Role of Data for Better Resource Efficiency – CTC experiences

TADHG COAKLEY
CLEAN TECHNOLOGY CENTRE, CIT

ENVIRONMENTAL DATA: PRIORITIES AND INNOVATION
NESC CONFERENCE
FRIDAY, 24TH APRIL 2015

WWW.CTC-CORK.IE

Data should be Meaningful

- **Green Business Programme**
- 150 companies have had Resource Efficiency Assessments carried out
- Average savings per company:
- €37,000 **per annum**

Meaningful data, what people understand, can lead to change

epa GreenBusiness

Data should be Manageable

- **Stop Food Waste Programme**
- Household food waste: €400 – €800 per annum
- Restaurant food waste: €2 - €5 per kilo – e.g. 200kg of food waste in a week: up to €1000 per week!

Manageable chunks of

Data communicated

A reference point

STOP FoodWaste.ie

epa

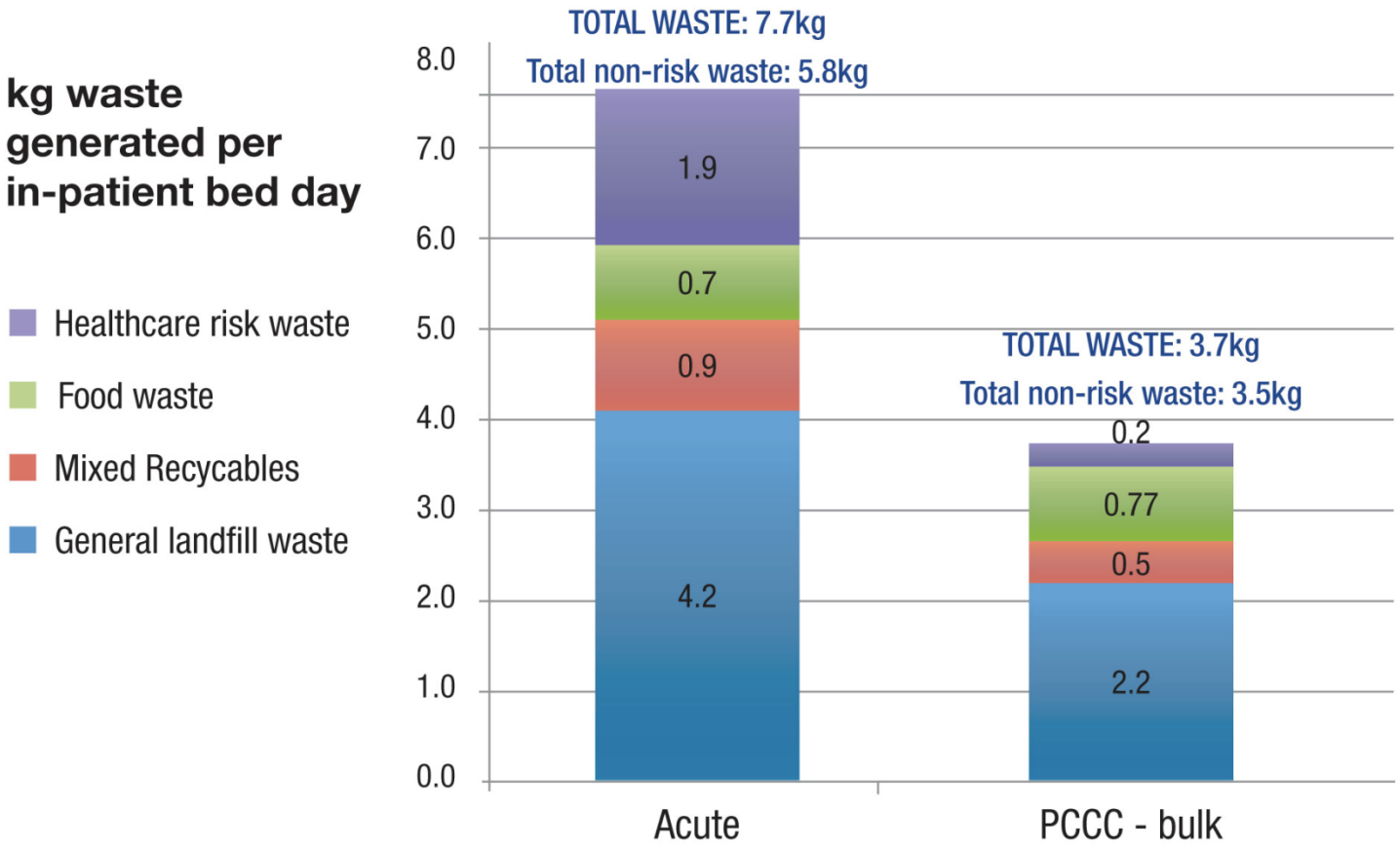
Data should be Comparable

- **Green Healthcare Programme**
- Benchmarks between hospitals
- Comparable by factor or identifier - Normalisation (e.g. waste per in-patient bed day)

