Bringing Complexity into Service Design Research

Systemic perspectives in Design for Services

Daniela Sangiorgi _ ImaginationLancaster, Lancaster University

About me ...

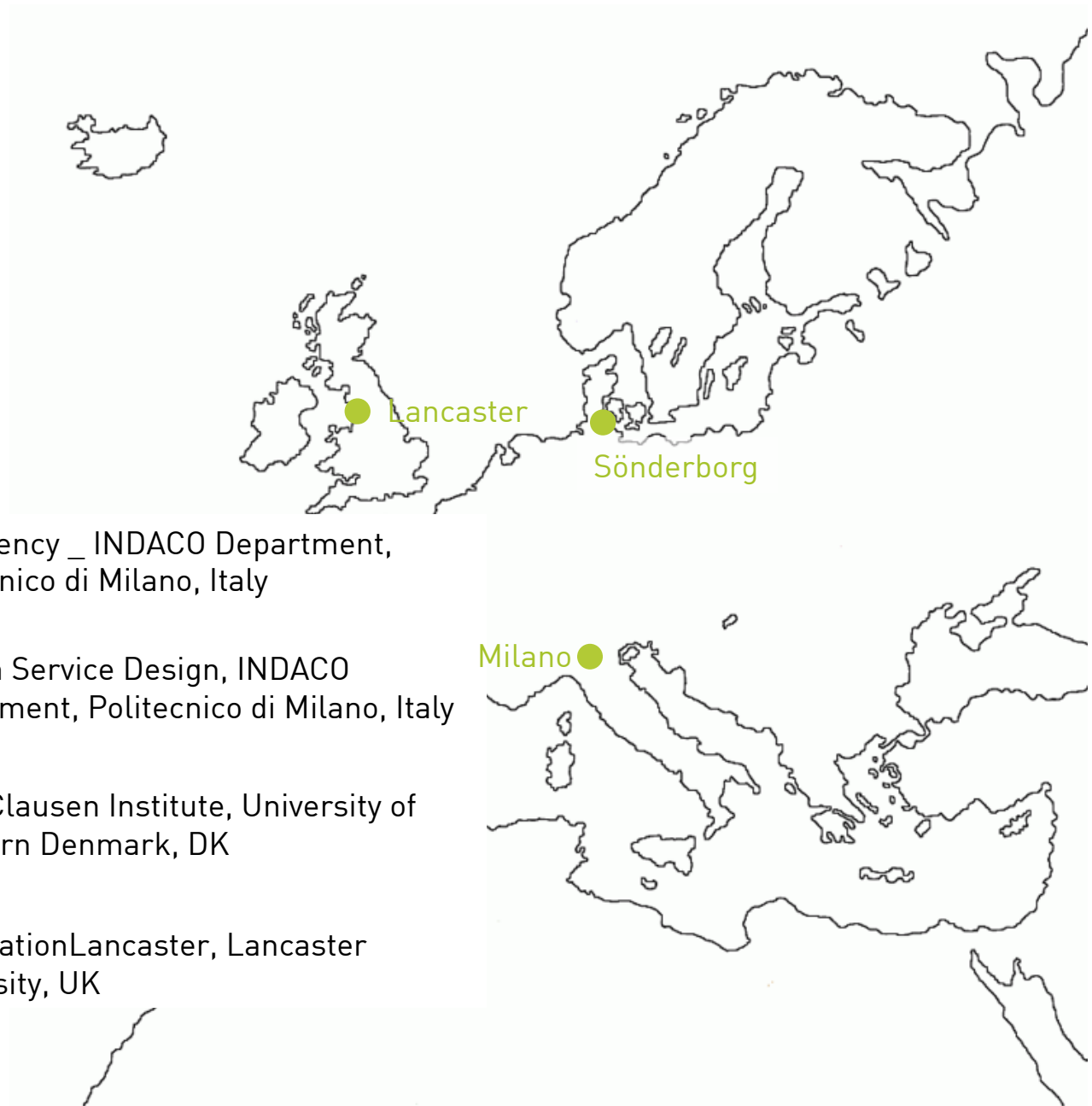|	
1998 – 2007	SDI Agency _ INDACO Department, Politecnico di Milano, Italy
2000 – 2004	PhD on Service Design, INDACO Department, Politecnico di Milano, Italy
2003	Mads Clausen Institute, University of Southern Denmark, DK
2007	ImaginationLancaster, Lancaster University, UK

ImaginationLancaster
an open and exploratory research lab that

›› investigates emerging issues, technologies and practices

›› combines traditional science and social science methods with the practice-based methods arising from the arts

About me ...

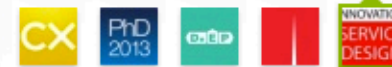SERVICES

service design

PSS

transformation design

healthcare innovation

Design for Services

DESIGN

Why me .. ?

Why me .. ?

SERVICE INTERACTION DESIGN
(Artefacts & Behaviors)

SERVICE DESIGN INTERVENTIONS
(Norms&Values)

ORGANISATIONAL TRANSFORMATION
(Fundamental Assumptions)
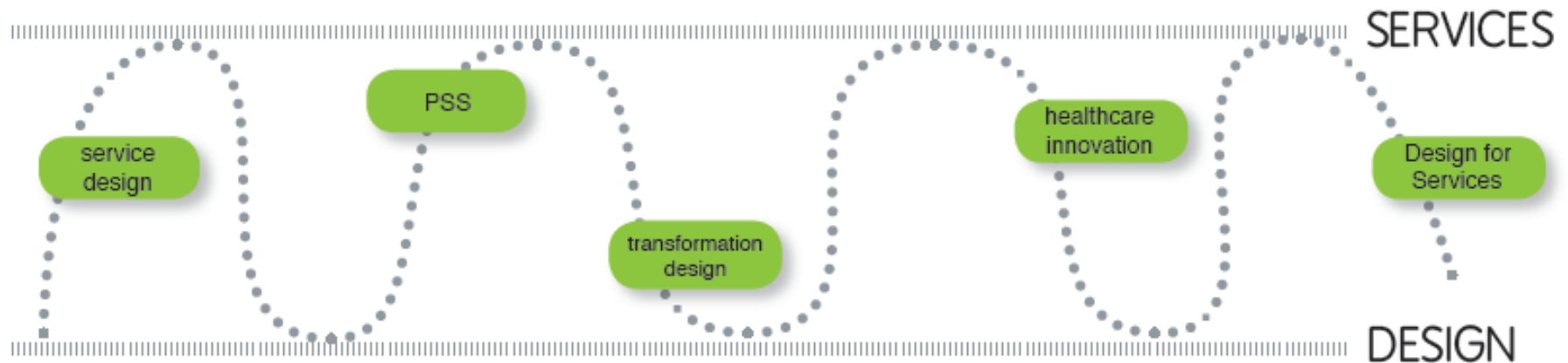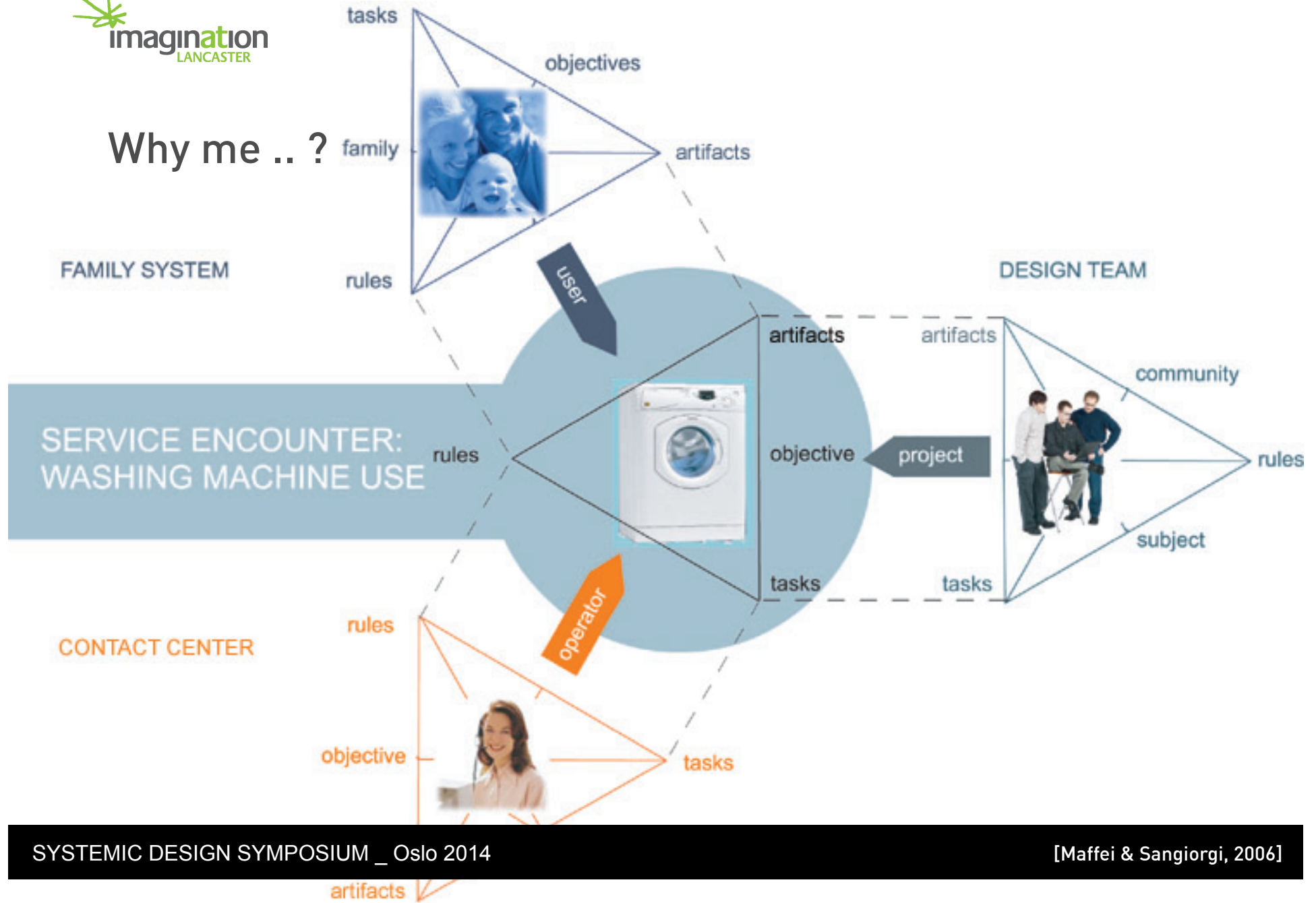
Systemic perspectives in Design for Services

