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6

It reduces costs and saves you money



Source: <https://www.investni.com/sites/default/files/documents/static/library/invest-ni/documents/waste-minimisation-efficient-management-for-cost-analysis.pdf>

7



8

It reduces costs and saves you money

It reduces greenhouse gas emissions



Material consumption has trebled since 1970 to about 100 billion tonnes

Extraction of resources to produce goods leads to global habitat loss, deforestation, greenhouse gas emissions, biodiversity loss (90%) and water stress

Waste in landfill continues to cause carbon emissions and also generates air, soil, water, noise and odour pollution.




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The goal is to minimise the amount of waste your business sends to landfill through implementing prevention, reduction and recycling strategies.



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-  It reduces costs and saves you money
-  It reduces greenhouse gas emissions
-  Legal requirements




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National Public Policy

With global focus on climate action, governments increasingly embedding climate action in all strands of public policy.

Northern Ireland is to set a target to ensure that no more than 10% of its waste goes to landfill by 2035 through its Waste Management Strategy set to be released in 2023

The consultation for the Circular Economy Strategy for Northern Ireland will close in March 2023.



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-  It reduces costs and saves you money
-  It reduces greenhouse gas emissions
-  Legal requirements
-  It may boost your business brand and reputation



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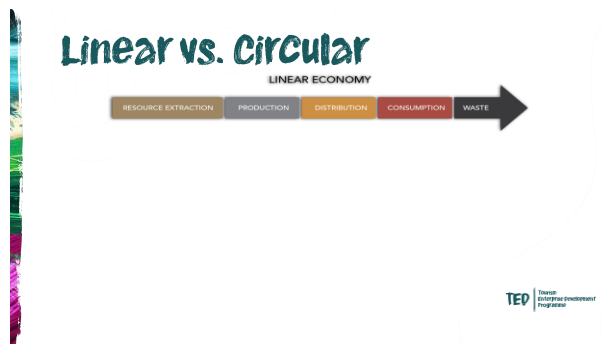
-  It reduces costs and saves you money
-  It reduces greenhouse gas emissions
-  Legal requirements
-  It may boost your business brand and reputation
-  Your clients, customers and staff expect it



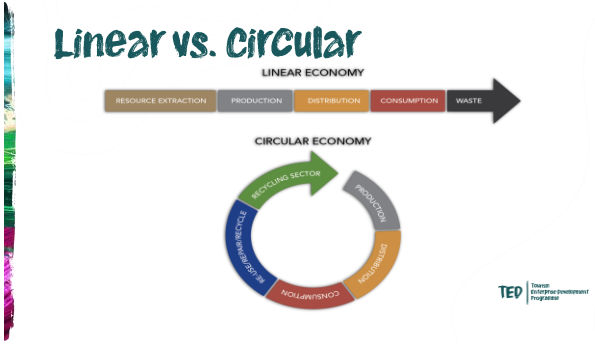
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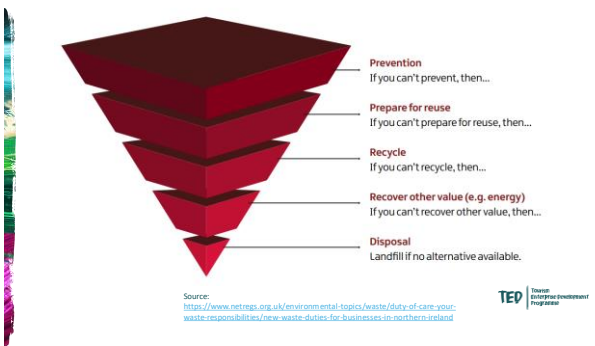
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The Circular Economy is...

...an industry/manufacturing system which is designed to re-use, repair and recycle as many products as possible. It's a term becoming part of everyday language to describe a new production and consumption model that ensures continuous growth over time.

