

2004-06  
Scottish Innovative Actions Programme

The Innovating Nation  
21 – 23 February 2007

Highlands and Islands Enterprise  
Scottish Enterprise  
SCOTTISH PARLIAMENT  
EUROPEAN UNION  
PROJECT FINANCED BY THE EUROPEAN UNION

2004-06  
Scottish Innovative Actions Programme

Workshop:  
What Concepts and  
Tools are Available for  
Innovation?

2004-06  
Scottish Innovative Actions Programme

# Structured Innovative Thinking Joe McArdle Targeting Innovation



## Structured Innovative Thinking Project

Presented by Joe McArdle  
Targeting Innovation Ltd

Innovating Nation Conference  
Edinburgh 21 February 2007



# Structured Innovative Thinking Project

## Agenda

- 💡 Problem
- 💡 Project Outline
- 💡 What is Systematic Inventive Thinking?
- 💡 Results
- 💡 Learning



# Problem

**We don't innovate enough!**

Perceived Barriers:

*"I'm not an inventive person"*



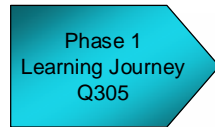
*"I need to be in the mood..."*



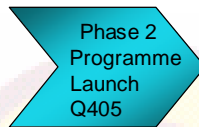
How can you generate more Eureka or light bulb 'idea moments' when you want them?



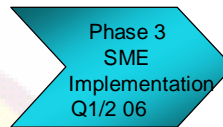
## Project Outline



- Netherlands IA Visit
- TRIZ vs SIT



- Knowledge Transfer
- SME Recruitment



- Ideas Generation
- Ideas Implementation



Phase 4 – Evaluation, Sept 06  
Phase 5 – Dissemination, Oct 06



## What is Systematic Inventive Thinking?

SIT is a process that applies the five thinking patterns behind 70% of all successful innovations:



1. Subtraction
2. Multiplication
3. **Task unification**
4. Division
5. Attribute dependency

The SIT process is applied to a specific company product during a 2 day workshop to generate improvements and new product concepts



Step 1  
Select product  
for analysis

Step 2  
Apply SIT  
innovation  
tool

Step 3  
Generate  
new concepts



## SME Targets / Results

- Target measurable outcomes *“new product ideas –at least one per company, ideally a portfolio of ideas”*
- “The companies will be selected to provide a range of sizes and cover a range of industry sectors.”*



- 8 SME workshops completed
- 393 ideas generated, average 49 per workshop
- Workshops to date have applied SIT to products, processes and business models



## SME Targets / Results

### Ideas Generated

- 69 ideas for improving a security product
- 67 new concepts for waste bin
- 65 ideas for improving sash and case windows
- 55 ideas to improve a industrial sensing product
- 40 new database product improvements
- 38 ideas to improve a marine engineering product
- 36 options to integrate and improve two businesses
- 23 new concepts for a styling brush



### Ideas Developed

- 11 new products / improvements developed with plans to launch
- 4 processes improved / implemented



## Case Study – Blairs of Scotland (see DVD)

- 💡 Step 1 – Clarify SIT objective as generating ideas for improving sash and case windows
- 💡 Step 2 – Two day intensive workshops completed
  - 65 new ideas
  - Delegates included Marketing, Design, Manufacture, Production Control and Senior Management
- 💡 Step 3 – Generate projects
  1. Cost reductions / simple process improvements
  2. Minor product feature upgrades
  3. New products
  4. Advanced products



## Learning / Future Policy

- Challenges / Learning
  - Engaging SME's to use SIT
  - Handling the volume of new ideas generated
  - Run with a few ideas only
- Future Policy (EKOS Independent Evaluation)
  - "SIT offers an inclusive, systematic and sustainable process for encouraging product innovation"
  - "Useful addition to Scotland's innovation support mechanisms"



## Contact Details

For further information on the SIT Programme please contact:

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## Appendix 1 - Task Unification... the creative pattern

Remove an essential component

+

An existing resource fulfills its function



## Appendix 1 - Task Unification Buddy Exercise

1. Find a buddy in the room.
2. Write down a product that you have personally used in the last 24 hours (at work or at home)
3. Could your product steal part of your buddy's product's function and vice versa?
4. What would the new 'task unified' product be like? Features? Benefits?
5. Feel free to tell the rest of the group!



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## Workshop: What Concepts and Tools are Available for Innovation?

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# Business Model Innovation Ian McCoull Scottish Enterprise



**Business Model Innovation (Workshop)**

Scottish Enterprise



PROJECT PART-FINANCED  
BY THE EUROPEAN UNION

Europe and Scotland  
Making it **work together**



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## Business Model Innovation

*" Somewhere out there is a bullet with your company's name on it. Somewhere out there is a competitor, unborn and unknown, that will render your business model obsolete. Bill Gates knows that. When he says that Microsoft is always two years away from failure, he's not just blowing smoke at Janet Reno. He knows that **competition today is not between products, it's between business models**. He knows that irrelevancy is a bigger risk than inefficiency. And what's true for Microsoft is true for just about every other company"*

– Gary Hamel and Jeff Sampler in **Fortune Magazine** December 7, 1998.