(Service) Design evolution

Systemic Considerations in Service Design
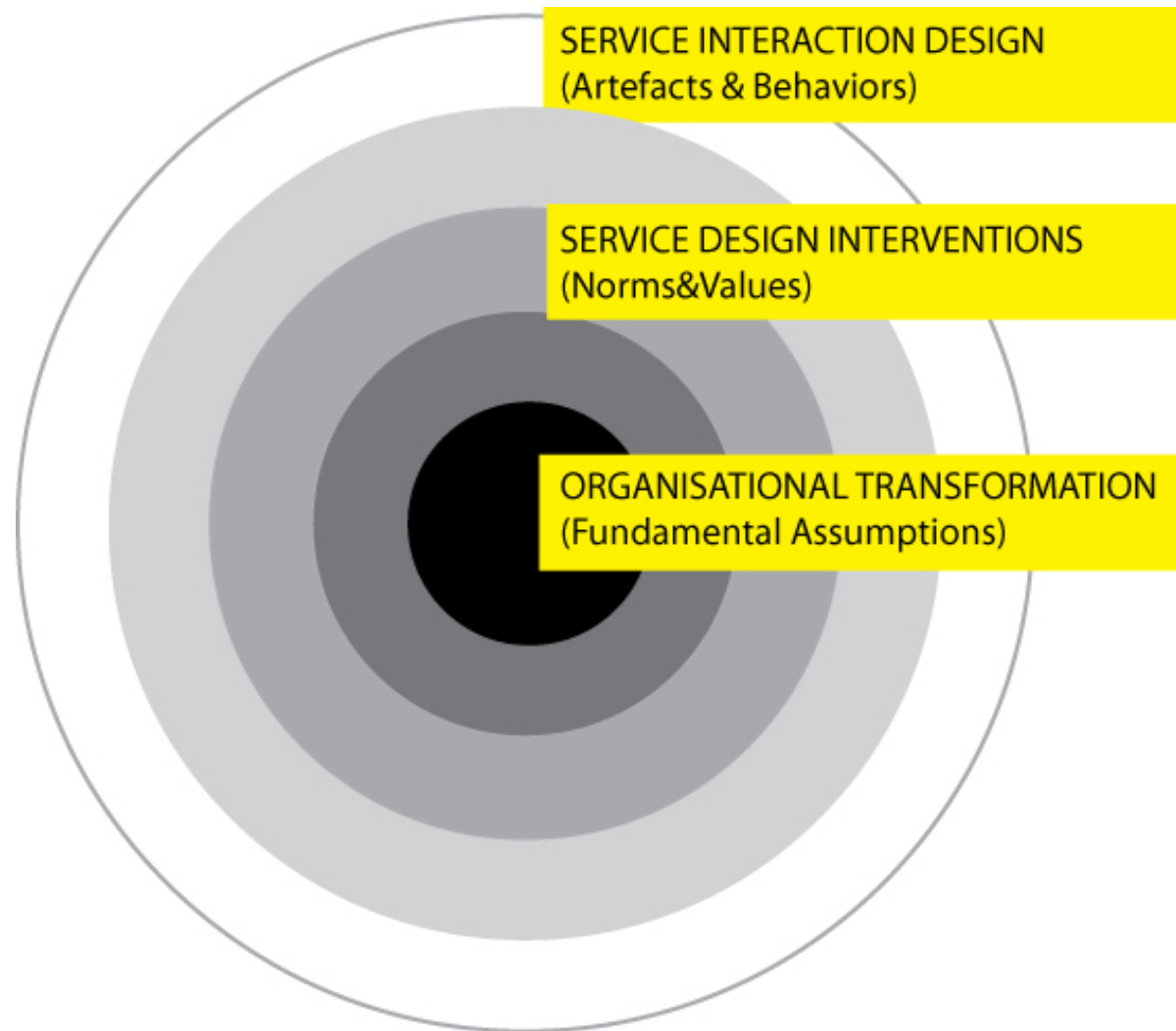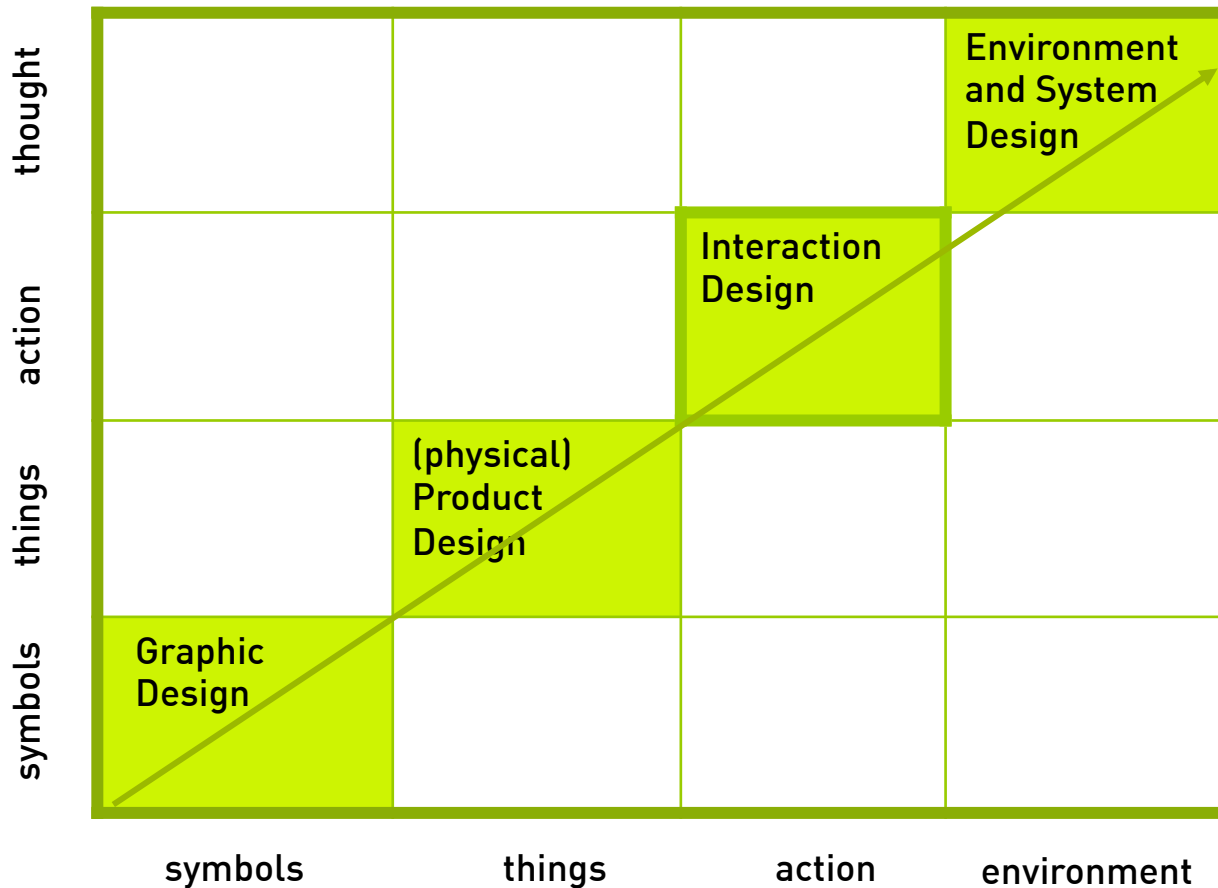
- *Scaling*

- *Participation*

- *Transformation*

Conclusions

Models of design evolution

Interaction Design: "focusing on how human beings relate to other human beings through the mediating influence of products"

[Buchanan, 2002: 11]

Models of design evolution

DESIGN 1.0 Traditional Design	**DESIGN 2.0** Product / Service Design	**DESIGN 3.0** Organizational Transformation Design	**DESIGN 4.0** Social Transformation Design

· **Communication** Challenges

· **Product** Challenges
· **Service** Challenges
· **Experience** Challenges

· **Systems** Challenges
· **Organization** Challenges
· **Industry** Challenges

· **Country** Challenges
· **Society** Challenges
· **Planet** Challenges

Models of design evolution

Table 1. Four Generations of Design Methods

Generation	First	Second	Third	Fourth
Orientation	Rational 1960's	Pragmatic 1970's	Phenomenological 1980's	Generative 2000's
Methods	Movement from craft to standardized methods	Instrumentality, Methods customized to context	Design research and stakeholder methods Design cognition	Generative, empathic & transdisciplinary
Authors & trends	Simon, Fuller Design Science Planning	Rittel, Jones Wicked problems Evolution	Archer, Norman User-centered Design Participatory Design	Dubberly, Sanders Generative Design Service Design
Systems influences	Sciences Systems engineering	Natural systems Hard systems	System dynamics Social systems Soft systems	Complexity

Service Design origins

Two first contributions:

■ SERVICE AS A PRODUCT: service as an object of design → focus on the design process/design management (Mager, 1997: Hollins, 1991)

■ SERVICE AS A COMPLEX INTERFACE: from a concept of services as complex organisations to the one of complex interfaces to the user → focus on the specificity of design intervention (Pacenti, 1998)

Interaction paradigm

SERVICE RELATIONSHIP

COMPANY

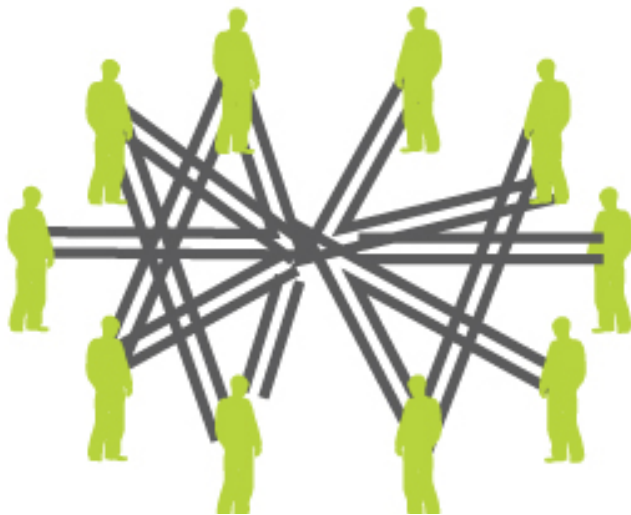SERVICE ORGANISATION

SERVICE OFFERING

CUSTOMER

1 2 3
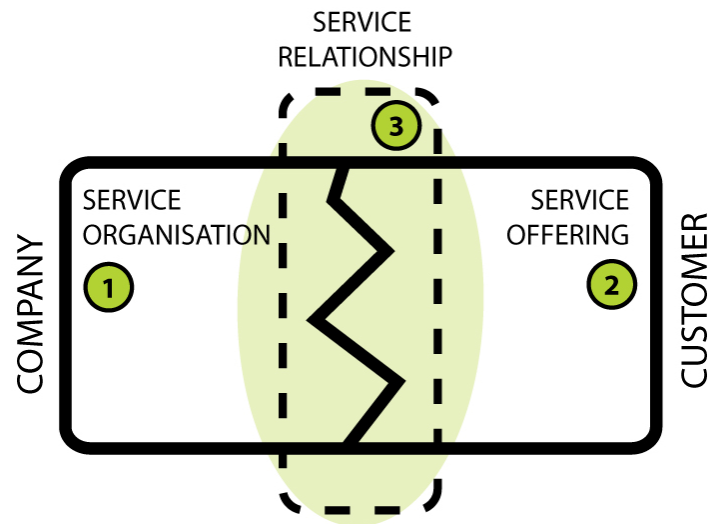
'set of concepts, values and tools that derive from the interpretation of services and of Service Design, starting from the area and the moments of interaction between the user and the supply system' (Sangiorgi, 2004).

[Sangiorgi, 2009]

Emerging practices

Design of Service Interactions
+ complexity
interactions
+ participation

1990s   2000s
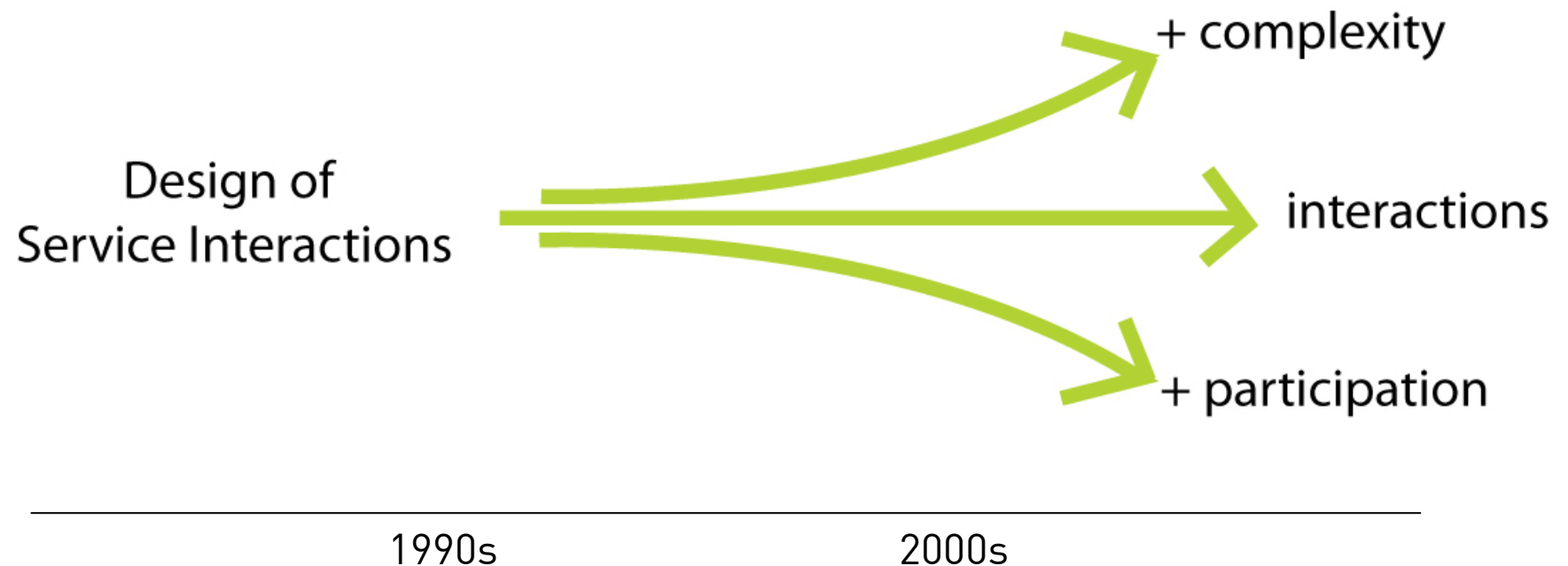
Changing of practices because of the growing of complexity and collaborative nature of service projects and society demands.
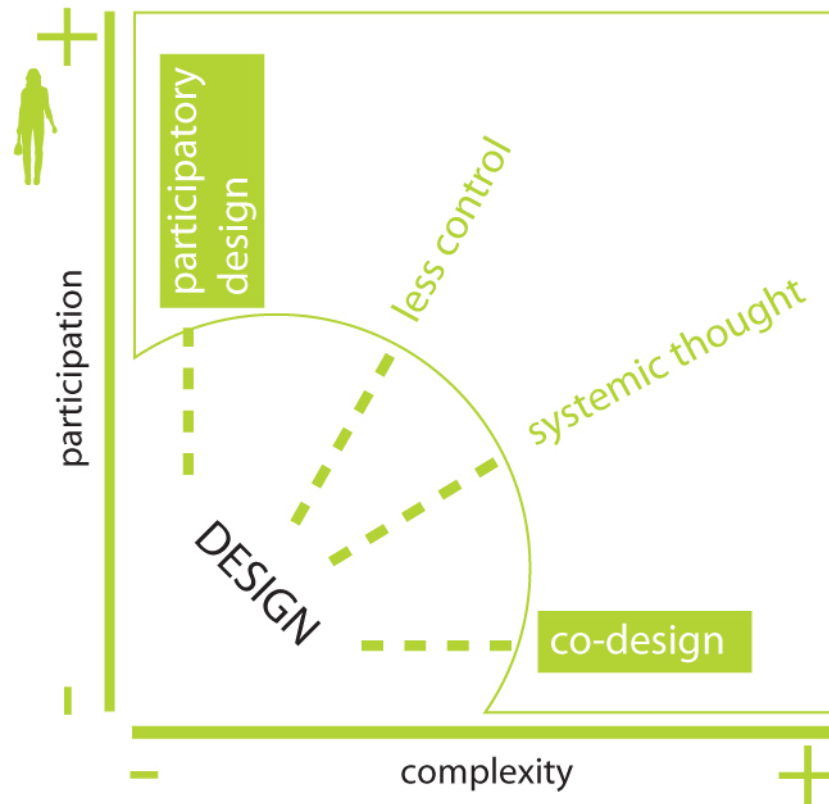
Emerging practices

