Sustainable Innovation Report

A summary of the discussions and conversations taking place at the 3rd *Sustainable Innovation*, 6th of December 2002, a one day creative workshop initiative by the Sustainable Marketing Knowledge Network.

Organisers

The Centre for Sustainable Design

Department of Marketing, Strathclyde University

Facilitators

Martin Charter

Ingrid Kajzer

## Location

The Centre for Sustainable Design SIAD-UC, UK

Participants

Alison Swaby	Marketing Consultant	
Andrew Biggs	Director	Akristos Ltd
Bharat Lad	Managing Director	Creative Zones
Cameron Rennie	Sustainable Livelihoods Programme Director	WBCSD
Claire Biggs	Researcher	Royal College of Art
Darrell Mann	Director	CREAX
Rachel Roberts	Environment & Special Projects Engineer	M-Real New Thames Ltd
Richard Woods	Researcher	Royal College of Art
Rosalind Oakley	Project Director	Project SIGMA
Tamasin Cave	Editor	ERGO

Smart: Know-Net

The Centre for Sustainable Design

THE UNIVERSITY OF STRATHCLYDE IN GLASGOW

Explore Experience Expand

How can we move beyond environmental product declarations?

How do organic processes transfer to strategic thinking?

How can we reinforce sustainable brand value?
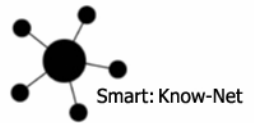
Dear Participant

Sustainable Innovation was a collective endeavour between Professor Martin Charter at The Centre for Sustainable Design and Ingrid Kajzer from the Marketing Department at Strathclyde University. This one day workshop was an unique event, looking beyond current workshop approaches to sustainability. So far, numerous initiatives have focused on contaminated land, legislation and resource minimisation strategies. *Sustainable Innovation* was one of the first of its kind, focusing on creativity and innovation.

This is a summary of the conversations taking place throughout the day as well as solutions created in the various workshop activities. It reflects the overall learning and the main conclusions reached from the workshop.

The objectives of the day were:

>> To experience different ways of thinking about sustainability and marketing

>> To explore sustainability and marketing through novel creative methods and design solutions 'on the spot'

>> To facilitate co-operation between marketing, design and environmental professionals

>> To present and explore critical business and research examples of sustainable marketing and design

It is hoped that this document will inspire you as a reader, to view sustainability with enthusiasm and encourage you to recognise the opportunities that are available to us. We would also like to take the opportunity to thank all participants for your vital input in this workshop

Martin Charter & Ingrid Kajzer

CREATIVE SPACE

>>thoughts on the day

'We have to ask some hard questions about the marketing function'

'You can not just "sell" sustainability, it has to sell itself'

'New concepts were introduced – more of that needs to be done'

Structure of the report

This online report of the 3rd *Sustainable Innovation* workshop will provide you with the following:

A brief background to *Sustainable Innovation* and the need for new approaches to sustainability.

Discussions and dialogues arising from the day such as '*inspired by nature*' and '*design on the spot*' as well as the final 'discussion' session.

An overview of the prototype-solutions created by the participants.

In addition, you will find some links and references throughout the report, encouraging you to explore certain areas further.

Finally, facilitators details are given at the end.

New ways of thinking about sustainability

We live in a world where organisations of all kinds have to be more creative in finding new ways of doing business that are compatible with achieving a more sustainable society. We need to look at not only what we are doing but explore ideas and experience images of the future and what could be!

A new trend is emerging, the next evolution of '*sustainable*' is moving beyond eco-friendliness to organic inspiration where our businesses, strategies and products actually live and breathe. A number of forefront organisations are now turning to nature, not to extract but to be inspired and learn from natural design principles. Biomimicry, integrated biological systems and adaptive enterprises are emerging business vocabulary.

This workshop was created to provide space to create images of the future and explore marketing as a *'living process*'. It was intended to invite you to think more deeply about marketing and sustainability by challenging traditional thought and move beyond conventional business practice.

A diverse range of participants were purposely invited as we would argue that generating ideas and achieving a sustainable future is not just a technical matter. It requires co-operation between stakeholders from different knowledge areas.

What if?

What happens if we take an ecological perspective to marketing and innovation?
What are the benefits of cultivating such a growing mindset?

Strategic Overview and Sustainable Marketing

Here participants were introduced to current trends and concepts related to sustainability.
This is a short summary of key issues discussed.

