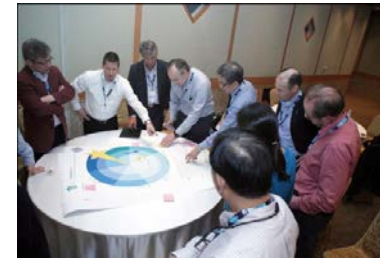


# Industrial Sustainability



EPSRC Centre  
for Innovative  
Manufacturing in  
**INDUSTRIAL  
SUSTAINABILITY**

# Transforming business models to create and deliver sustainable value



PRESENTED TO  
**IfM Open Day**

PRESENTED BY  
**Steve Evans**

12/05/2016

## AGENDA

- Introduction
- Hands on Value Workshop
  - Forms of Value
  - Value Captured
  - Value Missed and Value Absence
  - Opportunities
- Best / Craziest Ideas
- Advert

# Introduction

# Centre for Industrial Sustainability - Overview

By 2017:

300 Person  
Years Research

30+ Tools for  
Industry

200+ Companies

7+ Universities

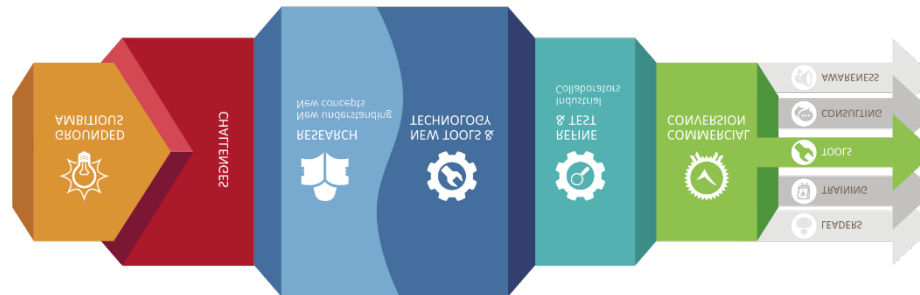
Impact delivered  
by 3<sup>rd</sup> parties

## Global Challenge – by 2050:

- To quadruple output
- To emit 80% less GHG
- To halve resource use
- Fair and Equitable

## Research Delivers:

- Knowledge
- Tools & methods
- Leaders
- Policy support & influence
- Visions for a successful future



# Why have Business Models become so important?

- There is increasing disruption in the business world
  - Internet of Things and Big Data
  - Social Media driven customer power
  - Geopolitical and Geographic instability
  - Demographic changes
  - Speed of technology development
  - Increasing levels of new entrants to markets
- These disruptions imply fundamental changes to offerings, production systems & value chains
- Businesses are exploring new ways to deliver best value

