

Baseline Measurement

Deliverable 1.1.1

BECODIGITAL

BRAIN-be 2.0, Belgian Research Action through Interdisciplinary Networks,
Phase 2 (2018 – 2023)

Contract number: B2/223/P3/BECODIGITAL

Work Package 1
KU Leuven

July 3, 2023

Responsibility for the views expressed rests solely with the author(s). BELSPO is not responsible for any use that may be made of the information it contains.

Issued by:

Public Governance Institute [PGI], Faculty of Social Sciences, KU Leuven, Parkstraat 45, 3000 Leuven, Belgium.

© 2023 by the BECODIGITAL Consortium

No part of this report may be reproduced in any form without permission in writing from the author(s).

RESEARCH CONSORTIUM

COORDINATOR

Prof. dr. Anthony Simonofski (UNamur – Namur Digital Institute)

AUTHOR(S)

Dr. Laurien Coenen (KU Leuven - Public Governance Institute) (WP 1 – 6)

PROJECT LEADS AND SUPERVISORS

Prof. dr. Ir. Joep Crompvoets (KU Leuven – Public Governance Institute)

Dr. Marlies Saelaert (Sciensano)

Prof. dr. Anthony Simonofski (UNamur – Namur Digital Institute)

Prof. dr. Monique Snoeck (KU Leuven – Research Centre for Management Informatics)

Prof. dr. Koen Verhoest (UAntwerp – Politics & Public Governance)

PRIMARY RESEARCHERS

Dr. Nicolas Bono Rossello (UNamur – Namur Digital Institute) (WP3 – 4 – 5 – 6)

Dr. Antoine Clarinval (UNamur – Namur Digital Institute) (WP3 – 4 – 5 – 6)

Dr. Emmanuel Dockx (UAntwerp – Politics & Public Governance) (WP2 – 6)

Cato Janssen (UAntwerp – Politics & Public Governance) (WP2 – 6)

PARTNERS

Prof. dr. Corentin Burnay (UNamur – Namur Digital Institute)

Prof. dr. Wafa Hammedi (UNamur – Namur Digital Institute)

Prof. dr. Trui Steen (KU Leuven – Public Governance Institute)

Prof. dr. Benoît Vanderose (UNamur – Namur Digital Institute)

Prof. dr. Wouter Van Dooren (UAntwerp – Politics & Public Governance)

PROJECT WEBSITE: EVENTS.UNAMUR.BE/EVENT/109/

TABLE OF CONTENTS

RESEARCH CONSORTIUM.....	1
TABLE OF CONTENTS.....	2
EXECUTIVE SUMMARY OF THE BASELINE MEASUREMENT	3
1. CO-CREATION	4
1.1 A CONCEPTUAL DELINEATION.....	4
1.2 AN ANALYTICAL FRAMEWORK—PART 1	7
2. STAKEHOLDERS AND STAKEHOLDER ROLES	10
2.1 POTENTIAL STAKEHOLDERS IN DIGITAL CO-CREATION.....	10
2.2 STAKEHOLDER INVOLVEMENT, AUTONOMY AND DECISION-MAKING POWER.....	12
2.3 AN ANALYTICAL FRAMEWORK—PART 2.....	13
2.4 AN ANALYTICAL FRAMEWORK—PART 1 (CONTINUED)	15
2.5 STAKEHOLDER ROLES	16
3. DIGITAL CO-CREATION OF (E-)SERVICES	18
4. RESEARCH METHODOLOGY	19
5. APPLYING THE ANALYTICAL FRAMEWORK	22
6. FUTURE PROSPECTS AND PLANNING	24
7. VALORISATION ACTIVITIES.....	24
REFERENCES	26
ANNEX	29
ANNEX 1 – CASE OVERVIEW (AS CONFIRMED THUS FAR).....	29
ANNEX 2 – TOPIC LIST INTERVIEW KEY STAKEHOLDERS (ENGLISH VERSION).....	32
ANNEX 3 – TOPIC LIST INTERVIEW KEY STAKEHOLDERS (DUTCH VERSION).....	34
ANNEX 4 – TOPIC LIST INTERVIEW KEY STAKEHOLDERS (FRENCH VERSION).....	36

EXECUTIVE SUMMARY OF THE BASELINE MEASUREMENT

The BELSPO BRAIN-be 2.0 BECODIGITAL project (2022-2024) researches, over a two-year period, the (pre-) **conditions** for effective and **inclusive digital co-creation in a federal context**. In connecting practical and scientific insights about digital co-creation, the project's results will materialise into a validated roadmap to support future co-creation initiatives using digital technologies or targeting public (e-) services. The **Baseline Measurement** presented in this report entails a first stepping stone in the knowledge acquisition within the project and, hence, the build-up towards the roadmap.

Throughout this report, we will first present an elementary **introduction to co-creation** in public administration. The conceptual choices that will inform the further course of this project are described and argued. As research antecedents are scattered across the fields of public administration, political sciences and information system management, the intersection between them can render intriguing and enriching insights for practitioners. However, research on the crosslines of these disciplines is scarce, and many questions remain unanswered. One of them—and the explicit focus of this Baseline Measurement—involves the **stakeholders** that can potentially engage in digital co-creation and how to engage them.

The reader will find that with each consecutive step in its theoretical build-up, the Baseline Measurement gradually builds **a digital co-creation framework** that captures the main concepts within work package one—which are, by extension, also central to BECODIGITAL. Therefore, the analytical framework will serve as a tool to present unique cases in subsequent parts or deliverables of BECODIGITAL clearly and unambiguously. **Through a qualitative research approach**, deploying semi-structured interviews on various real-life cases, the Baseline Measurement's theoretically-inspired framework will be **adapted, expanded and validated**. Whereas the framework's final version will be presented and elaborated in the policy brief (D1.4.1), project's final report (D4.2.2) and road map (D2.3.1), this report already details the research questions and design guiding our analytical framework development exercise from a practical angle. Moreover, it provides a first example of what the framework might look like when applied to a digital co-creation case (i.e., the Corona Consultations as organised by Sciensano).

1. CO-CREATION

Overview of the central concepts, conceptual choices and visual representations (by means of an integrated and preliminary framework) within work package 1—and, by extension, the overall project.

1.1 A CONCEPTUAL DELINEATION

Given the Baseline Measurement's aim to provide a **summary of the important stakeholders to consider in digital co-creation**, we start by delineating the concept of co-creation and describing the type and interpretation of the digital co-creation we consider. Once we have clarified our choices of conceptual interpretation for the remainder of BECODIGITAL, we can start describing the different stakeholders, their potential roles and decision-making power or autonomy in (digital) co-creation processes as described, discussed or detailed by research antecedents.

When researching co-creation in any context, administrative culture or policy level, one cannot ignore the **conceptual debate** surrounding the phenomenon under investigation (e.g., Bovaird & Loeffler, 2013; Brandsen et al., 2018; Brandsen & Honingh, 2016, 2018; Linders, 2012; Loeffler, 2021a, 2021b; Nabatchi et al., 2017). Scanning the literature, many terms, such as co-production, co-creation, citizen sourcing, collaborative governance, citizen participation and civic engagement, have been deployed to describe seemingly similar initiatives of active cooperation between public sector professionals on the one hand and private actors, such as citizens, on the other. Terms that, moreover, prove to be both trend and interpretation-sensitive (Voorberg et al., 2015) but do complicate the comparability of existing research and implementation cases (Brandsen & Honingh, 2018; Rodriguez Müller et al., 2021; Torfing et al., 2021).

Research on the topic, however, departed from the concept of '**co-production**'. Introduced in the United States in the 1970s, co-production described the involvement of members of the public in the delivery of public services (see Parks et al., 1981). Later, the concept was often stretched to encompass citizen involvement in designing services with public sector professionals and hence the entire production process (Nabatchi et al., 2017; Pestoff et al., 2006). Influenced by New Public Governance theorising (see Osborne, 2010), which emphasised the possibilities of collaboration and interaction with non-state actors in networks and partnerships to face (a) growing and changing public expectations, (b) a rise in public problem complexity that transcends governments' ability to cope in times of (c) budget constraints and cut-backs, the term 'co-creation' gradually found its way into public administration (research).

Co-creation originates from private sector management and is geared at maximising user satisfaction. It describes how customers can contribute to creating and improving the services they buy, such as by signalling their wants and needs prospectively or evaluating the service retrospectively (Torfing et al., 2019). Seeing that the public sector constantly produces and provides public services, too, in which user satisfaction and actual consumption are no insignificant benchmarks, Osborne et al. (2013) estimated that the notion could also easily be applied to the public sector. This time, instead of user satisfaction, public value creation is maximised through joint actions (Torfing et al., 2019).

Because of their common application ground (i.e., the public sector and user or citizen involvement in the realisation and delivery of services), the concepts of co-production and co-creation show three distinct **commonalities** (Brandsen & Honingh, 2018):

- 1) Both observe the **direct impact** of lay actor or user input on the production of services.
- 2) Both entail a **collaboration or interaction** between public sector professionals and third-party actors, predominantly citizens, on the other hand—face-to-face and concurrently or otherwise.
- 3) Both assume **active involvement** of third-party actors in the public services they or fellow citizens receive. The event of simply using or passively receiving a service, for example, is not nearly enough to be categorised as either of the two concepts.

Despite those **commonalities**, co-production and co-creation do **not** exhibit **a one-to-one relationship**. Brandsen and Honingh (2018), for example, describe three common interpretations of how the two concepts relate. A first interpretation tells that both concepts describe roughly the same phenomenon yet under different denominators. A second interpretation deems both concepts as having a distinct meaning and referring to different kinds of third-party actor involvement. A third and final interpretation, however, sees co-creation as the more encompassing term of which co-production can be a specific type or mode. About the latter interpretation, Torfing et al. (2019, p. 818) state: "Co-production emerges as a limit case of co-creation when only users and service providers are involved, the focus is service delivery, and the innovative potential is not realised". Through this statement, the authors rightfully highlight co-production's predominant focus on the public service delivery cycle despite public service provision being only one of the public sector's core functions (cf. *infra*). Moreover, they question the typical division of the co-production playing field among only state actors or public sector professionals and lay actors or citizens.

