

# Open Innovation: Working Together

Presentation at Innventia

27<sup>th</sup> May 2015

Dr. Leon Cruickshank

Lancaster University

[L.Cruickshank@lancaster.ac.uk](mailto:L.Cruickshank@lancaster.ac.uk)



Lancaster  
University



 **imagination**  
LANCASTER







# Open Design and Innovation

Facilitating Creativity in Everyone

Leon Cruickshank



FOREWORD BY JOHN SEELY BROWN

HENRY CHESBROUGH

OPEN  
INNOVATION

The New Imperative  
for Creating and Profiting  
from Technology

HARVARD BUSINESS SCHOOL PRESS







**Chesbrough, 2002**  
*‘Graceful exits and missed opportunities : Xerox’s management of its technology’*  
**Business History Review**



## **Closed Innovation**

The smart people in our field work for us.

## **Open Innovation**

Not all the smart people work for us. We need to work with smart people inside and outside the company.

## **Closed Innovation**

To profit from R&D, we must discover it, develop it, and ship it ourselves.

## **Open Innovation**

External R&D can create significant value; internal R&D is needed to claim some portion of that value.

**Closed  
Innovation**

If we discover it ourselves, we will get it to market first.

**Open  
Innovation**

We don't have to originate the research to profit from it.

## **Closed Innovation**

We should control our IP, so that our competitors don't profit from our ideas.

## **Open Innovation**

We should profit from others' use of our IP, and we should buy others' IP whenever it advances our own business model.



# WHY 'OPEN INNOVATION' IS OLD WINE IN NEW BOTTLES

PAUL TROTT and DAN HARTMAN  
Dan Hartman of Berkeley  
President of Berkeley Center for Entrepreneurship  
School of Technology, Policy & Management  
University of California, Berkeley, CA 94720  
2013-04-29

The concept of 'open innovation' has received considerable attention in both  
the academic literature and beyond. Much of this seems to have been critical  
analysis of the evidence. In this paper, we show how Chesbrough's creation of  
the concept, then open innovation, is the only alternative to a closed innovation  
concept. We argue that the original conception of the open innovation concept  
was a partial conception by describing only  
closed innovation principles

Democratizing  
Innovation

**ERIC VON HIPPEL**









## Zero Prestige<sup>tm</sup> Mega-Corporation

The new open-source corporate model. No employees, no profits.  
Just doing nice things for total strangers 24 hours a day.  
You can't buy this stuff yet but you can build it yourself.  
p.s. Can I park my boat in your back yard?

Presents

# THE KITEBOARD COOKBOOK

Build your own plywood kite board and other cool stuff.



Build these darling kiteboards and more yourself! It's easy and fun!

Unless otherwise stated, all boards are made of plywood and are totally flat. For us and our conditions that's turned out to be the best. Cool huh?

**Q: What do distinguished critics say about these boards?**

**A: Some give joy and some hurt. Here are the reviews:**

**A:** Zero Prestige model Zero: 18"x63.25" 1/2" thick AC fir, two 2" high fins at each end, 1/2" rocker put in by bending it with clamps, wetting the bottom and ironing the hell out of it with a steam iron, our usual way. Easy to ride. After you're going upwind reliably a flatter finless board points higher, is faster and more fun. Unless otherwise noted, none of the other boards have fins. **Good beginner board.**

**B:** Saul's Le Plank 1.1: 16"x56", 3/8" thick birch, no fins, no rocker in the morning, 1/2" rocker at end of session. The first great board for skimming the shallows at Nahant in a weak onshore wind. The birch is nice and springy. Saul's true love. **Great all-round board.**

**C:** Saul's Tasty Potato: 15.25"x60", 7/10" concave, 1/3" rocker. Two layers 1/4" birch laminated on rocker table. The bottom layer is a few inches shorter than the top layer, making planing steps at the ends. Saul hates it, Tim loves it. Easy to hold an edge overpowered. Heavy but still a good jumper. Easy to stick a landing, not that anyone should care about that. **Great all-round board for some, nothing special for others.**

**D:** Red mahogany "nice board": 14.75"x56" 1/2" mahogany with teak face veneers. Was a masterboard from a yacht. Homemade "nice straps" with 1/8" aluminum mounting plates, footpads carved from homedepot soft foam floor panels. Tightening the plate screws gives the board about 1/4" rocker and a flat spot in the middle. In rough water I might want cutouts or tapered tips to get less spray in my eyes. Saul rides the tail more and never gets spray in the face from square boards. **Good jumping board in more wind.**



John Gibbon  
(Surgeon)

Animal tested 1935  
human patient 1953









# THE RALEIGH

2,300 PRIZES  
UNPARALLELED LIST OF RIDERS  
WHO BECAME CHAMPIONS IN ONE YEAR.  
L. CANTU, CHAMPION OF ITALY.  
A. RUSCELLI, CHAMPION DES BORDS OF ITALY  
A. GERICKE, CHAMPION OF AUSTRIA  
W. FRIEDRICH, CHAMPION OF AUSTRIA  
J. C. C. CHAMPION, SWITZERLAND  
S. LINTON, CHAMPION OF SWITZERLAND  
AND



A.A. ZIMMERMAN, N.Y.A.C.