# Effective business models are critical to long term success

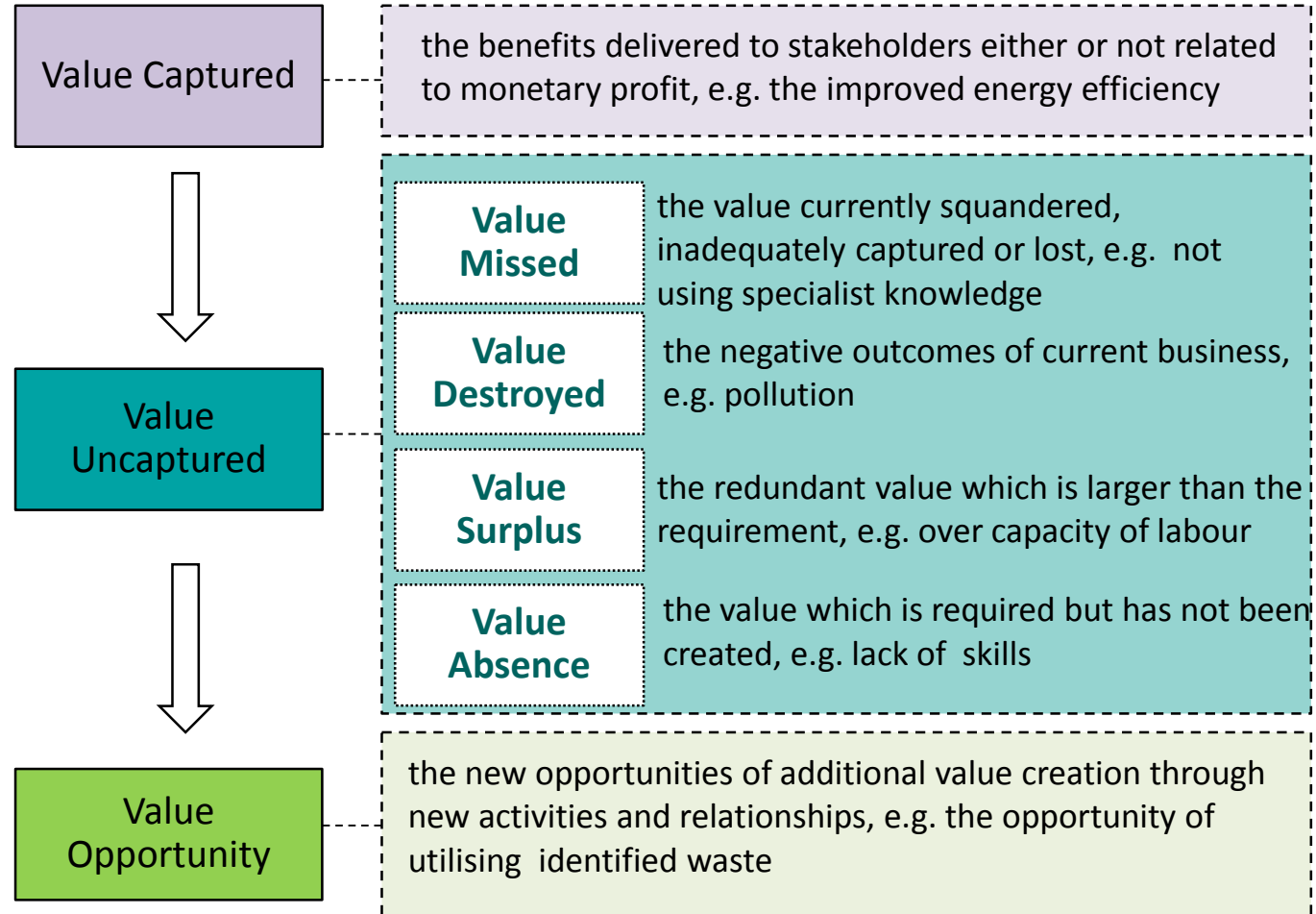
## What are the challenges?

- Understanding how value is created, delivered and captured in a company is **not easy**
- Companies may not be **fully aware** of the range of value outcomes of their business
- There is no **structured** approach to think about value
- There is a lack of **useful processes or tools** for helping design business models which would deliver sustainable value

# Structured Approach to Value

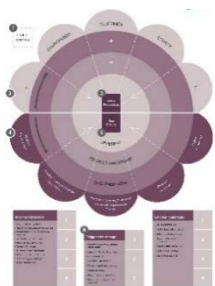
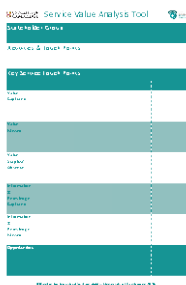
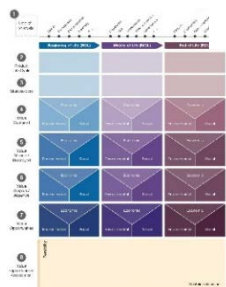
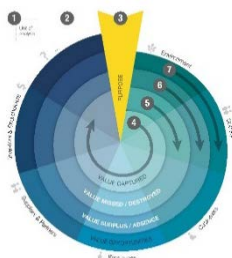
*Value refers to a broad set of benefits derived by a stakeholder from an exchange, which, in the context of sustainability, do not only include monetary profit, but also include social and environmental aspects.*

