

# Building the Service Design Research UK Landscape

**Visual Report**

27<sup>th</sup> June 2013

[www.servicedesignresearch.com/uk](http://www.servicedesignresearch.com/uk)

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**ual:** university  
of the arts  
london  
london college  
of communication



Arts & Humanities  
Research Council

## About SDR UK

Service Design Research UK (SDR UK) is an [AHRC](#) funded project that aims to create a UK research network in the emerging field of Service Design. SDR UK is organising 3 workshops to map the field and illustrate with examples and research work what Design can do for service innovation. Each workshop will share case study experiences, map existing knowledge at the core and boundaries of the field and identify knowledge gaps and research questions that will inform the following workshop. Final results will feed into a positioning paper to be presented at ServDes conference in April 2014 at Lancaster University ([servdes.org](http://servdes.org)) and into potential research bids collaborations.



# The workshop

## Agenda

- 10:30** — Coffee and registration
- 11:00** — Introducing SDR UK
- 11:20** — Guest Speaker Lawrence Green – Manchester Metropolitan University
- 11:40** — **Case studies presentations**
  - Jocelyn Bailey – Policy Connect
  - Sarah Drummond – Snook
  - Alastair Macdonald – Glasgow School of Art
  - Tracy Bhamra – Loughborough University
  - Paul Thurston – PDR
- 12:30** — Lunch
- 13:15** — Group Discussion: What Service Design does/does not do for Service Innovation
- 14:30** — Mapping: emerging areas, issues and questions
- 15:45** — Conclusions
- 16:00** — Closure

## Participants

### Guest speaker

Lawrence Green – Manchester Metropolitan University

### Case studies

Jocelyn Bailey – Policy Connect

Tracy Bhamra – Loughborough University

Sarah Drummond – Snook

Alastair Macdonald – Glasgow School of Art

Paul Thurston – PDR

### Workshop participants (UK)

Tony Coultas – Scotland Skills Development Agency

Jake Garber – Innovation Unit

Eva Kirchberger – PhD Student DESMA project

Jennifer Milligan – Lancaster City Council

Chris Pearson – Cambridge Service Alliance

Patrick Stacey – Lancaster University

Andrew Walters – PDR

### Workshop participants (International)

Mari Holopainen – Aalto University

Lia Patricio – University of Porto

### Advisory Board members

Stuart Bailey – Glasgow School of Art

Val Mitchel – Loughborough University

James Moulridge – Cambridge University

Hazel White – Dundee University

Bob Young – Northumbria University

### SDR UK coordination

Alison Prendiville – University of the Arts London

Amy Ricketts – Lancaster University

Daniela Sangiorgi – Lancaster University



# Service Design Research presentations

## Innovation & Sustainability



*Improvement* – partial changes and improvements to existing products

*Redesign* – improvement or replacement of components of a product

*New Concepts* – new ways of fulfilling customer requirements,

*System Innovation* – replacement of an entire technological system by a new system.

Loughborough Design School

Loughborough  
University

## Lawrence Green

### Service Innovation: Characteristics and Trajectories



Lawrence Green gave an overview of the development of research in service innovation and a brief description of the drivers for and qualities of service innovation practice in both the private and public sector.

Considering the most recent research in this field he recommended a number of key areas that Service Design should explore and contribute to. They are; the growing relevance of public-private networks and their role in innovation; innovation in the so called Complex Product Systems, which are highly technological, capital goods often produced by multi-firms projects (see [www.centrim.mis.brighton.ac.uk/research/projects/cops-ic](http://www.centrim.mis.brighton.ac.uk/research/projects/cops-ic)); the forms and applications of open and social innovation and the importance of the development of new innovation metrics. He stressed the importance also of looking into innovation failures, as well as successes, as a fundamental source of learning.



## Jocelyn Bailey Restarting Britain 2



Jocelyn Bailey briefly presented the results of an inquiry led by the Design Commission into the role of Design for Public Services renewal.

The recommendations articulated in the final report ([www.policyconnect.org.uk/apdig/sites/site\\_apdig/files/report/164/fieldreportdownload/designcommissionreport-restartingbritain2-designpublicservices.pdf](http://www.policyconnect.org.uk/apdig/sites/site_apdig/files/report/164/fieldreportdownload/designcommissionreport-restartingbritain2-designpublicservices.pdf)) suggest the need to develop design leadership in central government, increase design capacity across government and design capacity in the design sector itself. She highlighted the existence of a vacuum of support and advice between learning about the potential of design and applying it in local government, that should be addressed from an institutional perspective.

Suggested strategic areas for developing service design research are public sector commissioning and digital innovation (i.e. Digital by Default project). Finally she recommended the need to normalise the Design approach as part of public service thinking, practice and policy training.

## Tracy Bhamra

### Sustainable Product Service Systems

Tracy Bhamra briefly described the potential for Products Service Systems within the context of environmental sustainability.

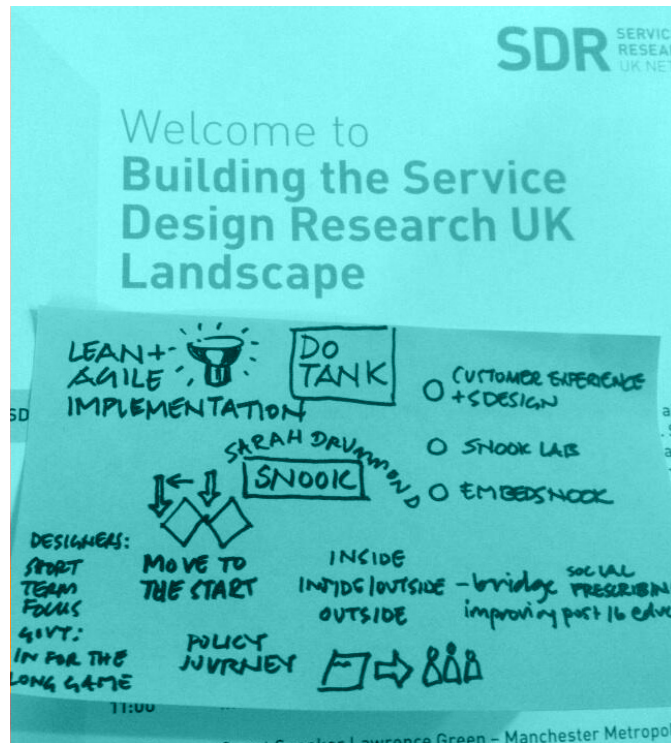
Given the need for radical innovation, products should no longer be the focus of design. Three main kinds of services were presented: Product Services — adding services to extend the life of a product; Use Services — when products are not owned but accessed and Results Services — where companies provide the final result to clients.

The last ones have been suggested as having a wider potential for radical change. An EPSRC project titled SOLiD (Service Oriented Life-Cycle Design) demonstrated the opportunities for designers to work on developing these kinds of services, but high barriers were found in the transformation of business structures and in customer attitude. This could be an interesting space for research.



## Sarah Drummond

### Inside | Outside | On the Edge: Lean Startup and Public Sector



Sarah Drummond from Snook gave an overview of their work with and for public sector organisations. She has identified three main models of interventions described as: Inside (or Embedding Design); Inside-Outside (or consulting and skill building) and Outside (Ventures). Each of these models has their own benefits and difficulties, which relate to the overall issue of sustainability and impact of design interventions.

The Inside-Outside approach resembles the more traditional model of consultancy, which struggles with longer-term implementation and skills transfer, whilst exceeds in gaining clarity of objectives and contributions. The Inside approach has a longer term perspective and empowering agenda within the organisation, but struggles with crossing the skill gap, acting in longer time frameworks which is unusual for designers. Finally the Outside approach has more freedom and agility in its intervention, but suffers from issues of scalability, market readiness and integration within the existing systems.

Exploring the skills gap for designers to work at these different levels and the ways in which these different approaches can become complementary to each other to achieve a bigger impact, provide interesting areas of potential research.



## Alastair Macdonald

### Mappmal

Alastair Macdonald has summarised a research project called Mappmal funded by ESRC which has been studying and developing a nutrition management and monitoring system for vulnerable older hospital patients.

The project made evident the differences in research approaches in a multidisciplinary field, which has raised the issue of legitimacy of 'designerly' ways of researching. The legitimacy issue manifested in the tensions with the non-design members of the team regarding types and modes of interpretation of design evidence.

How to build legitimacy and effective collaborations in research contexts where a more traditional, science and evidence based approach dominate, is a valid research question.



## Paul Thurston PDR



Paul Thurston presented the work of The National Centre for Product Design and Development Research (PDR) of Cardiff Metropolitan University.

In particular he illustrated a programme run for SMEs to learn how to innovate using Service Design. Paul suggested the need for more work with SMEs, as despite SMEs representing a significant part of UK economy, most of Service Design practice and research has been looking into the public sector or big organisations.

When working with SMEs, Design needs to provide a valid argument as it is competing with a plurality of other methodologies that companies have already been exposed to such as Lean, Total Quality, Design Management, Sigma, etc. Other barriers are SMEs initial understanding of Design as associated with engineering or styling, and the cost of Design agencies, which is too high. Also any proposed transformation would need to consider the limitations in investment capacity of SMEs. Existing studies into servitisation processes and challenges could better inform the work of designers in this area.



# Group discussion



## Group discussion

### What Service Design does/does not do for Service Innovation

The first activity centred on members of each table discussing the benefits and challenges of service design. From these discussions the groups were asked to select five key benefits and five challenges that were captured from the conversations. Each team then presented their findings to the room adding their benefits and challenges tags to a larger chart. The contributions from each table shared many features in terms of the benefits of service design; there was a consensus on the empowering, buy-in and democratization elements of service design methods. In contrast the challenges presented more singular perspectives, expressing scepticism, and questioning the newness of service design, and issues around implementation. A reoccurring issue with the challenges related to its lack of integration with the business context; this was identified by a number of the teams.



**The following paragraphs are transcriptions from the presentations that were made by each team.**

### **Pink group Challenges**

The first group identified a lack of clarity over the term Service Design and understanding of what service design is. There was a feeling amongst their group that there are a lot of different ways service can be applied and it is all branded under the same umbrella making it hard to distinguish roles in terms of what the service designer is capable of doing and in terms of working inside an organisation and as an outside consultant. The team discussed issues around design and business and the lack of integration not just for young designers but also service designers as a whole that is, it was not aligning itself to the business needs of an organisation. For example with Skills Development Scotland it was internally integrated — but service design also works in a consultation role, for example with organisations like Engine.

It was felt that Design Education and service design is still at a surface level where the emphasis is on tools but not on the business opportunities and political arena. Service designers understand customers but not necessarily the corporate environment. They emphasized the importance of understanding how they act together. Generally it was felt that there was a lack of understanding of company, politics and business model.

### **Benefits**

Service design attributes are seen as being valuable to problem solving and ideation and they also provide a good framework for unknown and emerging processes. Service design was also recognised by the group as being empowering and providing energy for staff — service design explorations can bring peoples' passions to light.



### Yellow group

The second team decided to start with quick, shared discussions. Stuart Bailey started the conversation by reflecting on the issues of embedding design and one of things that he has been finding is how consultants are always focusing on delivering to an organisation, be it service design training, or a blue-print. With this there was an acknowledged frustration of nothing being implemented. The discussion also touched upon designers as facilitators, which again can lead to the feeling that you are not being valued because nothing happens in terms of implementation. In contrast Skills Development Scotland was presented as an organisation that is trying to involve people in the value of design and understand the value of design, not just create people who use design. Stuart Bailey noted the importance of doing this efficiently.