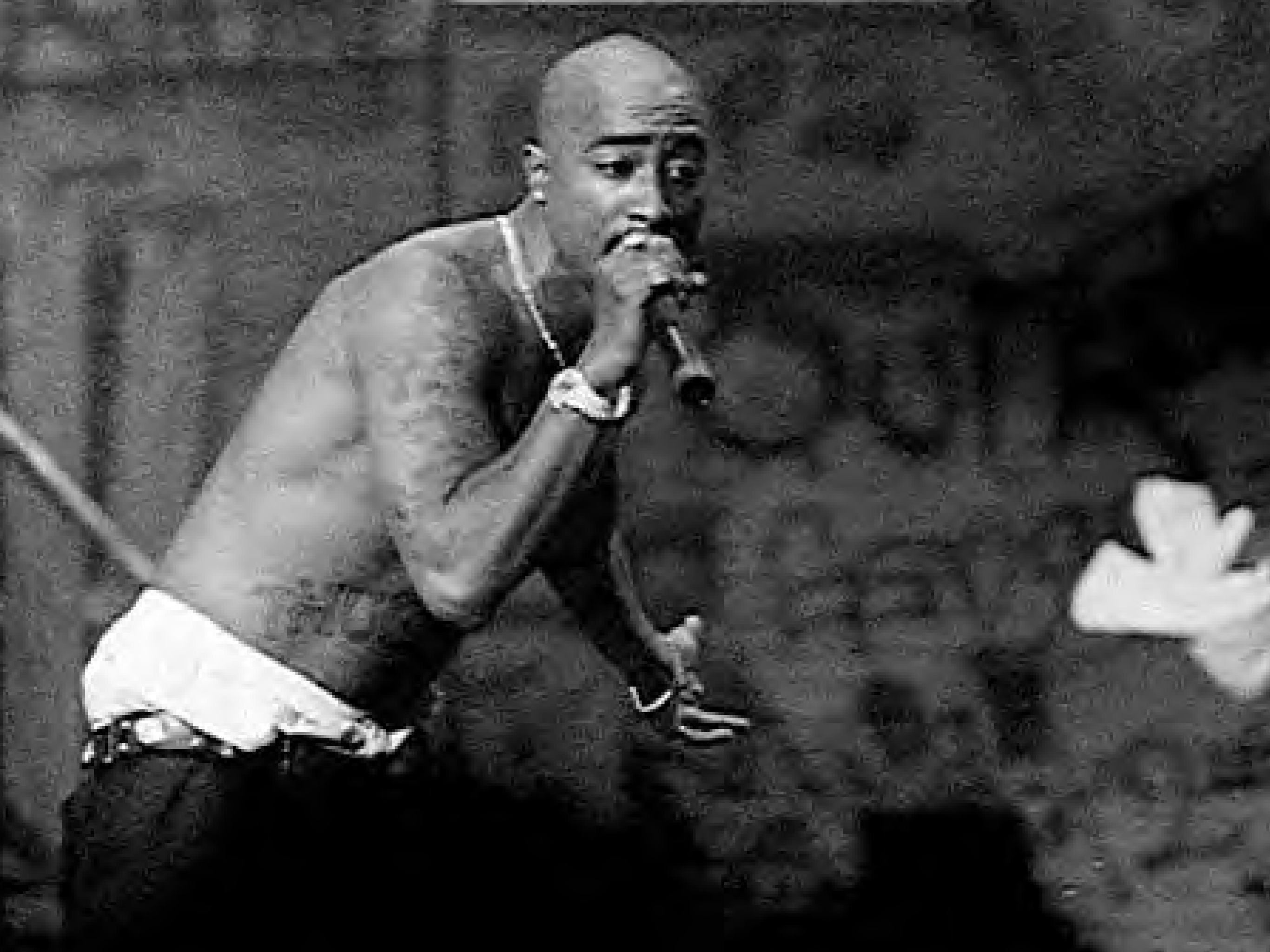
# CHAMPION OF THE WORLD











A black and white photograph of a rapper performing on stage. The rapper is shirtless, wearing a chain necklace and a watch, and is holding a microphone to his mouth. He is leaning forward, looking towards the camera. The background is dark and out of focus, with some blurred lights and a hand visible on the right side.

**Rap and Hip-hop is a  
\$10 Billion a year business**



# Characteristics of Lead Users

1. Are extreme users, and experience problems that general users will not reach for some time

2. There is a direct benefit in innovating beyond the current state of the art.

3. Connect to a wider community of

**My approach to Open Innovation:  
How do you get more and more  
diverse people to be active with-  
in innovation  
projects?**