*Yang, M., Vladimirova, D., Rana, P. & Evans, S. (2014). Sustainable value analysis tool for value creation. Asian Journal of Management Science and Applications, 1(4), 312–332.*





# Four Main Tools



## 1. Value Mapping

- Identifies Business Network of Stakeholders
- Maps Current Value
- Reveals Value Missed, Destroyed, Absent or Surplus
- Shows opportunities for new value exchanges

## 2. Product Value Analysis

- Maps value states across a product life cycle
- Shows opportunities for new value exchanges

## 3. Service Value Analysis

- Maps out the service process and identifies key touch-points
- Reveals value states at key touch-points
- Shows opportunities for new value exchanges

## 4. Business Transformation

- Creates of Value propositions for stakeholders
- Evaluates new business models and forms
- Tests preparation for change
- Evaluates key areas for risk and identifies remedies
- Produces a detailed change plan for the business and critical actors

# Value mapping process

*Value refers to a broad set of benefits derived by a stakeholder from an exchange*

*Sustainable Value refers to economic, social and environmental value.*

*Evans et al. (2015)  
Yang et al. (2015)*

## Value uncaptured perspective for business model innovation

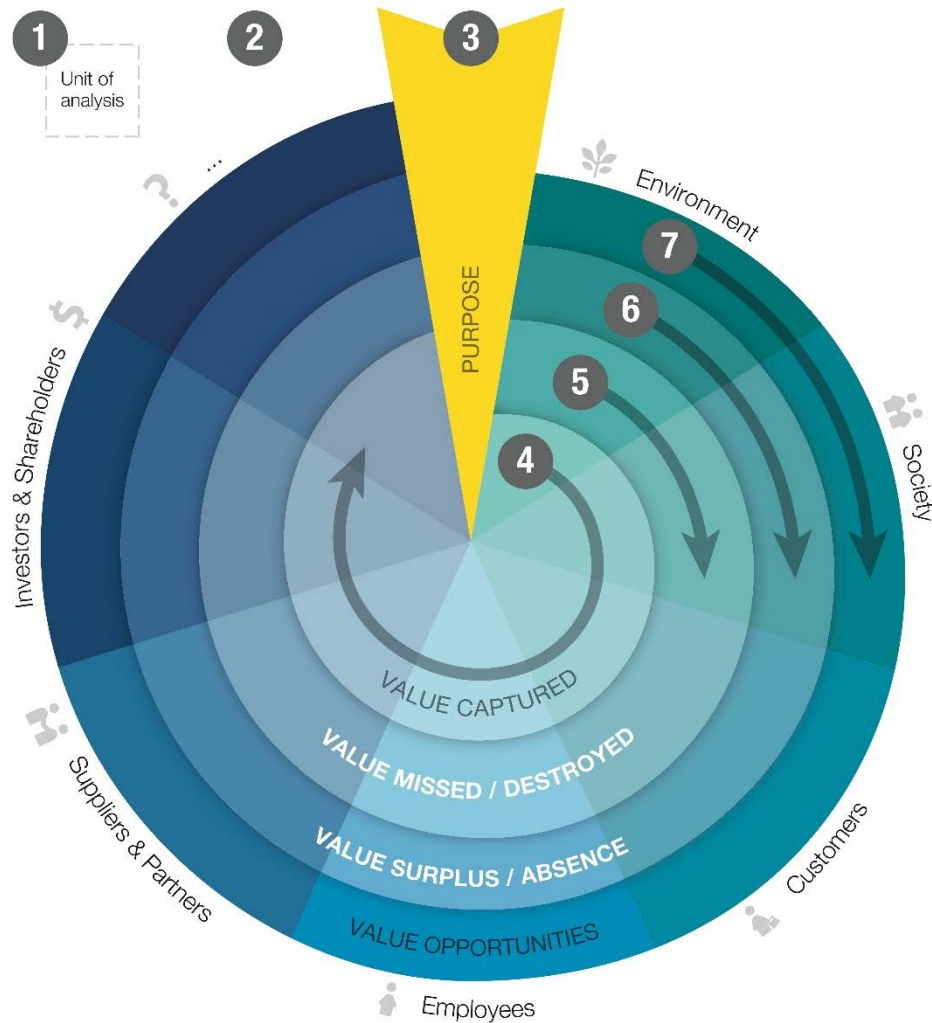
Elicits **failed value exchanges** and thereby uncovers new value opportunities.