### Benefits

Service design was situated by the table as a democratization process where visualization and 'what

ifs' scenarios enable a greater engagement with more people within an organization resulting in empowerment for all staff. It was stressed in the conversations that service design is not just about all your customers and stakeholders — but all within the organization — so everyone becomes part of it — service designer's are good at visualizing and bringing it out whether its through the storyboarding, the prototyping or other tools that are used for communication.

Rapid proposal generation and prototyping was also considered as an important attribute of service design and this included its capacity for messiness and its non-hierarchical approach; linking back to a process of democratization — but it is also about people who are making the decisions. In particular it was felt that the methods and processes brought people making policies closer to the people who they are making them for; they can see who the users are. Especially in government they can be so far removed that service design can bring it closer to the people and bring it to life.

## Challenges

These issues related to how designers get started and get acceptance. Service Design is multidisciplinary, involves lots of different people, and we have different nuances of design — what do we mean by designing — who is doing the design? There are people who are not trained in design but are also designers — what do we mean by that? What is the terminology?, there is a lack of clarity. Chris Pearson pointed out that many companies already have lots of different professions within the organisation and is service design just another siloed group?

It was noted how many people, especially within the public sector are risk averse and there are challenges of things going wrong. Through rapid prototyping and implementation, design has an important role in teaching people about failure through design iterations; it allows people to explore (failure) and that it is part of a creative process.

The different types of innovation incremental v radical innovation were explored in the discussions. It was felt that in many instances, innovation happens very slowly incrementally, equally, sometimes you introduce design and it can change things too radically for some people again risk averse with a reluctance to engage radical change.

Difference between long term and short term — the iteration with prototyping moves quickly whereas policy makers move slowly — so there can be a lack of momentum — and the project will often lose its momentum.

### Grey group

Another team took a sceptical standpoint raising the question 'are we just rebranding something that has been done well before?' E.g. Pan Am — the Milkman, TWA — Radio Rentals are these not examples of service design — services are all created — so what is it that is new? Their table also found it quite difficult to answer the exploration of benefits of Service Design without





identifying context. Benefits — Who's it for? Is it for manufacturers, public sector — or retail — benefits can't be talked about it in an abstract way — however Service Design is presented as something that deals with many of these contexts across the board. At least when setting out to design a service you have an intention of dealing with a complex eco system or a healthcare system that may be supported by a technological system and it encourages people to take a more social view. A benefit of service design is in its ability to reveal and tease out complexity. In looking at an established system having the licence to challenge and break out of the existing thing.

A challenge facing designers is the changing skill sets of designers — how designers and how in these complex multi stakeholder systems designers need to be trained as facilitators — not necessarily covered in their education — how do you demonstrate and measure this skill? — how do you show it in a portfolio? Also getting over the workshop allergy threshold — so many change management and public sector workshops now,

how do you make a workshop meaningful an engaging experience. Trying to reduce the complexity — but avoiding post-it superficiality — eyes glazing over — to accommodate our methods, workshop processes, what do our tools mean to other people? Breaking out of silos — of the institutionalised — thinking that already exists — one of the big challenges. Complex systems are often siloed and they want to maximise their little bit rather than across the system.

### Blue group

The next team identified the lack of a really strong narrative around service design and that there is not a clear elevator pitch which makes it difficult to articulate its value. Equally for industry and the public sector there is ambiguity on where it fits in terms of how they understand the world to be. Service Design doesn't have a history or heritage or a grounded place; it's quite new — unlike other design professions which have a recognised role.

Implementation — tends to be hard to get to the implementation stage because often the business model — or the mode in which you are engaging — for example consultants don't help you achieve that long term institutional and cultural change.

How to connect — big business with social innovation — remarking currently big business — currently uses Service Design, Graphic Design and Product Design for its business — Rob Young — currently we don't have a connection between big business and social innovation. Particularly if you look at areas of third sector and social enterprise — How do you get big business interested e.g sponsoring charities as part of their strategy, so moving beyond CSR?

### **Benefits**

Making radical solutions accessible, by being multidisciplinary, multi-stakeholder being potentially visual and through various tools, it can help people move through small incremental steps for radical change and radically different scenarios.

Inherently positive — going into a situation where there is a belief that it can be improved — that's quite a strong philosophical position Service Design brings.

### **Purple group**

#### **Benefits**

Service Design — is about somebody offering a fresh pair of eyes to an organisation and what Service Design brings with that fresh pair of eyes, it enables a holistic approach, thinking a bit bigger, looking across the company and thinking outside the box. And the skill of that process or the skill of the designer is in guiding people through that process and taking them some sort of learning along the way and why it is a good way to look at their systems and what new opportunities that brings to them. And it then enables people within the organisation to work more creatively.

#### **Challenges**

Not as straightforward as that. All aspects there are barriers around knowledge, resources and expertise. They don't know about these processes they don't know

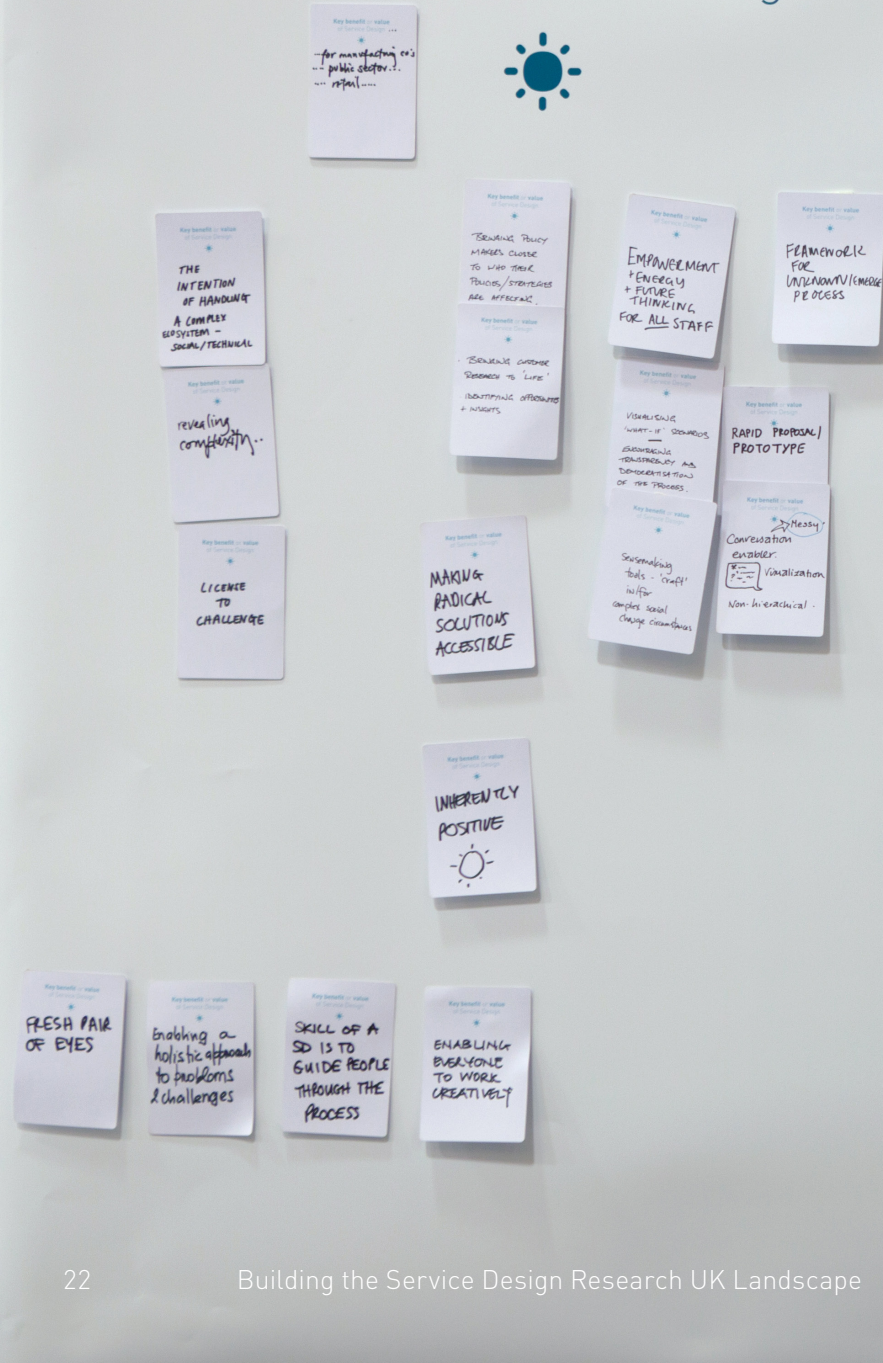
whom to contact and they don't have the resources to invest in Service Design or resources to develop their own in-house capabilities or their own expertise or easy access — particularly for smaller organisations. And one of the ways is to get better at defining our objectives KPI's (key performance indicators) — demonstrating what it is that these companies will get at the end before they commit to engaging in Service Design — and you have to go in quickly and understand the organisational culture. So there are benefits to being naïve — as you are the tolerable fool from the outside. Service Design is often project specific — the Service Design gets the funky project, however they are not engaging in the daily activities where actually a lot of the benefits could come from. We need to get better at making our arguments in terms of the research rigour — the real benefits and why they exist.

### **Opportunities**

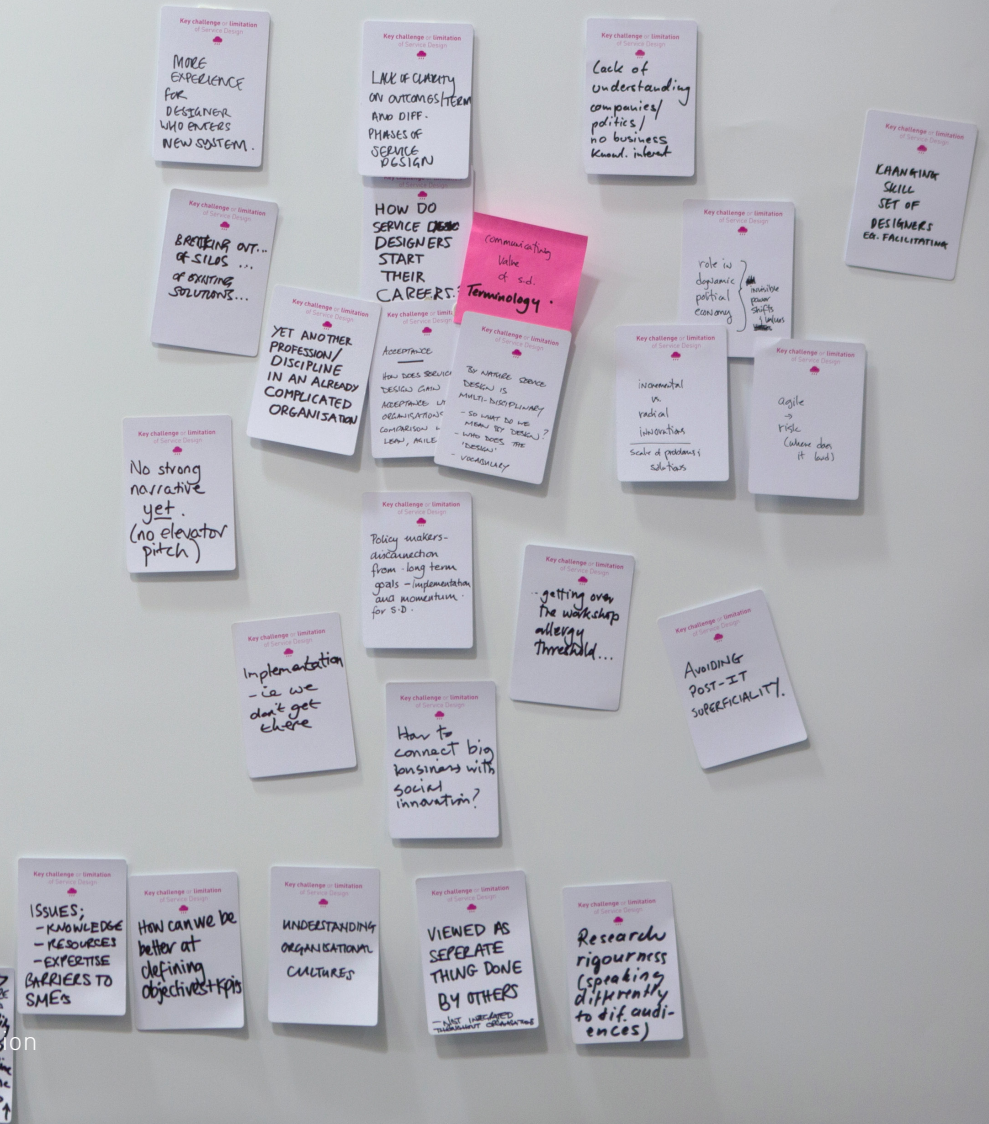
The world is changing and we can give tools online so that people can find new ways of engaging with their customers (social media) — e.g using the mobile phone to capture data spontaneously to capture user movements.