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- ## Applying the Waste Hierarchy
- 1 Refuse** waste coming into your business
 - 2 Reduce** waste in your own business
 - 3 Re-use and re-purpose**
 - 4 Re-cycle**
- TED | Town Enterprise Development Programme

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Step 1

Appoint a Green Champion or Green Team



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Leaner & Greener Wisdom


Only when you measure and monitor can you truly manage waste and save money



22

Your ability to report accurately and memorably on your successes in minimising waste depends on how well you keep track of your key numbers.

Remember: make a note of your baseline/starting point – before you take any action.



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Step 2

Annual Use & Costs



24

How much waste is generated in your business right now?

This is your baseline.



25

Start by establishing your annual figures for 2022.



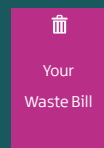
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Waste Use & Costs Sheets – Worksheet 1

Waste Type	Year	Quantity	Weight (kg)	Volume (m³)	Cost	Comments
Food Waste	2022	1000	1000	1.0	\$100	
Cardboard	2022	500	500	0.5	\$50	
Plastic	2022	200	200	0.2	\$20	
Paper	2022	300	300	0.3	\$30	
Metals	2022	100	100	0.1	\$10	
Other	2022	100	100	0.1	\$10	
TOTAL	2022	2200	2200	2.2	\$220	

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Find information



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Common Categories

- Mixed Waste/Landfill Waste/General Refuse/Mixed Refuse
- Food Waste/Brown Bin/Compost/Compostable
- Mixed Dry Recyclable/Recyclables/Recycling/Blue Bin
- Glass (green, white and brown)
- Cardboard
- Hazardous waste (e.g. batteries)



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Understand your Bill

- ✓ Should cover 1 month of collections
- ✓ For each collection, there should be a description of the waste category. (There is no common terminology across service providers)
- ✓ You need to establish the categories that apply to your bill.



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Understand your Bill

CHECK CHARGES!

'Lift': the charge for picking up the bin on a given date.

'Processing': the charge for processing each kg of waste collected.



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Understand your bill

Date	Docket	Description	Qty	Value	Rate
16/03/2020	JRT34872	1L of 1100 Litre Bin containing Mixed Waste @ €115.00 per job	6.00	690.00	115.00
16/03/2020	JRT34872	Processing of 6 x 1100 Litre Bin containing Mixed Waste @ €61.50 per job	557.00	34170.00	61.50
16/03/2020	JRT34872	1L of 1100 Litre Bin containing Mixed Dry Recyclables @ €100.00 per job	1.00	100.00	100.00
16/03/2020	JRT34872	Processing of 1 x 1100 Litre Bin containing Mixed Dry Recyclables @ €60.00 per kg	56.00	3360.00	60.00
VC	Rate	Goods	VAT		
13.0	13.0%	€204.46	€27.60		
		Goods	VAT		
		€204.46	€27.60		
		Total		€3582.06	

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Understand your bill

Invoice / Tax Date		6/1/2020	
Certificate			
Account No.			
Quantity Details			
	Unit Price	Net	
3.000	03/07/2020 1100 DRY RECYCLE	12.500	37.50
3.000	17/07/2020 1100 DRY RECYCLE	12.500	37.50
3.000	31/07/2020 1100 DRY RECYCLE	12.500	37.50
190.000	06/07/2020 1100 REFUSE [-]>0(2)	0.395	75.05
394.000	20/07/2020 1100 REFUSE [-]>0(2)	0.395	154.64
2.000	31/07/2020 140 COMPOST	12.000	24.00
0.000	06/07/2020 240 REFUSE [-]>40(12.5 * 4)	0.180	0.00




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Waste Use & Costs Sheet – Worksheet 1

2022 Total Landfill kg		2022 Total Landfill Cost		2022 Cost/kg		Benchmark Measures	
kg		Cost/kg		kg		Cost/kg	
Month	Total KG	Total Cost	Cost/kg	Benchmark KG	Benchmark Cost	Comments	
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
TOTAL	g	0.00					

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Suggested Actions

-  Study your bill and note the different categories of waste that are collected and the terminology that is used.
-  If you do not understand any item category, contact your service provider to get clarification.
-  If your bill does not show breakdown of weight or cost, request a full breakdown from your provider.