In the remainder of this Baseline Measurement—and, by extension, BECODIGITAL—we will adhere to the last interpretation of the conceptual relationship: co-creation as an umbrella term encompassing co-production with a more narrow focus on public service delivery. The **definition of co-creation** as formulated by Torfing et al. (2019, p. 802) will guide subsequent parts of this report:

A process through which two or more public and private actors solve a shared problem, challenge or task through a constructive exchange of different kinds of knowledge, resources, competences and ideas that enhance the production of public value [...] or services.

For the purpose of subsequent case selection, we highlight four elements within this definition. First, **'the production of public value [...], or services'** indicates that co-creation transcends the public service delivery cycle (see Bovaird & Downe, 2008) on which the concept of co-production is grafted. While new or improved public services may still be the object or outcome of co-creation, so can innovative or adapted visions, plans, policies, strategies or regulatory frameworks that show a closer connection to a public policy cycle terminology (see Howlett et al., 2020). Indeed, apart from service provision, public value can be co-created just as easily in connection to the public sector's two other core functions: public problem-solving through policies and intervention or coping strategies and public regulation of social and economic life

(Torfing et al., 2019; Voorberg et al., 2015). Co-creatively gaining new perspectives on a societal problem and potential solutions, for example, can improve a public organisation's efficiency and effectiveness in dealing with that particular issue (e.g., Ansell et al., 2017; Osborne et al., 2013). Moreover, co-creation can realise democratically desirable spill-over value by empowering citizens, increasing social capital, and strengthening informed citizenship and the perceived legitimacy of decision-making (e.g., Fledderus, 2018; Jo & Nabatchi, 2018; Leino & Puumala, 2021; Linders, 2012; Pestoff, 2009).

Second, **'two or more public and private actors'** confirms that co-creation—unlike many interpretations of co-production (see, for example, Brandsen & Honingh, 2018; Nabatchi et al., 2017)—is not restricted to only two types of protagonists: state actors or public service providers on the one hand and lay actors, functioning as citizens, clients or users on the other. Instead, it recognises the added value of involving a plethora of third-party actors (i.e. public and private in the broadest sense) as each can contribute vital knowledge, energy, competences, ideas or resources of any other kind to move co-creation processes forward (Steen & Tuurnas, 2018). Academic or field experts, for example, can render the information and insights needed to empower citizens in the initial stages of a co-creation initiative so that they can substantially contribute to later ones (e.g., Callens, 2022; Karlsson et al., 2012; Parrado et al., 2013). After all, co-creation can revolve around problems, challenges and tasks stemming from far-off issues leaving participants in unexplored territory and demand of thorough preparation.

Third, **'a constructive exchange'** to **'solve a shared problem, challenge or task'** implies some active engagement or conscious input on behalf of the third-party actor, directly impacting public policies, services or regulations. Not explicitly stipulated in this definition, yet following from both provisions and ascribed particular value by Nabatchi et al. (2017) is the voluntary nature of this constructive exchange—all those instances in which third-party actors are forced or nudged into an exchange finds itself outside the framework of this study.

Finally, **'different kinds of knowledge, resources, competences and ideas'** signifies that the resources brought to co-creation processes and constructively exchanged between diverse actors can involve many different things, not only hands-on contributions. In this regard, Loeffler (2021a) distinguishes between the involvement of 'voice' and 'action'. Whereas action, or hands-on contributions, are more likely to be contributed during an implementation phase of particular policies and/or services, voice is more likely required and supplied preceding implementation. For example, by engaging third-party actors in talking activities to prioritise and design what will later be implemented.

In sum, this way of defining co-creation aligns with Lember's (2019, p. 1668) assertion: "co-production is generally associated with services citizens receive during the implementation phase of the production cycle, whereas co-creation concerns [...] a strategic level". That is, an holistic strategic level that also considers the implementation of public policies and services.

1.2 AN ANALYTICAL FRAMEWORK – PART 1

The delineation of the term 'co-creation' and the conceptual choices made above for the remainder of the project can be **visualised** as follows:

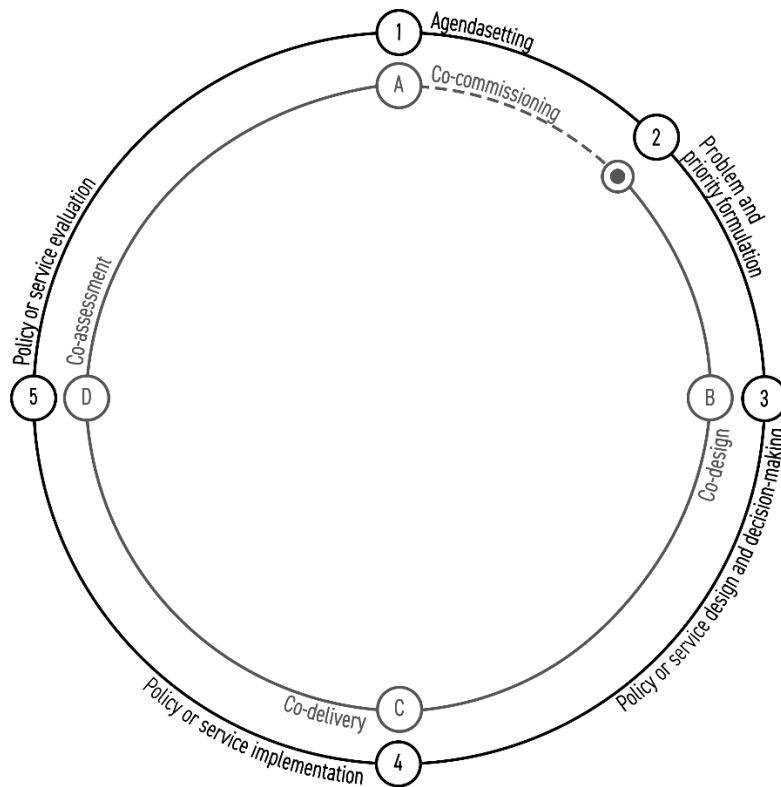


Figure 1. Visual summary of the preliminary analytical framework, part 1.

While the outer layer within Figure 1 represents the cyclicity in the three core functions of the public sector (i.e., public problem-solving, service provision and regulation) by combining the public policy cycle (see Howlett et al., 2020) and service delivery cycle (see Bovaird & Downe, 2008), the inner layer visualises the parallel modes of co-creation (Bovaird & Loeffler, 2013; Loeffler, 2021a; Nabatchi et al., 2017). The four **modes** represent the following type of activities and objectives:

- a) **Co-commissioning** refers to those activities in which public and private actors consult to highlight and demarcate shared problems, mutual challenges or common tasks; identify problem-solving or coping strategies (which might, for example, be directed at particular public services) and prioritise users and/or stakeholders, needs to address, outcomes to achieve and resources to use. A local community council, for example, can engage citizens in discussion and voting about policy priorities for a new legislative term by means of an inviting and engaging digital platform. Depending on the configuration and modalities of the initiative, those citizens might signal local problems or policy priorities thus far unknown to local policy-makers and administrators.

- b) **Co-design** evolves around *how* to address the common problem, challenge or task identified in the previous step so that the prioritised or desired outcomes are realised. Activities in this regard involve activating private actor resources (e.g., experiences and expertise or competencies, expectations and opinions) to create, plan and arrange public policies, services or regulations. Activities within this mode can provoke the design of something from scratch—something truly innovative because of its priorly non-existing character—or the entire transformation (so-called 'disruptive innovation') of, for example, an existing public service or policy. However, in many instances, gradual improvements to existing policies, services or regulations are more likely (Loeffler, 2021a).
- c) **Co-delivery** entails the activities between public and private actors to *co-implement, co-provide, co-manage, co-perform, co-monitor and co-improve* public policies, services and regulations. Hence, public and private actors jointly take action to achieve public outcomes and improve the delivery process along the way. For example, users can voluntarily contribute information to AI technology used in a public service so that the algorithm can learn. In this example, a group of citizens, co-produce the services they receive—at least, in part (Pestoff et al., 2006).
- d) **Co-assessment** pertains to those activities in which public and private actors work together to monitor and evaluate the performance, quality and improvement areas of public policy, services or regulations. Co-assessment can, for example, happen via a permanently available complaint function connected to a service where users can signal errors, bugs or inconveniences and suggest improvement opportunities. More sophisticated (as they might require more of participants' precious time and public servants' analytical ability) and retrospective are ad hoc evaluations in which users (regardless of the category of private actors they belong to) are invited to fill out a questionnaire or participate in an in-depth user satisfaction interview.

As might have already become apparent from the examples provided: each co-creation mode can deploy **different participation methods** (i.e., pertaining to the activities in which stakeholders are engaged), **sequencing arrangements** (i.e., pertaining to the stages or phases in which activities are organised), **logics about the level of involvement and decision-making power** (i.e., pertaining to stakeholders' allowed or allocated level of autonomy and power within the co-creation process as further discussed in the next section) **and digital tools or technologies** (i.e., pertaining to the instrumental characteristics of a technology for which Aceto et al., 2018 discern sensing, communication, processing and actuation) to achieve its objectives. Differences not only apply to the configuration or organisation of initiatives *between* modes but also to initiatives *within* modes. Lember et al. (2019), for example, demonstrated how the four different types of digital technologies could impact each of the key elements shared between co-creation and co-production (i.e., interaction, active engagement or involvement and direct impact or contribution that leads to shared decision-making) for the better or worse. Hence, configurational choices can induce significant process differences and eventual outcomes between seemingly similar initiatives. For that reason, public organisations face the challenging task of determining, given the problem, challenges or task at hand, which co-creation mode they are targeting and which configurational choices are needed in their specific

context and at a particular point in time. Our analytical framework will aid in discerning variations in co-creation configurations, processes and outcomes.

Finally, despite its concurrent representation in the visual, we recognise co-creation modes and the input they gather can also precede or arise from the outer layer stage they parallel. Nabatchi et al. (2017) describe this as a mode's **prospective, concurrent and retrospective occurrence**. Co-assessment, for example, will most often happen retrospectively. However, its input and insights can also be used prospectively when it improves existing public policy measures, services or regulations in a (co-)design phase. Therefore, we acknowledge that the subdivision in clearly demarcated modes, in reality, might be less obvious or unequivocally than Figure 1 suggests. In subsequent analyses, we will therefore rely on the objectives specified by the project and project coordinators to accurately estimate the exact location of a particular case within the analytical framework.

