ZeroWIN - Towards Zero Waste in Industrial Networks

Case Study 1 - The D4R Laptop

Circular Economy and Industrial Workshop
The Centre for Sustainable Design
24th March 2014
ZeroWIN Goals

- 30%

- 70%

- 75%
ZeroWIN Case Study 1

1. Design & development of a prototype (D4R)
2. Identifying the barriers to market
3. Developing an appropriate and viable industrial network.
Eco-design principles:

Reduce waste by

- Using low-carbon materials
- Using reused materials and components
- Design is easy to repair, upgrade and disassemble
- Making more reusable
- Guaranteeing a longer life (10 years)

Source: S. Hickey, at aTOWARDS ZERO WASTE IN INDUSTRIAL NETWORKS: A CASE STUDY OF THE D4R LAPTOP.
D4R industrial network
GHG reduction impact - 61%

- Wooden chassis: 25%
- Reused LCD: 20%
- Reuse processor: 15%
- Reuse RAM: 10%
- Reuse others: 5%
Reduce waste by reuse and recycling impact - 62% and 89%
Water reduction impact - 55%

- Reused LCD: 20%
- Reused processor: 5%
- Wooden chassis: 5%
- Universal motherboard: 5%
- Reused RAM: 5%
- Reused others: 5%
GAIA Report on Barriers to Market

Barriers

- Developing a Brand
- Pricing of product
- Making manufacture viable
- Identification of target markets
- Identification of marketing tools and instruments
- Providing the cradle to cradle service
- Continuing eco-design improvements

Solutions

- A marketing study
- A “bottom line” expression of demand
- A high profile marketing campaign
- Setting up a trans-national service network starting with key markets
- Continuing R&D into cradle to cradle eco-design

Zero WIN
Towards Zero Waste in Industrial Networks
Key Target Groups

Key Actors for an optimal outreach

Product Advantages

Promotion
Further design improvements?

- More R&D
- Improved design
- Keeping up with state-of-the-art
- Life Cycle Assessment results

Improved Manufacturing

- Wooden parts – new and reused - who can supply?
- Metal – new and recycled - who can supply?
- Components -new and reused – who can supply?
Service Agency Network

- Need to be identified and committed in different regions
- Recycling and Reuse companies are natural Partners
- Need to be in place before sales can take off.

Marketing

- Marketing by ourselves?
- Marketing with Partners?
- With Retailers
- From other Countries?
Funding

- SME Programme (deadline June 2014)

- Waste Programme (ZeroWIN 2?) (deadline June 2014)

- Fund privately? – maybe later...
1st Apple Computer!