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Step 3

Benchmark



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Why benchmark?

Benchmarking allows you to track your own performance over time

Benchmarking allows you to compare your performance against others in the industry



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Benchmark examples

5 kgs per guest
1 kg per square metre
0.25 kg per cover



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Waste Use & Costs Sheet – Worksheet 1

LANDFILL BY WEIGHT						
DATE	Total KG	Total Cost	Cost/kg	Benchmark KG	Benchmark Cost	Comments
January	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
February	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
March	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
April	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
May	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
June	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
July	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
August	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
September	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
October	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
November	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
December	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
TOTAL		0	0.00			



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Step 4

Monitor Monthly



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Waste Use & Costs Sheet – Worksheet 1

JANUARY		LANDFILL BY WEIGHT				
2022 Total Landfill kg		Benchmark Measure				
2022 Total Landfill Cost						
2022 Cost/kg						
	Total KG	Total Cost	Cost/kg	Benchmark KG	Benchmark Cost	Comments
January			#DIV/0!	#DIV/0!	#DIV/0!	
February			#DIV/0!	#DIV/0!	#DIV/0!	
March			#DIV/0!	#DIV/0!	#DIV/0!	
April			#DIV/0!	#DIV/0!	#DIV/0!	
May			#DIV/0!	#DIV/0!	#DIV/0!	
June			#DIV/0!	#DIV/0!	#DIV/0!	
July			#DIV/0!	#DIV/0!	#DIV/0!	
August			#DIV/0!	#DIV/0!	#DIV/0!	
September			#DIV/0!	#DIV/0!	#DIV/0!	
October			#DIV/0!	#DIV/0!	#DIV/0!	
November			#DIV/0!	#DIV/0!	#DIV/0!	
December			#DIV/0!	#DIV/0!	#DIV/0!	
TOTAL						



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Step 5

Inspect Bins

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Inspect your bins

- 1 Plan to do this for a week.
- 2 For that week, check every bin in the business twice per day.
- 3 Pay close attention to what's in there.
- 4 List the two items that appear most often over the week or at points in the day.
- 5 After a week, you will have solid information on which items are your top waste challenges.



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Inspect your bins

Bin Audit Table			
Week Period	Location	Most Disposed Item	Potential Solution
23.01.2023-30.01.2023	Bedroom	Takeaway Flyers	Laminated flyers with sticker asking guests not to throw away
etc...			

Worksheet 2 in your Leaner & Greener Waste Workbook



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Step 6
Do a walkaround Waste Audit




45

Conduct a walkaround waste Audit

Walkaround Waste Audit		
Area	What I notice	What could improve here
Living Rooms	Wife are using single serve coffee and jam portions	Switch to shared coffee and jam
Loft Areas		
Kitchen		
Bedrooms		
Garage		
Waste Collection Area	3 bins are ready for collection but none of the 3 is full	Remove one bin
etc.		

Worksheet 3 in your Leaner & Greener Waste Workbook



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Step 7
Monitor Waste Collection Area




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Monitor the Waste Collection Area

- ✓ Note in your diary the day your bins are collected.
- ✓ Each week inspect the bin collection area and the bins themselves.
- ✓ Is there recyclable material in the Landfill Bin? Or vice versa?
- ✓ Are bins full to the top?
- ✓ Have you more than one bin that is half full?



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Step 8

Food Waste Survey



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Food waste

Food Waste contributes one sixth of all global emissions



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Conduct a Food Waste Survey

- ✓ 4 types:
 1. Preparation Waste
 2. Plate Waste
 3. Unserved Cooked Food
 4. Unprepared spoiled food
- ✓ Plate Waste Survey
- ✓ Bin Waste Survey
- ✓ Note Food Spoilage Patterns




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Step 9

Analyse & Prioritise



52

- Analyse the outcomes of your audit
- What jumps out as a priority area for attention?
- Share outcomes with your team or mentor
- Brainstorm solutions
- Broadly estimate costs and resources required