In the section below, the analytical framework presented in Figure 1 will be extended by adding a so far limitedly mentioned **stakeholder dimension**.

2. STAKEHOLDERS AND STAKEHOLDER ROLES

2.1 POTENTIAL STAKEHOLDERS IN DIGITAL CO-CREATION

In considering the **stakeholders** in digital co-creation, one targets all "those who affect, or are affected by, the development and implementation of [digitally co-created public policies, services and regulations]" (Lindgren, 2013, p. 1). Aligning with Torfing et al. (2019)'s definition of co-creation, this description discerns stakeholders well beyond the classic dichotomy of state actors and lay actors working together to deliver public services. Instead, a wide range of public and private actors can affect, or be affected, by digital co-creation. Within the category of **private actors**, one can consider citizens, service users, voluntary groups, civil society organisations, social enterprises and private firms. Looking at the **public actors** involved in digital co-creation, it is important to note that this group is more diverse than meets the eye (Nabatchi et al., 2017). Of course, there are the 'obvious' or 'usual' producers of public services and executors of policy measures, such as public agencies or departments and their public managers and (frontline) staff. Next, there are those principally responsible for public policy and decision-making: politicians and higher or lower levels of government. Moreover, among the public actors, we include non-profit organisations or legal entities that operate for a collective, public or social benefit and, in doing so, work more in the margins of the public sector. Therefore, public and private actors can be presented on a **continuum** ranging from public state internal to external, with intermediary forms between the two extremes.

Nevertheless, a dimension of **public vs. private would not fully capture** stakeholder **complexity** as not all public nor private actors are likely to be similarly involved in digital co-creation. Internal or public actors, for example, might find themselves at the organising end of the initiative, providing or supplying the co-creation opportunity to external participants. Internal or public actors might, however, also find themselves at the demand end, such as high-level governments who commissioned the initiative and are in demand of its output. Contrarily, external or private actors are not only found on a participant side but can also supply the technology or other resources (e.g., expertise on the organisation of co-creation initiatives or strategies to engage stakeholders) underlying the co-creation's organisation. For that reason, we firstly distinguish the stakeholders (either public or private) according to their stake in the co-creation initiative. **Three archetypical** groups of **primary stakeholders** are, therefore:

- The **demanders**—those who commissioned the co-creation initiative and are in demand of its output and/or outcomes. Their stake in the initiative is to receive its final results and, potentially, to monitor the process to that end.
- The **supporters or suppliers**—those who coordinate and organise or, support the coordination and organisation of the co-creation initiative by, for example, developing the technological tools or providing expertise. By Lindgren (2013) also called 'consultant' and/or 'vendor'. Their only stake in the initiative is to bring the whole or parts of it to a successful conclusion, either voluntarily, professionally or in exchange for payment.

- The **participants**—those who actively engage in a co-creation initiative, providing voice or action (see Loeffler, 2021a), out of all those targeted for participation. From a collective point of view, their stake in the initiative is to contribute to the enhancement and/or production of public values and services from which they themselves might benefit (e.g., by being empowered through the information and voice opportunities one has received throughout). From an individual point of view, their stake can be manifold (e.g., personal gratification, social connection, a sense of belonging, etc.).

A **caveat**, along the lines of one made earlier, is in order: **in reality**, the **boundaries** between archetypical groups might be **less apparent** and can even shift between different sequences or phases of a co-creation initiative. For exactly that reason, we distinguish an additional four mix types of primary stakeholders' stakes:

- The **demand-suppliers**—those behind the initiation of the co-creation idea or assignment as well as its implementation (e.g., the governmental agency that applies for funding to organise its own co-creation initiative and carries out the organisation in follow-up).
- The **demand-participant**—those stakeholders who are in demand of the initiative and its results, yet do not organise or coordinate the initiative on a daily basis. However, they do act as participants in the initiative, providing voice (e.g., the City Council and College of Mayor and Aldermen who commission an ideation platform for citizens, coordinated and maintained entirely by the municipal participation officers, but contribute ideas from their official point of view).
- The **supplier-participant**—those who support the co-creation process both organisation and content-wise. They themselves, at some point, get co-creative with the other participants or stakeholders (e.g., experts who passively provide lay people with necessary information on the central topic in one phase but actively contribute to the discussion and final results themselves in another).
- The **fully immersed**—those whose stakes mark demand, supply and participation. Theoretically, all stakes can be combined. However, we expect that observing such a position in reality will be unlikely.

Returning to **stakeholder complexity**, apart from an actor's stake within a digital co-creation initiative, one can also consider the type of stakeholders involved. In their review of digital public service co-creation, Rodriguez Müller et al. (2021) discerned six broad categories of co-creating actors over the analysed implementation studies. In order of most to least common, these groups were (a) governmental actors, (b) citizens, (c) private sector, (d) academia and research, (e) non-profit organisations and (f) users. Mind, however, that the last category could, in fact, also be a member of any of the preceding categories. For example, a shared problem or challenge may as well arise within the government or administration in the light of a common task. In that case, two or more public actors can co-commission and design a solution drawing from their own resources. The solution's primary users will be public sector internals even though other externals, such as citizens, might at some point in the co-creation process be involved too.

In subsequent parts of BECODIGITAL, stakeholder stakes and types present within the studied digital co-creation cases will be indicated by respectively a colour and figure **coding**. Figure 2 presents this coding with the colour stake coding on the left-hand side and the figure type coding on the right-hand one.

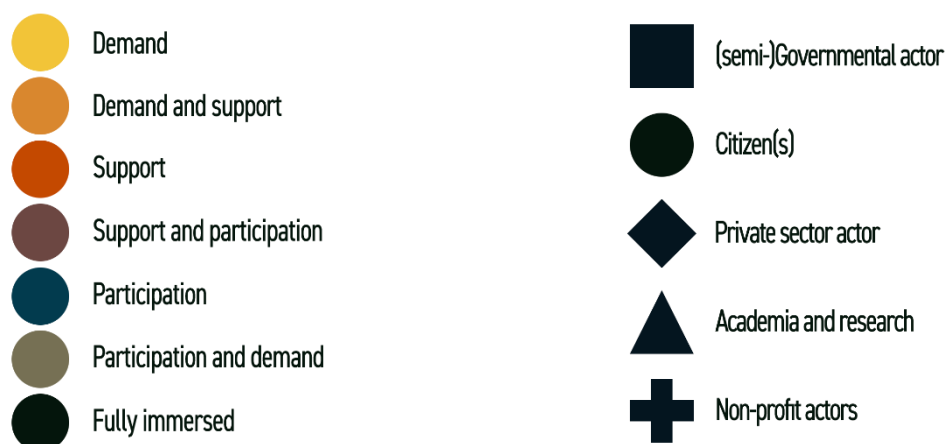


Figure 2. Visual summary of the colour coding regarding stakeholder stakes (panel on the left) and the figure coding regarding types of stakeholders (panel on the right) .

2.2 STAKEHOLDER INVOLVEMENT, AUTONOMY AND DECISION-MAKING POWER

Next to *which* stakeholders (i.e., types of stakeholders) are involved in a (digital) co-creation initiative and *why* (i.e., stakeholder stakes), we can also consider *how* each of these actors is involved. This pertains to the breadth and depth of stakeholder involvement which makes us question **stakeholder relations on autonomy, control and decision-making power** within the digital co-creation process. Who is initiating the initiative? Does it, for example, comprise a top-down government-to-citizen initiative or a bottom-up citizen-to-government one (Linders, 2012)? Who is leveraging whom, and what is the division of labour and responsibilities? How much say and control does each actor have over the objectives and final outcomes? Answering these questions is what Lindgren (2013, p. 2) calls' **characterising stakeholders**' or "the act of describing and relating the stakeholders to each other as they are likely to have different characteristics, and some are likely to be more important than others [in co-creation]". She calls this phenomenon' **stakeholder saliency**' or the fact that not all stakeholders are equal and some will be involved more intensively, allowed more responsibilities or a firmer say in the eventual results.

Those questions, answers and concepts closely to Arnstein's (2019) **ladder of citizen participation**. Originally published in 1969, the ladder depicts eight steps from non-participation and complete government control on the one hand to full decision-making rights and citizen power on the other hand. For the purpose of BECODIGITAL, we will deploy a slightly altered version of the ladder based on work by Douay (2018), who modelled the ladder into one that fits stakeholder participation in a digital age. Moreover, the ladder will run from non-participation or being far removed from the decision-making centre to full decision-making rights and being the very decision-making centre.

2.3 AN ANALYTICAL FRAMEWORK – PART 2

Visually, primary stakeholders' level of involvement in digital co-creation can be presented accordingly:

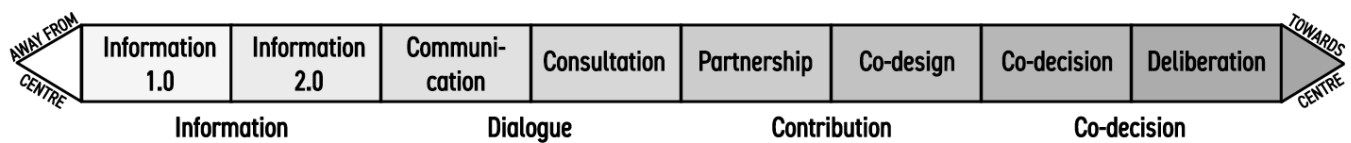


Figure 3. Visual summary of the preliminary analytical framework, part 2.

