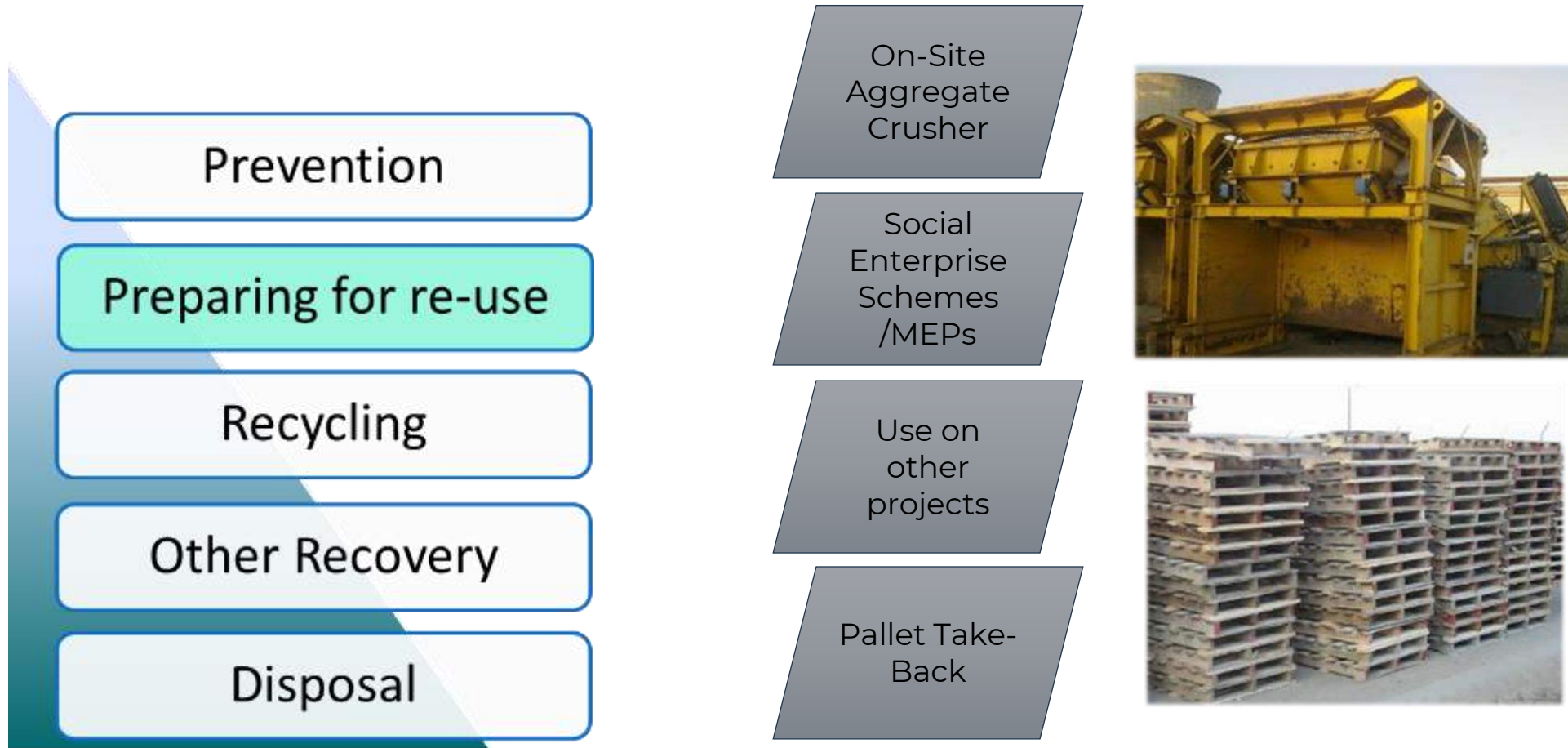
Waste Management Planning

Designing out waste



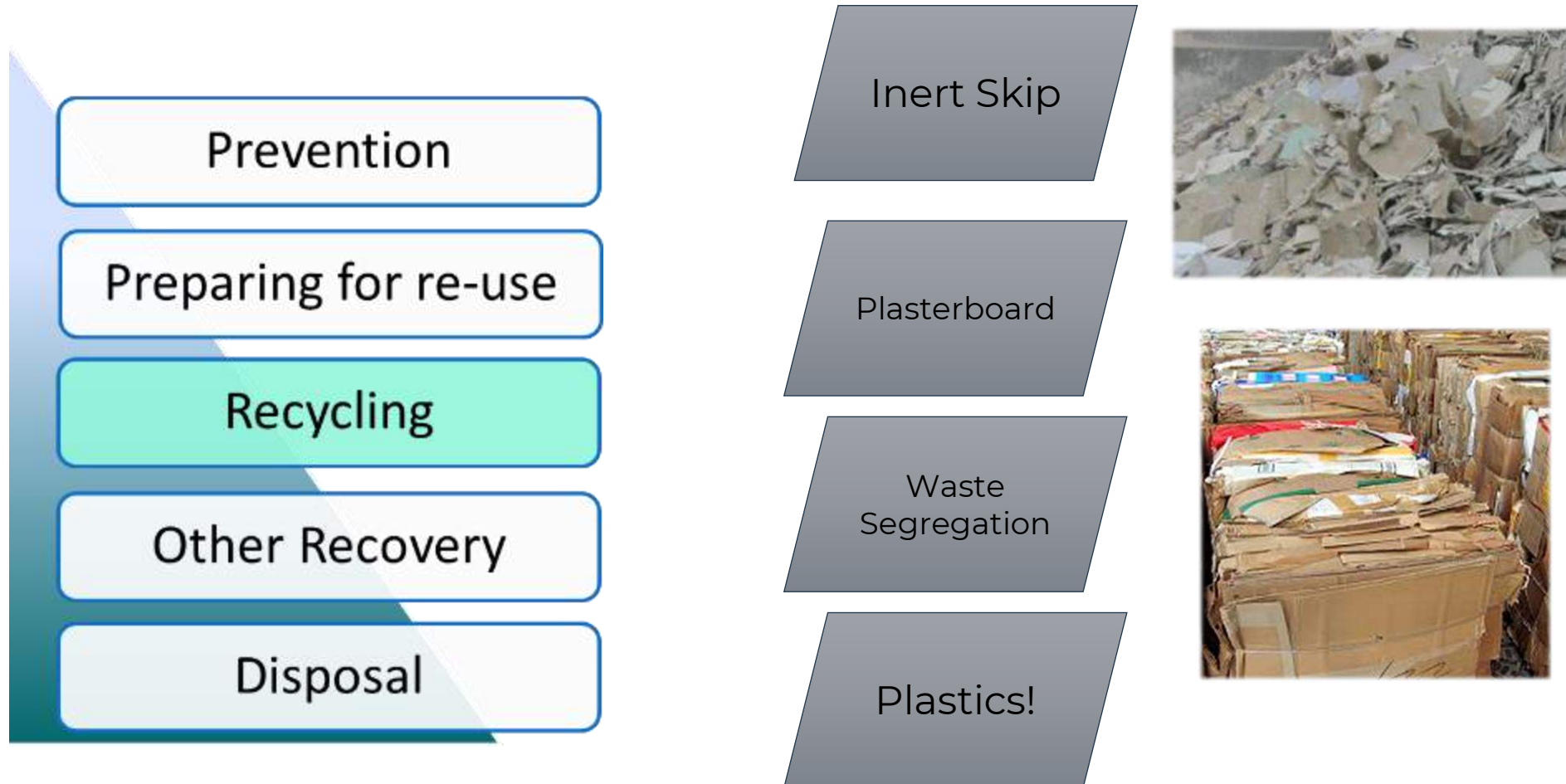
Waste Management Planning

What could we do?



