



GreenBusiness

RESOURCE EFFICIENCY A MUST FOR
SUSTAINABLE BUSINESS

Towards a Circular Economy
17th October ,2018.

James Hogan
Programme Manager

- **World population grows by**
 - A. 100,000 people every month?**
 - B. Half a million people every month?**
 - C. 8 million people every month?**



- Answer

c. 8 million people every
month!

In 2050 we will need 3 planets!





- **We all need use less resources!**
- **We need a sustainable society!**

Green Business Ireland 2011- 2018

- Funded by NWPP/EPA
- Focus on Energy, Waste, Water.
- Working with range of sectors;
Food processing, banking, public sector, small retailers
- Savings identified range from €2,000 to €250,000



Onsite visits

2011-2018, Green Business has visited 300 businesses and identified €11 million potential cost savings
That's an average of €36,666/ company visited.



ENERGY
7.0M

WASTE
2.8M

WATER
1.2M

9 Top Tips towards Resource Efficiency

Energy



1. Install LEDs

Lighting

For equivalent light levels



40 W
Incandescent



15W
CFL



7W
LED

Energy Case Study

**Engineering Company
- (200 employees)**

Lighting Upgrade

Annual Cost Saving: €42,000

- Replaced 1,198 florescent tubes:
- (58W) with LED tubes 24 W
- Reduced electricity costs by €37,000/annum
- ROI – 6 months





2. Identify energy users and manage

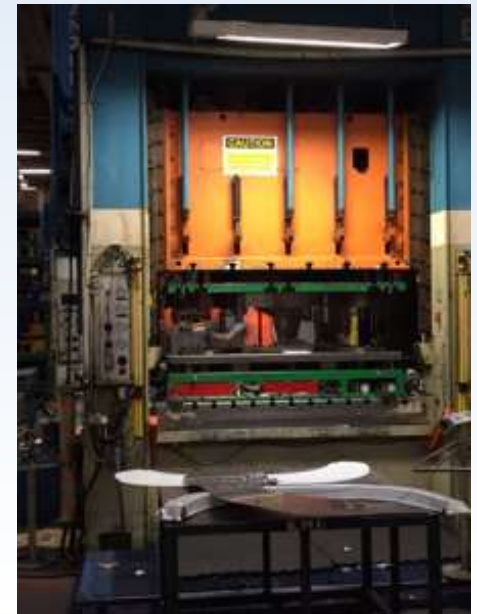
Energy Case Study

Engineering Company (200 employees)