**Networks**

**Skills**

**Tools**



# BEYOND THE CASTLE

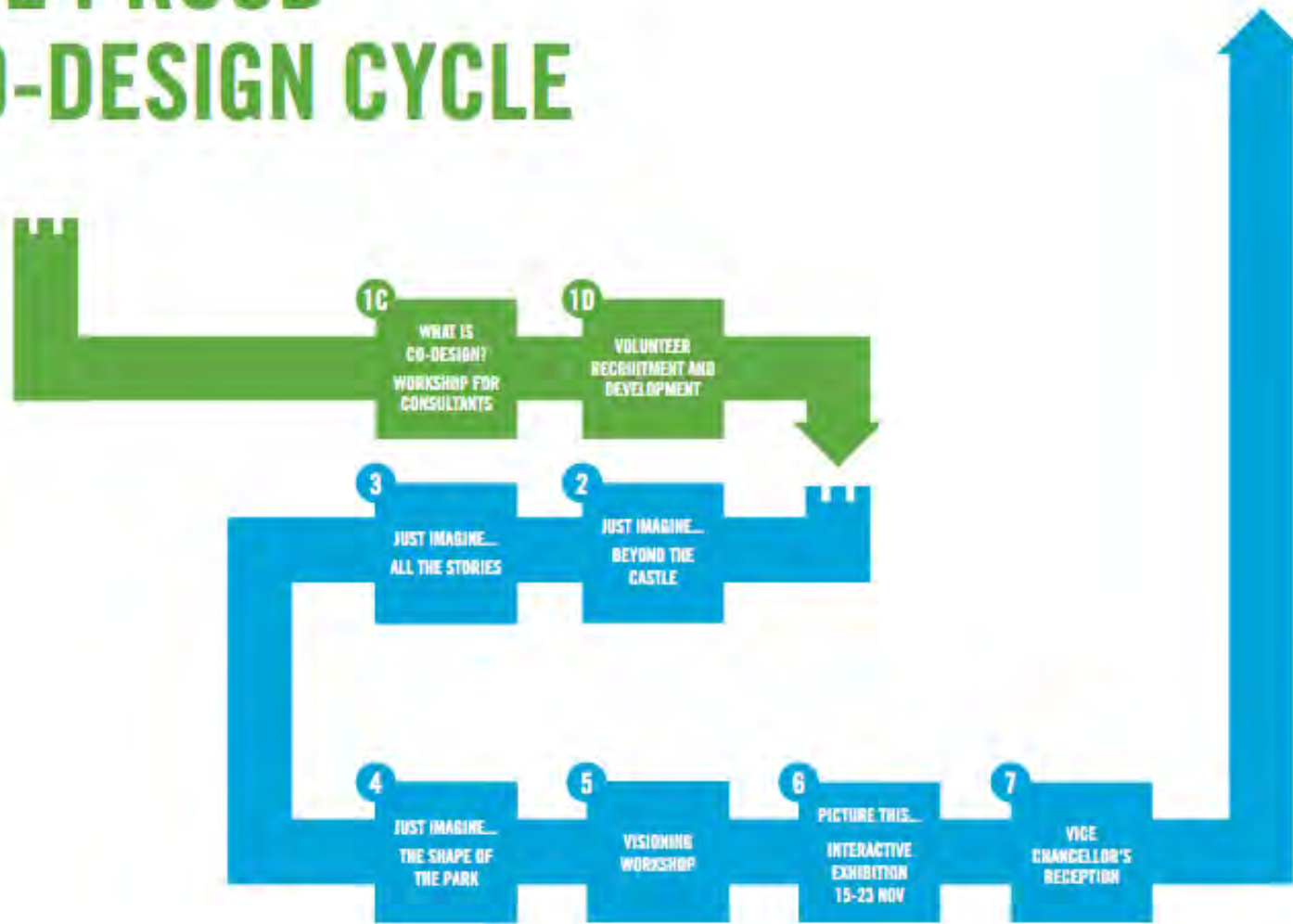
A UK project as part of the €5million, 3 year INTERREG IV funded PROUD project

A co-design project with 2,000 people to re-imagine a city centre 'non-place'





# THE PROUD CO-DESIGN CYCLE





# BEYOND THE CASTLE

FRESH  
VEGGIE  
FOOD








one with nature.  
canis lupus

This project has received European Regional Development Funding through INTERREG IV B.



INTERREG IV B









# THEMES

CULTURE & LEISURE

COMMUNITY & SOCIETY

ENVIRONMENT & CLIMATE

HEALTH & WELLBEING

INTEGRATION & INCLUSION

OVERVIEW:  
The exhibition is divided into five main themes, each represented by a different color. The themes are: Culture & Leisure (purple), Community & Society (green), Environment & Climate (pink), Health & Wellbeing (blue), and Integration & Inclusion (orange).

KEY ISSUES:  
The exhibition explores key issues related to each theme, such as the impact of digital technology on culture, the challenges of climate change, and the importance of community and social cohesion.

CONTRADICTIONS:  
The exhibition also highlights the contradictions and tensions that exist within each theme, such as the tension between individualism and community, or the tension between progress and tradition.

## PICTURE THIS

THESE ARE THE BUILDING BLOCKS FOR THE NEXT PHASE OF BEYOND THE CASTLE

MAKING IT HAPPEN

THE NEXT PHASE



THE REGULAR AND LONG-TERM SUPPORT NEEDS OF THE PARK

THE ARCHITECTURE FOR FULL DIGITAL ENGAGEMENT DELIVERY IS A COMPLEX TASK

KEEP ON CO-OPERATING WITH COMMUNITIES

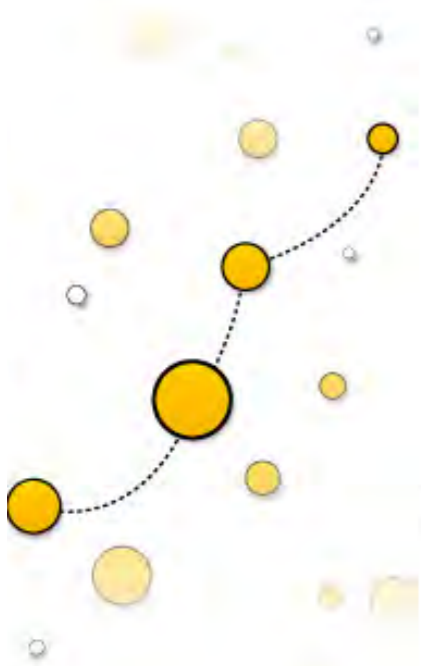




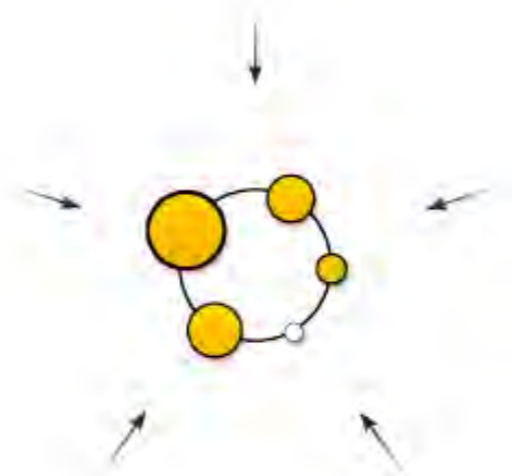
# The Creative Exchange

A £ 5million, 3 year research project looking at knowledge exchange and digital public space.