Waste Management Planning

What can we do?



Waste Management Planning

Training and Awareness



- Appropriate Training
- Specific Trades
- Waste Minimisation



- In-House and Sub-Contracted employees
- Waste Management Plan available for all

Waste Management Planning

Good Housekeeping



Plan for efficient materials and waste handling



Set indicative targets on trades and sub-contracts



Early planning essential

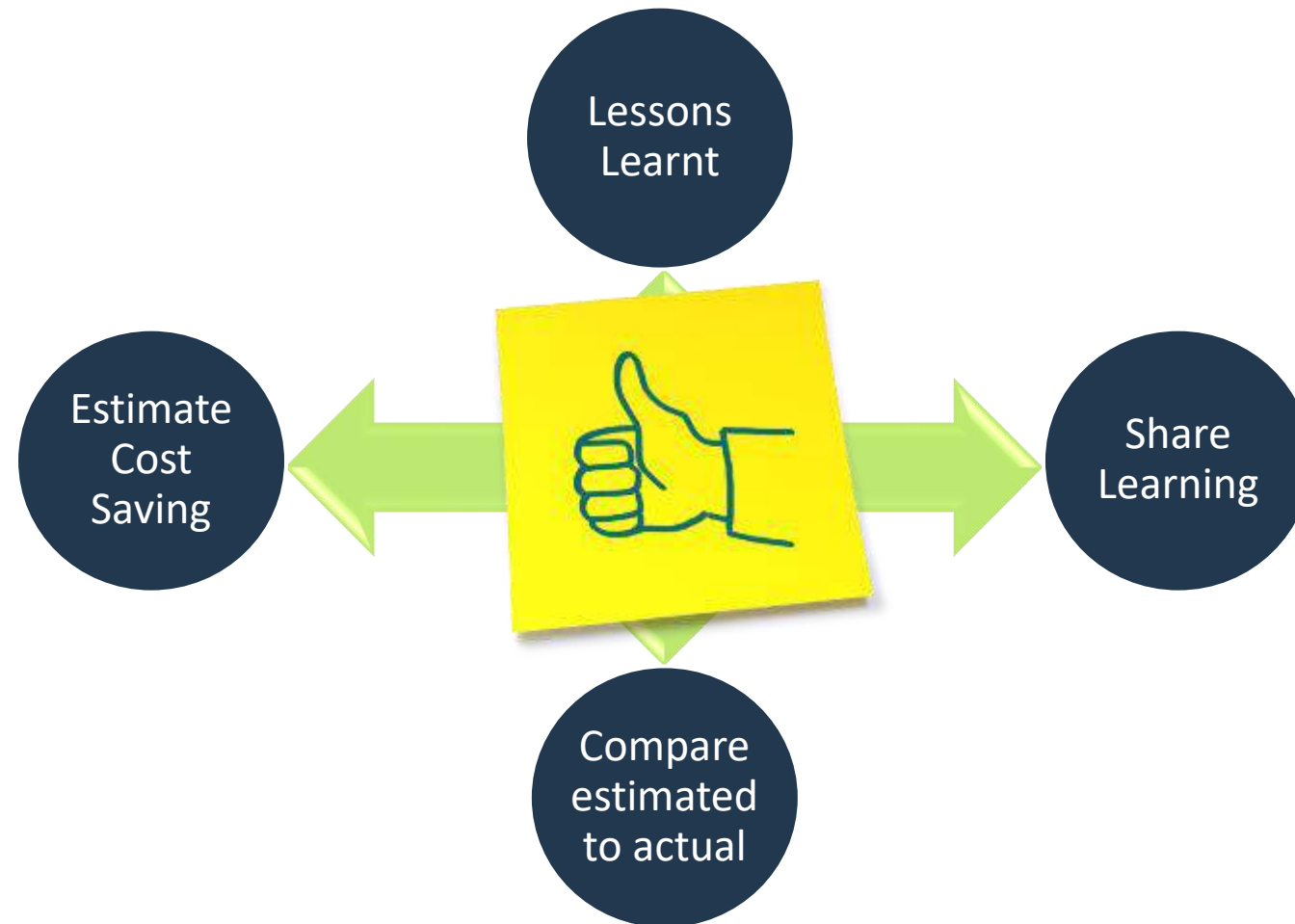
Waste Management Planning

Measure



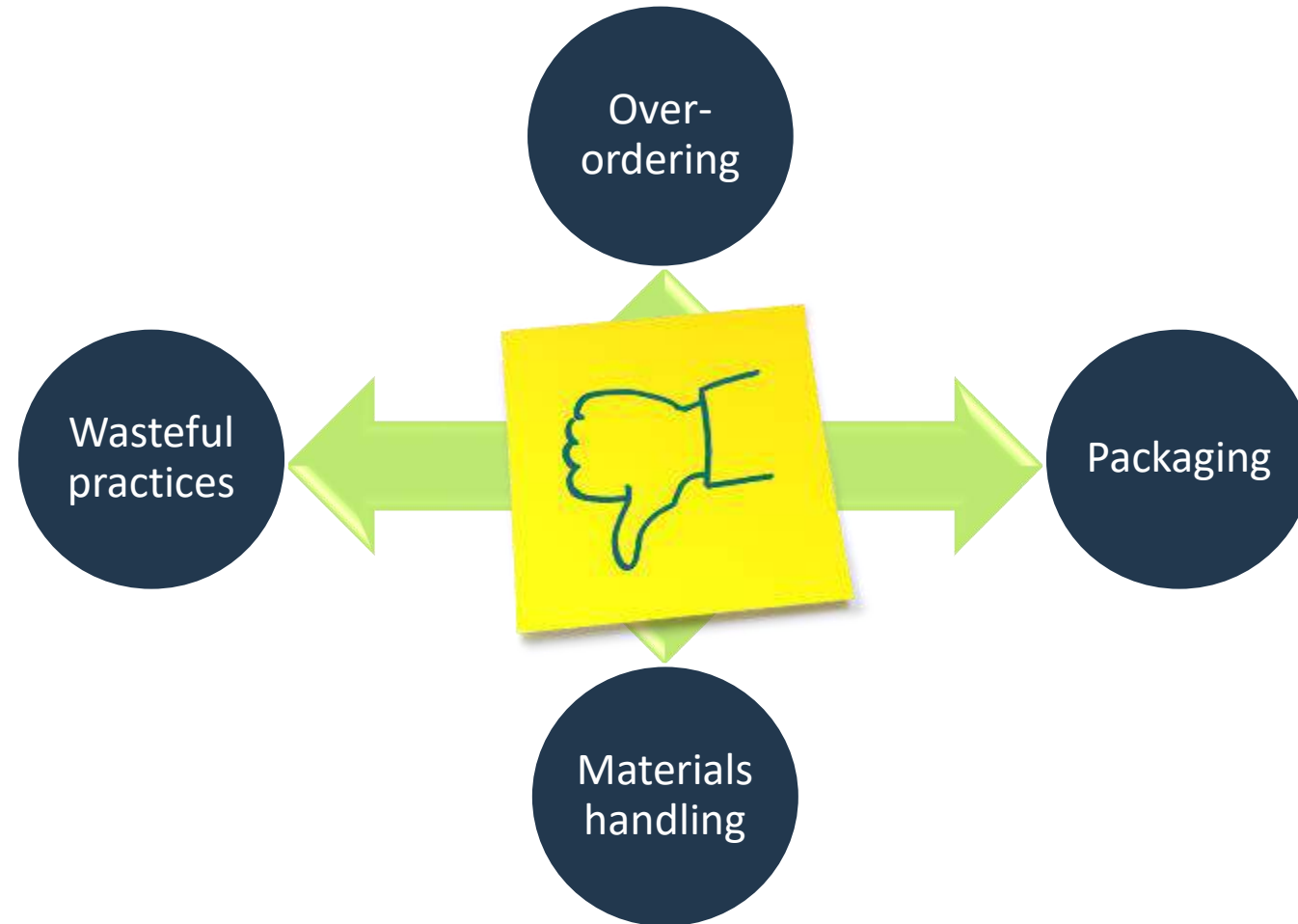
Waste Management Planning

Review



Keep an eye on the enemies!

Review





Partner Case Study

Onsite Support



Delivering sustainable safety, welfare, site equipment and tools for the construction industry.

Managing Resources Better

Remove, Reduce, Reuse, Recycle

Part of the Possible – June 2023



This is better.



Contents

- The Challenges and Opportunity
- Good Practise - Be Inspired
- Recycling
- What you can do starting
- Q&A



The Challenges and Opportunity

If we can meet these challenges, we will minimise the impact on the planet, creating value and benefit for all stakeholders



- 1 **62% of all UK waste in 2018 was attributed to the Construction, Demolition and Excavation (CDE) industry**
- 2 **40% of all plastic generated on a construction site ends up in landfill**
- 3 **UK sends 350,000 tonnes of textiles to landfill every year**
- 4 **Traditional PPE is treated as disposable or has a relatively short lifespan**
- 5 **PPE often has a high plastic content as does its protective packaging**