- Structured approach to think about value:
- **Value Captured**      **I give and get a return**
- **Value missed**      **I give but don't get a return**
- **Value destroyed**      **I give but you don't want**
- **Value absence**      **You want but I don't give**
- **Value surplus**      **I give or have too much**
- **Value opportunity**      **We discover new value**

# The Cambridge Value Mapping Tool

**Workshops** – More than 40 workshops, 70 companies:

- Firm level - start-ups, SMEs, MNCs
- Multiple stakeholders – Riversimple custodian workshop, Finnish Furniture Industry
- Teaching material – Cambridge and Genoa



<http://www.ifm.eng.cam.ac.uk/news/the-cambridge-value-mapping-tool/#.Vzlw22NlnVo>

## Organisation

- Groups of 6
- Washing Machine Manufacturer
- 6 Stakeholder Roles
  - Select one each
- Quick Fire process
  - Be open minded in thinking of ideas
  - Be fast
  - Write them on post it notes

# Prompt questions for each step

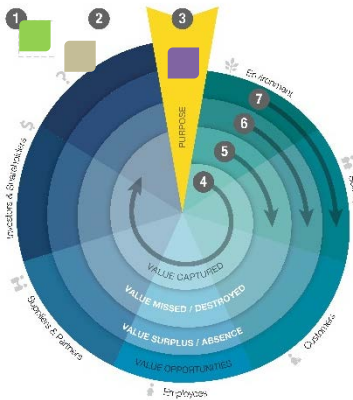
- **Step 1 - Define the unit of analysis** (■) (Company, business unit, or product/service)
  - **Washing Machine**
- **Step 2 - Add or modify any missing stakeholders** (■)
 

*Prompt question:*

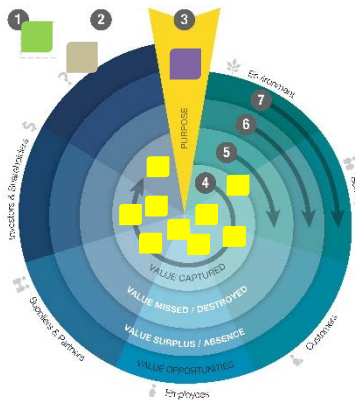
  - **Use the 6 on the chart**
- **Step 3 - Identify the business purpose of the unit of analysis** (■)

*Prompt questions:*

- What is the primary reason(s) for the existence of your business?
- Consider why should any of your stakeholders, particularly the customer, care about the existence or continuation of the business?



**5 Minutes**



○ **Step 4 - Map current value captured (■) for each stakeholder**

*Prompt questions:*

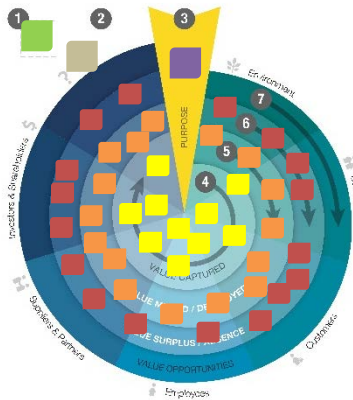
- What positive tangible and intangible value is created for each of your stakeholders? For example, why does your customer buy from you?
- Does the business network mitigate or offset some negative outcomes in full or in part (such as carbon emissions)?