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Leaner & Greener Wisdom

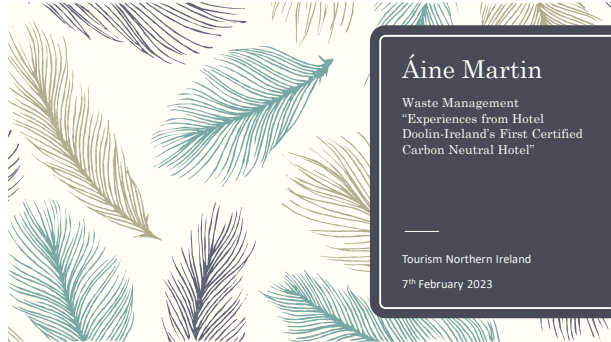
First take the actions with the lowest cost and highest impact



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Reminder - Green Team

Set up your green team; your incentives will be to:

1. Reduce Carbon Footprint
2. Improve Your involvement within Your Community and within Your Geopark.
3. Increase Corporate Social Responsibility activities & purchase locally



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3 R's

– **REDUCE!**

– **REUSE!**

– **RECYCLE!**

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What are the types of waste?

- Landfill
- Food Waste
- Recycling
- Compost

59

Suggestions to reduce waste?

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Polytunnel

- 50 foot polytunnel grows produce for the menus
- Saves circa €6K per annum
(Generate 4 times that in sales to generate the same amount of profit)
- Reduces food miles
- We know what we are growing & eating
- Fun for the staff to get involved in
- Less packaging required.



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Changing style of lunch service

- Changing the style of service from carvery to an a la carte lunch menu resulted in a significant difference to the food waste per guest figure reducing it from 0.25kg per person in 2020 and previous years to 0.15kg per person which is 40% decrease.
- Eco-tourism ethos is fundamental to everything that is done.

62

Compostable Takeaway Containers & Keep cups

- compostable cups, lids & napkins and reward customers for bringing their own keep cup by giving them a 30c discount.



63

Ban on sale of plastic

- No plastic bottles of water or soft drinks sold.
- Refillable water bottles sold.



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Bedrooms

- **Tissue** used in the guest bedrooms is from Lucart which is a **100% ecological paper** and is FSC registered which means that it is a product made from recycled paper. FSC registered sustains the responsible use of forest resources. The toilet paper is made in Fiberpack, pulp fibres coming from recycling of beverage cartons.
- Bedrooms toiletries are organic from VOYA made in Sligo. No single packaging therefore stock buy in larger bulk containers rather than in smaller bottles which would be thrown out after guest check out if opened. (<http://voya.ie/blog/our-story/our-green-commitment/>)
- There is a cardboard baler on-site.



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Reusing Materials

- Eco-Barn Wedding venue:
Reclaimed brick walls
Bar Counter is made from old whiskey barrels
Lampshades are made from fisherman's eel baskets from Co. Sligo.



66

Painting Festival Programmes

- Hotel Doolin hosts 3 festivals per year. Doolin Folk Festival & Doolin Hedge School Weekend welcomes circa 4000 people per annum.
- Decided to paint the festival programmes on walls instead of printing 10K programmes at the festivals that the hotel hosted over the last six years.



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Training staff at induction and regular training sessions

- Every employee who starts working in Hotel Doolin receives a full induction day where the Green Hospitality efforts and policies are clearly explained amongst other Hotel information.
- The manager on duty for AM and PM shifts is responsible for ensuring **waste segregation** is done correctly in all areas and spot checks are to be done too.



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Training

- Scheduled training and re-training chefs and kitchen staff on portion size (training course via Faite Ireland took place at Hotel Doolin) which helped to refresh chefs on portion size. This results in savings on labour/waste disposal and improves sustainability & increases our gross profit.
- Food is stored and covered so that it has a longer shelf life.
- Strict ordering practices to reduce over-ordering.

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Newest initiative

Wine on tap:

- Reduces wastage created through wine going off.
- Also reduces the amount of packaging required.
- Increases wine sales.