- 6 **PPE is resource intensive and so simply returning it to energy isn't the best solution either**

Good Practise

Be Inspired to what is already better today?

Remove, Reduce, Reuse then Recycle

- Safety & Clothing
- Material Composition
- Site Welfare Products
- Site Equipment
- Packaging
- Carbon Neutral Products and Providers
- Ethically Sourced
- Circular Economics



Polyester from recycled plastic bottles



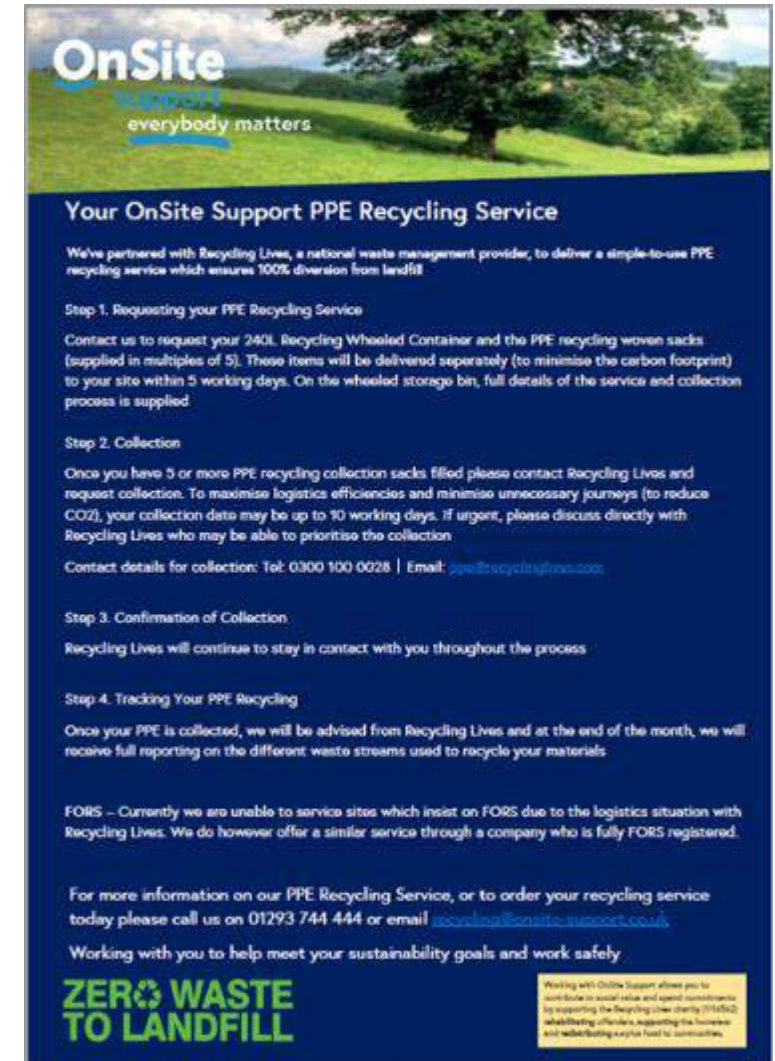
Polyester from recycled plastic post-consumer clothing



Recycling

PPE and Packaging Recycling Scheme

- **Secure certified destruction** of company and project logos/names
- **ZERO** waste to landfill
- Not just a waste to energy scheme
- Evidenced end of life solutions with fully auditable reporting on waste streams
- Evidence of working towards a circular economy
- Support for social initiatives, contributing to social value



OnSite
support
everybody matters

Your OnSite Support PPE Recycling Service

We've partnered with Recycling Lives, a national waste management provider, to deliver a simple-to-use PPE recycling service which ensures 100% diversion from landfill.

Step 1. Requesting your PPE Recycling Service

Contact us to request your 240L Recycling Wheeled Container and the PPE recycling woven sacks (supplied in multiples of 5). These items will be delivered separately (to minimise the carbon footprint) to your site within 5 working days. On the wheeled storage bin, full details of the service and collection process is supplied.

