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RECHARGE Application of the four phases of participatory business models in heritage

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1. Introduction

An organisation's business model describes the architecture and process by which it creates, delivers, and captures value. A business model can be adapted when innovations emerge. It can change according to changing needs. What characterises Participatory Business Models?

Designing and developing a new business model for an organisation is a process of trial and error. What needs to be changed: the value proposition? Customer segments? Key resources of activities? Cost and revenue structure? Frequently, it is the combination of these elements that will be attuned. Tools such as the Business Model Canvas can help this iterative process. Participatory, open, and process-oriented perspectives consider how organisations can create, deliver, and capture values *together* with their stakeholders, resulting in inclusive value propositions.

RECHARGE identified four iterative phases to this process:

1. Preparing
2. Business model co-designing
3. Implementing
4. Reflecting, each with its specificities

The key characteristic and primary objective of the participatory business model is ***the incorporation of the perspectives of multiple actors, who can present their needs and advocate for their shares of benefits during the ideation and development of new business model configurations.***

Given this, and having a sound theoretic framework to build upon (D1.1 PART A), the RECHARGE team engaged in an initial application of the phases. Great attention was given to the actors, and several frameworks were proposed, as well as concepts related to the other iterative phases. A Glossary of terms emerged as part of this process (to be published).

A number of concepts were identified concerning the actors, actions, and processes that could be considered when answering the key questions of *WHO* is engaging in participation and why? *HOW* is the participation executed? *HOW MUCH* value is generated and captured through participation? And *WHAT* is the result of the participatory innovation in the business model architecture? See table 1.

We found these terms not readily applicable at our Living Labs. For this, we engaged in a revision of concepts to better serve our process. For example, are actors meant to be classified based on an individual characteristics profile, or based on the form of their engagement? In the following sections

we present our process to operationalise the four phases of co-designing a Participatory Business Model framework in detail, which will be evaluated as the Living Labs engage in evaluating their first cycle of iterative phases. Results will follow in our future reports.

WHO? Participants	**HOW?** Participatory practices	**HOW MUCH?** Value created and captured	**WHAT?** Business Model Architecture
Target participants	**Forms of participation**	**Value of participation**	**List of possible Business Models**
Heavy users of culture	Information	(see upcoming RECHARGE D1.2 report)	Open Innovation
Specific needs-oriented users	Consultation	**Participation KPIs**	Crowdsourcing
Non-participants	Involvement	Indicators of community participation:	Corporate Social Responsibility
Communities of interest	Collaboration	Diversity	Community Engagement
Commercial allies	Empowerment	Membership	New Retail Service
Sponsors and patrons	**Partnerships and collaborations**	Involvement	Online Revenues
Creatives	Public-private; public-public; public-NGO	Events attendance	...
Knowledge producers	multi-stakeholders	Time contribution	
Decision makers	Professional network	Benefits	
Heritage geeks	Grassroots & community collaboration	Satisfaction level	
Motivation for participation	Collaborations with individuals	Influence	
Leasure	**Participation activities**	Synergy	
Social interaction	Co-planning	Impact-based KPIs:	
Identity	Co-prioritising	Educational	
Personal well-being	Co-financing	Social	
Community well-being	Co-design	Economic	
Professional interaction	Co-managing	Environmental	
Knowledge	Co-delivery	8-tier approach:	
Creativity	Co-assessment	Innovation	
Economic		Welfare	
		Sustainability	
		Social cohesion	
		New intrepreneurship models	
		Lifelong learning	
		Soft power	
		Local identity	
		Purpose-driven KPIs according to participants:	
		Care and preservation of heritage	
		Holding collections and mounting displays	
		Creating knowledge for/about society	

Table 1. Elements of Participatory Business Models

This report is organised following the phases of a participatory business model co-design. In each phase, we present the concepts and preparatory work we engaged in to support the formation of the Living Labs. This is a work in progress, being the first iteration. The final set of proposed elements will be presented in our deliverable RECHARGE business models.