In Figure 3, eight distinguished stages represent the route towards the decision-making centre:

- In the **information 1.0** stage, stakeholders are passive recipients of information. Public professionals inform them about decisions that have been made and why. The objective of this stage is to educate, empower or nudge. In itself, this stage can objectionably be described as co-creation. However, in some instances, it is neither an unthinkable nor undesirable stepping stone to later phases in the co-creation process.
- In the **information 2.0** stage, stakeholders are informed and can give feedback on the information received (e.g., by liking a policy update on a local government's social media channels), yet nothing is done with this input. No direct communication between third-party actors and the organising public professionals exists.
- In the **communication** stage, a direct line of communication between third-party actors and the organising public professionals exists, yet nothing much is done with the input as it does not mark an end in itself. Third-party actors, for example, can ask questions about a particular e-service and be helped personally to understand and use it. However, the difficulties they encounter or reservations they might hold, which have become apparent from the direct interaction, are not considered further in policymaking or service (re)design.
- In the **consultation** stage, enquiries are set up to purposefully gather information (e.g., about aspirations, expectations or needs) from third-party actors. They might, for example, be asked to complete a survey or participate in a meeting or discussion panel. In doing so, however, these actors do not possess any power to influence or affect change as the organising, collecting and processing public agent can freely decide if and how the information will be used.
- In the **partnership** stage, third-party actors advise and plan around the objectives set by the public professionals, who retain the right to judge the advice's quality, legitimacy and feasibility. Third-party actors are, therefore, allowed considerably more power to influence change: when their engagement remains within the confines of the co-creation initiative, they can be reasonably certain that the organising public entity or professionals will use their input. Although the decision-making power

remains unilaterally with the, presumably, public organising actor, they justify why they disregard any recommendations, choices or preferences.

- In the **co-design** stage, third-party actors have slightly more to contribute as the objectives are formable, too. Only the ground rules, gridlines or confines for participation are fixed.
- In the **co-decision** stage, public and private actors share responsibility for planning, strategic decision-making and service delivery—both parties are accountable to each other and must agree.
- In the **deliberation** stage, the actor(s) that find themselves here have the final vote and, hence, the firmer power position. Justification for decisions might, yet does not need to be, provided.

Outside the scope of this 'ladder' are **secondary stakeholders**. In other words, those not involved in any of the directly related activities above yet who are likely affected by the co-creation outcomes.

Figure 4 introduces the last missing piece in our analytical framework: the (digital) **tools, technologies or applications** used to co-create. Withal, different tools can serve different objectives and allow distinct levels of involvement (Karlsson et al., 2012; Lember et al., 2019). In his work, Douay (2018) also connected different digital tools or applications to each layer within the participation ladder. A framework to which Lago et al. (2019) added digital platforms within the 'consultation' category:

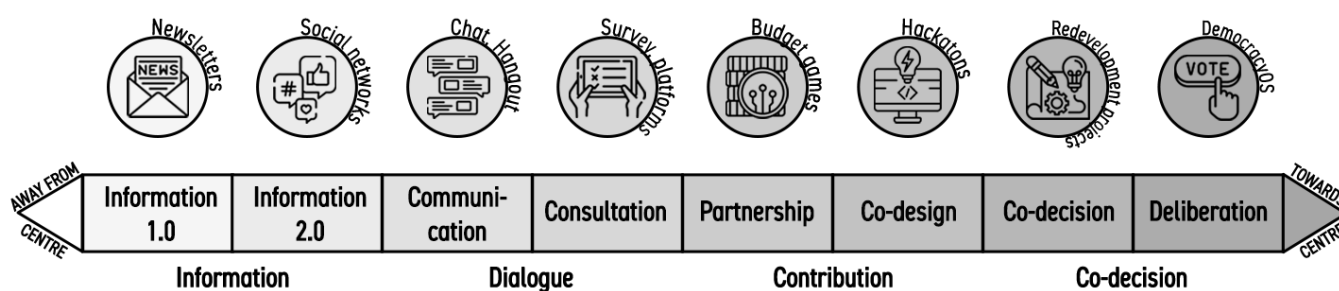


Figure 4. Visual summary of the preliminary analytical framework, part 2 (continued).

Karlsson et al. (2012, p. 166), nonetheless, caution: "None of the user participation approaches is a silver bullet [...], and each approach has its challenges". In sum, to fully understand a co-creation case, its strengths, weaknesses and outcomes, it is also essential to acquire insight into the tools, techniques or applications used to increase and deepen participation (Elstubb & Escobar, 2019; Gilman & Peixoto, 2019).

2.4 AN ANALYTICAL FRAMEWORK – PART 1 (CONTINUED)

Visually, parts one and two of the analytical framework can be superimposed, rendering:

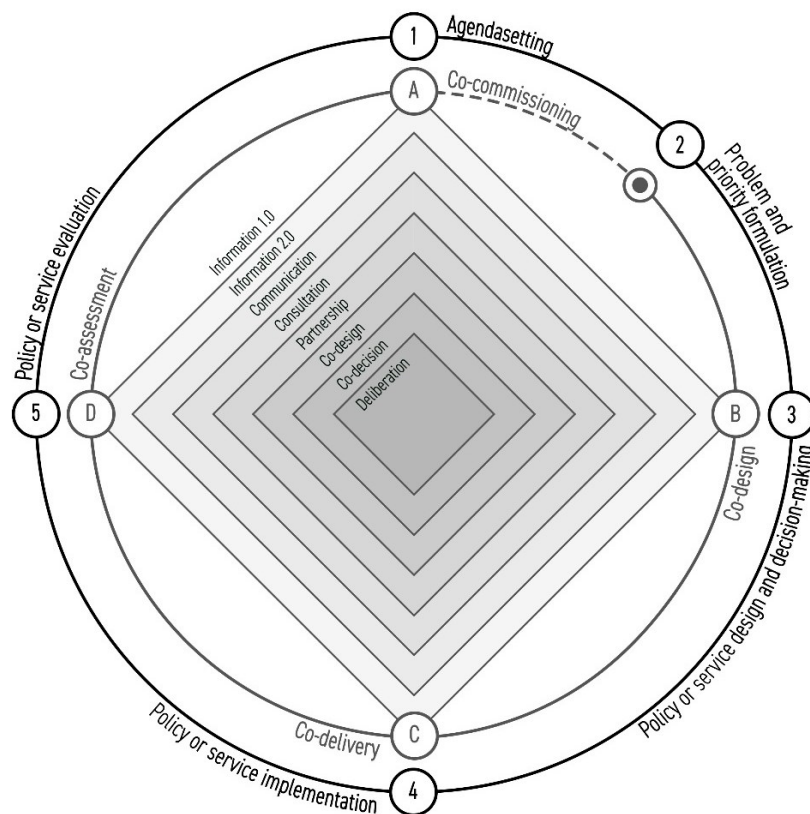


Figure 5. Visual summary of the preliminary analytical framework, part 1 (continued).

This analytical framework allows us to **overview** the **similarities and differences** *between* most different cases and *within* most similar ones **in a straightforward way**. For this, we need to add the stakeholder coding presented in Figure 2. How many stakeholders were involved in a digital co-creation initiative and which ones? How was each involved? Did they, for example, participate on individual grounds, in groups or as representatives of the whole stakeholder population (Nabatchi et al., 2017)? Were particular strategies used to get and keep them engaged? What was the breadth of their involvement—in how many sequences or stages of the initiative were they invited to participate? What was the depth of their involvement—how profound were they allowed to be involved? How did the different stakeholders relate? Depending on the co-creation mode (i.e., co-commissioning, co-design, co-delivery or co-assessment), level (i.e., central, regional or local), object (e.g., public problem solving through policies, services or regulations), topic (e.g., connected to health, social welfare, education, mobility, justice, safety and law enforcement, ...) and tools (i.e., analogue, hybrid or digital) answers to these questions are likely to vary significantly. Yet, answers are vital as the maxim states that involving the right stakeholders in co-creation is fundamental to its success and that of the solutions, strategies, policies, services or regulations it renders (Axelsson et al., 2010; Loeffler, 2021a). Albeit, involving the right stakeholders presupposes not excluding them beforehand by knowing how to identify, characterize, involve and engage them (Lindgren, 2013).

2.5 STAKEHOLDER ROLES

From the answer of *who* (i.e., type of actors) is involved, *when* (i.e., breadth), to *what extent* (i.e., depth) and *why* (i.e., an actor's stake in the initiative), some researchers distilled different **roles** stakeholders can assume in (digital) co-creation. Linders (2012), for example, discerns five new **roles public** or governmental **actors** need to perform:

- As **framers**, public actors or entities set the tone by deciding on the rules for participation and ensuring fair, balanced and inclusive participation.
- As **sponsors**, public actors or entities provide the resources—financial or otherwise—needed to move the co-creation initiative forward and invite other actors to invest theirs. In some instances, investing public means might also prove necessary for an initiative to gain legitimacy.
- As **mobilisers**, public actors or entities invite, motivate and sustain citizen involvement.
- As **monitors**, public actors or entities keep track of the initiative's processes and performance as governments hold the ultimate accountability in co-creation.
- As **providers of last resort**, public actors or entities step in when the envisioned solutions to a shared problem, challenge, or task do not emerge—or only to a limited extent—from the co-creation initiative. Depending on the type of co-creation, this is probably the most challenging role in balancing and fulfilling: not undertaking timely action might lead to a collapse whilst intervening too soon or easily might make participants over-reliant on government intervention, causing them to adopt a wait-and-see attitude.

Eying the potential **roles of citizens** as another prominent group of actors within co-creation, Bovaird and Loeffler (2013) find that those can fulfil any of the following non-exclusive roles:

- As **strategic thinkers** and funders, citizens share their expectations and needs with public actors. As practical experts of their own lives, they know best what "matters to them".
- As **innovators**, citizens contribute knowledge which public professionals or political representatives do not have. They can add insight and perspective in so-called wicked problems, such as climate change, to prioritise and arrive at desirable output.
- As **asset-holders**, citizens contribute the capabilities, skills, time and other resources to improve public services and outcomes.
- As **legitimators and testimonial providers**, citizens "promote the value of public services they engage with" (Loeffler, 2021, p. 78).
- Closely connected to the previous one, as '**co-workers**' and '**financiers**', citizens inspire others to engage to and agree with its funding.

- As **evaluators**, citizens estimate whether the service or policy developed rendered the outcomes for them that were envisioned beforehand. If not, they indicate what needs to be adapted or improved to make it so.