*'Developing a sound business model matters for making money. However, business models wear out, and firms must alter them in order to remain viable. The better managers know their business model, the better they can manage patterns of change'*

– Linder and Cantrell (2000) Accenture Report

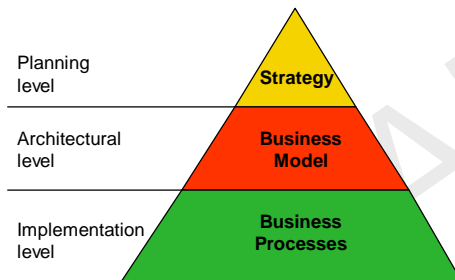


### Background

- I Can a company innovate in terms of its Business Model?
  - Ø A search of Google produced 100,000 hits against 'Business Model' – none of these related to how to define a business model.
  - Ø Given this, how can you define a 'business model'?
  - Ø Thereafter, how can you systematically innovate within that model?
- I What techniques or innovative approaches would lead to a company asking the right questions and challenging assumptions to allow the creation of a new business model?
- I SE, in conjunction with the European Innovation Actions Programme, initiated a piece of work to examine these questions.



## A Business Model is . . .



- | Not the processes a business operates by

- | Not strictly the organisation's Strategy

... it sits between the two ...

- | It is not the 'why' a business exists or the 'what' it does, but the 'how' it operates.

*'business models are a better predictor of financial performance than industry classifications and ... some business models do indeed perform better than others'*

*Peter Weill et al, MIT draft paper 2004*



## Definition

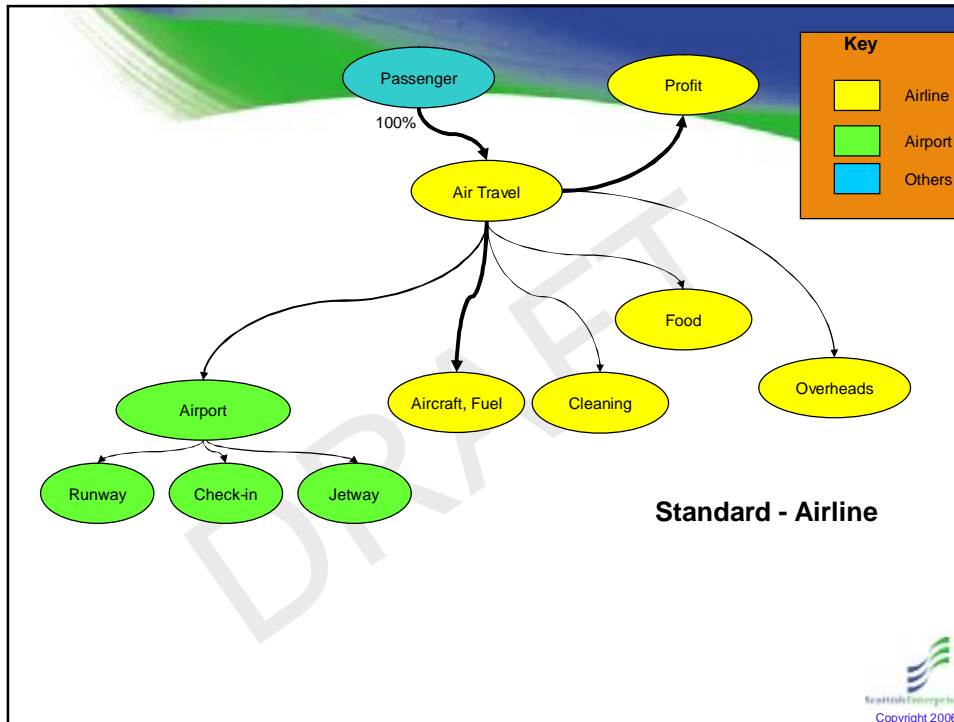
- | It is well understood that successful innovation creates competitive advantage but breaking this down:

- Ø Product innovation can either maintain your position in a market (iterative development) or can lead to a new interaction in the market (radical innovation)

