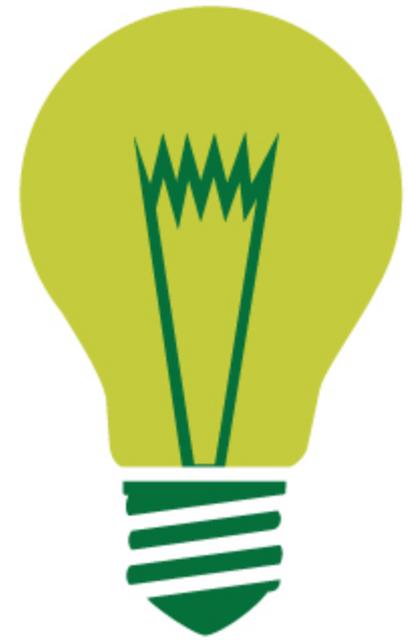


The only certification in the world of waste reduction

Lazar Armianov, Carbon Trust
Rick Bedson, Coleg Cambria

Wednesday 14 January 2015, 12:00 – 13:00

Contact Emma: easton@eauc.org.uk/ 01242 714321



www.sustainabilityexchange.ac.uk



The Carbon Trust Standard for Waste

Recognition for real waste reduction

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Accelerating the move to a sustainable, low-carbon economy

The Carbon Trust focuses on driving bottom-line business benefits in order to deliver long-term sustainability



Advise businesses, the public sector and governments on their opportunities in a sustainable, low carbon world

Measure and certify the environmental footprint of organisations, products and services

Develop and deploy low carbon technologies and solutions, from energy efficiency to renewable power

Independent, mission-driven, not-for-profit

Sustainable development delivers bottom-line benefits

Resource efficiency and reduction drives real cost saving



One tonne CO₂e costs £200 from electricity, and £340 from diesel ¹



One cubic metre of water costs £1-£6, but up to £50 and 240kg CO₂e to pump, heat and cool ²



One tonne of waste costs ~£500 when including purchase, production and disposal costs ³

¹ UK prices and emission factors, including duty, excl. VAT

² Carbon Trust analysis

³ Source: WRAP

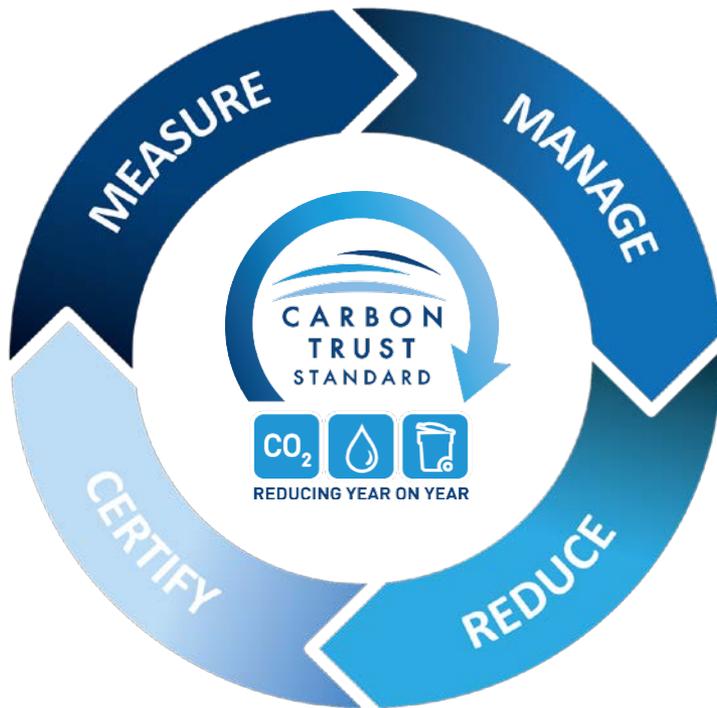
Certification delivers real resource and cost reduction

Carbon Trust Certification provides a sound framework to deliver and recognise resource efficiencies and reductions in associated costs



The Carbon Trust Standard for Waste

The Carbon Trust Standard provides a sound framework to validate your organisation's resource utilisation & recognise actual reductions



Measure

Measure resource use, inputs & outputs. Identify reduction opportunity



Manage

Improve management frameworks and staff engagement



Reduce

Deliver reductions and improvements in hierarchy, and reduce costs



Certify

Impartially & independently quantify results

Recognition for *real* waste reduction – the Carbon Trust Standard for Waste



The world's first and leading ***organisational waste reduction certification***

- Quantify your organisation's waste footprint to a recognised international standard
- Certify your waste reduction
- Identify waste reduction opportunities
- Demonstrate environmental credentials
- Enhance corporate reputation & brand value
- Clarify resource-use strategy
- Benchmark waste use
- Reduce resource use and costs.