Step 2. Collection

Once you have 5 or more PPE recycling collection sacks filled please contact Recycling Lives and request collection. To maximise logistics efficiencies and minimise unnecessary journeys (to reduce CO2), your collection date may be up to 10 working days. If urgent, please discuss directly with Recycling Lives who may be able to prioritise the collection.

Contact details for collection: Tel: 0300 100 0028 | Email: ppe@recyclinglives.com

Step 3. Confirmation of Collection

Recycling Lives will continue to stay in contact with you throughout the process.

Step 4. Tracking Your PPE Recycling

Once your PPE is collected, we will be advised from Recycling Lives and at the end of the month, we will receive full reporting on the different waste streams used to recycle your materials.

FORS – Currently we are unable to service sites which insist on FORS due to the logistics situation with Recycling Lives. We do however offer a similar service through a company who is fully FORS registered.

For more information on our PPE Recycling Service, or to order your recycling service today please call us on 01293 744 444 or email recycling@onsite-support.co.uk.

Working with you to help meet your sustainability goals and work safely.

ZERO WASTE TO LANDFILL

Working with OnSite Support allows you to contribute to social value and spend responsibly by supporting the Recycling Lives charity (114542) whilst staying off-site is supporting the foundation and wellbeing of your local communities.

PPE and Packaging Recycling Scheme

How does it work?

Step 1: Requesting Your PPE Recycling Service
Contact for your Recycling Container and sacks.

Step 2: Collection

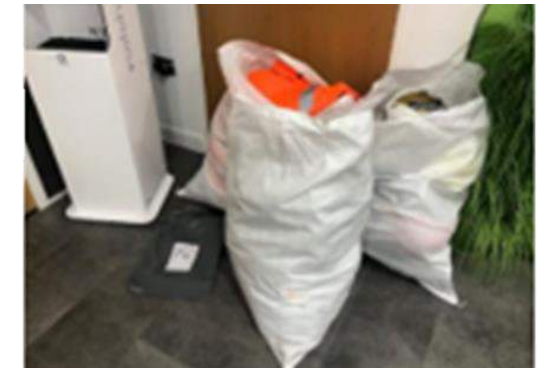
Follow the instructions on the lid of the bin to request collection.
We will collect all your cable tied, tagged sacks.

Step 3: Confirmation of Collection

To reduce CO2 we will try to coincide your collection date with your next delivery.

Step 4: Tracking Your PPE Recycling

Once your PPE has been collected, OnSite Support will arrange reprocessing.
At the end of the month, you will receive full reporting on the different waste streams used to recycle your materials.



Recycling and Reporting



What happens to your PPE?

Once your bins and bags have been collected, we take all the end-of-life PPE and create a new purpose for it such as: relief/removal blanket, insulation and hanging basket garden liners.



Garden Liner



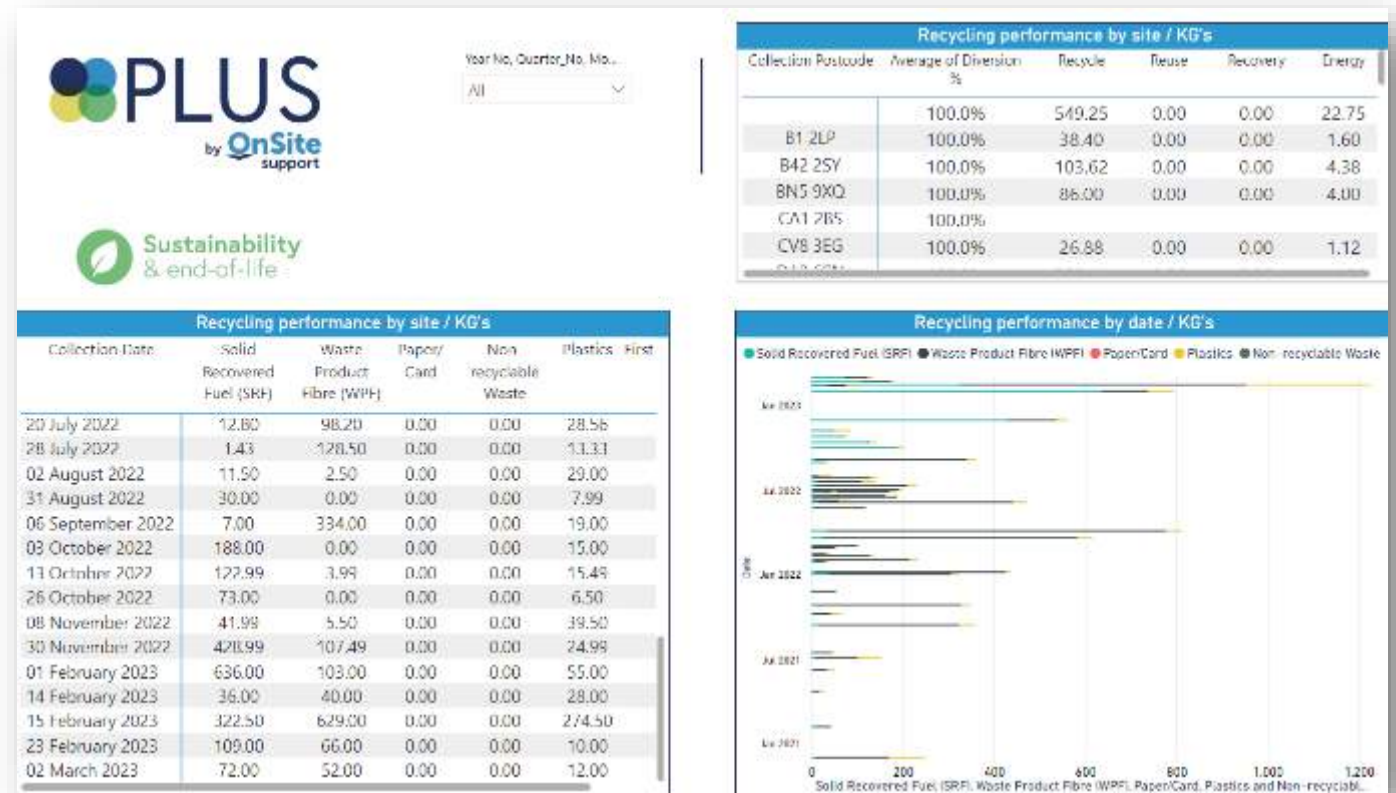
Insulation



Relief Blankets



Regam Substrate



Recycling Services – Recycling Lives

- Socially responsible company
- Changing lives through offender rehabilitation, residential support and food redistribution
- Added £28*M of social value
- They generate £8.44 value for every £1 invested
- Recognised within the industry



What you can do

Practical examples of quick wins and long-term gains to have a positive impact on your organisation and the planet



- 1 Buy longer lasting, comfortable PPE
- 2 Select items that are carbon neutral or made from recycled content
- 3 Use items with reduced environmentally friendly packaging
- 4 Reduce avoidable waste through premature disposal
- 5 Create individual responsibility for all company issued property
- 6 Think Lean using detailed Purchase, Logistics, Use and Sustainability data
- 7 Recycle Responsibly with a combined service that repurposes and fully reports end of life
- 8 Think about whole life impact and beyond PPE

Q&A

What Next?