Change in the context and nature of the service interactions :

- from one-to-one to many-to-many interactions;

- from sequential to open-ended interactions;

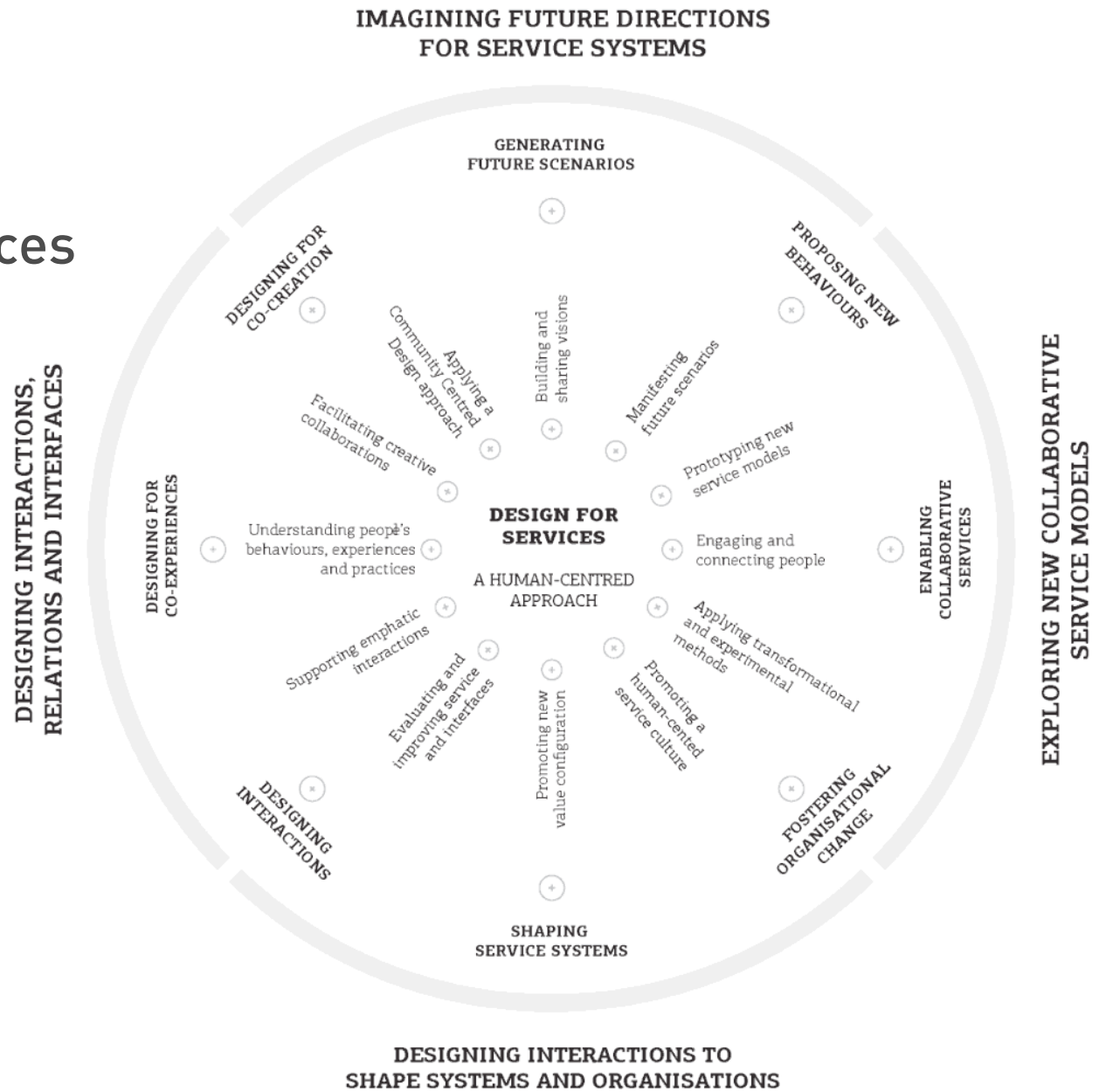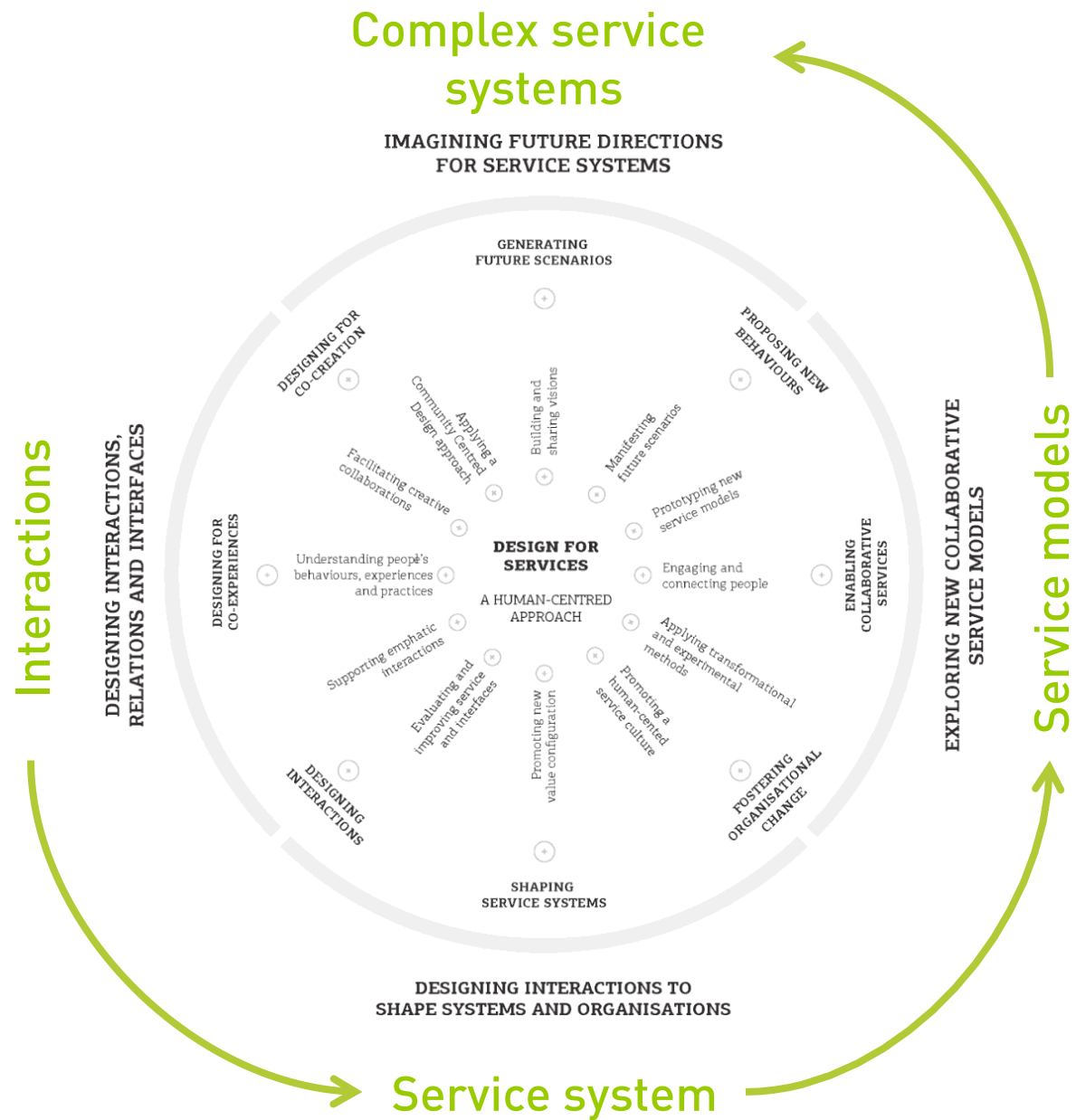- from within to amongst organisations.

Emerging practices

Service Design is

- 'scaling up' (complex systems)

- 'reaching out' (working with different disciplines and professions)

- 'deepening in' (working within service organisations and user communities)

Design for Services Map

IMAGINATION LANCASTER

IMAGINING FUTURE DIRECTIONS
FOR SERVICE SYSTEMS

GENERATING
FUTURE SCENARIOS

DESIGNING FOR
CO-CREATION

PROPOSING NEW
BEHAVIOURS

DESIGNING INTERACTIONS,
RELATIONS AND INTERFACES

EXPLORING NEW COLLABORATIVE
SERVICE MODELS

DESIGNING FOR
CO-EXPERIENCES

ENABLING
COLLABORATIVE
SERVICES

DESIGN FOR
SERVICES

A HUMAN-CENTRED
APPROACH

Applying a
Community Centred
Design approach

Facilitating creative
collaborations

Building and
sharing visions

Manifesting
future scenarios

Prototyping new
service models

Understanding people's
behaviours, experiences
and practices

Engaging and
connecting people

Supporting emphatic
interactions

Applying transformational
and experimental
methods

Evaluating and
improving service
and interfaces

Promoting new
value configuration

Promoting a
human-cented
service culture

DESIGNING
INTERACTIONS

FOSTERING
ORGANISATIONAL
CHANGE

SHAPING
SERVICE SYSTEMS

DESIGNING INTERACTIONS TO
SHAPE SYSTEMS AND ORGANISATIONS

Complex service systems

IMAGINING FUTURE DIRECTIONS
FOR SERVICE SYSTEMS

Interactions

DESIGNING INTERACTIONS,
RELATIONS AND INTERFACES

Service models

EXPLORING NEW COLLABORATIVE
SERVICE MODELS

GENERATING
FUTURE SCENARIOS

DESIGNING FOR CO-CREATION

PROPOSING NEW
BEHAVIOURS

Applying a
Community Centred
Design approach

Building and
sharing visions

Manifesting
future scenarios

Facilitating creative
collaborations

Prototyping new
service models

DESIGN FOR
SERVICES

DESIGNING FOR
CO-EXPERIENCES

Understanding people's
behaviours, experiences
and practices

A HUMAN-CENTRED
APPROACH

Engaging and
connecting people

ENABLING
COLLABORATIVE
SERVICES

Supporting emphatic
interactions

Applying transformational
and experimental
methods

Evaluating and
improving service
and interfaces

Promoting new
value configuration

Promoting a
human-cented
service culture

DESIGNING
INTERACTIONS

FOSTERING
ORGANISATIONAL
CHANGE

SHAPING
SERVICE SYSTEMS

DESIGNING INTERACTIONS TO
SHAPE SYSTEMS AND ORGANISATIONS

Service system

SYSTEMIC DESIGN SYMPOSIUM _ Oslo 2014

[Meroni & Sangiorgi, 2011]