2. Preparing

Our starting point is the actor types based on Newig et al (2013):

Participant - is any actor taking part in the decision-making process based on a position granted by the decision making process organiser. This can apply to certain interest groups or the general public, be restricted to specifically invited individuals, certain experts, state agencies, or apply to no one at all.

Stakeholder - is anyone potentially affected by the CHIs practices, problems and the consequences of possible solutions implemented within the participatory activities. Stakeholders are defined independently of who actually participates in (or is invited to) a decision-making process. One distinguishes four stakeholder categories: government sector, private sector (for profit), civic sector (non-profit), and citizens.

While participants are actively involved in the participatory process, stakeholders may be not directly part of it but are impacted by the process and its outcomes.

How to identify participant groups?

Establishing the stakeholders and participants can be done following several frameworks. At RECHARGE, we looked into a classification of *participants* inspired by Falk (2009) to define **external target participants** - those based outside of the CHIs own institution, and **external and/or internal target participants** - actors who may or may not be part of the CH institution. Figure 1 presents an overview of the selected typology.

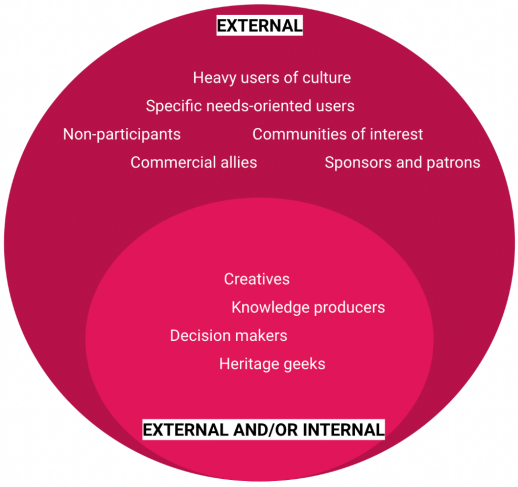


Figure 1: Types of participants typology

External target participants represent:

- **Heavy users of culture** - members of the public who are already engaged in arts & culture, treating cultural participation as part of their lifestyle.
- **Specific needs-oriented users** - members of the public who are driven by specific needs (family- and/or children-oriented, seniors, persons with disabilities).
- **Non-participants** - members of the public who are not (yet) interested or engaged in the activities.
- **Communities of interest** - Groups coming from outside of the Cultural Heritage sector that share certain interests, and/or expertise with the cultural heritage institution, and/or are bound up with a specific location (it can be a so-called "source community" or neighbourhood community as well as community of people passionate about a certain issue/topic, etc).
- **Commercial allies** - Individuals or companies who might be interested in commercial collaboration (eg. museum shop or museum cafe operator, software house, advertising/PR agency, etc.)
- **Sponsors and patrons** - Both public and private and non-profit organisations interested in being involved in or supporting CHIs activities by sponsoring them (in-kind or money) or offering their patronage.

External and/or internal target participants include:

- **Creatives** - Individuals or companies representing both the arts, the creative sector, as well as in-house creatives contributing to or interested in contributing to developing creative ideas e.g. artists, UX experts, graphic designers, etc.
- **Knowledge producers** - Researchers & academics representing both universities as well as think-tanks or NGOs, as well as in-house researchers who are oriented towards knowledge production.
- **Decision makers** - Authorities representatives at all levels, including policy-makers, involved in a decision making process impacting the CHIs' operations
- **Heritage geeks** - Cultural heritage professionals as well as representatives of NGOs & freelancers professionally involved with cultural heritage, including curators, editorial teams, etc.

Participatory practices in the cultural heritage sector (as in any other sector) require specific participatory governance and a profound understanding of who all the actors involved in them are and what are their needs and roles in the process. This includes investigating the dynamics between the actors operating together in the institutional space, based on different levels of delegation, communication and representation (Campagna, 2022).

Once the types of target participants have been distinguished, it is possible to determine their needs and drivers to participate in CHIs activities in general, with a special focus on the participatory projects. What is of special interest here is therefore the other types of motivation - motivation for participation.

