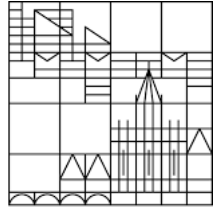



University of  
Konstanz



# Co-value production in digital service delivery

Prof. Dr. Ines Mergel, University of Konstanz  
ISA<sup>2</sup> Interoperability Winter School  
December 12, 2019

@inesmergel 

**EU Co-VAL (2017-2020)**  
**H2020 No. 770356**

**Understanding value co-creation in public services for transforming European public administrations**

WP3 – Digital transformation

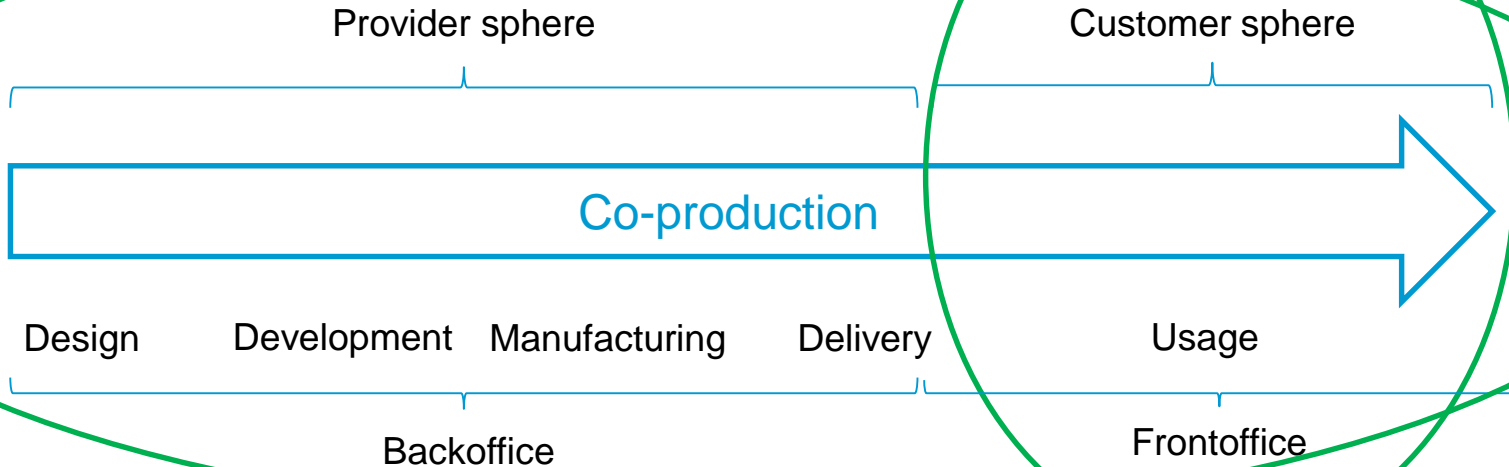


<http://www.co-val.eu/>

# Theory & research questions

# Value co-creation in service logic (Grönroos 2013:283)

Value creation as creation of value-in-use  
(Osborne 2018)



Value creation as an all-encompassing  
process

## Research question

**How are public administrations co-producing public value in digital service delivery?**

# Research design

## Analytical steps

### Cross-case analysis of multiple cases using a common outline (Yin 1984):

- Look for unique and common experiences
- Patterning of variables and relationships