Endorsements



"Using resources efficiently, by reducing waste as well as increasing reuse and recycling provides real opportunities to businesses, and can help build a stronger economy. I welcome this new initiative which will recognise the steps businesses have taken to reduce the amount of waste they produce and hope it will encourage more businesses to make similar efforts."



Dan Rogerson
Parliamentary Under Secretary of State for Resource Management
DEFRA

'I welcome this Carbon Trust initiative that clearly recognises the important role waste management has to play in delivering the more efficient use of resources. This Protocol will set a performance standard and I hope that will then encourage waste producers to recognise both the environmental and financial benefits resource efficiency can bring.'



Mat Croker
Head of Illegals and Waste
Environment Agency

"Producing less business waste and recycling more of what does arise is vital if we are serious about making the UK resource efficient. The Environmental Industries Commission welcomes the standard developed by the Carbon Trust as a practical tool for firms to assess objectively where they stand and where to focus their efforts."



Matthew Farrow
EIC

"WRAP welcomes the Carbon Trust's Waste standard and recognises the challenge that it represents. We wish the Carbon Trust and participating organisations well in tackling this difficult task."



Richard Swannell
Director of Sustainable Food Systems
WRAP

Methodology – Coverage Model



- The Carbon Trust Standard for Waste includes:
 - All forms of solid waste
 - All forms of hazardous waste
 - All other waste types and subtypes that organisations are required to dispose of via waste contractors

- The Carbon Trust Standard for Waste excludes:
 - Gaseous waste and liquid effluent that holders are not required to handle