Service Interactions Design

Product-service system

Product #1
R&D phase
0.5 litre min^{-1} capacity
2000

Product #2
Plate & frame reactor
41 litre min^{-1} capacity
2005

Product #3
Tube reactor
250 litre min^{-1} capacity
2009

Product #4 (+ Service)
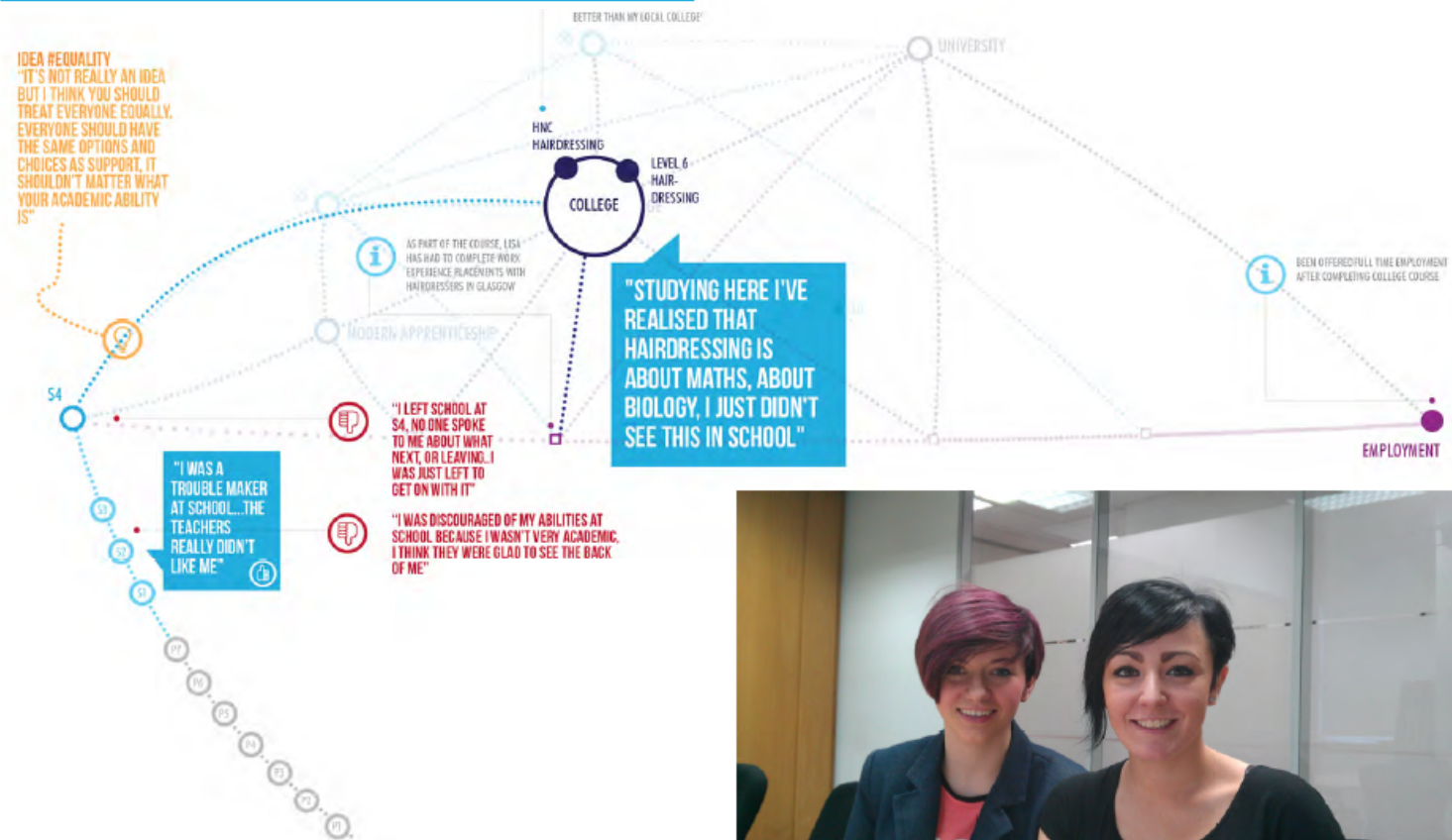Deployment treatment unit
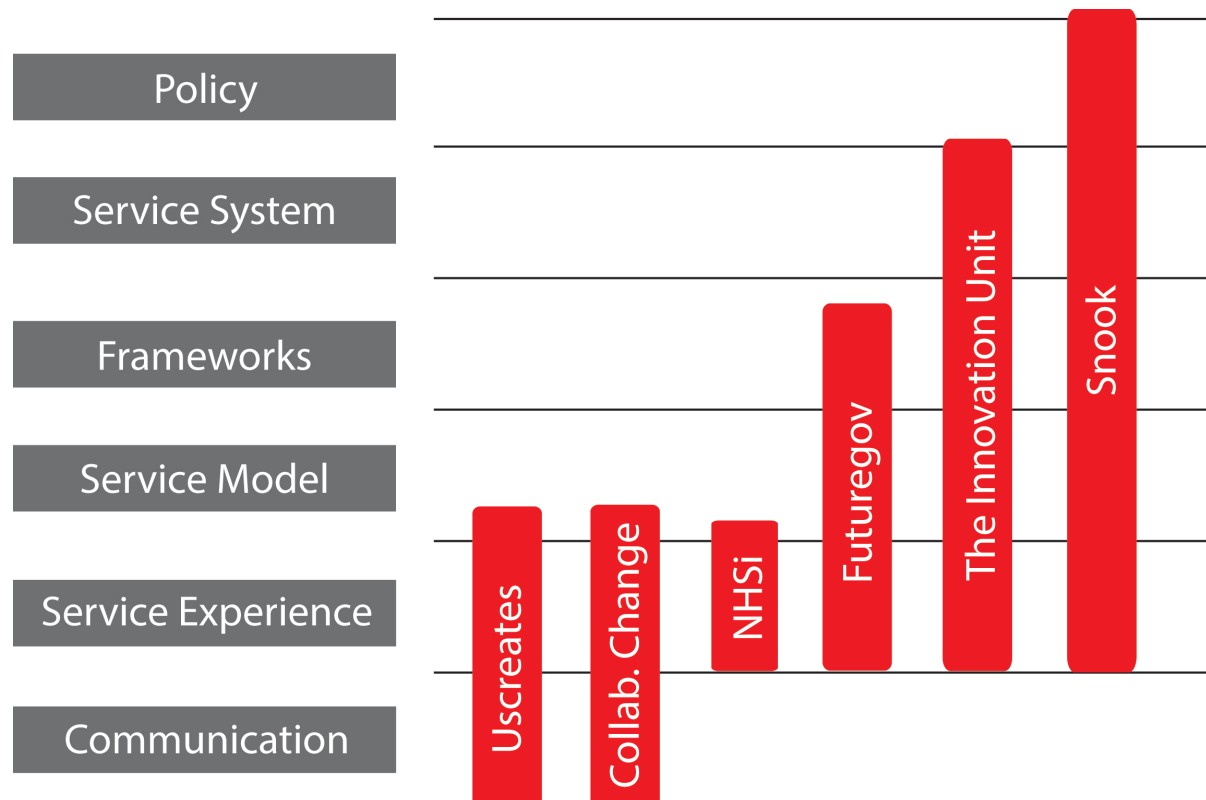667 litre min^{-1} capacity
2011

New Service Models

Complex Service Systems / Policy

Different levels and modes of practices

Policy

Service System

Frameworks

Service Model

Service Experience

Communication

Uscreates · Collab. Change · NHSi · Futuregov · The Innovation Unit · Snook

[Sangiorgi, forthcoming]

Different
models of practices

Embedded designer
Full time strategic-level employee responsible for developing organisational design capacity, as well as for specific service redesign programmes.
e.g. Cornwall Council, Capita, Helsinki Design Lab Exchange project, Scottish Government.

Internal agency
A service design unit (normally multi-disciplinary) works with other parts of the organisation on a project-by-project basis.
e.g. Social Innovation Lab Kent, MindLab, Behavioural Insights Team.
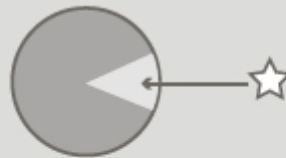
External agency
Consultancy from an independent design practice on a project-by-project basis.
e.g. Ideo, Snook, Uscreates, ThinkPublic, LiveWork, Engine, STBY – and many others.

Brokered intervention
Organisations such as the Design Council, or Nesta, in order to address a perceived market failure, broker design work for a public sector body, thereby introducing new expertise in a de-risked way, and supporting design businesses through procurement.
e.g. Patchwork, Creative Councils, Design Council Challenges and public service leadership projects.

Design-led startup service
Design-led teams move outside of the traditional public service institutions to start services that meet a specific public need independently.
e.g. Participle, Good Gym, Care4Care.

Design evolution

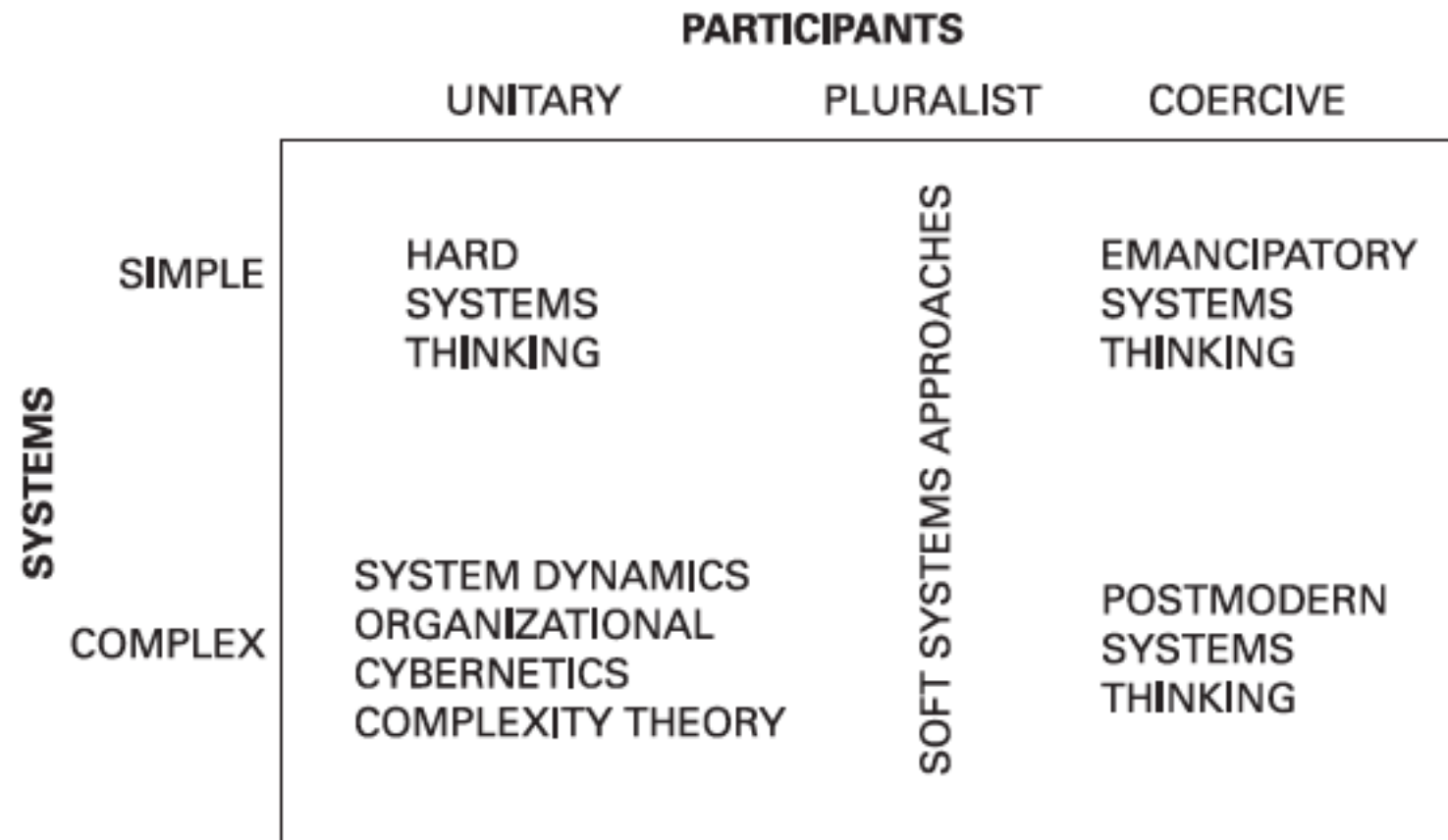Systemic perspectives in Design for Services

- *Scaling*

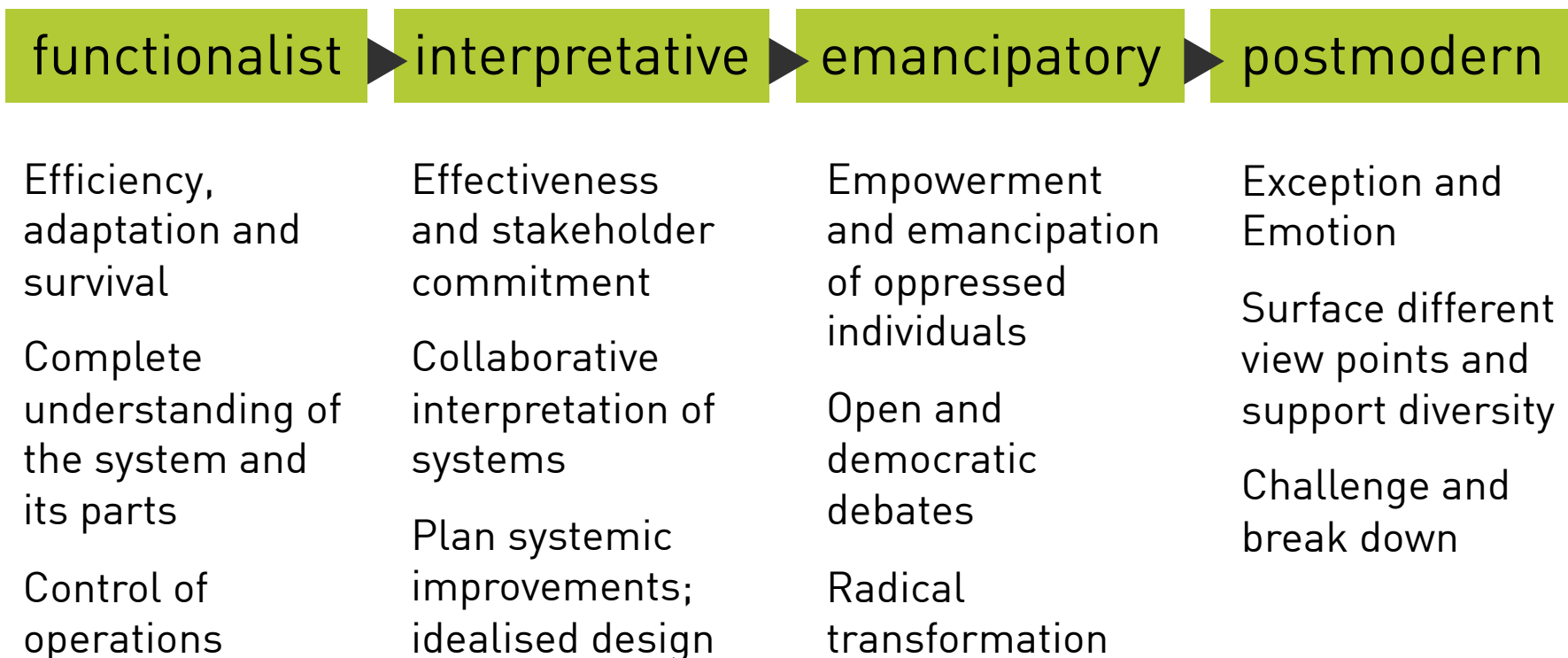- *Participation*

- *Transformation*

Conclusions

Systems metaphors and approaches

PARTICIPANTS

SYSTEMS	UNITARY	PLURALIST	COERCIVE
SIMPLE	Simple–Unitary	Simple–Pluralist	Simple–Coercive
COMPLEX	Complex–Unitary	Complex–Pluralist	Complex–Coercive

Systems metaphors and approaches

	PARTICIPANTS		
SYSTEMS	UNITARY	PLURALIST	COERCIVE
SIMPLE	HARD SYSTEMS THINKING	SOFT SYSTEMS APPROACHES	EMANCIPATORY SYSTEMS THINKING
COMPLEX	SYSTEM DYNAMICS ORGANIZATIONAL CYBERNETICS COMPLEXITY THEORY		POSTMODERN SYSTEMS THINKING