'It's not about what's right or what's best.

It's about what you can get done by being pragmatic alongside striving to achieve your goals without being driven into complete immobility.

That doesn't mean settling for second best'

Putting it all into action

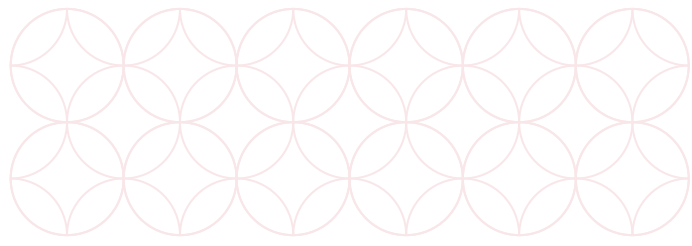
Some more ideas for introducing a structured way of reducing waste – from another School Partner in a very different sector!



SUSTAINABILITY

WASTE REDUCTION CASE STUDY

OCTOBER 2021



WASTE RESEARCH PROJECT



Built Oxford House type in 3 different regions - Yorkshire, Lancashire and the South East.

Carefully segregated waste from each plot in to different containers for individual waste streams.



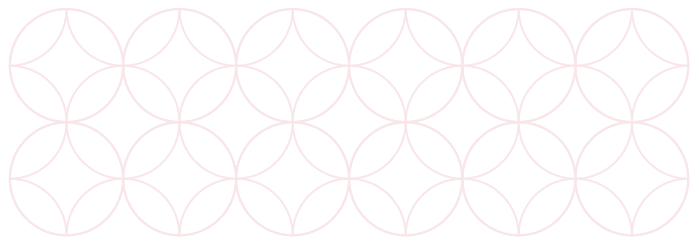
A VISUAL REPRESENTATION...

1 SKIP FULL OF WASTE WOOD

CONTAINER WITH 8 TONNE BAGS OF PLASTIC/CARDBOARD PACKAGING

1 SKIP OF INERT WASTE

5 TONNE BAGS OF PLASTERBOARD



OFFCUTS



PLASTERBOARD



TIMBER



ELECTRICAL WIRES



ANGLE BEADING



CHIPBOARD FLOORING



PLASTIC PIPING

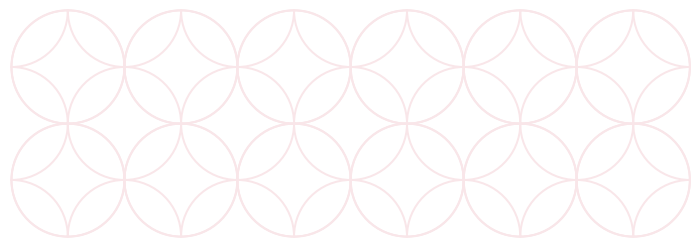
PREVENTION + REDUCTION

The Waste Hierarchy



Following the waste hierarchy, during the waste project I tried to focus mostly on ideas which could help to prevent and reduce waste.

Therefore the findings here are mostly relating to preventing/reducing waste, but there will be a short section at the end about recycling.



OVER ORDERING

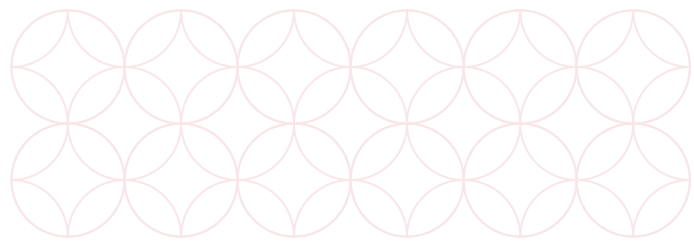
Leftover items:

skirting boards, architraves, timber, soffits & fascias, chipboard flooring, staircase balustrades parts, bricks, blocks, tiles, plastic guttering.

'Double' cost to the business:

- 1) Materials purchased but not required.
- 2) Costs associated with transporting, offloading, storing and disposing of the surplus items.





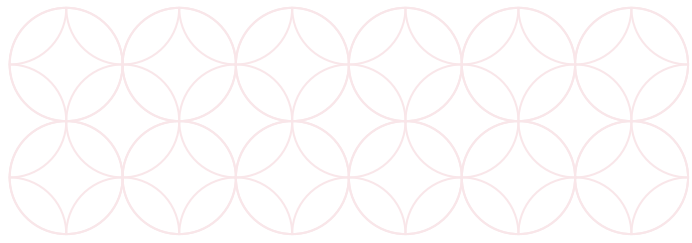
PACKAGING



Packaging included shrink wrap, plastic banding and containers for adhesive and paint.



Most packaging waste was generated from the second fix - kitchen and bathroom appliances, radiators and towel radiators, shower screens, door casing wrapping, staircase balustrade wrapping and straps.



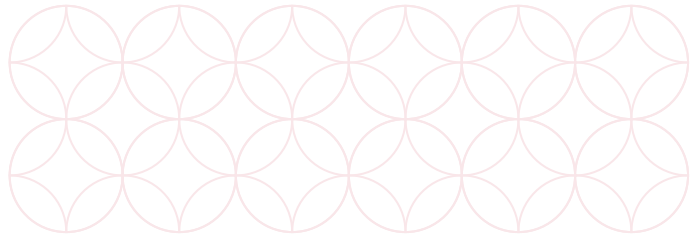
INEFFICIENT USE OF MATERIALS



Have the plasterers opened significantly more bags of plaster than can be realistically used before setting?



Traditional low prioritisation of materials costs?



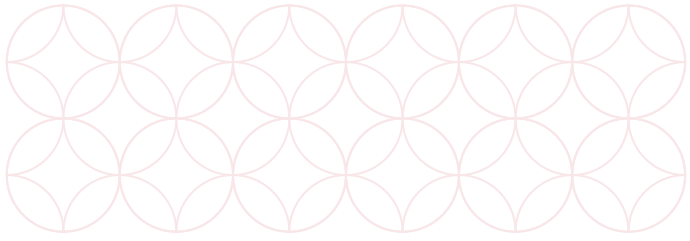
MATERIAL HANDLING



Batch of roof tiles were delivered cracked - damaged during transportation or offloading?



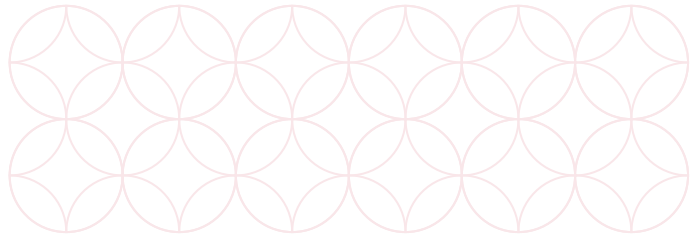
Other products damaged during installation: plasterboard, angle beading, roof tiles, a bath panel and these could not be used.



