



**LEARNING AND LEGACY** THE ROLE OF EDUCATION IN CREATING HEALTHIER, HAPPIER CITIES  
EAUC 20th Annual Conference 25th - 26th May 2016

# Circular Economy: from Compliance to Champion

**Steve Lee – CEO, CIWM**

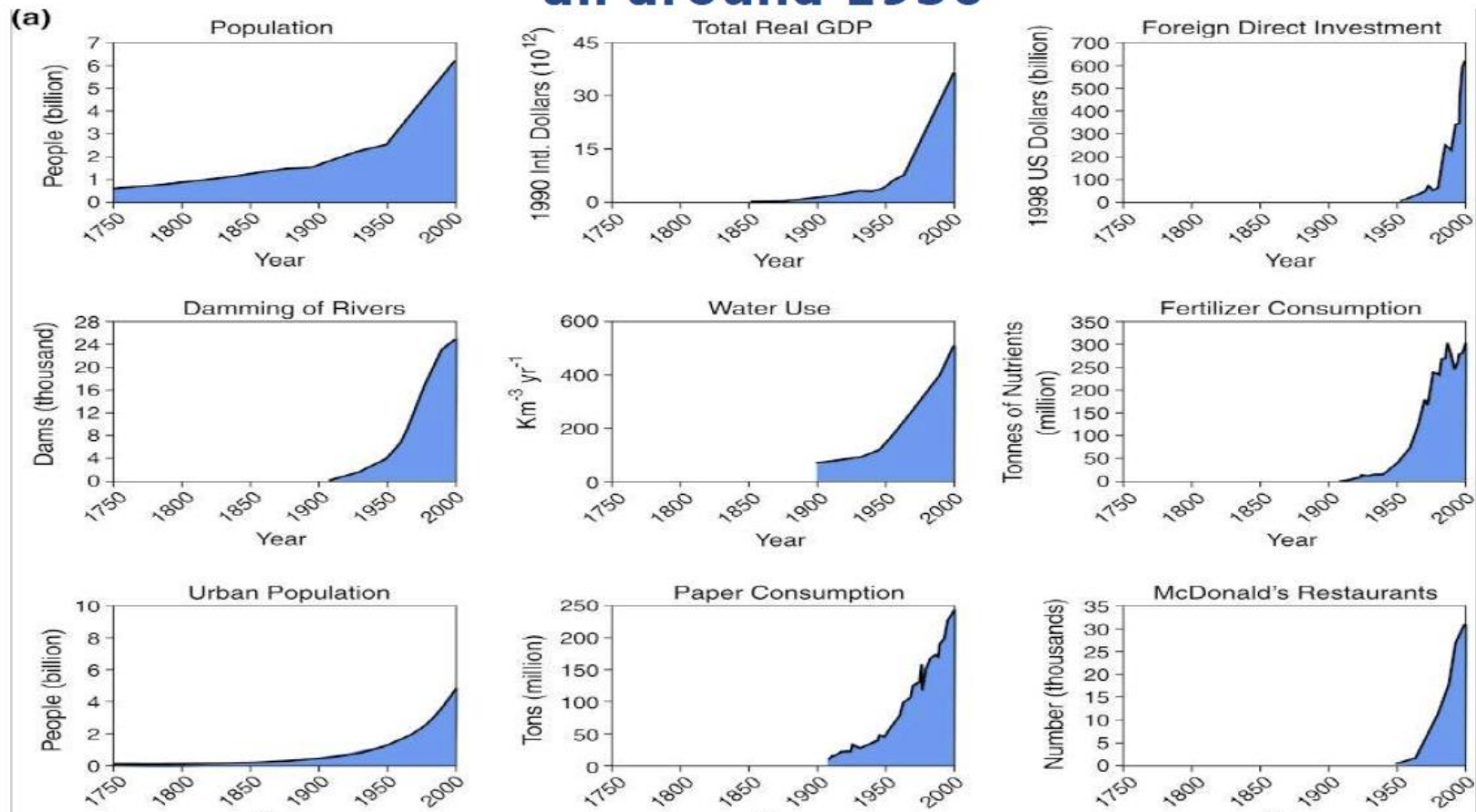
**Dr Mariale Moreno – Research Fellow,  
Cranfield University**