Motivation is a general term applied to answer questions about *why* people do things. It refers to the entire class of drives, desires, needs, wishes and similar forces. We distinguish between different types of motivation based on the different reasons or goals that give rise to an action.

This study has gained insights from research and various publications on motivation as such, as well as studies on co-production and engagement of the participatory society (Hatke and Kalucza, 2019; Loeffer and Bovaird, 2016; Steen, 2021). The most basic distinction is between Intrinsic and Extrinsic motivation (Legault, 2016). Intrinsic motivation refers to engagement in behaviour that is inherently satisfying or enjoyable. The need comes from within and is strictly connected to personal feelings of pleasure, joy, sense of accomplishment or competition. The individual has the desire to perform a specific task, because its results are in accordance with his belief system or fulfil a desire and therefore importance is attached to it. Extrinsic motivation on the other hand refers to performance of behaviour that is fundamentally contingent upon the attainment of an outcome that is separable from the action itself. It is usually associated with some economic benefits and monetary gains, however not only. On a higher level of abstraction we can find both extrinsic and intrinsic motivation in the types of participation in the CHIs activities, that are the core of the RECHARGE project.

However for the purpose of our research and future new business models of the Living Labs, the motivation typology was formulated on the basis of the intrinsic/extrinsic division applied to types of target participants in regards to the *8 tiers approach to the indirect effects of cultural production (and participation)* proposed by Sacco (2016) - as a cultural lens to the social understanding of the desires to participate (Hattke and Kalucza, 2019; Loeffler and Bouvaird, 2016; Steen, 2021). The results of this exercise showed that the drivers for participation in the cultural sector can also be defined as intrinsic and extrinsic, however the origin of the division of motivation for participation into specific types lies elsewhere.

The research on motivation for participation in CHIs activities explores main drivers and types of needs of particular groups of participants. Each target participant type has been deeply analysed in terms of *why* they want to engage and to what extent. As a result, (Hattke and Kalucza, 2019) conclude that all the drivers of motivation - in terms of the specific groups of participants defined within the RECHARGE project - can be divided into three main groups - personal, professional, and one that can be considered both personal and professional motivations.

The **personal motivations group** is the biggest and it consists of 5 following motivation types, determined by various drivers or needs on a different level of complexity and that may result from one another.

1. **Leisure** - the driver is associated with pleasure, enjoyment and spending quality time coming from the fact of engaging. In other words, people participate in CHIs activities because it gives them joy and makes them happy. This type of motivation is on the simplest level of complexity, where the driver is equivalent to the feeling it is associated with. Thus it can be defined as a basic driver.
2. **Social interaction** - the driver behind engaging is the need of associating with other people, creating a network of contacts, or a sense of belonging to a particular social/ethnic/other group. Social interaction also falls into the basic level of complexity.
3. **Identity** - this is another level of complexity as this type of motivation is an interpretation of the feeling or need. In this case the driver behind involving is a satisfaction associated with identifying with project or institution and with the ethical/social values it embraces, as well as a sense of belonging to a particular social/ethnic/other group related with the meaning of the institution/project.To translate it into action means that one participate in a CHIs activities because either one feels connected, identifies with group, project or values or has an urge to feel connected with group, project or values.
4. **Personal well-being** - this can be interpreted as an in-depth factor of the identity motivation. It relates to engaging in activities that bring personal satisfaction, are related to a particular group, project or values or provide a sense of belonging to a particular group, project or

values. As a matter of fact it can be argued that personal well-being motivation is a result and mix of all of the previous motivations and their drivers.

5. **Community well-being** - is a variation on personal well-being, in which a person is engaging in activities that bring satisfaction through seeing others' well-being gains, such as cooperation, improving quality of life, voluntary work, etc. contributing to a positive change.

When it comes to the **professional drivers** there is only one type of solely professional motivation defined in the proposed typology.