MATERIAL PROTECTION



Some sites were better than others at protecting materials.
Eg use of Brick Jackets (cost £3 each, re-usable) vs not protecting bricks > leading to damage



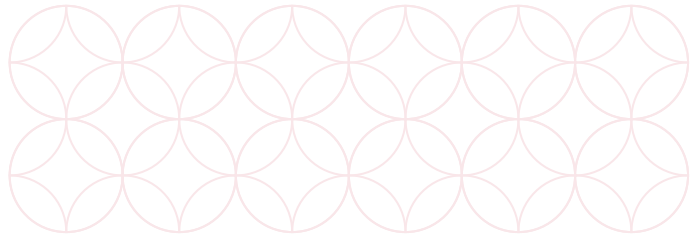
SUPPLY CHAIN ISSUES



WHAT SHALL WE
DO WITH THESE?

Long lead-times and material supply issues are making it harder for sites to reject incorrect or inadequate deliveries.

Sites don't want to wait weeks for a new delivery.

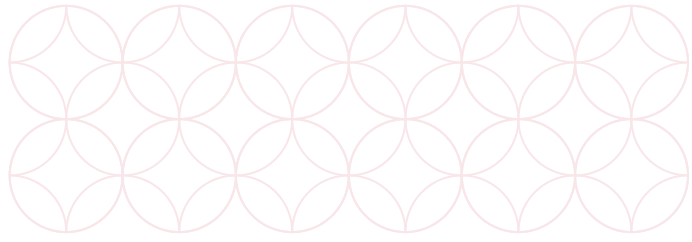


SUPPLIER/MANUFACTURER ERROR

Granite worktop for kitchen of plot 121 was manufactured 5mm too short on either side (expensive mistake!)

Some deliveries were incorrect, short in quantity or late.





FREQUENT DESIGN CHANGES

Frequent design changes can cause issues for sites and suppliers.

This batch of rood products was delivered to a waste project plot, for a previous / outdated version of the Oxford House type.

If the products can't be used on another plot then they may end up as waste.



Tension/restraint straps (60 x £1.48 each = £88.80)



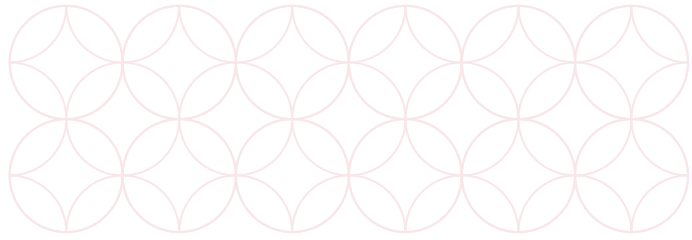
Joist hangers (14 x £3.11 each = £43.54)



Framing anchors (62 x £0.30 each = £18.60)



Joist caps (15 x £2 each = £30)



COMPLEX DESIGN FEATURES

Bespoke door under the stairs was specially manufactured for Redrow and needed to be cut to size on site.

Door was damaged and chipped during cutting and installation and had to be repaired by an external repair worker who filled and painted the door – costing time and money.





REDUCING WASTE **NEXT STEPS**

APRIL 2021

WASTE + BUILDABILITY WORKING GROUP

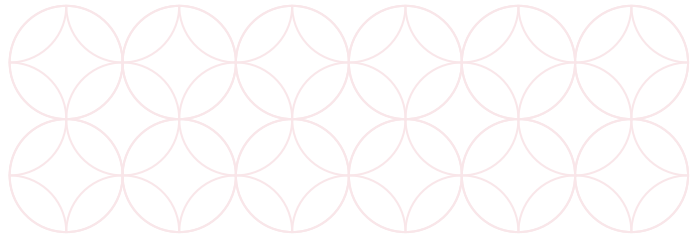
The research project has given us many good starting points for reducing our waste and identified quick win opportunities.

Working group has been established internally, with various heads of departments eg Commercial, Technical, Construction and Sales. Meeting every other month.

Aims:

- Implement some of the improvement opportunities identified in the research project.
- Determine waste reduction priorities for Redrow, taking various departments and experiences into consideration.
- Identify ways to enhance buildability, in turn improving elements of project performance (eg time, cost)