Systems models and approaches

functionalist ▶	interpretative ▶	emancipatory ▶	postmodern
Efficiency, adaptation and survival	Effectiveness and stakeholder commitment	Empowerment and emancipation of oppressed individuals	Exception and Emotion
Complete understanding of the system and its parts	Collaborative interpretation of systems	Open and democratic debates	Surface different view points and support diversity
Control of operations	Plan systemic improvements; idealised design	Radical transformation	Challenge and break down

Drivers for complexity

SCALE

PARTICIPATION

TRANSFORMATION

Systemic design principles
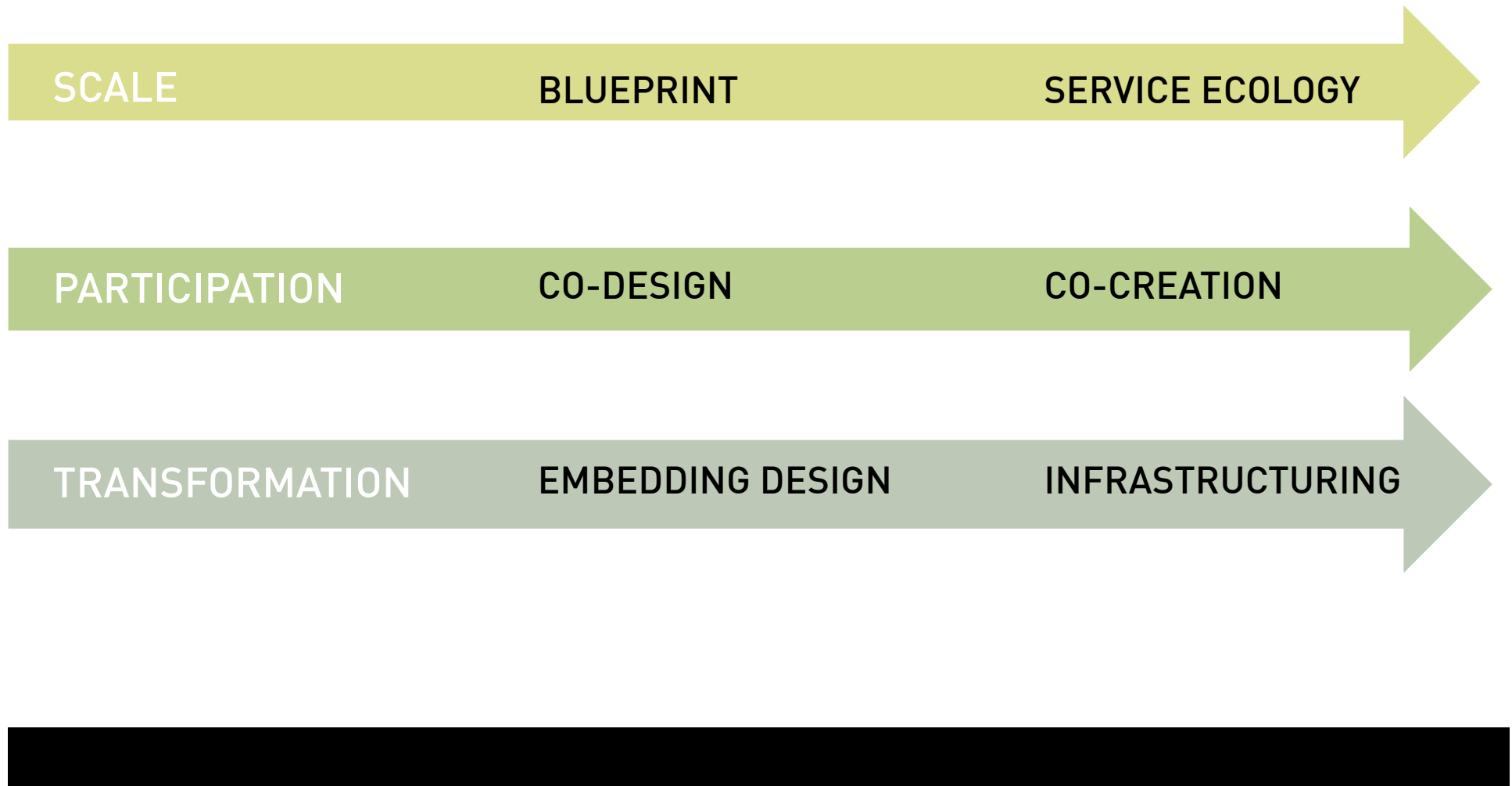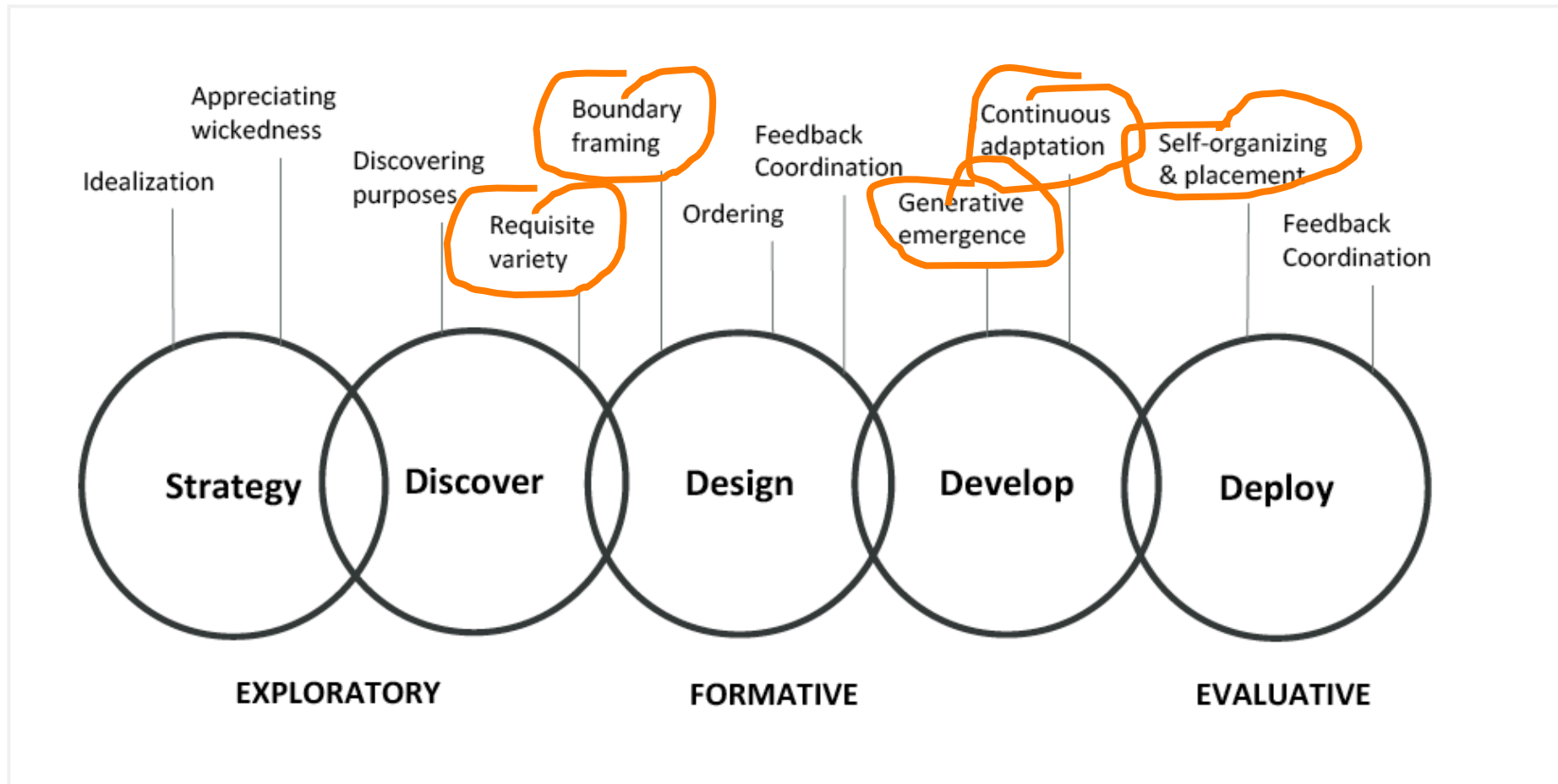
Strategy — Discover — Design — Develop — Deploy

Idealization, Appreciating wickedness, Discovering purposes, Requisite variety, Boundary framing, Ordering, Feedback Coordination, Generative emergence, Continuous adaptation, Self-organizing & placement, Feedback Coordination

EXPLORATORY   FORMATIVE   EVALUATIVE

Design evolution

Service Design evolution

- *Scaling*

- *Participation*

- *Transformation*

Conclusions

Scaling

Experience based Design ▶ Education system re-design

SYSTEMIC DESIGN SYMPOSIUM _ Oslo 2014

Service Systems

Service supply system: "coherent and systematic organisation of the all physical and human elements of the client-company interface, that are necessary for the building of the service performance whose commercial and quality levels have been already defined" [Eigliere Langeard, 1987]

SERVICE BLUEPRINT

Complex service systems are configurations of people, technologies, and other resources that interact with other service systems to co-create value (Maglio et al. 2009).

SERVICE ECOLOGY

Blueprint

A service blueprint is a picture or map that accurately portrays the service system so that the different people involved in providing it can understand and deal with it objectively regardless of their roles or their individual points of view.

It visually displays the service by simultaneously depicting the process of service delivery, the point of customer contact, the roles of customer contact, the roles of customers and employees and the visible elements of the service.

(Zeithmal and Bitner, 2007)

PHYSICAL EVIDENCE

Hotel Exterior Parking	Cart for Bags	Desk Registration Papers Lobby Key	Elevators Hallways Room	Cart for Bags	Room Amenities Bath	Menu	Delivery Tray Food Appearance	Food	Bill Desk Lobby Hotel Exterior Parking

CUSTOMER

Arrive at Hotel	Give Bags to Bellperson	Check in	Go to Room	Receive Bags	Sleep Shower	Call Room Service	Receive Food	Eat	Check Out and Leave

CONTACT PERSON (Onstage)

	Greet and Take Bags	Process Registration		Deliver Bags			Deliver Food		Process Checkout

CONTACT PERSON (Backstage)

Take Bags to Room	Take Food Order

SUPPORT PROCESSES

Registration System	Prepare Food	Registration System

(Zeithmal and Bitner, 2007)

Service blueprint

Existing retail service experience

	Product Selection	Checkout Process	Picking	Order Delivery
Customer — Customer	� gray	gray	gray	gray
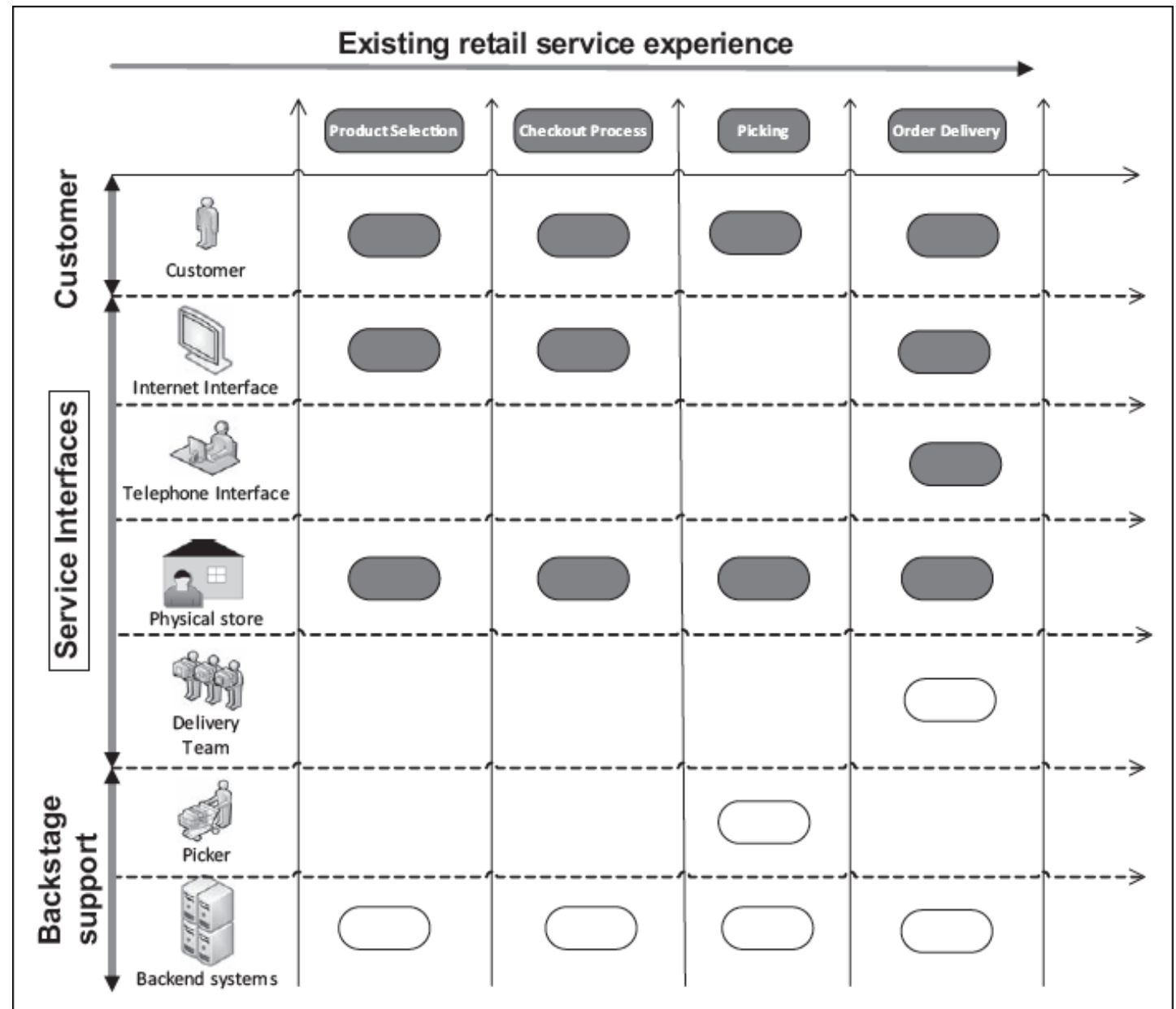
Interdependence & interactions

"A system is a complex whole the functioning of which depends on its parts and the interactions between those parts" (Jackson, 2010: 3)

"Models are explicit, simplifying interpretations of aspects of reality relevant to the purpose at hand. They seek to capture the most important variables and interactions giving rise to system behaviour. They are used to experiment on as surrogates for the real-world system." (Jackson, 2010: 55)

Understanding the Customer experience

Designing the Service offering

Designing the Service Concept

Value Constellation Experience

House Info → Mortgage loan → House purchase

Customer Value Constellation

- Personal recommendations
- Real estate broker
- Real estate service
- Registration office
- buying a house
- Real estate information service
- Insurance
- Bank mortgage service

Designing the Service System

Service Experience

Info search — Loan applic. — Contract ...