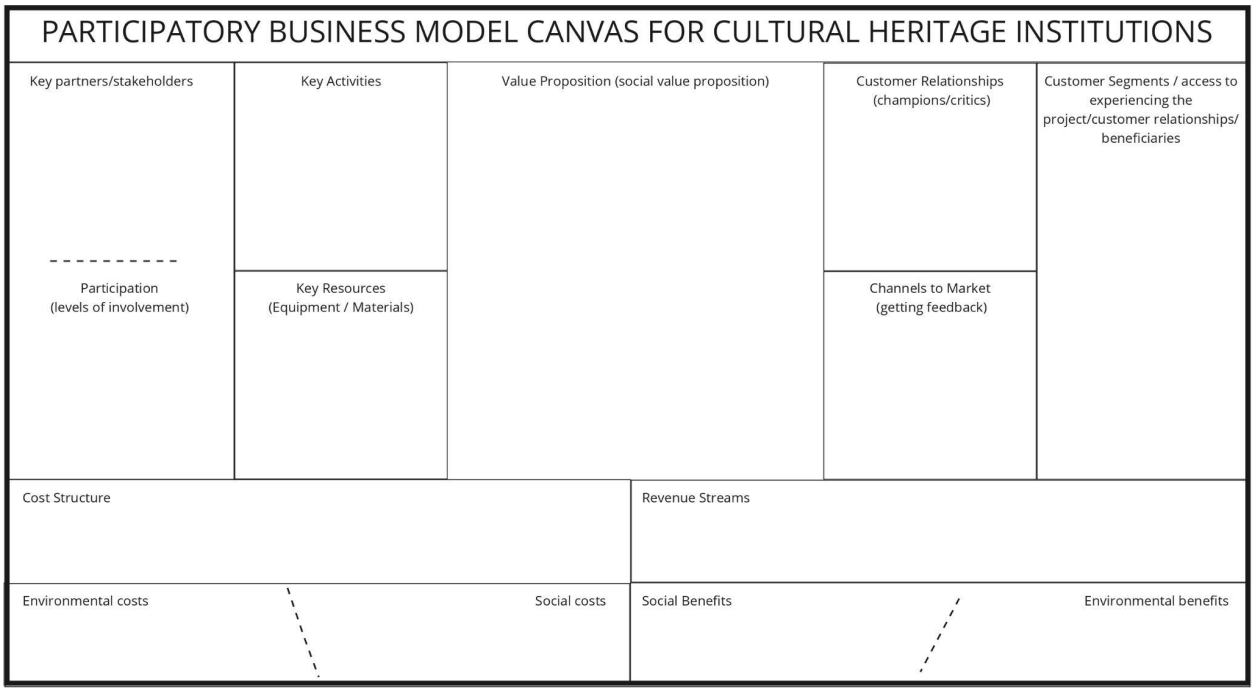
6. **Professional interaction** - using and/or sharing one's skills/knowledge to support institutions/projects on the professional basis and creating a network of professional contacts.

The third group consists of types of motivation that can be either **professional or personal**. This group consists of three proposed types:

7. **Knowledge** - describes the situation in which the main driver is acquiring new knowledge/skills, self-improvement.
8. **Creativity** - the driver behind this type of motivation is an inner need to create new goods/services/ideas, to unwind tangible and intangible values.
9. **Economic** - occurs when the main motivation is to make profit, gain benefits, improve efficiency, cost reduction, income growth, and attract new audiences.

3. Business models co-designing

Based on the Business Model Canvas developed by Osterwalder (available on www.strategyzer.com), RECHARGE developed a Participatory Business Model Canvas (PBMC) with participation at the core in the activities planned and in the value proposition identified. While the PBMC is still work in progress, being currently tested and validated in ongoing Living Labs and updated according to the findings, the canvas itself can be presented as follows:



The PBMC follows the Business Model Canvas logic and its relations between different aspects of business value chain, but it has added two layers relevant to RECHARGE approach. Firstly, it has added the meaning and terminology concerning participatory approach, including types and levels of participation, types of customer relationships, and feedback loops. Secondly, it adopts the general business approach to the cultural heritage institutions (or cultural institutions in general), adding the meaning of social value proposition, specifying the types of customer segments, as well as digging deeper in both social and environmental costs and benefits of their activities.