# Key benefits and values of Service Design



# Key challenges and limitations of Service Design





# Mapping



## Mapping Emerging areas, issues and questions



**In the second activity participants have been working in groups on a developing map of Service Design Research in order to suggest new research areas, questions, and relationships and to comment on its own structure.**

The considerations that have been made were at three main levels:

### 1. Map design methodology

Before even considering the content of the map, there have been discussions on how you go about building and visualising the map itself. For example you could build different versions of this map depending on the selected audience (academics, users, designers, public sector, etc.). Or you could use different axes to represent and position the research areas. If focusing on academics as main audience Bibliometrics and Social Network Analysis were suggested as useful methodologies to shape the field.

## 2. Boundaries of SDR landscape

A significant question, emerged from different discussions, was related to the boundaries of Service Design as a field and therefore related to the boundaries of the map itself. The described risk was that if you ever expand this research field you can never say what Service Design actually is or is not. The lack of clear boundaries can cause issues with communication (how do you communicate what service design is?) as well as with legitimacy (who is a Service Designer and what does he bring to service innovation?). Also it can affect the way service designers are educated and the way they work in interdisciplinary projects. Finally a related question was: what will Service Design be in 5 – 10 years? Will it still be relevant to talk about Service Design?

## 3. Research Islands and Connections

Some specific contributions have been suggesting additions or adjustments to the landscape.

- **Service Logic vs Servitisation:** there is a general agreement that Service Logic goes beyond the practice of adding services to products as Service Logic represents a business approach that could be applied to everything and not only to manufacturing companies. Question: what is the design process/ approach to support the adoption of Service Logic in organisations?
- **Management vs Design:** the relationship between design and management was mentioned at different points. There is an interest on how they can learn from each other (business training in design and vice-versa) and on how they can compete or collaborate. Service Designers are now working on more complex and strategic projects where their competitors are not anymore other design studios but business consultancies like McKinsey. How then

Service Designers are equipped to compete on that level? What is the knowledge gap? How can they build legitimacy? What are their new consultancy business models?

- **Digital and Open Innovation:** there is a general interest in the role and application of digital and open innovation in Service Design also as a source to imagine new service models. Successful examples cited are from IDEO, Digital by Default, David Townson, O-S- Geovation Challenge. How Open and Digital Innovation can be applied to generate new service and engagement models?
- **Social Innovation & Start-ups:** many designers are engaged in the design and development of start-ups in particular with an interest in social innovation and social entrepreneurship. How can Service Designers develop and sustain these new ventures? What is

Design bringing to Social Innovation and Social entrepreneurship?

- **SMEs and Service Design Innovation:** SMEs (in particular manufacturing SMEs) had received limited attention from Service Design, even if they represent a significant percentage of UK economy. There is though the need to make Service Design more accessible and understandable given their needs and capacities. What are the specific needs and barriers to work with SMEs and how can Service Design support their development?
- **Models of Service Design practice:** service design practitioners are developing and working in different ways. They can operate as a traditional consultancy, create in-house innovation centres in public or private organisations/institutions, work in multidisciplinary studios or create their own start-ups. How are Service Design practitioners operating today? What are the models and what is the impact?



- **Impact and innovation metrics:** there is the need to have a collection of case studies, measure their impact and create new innovation metrics able to recognise the different practices and dimensions of innovation in order to better document Service Design value. How can we measure and document Service Design driven innovation and impact?
- **Service (eco) system and networks:** Service Design can happen at different levels of service systems and networks. In the field of Design for Sustainability, we can talk about Design for Service Eco-Systems. Service Design could also look into the growing field of Complex Product Systems (CoPS) research. How is Service Design working at a system level? How is Service Design contributing to shape new Value networks configurations? And how is this linked with Sustainability?



- **Public Service, Policy making and Service Design Thinking:** There is an initial interest on how Service Design Thinking can inform and affect not only Public Service design but also Policy Making. Design approaches could be applied and become part of more traditional Policy Making processes. What is the value Service Design can bring to Policy Making? How can Service Design be integrated within more traditional Policy Making processes?
- **Service Design Education:** all groups have touched in some way the topic of Education, both in terms of academic Service Design Education and as education and training for professionals and organisations. This last one is linked with the topic of Embedding Service Design and Organisational Change. What are the emerging Service Design education models? How can organisations and professionals from other disciplines be trained into and adopt Service Design?
- **Architecture, Urban Planning and Space:** an unexplored link is the one with the design of cities and spaces. The possible collaboration between Service Design, Architecture, Interior Design and Urban Planning could represent a novel growing area of research and practice. How can Service Design contribute to the Design and Planning of cities, architecture and spaces?

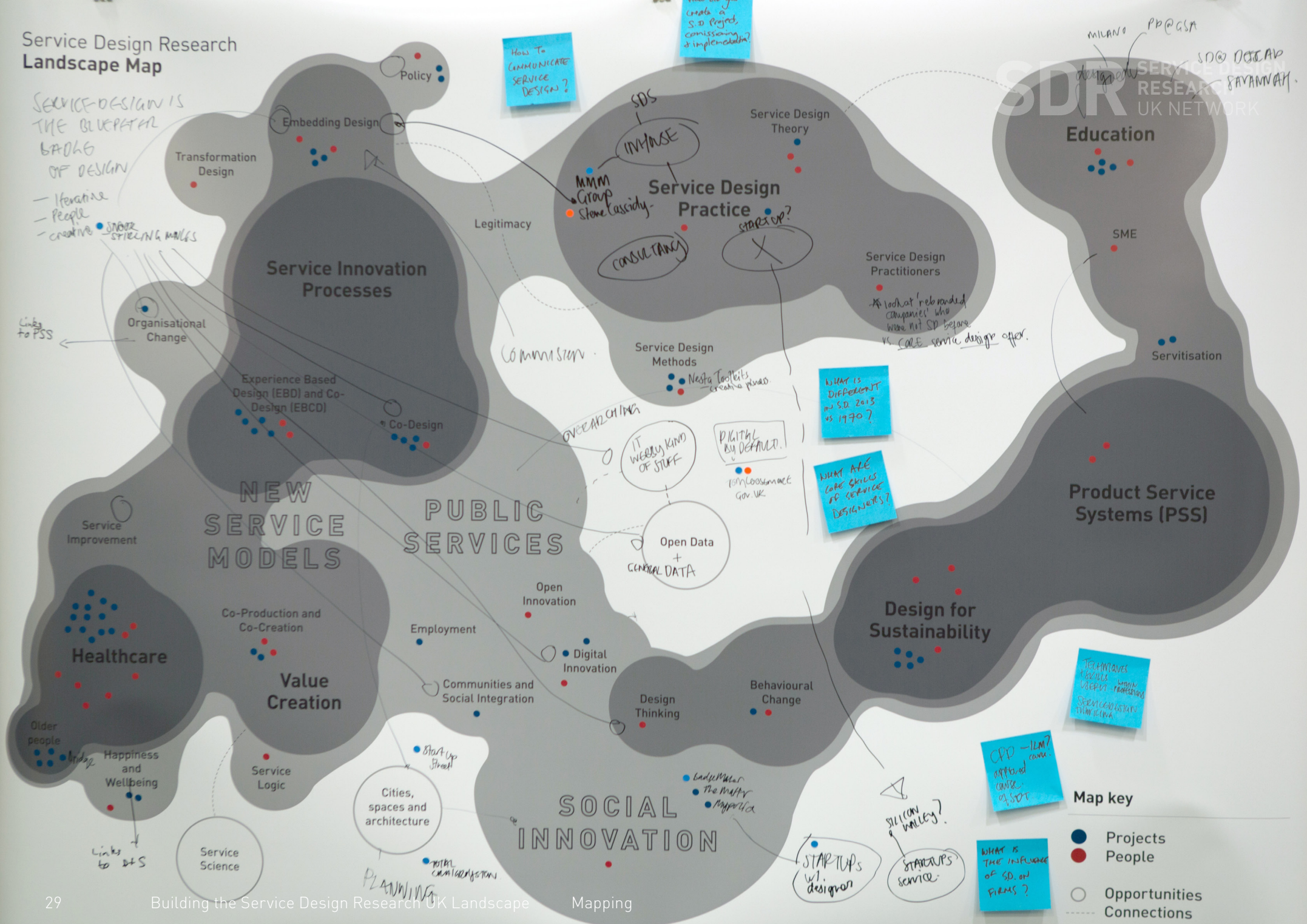


## Service Design Research Landscape Map

SERVICE DESIGN IS  
THE BLUEPRINT  
BACK  
OF DESIGN

- Iterative
- People
- creative

Linky  
to PSS





# Service Design Research Landscape Map

academic perspective:  
bibliometrics  
version to validate

SNA (Tools)

dynamics picture (Charles Armstrong)

multi-perspectives  
for different audiences

'not systems thinking'

CAPACITY BUILDING

whatever happened  
to Service Design?