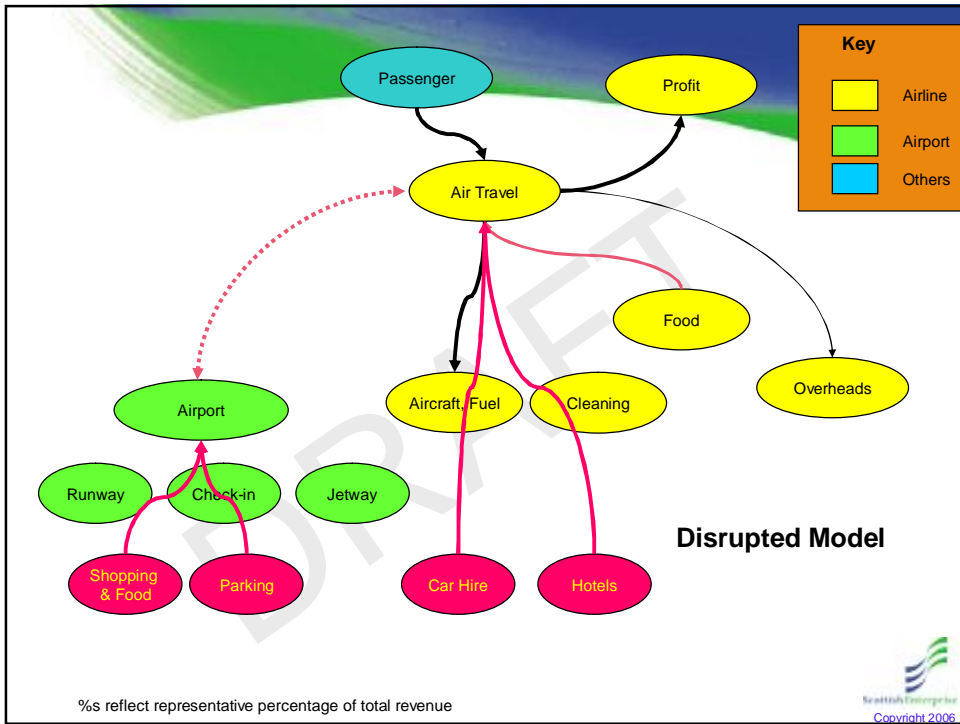
- Ø Process innovation normally improves efficiency and cost points either opening or maintaining new markets

- Ø Business Model innovation changes the nature of the interaction with the market





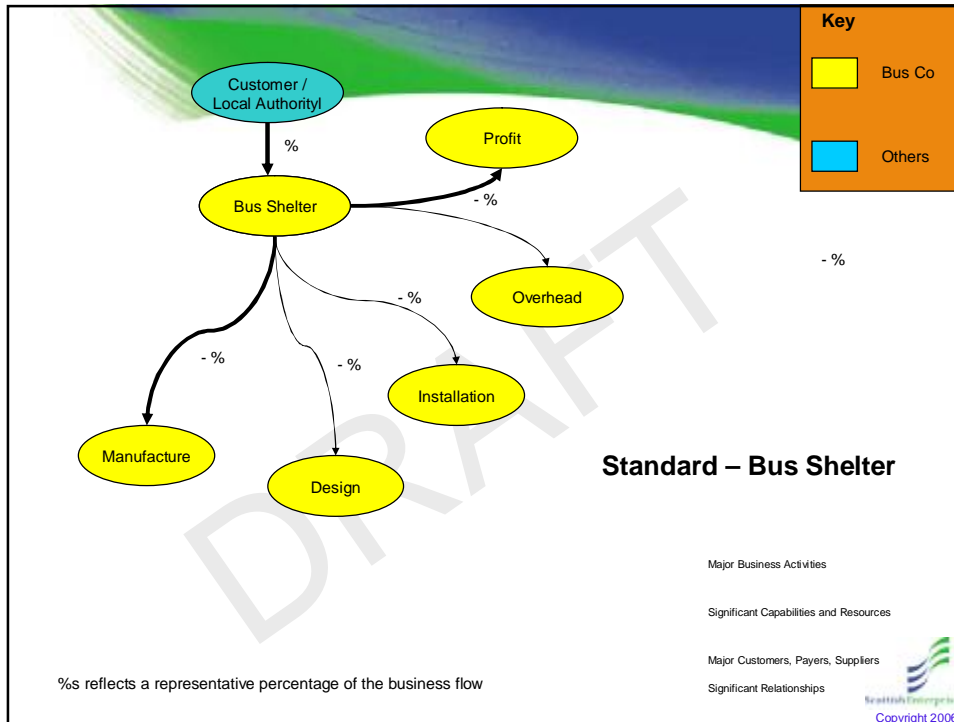
- ### Assumptions for a standard airline
- | The passenger must meet the whole cost of the service
  - | Landing at an airport costs the airline money
  - | The landing site must be as close as possible to the final destination
  - | Food, seating allocation, tickets, jet ways etc must all be provided within the service and paid for
  - | **IS THIS TRUE?**
- Seathink Enterprise  
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**Assumptions for standard bus shelter**