Service System Architecture

Service System Navigation

Designing the Service Encounter

Service Encounter Experience

Login — Select loan info — Analyze loan info ...

Service Experience Blueprint

MULTI-LEVEL SERVICE DESIGN (Patricio et al., 2011)

HOW DO PEOPLE BECOME **AWARE** OF CIS?

HOW DO PEOPLE **USE AND JOIN** CIS?

HOW DO PEOPLE **GROW** WITH CIS?

USER ACTIONS | BEING AWARE | CONTACT CIS | SEARCH & FILTER INFO | PREPARE FOR JOURNEY | ACCESS SUPPORT | CREATE ACCOUNT | LOG ACTIONS | SIGN UP FOR CIS FEEDS | PEER TO PEER | PUBLISH STORIES | ADD TO CIS | FEEDBACK

FACE TO FACE
PHONE
ONLINE
PAPER
DIGITAL TV

CIS ACTIONS

HIA
COORDINATOR
RESEARCHER
WEB COORDINATOR
MANAGEMENT
PARTNERS

Functionalist perspective
inform service operations and development
System as closed and under control

[SNOOK]

Service ecology

A service ecology is a system of actors and the relationships between them that form a service. The service ecology takes a systemic view of the service and the context it will operate in.

Service ecologies include all actors affected by a service, not only those directly involved in production or use.

Ultimately, sustainable service ecologies depend on a balance where the actors involved exchange value in ways that is mutually beneficial over time.

Source: Livework Studio Ltd

Service ecology - system

Like a biological ecology, a service ecology is marked by strong interrelationships and dependencies among its different parts.

In an intensive care unit, for example, the jobs of nurses and doctors can be seen to fit together in complementary ways, and the nature of their work is both extended by and dependent on the technologies they use in patient care

Change in an ecology is systemic. When one element is changed, effects can be felt throughout the whole system.

(Nardi, 2000)

Service ecology

(Think Public, DOTT07)

Gigamaps

"The GIGA maps are used for drawing the boundaries and framing of the system and for generative processes."
(Sevaldson, 2013: 6)

Understanding the needs of people living with Multiple Sclerosis

(NHS Institute)

services and destinations

Pain clinic

Respite care

Claypond's rehab hospital

Chronic pain treatment: Claire Cooper

Psychologist for inpatients

National hospital for Neurology and Neurosurgery: Queens Square

Ealing Hospital

Physiotherapist

Accidents and emergencies

Physiotherapist

Transport from Ealing hospital

Rehab

Neurogym

Meadow House (palliative care)

Social services [DFG]

Outpatients

ARISE (west)

Hillingdon Hospital (not specialist)

St. David's Nursing Home

Mattock Lane Health Centre (Ealing)

Charing Cross

Clinic

Harrow therapy centre (charity-run)

Physiotherapist at Ealing day treatment centre

Clinic

NHS direct

Neurologists at Hammersmith and Fulham

MS therapy centre

MS day centre

day treatment centre

Dial-a-ride

Ealing yoga (sat morning)

Specialist MS nurse

Spouse

family and friends

informal support

Informal carers

Parents

Siblings

Children

Social services

Social worker

Day centre

MS society local branch

MS society helpdesk

organizations

Interpretative perspective
If used within collaborative processes
Open system –
close interrelationships between its
subsystems

professionals

therapist (NHS)

End of life care co-ordinator in Ealing (+ project)

(from OT's)

Specialists from insurance companies

Wheelchair providers

Wheelchair service

artefacts

mis
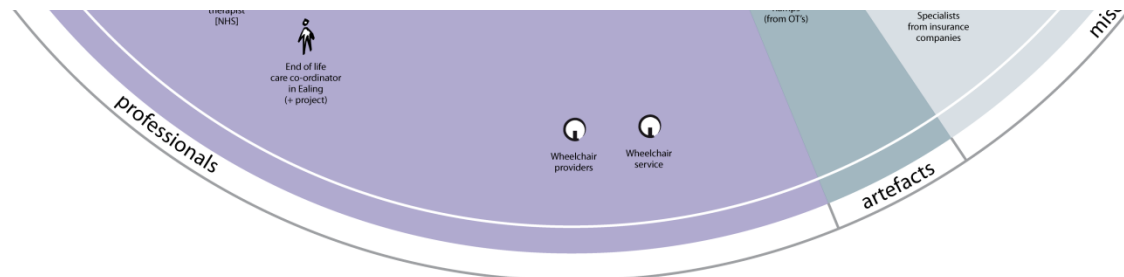
Service Blueprint
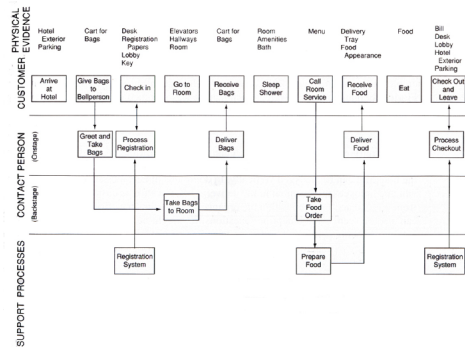
Efficiency

Complete understanding of the system and its parts

Control of operations

Service ecology

Worldviews

Collaborative and emergent interpretation of systems

Effective (re)use of what is there

Design evolution

Service Design evolution

- *Scaling*

- *Participation*

- *Transformation*

Conclusions

imagination LANCASTER

Customer participation

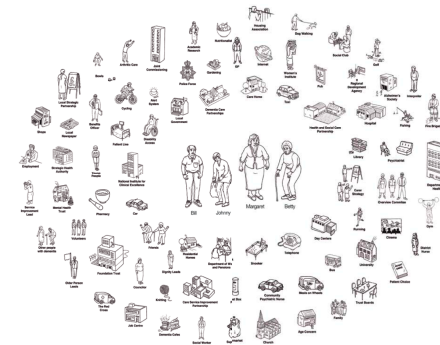| Low: Customer presence required during service delivery	Moderate: Customer inputs required for service creation	High: Customer co-creates the service product
Products are standardized	Client inputs customize a standard service	Active client participation guides the customized service
Service is provided regardless of any individual purchase	Provision of service requires customer purchase	Service cannot be created apart from the customer's purchase active participation
Payment may be the only required customer input	Customer inputs (information, materials) are necessary for an adequate outcome, but the service firm provides the service	Customer inputs are mandatory and co-create the outcome

Examples:
End consumer

Airline travel	Hair cut	Marriage counselling
Motel stay	Annual physical exam	Personal training
Fast-food restaurant	Full service restaurant	Weight-reduction programme

Business-to-business customer

Uniform cleaning service	Agency-created advertising campaign	Management consulting
Pest control	Payroll service	Executive management seminar
Interior greenery maintenance service	Independent freight transportation	Install wide area network (WAN)

Source: Adapted from Hubbert (1995)

(Bitner et al., 2007)

Customer as 'partial employee'

Customers can influence both the quality and quantity of production

→ Reduce direct contact between customers and service supply
system to optimise productivity (service automisation)

→ Consider customers as partial employee and maximise through
design and training their contribution (service co-production)

(Bitner et al., 2007)

Service co-design

Setting up user involvement where users and frontline personnel are provided with generative tools and techniques to innovate services (Holmlid, 2009)

- Knowledge sharing (Users/staff as resourceful)

- Engagement & sustained participation

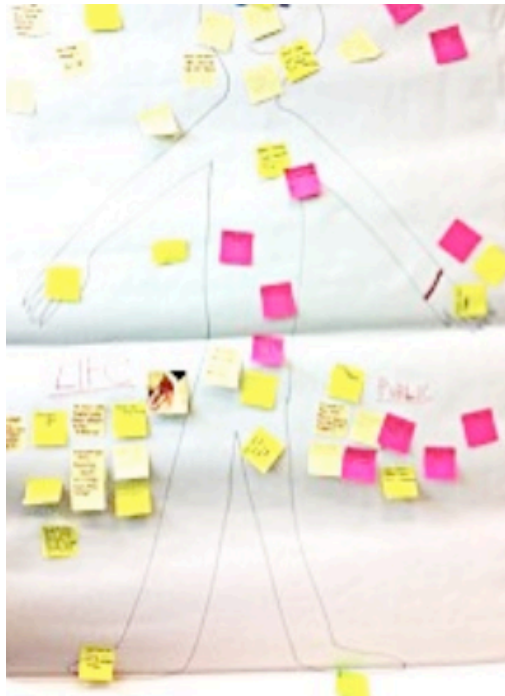- Legitimacy of participation (they have a permission to change things (Miller & Hamilton, 2008)

[Steen et al., 2011]

[SNOOK]

Techniques and modes to engage & co-design

[Bowen et al., 2013]

Requisite Variety: Who should participate?

SOCIAL SYSTEM VARIETY → optimal selection of stakeholders: "requisite variety amongst stakeholders for a shared problematic situation must account for social system variety"

"Social variety considers all distinctions that could make a difference in outcomes and action in the world (values, positions and stands, affiliations, perspectives, level of power, vulnerability, etc.)"

[Christakis, 2006 in Jones, 2010]

Pluralistic and inclusive approach
Conflicting values, beliefs and needs
Collaborative interpretation of systems
Design led and solution oriented process
(idealistic design)

SYSTEMIC DESIGN SYMPOSIUM _ Oslo 2014

Service Co-production

Co-production as **a new way of thinking about public services** has the potential to deliver a major shift in the health, education, policing and other services are provided:

Co-production means delivering public services in an equal and reciprocal relationship between professionals, people using services, their families and their neighbours. Where activities are co-produced in this way, both services and neighbourhoods become far more effective agents of change.

(Boyle and Harris, 2009)

Service Co-production

		Responsibility for design of services		
		Professionals as sole service planner	Professionals and service users/ community as co-planners	No professional input into service planning
Responsibility for delivery of services	Professionals as sole service deliverers	Traditional professional service provision	Professional service provision but users/communities involved in planning and design	Professionals as sole service deliverers
	Professionals and users/communities as co-deliverers	User co-delivery of professionally designed services	Full co-production	User/community delivery of services with little formal/ professional
	Users/communities as sole deliverers	User/community delivery of professionally planned services	User/community delivery of co-planned or co-designed services	Self-organised community provision

(Boyle and Harris, 2009)

Participation as Empowerment & Emancipation

When participation is pushed to its extremes it meets other agendas generally named as community or citizens 'empowerment': participation here becomes a mean and an end in itself (White, 1996).

Community Action research: participation is part of an awakening self-reflective process that questions existing power and societal structures and aims at change as an often conflicting bottom up movement (Ozanne & Saatcioglu, 2008).