SECTOR SPECIFIC

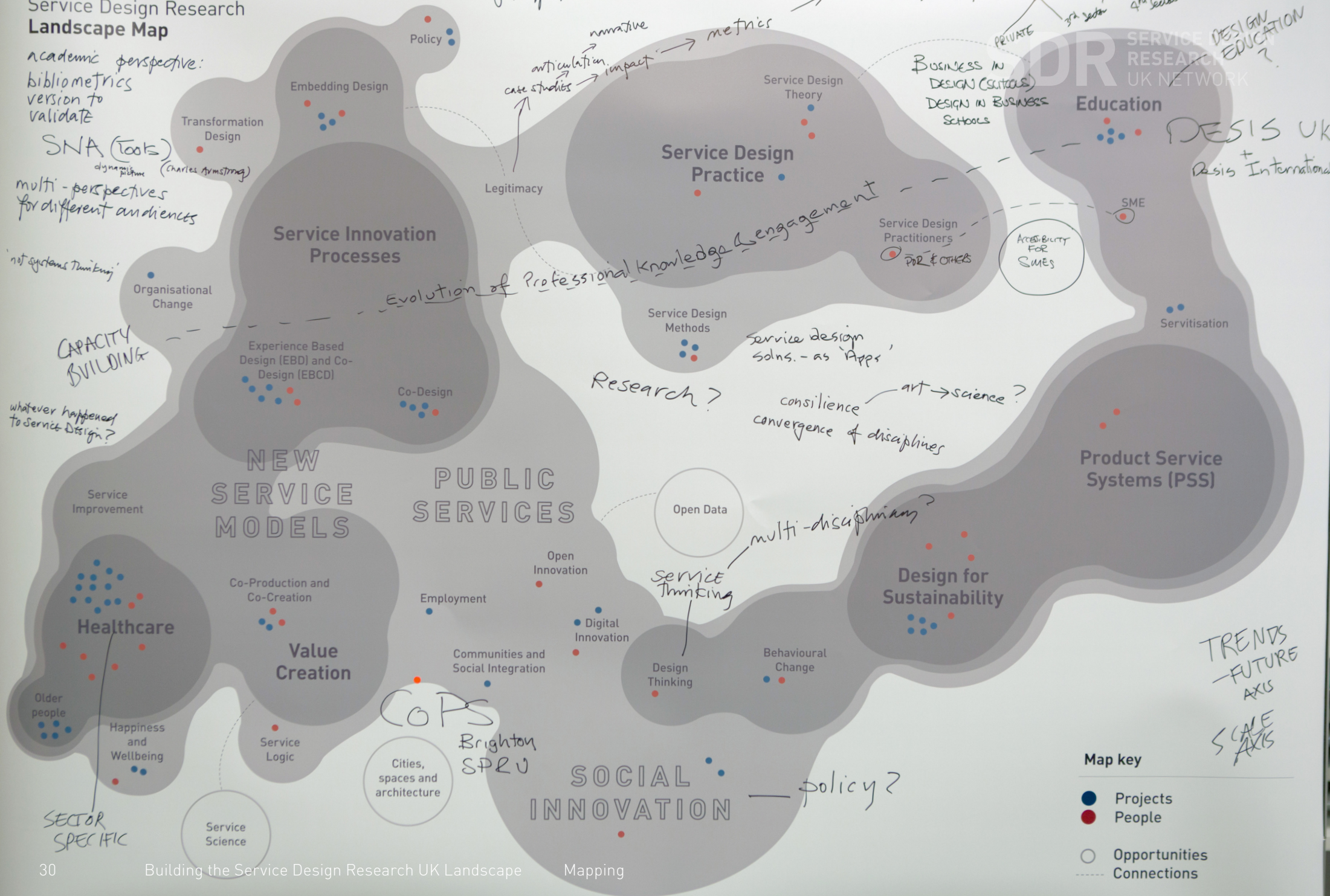
multi-configurations  
of map?

participatory design + protocols

PRIVATE  
3rd sector  
4th sector

SERVICE DESIGN RESEARCH UK NETWORK  
DESIGN EDUCATION?

DESIS UK  
Desis International



## Map key

- Projects
- People
- Opportunities
- Connections

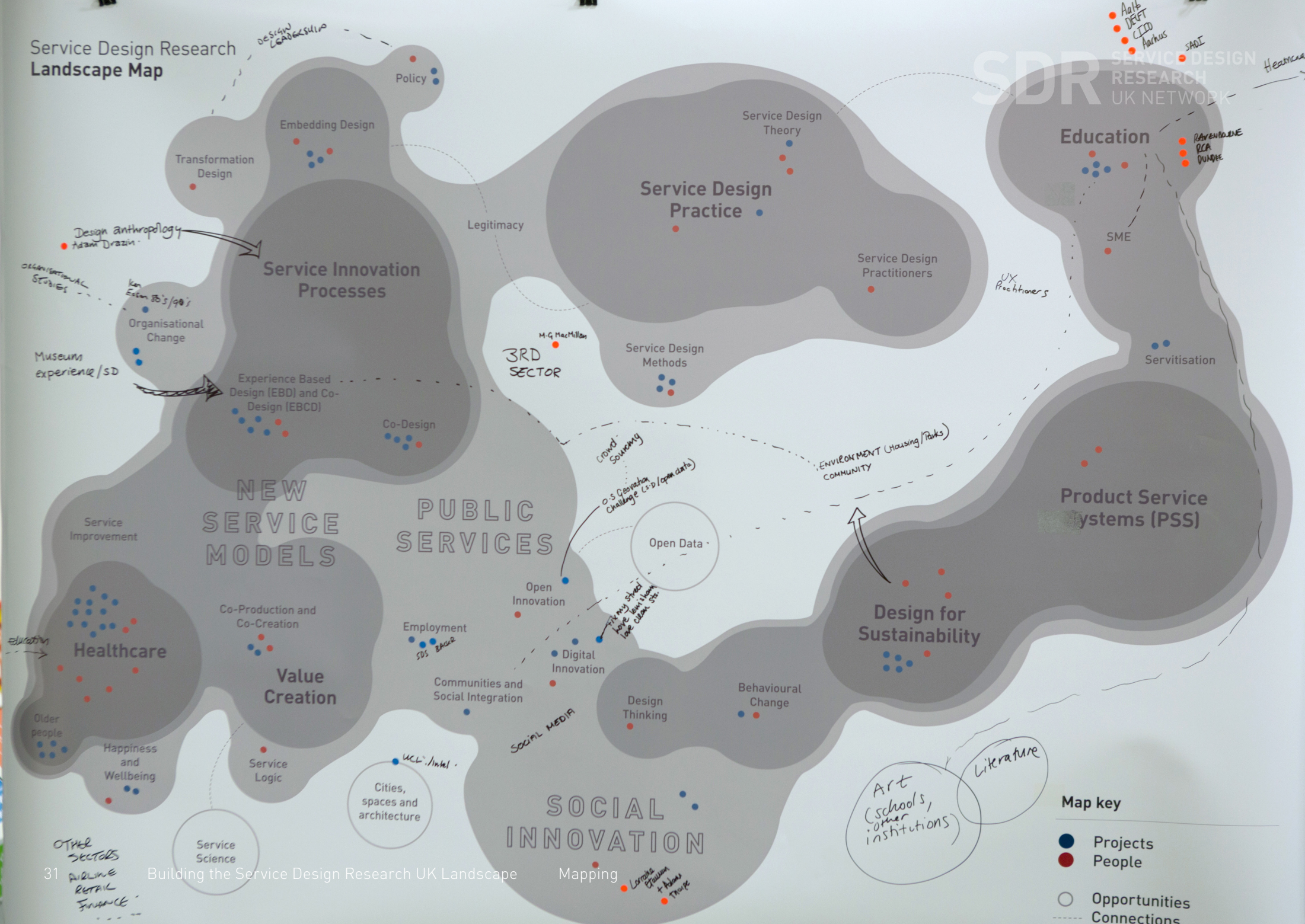
TRENDS  
- FUTURE  
AXIS  
SCALE  
AXIS

policy?



# Service Design Research Landscape Map

SDR SERVICE DESIGN RESEARCH UK NETWORK

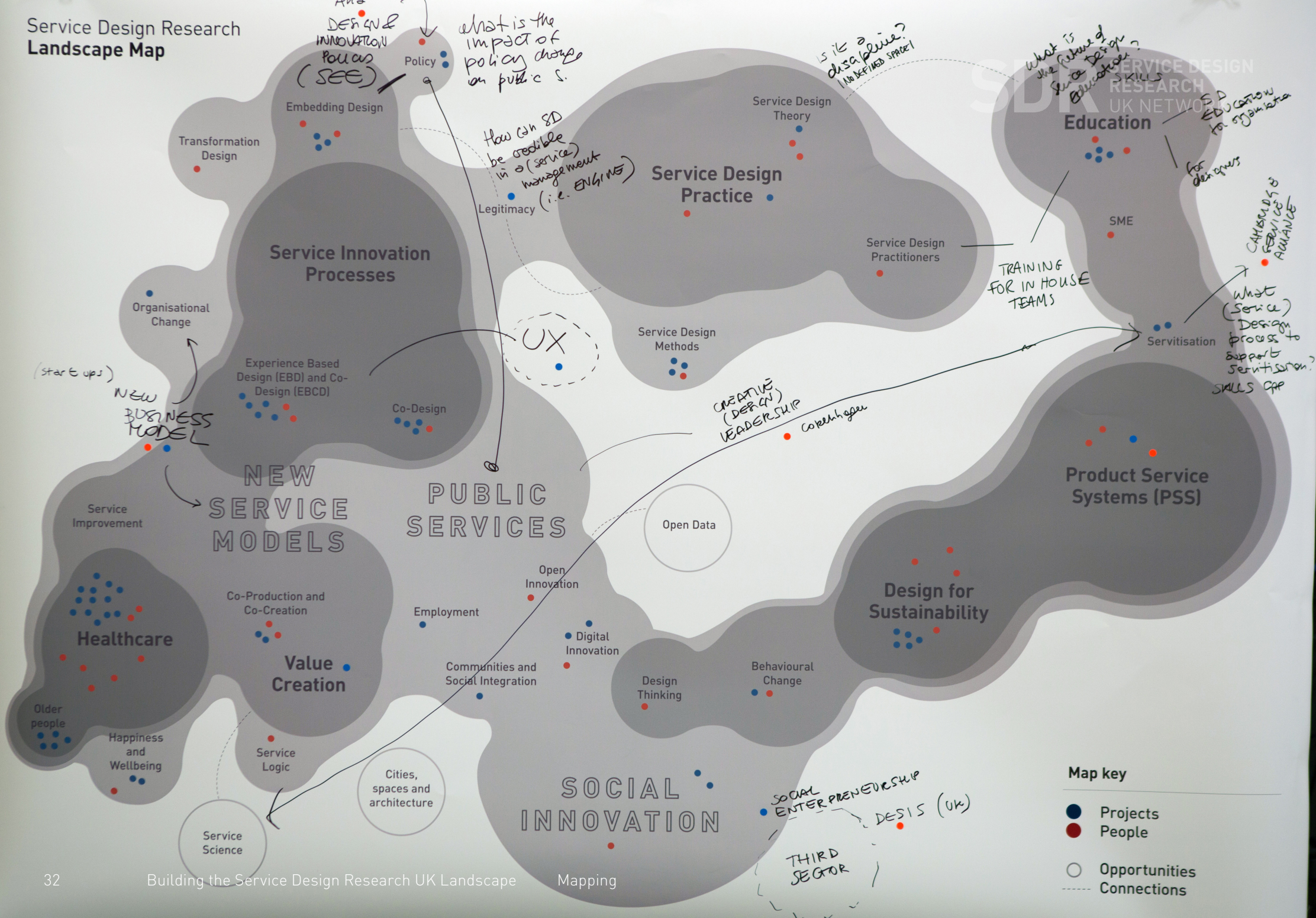


**Map key**

- Projects
- People
- Opportunities
- Connections



## Service Design Research Landscape Map





BOUNDARY: WHAT DOES SERVICE DESIGN NOT DO





# Some conclusions



## Some conclusions

### Towards a more mature professional and research field

Many of the conversations that happened during the first Service Design Research workshop, suggest **the need for Service Design to take the next step, meaning to become a more mature professional and research field**. This has emerged from the several considerations about the need to **define clearer boundaries together with a stronger 'core' of what Service Design is and can do**. The definition of this disciplinary core is felt as fundamental to then professionally grow in the way designers communicate their work and demonstrate their impact, in the way they work within and for organisations at more strategic and transformational roles, in the way they work toward implementation, and how they approach complex and multidisciplinary projects and systems.

**Core recognised qualities** have been listed as: valuable to problem solving and ideation, a good framework for unknown and emerging processes, empowering for design participants, democratic and non-hierarchical approach, allowing people to explore failure and take

risks, reveal and tease out complexity, making radical solutions accessible, inherently positive and holistic.

**Key challenges and limitations** cover instead areas where Service Design needs to develop as a mature field of practice and research. A significant part of these considerations look at the still limited understanding of business and organisational needs and dynamics and the limited ability and opportunity to work toward service implementation or to document and demonstrate impact and sustainable change. All together this results in a still weak narrative about what Service Design is, can do and achieve.