European  
Commission

## Exponential growth in all parameters all around 1950



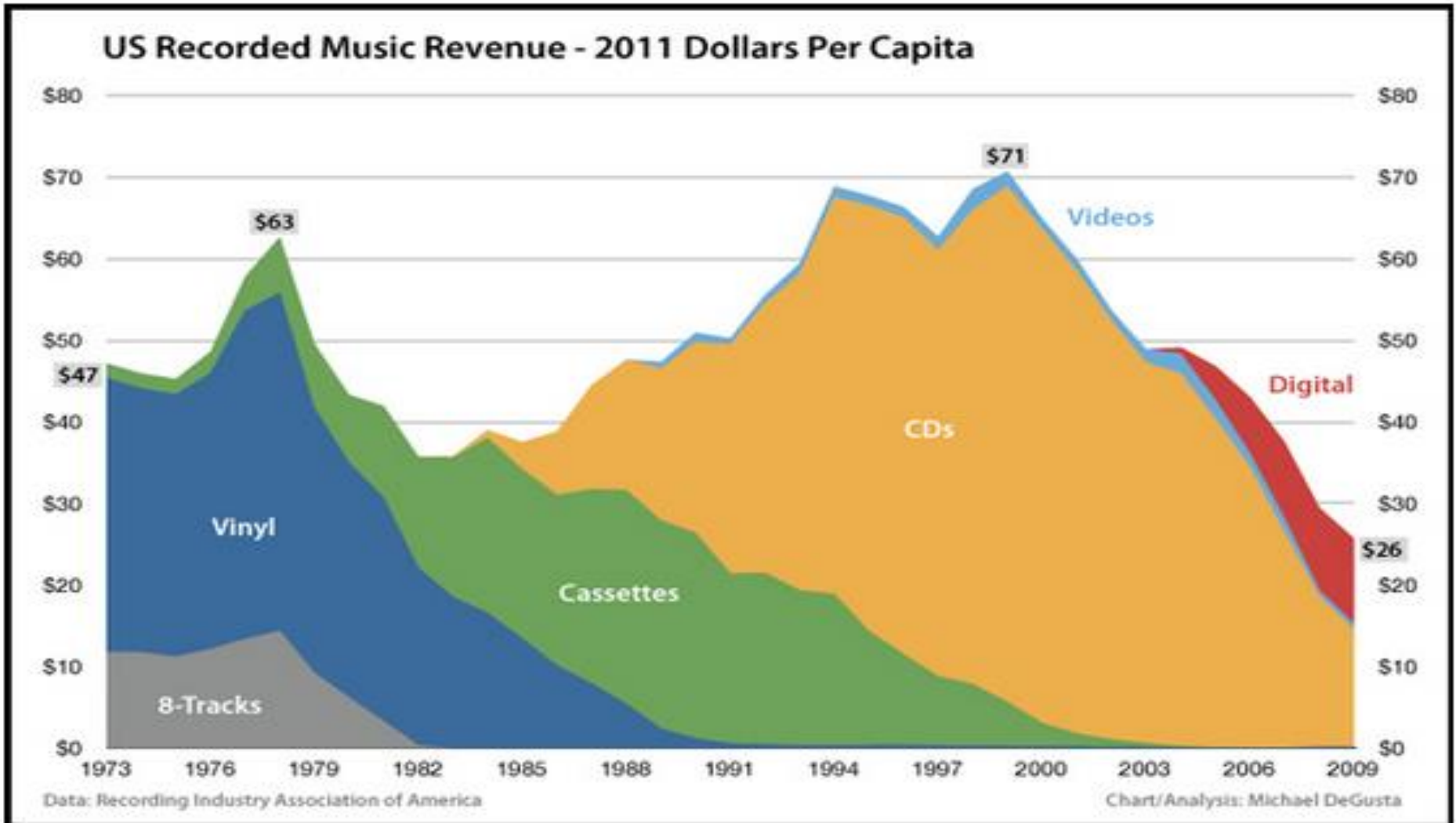
Source: Helmut Maurer, EU Commission, CIWM Cymru Conference 09.03.16