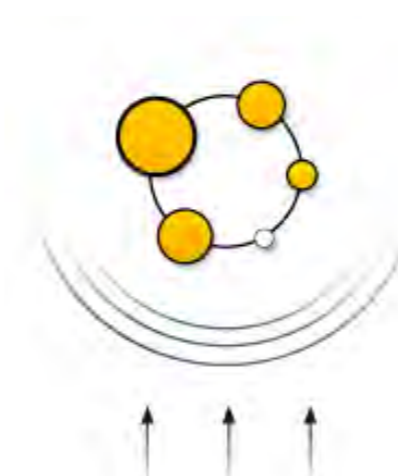




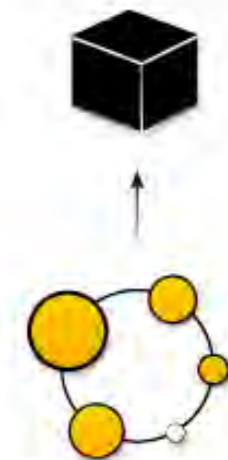
Connect



Cluster



Support

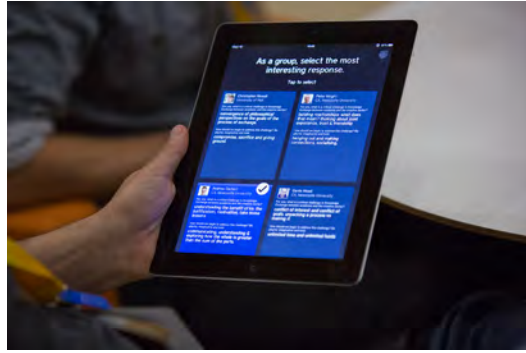


Make & Test

**Squidge**  
an example  
of a product  
outcome











**Beyond Networking:  
helping high technology SMEs  
be more innovative through the  
active curation of their networks.**