Similar names and **role** descriptions as each of those just described are conceivable for **all other external actors**. The matter attracting our attention is whether assigned or assumed roles differ across co-creation configurations and how this difference relates to the digital tools used.

3. DIGITAL CO-CREATION OF (E-)SERVICES

Description of how we view digital co-creation and the cases we will likely consider in its wake.

Conceptually, we would like to devote a final word of clarification to the subject of this study: '**digital co-creation**', as the interpretation of this term can be twofold. **Explicitly**, 'digital co-creation' refers to all modes of co-creation as long as they deploy digital tools, technologies or applications to engage stakeholders in public problem-solving or service delivery. **Implicitly**, 'digital co-creation' can also be directed at the co-creation (either through analogue, hybrid or digital means) of e-services.

Regardless of the interpretation one adheres to, research on digital co-creation remains limited. And even more scarce appears research that approaches the topic from a practical instead of theoretical perspective, reporting on actual implemented digital co-creation cases (Rodriguez Müller et al., 2021). For that reason, **co-creation initiatives** that meet the following characteristics are **potentially interesting** for the remainder of this Baseline Measurement:

- Initiatives organised at **central, regional or local level** ...
- ... **after March 2020** (the start of the covid-19 crisis counts as the caesura in our study to avoid retention bias) ...
- ... encompassing co-creation geared at the **co-commissioning, co-design, co-delivery or co-assessment** ...
- ... of **solutions**—in the form of visions, plans, policies, strategies, services, tools or regulatory frameworks—to a shared public problem, challenge or task ...
- ... by two or more **public and private actors voluntarily** exchanging resources ...
- ... in an **analogue** (when co-creating e-services), **hybrid or digital way** (when co-creating all else) using a variety of activation methods and/or tools, techniques or applications.

In other words, one particular type of digital co-creation is **not excluded** by the use of these criteria: an **analogue co-creation** (either commissioning, design, delivery or assessment) **of e-services**. Even though technically possible under the deployed definition by Torfing et al. (2019), hybrid or **digital co-creation** initiatives **in which citizens are** not involved as primary but **only secondary stakeholders** benefitting from the, for example, internal co-creation of so-called 'GovTech' (i.e., digital tools aimed at increasing efficiency within the administration) in the long run (Van Ransbeeck, 2019) **will not be considered** for convenience's sake. After all, in a subsequent step, BECODIGITAL aspires to acquire inside in citizen (pre)conditions for participation in digital co-creation. To that end, we require cases that engaged the citizenry in one way or another.

4. RESEARCH METHODOLOGY

Description of the qualitative research approach, including the data collection and analysis steps, to extend the thus far theoretically-inspired Baseline Measurement.

This section elaborates on the **qualitative research approach** used to **extend** the **Baseline Measurement** and its theoretical angle on stakeholders in digital co-creation. After all, BECODIGITAL aspires to address a prominent gap in digital co-creation research: to **shift away from** a dominant theoretical focus on the **what and why of co-creation** in a digital context **but instead focus** on the **how** of its implementation based on empirical evidence (Leino & Puumala, 2021). Research on how co-creation in digital contexts works in practice remains scarce (Rodriguez Müller et al., 2021), as is scholarly attention devoted to stakeholders and stakeholder roles in digital co-creation (Nabatchi et al., 2017). Stakeholder-specific (pre)conditions and expectations vis-à-vis the project and each other are nonetheless vital to (a) whether and (b) how co-creation will occur and reach its full potential (e.g., Callens, 2022; Steen & Tuurnas, 2018; Van Eijk & Gascó, 2018). Therefore, it is essential to gain a **practical perspective** on the diversity of stakeholders in digital co-creation, their roles, and the explicit or implicit objectives connected to their involvement and/or the use of various digital technologies.

Our exercise of checking the current theory-inspired overview of stakeholders against insights and experiences from practice is guided by the following **research questions** (RQs):

- 1) **Which** are the **stakeholders** to consider in digital co-creation initiatives?
- 2) How does stakeholder involvement (i.e., which ones and their involvement level) **associate with** the **characteristics** of the digital co-creation **initiatives** (i.e., objective(s), tools used, co-creation mode, public policy domain and level)?
 - a. How did the stakeholders get **involved** in the initiative?
 - i. Have they been **(self-)selected**, or did they need to be **included by law**?
 - ii. [If selected] Which **selection steps and criteria** are deployed?
 - iii. [If selected] **Why** are these stakeholders targeted or selected?
 - b. How are the different stakeholders **encouraged to engage**? What challenges emerge in doing so?
 - c. How do the different stakeholders **relate**?
- 3) **Which roles** can the stakeholders assume or be assigned in digital co-creation initiatives?
 - a. How does the **process** of assuming and/or assigning roles take place?
 - b. Are there **discrepancies** noticeable between assigned and assumed roles?
 - c. How to **harmonise** different **expectations** between stakeholder(s) roles?

To address these *how*-questions about digitally co-creating public policy or services, we consider **twenty unique cases** of co-creation in a digital context (either digital co-creation, the co-creation of e-services or a mixture of both) organised by Belgian federal, regional and local public actors, officials, entities or organisations. These cases are identified through **purposeful snowballing** among the advisory members of the Follow-up Committee. Each is solicited for interesting case referrals within their organisation or closely connected ones. An **overview of cases** that thus far confirmed their willingness to participate in one or more subparts of WP1's research design (i.e., interviews, surveys and/or focus groups) can be consulted in **annexe 1**. It requires mentioning, however, that the overview of cases identified as potentially interesting to BECODIGITAL is considerably longer. First attempts at establishing contacts to discuss including these cases and their coordinators in the research project are ongoing.

Per case, the head coordinator(s) are invited to a **semi-structured interview** describing their digital co-creation initiative in terms of objectives, phases and (digital) tools, stakeholders included, and the characteristics of their involvement. Questions from the **interview protocol** are included in annexe (i.e., refer to annexes 2, 3 and 4 for, respectively, the English, Dutch and French versions of the topic list). The topic list is shared beforehand to allow interviewees time to prepare. Also shared are an information letter on the BECODIGITAL research project and an informed consent file in accordance with the ethical clearance. Answers to the RQs will emerge from **content analysis** using a priori coding in NVivo 12. To that end, interviews are audio-recorded and transcribed verbatim.

Apart from adding to the research field from a practical perspective, this research setup also envisions contributing from a **comparative perspective**. As (digital) co-creation research is first and foremost based on explorative and single-case studies (Brandsen et al., 2018; Brandsen & Honingh, 2016; Lember et al., 2019; Nabatchi et al., 2017; Voorberg et al., 2015), researchers and practitioners (setting up digital co-creation) can still learn much from other policy levels (i.e., central, regional, provincial or local), public sectors or domains (e.g., health and welfare, education, mobility, climate and environment, internal affairs, etc.), modes of co-creation (i.e., co-commissioning, co-design, co-delivery and co-assessment) and digital tools or technologies used (e.g., sensing, communication, processing or actuation technologies). Each of these configuration variables, for example, can cause particular challenges and opportunities regarding the involvement and engagement of stakeholders that, in turn, require different coping strategies in setting up inclusive (digital) co-creation.

Finally, by including federal or central and regional cases next to local ones, we allow not only a much-needed comparative approach but also a **multi-level governance perspective** (Loeffler, 2021b). Studies thus far have mainly studied local-level initiatives, possibly overlooking level-specific complexity and challenges (e.g., the complexity of policy issues and service delivery at the federal level can entail high numbers of statutory stakeholders and a slowdown in co-creation processes, whereas, at a regional level, the subject of co-creation might appear a more faraway story than at the local level, lowering the public's overall interest in the initiative).

In sum, **overviewing** the digital co-creation **playing field** from a practical, comparative and multi-level perspective offers the necessary background reflections for organising digital co-creation at a given level and under a specific configuration. Moreover, it allows us to investigate whether and how motivations and incentives, so-called pre-conditions, of different stakeholders or actors within the digital co-creation vary by configuration (Nabatchi et al., 2017; Wijnhoven et al., 2015). Only by taking in this complexity and diversity can we start **exploring** different **strategies** to recruit, prepare, engage and satisfy different stakeholders or stakeholder groups **for inclusive and goal-oriented digital co-creation**.

5. APPLYING THE ANALYTICAL FRAMEWORK

This report will now apply the analytical framework outlined in sections 2.1, 2.3 and 2.4 to visually classify one federal co-creation initiative organised by Sciensano: the Corona Consultations.

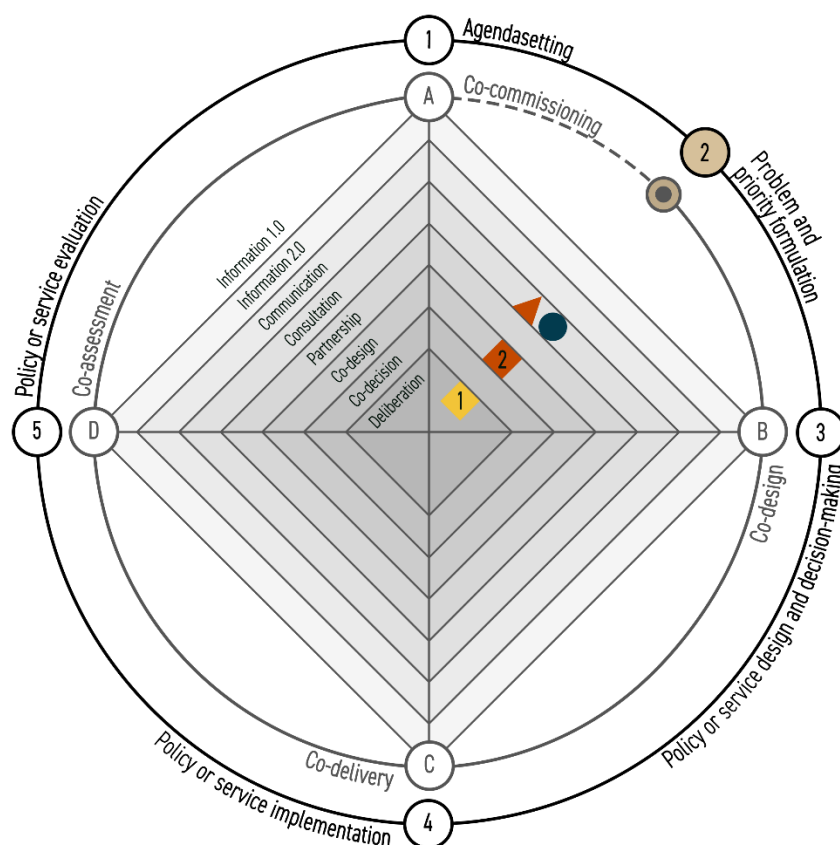


Figure 6. Visual summary of the Corona Consultations – part 1.