Uncertainty: There is an uncertainty over operationalisation of business sustainability
Outsourcing: There are considerable shifts of outsourcing manufacturing to south and south-east Asia
PR: 'Producer responsibility' laws are extending companies traditional responsibilities
Eco-efficiency: There is an increasing recognition of the need for resource and energy efficiency.
Human rights: Human rights and environmental non-governmental organisations are gaining more influence
Soft: Social performance is a difficult area to measure – especially in relation to products
Fishbowl: There is a growing scrutiny of companies social and environmental performance accelerated by internet
Japan: Environmental laws are being used to strengthen Japan's long term competitiveness
Value: There is an emerging understanding of the need to determine sustainability impacts throughout the value chain

Short thought provoking exercises were carried out with participants, which illustrated

>> How we need to overcome the fear of change
>> How we need to stop punishing ourselves for failure but reward ourselves for trying to improve
>> How we need to create incentives for change
>> How we should find ways to make it convenient for people to approach sustainability
>> How we must seek to manage the complexity of sustainability and make it simple
>> How we need to encourage people to talk more about sustainability, ask questions
>> How sustainability should not be a separate title but integrated in all our business roles
>> How we need to overcome the attitude of 'no, this cannot be done'.

>>

Landfills around the world are swollen full of dishwashers, televisions.. computers..bicycles etc. Each of which having spent a year or so conscience time in the garage as a stopover. Many of these products still function perfectly and most definitely haven't been consumed or 'used up' at all. So what have these apparently indispensable life-changing products ceased to do in order to be granted a 4000-year death sentence of painfully slow bio-degradation?….

>>

…however, until products (what we do) embody a transient flexibility to shift and adapt in sync with us we will always be adding to an immense landfill of transferred matter whose only crime was a failure to adapt and grow

Jonathan Chapman, 2002

Rethinking Products

It is clear that we have to rethink the way we look at products and how we market them. Following the evolving trend to use nature's design principles participants were asked:

What is a product in nature?

What happens if products are living?

Looking at products from this perspective may introduce us to ideas on how to improve the durability and increase the meaningfulness of products.
The following extract is a summary of what participants collectively generated throughout the day.

'A living product is intelligent, it evolves and is adaptable, changes, is renewed and eventually it dies. They have a personality and the ability to self-repair, self-control and self-reproduce. It was suggested it might be about having feelings: we love them and they love you. Living products are continuous, involve movement and you can upgrade them. It is an experience, something that changes. You can intuitively understand the state of it by interacting with it. You can tell what condition it is in'

>> Questions

1 Do you think products today are '*living*'?

2 Is this idea of '*Living Product*' different or similar to the way you look at sustainable products today?

3 Is it of any use or relevance?

>> Explore further

>> Biomimicry - inspired by nature

>> Integrated Biological Systems

>> Industrial Ecology

>> The Living Product*

Critical Discussion

For participants at the workshop re-examining relationships with products was initially challenging. Thinking about the product more holistically using the 'living product' concept* was for some a controversial exercise resulting in questions such as

'Do we want to think of products as living? Should we make products more living?'

Other saw it as a potential new philosophy for design:

'*Products that don't grow and adapt with us being discarded just for that is very interesting challenge to try and deal with and perhaps a more interesting avenue for sustainable design to face and investigate*'

It also provoked discussion around the need to be critical towards products and the role they play in our lives. We need to take a closer look at how we view things around us and not risk creating relationships with products that become a replacement for human and natural experiences.

'The more stuff we seem to get, to me that is always a replacement of human interaction with nature'

>> Your questions

>> Why have marketers not looked into this before, they are always looking for new angles?

>> What sort of relationship do we want to have with products?

>> How do we curb our love affair with having and focus more on being?

>> What are the boundaries of business responsibility?

>> How do we encourage people to buy experiences not stuff?

>> Your interpretation of Co-evolution:

Long term, systems, harmony, mutual, change, intertwining, symbiosis, , convergence, diversity, emergent, development.

Mobility Solutions*

A group of participants were seeking to create a sustainable mobility solution and their discussions resulted in a futuristic utopia illustrated below.

The 'existence concept'
Based on the mounting human population figures of 6 billion people, constrained city centres and increase in travel, this futuristic solution evolved from trying to look holistically at what the 'real problem' is that we are trying to solve and visualising how a world could be different, if people were freer.