Stakeholders were involved in co-designing the Business Models on each site through a series of workshops. This process will be reported in detail in our later deliverable D2.3 RECHARGE Models. The Business Model co-creation takes part in the first two steps of a Living Lab: (1) Research and

exploration, and (2) Co-creation. Subsequent steps involve (3) Monitoring and (4) Evaluation, which will reflect the last phase in our Participatory Business Models process, Reflecting.

In this sense, the method of exploring participation through a Living Lab turned out to be greatly favourable. There are great similarities between a Living Lab process and our four-phased participatory business model: both start with a research, exploration, and needs assessment element, continue with a co-creating, co-designing, and implementing part in the middle, and contain a monitoring, evaluation, and reflecting phase at the end; the two are interactive processes; and the two rely highly on stakeholder engagement.

4. Implementing

Regardless of how much control of the process each cultural institution or entity is willing to give up for participation strategies, they can be implemented at any stage of the service delivery cycle. In this sense, Bovaird and Loeffler (2012, 2013) distinguish a broad set of activities that allow space for participation:

- *Co-planning*: Activities aimed at identifying what each group of stakeholders needs or wants as well as the outcomes to be achieved.
- *Co-prioritising*: The aim is to pinpoint the main services that will enable the outcomes defined as the key objective to be achieved, and for the main groups of users.
- *Co-financing*: Activities aimed at designing and implementing funding mechanisms that are innovative and consistent with the priorities set out.
- *Co-design*: Activities for the creation, planning and organisation of the service, based on the experience of the users and their communities.
- *Co-managing*: Activities to implement and manage projects or programmes.
- *Co-delivery*: Actions aimed at providing a service, or at improving it, through activities carried out by users with the support of the organisation.
- *Co-assessment*: Actions geared towards obtaining information concerning citizens' perceptions and expectations and the extent to which these have been met.

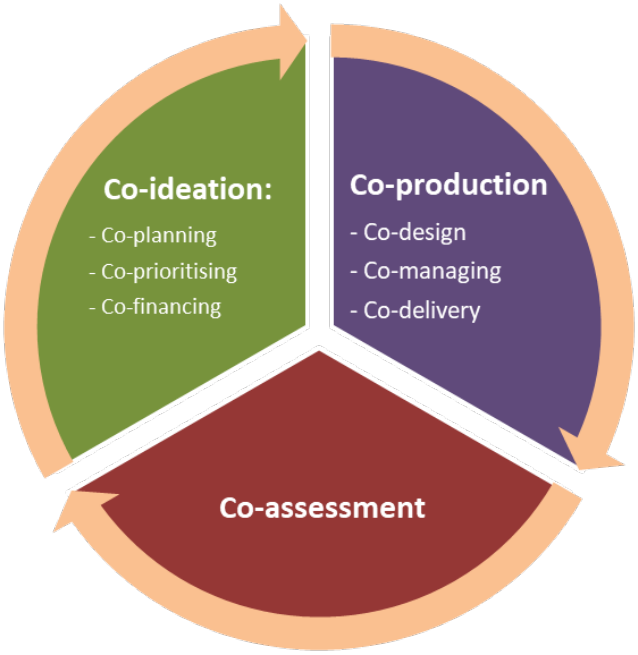


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Figure 2: Participation activities

Participation in planning activities, establishing priorities in objectives and in funding decisions, allows for the co-ideation of the service, while co-design, co-managing and co-delivery refer basically to activities linked to cultural production and service provision. The process is completed with co-assessment activities geared towards evaluating the fulfilment of objectives (effectiveness), use of resources (efficiency), and satisfaction (social performance). These three sets of activities are not presented in the form of a linear chain, but from a circular perspective (Figure 1) in order to account for the feedback they provide to each other in a concatenated spiral. Specifically, the activities of the co-ideation process are about defining objectives and establishing how they will be pursued, as well as estimating the necessary and accessible resources and sources of funding. It involves the overall planning of the service (Pestoff, 2012: Brandsen and Honingh, 2018) with a long-term perspective to define the role and viability of the institution in its community.