# Creative IDEAS

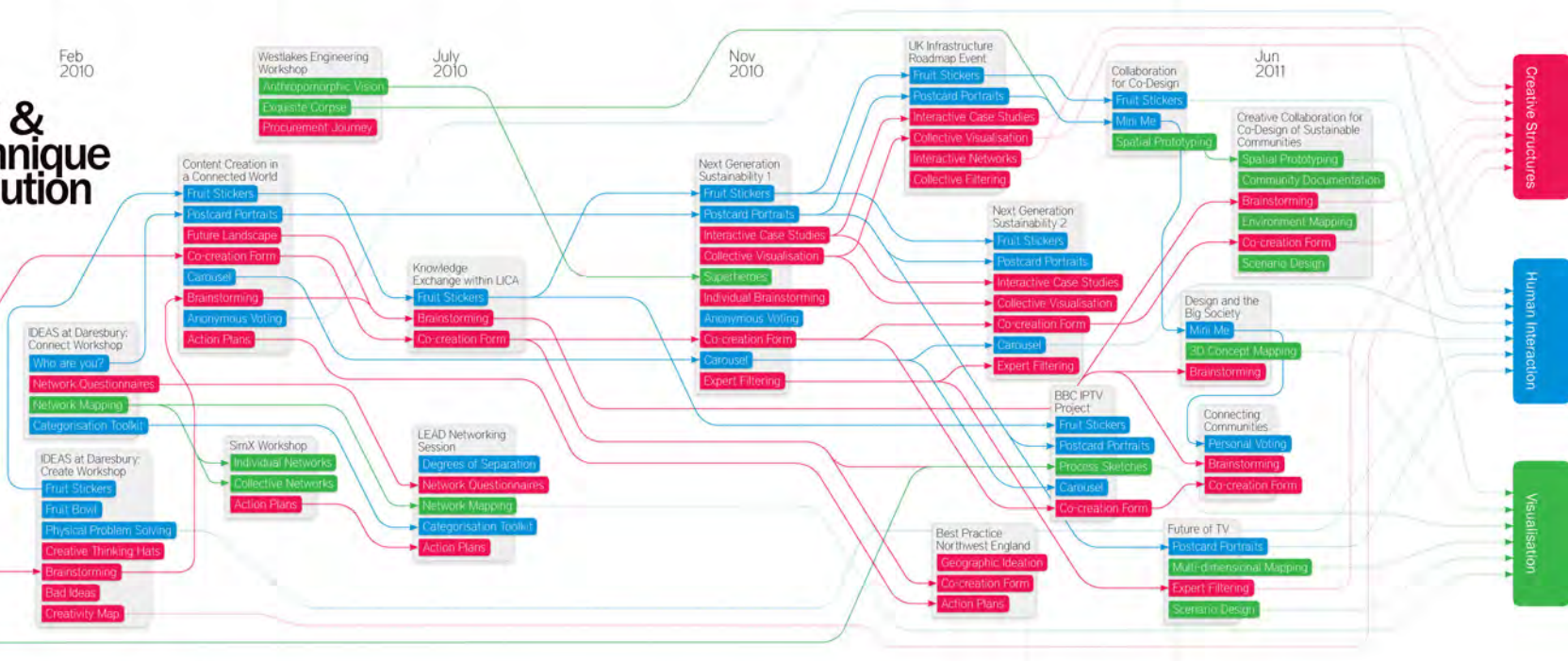
## Tool & Technique Evolution

Feb 2010

July 2010

Nov 2010

Jun 2011



Creative Structures

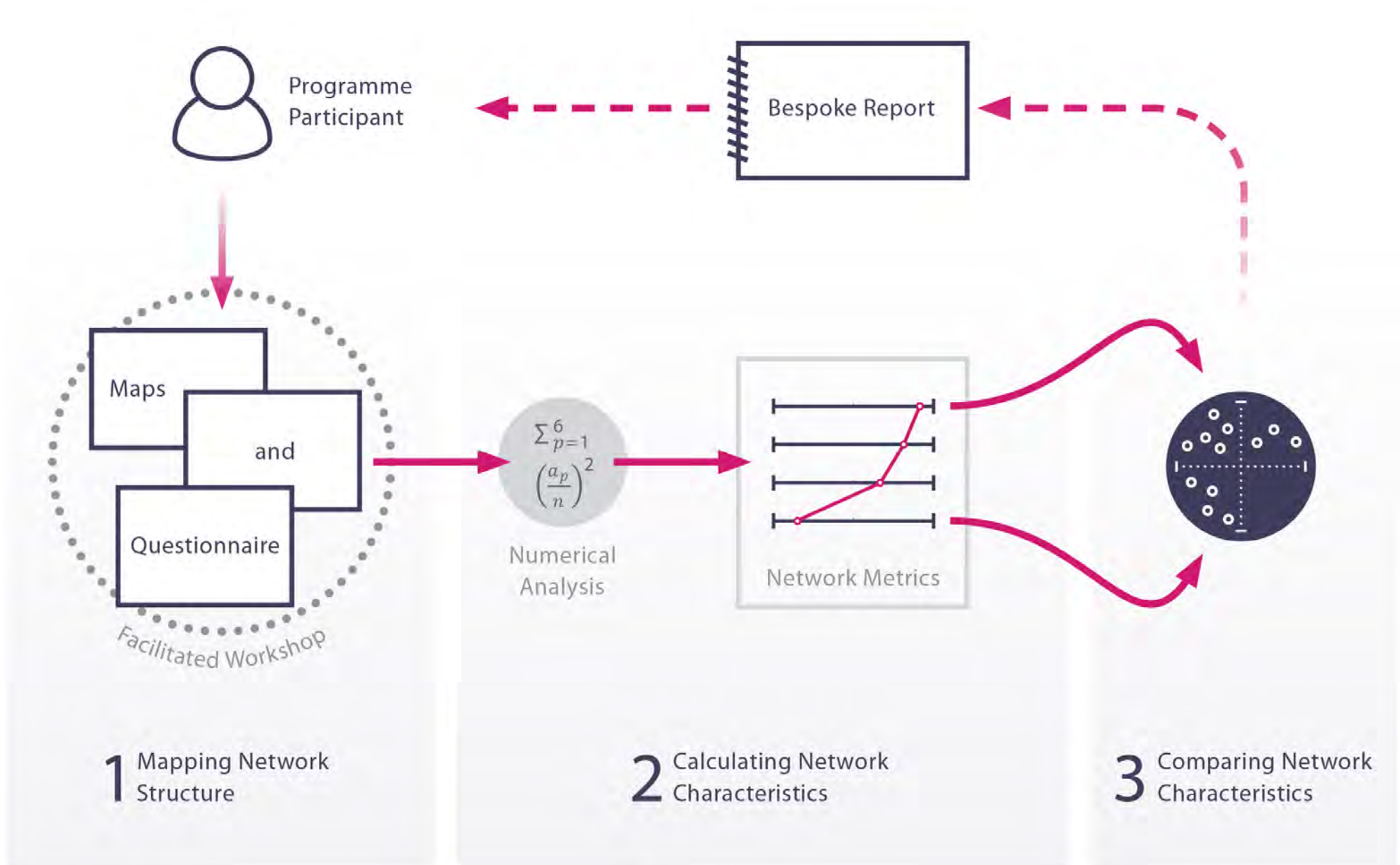
Human Interaction

Visualisation











A person wearing a blue and white striped shirt is drawing a network diagram on a whiteboard. The diagram consists of several interconnected nodes, each represented by a circle containing a small cluster of colored dots (red, green, blue, orange). The nodes are connected by lines, some of which are labeled with terms like 'expansions' and 'contractions'. The person is using a grey marker to draw the diagram. The background is slightly blurred, showing other people and papers on the table.

For details see

**“NETS: a design tool for  
activating social networks”,**

International Journal of Entrepreneurial Behaviour & Research.