Staff Awareness

Annual Cost Saving: €25,000

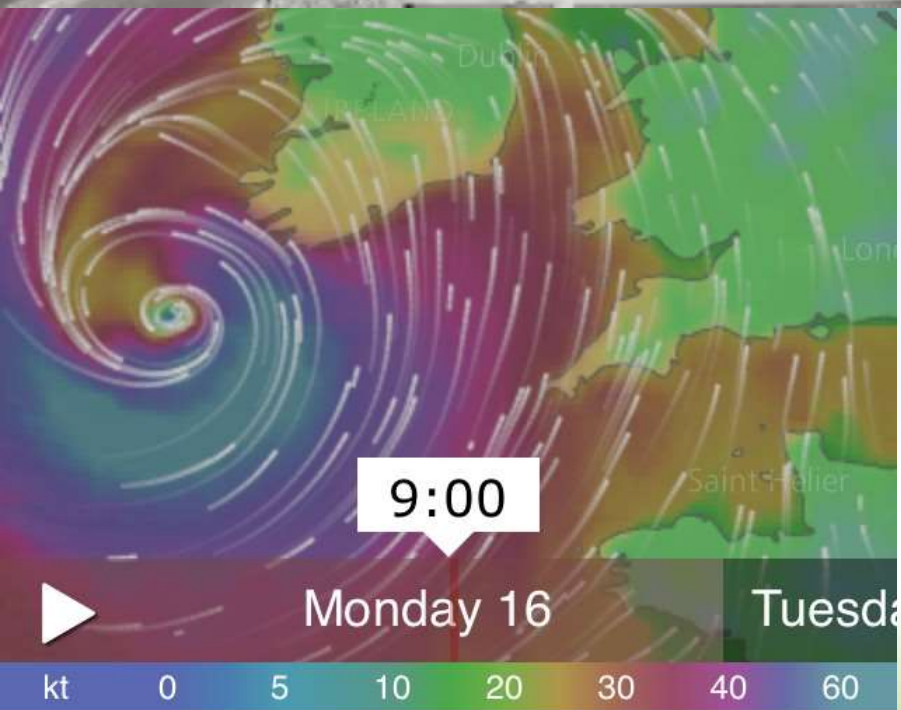
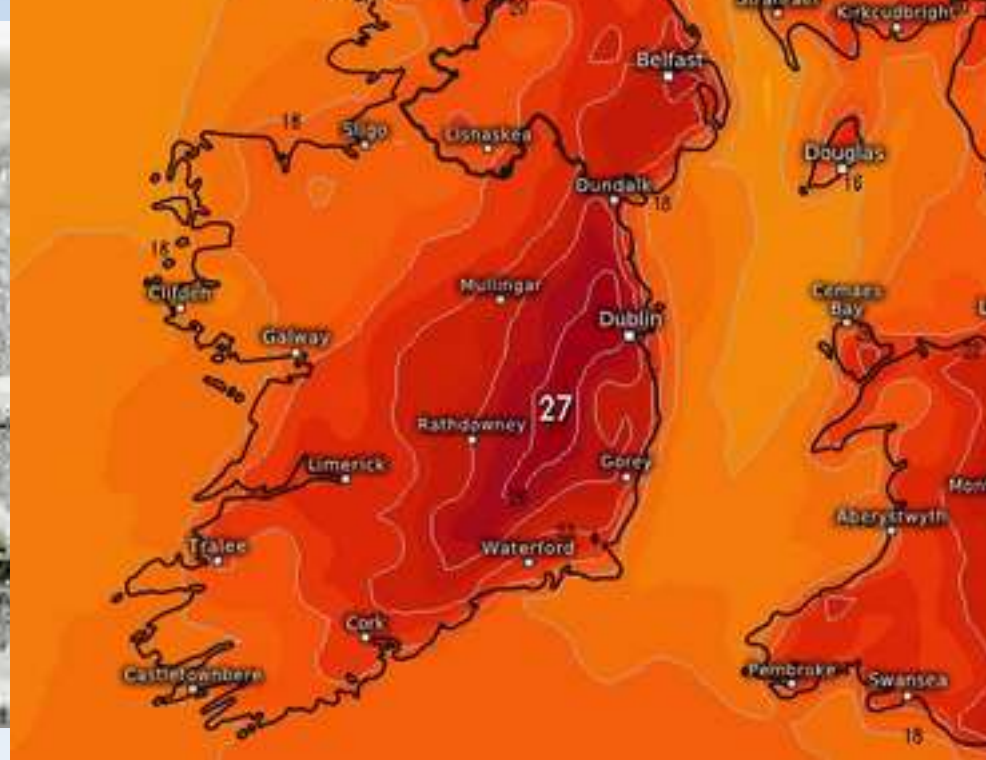
- Staff introduced to “Traffic Light System” to guide operators to turn off equipment, when not required.
- Annual electricity savings = €25,000
- ROI – No Cost.





3. Go renewable





- Weather Extremes are becoming the norm
- Climate change a consequence of mans waste
- Serious Climate Action required !!

Solar Photo Voltaic (PV)

- Utilised vacant space
- Minimal visual impact
- Generation next to load
- Tariffs benefit business
- Energy cost savings and certainty
- Improve building energy rating and value
- Contribute to renewable targets



Waste



4. Use the right bin

Waste Case Study

Engineering Company (200 employees)

Waste Recycling

Annual Cost Saving €10,000

Diverted 50% of waste from landfill and reduced landfill cost by €8k / annum

Receive €2k for baled cardboard and plastic

Totals Savings = €10K/ annum



Food Waste is Expensive!