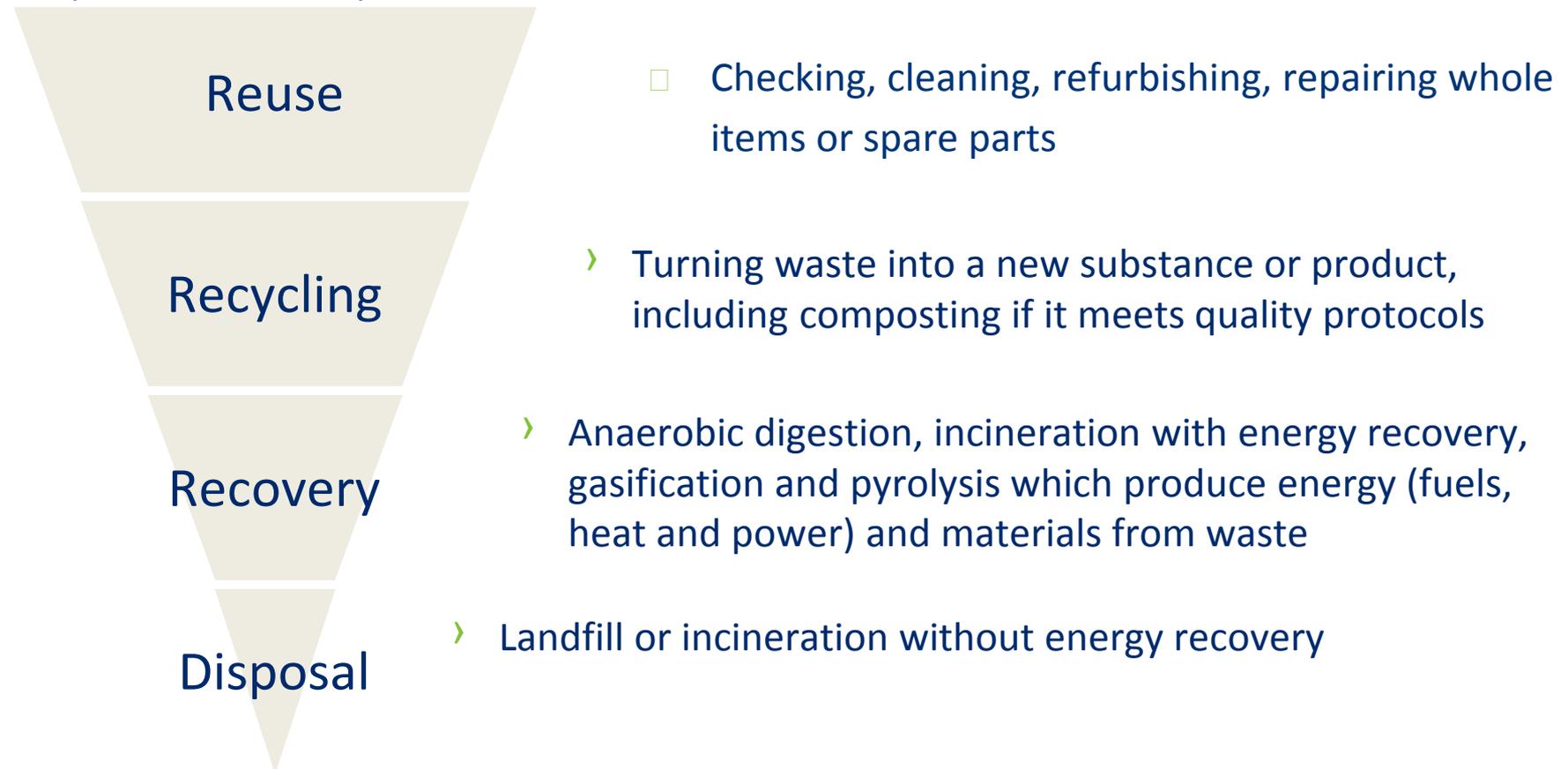
Measure total waste by type & hierarchy



Metrics	Details
Total weight of waste generated	<ul style="list-style-type: none">• Preference is tonnes of waste generated• Depending on data availability, we can process volume of waste generated
Waste split according to types and subtypes	<ul style="list-style-type: none">• We use European Waste Codes (EWCs)• We can help you classify your waste
Waste split according to destination	<ul style="list-style-type: none">• We want to know where the waste is going so that we can classify its destination according to the European Waste Hierarchy
Revenue or other company metric Waste intensity	<ul style="list-style-type: none">• As with Carbon or Water, we want to work out Waste Intensity expressed as tonnes of total waste generated per appropriate metric (e.g. per unit of output, organisational revenue)

Classify waste according to its hierarchy destination

European Waste Hierarchy



Score > 60% on your qualitative assessment



Criterion	Details
Policy	<ul style="list-style-type: none">• A waste policy has been developed and is in place
Responsibility	<ul style="list-style-type: none">• Clear accountability for waste management has been assigned both at board level and on a day to day basis
Communication	<ul style="list-style-type: none">• Waste management performance is effectively communicated both internally and externally
Monitoring, measuring and reporting	<ul style="list-style-type: none">• Waste arisings data are measured and documented
Hierarchy	<ul style="list-style-type: none">• Waste hierarchy is applied by organisation within defined boundaries and by waste handlers in the disposition chain
Targets	<ul style="list-style-type: none">• Waste reduction and waste hierarchy targets are in place
Training and competence	<ul style="list-style-type: none">• Staff are sufficiently trained and are competent to fulfil their obligations
Waste reduction programme	<ul style="list-style-type: none">• Measures are taken to reduce waste, and relevant investments are in place
Upstream impacts	<ul style="list-style-type: none">• A procurement policy that prioritises waste minimisation has been developed
Downstream impacts	<ul style="list-style-type: none">• Consideration is given to the downstream impacts of products and/or packaging
Waste management procurement	<ul style="list-style-type: none">• Organisation procures the services of registered and responsible waste handlers
Completeness of data	<ul style="list-style-type: none">• Organisation has provided an adequate quantity and quality of data to allow for the completion of a robust assessment
Site Visit	<ul style="list-style-type: none">• Based on the site visit, the organisation displays good overall waste management practices

Achieve certification by demonstrating year-on-year reduction in the following ways



Achievement/progress	Details	Annual targets
Reduction in absolute waste	<ul style="list-style-type: none"> Reduction in total waste in an absolute sense <ul style="list-style-type: none"> e.g. tonnes of waste generated in 2012 versus 2013) 	<ul style="list-style-type: none"> > 0
Reduction in waste intensity	<ul style="list-style-type: none"> Reduction in waste, tied to an appropriate company metric <ul style="list-style-type: none"> e.g. tonnes of waste/£m turnover 	<ul style="list-style-type: none"> 1.4% (average UK economic growth 2003-2013)
Overall movements in hierarchy	<ul style="list-style-type: none"> A net positive movement of waste along the hierarchy <ul style="list-style-type: none"> e.g. if an organisation sent 5 tonnes of plastic to landfill and 1 tonne to recycling in 2012, but only 1 tonne to landfill and 5 tonnes to recycling in 2013, that is a net positive movement of 4 tonnes on the hierarchy 	<ul style="list-style-type: none"> > 0 (percentage point movement) Annual improvements in the amount of waste reused, recycled, and sent to energy recovery (by total waste or waste stream)

How your organisation can benefit

By providing a framework to measure, manage and reduce resource consumption Certification benefits you by...