Comparable and Normalised data – a good motivator

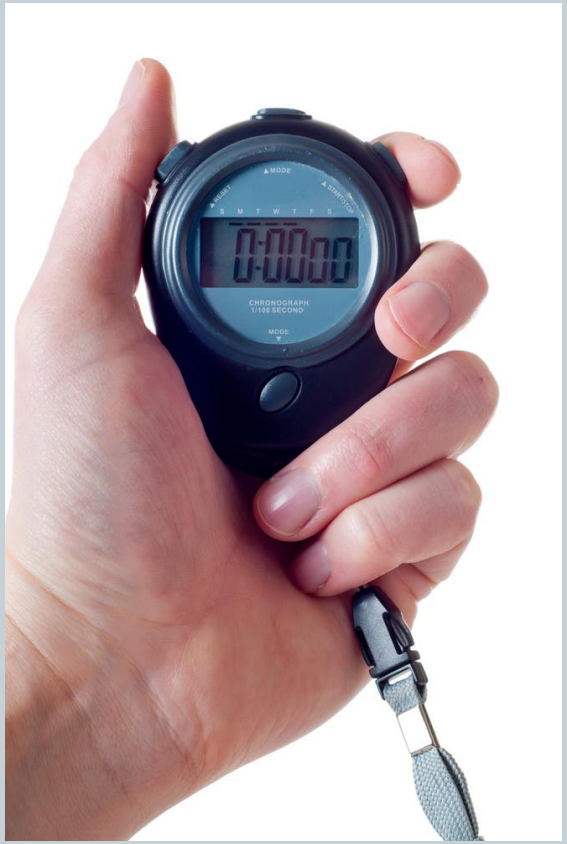
GreenHealthcare

Data should be Comparable



Data should be Analysed

- It takes time
- It's expensive
- It's hard
- Waste Characterisation data
- Commercial water use



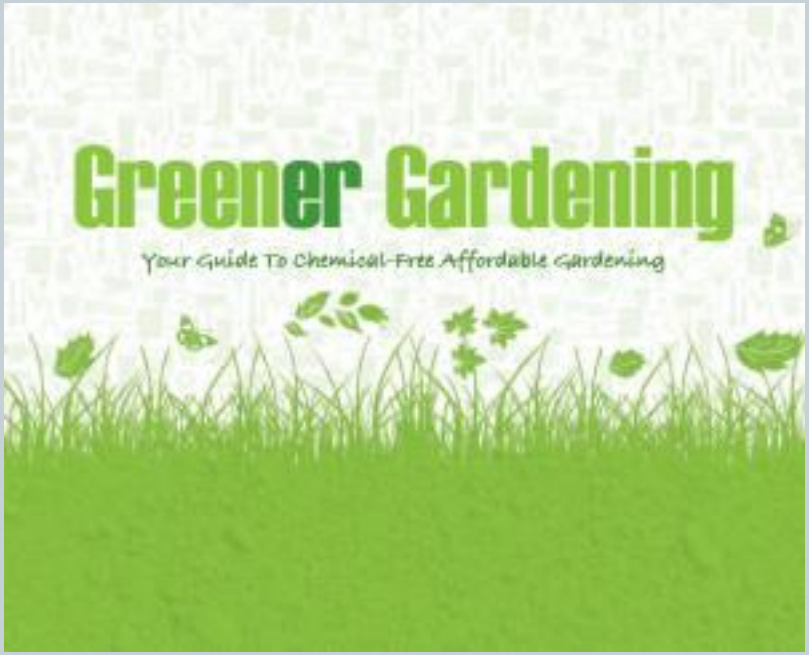
Data should be Accompanied

- Household cleaning products a €50 billion industry
- 3% bleaches, 5% soaps, 13% maintenance, 14% dish cleaning, 16% hard surface cleaners, 49% fabric washing.