The design, management and delivery of the service itself make up the phase after the ideation of the project, which can be defined as the co-production of the service. The concept of co-production is inherent to cultural services where their provision is not possible without the concurrence of citizen willingness to participate (Bovaird, 2007; Pestoff, 2014). Under this perspective, the mere passive presence of the user sets in motion the process of co-production that can become active participation through involvement in design, management and service provision activities. While it may be difficult for the institution to agree to give up space in the provision of the service for which it has been created, some examples show the possibility of participation in this phase of the service.

Finally, it is difficult to classify co-evaluation as part of the project ideation or service co-production process (Brandsen and Honingh, 2018). On the one hand, evaluation is based on the final delivery of the service and users' perceptions thereof. However, evaluation also feeds back into the planning process and makes it possible to assess the extent to which the institution's objectives are being achieved. An output-oriented evaluation is probably closer to the co-production phase, whereas an outcome-oriented evaluation is closer to the co-planning phase of the project.

There are numerous possibilities for implementing activities that involve the active participation of all stakeholders. Each entity must ultimately decide which activities should accommodate this active participation by considering its preferences and capacities, as well as the readiness of its staff.

How to conceptualise community collaborations?

Implementing the participatory activity can be considered based on the type of engagement.

Cooperation and collaboration are sometimes used interchangeably as synonyms for participation. Similarly, synonyms for partnerships and collaborations are plentiful and carry different meanings in certain contexts. Within the cultural heritage sector, partnerships may alternatively be called joint programmes, working together, co-production, consortium, object loan, relationship and sharing (Ellison, 2015). These terms describe different levels of shared ownership, responsibilities, resources and profits.

This section presents an overview of partnerships and collaborations within participatory heritage practices, and the factors that increase their durability and impactfulness. It compares existing literature on partnering and collaborating from within the heritage sector to common typologies and strategies for success from other sectors. Real examples such as of professional networks, public-private partnerships, and grassroots community collaborations, are used to illustrate these typologies, and to highlight what they fail to describe about factors for durability and impact.

The typologies that will be discussed in this section are grassroots and community collaborations; collaborations with individuals; public-private, public-public, and public-NGO partnerships; multi-stakeholder partnerships or people-public-private partnerships; and professional networks. These terms have been selected because they describe different stakeholder configurations within a partnership, and are broad enough to be able to be applied to a diversity of examples from the cultural heritage sector. These categories are also useful because they can be used to describe and show trends in activities, functions and benefits for different types of stakeholder configurations (Lowndes, 1998). Literature on these terms, or partnership typologies, also live in different domains of knowledge with the same term sometimes used in different ways.

The categories have been presented in no particular order.

- **Grassroots & community collaboration**

Grassroots and community collaborations seem to be catch-all phrases for partnerships between a more traditional institute or organisation (public, private or NGO) and the general public. Grassroots and community organisations can be a very broad term, but in general it captures the organising of individuals that are generally not in positions of power already, and are made up of the general public Grosse, 2023). These organisations can differ greatly in budget, size, formality and structure, while some of them may already have a strong advocacy role. Related terms for such an organisation might include communities of practice. For this research it will be used to describe relationships between public or private organisations and an organised form of the general public.

- **Collaborations with individuals**

Collaborations with individuals describes ways in which organisations connect to the general public, and includes the familiar term crowdsourcing, or 'outsourcing' to a 'crowd' (Bonacchi, et al., 2019). Related terms such as citizen science, citizen research, citizen history, folksonomy, and even volunteering all describe an organisation or institution engaging the general public on an individual basis (Ridge, et al., 2021). An important distinction to make, especially in the context of how knowledge can be collectively created within heritage, is whether people were organised already in some form. Collaborations with individuals may evolve into a grassroots and community collaboration.

- **Public-private; public-public; public-NGO partnerships**

Public-private, public-public and public-NGO partnerships or 3Ps are used to describe a partnership between organisations or entities from the public and/or private sector. 'Public' is often used to describe whether an organisation is financed by the state, which also impacts their responsibilities, goals and accountability. Non-profits or non-governmental organisations are sometimes included within the term 'public', but can also be specified for clarity.