The kind of **research** that is needed to support this development should study both the core qualities and practices of designers working for services – to document, analyse, measure and communicate what Service Design is and can do – and the complementary knowledge, skills, competences, and tools that could support designers to collaborate and work in a more

aware, strategic and effective way in increasingly complex and multidisciplinary projects.

**The areas where to conduct these studies**, and that constitute the emerging SDR landscape, instead describe multiple trajectories of growth. Some of these represent specific research questions emerged from the highlighted key challenges and limitations – i.e. Management vs Design, SMEs and Service Design Innovation; Impact and Innovation metrics; Models of Service Design practices; Service Systems and Networks; Public Sector, Policy Making and Service Design; Service Design Education – other potential research areas touch adjoining areas of research and experimentation such as Digital and Open Innovation, Social Innovation and Social Entrepreneurship, Service Logic vs Servitisation.

On another level, Service Design Research suffers from the ambivalent nature and diffusion in our society and economy of both service and designing. As Design does not have a specific subject matter, somehow service as an object of designing represented a reason why and a

driver for Design to move into other realms and matters where change was the most needed. These new realms and matters bring to the fore the often mentioned question: **what's next? What is the next thing after Service Design?**

While Service Design aims to become a more mature professional and research field, other adjacent spaces for research and practice are attracting growing attention such as Design for Social Innovation or Design for Policy. The collaboration among these fields of inquiry should be continued as part of the evolving exploration of designers and designing.

The following two SDR workshops will explore some of these questions in more depth.

## Lawrence Green

### Service Innovation: Characteristics and Trajectories



Service Design Research: UK Network  
27<sup>th</sup> June 2013

### Service Innovation: Characteristics and Trajectories

Lawrence Green



### Introduction

- **Background** – sociologist with almost 20 years in innovation research (Manchester, Oxford, Cranfield, Central St Martins, MMUBS CIBI)
- **Projects** – EC FPs, UK Treasury, NESTA
- **Service Innovation focus**
  - Serviceisation (ICT firms)
  - Public service innovation and public-private service innovation networks (ServPPINs)
  - Innovation in the creative industries (internal processes and external contributions)



### Overview

1. Service Innovation studies - an extremely brief history
2. Characteristics of Services - basic principles and implications for innovation
3. Drivers for innovation in services
4. Findings – innovation in service organisations
5. Contemporary themes and research challenges



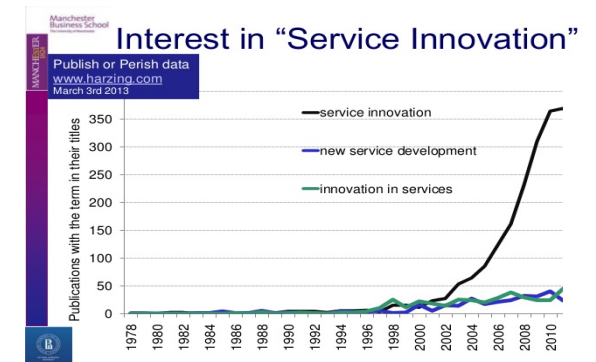
### Service Innovation Studies

- **Industrial Manufacturing and Technological Innovation** – the big story from the 1920s onwards – efficiency, growth, competitiveness  
Innovation with a role in national competitiveness, and in the competitiveness of firms
- **Services – subtle shifts** – from laggard or Cinderella to front stage – Gershuny, Miles and Barrass – building on Bell (from post industrial society to knowledge economy)  
Services dominant in developed economies (75-90% of GDP and employment)
- **Initial debates and theorisation** – ‘demarcation’ or ‘assimilation’ (or a rainbow approach?)



### Service Innovation – Growing Interest

(Source: Miles, 2013)



## Characteristics of Services



**Goods innovation** (product & process) - 'making new things, making things in new ways' (Miles)

**Service innovation** - 'doing new things, doing things in new ways'

Services - the tertiary sector – focus on '**Transformation**' (Hill, Riddle)

Services effect changes in the state of:

- **Environments** – waste disposal, remediation, park maintenance, airport cleaning
- **Artefacts** (produced by the secondary sector) - repair & maintenance, transport, construction, wholesale and retail
- **People** – health, education, catering, hairdressing, transport
- **Symbols** – entertainment, news, finance

## Characteristics (2)



**Characterising Services – Specificities – the '3is'** (De la Mothe)

- **Intangible** – 'can be bought and sold but can't be dropped on your foot' (Gummesson) – no physical weight or atomic presence (but frequently a physical embodiment – CD, insurance in a box)
- **Interactive** - client intensity, proximity, co-production (customisation and bespoke), coterminosity of production and consumption (e.g., in health and education)
- **Information Intensive** – much data transaction and processing – services often require data inputs from the client (e.g., legal services, hairdressing, medicine): data collection facilitates tailoring and customisation
- **Implications** - for demonstrability, trade, storage, competencies and innovation – ICTs often at the heart of service innovation

## Drivers for Service Innovation

Significant discussion of drivers in the contemporary literature – economic, management, psychological explanations etc.

Some key 'global' drivers (often interconnected):

**Competition** – most commonly cited driver (an imperative in industry) – the aim to get or stay ahead of competitors (often in the face of intensifying global pressures and entry of new players)

**Efficiency** – often linked to competitiveness – the re-organisation of processes to ensure optimum use of resources

**Market Entry, Market Development, Diversification** – novelty based on exit from declining markets and exploitation of new opportunities and partnerships

## Drivers for Service Innovation (2)

**Effectiveness and Service improvement** – often seen in public services (reflective of ethos?) – a desire to bring about improvement in treatments and outcomes – driven by humanistic, not profit-related concerns. Seen too in private sector – main aim is to have 'happy and satisfied customers' – all else flows from this (cybernetics)

**Technological Development** – clearly very important – making new things possible (e.g., new platforms, assemblage of content)

**Market or Social Need** – emergence of gaps in provision and clear demand – recent focus on demand-driven forms of innovation

## Innovation in Services Firms

**Findings from service innovation studies:**

- Rarely any formal R&D – innovation managed and organised in an *ad hoc* manner and led by executives/principles: innovation tends to be organic, responsive and non-linear (rarely planned)
- Dedicated budgets for innovation are uncommon
- Innovation perceived as 'business' or 'project development' (rather than innovation *per se*)
- Sources of ideas for innovation – intrapreneurialism (staff with knowledge of markets, competitors, demand, emerging technologies and opportunities)
- Focus of innovation – frequently 'delivery', interface and organisational (though service products are important)
- Little formal (policy) support for innovation in the service sectors

10

## Innovation in Public Services

**A locus of much recent interest and some research** (PUBLIN, 2005; ServPPIN, 2008)

- Public services as non-innovative, inefficient, a bastion of conservatism
- Interest driven by political and policy goals: New Public Management; 21<sup>st</sup> Century services; value for money; contestability; accountability
- Findings from early studies:

Much evidence of innovation (some formalised)

Drivers for innovation often different to those in the private sector – public service ethos, improved service and delivery etc. (rather than profit)

Much 'bottom up' innovation (from practitioners etc.) but problems in diffusing this

Some top down innovation (successful) but this often requires local adaptation and complementary innovation

11

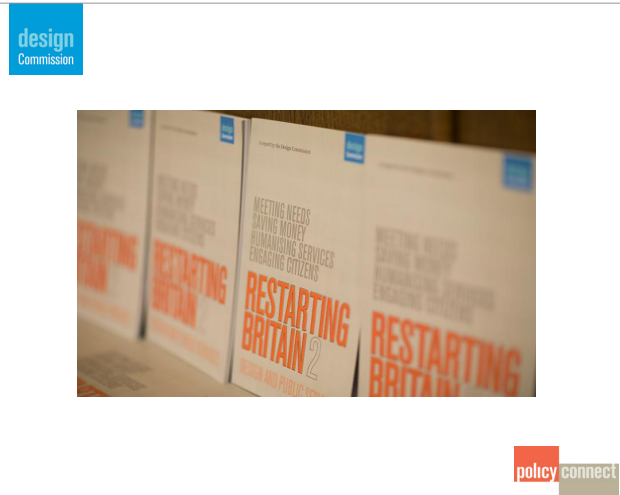


## **Contemporary Service Innovation Research** themes and challenges – a role for service design?

- Public sector innovation – the role of private actors and networks
- Managing distributed, networked (sometimes globalised) innovation processes – managing 'big' innovation (CoPS)
- Innovation in the creative sectors (and cultural and experience industries)
- Development of improved innovation metrics – reflecting the realities of contemporary (soft, organisational, business model etc.) innovation – revealing and valuing 'hidden' innovation
- Open innovation – non linear, non firm-based forms
- Innovation in a challenging economic environment
- Skills for innovation – implications in open and inclusive environments
- Social innovation – inclusion, competencies

12

**Jocelyn Bailey**  
Restarting Britain 2



**Why?**

Meeting needs  
Saving money  
Humanising  
services  
Engaging citizens

**How?**

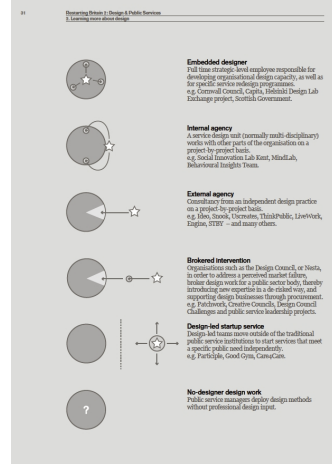


**What did we find?**

## OVERVIEW OF RECOMMENDATIONS

| Leadership  | Ownership/next steps  | Examples  |
|---|---|---|
| 1.1 Cabinet Office must take responsibility for developing design capacity across government. This should include initiating demonstrator projects and commissioning evaluation.                          | Cabinet Office, Design Council and others.  | See recent Danish Design Council and others.  |
| 1.2 Policymakers across government should hold a multi-disciplinary design studio method for originating policy.  | Strategy Units and Heads of Departments, policy teams in Local Authorities.   | Helsinki Design Lab national model.   |
| 1.3 Department leaders must create career paths for social and service design professionals in public sector work.  | Heads of departments, Local authorities. (The wider question of career paths in this area requires further research.)                                 | Skills Development Scotland.  |
| 1.4 Establish an advisory network of professional designers – who can act as mentors for public sector leaders.   | Cabinet Office, HRH, DCLG and design intermediary bodies to draft proposal and support.   |   |
| Capacity in government  | Ownership/next steps  | Examples  |
| 2.1 Training in the use of basic service design principles must be a central part of civil service training. This must also include training for design professionals working with public sector clients. | Civil Service Learning/ Design Council/ the Commissioning Academy/ Cabinet Office to explore further, with support from social and service designers. | Design Council training workshops, HRH courses.                                     |
| 2.2 A better commissioning model for design, to recommend some design input to the new Commissioning Academy.   | Commissioning Academy, CO, all public sector commissioners. Further research needed, such as European House of Design Management project.             | (Existing from) Design Council Challenges projects, forthcoming Nesta publications. |
| 2.3 A peer network of public sector employees trying to apply design approaches.  | Public sector employees and social service designers. Design Council to support.  | As currently exists for other disciplines across departments/authorities.           |

| Capacity in the design sector   | Ownership/next steps  | Examples  |
|---|---|---|
| 3.1 A diversity of (experienced) designers.   | HRH, HRH and other trade bodies to coordinate.                                  | HRH and HRH lists of members.   |
| 3.2 Design agencies to improve in terms of evidencing their impact.   | Design Council, design trade bodies and HRHs to promote support.                | Design Council case studies, HRH Design Effectiveness Awards.                     |
| 3.3 Design education to broaden into service and social design, ethics, organisational culture and change, systems thinking, impact metrics, economics, policy, social knowledge. | Design HRHs and trade bodies to develop as part of full time education and CPD. | Design HRHs, RCA service design MA.   |
| 3.4 Designers to use new reporting systems to reflect on good and bad government practice.  | Design trade bodies to promote.   | https://www.gov.uk/design-council-who-government-is-giving-design-awards          |
| 3.5 HRHs and public sector organisations to explore possibilities of further research and knowledge transfer work.  | Design HRHs, AHRC and Design Council to develop further.                        | DSR Knowledge Transfer Partnerships, Design Council/AHRC service design research. |
| 3.6 Greater publicity and/or awards scheme for good public service design.  | Guerrilla Public Leaders Network, Design Museum, V&A.                           | INEX awards for social design.  |