# Consumer Technologies and Products Change

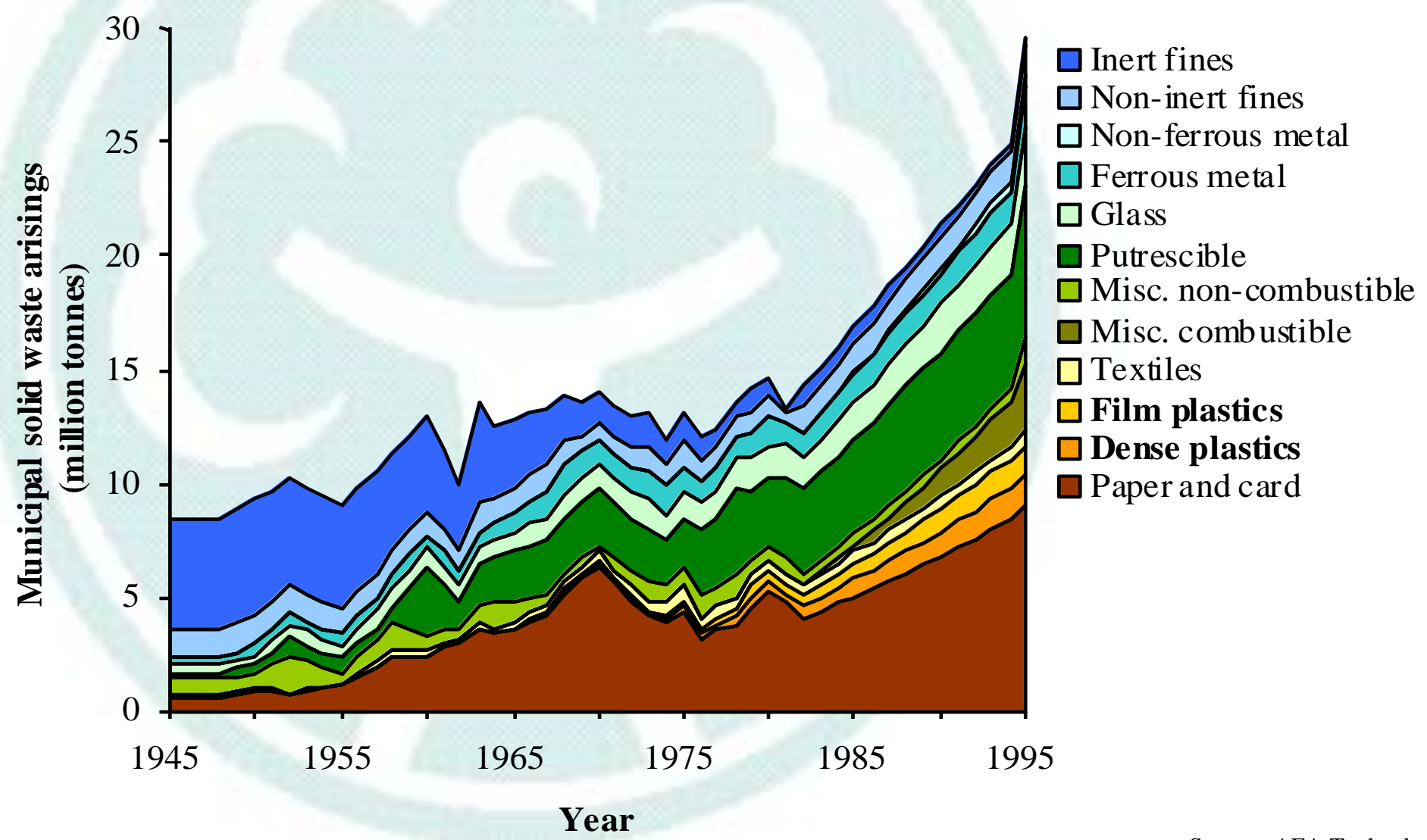


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# Municipal solid waste arisings and composition in the UK