A key characteristic of these partnerships is the pooling of resources for a shared goal (Brinkerhoff and Brinkerhoff, 2011). These types of partnerships are often described as 'contractual arrangements in which the private sector assists in delivering a public facility or service by providing funding or operating leadership' (Macdonald and Cheong, 2014). A useful distinction to make within this category is whether the partners were undertaking similar activities, in which case partnership can reduce competition; or whether the organisations were part of the same value chain with activities or products complementing each other, and sometimes directly dependent on each other, and partnership increasing efficiency (Osborne, et al., 2015).

- **Multi-stakeholder partnership**

'Multi-stakeholder partnership' describes a partnership between multiple partners and multiple types of partners, and is very closely related to the 3P, public-private partnership or public-public partnerships. This is sometimes also called a multi-stakeholder initiative or multi-organization partnership. Living Labs often seek to build multi-stakeholder partnerships (see the Living Labs section in D1.1 PART A). What is fundamentally shared in these relationships is resources, responsibilities and risk (Lowndes and Skelcher, 1998). A newer term, people-public-private partnerships (expressly reordered from public-private-people partnerships) (UNECE, 2016) addresses the need to include the general public alongside public and private actors (Perjo, ND). 4P

however does not distinguish between collaborations with the general public at the individual level and community organisations.

- **Professional network**

A professional network aims to connect individuals, who may represent organisations or community groups, that share common goals, educational/professional backgrounds, and work activities. Most professional networks have elements of learning, networking (making new connections), sharing of resources (skills, knowledge, equipment) and a level of mutual trust as well as a shared relationship to decisions (Camarinha-Matos and Afsarmanesch, 2012). An ideal for a professional network might be the collaborative network (Durugbo, 2019). A connection between the professional network, 4P and grassroots & community collaboration is a term called 'grasstops organising' (Grosse, 2023). Similar to grassroots organising, grasstops organising refers specifically to connecting with individuals who are already leaders and have existing power or community capital. These types of individuals might be the ones who are participating in professional networks.

5. Reflecting

Cultural heritage policies aimed at fostering and encouraging participatory practices often include references to partnerships, co-operations and collaborations (CE, nd). Several funding programmes also include international partnerships as a requirement. Partnering and collaborating with others is seen as a key component to the successful implementation of participation into the core of organisations. More broadly, partnering and collaborating is argued to be something that the cultural sector and other forms of public services cannot be successful without, especially in the face of tackling 'wicked problems' (NEMO, 2022; Osborne et al, 2015). Identifying key partners is an element of the business model canvas, and as RECHARGE seeks to develop participatory business models and encourage their uptake among cultural heritage institutions and professionals, it is important to understand the current role that partnerships play in the sector.

How to ensure durability?

Working together in its range of forms, such as networking, collaborating and partnering, often requires a long-term investment of time and people in order to build relationships that support the goals and work of the organisation. While most CHIs certainly recognise the importance of building relationships and are active in doing so, there is a desire to understand what steps can be taken and strategies implemented to build long-lasting relationships that help organisations achieve their vision/mission. This is a challenge faced in most sectors, and CHIs can also turn to guidance and resources from other sectors.

Within the broad literature on partnerships and collaboration in the cultural sector(s), suggestions are given for how professionals and organisations can improve the engagement in and results from these partnerships. Recommendations on how to ensure durable and impactful partnerships include brief articles as well as in-depth handbooks (KCL, 2015; Simon, 2010; Geven, 2014;Head, 2007; Brinkerhoff and Brinkerhoff, 2011; Europeana, 2015). They include recommendations such as the following:

- Use storytelling as a communication tool
- Creating organisational buy-in
- Jointly determined goals, definitions and objectives
- Co-design what collaboration will look like and how it will be evaluated
- Provide the needed tools and information for meaningful collaboration

- Shared control and decision-making
- Shared accountability
- Recognising and communicating needs
- Involve a diverse network of interested and affected people
- Foster trust and transparency
- Develop non-hierarchical structures and processes

Many of these recommendations either describe objectives or focus on steps that partners can take themselves within partnerships, rather than long-term strategies for embedding partnering within organisations or external factors that pose challenges to organisations wanting to partner. To properly support partnerships and collaborations, both the organisation or its environment might need to implement structural changes (that take the responsibility off of the individual employee to sustain the partnership).