Delivering efficiencies

“The certification demonstrates that big energy efficiencies can be made when you have the right tools for the job... we’ve been able to identify numerous opportunities to save and manage energy consumption and costs, which can be easily replicated by other companies.”

Paul Massara
CEO
npower



Facilitating compliance

“The Carbon Trust Standard helped to provide a framework for setting a clear and stretching goal with the end point of achieving independently validated certification. Our aim was to use the goal to engage our businesses, finance function and facilities managers...”

Peter Hughes
Head of Corporate
Responsibility
Pearson



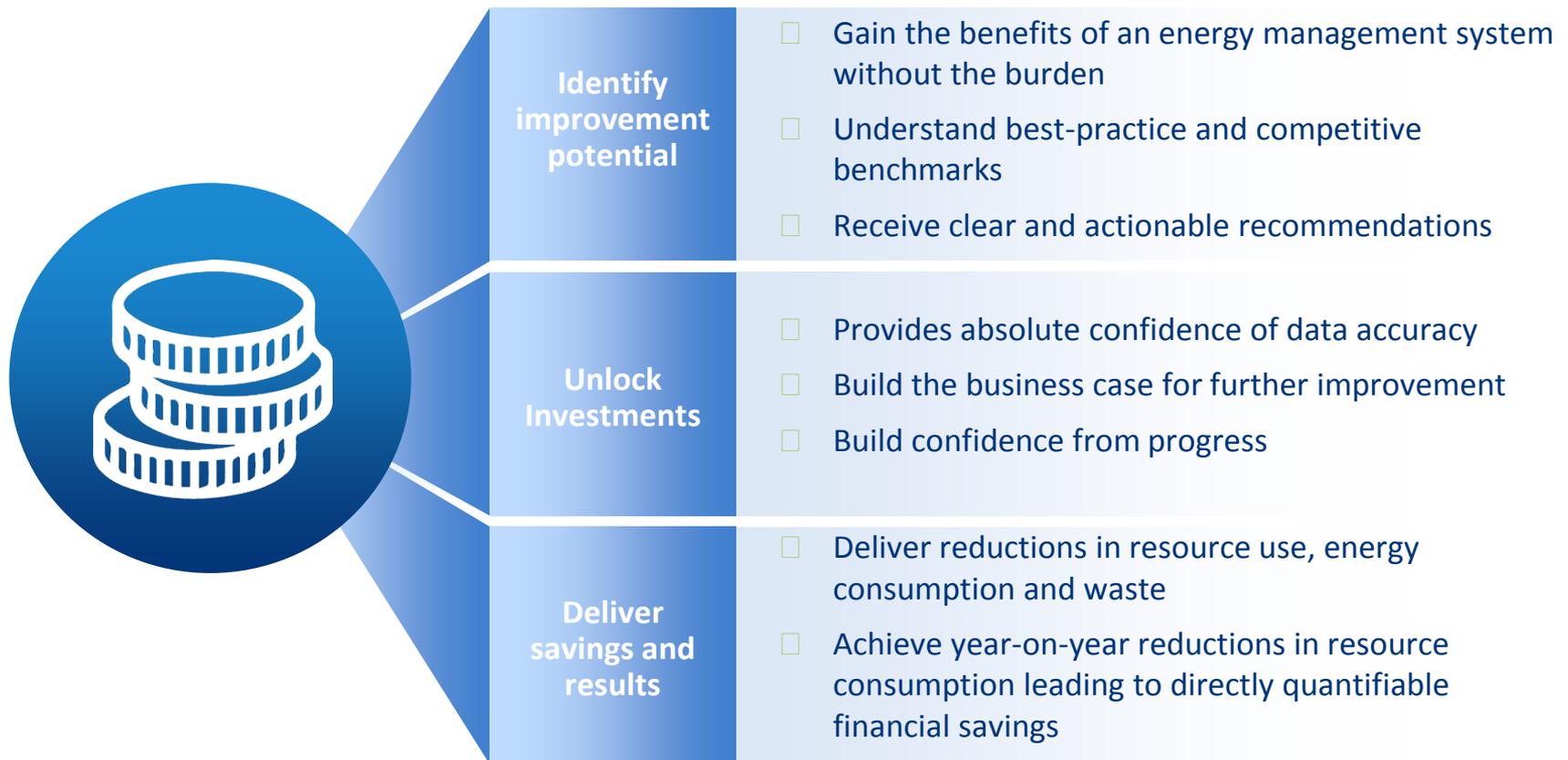
Enhancing Reputation

“More and more customers are making their purchasing decisions based on a company's impact on the environment. Our performance, certified by Carbon Trust and our ongoing commitment to sustainable development, brings us more traffic.”

Michel Boudoussier
COO
Group Eurotunnel

Delivering efficiencies

Certification typically pays for itself. Cost savings alone range from £200/tonne CO₂e to £500/tonne waste



Facilitating compliance

Certification enables compliance with government, customer and stakeholder requirements



Enhancing reputation

Certification enhances your brand and reputation



Join the leaders in sustainable development



The Carbon Trust certifies the resource footprints of leading brands



Whitbread Hotels & Restaurants

- Certification covers over 665 Premier Inn hotels and 380 restaurants operated under the Beefeater, Brewers Fayre, Table Table and Taybarns brands.
- Achieved a 4.5% absolute reduction in waste across all hotels and restaurants, equivalent in weight to around the annual household waste from around 7,000 people.
- Currently diverts 93% of its waste from direct operations from landfill and is on track to divert 100% of its waste from landfill by 2017.
- Examples of waste saving programmes include:
 - sorting food waste and recyclable materials on site
 - educating 7,000 Whitbread team members on the importance of saving waste
 - recycling fixtures and fittings where possible
 - majority of food waste is also sent for anaerobic digestion



PriceWaterhouseCoopers LLP

- Achieved a 9% absolute reduction in waste across its UK operational buildings.
- Sends zero waste to landfill and has target of reducing absolute waste by 50% by 2017 (compared with a 2007 baseline).
- Huge reductions in paper wastage have been achieved by removing desk top printers and replacing these with secure centralised printing areas.