**My approach to  
Open Innovation  
focuses on**

**Networks**

**Skills**

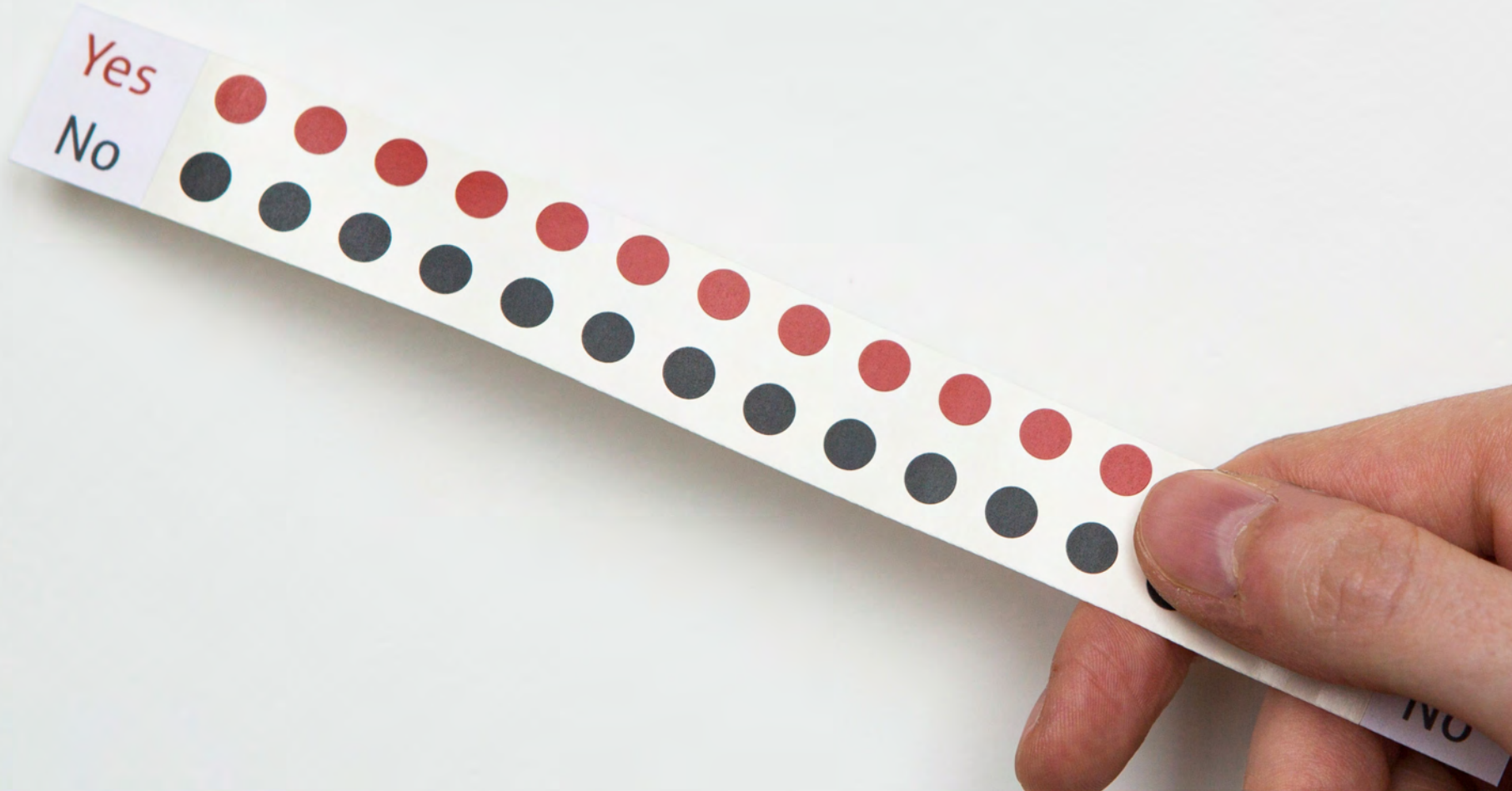
**Tools**











Yes

No

NO





Relevance to R&D  
- Small  
- Tools for creation

Relevance to BU  
- Tools for creation  
- Relevance to BU  
- Relevance to LL

Relevance to LL  
- Relevance to LL  
- Relevance to LL

Relevance to LL  
- Relevance to LL  
- Relevance to LL

Relevance to LL  
- Relevance to LL  
- Relevance to LL

Relevance to LL  
- Relevance to LL  
- Relevance to LL

Relevance to LL  
- Relevance to LL  
- Relevance to LL

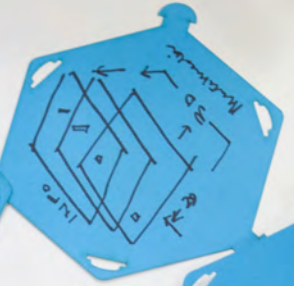




CAPTURE DATA - AUDIO, VIDEO, METADATA, AS IT HAPPENS

Linear vs Non-linear

DATA TO CLUSTER



TOO MUCH DATA

ANALYTICS

[A HAND] Touch Tables.

How we can use all tools to support design?





How to transform initial creative processes?

DIFFERENT SHAPES & COLORS

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

CLARITY

PHYSICAL (PROXIMITY)

