



Developing sustainable digital public services & co-creation in the public sector

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Developing sustainable digital public services: establishing and maintaining cultures of co-creation

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Paris Agreement (2015)

Climate change actions, sustainable development, public access to information and participation public, and engagement by various actors;

2030 Agenda for Sustainable Development (2016)

Sustainable development (economic, social and environmental) by identifying technology needs and gaps, innovation and capacity-building to help to facilitate technology development and dissemination in order to achieve SDGs;

Draft Council Conclusions on Digitalisation for the Benefit of the Environment (2020)

➤ Align digitalisation with environmental interests and harness digital technologies for better climate and environmental protection, foster social justice, and improve opportunities for participation;



Shaping Europe's digital future (2020)

➤ Digital solutions and data are to enable a fully integrated life-cycle approach that supports an open, democratic and sustainable society

Berlin Declaration (2020)

- ➤ Foster resilience and sustainability by ensuring that the digital transformation in Europe contributes to the UN Sustainable Development Goals (SDGs);
- ➤ Developing relevant policies that support a workplace culture, appropriate use of digital technologies and work-life balance through co-creation and collaboration with the civil society;
- ➤ Deepen collaboration in order to re-use and share data, good practices and solutions of digital governance;

Principle 7 Towards a resilient and sustainable digital society

We ought to explore and continuously follow up on the "lessons to be learned" from the COVID-19 pandemic and the boost it has given to digital transformation. We also need to make sure that the increasing use of digital technologies does not harm but rather contributes to people's physical and psychological well-being...we need to ensure that a sustainable digital transformation serves our citizens and businesses on an individual level as well as our society as a whole, while at the same time safeguarding the preservation of our natural foundations of life. (p.7)

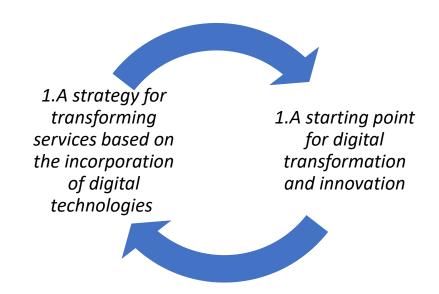
Sustainability in the European public sector is aligned with digital transformation.



Digital transformation includes collaborative tools for innovation

- > supports user-centric approaches, inclusion and the development of inclusive services
- > increases complexity

In this context, co-creation has 2 roles



Co-creation

©An arrangement between state professionals and lay citizens/communities in order to develop tailored solutions, increase innovation and develop more efficient service (Brandsen and Honingh, 2016).

Digital cocreation © Digital tools support citizen contribution to service design, service delivery and service monitoring (Linders 2012).

Co-creation of digital PS

Digital technologies change the way citizens engage and provide inputs for public services, trigger novel services and can replace human-centric co-creation with fully automated processes (Lember, Brandsen, and Tõnurist 2019).



Co-creation of sustainable outcomes: whether and how co-creation enables the creation of effects that endure, even after the co-creation activity itself has come to an end (Jaspers & Steen 2021).

- > Co-creation can lead to a higher level of user acceptance and plausibility of services and technologies, leading to more sustainable (digital) public service provision.
- > Through co-creation, the **sustainability of (digital) collaborative practices** can be strengthened.



Measurement & scope of analysis

- Collecting more granular data;
- Quality assessment and assurance tool;
- > Demand side of digital government
- Assess quality of services and user satisfaction;
- Comparability across time;
- Matching supply and demand;
- Measurement of outcomes and impacts;
- ➤ Impacts that are intangible and cannot be rendered in monetary terms. (Misuraca et al., 2021)



Research Questions

- 1. How is sustainability understood in the public sector?
- 2. What is the impact of sustainability on the development and delivery of (digital) public services?
- 3. What factors to contribute long & short-term sustainability in the public sector?



Data & Analysis

Data Collection: workshop with 30 participants

"...a collaborative working session in which a team achieves an agreed goal together. The goal could be to solve a problem, create ideas, work through an issue or find agreement between team members." (Hamilton, 2016, p. 1)

Data Analysis: Cycle 1: Thematic Analysis

Theme 1: Understanding the Concept of Sustainability.