- Don't just consider disposal costs
- It has been estimated that each tonne of food waste can cost between €2,000 - €5,000
- This cost includes:
 - Costs to buy
 - Costs to cook & manage on site
 - Cost of disposal (~10%)



Waste Case Study



Hotel (150 employees)

Waste Prevention

Annual Cost Saving €9,000

- Replaced rotary toaster in kitchen with 3 self service toasters for guest to use.
- Saving €300/annum on electricity
- €3,700/annum on bread purchase
- €400/annum on food waste collection
- €4,600/annum labour costs
- ROI – 2 weeks
- Moving a toaster from a kitchen to the dining area saved a hotel €9,000 /annum





5. Design disposables out

EMC, Cork
Costs for coffee
cups

€150.000/ annum



Investment Cost
€20,000

Payback period 7
weeks.





6. Source sustainable raw materials and goods

Sustainable paper, Recycled Paper,
Palm Oil , Energy , Bottled Water,
energy efficient appliances.

Responsible businesses , Customer
choice, Market Edge

If price is the only factor , sustainability
is not a factor

What is your business's Green
Procurement Policy?



A better tomorrow



100%
CERTIFIED
IN 2017

COCOA



50%
CERTIFIED
BY 2020

COFFEE



100%
CERTIFIED
BY 2018

TEA



100%
CAGE FREE
BY 2025

EGGS

Our responsible sourcing commitments

TEXTILES

GREENPEACE
DETOX BY 2020



PALM OIL

SUSTAINABLE
PALM OIL



FISH

RESPONSIBLE
SOURCING



MEAT

BORD BIA QUALITY
ASSURED



Water



7. Identify and fix leaks

Water Case Study

Shopping Centre (250 employees) Water Monitoring

Annual Cost Saving: €25,000

- Carried out “overnight test”
- Read meter between 4am and 6am when all water users where turned off
- Measured water consumption with cost equivalent of €25,000/ annum
- Searched site for leak and discovered faulty ballcock
- ROI-No Cost





8. Control urinals

Revolution Bar, Waterford

- Urinals consuming 1,051 tonnes water per year.
- PIR system reduced this by 60% saving €1,544 /p.a
- Cost €350
- Payback= 3 months





9. Reduce the flow

Water Case Study

Meat Processor (150 employees) Water Management

Annual Cost Saving: €45,000

- 31% of water used in cleaning
- Triggered hoses with water at 55 – 65 °C
- Cost €3,500 per week
- Reduced flow from 26 litres /min to 20 litres /min
- Water cost savings €17,500
- Energy cost saving €19,500
- ROI – 2 weeks



Resource Efficiency Online Tool for SMEs



Energy

Have you identified the equipment in your business which uses the majority of the energy consumed?

Have you identified the equipment in your business which is using the majority of energy consumed by sub-metering or calculating usage based on energy ratings and operational times.

- ☐ Yes ☒ Somewhat ☐ No

Do you know that your energy costs could be reduced by changing the energy type used in your business (oil, gas, electricity, wood etc)?

When you work out the cost of energy used in your business in terms of € per kWhr, you will see that electricity is more than twice the cost of oil and liquid gas per unit of energy consumed. Natural gas is approximately half the cost of oil.

- ☐ Yes ☒ Somewhat ☐ No

Have you taken steps to to reduce the carbon footprint of your business?

The carbon footprint of your business is related to the total amount of greenhouse gases produced from the burning of fossil fuel such as gas, oil and diesel used in transportation.

- ☐ Yes ☒ Somewhat ☐ No

Resource Efficiency (RE) Rating for

Ferrycarrig Hotel

May 2016

49%
(RE) Rating

Your RE rating is based on individual ratings
which you achieved in the following areas...