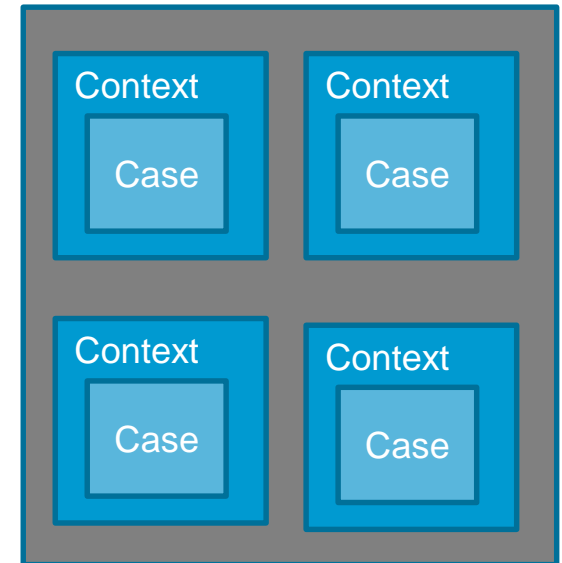
### Cross-case synthesis (Stake 2006; Miles and Huberman 1994):

- With all cases as individual chapters and a synthesis in table format
- Entire report consistent of cross-case synthesis

### Goal (Yin 1981):

- Either predict similar results or produce contrary results for predictable reasons
- Derive initial theory of co-value production in digital service transformation (Eisenhardt 1989)

Multiple case designs go with the same methodological framework (Yin 2017)



# Defining digital transformation



# I. Defining digital transformation (1/2)

## Definition:

Digital transformation is a **holistic effort to revise core processes and services of government beyond the traditional digitization efforts**. It evolves along a continuum of transition **from analog to digital to a full stack review of policies, current processes, and user needs** and results in a **complete revision of the existing and the creation of new digital services**.

The outcome of digital transformation efforts focuses among others on the **satisfaction of user needs, new forms of service delivery, and the expansion of the user base**.



Government Information Quarterly  
Available online 26 June 2019, 101385  
In Press, Corrected Proof



### Defining digital transformation: Results from expert interviews ☆

Ines Mergel <sup>a,\*,</sup>, Noella Edelman <sup>b,</sup>, Nathalie Haug <sup>a,</sup>

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<https://doi.org/10.1016/j.giq.2019.06.002>

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#### Highlights

- Empirically grounded definition of digital transformation focuses on holistic process to change products and culture.
- Digital transformation goes beyond digitization and digitalization by including the whole organization.
- Digital transformation changes bureaucratic and organizational culture and relationships to stakeholders.
- Short-term output focus on measurable increases in new digital services.
- Long-term impact and outcome focus on increases effectiveness and citizen satisfaction.

<https://www.sciencedirect.com/science/article/pii/S0740624X18304131?via%3Dihub>

# **Organizational embeddedness of digital transformation units in government**

## II. Digital Service Teams as initiators for digital transformation activities



Government Information Quarterly

Available online 7 August 2019, 101389

In Press, Corrected Proof



### Digital service teams in government

Ines Mergel

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<https://doi.org/10.1016/j.giq.2019.07.001>

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#### Highlights

- DSTs are organizational units set up to redesign government digital services.
- This comparative study distinguishes between internal and external contexts of DST.
- From in-depth interviews organizational design elements and practices are derived.
- The findings operationalize context variables of DSTs across countries.
- The study contributes to the theory of context and configuration of IT governance structures.

- Understanding the context in which digital service teams are created
- Interviews with founders, chapter leaders, service designers
- Includes:
  - US: USDS, 18F
  - Canada: CDS
  - UK: GDS
  - Finland: D9
  - Italy: Team Digitale
  - Denmark's Digital Disruption Unit
  - Estonia's CIO office

# Casing: High-level digital service teams

Empirically derived based on previously conducted expert interviews and policy tracing



Government  
Digital Service



## Example: Government Digital Service (UK)

- **Organizational embeddedness:** Cabinet Office, governed by the Ministerial Group on Government Digital Technology, and the digital, data and technology leaders of the central government departments and devolved administrations.
- **Reasons for creation:** Investment delays in digital government, civil service generally “fed up” with delayed upgrades
- **Mission:**
  - Provide best practice guidance;
  - Set standards for digital services;
  - Build support for common platforms, services, components, tools;
  - Help government choose the right technology;
  - Support increased use of emerging technologies by the public sector