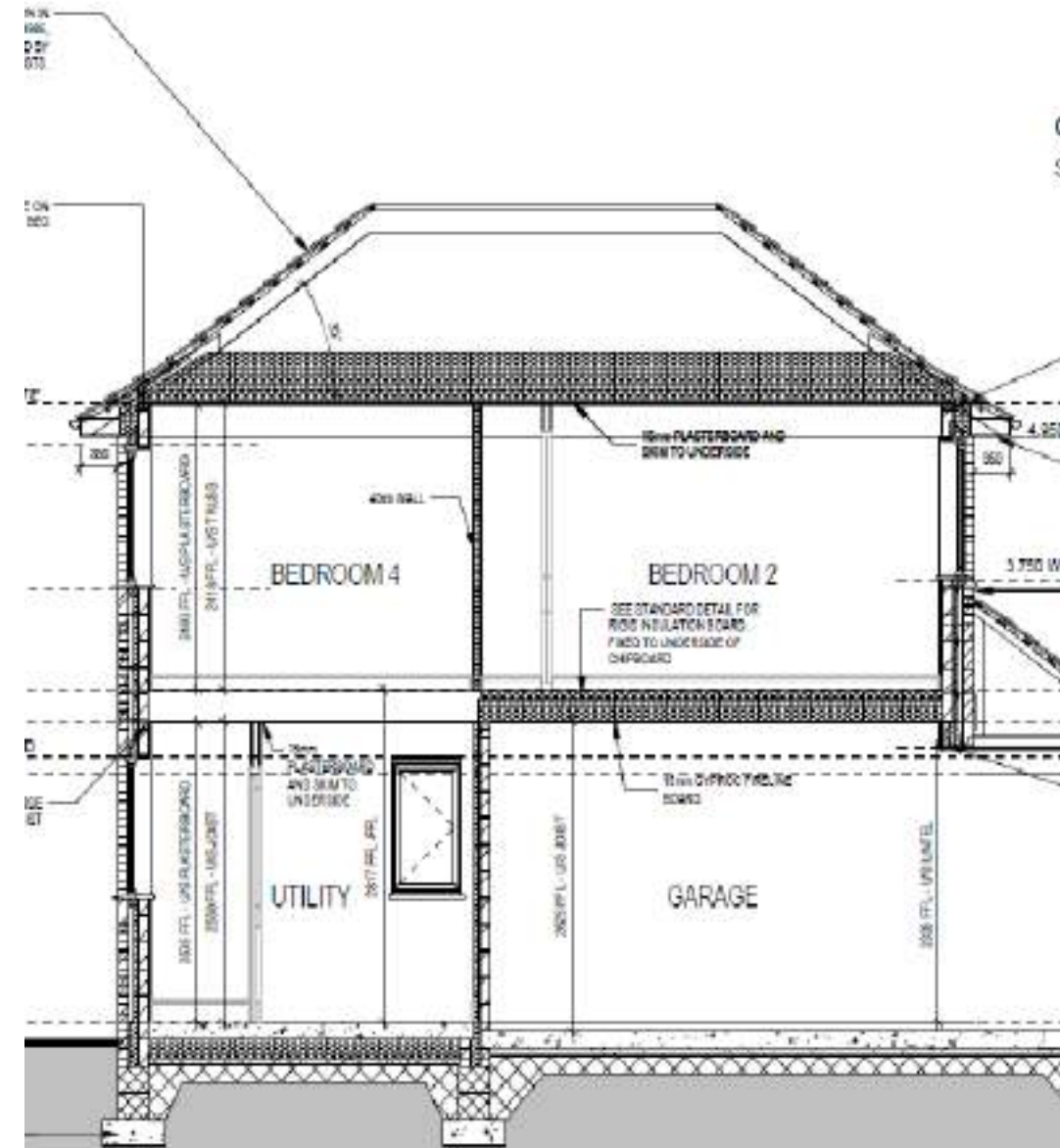


Source: REDROW – Supply Chain Sustainability School waste reduction case study webinar

DESIGNING OUT WASTE

We have made some changes to our designs to reduce offcuts or waste generated from complex design features.

- Redesigned the under stairs cupboard and make it more open.
- Simplified skirt/arch lengths used... we used to have large skirt+arch down vs small skirt+arch up.
- Removed internal nibs and reviewed internal inlets/small walls.
- Reduced ground floor ceiling level by 65mm and removed a single course of brickwork, so we can use 2.4m timber instead of 3m (reducing offcuts)



Whatever the build
challenge may be,
the principles are more
often than not
transferable!

Can you think of
any good
examples in your
business?

Or things that
went less well?
Why??

*Or things you
could introduce
that would benefit
you and your
customers?..*

We need to move towards a more Circular model

We want to keep materials and resources in use for as long as possible and avoid waste....

How can you help? And how can we help you?

SCHOOL RESOURCES TO HELP YOU

1. 'Introduction to Waste' e-learning – available [here](#)

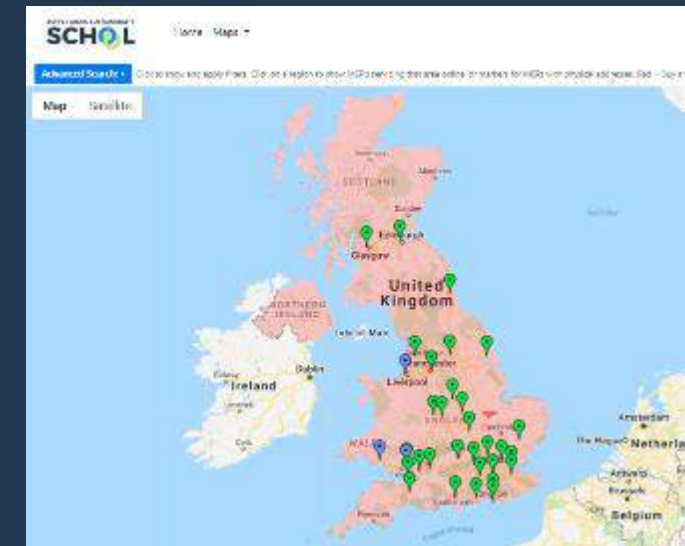
2. MEP map:

- Feedback template ✓
- Promotion & marketing ✓
- Courtesy email to organisations ✓
- New recommendations received ✓
 - *Now need to be added*
 - *New tags for social enterprises and academic institutions to be added*

Disclaimer:

The Material Exchange Platform (MEP) Map has been set up to provide a searchable 'directory' of information on the location and characteristics of a variety of Materials Exchange Platforms across the UK. You may have surplus stock from a recently finished project, or are looking for second hand upcycled furniture; these are some examples of how you might use MEPs.

NB: The map is as a meta data tool. The School has collated existing publicly available information on MEPs presenting it in one, easily-accessible place. Other than checking the continued existence of any given MEP, we have not added any further information, comment or qualification as to its nature. Moreover, the School is neither endorsing, recommending nor rating any of the material exchange platforms within the map. It is for the map user to do their own due diligence on any MEPs for which they get results.



Project lifecycle waste web feature

A practical guide to

Reducing construction lifecycle waste

These resources help users from all parts of the built environment value chain reduce construction lifecycle waste.

Explore themes and topics for practical examples, learning about the different stages and aspects of a wide variety of construction projects.

<https://www.supplychainschool.co.uk/partners/groups/waste-group/>

1. Pre Construction Clients & Design Teams

From procuring with zero waste in mind to encouraging refurbishment instead of demolition

2. Materials

Learn how to ensure materials are readily recoverable, and about the use of low carbon and circular materials.

3. Construction

Actions that can be taken on the construction site to reduce waste to landfill and encourage reuse and recycling

4. In Use and End of Life

Find out more about how waste can be mitigated during refurbishment and demolition of buildings.

5. Eliminating Landfill

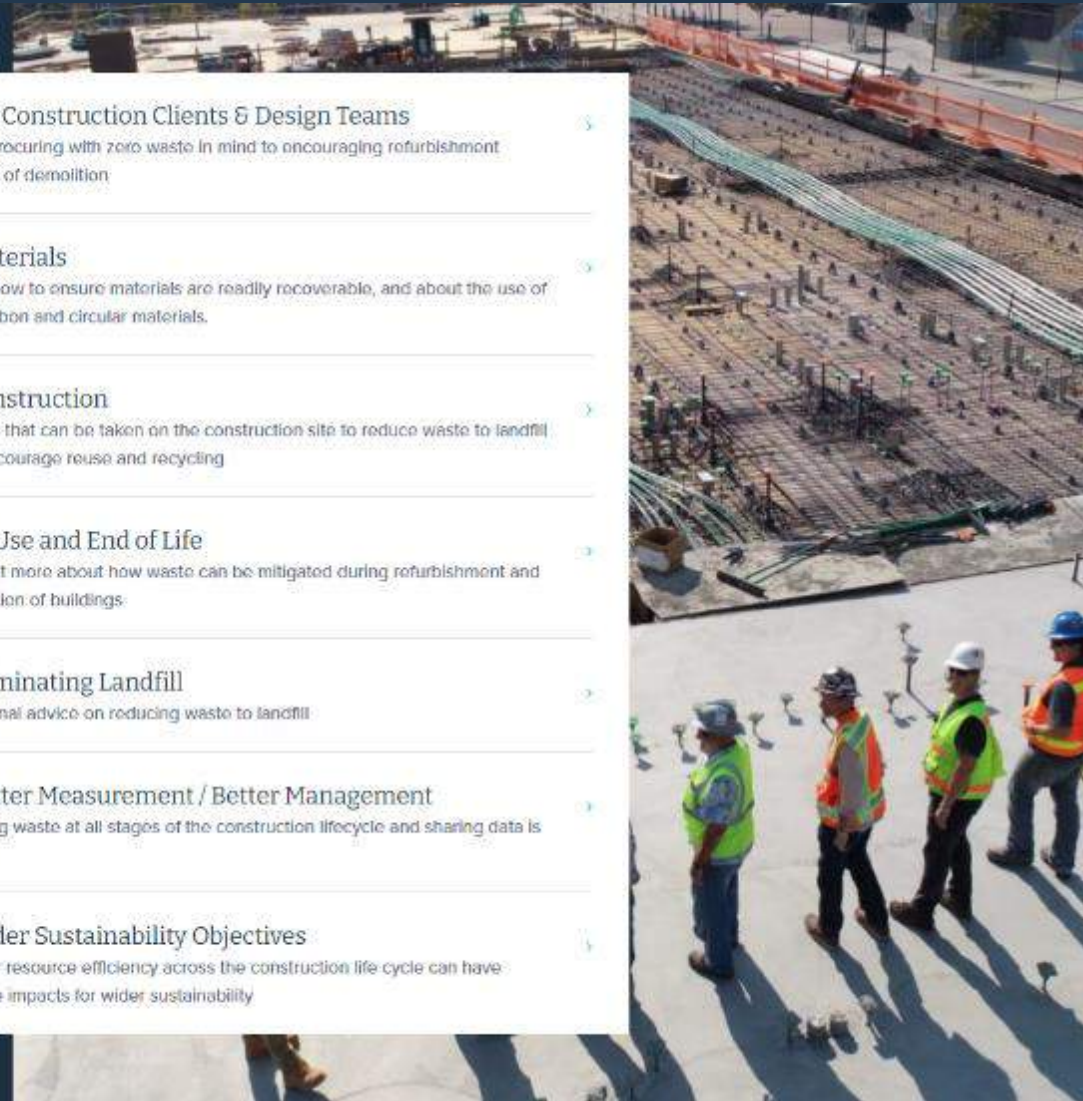
Additional advice on reducing waste to landfill