In 2102, to accommodate a population of 12 billion the sustainable way of existing will not be on land but at sea. We can choose to live on 'floating communities' which are self-sufficient vehicles, organised like co-ops and built on fair trade. Essentially, the participants suggested that this is going back to our nomadic existence, cohabitation with sea-life, simple life and skill based. It is breaking down the unnecessary barriers between home and work, with the result of less travel. It has a modular design so that inhabitants can chose to live individually as well as build communities for sharing. These floating communities would align with humans need for stimulation and discovery and would provide space to recharge, connect and experience the more spiritual aspects of sustainability, '*a journey to happiness*'.

The floating communities would be sustained on tide and wave energy, would utilise state of the art composting and waste processing facilities. The group admitted that their idea was not pragmatic rather a solution for a more distant future and hence the total environmental effects would have to be researched closer.

Key words: freedom, journeys, new communities and economies

>> A critical eye

With the associated problem from rising water levels in cities like Venice, this might not be such a distance future. However, are we not risking transferring our problems at sea? Also what are the potential impacts on social relationships and development of sustainable cultures?

*It should be noted that these group activities around mobility, food and furniture solutions were intended as introductions for participants to think in a systemic way and therefore the proto-type examples are first attempts, and that should be kept in mind when reading.

Sustainable Food Solution

Smart Food

This group of participants focused on the distribution of food and their creative efforts resulted in a concept called 'Smart Food', encompassing organically and locally produced food, distributed through a state of the art utility system. This is very much a technical solution evolving around the 'smart pod system'. The 'smart pod system' is a distribution channel consisting of two networks, a waste (blue colour) and a food stream (green colour). The pod itself is a carrier, a blown up container allowing the food to be transported without getting damaged. The 'smart pod system' would be connected to your fridge, providing a system to monitor your food status. It would also be linked to the waste flow in the house to analyse the nutritional value. The food itself is grown locally or in community gardens, which all are linked to the smart pod system and the supermarkets. The people in the community would still maintain their option of traditional shopping.
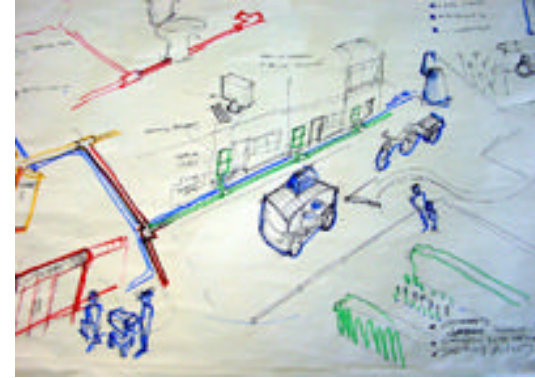
This solution relies on a major shift towards producer responsibility e.g. the company is responsible for the waste streams and buying food from small local producers and community gardens. Such a system would facilitate turning waste into new useful products or renewable energy and would make it easier for consumer to deal with composting and reuse.

Key words: Organic, integrated technology, local community delivery system

>> Challenges

One of the challenges identified was the potential social impacts of isolating and distancing people away from food. However, the idea of community gardens, where food would be grown locally might take people closer to the origins of food

A Sustainable Furniture Solution

>> Questions asked in the design process

Furniture for Life

This total furniture solution is built around '*purpose furniture that travel with you through life*'. This includes a high quality product that through its multifunctional and modern design is able to 'evolve' and improve with age and use. It would be opposite to offering cheap disposable furniture that people do not value. The major shift in perception that the participants sought to achieve was that the longer the product is owned, the older it is, but the higher its value. This would be emphasised through promotion where the product would have a biography, a 'life history', where the current user know who had the furniture before and where it came from.

You would not have to buy the furniture rather you lease it, and when your living circumstances change you can trade your furniture in, through an exchange service. This furniture solution capitalises on the fact that in society today more people are living on their own and that our needs change throughout life. Instead of going against the trend this solution is going with the trend by offering a cost-effective way of living in today's society but which at the same time reduce the negative impact on the environment. Some of the benefits mentioned were reduced costs, better quality whilst being able to keep up-to-date and finally allowing more flexibility.

Key words: longevity, tailored, unique, personalised, rent it, trade in and trade up

>> Do we need it?

>> Can it be modular? Can it grow? When it wears out can we change parts?

>> How can we change our attitudes to ownership?

>> How can we overcome fashion, convenience and boredom?

>> A critical eye

>> By following trends rather than breaking them are we comprising too much?

>> Is the high quality of the product a pre-condition for this idea to work?