You mustn't do this you Mustn't' do that…

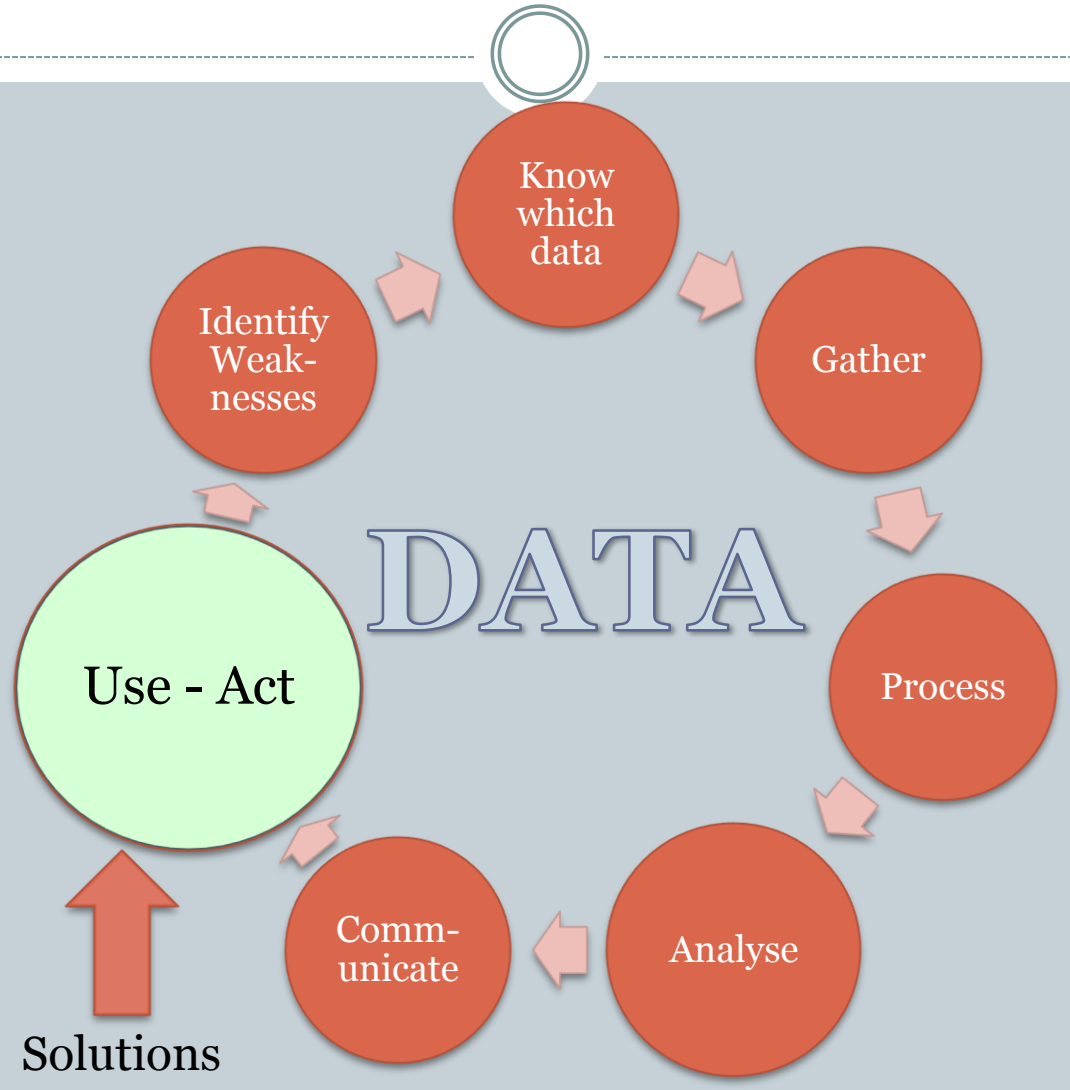
epa LAPN Local Authority Prevention Network