- I A bus shelter is a service provided for the good of the community

Heathrow Enterprise  
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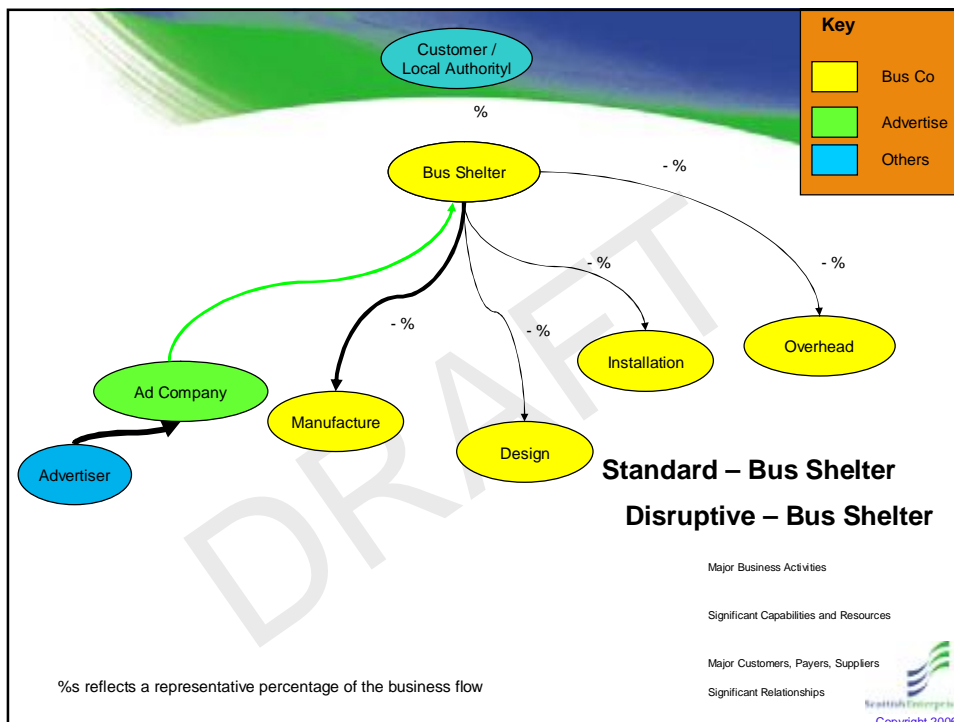
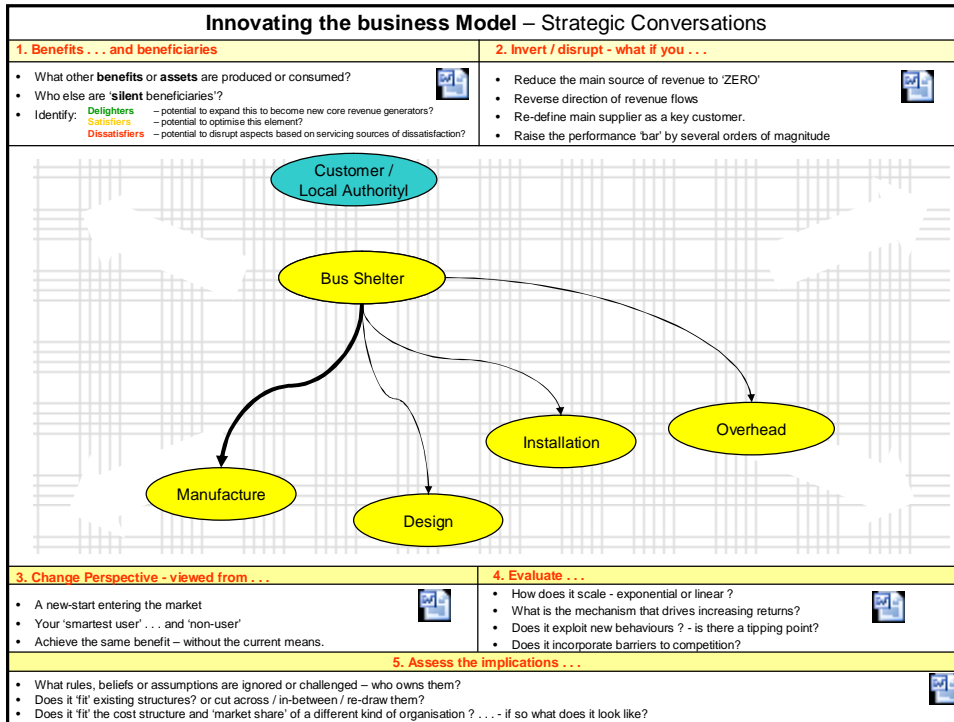
**Assumptions for standard bus shelter**

- | A bus shelter is a service provided for the good of the community

**Discussion topic**

- | Challenge the assumption?
- | How else could this service provision be met?

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# What Concepts and Tools are Available for Innovation?

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