- Also removed desk side bins, replacing these with central recycling hubs on each floor to segregate waste at source.
- At two largest UK buildings in London, implemented a tri-generation system to provide heating, cooling and power, which is powered by recycled used cooking oil. collected from sources within Central London including PwC's own restaurants.



apply innovation



Renishaw plc

- Certification covers UK sites, specialising in measurement, motion control, spectroscopy and precision machining for the manufacturing and healthcare industries.
- Achieved Standard through demonstrating an overall movement up the waste hierarchy, increasing rates of reuse and recycling.
- Invested £196,000 to install two briquetting machines and associated handling systems to turn waste aluminium swarf into a new revenue stream.
- Assessing the viability of further equipment that will enable the company to recover waste oils from metal cutting operations.
- UK's only manufacturer of a metal-based additive manufacturing ('3D printing') machine, which results in far less waste than subtractive processes.

Case Study: Coleg Cambria



INTRODUCTION

- Coleg Cambria is a Further Education College based in North East Wales
- With 1,600 staff the College provides education and training to 27,000 students
- The college operates from six separate sites and includes:-
 - Urban based college with Sports Stadium
 - Rural based colleges with Animal Centres
 - An Agricultural College with working farm

Case Study: Coleg Cambria



REASONS FOR CERTIFICATION

- College managed its waste but struggled to measure whether it was doing good or bad
- Informal data available from within the FE sector but still no measure
- Needed a fresh look and review of the existing approach to waste management
- To recognise the work already being done
- To explore opportunities for further savings

Case Study: Coleg Cambria



WORKING WITH THE CARBON TRUST

- Reviewed the information and data we already had available
- Identified shortfalls in information and data
- Reviewed current policies and procedures
- Established how the data should be presented to meet the need of accreditation standards
- Provided a target and generated a fresh challenge

Case Study: Coleg Cambria



ACTION TAKEN

- ❑ Amended data gathering and presentation as required
- ❑ Confirmed amounts and categories of waste when considered against the waste hierarchy
- ❑ Improved reporting and accuracy of measuring various waste streams
- ❑ Improved understanding of waste hierarchy and disposal routes used by waste contractors
- ❑ Rationalised EWC Codes used (where several exist for same/similar waste)