The Corona Consultations implied a **two-phase co-creation initiative** carried out and coordinated by Sciensano (i.e., square 2) between November 2020 and January 2021 at the request of the Minister of Health and his cabinet (i.e. square 1). Ten debating moments about COVID-19 vaccination, including a deliberate outtake of citizens (i.e., circle), were organised on the same pattern. In Phase 1, information and Q&A opportunities were provided by experts in virology and immunology (i.e., triangle) to prepare citizens for the debate in Phase 2. In Phase 2, and through moderation, citizens discussed the desirability of mandatory vaccination and the exclusion of citizens based on their vaccination status. Although they did not partake as such, experts remained present throughout the debate as *fact-checkers*. The results of these discussions were briefly summarised and presented directly to the minister and his cabinet members. All phases were organised online and supported through Miro-boards.

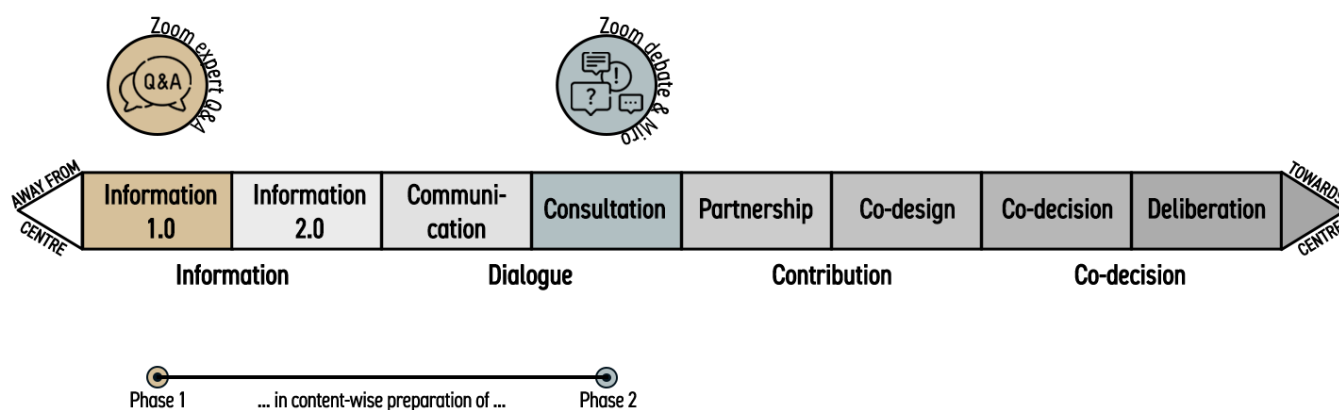


Figure 7. Visual summary of the Corona Consultations – part 2.

An **analysis** of the interview responses **in light of the research questions** presented in section 4, is not yet provided but will be an integral part of the **final report** (i.e., D4.2.2). Moreover, in summary, the findings will be part of the **policy report** on inclusive digital co-creation (D1.4.1) **and** the **roadmap** (i.e., D2.3.1), where they are translated into tangible guidelines.

6. FUTURE PROSPECTS AND PLANNING

Overview of the foreseen activities originating from the Baseline Measurement and planning for the final report and roadmap, considering the actual state of the work and the intermediary results.

A further **elaboration** of the **Baseline Measurement** along the lines of the qualitative research design outlined above will take place accordingly:

- Over the **summer months of 2023**, July and August (and by extension, September when desirable in view of respondents' holiday schedule): conducting the key stakeholder **interviews** to gain a coordinator perspective on the digital co-creation initiatives sampled about the stakeholders involved and strategies for (inclusive) engagement. Interview data will be transcribed verbatim in order of acquisition and throughout the respective months of collection.
- **Early fall 2023**, September and October: **analysis** of the interview data.
- **Mid-fall 2023**, November: **preparation** of the analysed data and concomitant conclusions for **incorporation** in the **policy report** on inclusive digital co-creation (D1.4.1), the roadmap (D.2.3.1) and, to the extent relevant, the scientific paper on internal pre-conditions and observed challenges in the organisation, implementation and maintenance of digital co-creation initiatives (D.1.3.1).

Hence, data analysis originating from the Baseline Measurement coincides with the data collection of two other research parts within WP1 (i.e., the citizen survey and key stakeholder focus groups), accumulating in the policy report and roadmap deliverables.

7. VALORISATION ACTIVITIES

Overview of the already realised and planned valorisation activities within the frame of the Baseline Measurement and its focus on stakeholders and stakeholder involvement in digital co-creation.

Three types of **valorisation activities** are planned within the frame of the Baseline Measurement: (a) a scientific conference contribution, (b) a scientific paper and (c) a workshop presentation.

First, the results from the extended Baseline Measurement (including the research efforts to adapt, extend and validate the resulting analytical frameworks and answer the concomitant research questions) will be submitted as a **conference contribution**. To this end, an abstract has already for the annual European Group for Public Administration (EGPA) conference's study panel on Citizen Participation (taking place from September 5 until 8, 2023, in Zagreb, Croatia) has already been accepted. However, depending on the progress in data collection (i.e., the interviews with key stakeholders over the summer months), this abstract might be withdrawn and resubmitted for the International Research Society for Public Management (IRSPM) conference (taking place from April 16 until 18, 2024, in Tampere, Finland).

Second, and based on the conference feedback received, the overall results from the stakeholder measurement and derived guidelines will be incorporated into a **journal article** or scientific paper (D.1.3.1).

Finally, during the next Follow-up Committee meeting (to be scheduled in early fall), the preliminary results of the extended Baseline Measurement will also be presented in a **workshop**. This setup allows us to gain additional practical feedback in light of incorporating results in the final policy report (D1.4.1).

REFERENCES

- Aceto, G., Persico, V., & Pescapé, A. (2018). The role of Information and Communication Technologies in healthcare: taxonomies, perspectives, and challenges. *Journal of Network and Computer Applications*, 107(July 2017), 125–154. <https://doi.org/10.1016/j.jnca.2018.02.008>
- Ansell, C., Sørensen, E., & Torfing, J. (2017). Improving policy implementation through collaborative policymaking. *Policy and Politics*, 45(3), 467–486. <https://doi.org/10.1332/030557317X14972799760260>
- Arnstein, S. R. (2019). A Ladder of Citizen Participation. *Journal of the American Planning Association*, 85(1), 24–34. <https://doi.org/10.1080/01944363.2018.1559388>
- Axelsson, K., Melin, U., & Lindgren, I. (2010). Exploring the importance of citizen participation and involvement in e-government projects: Practice, incentives, and organization. *Transforming Government: People, Process and Policy*, 4(4), 299–321. <https://doi.org/10.1108/17506161011081309>
- Bovaird, T., & Downe, J. (2008). Innovation In Public Engagement And Co-Production Of Services (policy paper). In *META-EVALUATION OF THE LOCAL GOVERNMENT MODERNISATION AGENDA - WHITE PAPER POLICY PAPER* (Issue December). <https://doi.org/10.13140/2.1.2391.5845>
- Bovaird, T., & Loeffler, E. (2013). We're all in this together: harnessing user and community co-production of public outcomes. In *Making Sense of the Future: Do We Need a New Model of Public Services?* (pp. 1–13). Institute of Local Government Studies, University of Birmingham. <https://www.birmingham.ac.uk/Documents/college-social-sciences/government-society/inlogov/publications/2013/chapter-4-bovaird-loeffler.pdf>
- Brandsen, T., & Honingh, M. (2016). Distinguishing Different Types of Coproduction: A Conceptual Analysis Based on the Classical Definitions. *Public Administration Review*, 76(3), 427–435. <https://doi.org/10.1111/puar.12465>
- Brandsen, T., & Honingh, M. (2018). Definitions of Co-Production and Co-Creation. In T. Brandsen, T. Steen, & B. Verschuere (Eds.), *Co-Production and Co-Creation: Engaging Citizens in Public Services* (pp. 9–17). Routledge. <https://doi.org/10.4324/9781315204956>
- Brandsen, T., Steen, T., & Verschuere, B. (2018). Co-creation and co-production in public services: Urgent issues in practice and research. In T. Brandsen, T. Steen, & B. Verschuere (Eds.), *Co-Production and Co-Creation: Engaging Citizens in Public Services* (pp. 3–8). Routledge. <https://doi.org/10.4324/9781315204956>
- Callens, C. (2022). User Involvement as a Catalyst for Collaborative Public Service Innovation. *Journal of Public Administration Research and Theory*, July 2022, 329–341. <https://doi.org/10.1093/jopart/muac030>
- Douay, N. (2018). *Urban Planning in the Digital Age*. Wiley.
- Elstub, S., & Escobar, O. (2019). Defining and typologising democratic innovations. In S. Elstub & O. Escobar (Eds.), *Handbook of Democratic Innovation and Governance* (1st ed., pp. 11–31). Edward Elgar Publishing.
- Fledderus, J. (2018). The effects of co-production on trust. In T. Brandsen, T. Steen, & B. Verschuere (Eds.), *Co-Production and Co-Creation: Engaging Citizens in Public Services* (pp. 258–265). Routledge. <https://doi.org/10.4324/9781315204956>
- Gilman, H. R., & Peixoto, T. C. (2019). Digital Participation. In S. Elstub & O. Escobar (Eds.), *Handbook of Democratic Innovation and Governance* (1st ed., pp. 105–118). Edward Elgar Publishing.
- Howlett, M., Ramesh, M., & Perl, A. (2020). *Studying Public Policy: Principles and Processes* (M. Howlett, M. Ramesh, & A. Perl (eds.); 4th ed.). Oxford University Press.