DIALOG

BEING

BEING

BEING

BEING

BEING

BEING

BEING

BEING

BEING

BEING

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors

Use different shapes and colors



בגד זה  
עוד לא  
היה מיוצר  
לך מה שאתה  
רוצה



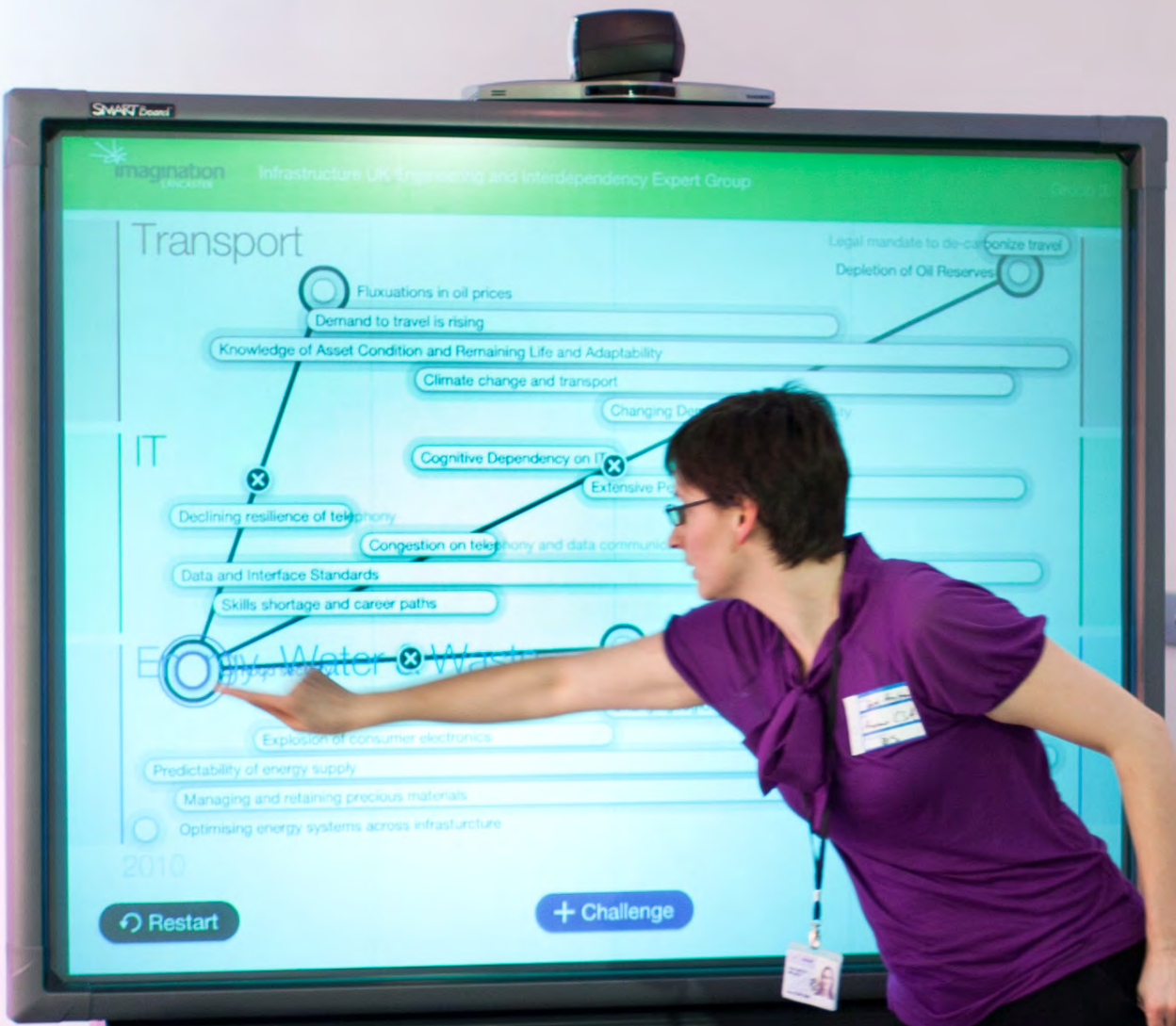
אנחנו מודים לך  
על השתתפותך  
בפעילות



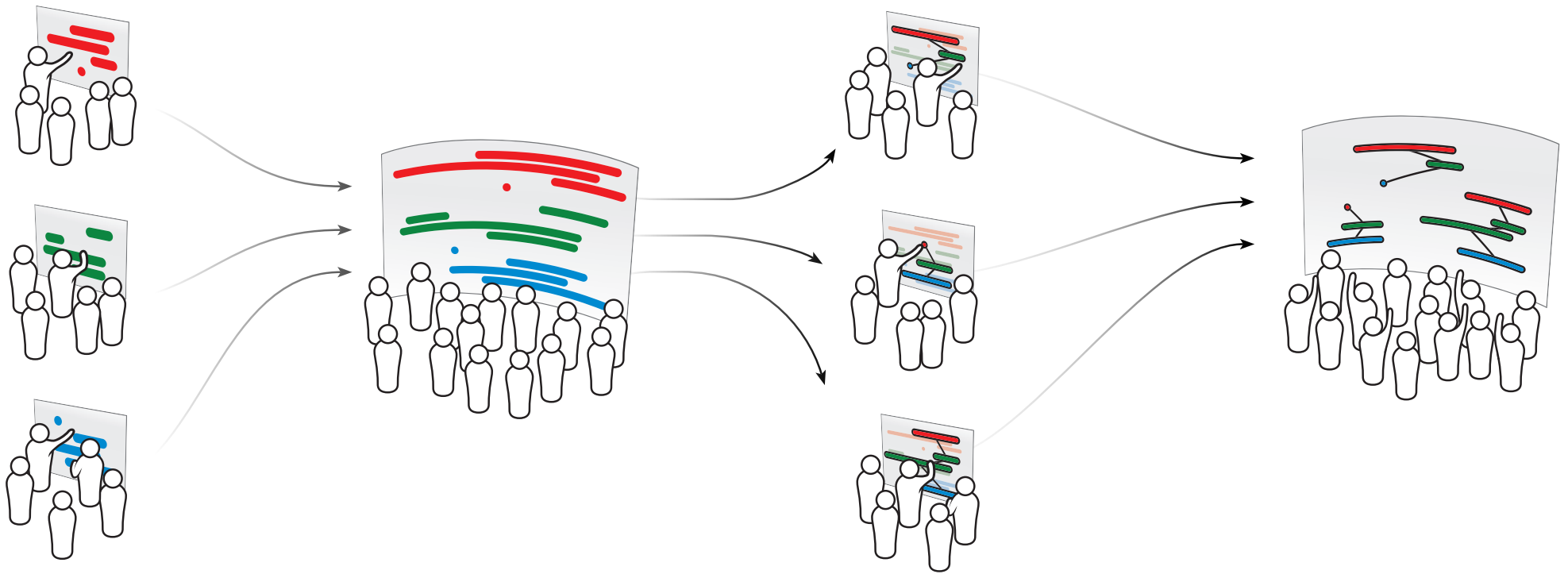




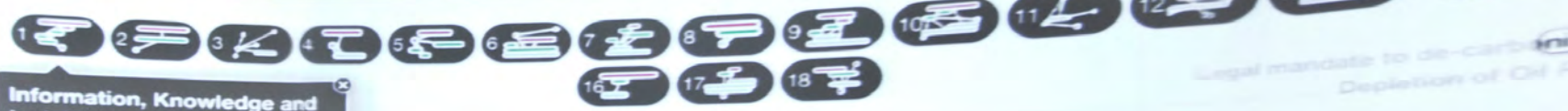
CREATE THE SPACE TO  
**INNOVATE**







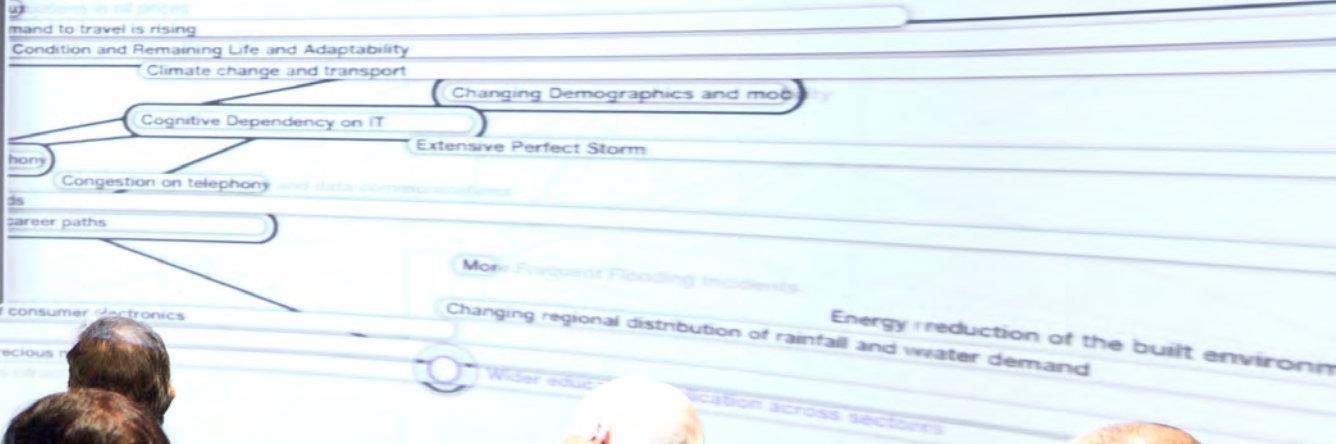
**UK Treasury, cross-disciplinary  
and self documenting**



### Information, Knowledge and Insight

**TOP LEVEL STRATEGIC ITEM**  
People's skills and problem solving skills for a more complex and challenging global environment.  
- commercial skills  
- ubiquitous set of skills that we all needed (cultural)  
- reflexive at the expense of reflective  
- citizen science  
- possibility of global and local collaboration and team work

Severity: ●●●●●●●●  
Likelihood: ●●●●●●●●



DATE  
2,7,10/16  
9 18  
8  
+ ENERGY 6/12  
1577 11





## We are...

An open and exploratory design-led research centre at Lancaster University

We conduct applied and theoretical research into people, products, places and their interactions.

We work with a variety of organisations to provide fresh perspectives on real-world issues and facilitate innovation.

We offer Undergraduate, Masters, and PhD study opportunities. All our staff are active researchers with

## Latest

Updates

Events

Twitter

### Using Open Innovation to Develop Inexpensive, Sustainable Fast Fashion and Other Possibilities with the OpTex project.



The OpTex project started in earnest recently with a scoping workshop held in the fabulous INNVENTIA laborites in Stockholm. In this project Imagination is helping this research institution to further develop its approaches to open innovation.