# Future Copper Demand vs Supply

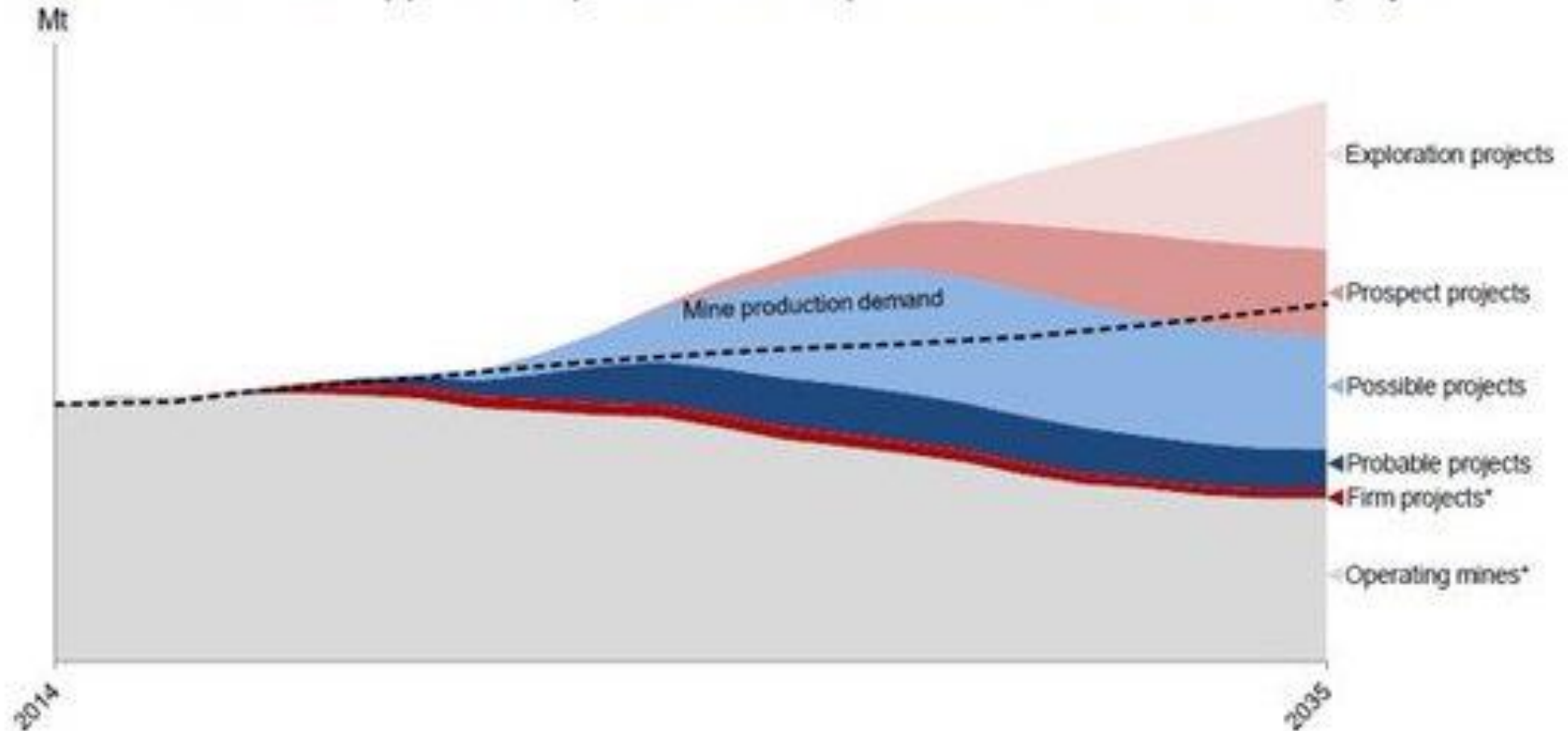


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Uncommitted projects will be needed by the end of the decade