## Impact on SDR?

## Interesting questions?

[jocelyn.bailey@policyconnect.org.uk](mailto:jocelyn.bailey@policyconnect.org.uk)

@JocelynABailey

@DesignMfgGrp

## Tracy Bhamra

### Sustainable Product Service Systems

## Sustainable Product Service Systems

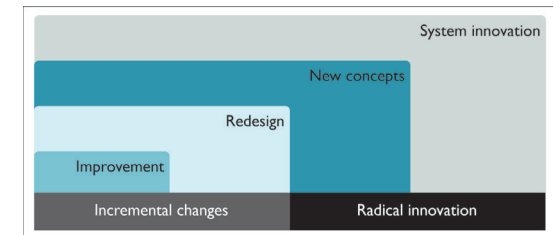
### Tracy Bhamra



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## Innovation & Sustainability



- *Improvement* – partial changes and improvements to existing products
- *Redesign* – improvement or replacement of components of a product
- *New Concepts* – new ways of fulfilling customer requirements,
- *System Innovation* – replacement of an entire technological system by a new system.

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## Products or Services

If we want to move to systems innovation should designers be designing products at all?

- Should they stop designing and manufacturing "stuff"?
- Or could they start designing services rather than products?

These questions were the starting point for our research.

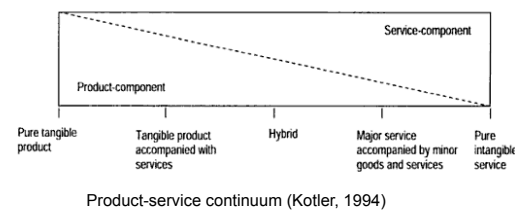


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## Products/Services Mix

- Distinction between products and services can be difficult to define.
- In practice there is a continuum of products and services.



Product-service continuum (Kotler, 1994)

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## Product Service Systems

Different types of services exist.

- Product services
- Use services
- Result services

Which would give the best sustainability benefits but most customer satisfaction?

Could companies offer services instead of products?

How could designers move to designing services?



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## Product Services

- These offer additional services for the product sold such as maintenance, upgrading, repair, guarantee & product take back to extend its useful life
- The customer still owns the product but the services enhances the ownership
- From an environmental perspective these services can extend the useful life of the product



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## Use Services

- Product not sold but its use is, ie leasing, renting, sharing, or pooling.
- Ownership of product resides with service provider.
- Customer have use of products but all maintenance is responsibility of service provider
- Environmental benefits are achieved through high use of products, overall less products are needed
- Producers paid per unit of service delivered and have an economic incentive to reduce overall resource use.



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## Results Services

- The purpose is the satisfaction of customer needs regardless of the material product.
- Service provider guarantees a certain result
- Product is owned & run by the supplier – so incentive to reduce cost
- Significant reduction in material & energy consumption per unit of service can be achieved



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## SOLiD – Service Oriented Life-Cycle Design

EPSRC Funded (1999-2002)

Overall project found huge potential for designers to be able to start designing services rather than products but biggest barriers were business structures and consumer acceptance.

Innovation and Sustainability were shown to be strong.



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## Recent PhDs on SPSS

**Ricardo Hernandez (2009-2012)**  
The integration of Sustainable PSS through ICT for SME business success in Columbia

**Yaone Raptisenyane (2011-2014)**  
Sustainable PSS as an innovation approach for SMEs in Botswana



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## Future Research Challenges

*How can design research help realise this vision?*

Designers in the future will have made all the right choices, offering customers solutions to meet their needs made up of services but supported by sustainable products.

- We will own less "stuff" but have more tailored services.
- We will be able to keep our cherished products and upgrade them (via services).
- We will always make the right environmental choices because our products and services make it easy for us.

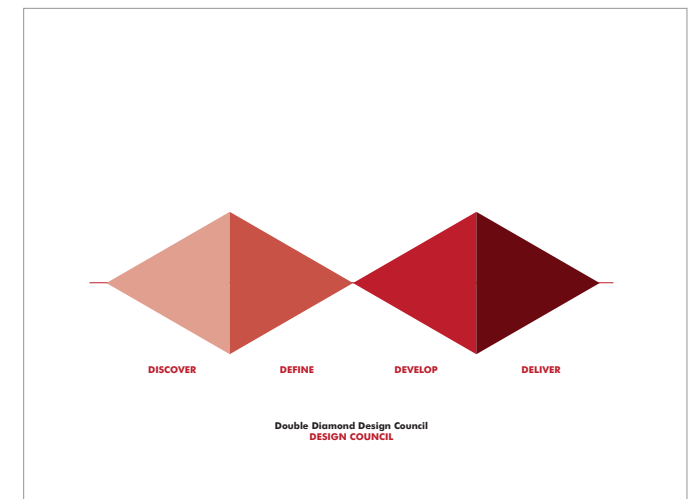
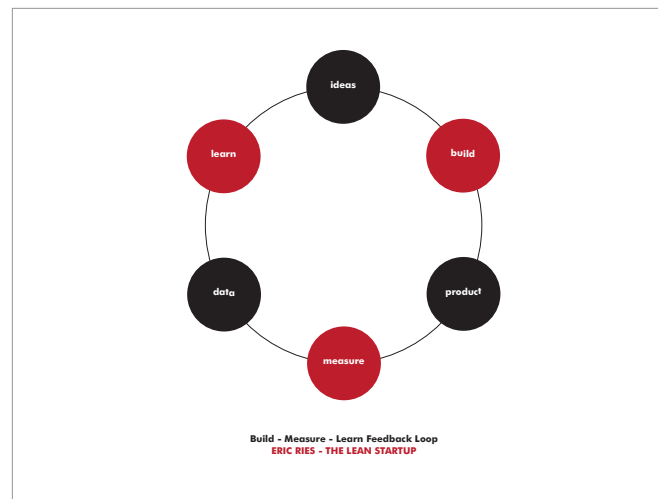
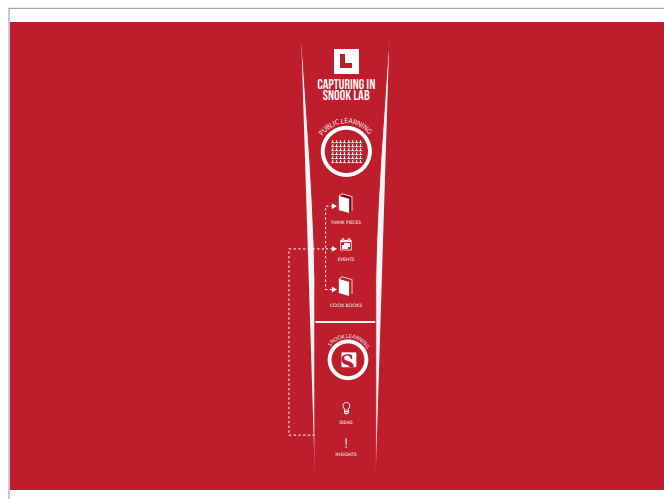
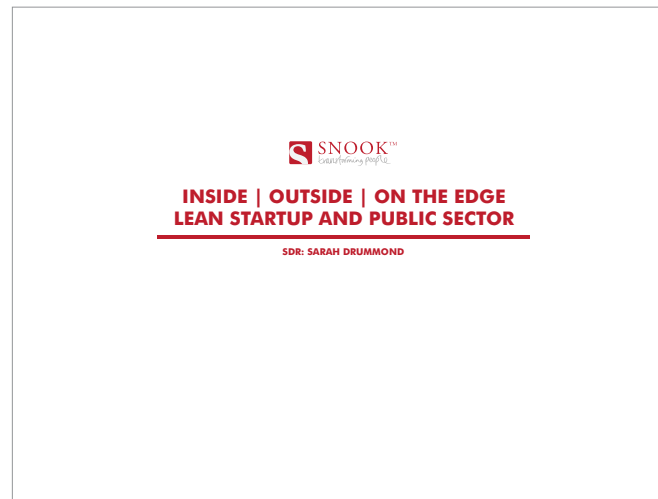


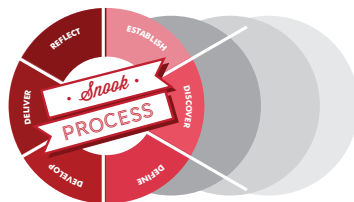
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## Sarah Drummond

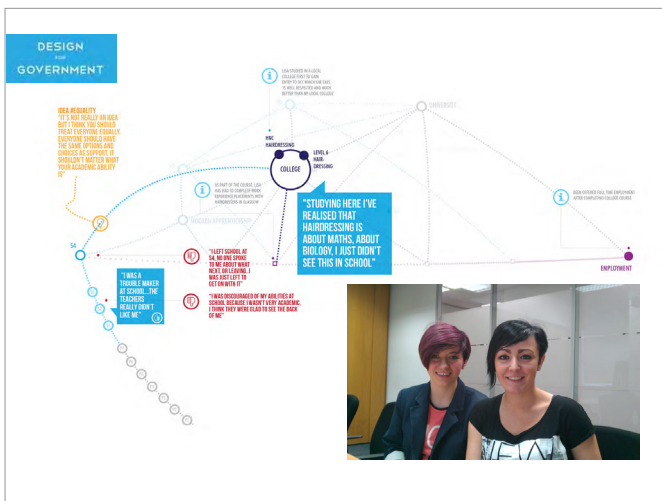
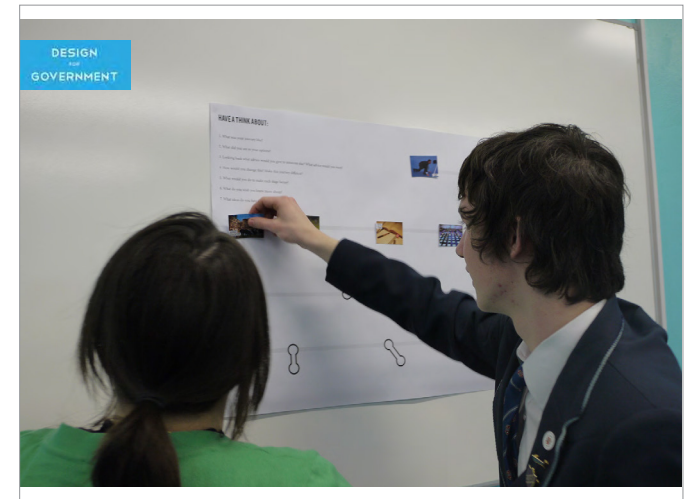
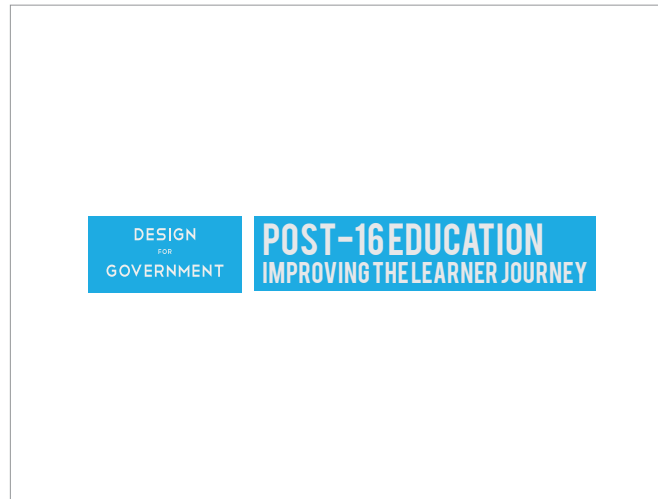
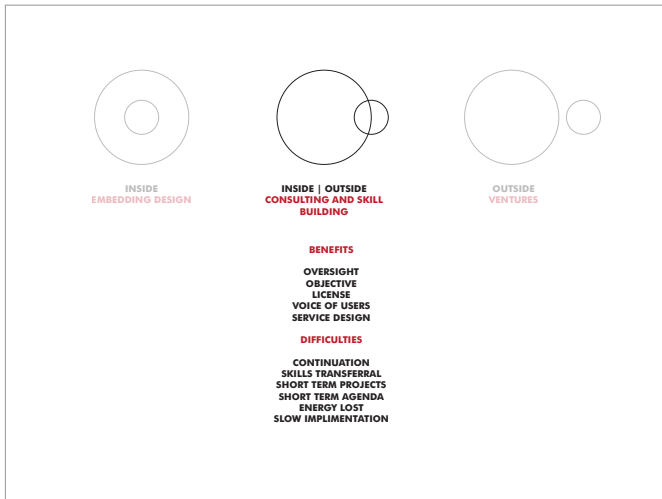
Inside | Outside | On the Edge: Lean  
Startup and Public Sector