Government  
Digital Service

GOV.UK  
Notify



GOV.UK  
Pay BETA

GDS  
Academy

GOV.UK

# Co-creation phases in digital transformation processes

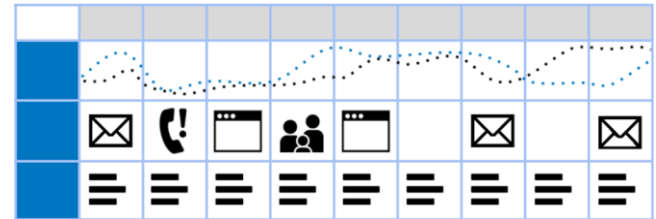
## IV. Co-creation activities

### (1) Co-commissioning:

- Derived from mission statements
- Moving toward government as a platform (GaaP)
- *Co-commissioning actors: Agencies, GDS, Cabinet Office minister (at the beginning)*

### (2) Co-design:

- User research (anthropological user & process owner interviews, participatory research)
- Derive user journeys
- *Co-designers:*
  - *Users: both citizens and internal users (civil service)*



Source: GDS

## IV. Co-creation activities

### (3) Co-implementation/management

- User tests
- Usability tests
- *Co-implementation actors: Cross-agency groups, IT service providers/vendors, (internal & external) users*



### (4) Co-delivery:

- As standard:
  - use of digital services
  - submission of user information
- *Co-delivery actors: Agencies, users*

### (5) Co-assessment (“continuous service review”):

- Continuous feedback in all phases & especially when live (active)
- User statistics (passive)
- Add new services when requested
- *Co-assessment actors: Agencies, users*

1/3 progress into Beta	2/3 progress into Beta	End of Phase Prompts
<ul style="list-style-type: none"><li>#2 EPIC: Put in place a sustainable multidisciplinary team that can design, build and operate the service, led by a suitably skilled and senior service manager with decision-making responsibility</li><li>#1 Give an example of a user story, the need it relates to and how that user need was determined</li><li>#20 Explain their testing environment</li><li>#19 EPIC: Build a service that can be tested on a frequent basis and make sure resources are in place to do so</li><li>#18 Use analytics tools that collect performance data</li><li>#15 EPIC: Make all new source code open and re-usable, and publish it under appropriate licences or provide a convincing explanation as to why this cannot be done for specific subsets of the source code</li><li>#2 EPIC: Evaluate what user data and information the service will be providing or storing, and address the security level, legal</li></ul>	<ul style="list-style-type: none"><li>#1 explain the user research methods, frequency of testing (normally with at least 5 users for each sprint), types of recruits and where they were recruited from, how the full service has been tested and in what environments, resources available and communication process into the service team to inform the design</li><li>#1 explain what has been learnt about users and user needs, including population demographics<sup>17</sup> and digital proficiency profiles</li><li>#1 explain clearly what user research has been completed during the beta including qualitative usability testing</li><li>#6 EPIC: Build the service using the agile, iterative and user-centred methods set out in the manual</li><li>#6 explain how the service has reviewed and tested their processes to be responsive during<sup>18</sup> the beta</li><li>#19 explain what they have thrown<sup>11</sup> away or changed during the beta</li><li>#19 Show that the service has been tested on a frequent basis during the beta, based on user research,</li></ul>	<ul style="list-style-type: none"><li>#20 explain their research plan in #11 detail for after the service is live</li><li>#20 explain who is doing user research and usability testing and how it is being resourced once the<sup>12</sup> service is live</li><li>#20 explain how often they will be doing user research and usability testing once the service is live</li><li>#20 explain how the results from user research and usability testing will be incorporated into the design<sup>15</sup> of the service once the service is live</li><li>#2 show they were empowered to make decisions during the beta and will continue to do so after the service is live</li><li>#2 explain how the service will be self-sufficient after the service is live, where the service has received<sup>10</sup> help from GDS</li><li>#26 Test the service from beginning to end with the minister responsible for it</li><li>#2 show that the team will be sustained to continuously improve<sup>11</sup> the service after it goes live</li></ul>