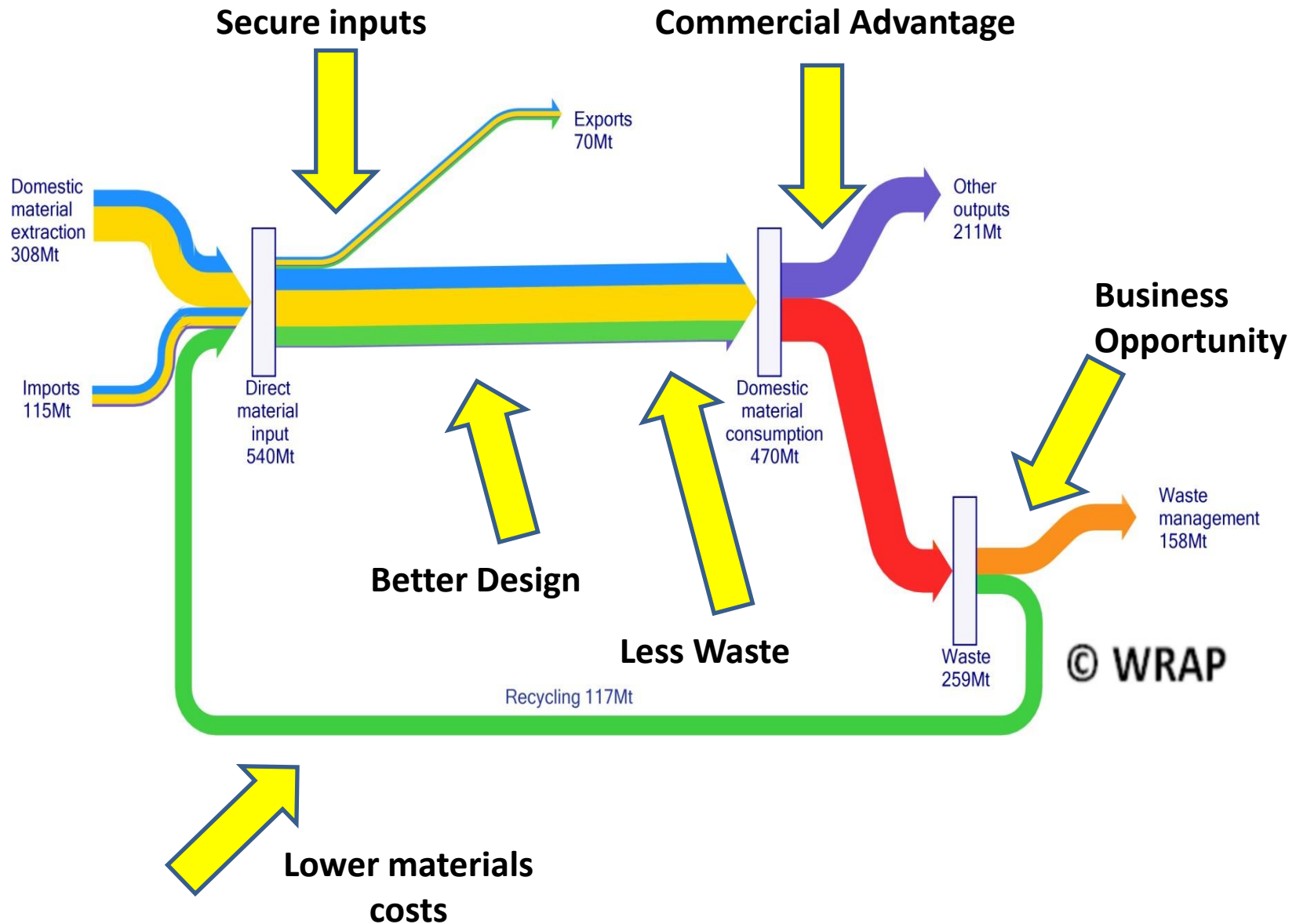
Forecast committed copper mine production and potential from uncommitted projects\*