- Jo, S., & Nabatchi, T. (2018). Co-production, co-creation and citizen empowerment. In T. Brandsen, T. Steen, & B. Verschuere (Eds.), *Co-Production and Co-Creation: Engaging Citizens in Public Services* (pp. 231–239). Routledge. <https://doi.org/10.4324/9781315204956>
- Karlsson, F., Holgersson, J., Söderström, E., & Hedström, K. (2012). Exploring user participation approaches in public e-service development. *Government Information Quarterly*, 29(2), 158–168. <https://doi.org/10.1016/j.giq.2011.07.009>
- Lago, N., Durieux, M., Pouleur, J.-A., Scoubeau, C., Elsen, C., & Schelings, C. (2019). Citizen Participation through Digital Platforms: the Challenging Question of Data Processing for Cities. *SMART 2019: The Eighth International Conference on Smart Cities, Systems, Devices and Technologies, August*, 19–25.
- Leino, H., & Puumala, E. (2021). What can co-creation do for the citizens? Applying co-creation for the promotion of participation in cities. *Environment and Planning C: Politics and Space*, 39(4), 781–799. <https://doi.org/10.1177/2399654420957337>
- Lember, V., Brandsen, T., & Tõnurist, P. (2019). The potential impacts of digital technologies on co-production and co-creation. *Public Management Review*, 21(11), 1665–1686. <https://doi.org/10.1080/14719037.2019.1619807>
- Linders, D. (2012). From e-government to we-government: Defining a typology for citizen coproduction in the age of social media. *Government Information Quarterly*, 29(4), 446–454. <https://doi.org/10.1016/j.giq.2012.06.003>
- Lindgren, I. (2013). Public e-Service Stakeholders: A study on who matters for public e-service development and implementation. In *Linköping Studies in Arts and Sciences* (1st ed.). Linköping Studies in Arts and Science. <https://ezp.sub.su.se/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsswe&AN=e-dsswe.oai.DIVA.org.liu.91287&site=eds-live&scope=site>
- Loeffler, E. (2021a). The Four Co's: Co-commissioning, Co-design, Co-delivery and Co-assessment of Public Services and Outcomes Through Traditional and Digital Mechanisms. In *Co-Production of Public Services and Outcomes* (pp. 75–176). Springer International Publishing. https://doi.org/10.1007/978-3-030-55509-2_3
- Loeffler, E. (2021b). The Future of Co-production: Policies, Strategies and Research Needs. In *Co-Production of Public Services and Outcomes* (pp. 395–427). <https://doi.org/10.1007/978-3-030-55509-2>
- Nabatchi, T., Sancino, A., & Sicilia, M. (2017). Varieties of Participation in Public Services: The Who, When, and What of Coproduction. *Public Administration Review*, 77(5), 766–776. <https://doi.org/10.1111/puar.12765>
- Osborne, S. P. (2010). *The New Public Governance? Emerging Perspectives on the Theory and Practice of Public Governance* (S. P. Osborne (ed.)). Routledge.
- Osborne, S. P., Radnor, Z., & Nasi, G. (2013). A New Theory for Public Service Management? Toward a (Public) Service-Dominant Approach. *American Review of Public Administration*, 43(2), 135–158. <https://doi.org/10.1177/0275074012466935>
- Parks, R. B., Baker, P. C., Kiser, L., Oakerson, R., Ostrom, E., Ostrom, V., Percy, S. L., Vandivort, M. B., Whitaker, G. P., & Wilson, R. (1981). Consumers as Coproducers of Public Services: Some Economic and Institutional Considerations. *Policy Studies Journal*, 9(7), 1001–1011.
- Parrado, S., van Ryzin, G. G., Bovaird, T., & Löffler, E. (2013). Correlates of Co-production: Evidence From a Five-Nation Survey of Citizens. *International Public Management Journal*, 16(1), 85–112. <https://doi.org/10.1080/10967494.2013.796260>
- Pestoff, V. (2009). Towards a paradigm of democratic participation: Citizen participation and co-production of personal social services in Sweden. *Annals of Public and Cooperative Economics*, 80(2), 197–224. <https://doi.org/10.1111/j.1467-8292.2009.00384.x>

- Pestoff, V., Osborne, S. P., & Brandsen, T. (2006). Patterns of co-production in public services. Some concluding thoughts. *Public Management Review*, 8(4), 591–595. <https://doi.org/10.1080/14719030601022999>
- Rodriguez Müller, A. P., Flores, C. C., Albrecht, V., Steen, T., & Cromptvoets, J. (2021). A scoping review of empirical evidence on (Digital) public services co-creation. *Administrative Sciences*, 11(4). <https://doi.org/10.3390/admsci11040130>
- Steen, T., & Tuurnas, S. (2018). The roles of the professional in co-production and co-creation processes. In T. Brandsen, T. Steen, & B. Verschuere (Eds.), *Co-Production and Co-Creation: Engaging Citizens in Public Services* (pp. 80–92). Routledge. <https://doi.org/10.4324/9781315204956>
- Torring, J., Ferlie, E., Jukić, T., & Ongaro, E. (2021). A theoretical framework for studying the co-creation of innovative solutions and public value. *Policy and Politics*, 49(2), 189–209. <https://doi.org/10.1332/030557321X16108172803520>
- Torring, J., Sørensen, E., & Røiseland, A. (2019). Transforming the Public Sector Into an Arena for Co-Creation: Barriers, Drivers, Benefits, and Ways Forward. *Administration and Society*, 51(5), 795–825. <https://doi.org/10.1177/0095399716680057>
- Van Eijk, C., & Gascó, M. (2018). Unravelling the Co-Producers: Who are they and What Motivations do They Have? In T. Brandsen, T. Steen, & B. Verschuere (Eds.), *Co-Production and Co-Creation: Engaging Citizens in Public Services* (pp. 63–76). Routledge. <https://doi.org/10.4324/9781315204956>
- Van Ransbeeck, W. (2019). *What's the Difference Between Civic Tech and GovTech?* CitizenLab. <https://www.citizenlab.co/blog/civic-tech/whats-difference-civic-tech-govtech/>
- Voorberg, W. H., Bekkers, V. J. J. M., & Tummers, L. G. (2015). A Systematic Review of Co-Creation and Co-Production: Embarking on the social innovation journey. *Public Management Review*, 17(9), 1333–1357. <https://doi.org/10.1080/14719037.2014.930505>
- Wijnhoven, F., Ehrenhard, M., & Kuhn, J. (2015). Open government objectives and participation motivations. *Government Information Quarterly*, 32(1), 30–42. <https://doi.org/10.1016/j.giq.2014.10.002>

ANNEX 1 – CASE OVERVIEW (AS CONFIRMED THUS FAR)

Case ID	Political or administrative level	Organising (public) entity	Project name	Type of co-creation	Digital co-creation or co-creation of e-services (analogue, digital or hybrid)	Timeframe
1	Central	Sciensano	My Healthy Data	Co-commissioning	Digital co-creation	December 2021 – April 2023
2	Central	Sciensano	Corona Consultations	Co-commissioning	Digital co-creation	November 2020 – January 2021
3	Central	Sigedis	My Pension	Co-design	Co-creation of an e-service (unspecified)	December 2021 – December 2023
4	Central	NGI	Topomapviewer	Co-assessment	Co-creation of an e-service (digital)	Permanent
5	Central					
6	Central					
7	Central					

8	Central					
9	Central					
10	Central					
11	Regional – Flanders	Scivil Kenniscentrum Data & Maatschappij	Amai! Vlaanderen	Co-commissioning Co-design Co-delivery	Digital co-creation	May 2024 – January 2024 (latest round)
12	Regional – Flanders	Vlaamse Ouderenraad	Bepaal je (eigen) verhaal	Co-commissioning	Digital co-creation	March 2023 – March 2024
13	Regional – Flanders	Agentschap voor Binnenlands Bestuur & Plan International	SaferCities	Co-commissioning	Digital co-creation	March 2023 – January 2024
14	Regional – Wallonia					
15	Regional – Wallonia					
16	Local – Flanders	Genk	Maak da mee	Co-commissioning Co-design Co-delivery	Digital co-creation	November 2022 – June 2023
17	Local – Flanders	Beringen	SaferCities	Co-commissioning	Digital co-creation	March 2023 – January 2024
18	Local – Flanders	Leuven	Vorm3010	Co-commissioning Co-design	Digital co-creation	February 2021 – June 2022
19	Local – Brussels	Kortrijk	Burgerbudget	Co-commissioning Co-design Co-delivery	Digital co-creation	May 2023 – March 2024

20	Local – Wallonia					
----	------------------	--	--	--	--	--

We start with a couple of introductory questions:

- 1) Can you briefly **describe** the (digital) **co-creation project** [name]?
 - a. Does this project constitute **an organisation initiative**, or is it part of a task commissioned by a higher authority?
 - b. Based on which **objective(s)** did the project commence?
 - c. What main **components** or phases did this project entail?
 - d. Through which **digital tools** were each of those realised?¹
 - e. How would you describe **your role** in this co-creation project?

In what follows, we zoom in on stakeholders and third-party actors with direct involvement in the co-creation project:

- 2) Can you list the **different stakeholders** or stakeholder groups **involved** in this (digital) co-creation project?²
- 3) **How did each** of these stakeholders **enter** the (digital) co-creation project?³
 - a. [In case they were selected or recruited] How did this process work? Were specific selection criteria deployed? Or strategies to pick up on hard to reach target audiences?
 - b. [In case they were selected or recruited] Why was/is there inclusion preferable?
 - c. [In case they presented themselves for participation] Based on what considerations do these present themselves?
- 4) How were these **in contact** with one another? How did they relate?
- 5) **How** are each of the stakeholders **encouraged to engage actively and long-term**? What challenges, if any, do you encounter there? How do you deal with those?
- 6) Did the project also aim at including **hard to reach target audiences**?
 - a. [If yes] Which ones? And, what strategies were used to involve them and keep them involved?

¹ Of course, this question will probably not apply to all cases as some do not encompass digital co-creation but are directed at a person-to-person co-creation of e-services instead.