# Co-value creation phases in digital transformation processes

## Co-planning

### Forms

- Citizen/user participation

### Purpose

- Inclusive formulation of policies

### Value

- Democratic & societal values
- Increased attention
- Including outside-perspectives
- Avoiding inhouse bias

Boivard (2007);  
Osborne (2018);  
Roberts (2008)

## Co-design

### Forms

- Service design
- Product design

### Purpose

- Direct input by consumers and public servants
- Service improvement

### Value

- Democratic values
  - transparent
  - inclusive
- Co-opting expertise
- Craft solution with people
- Value-in-exchange

Carstensen & Bason  
(2012); Ostrom (2009)

## Co-implementation

### Forms

- User tests
- Outsourced to IT service providers

### Purpose

- Create digital service
- Service and content designers, UX designers

### Value

- Administrative & economic values
  - Speed
  - Avoid failure
  - Cost reduction

Dunleavy (2008)

## Co-delivery

### Forms

- Switching to/ consumption of online digital services

### Purpose

- Service in use
- Value-in-use

### Value

- Citizen values
  - Seamless service consumption

Clark et al. (2013);  
Grönroos & Voima  
(2013)

## Co-assessment/eval.

### Forms

- Continuous feedback loops

### Purpose

- Improvement
- Continuous use

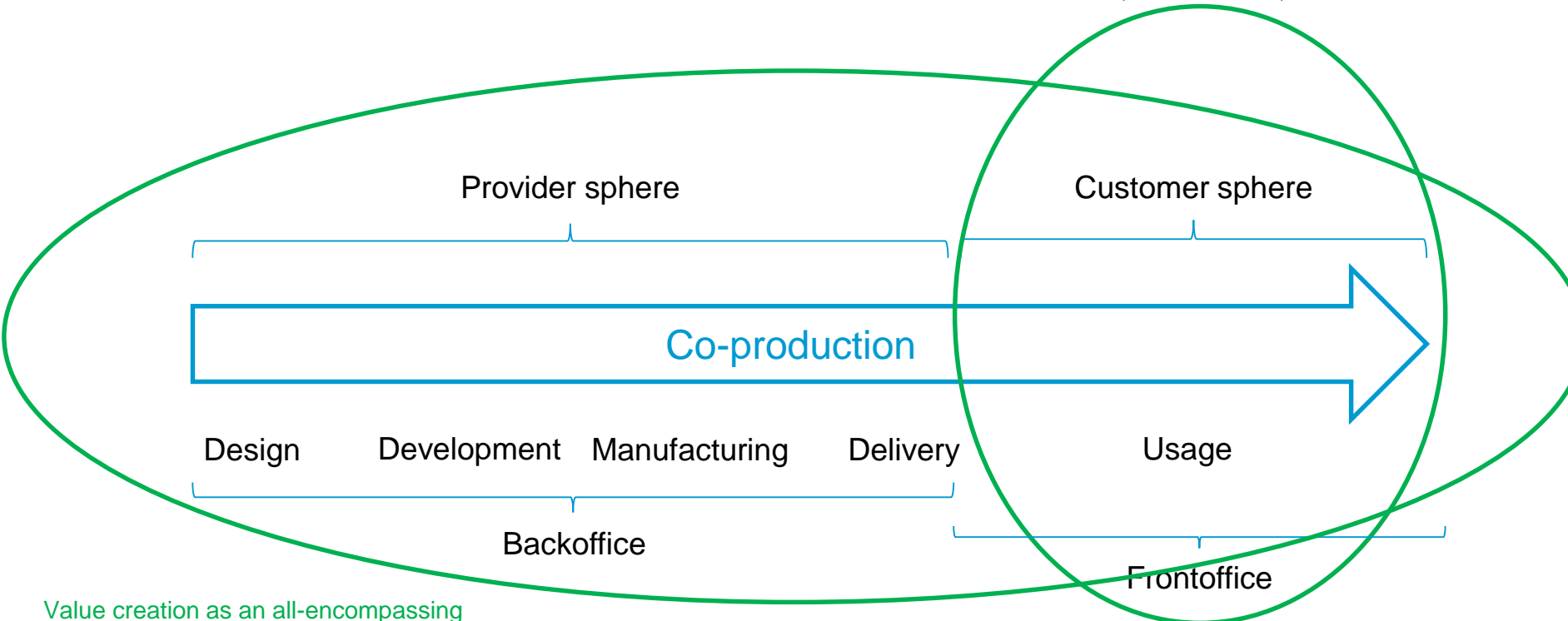
### Value

- Citizen values & societal values
  - Avoid unintended consequences
  - Avoid costs
  - Continuous updates

(...)

**Theoretical interest: Value co-creation in service logic**  
**(Grönroos 2013:283)**

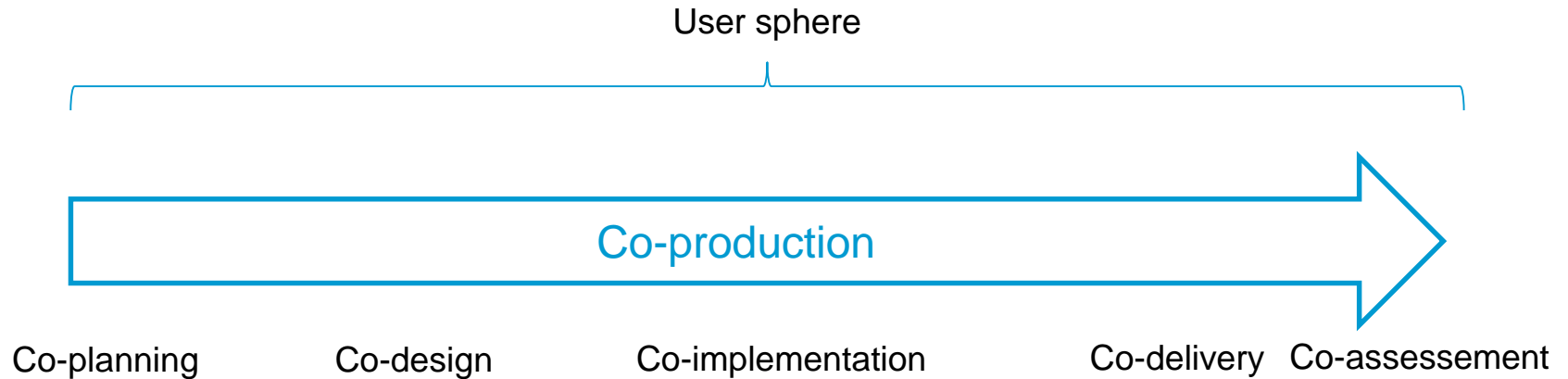
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Value creation as an all-encompassing process

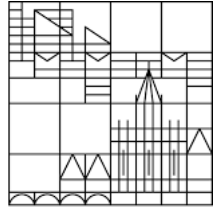
# Extending Grönroos' framework toward a theory of value co-creation in digital transformation (based on Grönroos 2013:283)

Value creation as an all-encompassing process



## Implementation challenges


- **No technological interoperability challenges**
- **Legal interoperability** (“We are not allowed to do this.”; “Show me the law.”)
- **Organizational interoperability**
  - Cultural barriers (persistence)
  - Active resistance (“we have never done this before”)
  - Scale up to the whole of government
  - Moving toward a digital mindset (“digital first” mentality)
- **Cross-cutting issue:**
  - Lack of digital competences
  - Lack of project management skillset



**Thank you for  
your attention!**

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