Discussion

The *Sustainable Innovation* workshop ended with a dialogue session where emerging issues from the day were discussed. Some of the themes touched upon were:

Aspiration

'*How do we change our aspirations to something which is fantastic and environmentally friendly?*' How do we change peoples aspiration for flashy cars *when it is so environmentally unsound*? Yes, how do we change the aspiration and *desires* in most people? It was argued that indeed '*if you are educated and know all this stuff you can read through it*' but the majority of people do not see beyond their desires and aspire to products with great variety of packaging, material and colours.

Is it just an issue of cost?

A few of the design and marketing consultants present at the workshop expressed their frustration and resentment over the existing business focus on the financial bottom line. This often slowing down the introduction of new and more sustainable ideas and novel consultant and client relationships. The argument was that if the innovation demands increased costs for the business than it would not be interested. It was however, noted that instead of consultants seeing it as a barrier, this should be seen as a great opportunity. A number of large companies are currently looking for innovative sustainable ideas and they in turn argue that they are faced with a fragmented marketing and design community, that have not recognised the potential opportunity of sustainble design and innovation. It becomes clear that our quest towards sustainability will require all stakeholders to raise to the challenge and be more proactive.

Existing internal mindsets

Sustainability requires us to communicate to a number of different audiences. Within organisations a lot of ideas are not 'getting through' due to internal attitudes and mindsets that people are working towards. It was suggested that we should not only be thinking about our customers but also the internal gate keepers. To do this organisations should allow for space to be creative and people to make mistakes.

Not to be to idealistic

'*The "triple bottom line" can be confusing and I think a lot of people need to relate to financial values. I think it is easy to be quite idealistic e.g. how we all are going to change, be better people. I think there is actually harmony in doing things in an socially and environmentally sound way, it is thinking of it in a long term and then the financial price will come through*'

Key Learning points

The key learning points from the day are illustrated by short summaries or quotes from participants

New concepts being introduced
Some participants felt that it was reassuring that there were creative ideas beyond the practice of Life Cycle Analysis. Looking at our relationship to product was perceived as approaching sustainability from a different angle. The new concepts introduced were welcomed and it was suggested that '*more of that needs to be done*'.

The marketing function
A lenghty discussion took place about the nature and role of marketing. It was suggested that we *'need to ask some hard questions about the marketing function'* and it was brought up *'why have marketers not done this before, they are always looking for opportunities?'*. The conlusion drawn was that *'unless you eyes are open to these issues you do not look for it'*. Currently a lot of marketers do not see the opportunities and existing market research does not provide sufficient information. In addition a lot of marketers are basing their current attitude on previous bad experience of green wash and do not want to be *'attached to a problem'*

The sustainability appeal
The importance of making sustainability an attractive proposition was discussed. In order to create a positive appeal it was suggested that we need to communicate sustainability in a simple way. This should be done without jargon, otherwise people will not be interested. Then the movement to sustainability will come from people when they feel enabled, when they feel it is attractive to use it: '*You can not just go and "sell" this. This has to sell itself*'

Encouragement
As on our previous *Sustainable Innovation* workshops participants found it reassuring and encouraging to meet like minded people, interested in similar issues. Some found it reassured their current thinking while others found their ideas being challenged.

Other learning points:
>> Looking at 'cradle to cradle' opportunities
>> Biomimicry
>> Reminder of how complicated sustainability is as a concept
>> The need to sell sustainability internally

Future Agendas

In the light of the positive response from *Sustainable Innovation* other workshops are planned for 2003. In October 2003, The Centre for Sustainable Design will be organising a high level conference *Sustainable Innovation 03* in Sweden, http://www.cfsd.org.uk/events/tspd8

>> What's next?

Throughout 2003, The Centre for Sustainable Design, as part of the Sustainable Marketing Knowledge Network, will organise a series of workshops in association with University of Strathclyde and other partners aimed at stimulating sustainable innovation and 'out of the box' thinking among marketing and sustainability professionals. Smart: Know – Net will extend this by producing a toolbox and additional training resources designed to focus on the real issues being faced by marketing and communication managers.

Throughout 2003, Ingrid Kajzer will also be finalising her doctoral research project focusing on sustainable marketing and innovation. A summary will be available with conclusions and recommendations based on company case studies, the Sustainable Innovation workshops and a Sustainable Design project with the Product Design Department at Glasgow School of Art.