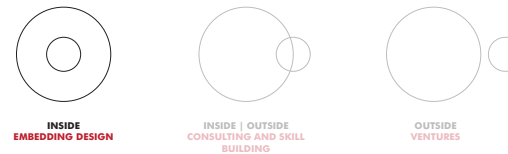


PERPETUAL BETA  
WEARESNOOK LTD







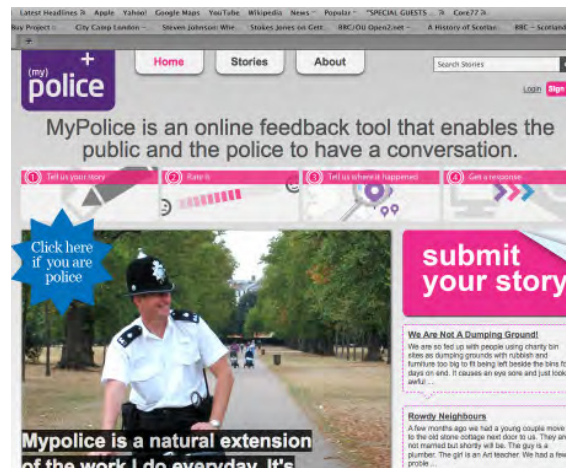
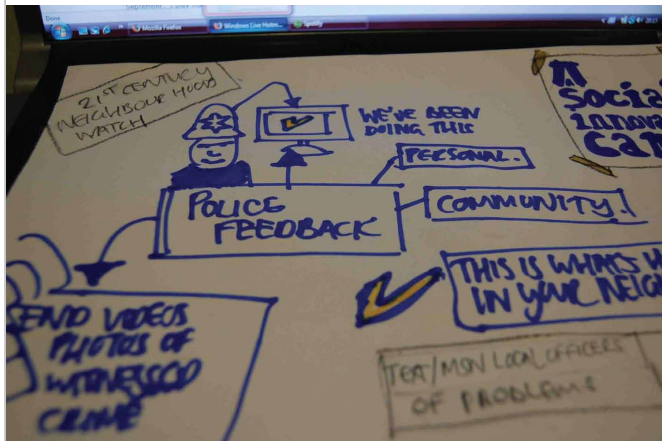


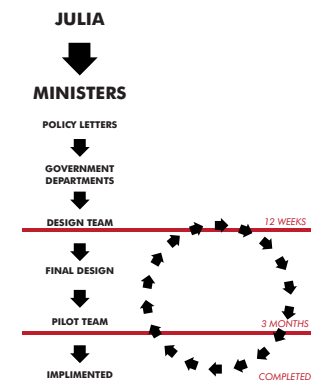
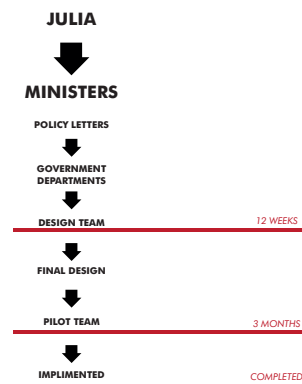
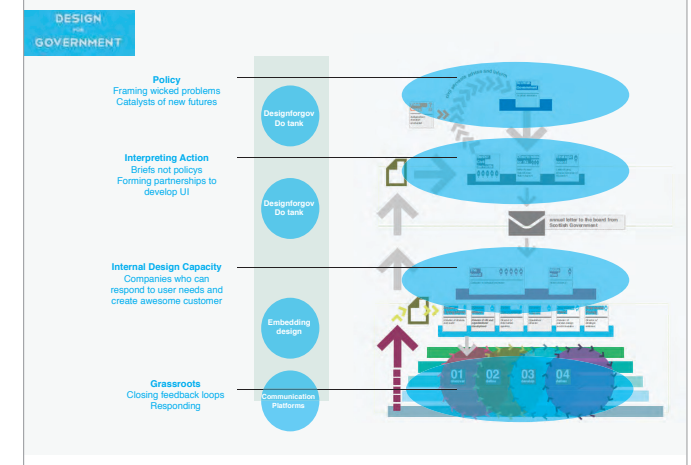
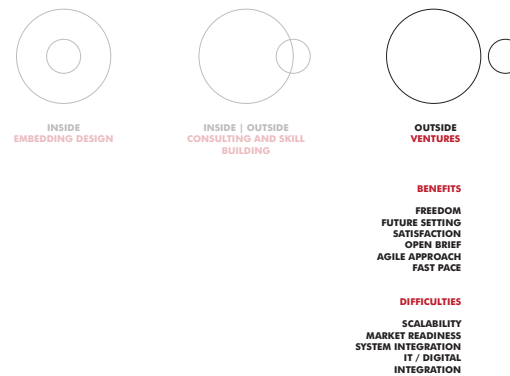
#### BENEFITS

SCALABLE  
PART OF THE CULTURE  
RESOURCE  
CONTINUED KNOWLEDGE  
LONG TERM  
EMPOWERING  
SUSTAINABLE  
LONGER TERM AGENDAS

#### DIFFICULTIES

SKILLS GAP  
COLLABORATION ACROSS SECTORS  
COMPETITION  
EXPENSIVE CONSULTANCY  
POLITICS  
DESIGNERS SHORT TERM FOCUS  
SLOW IMPLEMENTATION





**DESIGN IS MAKING AND  
ITERATIVE**

## Alastair Macdonald Mappmal

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mappmal 

Newcastle  
University

University of  
Reading

ESRC  
Economic and  
Social Research  
Council

nda  
National Design  
Academy

**a nutrition management and monitoring system  
for vulnerable older hospital patients**



42 month

2008–2012

£1.35m



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### the issue

60% of older people are at risk of malnutrition while in hospital (Age Concern 2006)

those aged >80 years in hospital have 5 times the risk of those <50 years (BAPEN 2003)

malnutrition costs the UK >£13 billion per year (BAPEN 2009)

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### motivations for design research work 1: nutritionists

- previous approaches and interventions had not been effective
- participative processes exploiting untapped expertise

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### motivations for design research work 2: RCUK

- chronic nutrition issues
- using design + prototyping + use of new technologies

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### motivations for design research work 3: designers

- introduction of participative, co-creation, co-design processes into an area where they had never been used before
- mixture of research (using non-traditional approaches to obtaining data) and an iterative design and development process leading to a demonstration prototype



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**key aspects of the research**

- utilising the 'people resource'
- developing the methodology
- deploying the iterative, participative, co-design process

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**the people resource 1**

**research team**  
design  
medical sociology  
elderly care medicine  
computer science  
dietetics and nutrition  
food science  
ergonomics  
rheology  
speech and language  
therapy

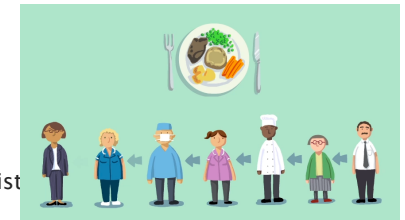


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**the people resource 2**

**the food family**  
food producers  
caterers  
ward staff  
nurses  
dieticians  
physicians  
speech therapists  
occupational therapist  
carers  
older people



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**the R+D methodology**

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**complexity of the R+D methodology**

| KEY STAGES | Activities and methods used  | People involved  |
|------------|--|--|
| 1          | <b>Identifying issues with the status quo and opportunities for improvement</b><br>ethnographic studies in 5 NHS hospitals<br>interviews (n=32) with FF and KS<br>sensory testing of existing hospital foods<br>mapping of existing food journeys  | S, D, N<br>S<br>FS<br>FS, D  |
| 2          | <b>Analysing, visualising and validating findings</b><br>mapping of existing food journeys<br>thematic analysis and visualising of issues<br>validation of findings @ WS1a   | FS, D<br>D, S<br>FF, KS  |
| 3          | <b>Conceptualising and co-design</b><br>identifying opportunities and stimulating new thinking @ WS1b,c<br>ideas generation @ WS2b<br>service prototyping @ WS2c   | N, S, FS, D, T, E, FF, KS<br>N, S, FS, D, T, E, FF, KS<br>N, S, FS, D, T, E, FF, KS                              |
| 4          | <b>Iterative co-design and development</b><br>determining core elements<br>building narratives and scenarios<br>development of new interface application<br>evaluating early system concepts with FF + KS @ WS3a<br>evaluating early interface prototypes with FF+ KS @ WS3b<br>evaluating early food supply and delivery system concept @ WS4 | N, FS, D, S<br>N, FS, D, S<br>D, T, CS<br>N, S, FS, D, T, E, FF, KS<br>N, S, FS, D, T, E, FF, KS<br>S, D, FF, CH |
| 5          | <b>Communication through demonstration prototype</b><br>demonstration prototype - working simulation of key elements<br>exhibition design<br>conference presentations (n=5)<br>website design  | N, FS, D, S<br>N, S, FS, D<br>D  |

familiar ethnography

familiar process  
but unusual  
analysis

unfamiliar process,  
methods and tools

unfamiliar 'roadmap'



the designer's 'material' for participative / social

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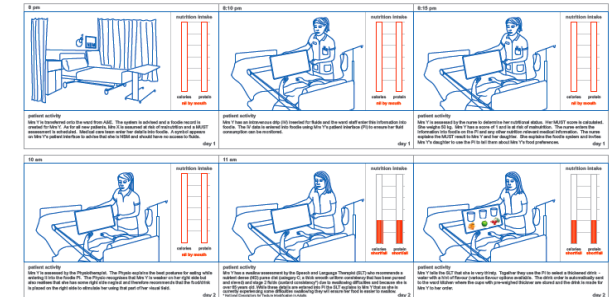
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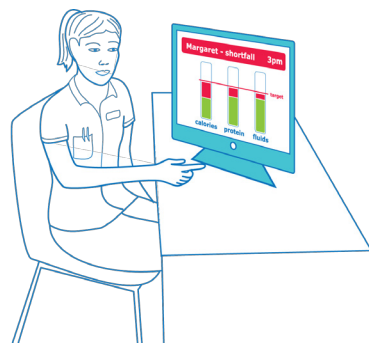
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narrative 2

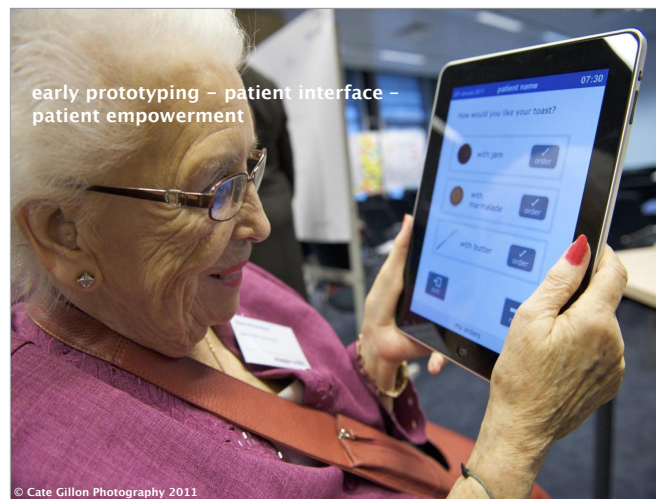
Mrs Y is a 68 year old widow who lives alone in her own bungalow. Her family live nearby and she has a good social life. Her daughter rang to invite her out for tea and handed speech on the telephone. She arrived at her daughter's house but did not find it and then she found her collapsed on the floor. In the emergency department, she was dysphasic with a right hemiparesis. Her CT scan performed immediately shows a cerebral infarct, but with no evidence of haemorrhage. A swallow assessment suggests that she is unable to perform testing with water and she is therefore placed 'nil by mouth' until a more detailed swallow assessment by the speech and language therapist can be undertaken.