6. Better Measurement / Better Management

Tracking waste at all stages of the construction lifecycle and sharing data is vital

7. Wider Sustainability Objectives

Greater resource efficiency across the construction life cycle can have positive impacts for wider sustainability



Construction lifecycle waste web feature


1. Pre Construction Clients & Design Teams

CHANGE THEME

Select an aim using the menu below

Design for end of life


- Design for end of life
- Design for Manufacture and Assembly
- Design out waste
- Encourage refurbishment over demolition
- Procure with Zero Waste in mind



WASTE AND RESOURCE EFFICIENCY
ASBP – Designing for the Deconstruction Process
DOCUMENT / PRESENTATION
The Alliance for Sustainable Building Products examines the barriers to greater reuse of structural materials

Advanced ⌚ 60 minutes


LEARN MORE >



WASTE AND RESOURCE EFFICIENCY
Case Study: Design for Deconstruction – PassivHaus
CASE STUDY
A case study from BRE assessing the deconstruction potential of a new build PassivHaus.

Intermediate ⌚ 15 minutes

LEARN MORE >



WASTE AND RESOURCE EFFICIENCY
Design for Deconstruction
WEB LINK
BRE website which explains the benefits of designing for deconstruction

Beginner ⌚ 15 minutes

LEARN MORE >

Construction lifecycle waste web feature

3. Construction

CHANGE THEME

Select an aim using the menu below

Reduce volume of soil to landfill

Reduce volume of soil to landfill

More reuse and recycling of new build waste

Reduce waste from temporary works

Better waste services for SMEs

WASTE AND RESOURCE EFFICIENCY
Soils And Stones Report: Sustaining Our Future By Influencing Change In The UK And Beyond
DOCUMENT / PRESENTATION
Recognising soils and stones as valuable resources, rather than waste
Intermediate ⌚ 30 minutes
LEARN MORE >

WASTE AND RESOURCE EFFICIENCY
Case Study: Redrow Recycled Aggregate
CASE STUDY
1,400 tonnes of waste material processed into useable recycled aggregate
Beginner ⌚ 5 minutes
LEARN MORE >

WASTE AND RESOURCE EFFICIENCY
Sustainable reuse of Greenfield Soils
DOCUMENT / PRESENTATION
Promoting the Sustainable reuse of Greenfield Soils in Construction
Advanced ⌚ 30 minutes
LEARN MORE >

Construction lifecycle waste web feature


7. Wider Sustainability Objectives

CHANGE THEME

Select an aim using the menu below

Whole life carbon


- Whole life carbon
- Circular economy
- Smart construction
- Social Value



ENERGY AND CARBON
Greenhouse gas reporting
– Conversion factors 2021
[WEB LINK](#)
DEFRA - Greenhouse gas reporting -
Conversion factors 2021

Intermediate 45 minutes


LEARN MORE >



WASTE AND RESOURCE EFFICIENCY
Zero Waste Scotland
Carbon Metric Publications
[WEB LINK](#)
Reports on the lifecycle impact of
waste in Scotland.

Advanced 45 minutes

LEARN MORE >



ENERGY AND CARBON
Net Zero Whole Life Carbon
Roadmap for the Built
Environment
[WEB LINK](#)
A common vision and agreed actions

Advanced 45 minutes

LEARN MORE >

FIND IT HERE!

[HTTPS://WWW.SUPPLYCHAINSCHOOL.CO.UK/PARTNERS/GROUPS/WASTE-GROUP/](https://www.supplychainschool.co.uk/partners/groups/waste-group/)

Further learning

Training and Awareness – loads of content in the School library



VIRTUAL: Circular Economy Workshop

Join this event to understand the drivers for moving ...

Tuesday, 21 July 2020, 11:30 AM - 1:00 PM



VIRTUAL: A Circular Economy case study: Whitecroft Lighting and BAM

Join this discussion with BAM and Whitecroft Lighting ...

Monday, 3 August 2020, 1:00 PM - 2:00 PM



Wales and the Circular Economy

The opportunities and benefits for Wales for developing a ...



"Towards the Circular Economy" reports

Ellen MacArthur Foundation



Circular Economy and Resource Efficiency

European Commission: Circular Economy and Resource ...



Circular Economy for SMEs - Project Summary

Project summary and details of European partnerships



European Circular Economy project in Wales

European Circular Economy project kicks off in Wales



Circular Economy Metrics Case Study: Asphalt

Three of Tarmac's asphalt products were selected to ...



Circular Economy Metrics Case Study: Built Assets

Case study: how progress towards the circular economy ...



CE Indicators and Metrics Tool

Created to calculate the values of Circular Economy Key ...



CE Indicators and Metrics Tool Guidance

Circular Economy Indicators and Metrics Tool Guidance



Embedding Circular Economy Principles

Top Tips for Embedding Circular Economy Principles in the ...

QUESTIONS &
YOUR
FEEDBACK
PLEASE



SUPPLY CHAIN SUSTAINABILITY

SCHOOL



0207 697 1977



**info@supplychainschool.
co.uk**

supplychainschool.co.uk