>>Further information and knowledge needs put forward by participants:

>> Exploring ways in which we can use resources when the products die
>> Ways of changing aspirations to positive environmental behaviour
>> Case studies or practical approaches that have helped sustainability practitioners to engage other business functions
>> Research case studies
>> Investigate opportunities arising from legislation
>> Using biomimicry in product design
>> The boundaries of business responsibility.
>> Ways to encourage people to buy experiences rather than things
>> New philosophy for design – living products

begin the journey

Further reading and exploration

Here are some selected books and websites. For more sources of inspiration have a look at the Smart: Know-Net resource list at http://www.cfsd.org.uk/smart-know-net/index.htm

>> Books/Articles

Charter, M & Tischner, U., 2001. **Sustainable Solutions**, Greenleaf Publishing

Clippinger , J., 1999. **The Biology of Business**. Jossey-Bass Publisher.

De Geus, A., 1999. **The Living Company**. Nicholas Brealey Publishing Ltd.

Hawken P. 1993. **The Ecology of Commerce**: **a declaration of sustainability**. HarperBusiness: New York.

Nattrass, B. & M. Altmore, 1999. **The Natural Step for business**: wealth, ecology and the evolutionary corporation. New Society Publishers.

Senge P, Carstedt G. 2001. *Innovating our way to the next industrial revolution*. MIT Sloan Management Review, Winter: p. 24- 37.

Walker S. 1998. *Experiments in sustainable product design*. The Journal of Sustainable Product Design October: p. 41-50.

>> Websites

Biomimicry 'Inspired by Nature'	http://www.biomimicry.org/
Rohner Textil	http://www.rohnertextil.com
Interface Inc.	http://www.interfacesustainability.com
Alliance for Global Sustainability	http://globalsustainability.org/
World Business Council for Sustainable Development	http://www.wbcsd.ch/linkages/un.htm
McCann Erickson's 'Global Citizen Campaign'	http://www.mccann.com/campaigns/gc1.html
Project Sigma	http://www.projectsigma.com
McDonough Braungart Design Chemistry	http://www.mbdc.com
The Complexity and Management Centre	http://www.herts.ac.uk/business/centres/cmc.html
Zero Emissions Research Initiatives	http://www.zeri.org

>> Journals and magazines

The Journal of Sustainable Product Design	http://www.cfsd.org.uk/journal/index.html
Tomorrow Magazine	http://www.tomorrow-web.com/
Greenleaf Publishing	http://www.greenleaf-publishing.com/

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Quotes…..

>> Participants thoughts

'Sustainability is more than just a label, a product is for life, not just for Christmas'

'We need to ask some hard questions about the marketing function and try and understand how different business models and different products can be developed'

'Creating products that last, are not discarded, are probably more sustainable than the solution with the lowest initial cost'

'We need to marry problems with big ideas and pragmatic small solutions'

'Some problems are "so big", some ideas are "so radical", they are "too difficult". Is that true?'

'There is a lot of things going on now. We need to be better connected. Do not reinvent the wheel'

begin the journey

Facilitators details

Martin Charter

Martin Charter is the Director and Visiting Professor of Sustainable Product Design at The Centre for Sustainable Design at the Surrey Institute of Art & Design, University College. Since 1988, he has worked at director level in 'business and environment' issues in consultancy, leisure, publishing, training, events and research.

Prior to this he held a range of management positions in strategy, research and marketing, in business and consultancy. Martin is presently editor of the Journal of Sustainable Product Design and was the launch Director of Greenleaf Publishing and Marketing and Communications Director at the Earth Centre. He is a member of numerous advisory boards and judging panels. He is the author, editor and joint editor of various books and publications including Greener Marketing (1992 and 1999), The Green Management Gurus [e-book] (1996), Managing Eco-design (1997), Sustainable Solutions (2001) and Sustainable Value (2003).

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Ingrid Kajzer

Ingrid Kajzer is a Doctoral Researcher in the Marketing Department at University of Strathclyde in Glasgow. She has been researching on sustainable marketing issues for 3 years and it is partly on this work that this workshop is built upon. She is experienced in using various techniques such as mind mapping, scenarios as creative tools for envisioning, imagining and finally developing and implementing ideas. Her work has involved writing numerous articles and presenting at international conferences.

Previous research projects include an analysis of how three multinational companies (Volvo Cars, Electrolux and Novartis) integrate the environment into their marketing. She has also been involved in organising and facilitating group based teaching and discussions within the Department for 2 years. As a native Swede she has worked and travelled extensively abroad.

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