Data: CRU

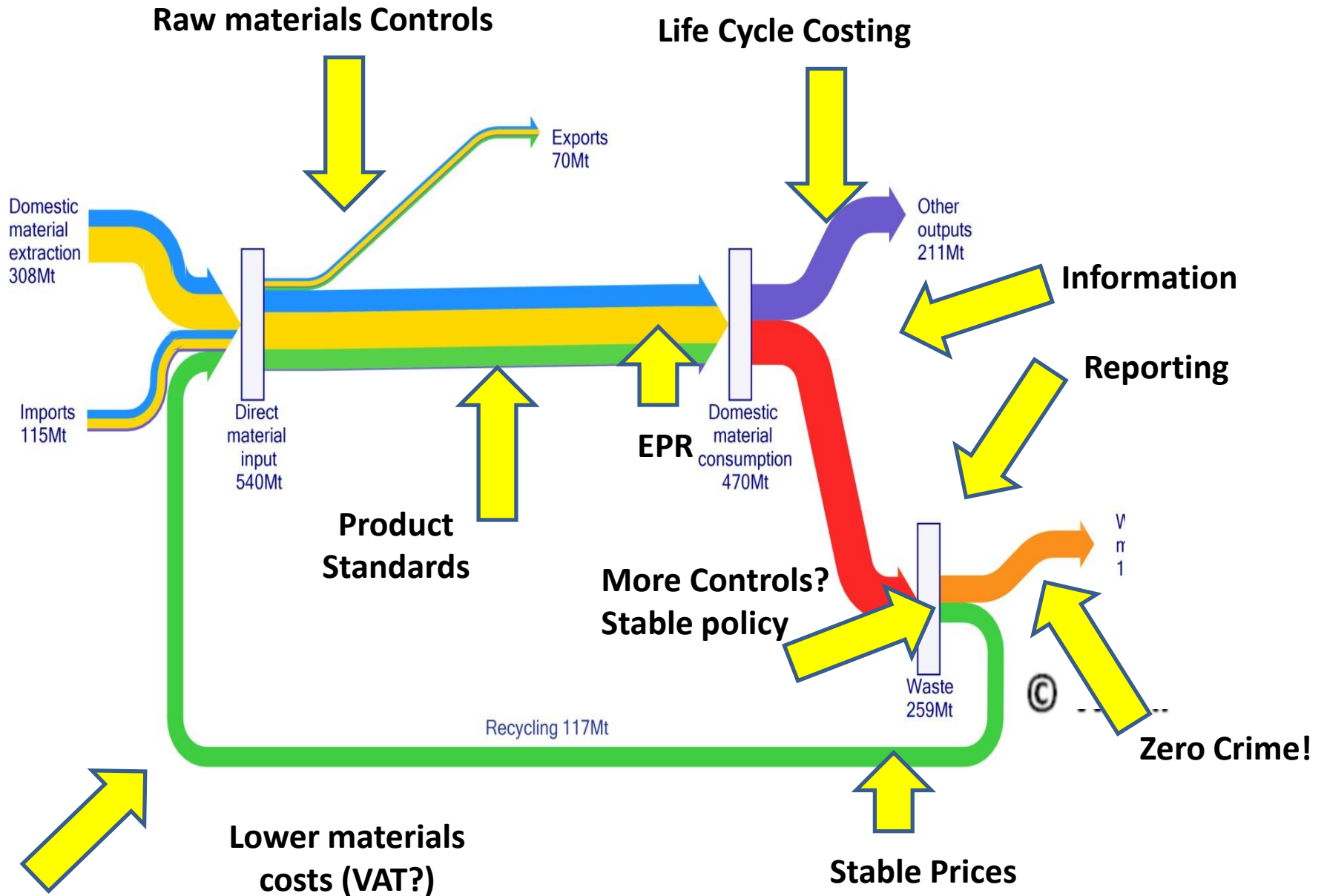
\* Committed production after disruption, potential before any adjustments

# “Business Has a Vested Interest”





# Governments Need to Intervene, too



# **“It’s the next frontier”: Karmenu Vella**

**24.02.16**



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**“in a world where the population is growing, consumption is increasing, and resources are becoming scarcer, the Circular Economy is the most logical solution”**



**“....doesn’t just mean more recycling. It means designing of products, processes and services in a way that optimises resource use during the production [and] delivery of goods and services, as well as during their consumption”**

# EU Circular Economy Package 2015



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- 1. Production – inc product design, Eco-design directives, EPR....and...BREFs, Mine & Quarry waste, Industrial symbiosis inc definition of “by-product”**
- 2. Consumption – repairability, false “green claims”, testing for planned obsolescence, “green” public procurement**



# EU Circular Economy Package 2015



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- 3. Waste Management**
- 4. Boosting Markets for Secondary materials – eg Fertilizer Regulations, water re-use, Chemicals in products & waste, raw materials flow monitoring**
- 5. Innovation and Investment**
- 6. Monitoring progress**



## Priority Areas:

- **Plastics – composition, use, marine litter, packaging targets**
- **Food Waste inc definition, measurement and date marking**
- **Critical Raw materials – more recovery**
- **Construction & Demolition: better resource recovery & environmental performance**
- **Biomass wood packaging and separate collection of biowaste**