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Plans

- Biodigester
- A food biodigester is **a standalone system that transforms food waste (food scraps) into cooking gas** for your kitchen whilst also creating a fertilizer for gardening.
Payback: 4 years approximately.

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Establishing Baseline



- Read your waste bill:
- Record the kg totals of waste for Food, Landfill & Recycling, month by month.

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Set a Target for reduction

- Once a baseline is established, the next step is to tackle reducing waste consumption and setting the target for your business.
- What can be done to reduce waste to landfill?
- Are there improved recycling practices that can be done?
- Can I reduce waste at source by reducing ordering?
- Any time something needs to be ordered, question is there a more sustainable option?
- How can we reduce food waste?

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Recommended Steps & Tips

- Start if you haven't already!
- First step is to start recording and monitoring your waste usage and then setting a target for what you want your business to achieve in terms of a reduction.
- Train your team from Day 1 about reducing waste within your organisation/home.
- Get the team's ideas and suggestions.

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Remember!

- File the following invoices in a separate folder:

Waste
Water
Energy

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Any Questions?

Thank You!

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Step 10


Action Plan



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Leaner & Greener Wisdom

It's only an action plan if it is clear who has to take the action and when that action has to be taken by




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Worksheet 4: Waste Reduction Action Plan

4.4 Waste Reduction Action Plan Template

Waste Reduction Action Plan				
No	Action	Responsibility	Deadline	Notes
1	Do a complete bin inspection throughout the building	Green Team Leader	15.02.2023	Use the Bin Audit Table to record

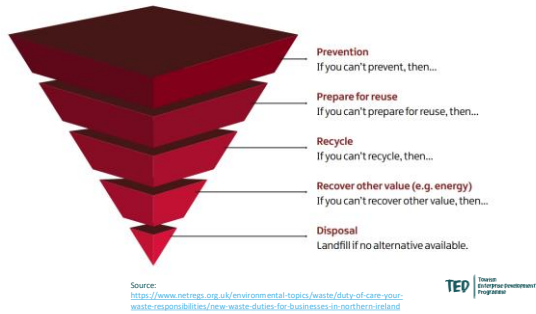


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Review of actions







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4 Action Areas

-  Refuse and reduce waste coming into your business
-  Reduce waste arising from your own operations
-  Re-use and re-purpose
-  Recycle (including composting)

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1. Refuse and reduce waste coming in

Ideas for reducing waste arising in your own operations

- 1 Reduce single-use items
- 2 Reduce paper-use and printing
- 3 Examine external printing e.g. for marketing
- 4 Focus on Food
- 5 Staff training

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2. Reduce waste arising in your own operations

For each items of waste that ends up in your bin, ask these two questions:

- 1 How essential is this item to delivering our product or service?
- 2 Are there alternatives that we haven't thought of before?

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3. Re-use and Re-purpose



- 1 Donate items
- 2 Upcycle
- 3 Repair and re-furbish
- 4 toogoodtogo.co.uk



85

JOIN 18,000 BUSINESSES IN THE FIGHT AGAINST FOOD WASTE
8 MILLION USERS AWAIT!



86

4. Recycle

- ✓ Provide segregated bins that are easy to access
- ✓ Train staff on waste segregation guidelines
- ✓ Display easy-to-understand labels on each bin
- ✓ Compost food where possible



Check out [Northern Ireland | Recycle Now](#)



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4. Recycle - Compost

Composting: for businesses that handle large amounts of food.

- [Treating and composting biodegradable waste | NetRegs | Environmental guidance for your business in Northern Ireland & Scotland](#)



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seek to influence behaviour



- ✓ Raise awareness through communication, training and monitoring
- ✓ Ensure the right bins in the right place with accessible signage.
- ✓ Make it as easy as possible for people to do the right thing



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Download the workshop resources

www.tourismni.com/leanergreener

No.	Action	Responsible	Start Date	End Date
	Do a complete bin inspection throughout the building	Green Team Leader		15.07



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7. Next Webinar



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Save the Date

Tuesday 14th March, 2.00-3.00pm

- Leaner & Greener Food Waste Webinar



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