*Examples:*

- Customers > Functionality, health benefit, well-being, prestige, feel-good
- Employees > wealth distribution, livelihood security, meaning and purpose, learning and development
- Society > Poverty alleviation, community development
- Environment > Resource use within regeneration rates; bio-diversity protection
- Shareholders/ investors > Profit, ROI, growth, financial resilience, long-term viability
- Suppliers/ partners > Profit, ROI, growth, long-term beneficial relationships, relationship stability and predictability



**15 Minutes**



○ **Step 5 - Map value missed (■) for each stakeholder**  
(I give but don't get a return)

Prompt questions:

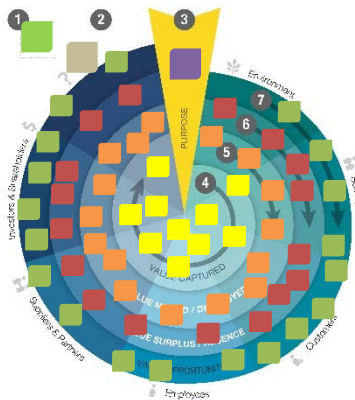
- What are the negative outcomes of the business for any of your stakeholders? *E.g., environmental impacts such as pollution*
- Is the business creating value in some form, but failing to capture value from the customer or society for this? *E.g., better use of data for enhancing equipment use*
- Are there any excessive benefits that we are giving away or are larger than the requirements? *E.g., over production, excessive products functionality*

○ **Step 6 - Map value absence (■) for each stakeholder**  
(You want but I don't give)

Prompt questions:

- Out-of-stock items, performance specification, service or knowledge with the product?

**5 Minutes**



## ○ Step 7 – Identify value opportunities (■)

*Prompt questions:*

### ○ Eliminate value absence

- Where is their conflict of interests between stakeholders? (i.e. where does positive value for one stakeholder destroy value for another stakeholder/s)? how can it be resolved?
- Relevant stakeholders should try to seek alignment (win-win), rather than compromise or trade-offs.

### ○ Utilise value missed

- Identify opportunities there might be to capitalise on currently missed value to create new forms of positive value.

### ○ Look for generating solutions to enhance sustainability

- What further innovations might be possible to extend the value proposition in new and radical ways?
- How can greater value be captured from the existing business (increase the value-added content)?

**5 Minutes**

## What are your teams best /craziest ideas

- Discussion of 2 minutes
  - Best
  - Craziest
- Quick fire – around the room
- We will select
  - Best – Prize
  - Craziest - Prize

# Advertisement

IF YOU WANT TO FIND OUT MORE

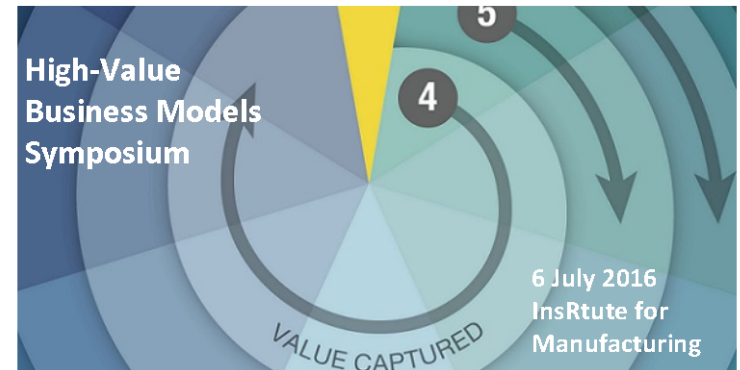


## *Capturing Sustainable Value*

Hear business views on implementing circularity  
Learn about tools to capture new value in your business network  
Demystify disruptive business models

Connect, discuss and debate with future collaborators at  
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Meet thought leaders, radical researchers, and industry gurus from:  
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*Find new business opportunities*

*Apply new analytical lenses to capture sustainable value*

*Meet with leading researchers in this field*

Featuring tools for High-Value Business Models  
developed at the University of Cambridge

12.30 – 18.00 on 6 July 2016

Symposium: £80 (excl VAT)

Dinner at Madingley Hall: £40 (excl VAT)