Energy
33%



Water
33%



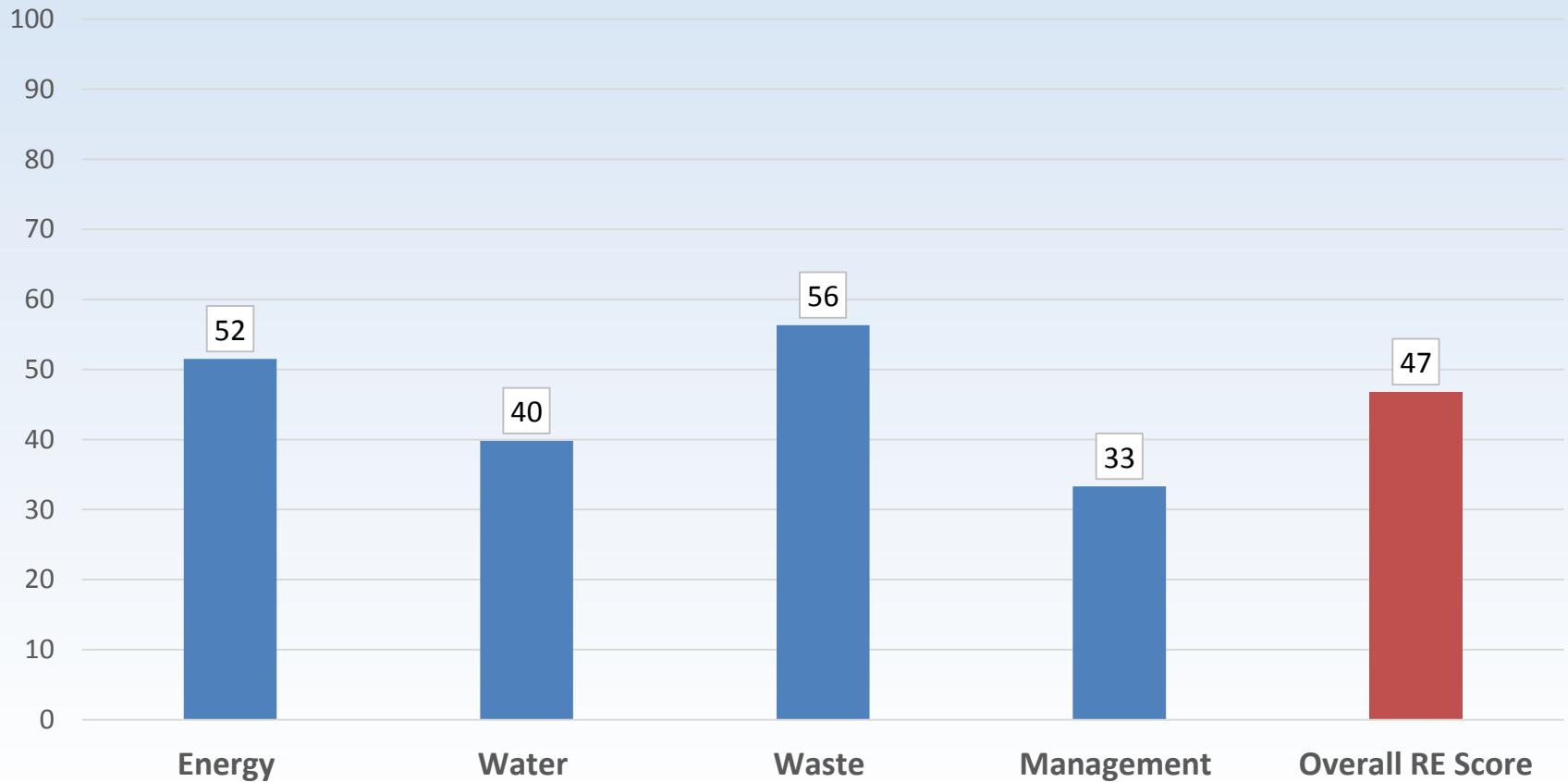
Waste
78%



Management
56%

Based on a sample of 60 businesses

Average RE Scores , 2016



Assisting Communities



An Roinn Ealaíon, Oidhreacht,
Gnóthaí Réigiúnacha, Tuaithe agus Gaeltachta

Department of Arts, Heritage,
Regional, Rural and Gaeltacht Affairs



Thank You

James Hogan

Green Business Programme Manager
Clean Technology Centre
Cork Institute of Technology
Melbourn Building,
Bishopstown, Cork
Ireland

T: +353 21 4344864

E: james.hogan@greenbusiness.ie

www.greenbusiness.ie