This first workshop brought together engineers,...

[Read full update](#)

## Recently Updated



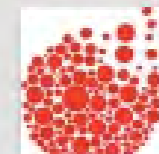
OpTex



Design Value: The Role of Design Innovation



London Creative and Digital Fusion



IDEAS for Impact



Design PhD Conference 2015



Leapfrog



Liveable Cities

<http://imagination.lancs.ac.uk>





# Open Design and Innovation

Facilitating Creativity in Everyone

Leon Cruickshank



**LEON CRUICKSHANK**  
Reader in Design,  
Lancaster University, UK



**GEMMA COUPE**  
PROUD Design Manager,  
Lancaster University, UK



**DEE HENNESSY**  
Co-Designer,  
Lancaster University, UK

Co-Design:  
**FUNDAMENTAL ISSUES  
AND GUIDELINES FOR  
DESIGNERS:** Beyond the Castle Case Study  
BY LEON CRUICKSHANK, GEMMA COUPE & DEE HENNESSY

Keywords:  
Co-Design, Knowledge Exchange, Participatory  
design, Public Sector, Public Engagement

<http://tinyurl.com/Co-Design-Principles>

# Open Design and Innovation

Facilitating Creativity in Everyone

Leon Cruickshank

**L.Cruickshank@lancaster.ac.uk**



**LEON CRUICKSHANK**  
Reader in Design,  
Lancaster University, UK

**GEMMA COUPE**  
PROUD Design Manager,  
Lancaster University, UK

**DEE HENNESSY**  
Co-Designer,  
Lancaster University, UK

Co-Design:  
**FUNDAMENTAL ISSUES  
AND GUIDELINES FOR  
DESIGNERS:** Beyond the Castle Case Study  
BY LEON CRUICKSHANK, GEMMA COUPE & DEE HENNESSY

Keywords: Co-Design, Design Research, Public Engagement

LIU E-Press DIO: 10.3384/ovid.2000-964X.13248

<http://tinyurl.com/Co-Design-Principles>