# Legislation Proposals for Waste



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- **Recycling 65% of municipal waste 2030;**
- **Recycling 75% of packaging waste 2030;**
- **Cut landfill to max 10% of all waste by 2030;**
- **Ban landfilling of separately collected waste;**
- **Promotion of economic instruments**
- **Simplified definition / calculation for recycling**
- **Economic incentives for producers greener products on the market, support recovery and recycling schemes (e.g. for packaging, batteries, electric and electronic equipment, vehicles).**





# Scotland – Circular Economy Package – February 2016



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- **Re-use, repair, remanufacture, recycling**
- **Food waste prevention -30% by 2025**
- **Landfill – maximum 5 % by 2025**
- **Extended Producer Responsibilities – 4UK approach**
- **New Extended Producer Responsibilities**
- **Product standards, LCA – influence in Europe**



# Compliance (non waste business perspective)

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- **Waste Duty of Care**
- **Hazardous Waste**
- **Extended Producer Responsibility**
- **Separate Collection**
- **MRF Regulations**





- 2.1 What it applies to**
- 2.2 What it doesn't apply to**
- 2.3 Who it applies to**
- 2.4 How long the responsibility applies for**

### **3. Householders**

### **4. Duty of Care Responsibilities**

- 4.1 Prevent unauthorised deposit, treatment or disposal**
- 4.2 Prevent breach etc**
- 4.3 Prevent escape**
- 4.4 Transfer to authorised person**
- 4.5 Provide an accurate description of the waste**
- 4.6 Retention of documentation**

# Right Waste, Right Place





[www.rightwasterightplace.com](http://www.rightwasterightplace.com)



Tackling Waste Crime by  
Raising Awareness of Duty  
of Care

# .....It's FREE!.....

## How do I get rid of Light Bulbs?

	FILAMENT OR INCANDESCENT	COMPACT FLOURESCENT TUBE	METAL HALIDE	LED
				
What is it?	Non Haz waste	Haz waste	(Non) Haz waste	Non Haz waste
What can I do with it?	Dispose carefully in residual waste	Specialist Recycle	Dispose carefully in residual waste	Recycle
What do I have to do?	Wrap in...	Place in correct carriers to prevent breakage & release of gas	Wrap in...	Haz box or specialist contractor or take back scheme



# EDOC: Waste transfer note

https://172.17.122.12/edoc-web-portal/waste-transfers/create Create a draft waste transfe...

edoc Home Transfers Business API UserA

Transfer Location > Waste > Transferor > Transferee > Broker > Dealer >

### Transfer Location

Is this a: ☒ single transfer ☐ season ticket

Date & Time: 15/04/2013 at 09:54

Postcode:

Address line 1:

Address line 2:

Address line 3:

District:

Country:

Is this an: ☐ Internal Transfer

### Waste

Description:

Type of container:

Number of containers:

Volume of a container (m³):

Total Weight (kg):

List of waste codes (EWC):

Select using drop down menus ▼

2 wheeled bin  
4 wheeled bin  
Baled waste from baler/compactor  
Bin/box  
Drum (metal or plastic)  
Intermediate bulk container (IBC)  
Loose/no container  
Sack/bag  
Sharps box/container  
Skip - with compactor  
Skip - without compactor  
Tanker  
Other

Add another waste description +

### Transferor (current holder of the waste)

This is my business Clear

Company Name:

Site name:

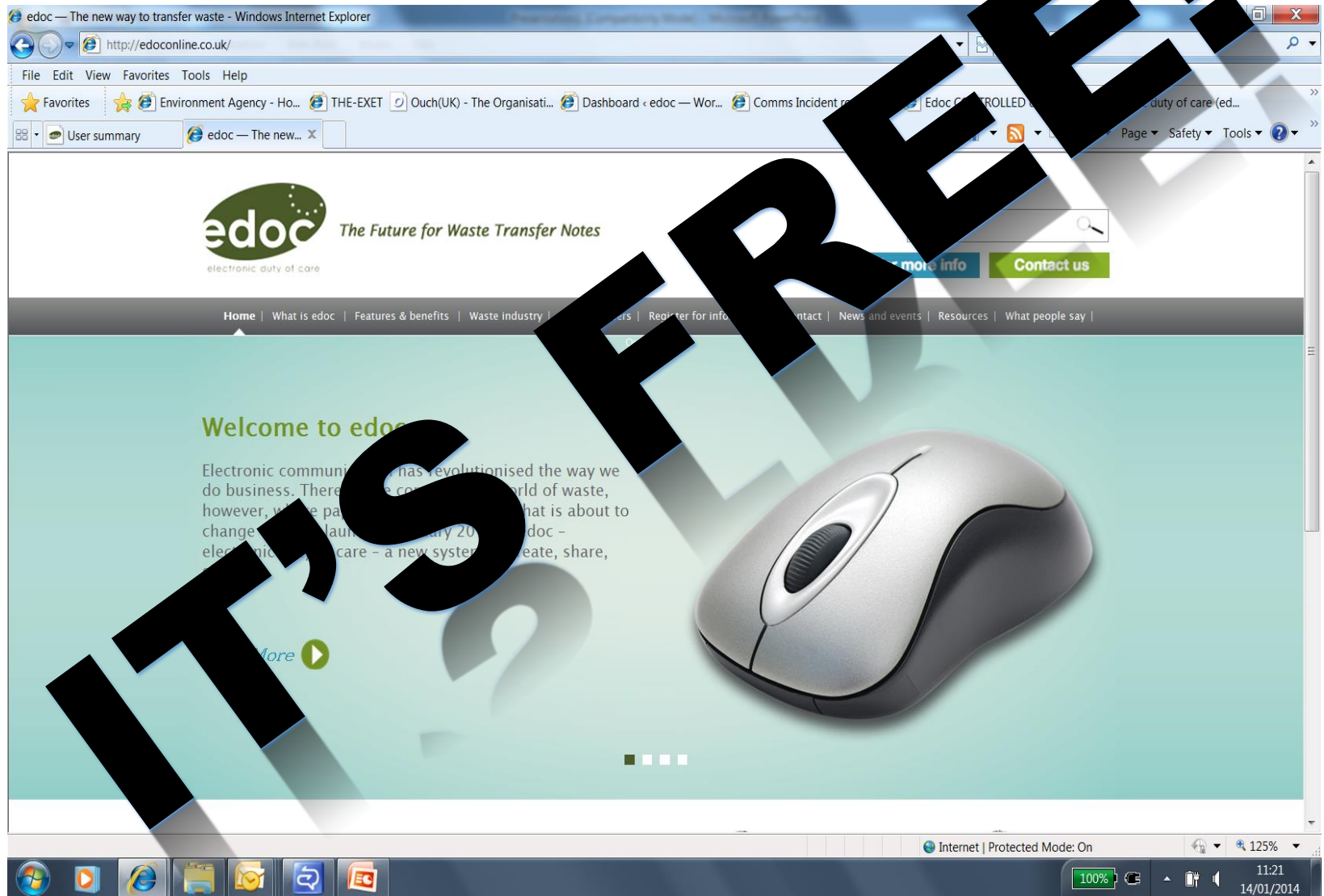
Transferor's Reference ID:

Postcode:

Transferor's Notes:

Address line 1:

# Edoconline.co.uk





# Helps in 3 core areas:

- **Learning:**  
educate staff and stakeholders driving true self sufficiency
- **Compliance:**  
interactive tool helping companies to understand and monitor their own compliance performance
- **Improvement:**  
step-by-step support, analysis and monitoring tools to help companies understand the true cost of waste management



# CIWM Membership



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**Chartered Member  
Status.....It's a stamp of  
approval**

**Keeps you up to date –  
info, news, training,  
events, networking, jobs**

**Gives you a professional  
“voice”**

**Working together works  
better**



# CIWM Training



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**Scheduled,  
In-House or  
bespoke training  
E-learning**

**Compliance  
Best practice  
Technical**



<http://www.ciwm.co.uk/ciwm/training/waste-management-courses.aspx?hkey=95e241b6-a82d-4a99-aae0-a0f49b65d10b>





# Cranfield's recognition



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Cranfield's mission is to create and transform world-class science, technology and management expertise into viable, practical, environmentally desirable solutions that enhance economic development and the quality of life.

- Accreditation ISO14001
- 'Highly Commended' in the 2013 Green Gown Awards
- Our Facilities
- 'Green Champions' programme to engage students and staff
- Recycling and car sharing campaigns
- Biodiversity conservation



# Our collaboration with industry and other organisations



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## hack\_dif

**11 – 13 March 2016**

48 Hours.  
3 Continents.  
1 Challenge.



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**PHILIPS**