Case Study: Coleg Cambria



OUTCOME

- ❑ Improved accuracy of waste data
- ❑ Simplification of data recording
- ❑ A change in the College's approach to waste management, reduction as opposed recycling
- ❑ Raised profile of waste management and use of the hierarchy
- ❑ Increased participation in schemes aimed at reduction
- ❑ Areas identified for potential savings
- ❑ Recognition for gaining the accreditation and the support required for further initiatives

Case Study: Coleg Cambria



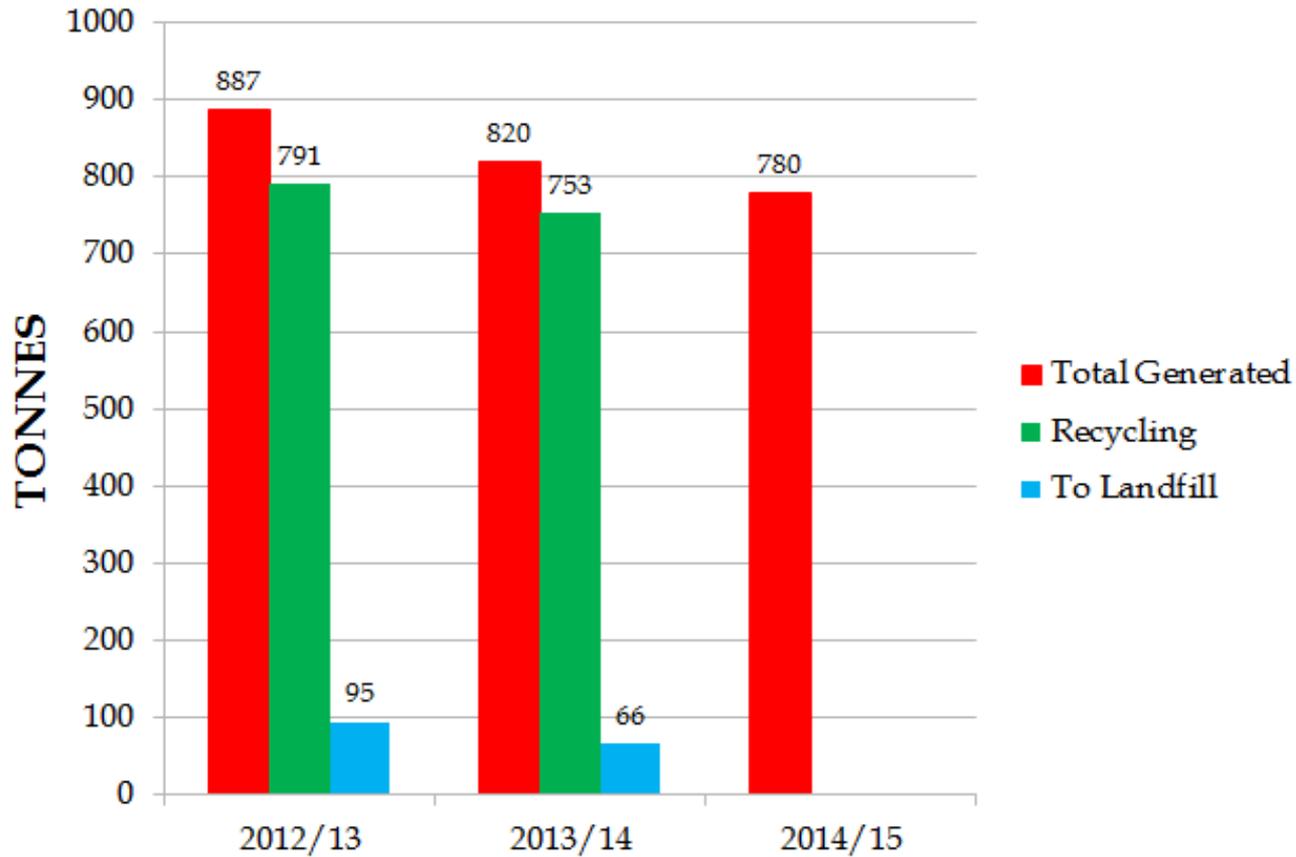
THE WAY FORWARD

- Implement change in procedures to focus on waste reduction, not recycling
- Work with departments and suppliers to reduce generated waste
- Work towards achieving the Carbon Trust Standard for Water
- Work towards achieving the Carbon Trust Standard for Carbon

Case Study: Coleg Cambria



OUR PERFORMANCE





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