Theme 2: Definitions of Sustainability in the Public Sector Context.

Theme 3: Impact of Sustainability on Digital Public Services.

Theme 4: Relationship between Sustainability and Co-creation.



Measurement & scope of analysis

Cycle 2: Grounded Theory

Understanding the concept of sustainability

- Conceptual orientation of the term
- Context
- Sustainability archetypes

Definitions in the PS context

- Nature and scope in the context
- Enabling factors
- Inhibiting factors
- Examples/best practice

Impact on (digital) PS

- Context within digital transformation
- Factors permitting and inhibiting initiative success
- Examples

Relationship between sustainability and cocreation

- Definition and scope of co-creation
- Relationship between cocreation and digital PS design and delivery
- Enabling and inhibiting factors for sustainable cocreation
- Examples (successful and failed sustainable co-creation)

Results: How is sustainability understood in the public sector?

- Environmental or developmental context
 - but gaining currency in terms of public sector initiatives
- In a governmental or public sector context
 - > best practice leading to the innovation and implementation of sustainable public services
 - > effort to maintain an object or an action for a prolonged period of time through the adoption of processes
 - To ensure sufficient scarce resources are available for the defined period
- Process is not linear
 - agile and involving the continuous interaction of various stakeholders
- Measuring sustainability is possible, but complex as it is a continuous and iterative process.
 - questionnaires, surveys, and focus groups

Results: How is sustainability understood in the public sector?

- European and international initiatives have started to focus on the sustainability of digital transformation-led public service design and delivery through the greater involvement of stakeholders.
- Factors influencing the sustainability of digital transformation initiatives include
 - Political: political will, political vision, leadership
 - Organisational: strong innovation culture, organisational set-up
 - Legal: regulatory environment conducive to innovation and growth
 - Financial: access to secure sources of funding
 - Technical: interoperability, use-friendly interfaces, integrated service bundles

Results: What is the impact of sustainability on the development and delivery of digital public services?

- Focuses on the notion of continuity implicit within definitions of sustainability, and the agile, iterative nature of the process of sustaining something over a long period of time.
- The integration of public services as a means of ensuring sustainability of digital public services over time.
- Digital public services need to be considered as a set of interrelated workflow processes if each standalone service is to be made sustainable.

Results: What factors to contribute long & short-term sustainability in the public sector?

- Co-creation as a means to enhance sustainability in public sector contexts.
- Factors influencing the sustainability of co-creation initiatives in the public sector include:
 - Capacity building: to develop an innovation culture amongst key stakeholders
 - Continuous learning: to facilitate knowledge sharing and transfer and dispel myths about the co-creation process.
 - Training: to equip stakeholders with the necessary tools and techniques
 - Stakeholder engagement: to understand key priorities, motivations and behaviour.
- Negative outcomes
 - Political actors think of it as an erosion of responsibility and power
 - Key stakeholders are selectively involved, not always through appropriate channels.



Conclusions

How is sustainability understood?

A concerted effort to maintain an object or an action for a prolonged period of time through the adoption of processes that ensure that sufficient scarce resources were made available for the same time period.

But: In a governmental or public sector context, the term implies best practice leading to the innovation and implementation of sustainable public services.

What is the impact of sustainability on the development and delivery of digital public services?

Measuring sustainability is possible, but complex, and does not lead to a one-off outcome, instead it is a continuous and iterative process. The stakeholders (citizens, decision-makers, political actors, businesses, citizens) are central to sustainability, so it is important to consider their priorities when choosing which services to integrate and ensuring that service design and delivery are participatory.



Conclusions

What factors contribute to long and short-term sustainability in the public sector?

Factors influencing the sustainability of co-creation initiatives in the public sector include capacity building, continuous learning and training.

There are several political, organisational, leadership, legal, financial and technical factors that are important in supporting the sustainability of digital transformation initiatives.



Thank you for your attention!

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