Social Change Projects

Alcohol reduction project
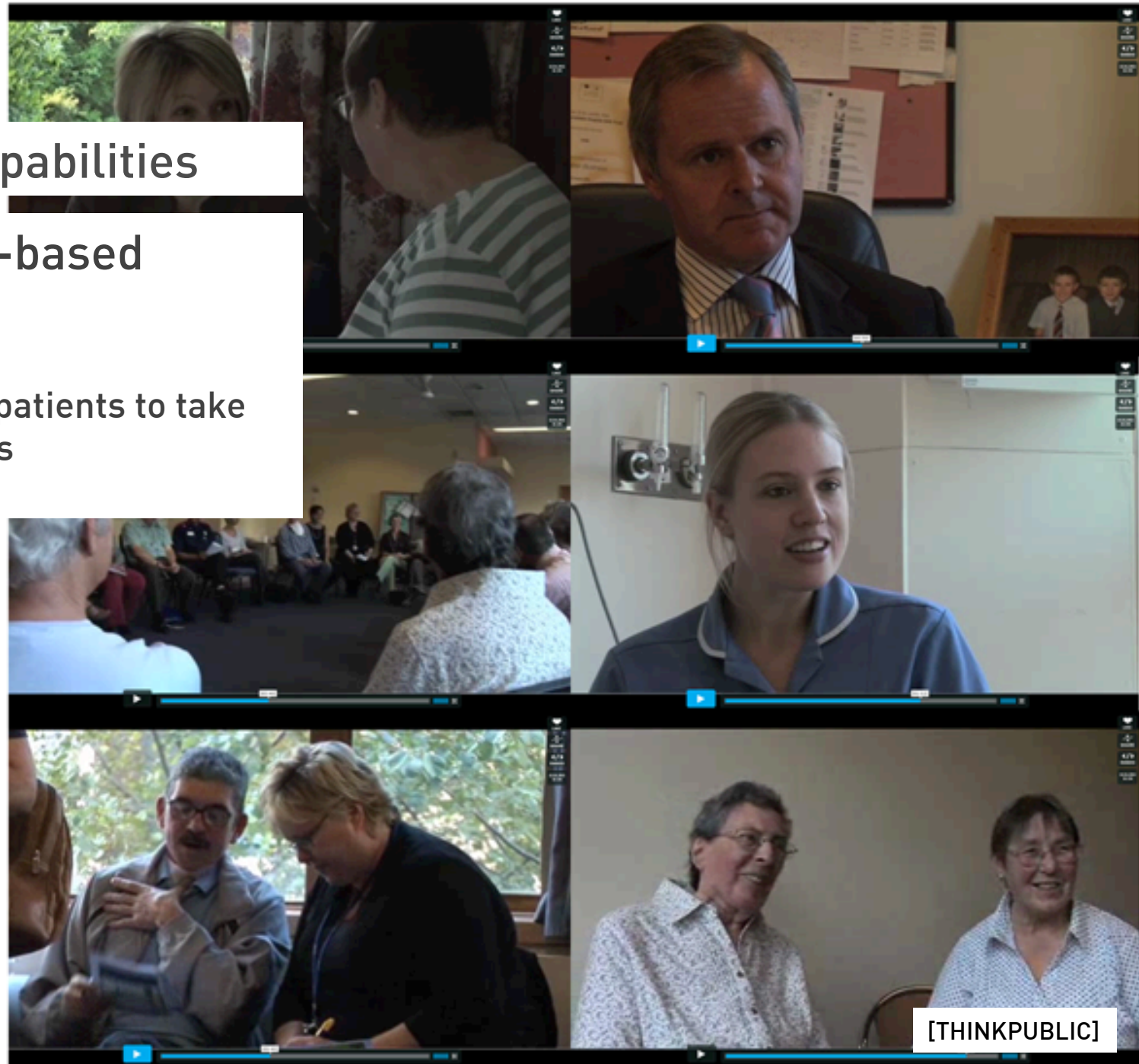
Co-create research methods - Methods stations
How do you empower people to co-design research when they may not have the expertise to know what options there might be?

Building Capabilities

Experience-based Design

Train staff and patients to take video interviews

[THINKPUBLIC]

Critical Systems Heuristics

Critical Systems Heuristics (Ulrich, 1983, 1998)

- Allow questions to be asked about who benefit from particular system designs;
- Seek to ensure the full participation of those who are affected by systems designs who might not otherwise be involved:
- Make **Boundary Judgments** transparent: assumptions about what is inside the system of concern and what belongs to its environment.

Service Design & Emancipation

Limited critical reflection on power dynamics & boundary making:

- Service Design may be hampered by inattention to issues of power and politics (Collins & Cook, 2014)

- "without critical understanding of the different types and facets of power operating within a specific setting [...] the discourses of service user empowerment and democratization of service provision risk being deployed simplistically obfuscating more subtle forms of oppression and social exclusion" (Donetto et al., forthcoming)

EMPANCIPATORY
Empowerment and emancipation:
Give voice & Build Capability
Design Facilitation
Focus on learning and transformation

Co-design

Co-creation

Effectiveness (best solution) & stakeholder commitment

Design leading

Focus on inclusivity and designing

Empowerment and emancipation: Give voice & Build Capability

Design Facilitation ('design oneself out')

Focus on learning and transformation

Design evolution

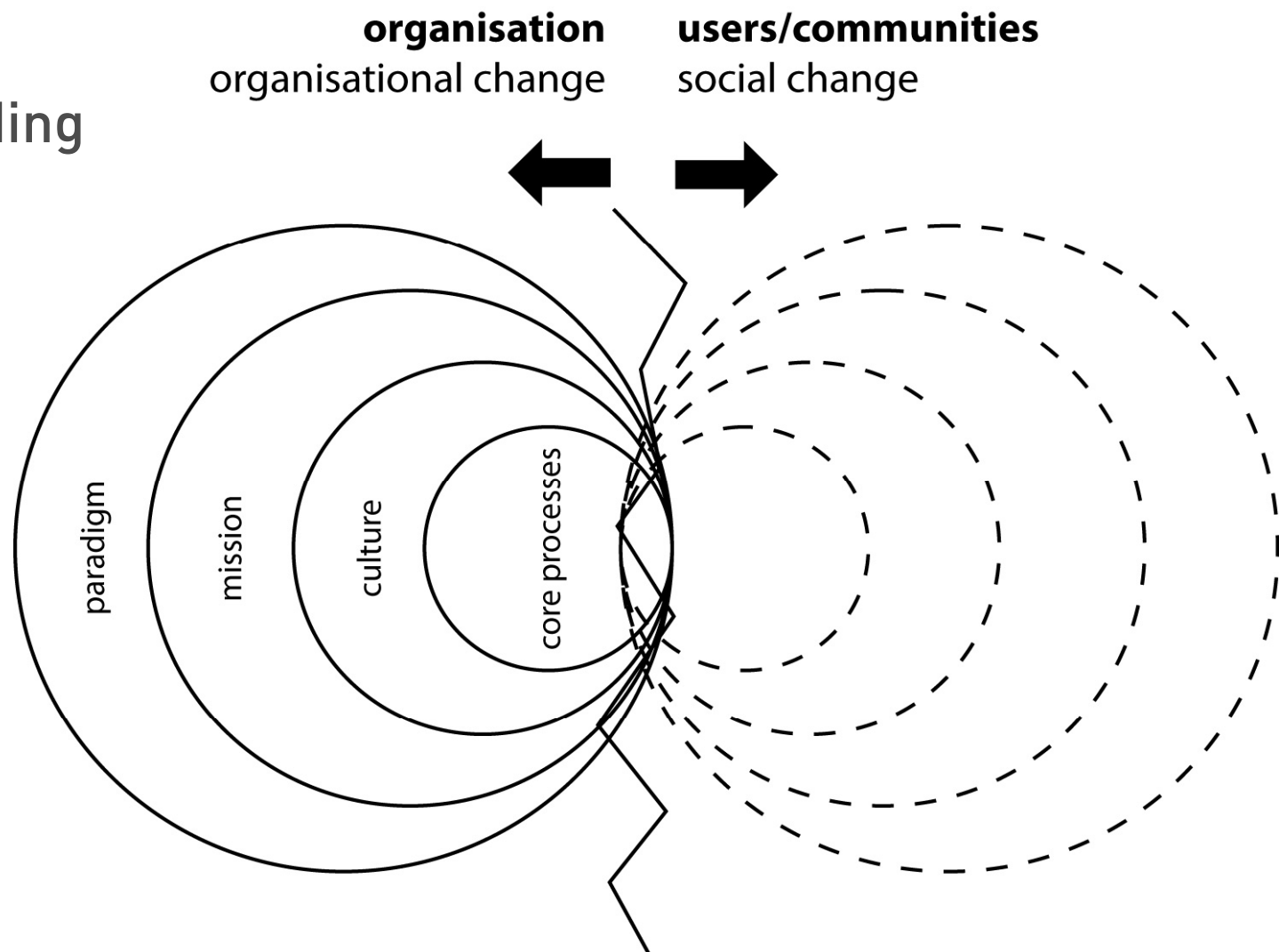Service Design evolution

- *Scaling*

- *Participation*
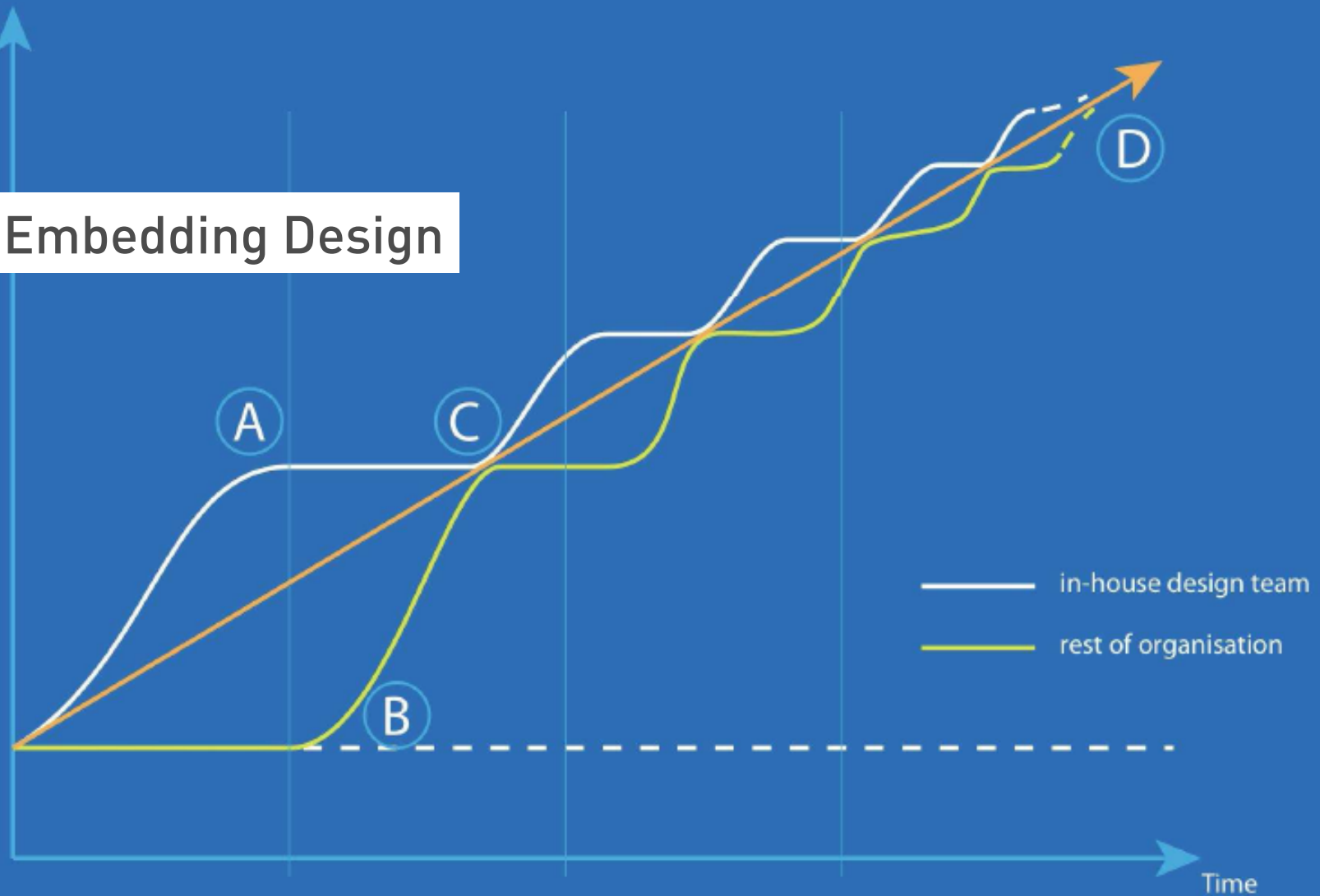
- *Transformation*

Conclusions

Transformation Design

'because organisations now operate in an environment of constant change, the challenge is not how to design a response to a current issue, but how to design a means of continually responding, adapting and innovating. Transformation design seeks to leave behind not only the shape of a new solution, but the tools, skills and organisational capacity for ongoing change' (Burns, 2006: 21).

Understanding Change

organisation
organisational change

users/communities
social change

paradigm

mission

culture

core processes

Embedding Design

- in-house design team
- rest of organisation

[Bailey, 2012]

Embedding Design:
toolkits and design labs

SYSTEMIC DESIGN SYMPOSIUM _ Oslo 2014

Embedding Design

Design legacies

Organizations are full of design legacies, however flawed and poorly suited. If service designers want to effect real change in real organizations, they have to be able to articulate these organizational design practices.

(Junginger, 2014)

Formative Context

Formative Context is

'the set of institutional arrangements and cognitive imageries that inform the actors' practical and reasoning routines [...]

a major obstacle to effective experimentation and adoption, and more generally to flexibility and innovation, is limited learning, that is, the limited capability to reflect upon and reframe the institutional and cognitive grounds that support the habitual "ways of doing things"' (Ciborra and Lanzara, 1994).