Data should be Accompanied



Viable Alternatives – Solutions

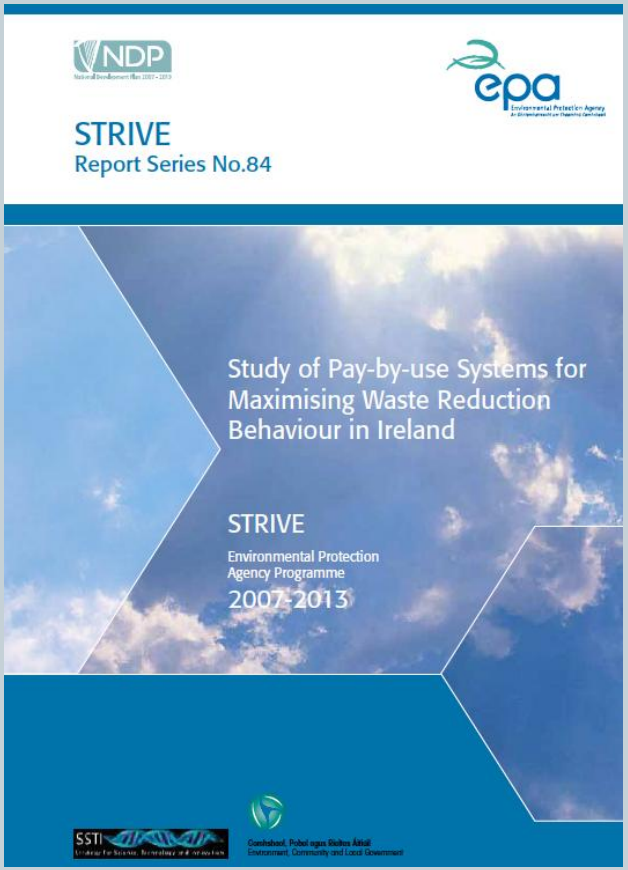
Data Flow Cycle



Data should be Verifiable

- Research Study of Pay by Use Waste Charges
- 62 data sets for 792,851 households
- Over 50% of all households in Ireland
- Result: Pay by Weight prevents waste

- Credibility

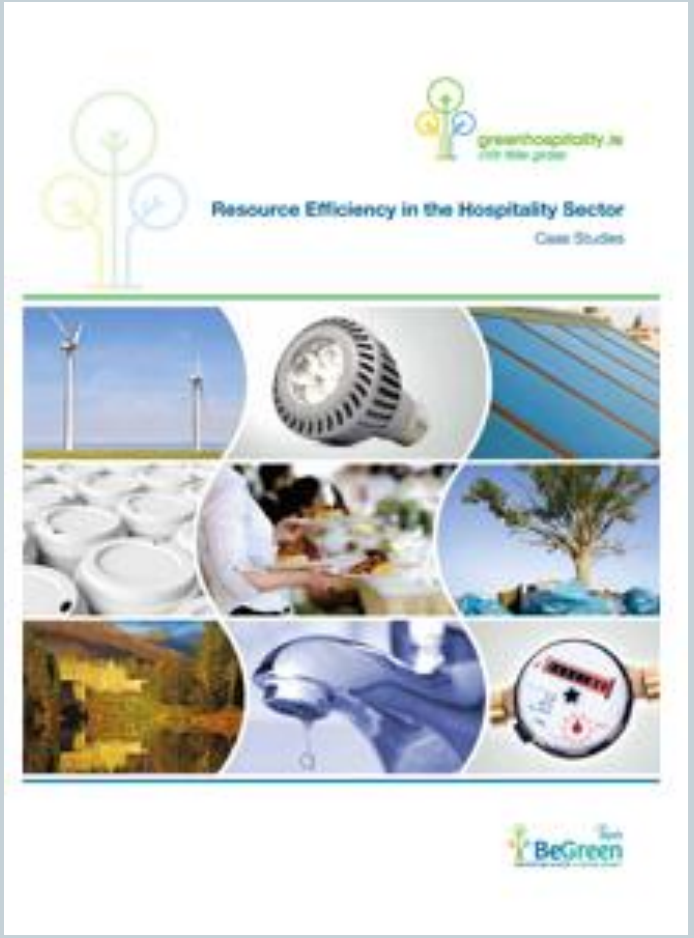


Data should be Significant

- CTC study of cleaning practices
- Across 6 major companies in a sector
- Annual savings €130,000 per annum
- 1200 additional production capacity hours

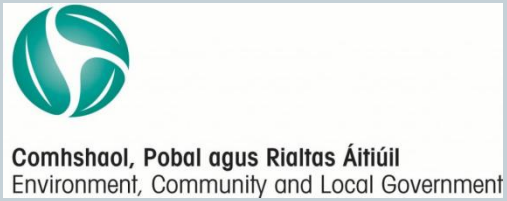
Data should be Utilized

- Disposal paper cups – change to reusable cups
- Investment……..€9,000
- Cost Savings….€124,000 / Annum
- Payback……Less than 1 month



Data should be Available

- New Research Project
- March 2015 – February 2016
- Resource Efficiency in Priority Irish Business Sectors (2014-RE-DS-1)