² These can possibly be broken down or described by project phase if that promotes clarity and facilitates answering the subsequent question (e.g., sometimes contacts and relationships may change according to the project phase).

³ Did they (a) have to be statutorily involved, (b) were they selected or recruited or, (c) did they present themselves?

Afterwards, we discuss the different roles several stakeholders can assume:

- 7) Each of the stakeholders or stakeholder groups we have already discussed can assume different and unique **roles** throughout the co-creation process. How would you describe the role of each in the process?
- 8) Was the **assignment or assuming** of roles a **deliberate decision** based on the project's objectives, or did they grow organically?
 - a. [When a deliberate choice] How were these roles determined? Who had a say in this?
 - b. [When a non-deliberate choice] How did the organic growth process, including the spontaneous assumption of roles, work?
- 9) In what way was the **input** of the different **stakeholders** taken into account in the project? How much **freedom** did the different stakeholders enjoy in providing input?
 - a. Was this fixed by predetermined rules or procedures?
 - b. If yes, which ones and did they apply equally to each group of actors?
- 10) Did you ever notice **a discrepancy** between the roles assigned and the expectations held by the stakeholders?
 - a. [If yes] Wherein did this discrepancy reside? Where did they diverge? Where did they correspond?
 - b. [If yes] (How) was this situation remedied?

Finally, to summarise and wrap up:

- 11) Did you perceive a **difference** between 'the co-creation **plan on paper**' and 'its **progression in practice**'? If so, in what way(s)? Are there things you would approach differently now?

Van start wordt er gegaan met enkele inleidende vragen:

- 1) Kan je kort het (digitale) **co-creatie-project** [naam] **toelichten**?
 - a. Vormt dit project een **eigen initiatief** of kadert het in een opdracht vanwege een hogere overheid?
 - b. Vanuit welke **doelstelling(en)** vertrok het project?
 - c. Uit welke voorname **onderdelen** of fasen bestond dit project en ...
 - d. ... via welke **digitale toepassingen** werden deze elk gerealiseerd?⁴
 - e. Hoe zou je **jouw rol** in het co-creatie-project omschrijven?

Vervolgens wordt er dieper ingezoomd op de stakeholders en belanghebbende actoren met een directe betrokkenheid bij het co-creatie project:

- 2) Kan jij opsommen **welke** verschillende **actoren en/of stakeholdergroepen** betrokken waren bij dit (digitale) co-creatie project?⁵
- 3) **Hoe** kwamen elk van de actoren **in** het (digitale) co-creatietraject **terecht**?⁶
 - a. [Indien geselecteerd of gerekruteerd] Hoe verliep dit proces? Werden er criteria gehanteerd om tot deze selectie te komen? Of, strategieën om bepaalde moeilijk bereikbare actoren op het spoor te komen?
 - b. [Indien geselecteerd of gerekruteerd] Waarom was/is hun inclusie wenselijk?
 - c. [Indien zichzelf aangediend] Vanuit welke overweging dienen deze zichzelf aan?
- 4) Hoe stonden deze in contact of **verhouding** met elkaar?
- 5) **Hoe** worden deze actoren **aangemoedigd tot** een **actief én langdurig engagement**? Op welke uitdagingen stootte je eventueel? Hoe pakte je deze aan?
- 6) Richtte het project zich ook op de inclusie van **moeilijker te bereiken doelgroepen**?
 - a. [Indien ja] Welke? En, welke strategieën werden gehanteerd om hen te betrekken én betrokken te houden?

⁴ Dit zal ongetwijfeld niet voor elk van de cases van toepassing zijn daar waar enkele cases zich richten op een person-to-person co-creatie van e-services.

⁵ Eventueel opgedeeld per fase in het project indien dit de overzichtelijkheid bevordert en het beantwoorden van de daaropvolgende vraag vergemakkelijkt (bijv. soms kunnen contacten en verhoudingen wisselen naar gelang de fase).

⁶ Moesten zij (a) wettelijk gezien betrokken worden, werden ze (b) geselecteerd of gerekruteerd of, (c) dienden ze zichzelf aan?

Daarna bespreken we de verschillende rollen die verscheidene stakeholders kunnen opnemen:

- 7) Elk van de stakeholders of stakeholdergroepen die we reeds bespraken, kunnen verschillende en unieke rollen opnemen in het gehele co-creatie proces. Hoe zou je de **rol** van elk in het proces omschrijven?
- 8) Was het **toekennen of opnemen** van de verschillende **rollen een bewuste keuze** gebaseerd op de doelstellingen van het project of groeiden ze organisch?
 - a. [Indien een bewuste keuze] Hoe werden deze rollen bepaald? Wie had hierin inspraak?
 - b. [Indien geen bewuste keuze] Hoe verliep het proces van organische groei en spontane invulling van rollen?
- 9) Op welke manier werd de **input** van de verschillende stakeholders meegenomen in het project? Hoeveel **vrijheid** genoten de verschillende stakeholders in het leveren van input?
 - a. Lag dit vast in vooraf bepaalde regels of procedures?
 - b. Zo ja, welke en golden deze in dezelfde mate voor elke groep van actoren?
- 10) Merkte je ooit **een spreidstand** tussen de toegekende rollen en de verwachtingen daarover?
 - c. [Indien ja] Waarin schuilde deze spreidstrand? Waar liepen ze precies uit elkaar? Waar stemden ze overeen?
 - d. [Indien ja] (Hoe) werd deze situatie geremedieerd?

Ten slotte, samenvattend:

- 11) Nam je een verschil waar tussen 'het **co-creatieplan op papier**' en 'het **verloop ervan in de praktijk**'? Zo ja, op welke manier? Zijn er dingen die je nu anders zou aanpakken?

ANNEX 4 – TOPIC LIST INTERVIEW KEY STAKEHOLDERS (FRENCH VERSION)

Nous commençons par quelques questions introductives :

- 1) Pouvez-vous **expliquer** brièvement **le projet** de cocréation (numérique) [nom] ?
 - a. Ce projet constitue-t-il **une initiative propre** ou fait-il partie d'un plan commandité par une autorité supérieure ?
 - b. De quel(s) **objectif(s)** le projet est-il parti ?
 - c. Quelles sont les principales composantes ou **phases** de ce projet ?
 - d. Quelles **applications numériques** ont été utilisées au cours de chacune de ces phases ?⁷
 - e. Comment décririez-vous votre **rôle** dans le projet de cocréation?

Nous nous concentrons ensuite sur les parties prenantes et les acteurs directement impliqués dans le projet de cocréation :

- 2) Pouvez-vous dresser la **liste des différents** acteurs et/ou groupes de **parties prenantes impliqués** dans ce projet de cocréation (numérique) ?⁸
- 3) **Comment** chacun des acteurs est-il **entré dans le processus** de cocréation (numérique) ?⁹
 - a. [En cas de sélection ou de recrutement] Comment s'est déroulée cette procédure ? Des critères spécifiques ont-ils été utilisés pour parvenir à cette sélection ? Ou des stratégies pour repérer certains acteurs difficiles à atteindre ?
 - b. [En cas de sélection ou de recrutement] Pourquoi leur inclusion était-elle/est-elle souhaitable ?
 - c. [S'il s'agit d'une auto-soumission] Pour quelle raison ces personnes s'auto-soumettent-elles ?
- 4) Comment ces personnes ou groupes étaient-ils en contact ou **en relation** les uns avec les autres ?
- 5) **Comment** chacun de ces acteurs est-il **encouragé à s'engager activement** et sur le long terme ? Quels défis rencontrez-vous, le cas échéant ? Comment avez-vous géré ces défis ?
- 6) Le projet s'est-il également orienté vers l'inclusion de **groupes plus difficiles à atteindre** ?
 - a. [Si oui] Lesquels ? Et quelles stratégies ont été utilisées pour les impliquer et les garder engagés ?

Alors, nous discutons des différents rôles que peuvent adopter les différentes parties prenantes :

⁷ Cela ne s'appliquera sans doute pas à tous les cas, car certains d'entre eux se concentrent sur la cocréation de services électroniques de façon personnelle plutôt que numérique.

⁸ Éventuellement ventilé par phase du projet si cela favorise la clarté et facilite la réponse à la question suivante (par exemple, les contacts et les relations peuvent parfois changer en fonction de la phase).

⁹ Ont-ils (a) dû être légalement impliqués, ont-ils (b) été sélectionnés ou recrutés ou (c) se sont-ils présentés d'eux-mêmes ?

- 7) Chacune des parties prenantes ou chacun des groupes de parties prenantes dont nous avons déjà parlé peut assumer des rôles différents et uniques tout au long du processus de cocréation. Comment décririez-vous **le rôle de chacun** dans le processus ?
- 8) **L'attribution ou la prise en compte des différents rôles** a-t-elle été **une décision consciente** basée sur les objectifs du projet ou s'est-elle développée de manière organique ?
 - a. [S'il s'agit d'un choix conscient] Comment ces rôles ont-ils été déterminés ? Qui a eu un mot à dire dans cette décision ?
 - b. [S'il ne s'agit pas d'un choix conscient] Comment s'est déroulé le processus de croissance organique et d'interprétation spontanée des rôles ?
- 9) De quelle manière la **contribution** des différentes parties prenantes a-t-elle été prise en compte dans ce projet ? Dans quelle mesure les différentes parties prenantes ont-elles été **libres** d'apporter leur contribution ?
 - a. Ces marges étaient-elles fixées par des règles ou des procédures prédéterminées ?
 - b. Si oui, lesquelles et s'appliquaient-elles de la même manière à chaque acteur ou groupe d'acteurs ?
- 10) Avez-vous déjà remarqué **une divergence** entre les rôles attribués et les attentes des parties prenantes ?
 - a. [Si oui] Où cette divergence s'est-elle produite ? Où ont-elles divergé exactement ? Où ont-elles correspondu ?
 - b. [Si oui] (Comment) cette situation a-t-elle été corrigée ?

Enfin, pour résumer et conclure :

- 11) Avez-vous constaté une **différence** entre '**le plan** de cocréation **sur le papier**' et '**sa progression dans la réalité**' ? Si oui, de quelle(s) manière(s) ? Y a-t-il des choses que vous feriez différemment aujourd'hui ?