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early prototyping – patient interface – patient empowerment



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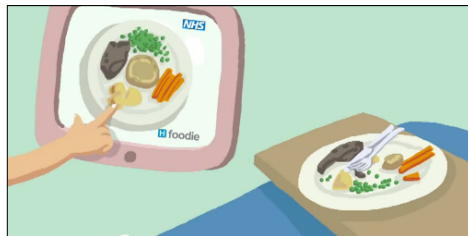


**Figure 1: The application prior to and in use. Meals are presented in a top down view. The user rubs out food items based on a visual assessment.**

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**innovation: monitoring food intake** through 'wipe-away' app linked to nutritional database.



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**nutrition monitoring: daily protein, carbohydrate, fluid targets**

Patient: Jane Brown Bed: 14 Wednesday 13th June 3:30pm

| Breakfast   | Mid Morning                         | Lunch | Afternoon | Evening | Late Evening |                 |           |   |                                     |                            |                          |              |                          |
|---|-------------------------------------|-------|-----------|---------|--------------|-----------------|-----------|---|-------------------------------------|----------------------------|--------------------------|--------------|--------------------------|
| <table border="1"> <thead> <tr> <th>Item(s) Ordered</th> <th>Delivered</th> </tr> </thead> <tbody> <tr> <td>2 Weetabix with milk, sliced banana &amp; sugar</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Black Coffee with 2 sugars</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Orange Juice</td> <td><input type="checkbox"/></td> </tr> </tbody> </table> |                                     |       |           |         |              | Item(s) Ordered | Delivered | 2 Weetabix with milk, sliced banana & sugar | <input checked="" type="checkbox"/> | Black Coffee with 2 sugars | <input type="checkbox"/> | Orange Juice | <input type="checkbox"/> |
| Item(s) Ordered   | Delivered                           |       |           |         |              |                 |           |   |                                     |                            |                          |              |                          |
| 2 Weetabix with milk, sliced banana & sugar   | <input checked="" type="checkbox"/> |       |           |         |              |                 |           |   |                                     |                            |                          |              |                          |
| Black Coffee with 2 sugars  | <input type="checkbox"/>            |       |           |         |              |                 |           |   |                                     |                            |                          |              |                          |
| Orange Juice  | <input type="checkbox"/>            |       |           |         |              |                 |           |   |                                     |                            |                          |              |                          |

Information & Requirements  
Patient requires assistive cutlery.  
Glucose polymers are to be added to any drinks.  
Patient is malnourished and needs to be encouraged to eat.

to add another item to the order, choose one of the input options.

Scan Barcode Manual Input

Ward View Alison Black Nurse Log Out

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**nutrition monitoring: daily protein, carbohydrate, fluid targets**

Patient: Jane Brown Bed: 14 Wednesday 13th June 3:30pm

| Screening & Requirements  | Record Intake | Targets & Actions | Nutrition History |
|---|---------------|-------------------|-------------------|
| <p>*MUST* Specialist assessment</p> <div> <div> <p>Admission</p> <p>*MUST* score: 4</p> <p>Weight (kg): 50</p> <p>BMI (kg/m<sup>2</sup>): 19</p> <p>(assessed 8pm 28/03/2011)</p> </div> <div> <p>Current</p> <p>*MUST* score: 2</p> <p>Weight (kg): 51</p> <p>BMI (kg/m<sup>2</sup>): 19</p> <p>(assessed 10am 11/04/2011)</p> </div> </div> |               |                   |                   |

Weight loss/gain (kg)

week 1 week 2 week 3

Ward View Alison Black Nurse Log Out

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**outcomes: demonstration prototype: hospital foodie**  
Plymouth, Brighton, Sheffield, Harrogate, Reading conferences Jul 11 - April 12  
gerontology, geriatrics, design for health, nutrition, catering



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**outcomes: next stages - leads**



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**challenges / open questions**

- refocusing from status quo pre-occupations - eg catering service processes, AHP tasks, to people's needs and experiences
- tensions in the non-design members of the team regarding types - and interpretations - of evidence and until early intervention prototypes had emerged where they could begin to see how the approach might lead to workable innovations
- difficulties in describing the complexity of the process, interactions and means to achieve the insights and innovations without over-simplifying these



**Paul Thurston**  
PDR



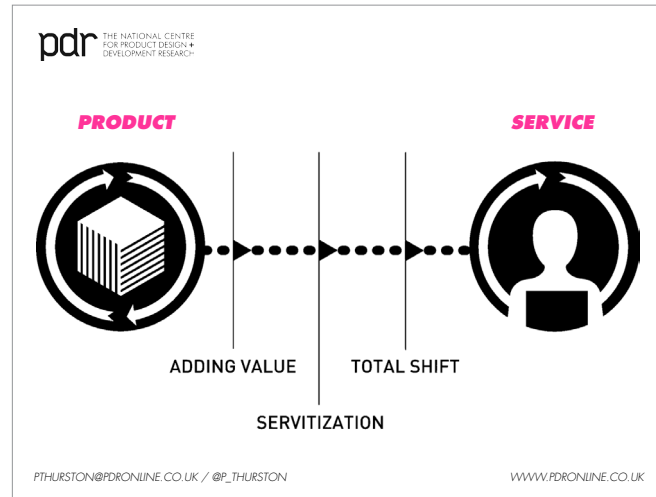


pdr THE NATIONAL CENTRE  
FOR PRODUCT DESIGN +  
DEVELOPMENT RESEARCH

**WHY?  
HOW?  
SO WHAT?**

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WWW.PDRONLINE.CO.UK



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**SERVICE DESIGN  
HAS ECONOMIC BENEFIT  
FOR BUSINESS. BUT...**

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DEVELOPMENT RESEARCH

**MAINLY FOCUSED  
ON BIG BUSINESS OR  
PUBLIC SECTOR**

**NOT SMEs**

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**92% WELSH  
BUSINESS EMPLOY  
0-9 STAFF**

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**LEAN/TOTAL QUALITY/  
DESIGN MANAGEMENT/  
SIX SIGMA/SYSTEMS  
THINKING ETC**

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**WHY?  
HOW?  
SO WHAT?**

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**PHIL MORGAN  
MD, HYDRO INDUSTRIES**

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**2010  
£700k TURNOVER  
EMPLOYED 8 STAFF  
TECHNICAL ENGINEERING CAPABILITY  
SMALL FACTORY  
MAINLY UK CLIENT BASE**

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**"SO, HOW CAN  
I INCREASE WATER  
FLOW THROUGH  
OUR SYSTEMS?"**

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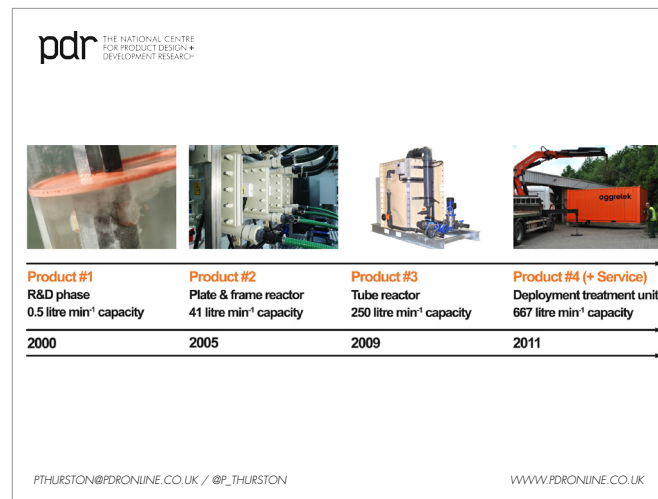
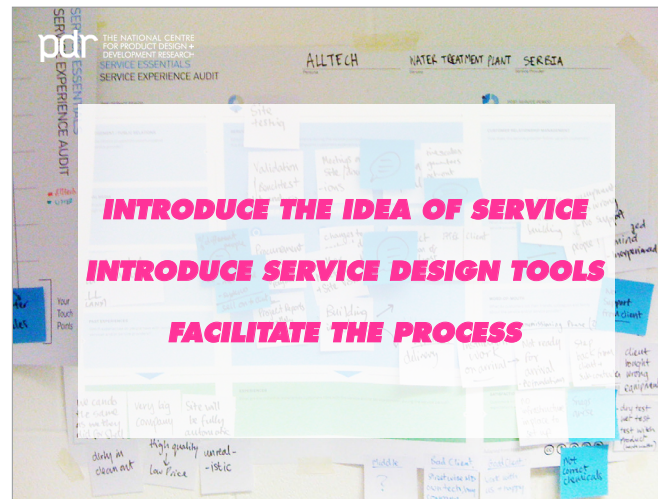
| Product #1                           | Product #2                          | Product #3                           |      |
|--------------------------------------|-------------------------------------|--------------------------------------|------|
| R&D phase                            | Plate & frame reactor               | Tube reactor                         |      |
| 0.5 litre min <sup>-1</sup> capacity | 41 litre min <sup>-1</sup> capacity | 250 litre min <sup>-1</sup> capacity |      |
| 2000                                 | 2005                                | 2009                                 | 2011 |

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**INTRODUCE THE IDEA OF SERVICE**



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**IMPACT**

**36 NEW JOBS CREATED**

**41 R&D PROJECTS STARTED**

**34 NEW SERVICES LAUNCHED**

**£683k FUNDING SECURED BY PDR**

**£142k FUNDING SECURED BY INDUSTRY**

**WORKED WITH 90 COMPANIES IN WALES**

**ENGAGED WITH 800 COMPANIES THROUGH SEMINARS**

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**WORKING WITH PDR**

**PROJECT PARTNERSHIPS**

**FUNDING APPLICATIONS**

**COMMERCIAL CONSULTANCY**

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**TRANS**  
THROUGH  
**FORM**  
SERVICE  
**ATION**  
DESIGN

**SERVICE DESIGN GLOBAL CONFERENCE**  
CARDIFF | UNITED KINGDOM | 19th - 20th NOVEMBER 2013  
MEMBERS DAY 19th NOVEMBER

**sdn**  
service design network

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**THANKS**

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