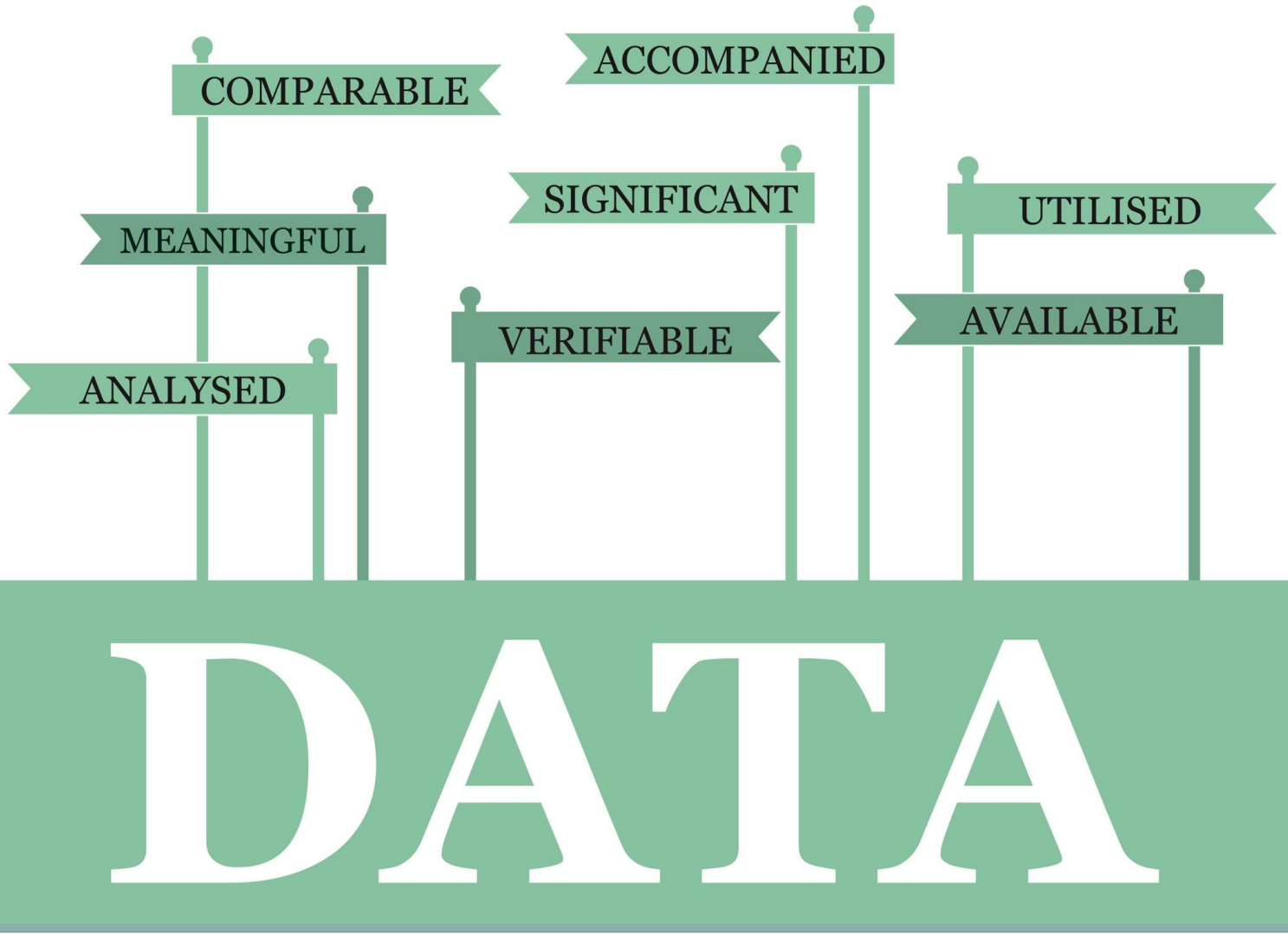


- We're good on waste

What data do we need?

- Fully detailed material flows through
  - Ireland
  - Sectors - benchmarking
  - Individual companies
  - Processes (cleaning, transport)
  - Society (households, communities etc.)
  - Financial value data
- Full life cycle data
  - Mobile phone example
  - Buildings
  - Transport
  - Food
  - Etc.
- More Solutions

Summary and Conclusions



Thank You

Tadhg Coakley

Projects Manager

Clean Technology Centre
Cork Institute of Technology
Melbourn Building,
Bishopstown, Cork
Ireland

T: +353 21 4344864
E: tadhg.coakley@ctc-cork.ie

WWW.CTC-CORK.IE

CTC
CLEAN TECHNOLOGY CENTRE

CIT
CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