BETA
**Social Innovation
Lab for Kent**

Welcome to SILK's blog

SILK Method Deck

INTERPRETATIVE

Increase viability and sustainability

Open and purposeful systems in constant transformation

Inform a mind shift in managers

SYSTEMIC DESIGN SYMPOSIUM _ Oslo 2014

Indeterminate nature of services

'the fundamental inability of design to completely plan and regulate services, while instead considering its capacity to potentially create the right conditions for certain forms of interactions and relationships to happen' (Meroni & Sangiorgi, 2011: 10)

Design an 'action platform': 'a system that makes a multiplicity of interactions possible' (Manzini, 2011: 3)

Generative emergence
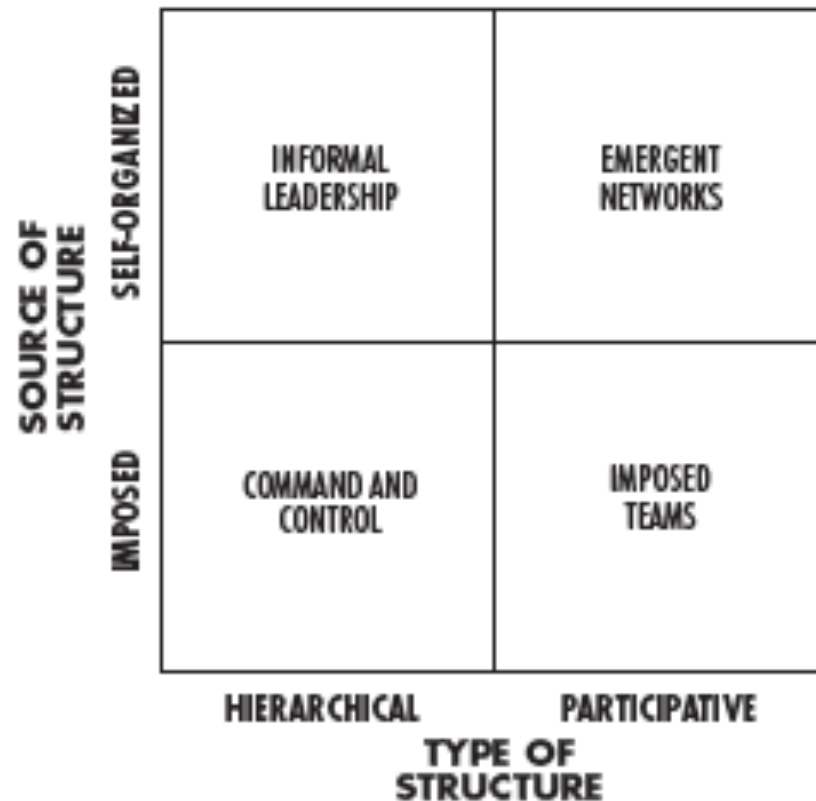
"arising of novel and coherent structures, patterns, and properties during the process of self-organization in complex systems" (Goldstein, 1999: 49)

Generative emergence

"complexity theory is exploring how the structure and properties seen in emergence partly result from the serendipity-like amplification of random events in complex systems. The chance or "noisy" event can be utilized by the organization to explore or test different system configurations and, therefore, may represent an evolutionary response of the social system to changes in the environment" (Goldstein, 1999: 68)

'Design in Use'

[Seravalli, 2014]

"Rather than focusing on involving users in the design process, focus shifts toward seeing every use situation as a potential design situation [...] So there is design during a project, but there is also design in use. There is design (in use) after design (in the design project)" (Bjögvinsson et al., 2012: 106)

‘Infrastructuring’

“The really demanding challenge is to design where no such consensus seems to be within view, where no social community exists. Such political communities are characterized by heterogeneity and difference with no shared object of design. They are in need of platforms or infrastructures, “agonistic” public spaces— not necessarily to solve conflict, but to constructively deal with disagreements.” (Bjögvinsson et al., 2012: 116)

Postmodern system thinking

"Postmodernists emphasize, instead, that we have to learn to live with the incommensurable, accepting multiple interpretations of the world and being tolerant of difference. Indeed, they want to ensure diversity and encourage creativity by reclaiming conflict and bringing marginalized voices forward to be heard." (Jackson, 2003)
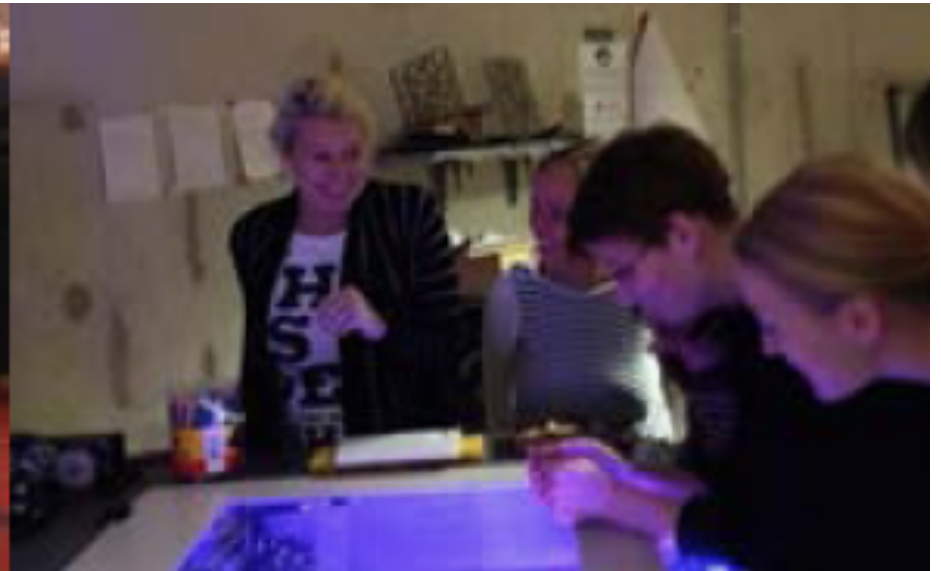
POSTMODERN
Exception and Emotion
Surface different view points and
support diversity
Agonistic spaces
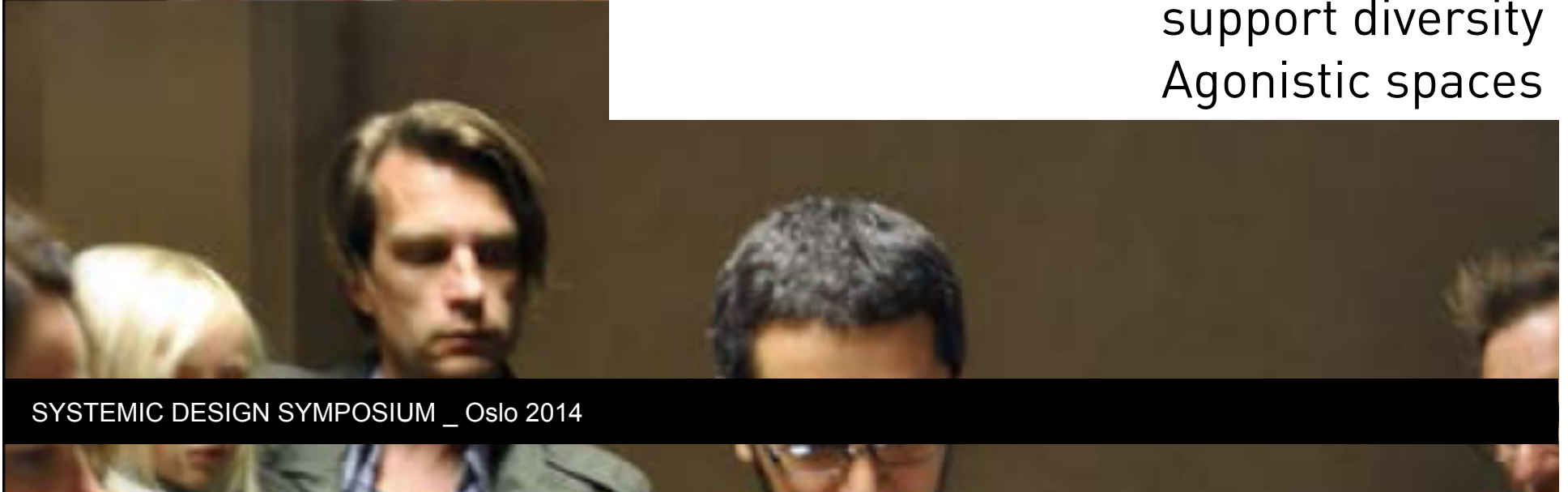
Design evolution

Service Design evolution

- *Scaling*

- *Participation*

- *Transformation*

Conclusions

Systemic perspectives

SCALE	BLUEPRINT	SERVICE ECOLOGY
	Planning processes and interdependence	Mapping resources and relationships
PARTICIPATION	CO-DESIGN	CO-CREATION
	Design Tools and Methods for engagement	Building capabilities & empowerment
TRANSFORMATION	EMBEDDING DESIGN	INFRASTRUCTURING
	Transforming mind sets and practices	Creating platforms for emergence & dialogue

BLUEPRINT	**SERVICE ECOLOGY**
Planning processes and interdependence	Mapping resources and relationships
INTERDEPENDENCE	GIGAMAPPING
CO-DESIGN	**CO-CREATION**
Design Tools and Methods for engagement	Building capabilities & empowerment
SOCIAL SYSTEM VARIETY	CRITICAL SYSTEMS H.
EMBEDDING DESIGN	**INFRASTRUCTURING**
Transforming mind sets and practices	Creating platforms for emergence & dialogue
FORMATIVE CONTEXTS	EMERGENCE

BLUEPRINT

Planning processes and interdependence

INTERDEPENDENCE

SERVICE ECOLOGY

Mapping resources and relationships

GIGAMAPPING

BOUNDED &
CONTROLLED
SYSTEMS &
PROCESSES

TOWARD
CONVERGENCE
& ORDER

CO-DESIGN

Design Tools and Methods for engagement

SOCIAL SYSTEM VARIETY

CO-CREATION

Building capabilities & empowerment

CRITICAL SYSTEMS H.

OPEN &
EMERGENCE
SYSTEM &
PROCESSES

TOWARD
DIVERGENCE
& DISORDER

EMBEDDING DESIGN

Transforming mind sets and practices

FORMATIVE CONTEXTS

INFRASTRUCTURING

Creating platforms for emergence & dialogue

EMERGENCE

DESIGN LED &
DESIGN CENTRED

DECENTRALISED &
EMERGENT

BLUEPRINT

Planning processes and
interdependence

INTERDEPENDENCE

SERVICE ECOLOGY

Mapping resources and
relationships

BOUNDARY FRAMING

Existence of tacit
system perspectives & philosophies

CO-DESIGN

Design Tools and Methods
for engagement

SOCIAL SYSTEM VARIETY

CO-CREATION

Building capabilities &
empowerment

BOUNDED &
CONTROLLED
SYSTEMS &
PROCESSES

OPEN &
EMERGENCE
SYSTEM &
PROCESSES

EMBEDDING DESIGN

Transforming mind sets
and practices

FORMATIVE CONTEXTS

INFRASTRUCTURING

Creating platforms for
emergence & dialogue

EMERGENCE

Thought 1

Not *stretching* Service Design but positioning within existing knowledge on e.g. system design

"*Systemic design is distinguished from service or experience design in terms of scale, social complexity and integration. Systemic design is concerned with higher order systems that encompass multiple subsystems.*" (Jones, 2014)

Thought 2

Make tacit understandings of services and systems, *explicit* and an object of debate (together with theories of change)

"Service systems often are described as existing in the world waiting to be discovered by service researchers. Their reification often brings with it an assumption of a coherent, bounded entity where what is inside and outside the system is unambiguous." (Blomberg & Darrah, forthcoming)

Thought 3

We need to consider not only what designers do and how (methods and approaches), but also what is their role, influence and *position* within the ecology of actors and ongoing processes of change

"*recognition of the specificity of location and the generative limits of method, such that a responsible practice is one characterized by humility rather than hubris, aspiring not to massive change or discontinuous innovation but to modest interventions within ongoing, continually shifting and unfolding, landscapes of transformation.*"(Suchman, 2011: 16)

Thought 4

Provide tools not only to map and visualise complexity and systems as objects of design, but also to enhance *reflexivity* of practitioners

"the need to introduce new skills and tools for reflexive practices within projects that hold transformational aims is evident. This might include ways to consciously track and reflect on processes, conflicts, roles, design decision points, mapping multiple perspectives and exploring individual and collaborative interpretations and evaluations of design situations and outcomes." (Sangiorgi, 2011: 37)

THANK YOU

d.sangiorgi@lancaster.ac.uk

SYSTEMIC DESIGN SYMPOSIUM _ Oslo 2014

SELECTED READINGS 01

Blomberg, J., and Darrah, C. (forthcoming). Toward an anthropology of services. The Design Journal Special Issue 'Emerging Issues in Service Design'

Simon Bowen, Helena Sustar, Daniel Wolstenholme, Andy Dearden, Engaging teenagers productively in service design, International Journal of Child-Computer Interaction, Volume 1, Issues 3–4, September–December 2013, Pages 71-81

Donetto, S., Pierri, P., Tsianakas, V. and R. Robert (forthcoming). Experience-based Co-design and healthcare improvement: realising participatory design in the public sector. The Design Journal Special Issue 'Emerging Issues in Service Design'

Jackson, M. (2010). Systemic Thinking. Creative Holism for managers, John Wiley & Sons Ltd.

Jones, P. (2014). Systemic design principles for complex social systems. In G. Metcalf (ed.), Social Systems and Design, Volume 1 of the Translational Systems Science Series, pp 91-128. Springer Japan.

Junginger, S. and Sangiorgi, D. (2009), Service Design and Organisational Change. Bridging the gap between rigour and relevance, IASDR09 conference, 19-22 October, Seoul

SELECTED READINGS 02

Maffei, S. and Sangiorgi D. (2006), From communication design to activity design, in Frascara, J. (edited by), Designing Effective Communications: Creating Contexts for Clarity and Meaning, Allworth Press, New York, 2006, pp. 83 – 100

Meroni A., Sangiorgi D. (2011), Design for Services, Gower Publishing Ltd

Multilevel service design: from customer value constellation to service experience blueprinting
L Patrício, RP Fisk, L Constantine - Journal of Service Research, 2011

Sangiorgi D., Building a framework for Service Design Research, EAD conference 'Connexity', 1-3 April 2009, Aberdeen

Sangiorgi, D. (2011). Transformative services and transformation design. International Journal of Design, 5(2), 29-40.

Steen, M., Manschot, M., & De Koning, N. (2011). Benefits of co-design in service design projects. International Journal of Design, 5(2), 53-60.

Suchman, L. (2011). Anthropological Relocations and the Limits of Design. Annual review of Anthropology, Vol. 40: pp. 1-18