<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>The issue of waste in European manufacturing SMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Author(s)</strong></td>
<td>Mitchell, Sinéad; Dimache, Aurora; O'Dowd, Paul</td>
</tr>
<tr>
<td><strong>Publication Date</strong></td>
<td>2011-10-03</td>
</tr>
<tr>
<td><strong>Publisher</strong></td>
<td>CISA Publisher</td>
</tr>
<tr>
<td><strong>Item record</strong></td>
<td><a href="http://hdl.handle.net/10379/15562">http://hdl.handle.net/10379/15562</a></td>
</tr>
</tbody>
</table>
THE ISSUE OF WASTE IN EUROPEAN MANUFACTURING SMES

S. MITCHELL, P. O’DOWD A. DIMACHE AND T. ROCHE

SARDINIA 2011 THIRTEENTH INTERNATIONAL WASTE MANAGEMENT AND LANDFILL SYMPOSIUM & MUNIFICENTI DI PULA, CAGLIARI (ITALY) 3-7 October 2011

Presented by Sinéad Mitchell
Aim

What are the waste management practices of European SMEs?

Objective

Investigate

- What motivates SME managers to recycle?
- What is their relationship is with their Waste Service Provider?
- What would influence them to recycle more?
Context: The FutureSME Project

- €8m 7th Framework European Research Project
- 26 partners organisations from Ireland, Scotland, England, Italy, Turkey, Poland, Sweden, the Czech Republic and Slovakia
- 50% of the partners are SMEs, 50% R&D (academic and practitioners)
- GMIT is responsible for developing Environmental models and tools
- Other main areas include Strategy, Innovation, Operations, Leadership

The issue of waste in European manufacturing SMEs
Background

- Why SMEs?
  - Responsible for 70% of environmental damage
  - Survey – waste is a major issue
  - SME owner-manager perspective

- Waste behaviour researched for 20 years
  - Not much on SMEs specifically

- Recycling motivators
  - Environmental benefits
  - Financial incentives
  - Convenience
  - Environmental policy of an organisation
  - Legislation and cost

- Barriers
  - Lack of skills
  - Lack of resources – time and money
  - Not a priority
  - Don’ think they have an impact

The issue of waste in European manufacturing SMEs
Currently...

Large companies are dealing with their waste issues.

Well managed waste.

No improvements in waste management are happening in SMEs.

The issue of waste in European manufacturing SMEs.
The questions

- The survey posed questions in five key areas:
  - Business profile
  - Views on environmental issues
  - Waste practices, recycling behaviour & barriers
  - Attitudes to waste service providers
Findings – Business profiles

97% of respondents recycled at home

63% set up their business to have an independent lifestyle

88% university educated

35% of respondents were female

The issue of waste in European manufacturing SMEs
Findings – Views on environmental issues

84% were concerned for the environment in general

22% want a safe place for their families to live

Only 9% said cost as the main reason,

1 respondent did not care about environmental issues
Findings – View on environmental issues

Does your business have an environmental impact?

69% believed that they had some impact

Higher rate than other studies

18% measured it

31% said they had little or no impact

1 of which travelled extensively by plane on business trips

The issue of waste in European manufacturing SMEs
Findings – Waste practices

75% of owner managers look after environmental MGMT

66% believed that waste was an important issue in their business

The issue of waste in European manufacturing SMEs
Findings – Waste practices

- **47%** are reducing waste
- **59%** are recycling
- **44%** are reusing waste
- **Only 6%** put all their waste in one bin
Findings – Waste practices

How much waste do you produce?

- 56% 1 x 240 L
- 14% 1 x 1100 L
- 73% 1 x 240 L
- 10% more than 2 x 1100 L

General waste

Reuse

Recycling

The issue of waste in European manufacturing SMEs
Findings – Recycling motivations

Why do you recycle?

- It's just the right thing to do: 63%
- It stops waste being buried in landfills: 48%
- It costs less: 35%
Findings – Recycling motivations

- Why don’t you recycle more?

- Not enough to justify: 26%
- Takes too much time: 16%

The issue of waste in European manufacturing SMEs
Findings – Recycling motivations

What would make you recycle more?

- Knowledge of green benefits: 37%
- To respect my local community: 37%
- Pressure from their customers: 21%
Findings – Waste awareness

60% could not name any waste legislation

Do you know how much waste via monitoring and measuring?

- I know 10%
- I am not sure 70%
- Not important 20%
Findings – Waste awareness

How do you compare to others?
- We are average (37%)
- I am not sure (23%)

Would you like to be benchmarked?
- Yes (80%)
- No (37%)

Would you address your practices if you knew that you were below average?
- Yes (80%)
- Only if we were well below 10% (10%)
- Not at all (10%)

The issue of waste in European manufacturing SMEs
Findings – Waste services

Do you know where your waste ends up?

- Yes: 14%
- I am not sure: 86%

Why do you use your waste service provider?

- No choice: 47%
- Best service: 39%
- Local: 7%
- Cost: 7%

The issue of waste in European manufacturing SMEs
Findings – the cost of waste

43% thought good waste management could save them money.

€60,000
1 SME’s yearly waste cost

€4,500
on average

25% did not know the cost.

€0 what 20% of SMEs paid for recycling services.

The issue of waste in European manufacturing SMEs.
Summary of findings

- European Manufacturing SMEs are willing to engage with good waste practices
  - They are generally concerned about environmental issues
- Many already recycle
  - ‘it is the right thing to do’
- Would recycle more
  - If they could see the green benefits of doing so
  - To keep up with other businesses
- What they need is
  - To be nudged in the right direction to make better choices, in conjunction with their Waste Service Provider
By addressing the issue from both sides ...

... It could lead to improved environmental performances

Proposed ideal framework...

Better environmental performance

Waste prevention strategy
Horizon scanning
Opportunities for new business (PSS)

Waste hierarchy tool
SME Waste toolkit
Waste auditing

WSP Waste toolkit

Waste reporting methodology
‘Nudge’ tactics to improve behaviour

Waste hierarchy tool
Action required

- These intentions could be capitalised upon, if tools and techniques were available for SMEs
  - Measuring, reporting, feedback, auditing
- Include the Waste Service Provider (WSP)
  - Together, given the right tools, they could prevent waste going to landfill
- FSME is developing a toolkit

The issue of waste in European manufacturing SMEs
Thank you for listening

sinead.mitchell@futuresme.eu

www.futuresme.eu