The described typology can be applied to the corpus of participatory practices collected as part of this research, but often fails to describe the power relationships, the financial model, the personal relationships and the communication strategies. Many organisations use all if not most of these ways of collaborating with stakeholders to work together. RECHARGE will respond to the need to collect first-hand knowledge on what is challenging about working in partnerships and collaborations for cultural heritage institutions by carrying out qualitative research [T1.4] to understand what strategies people and organisations have implemented to develop and maintain their partnerships and collaborations.

How to track change?

There are no universal KPIs developed directly and only for participatory heritage practices like museums, but we can find inspiration from various other relevant key performance indicators. For this, we conducted desk research in the multidisciplinary bibliographic databases (e.g. ScienceDirect, Google Scholar) and predefined RECHARGE project library. We used various publications covering relevant aspects of participation KPIs as our data.

Based on the literature, we mapped out four different 'lenses' or possible perspectives for looking at participation KPIs, plus how they may relate to each other (Figure 3). These four possible perspectives for participation KPIs are the following:

1. **Indicators of community participation, i.e. participatory governance** (based on Butterfoss (2006));

2. **Impact-based KPIs, i.e. broad approach** (based on Galloway & Stanley (2004) and Bollo (2013));

3. **An 8-tier approach, i.e. spillover effects of culture** (based on Sacco (2011));

4. **Purpose-driven KPIs according to participants, i.e. participant perspective** (based on Thinks (2013)).

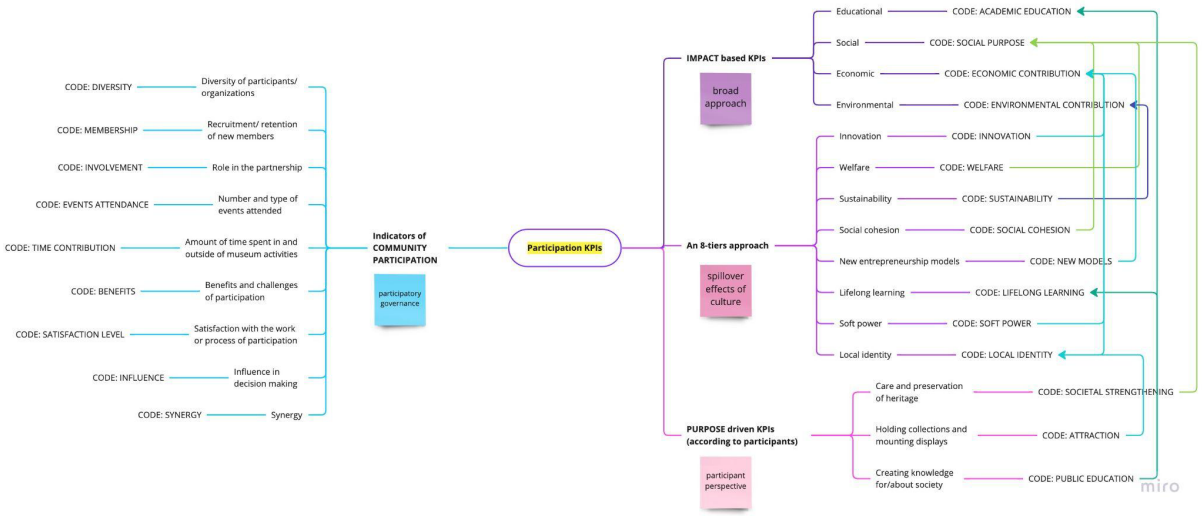

Figure 3. Conceptual map of the possible participation KPIs. Source: composed by the authors based on the literature review.

Indicators of community participation

The indicators of community participation based on Butterfoss (2006) may measure the following aspects of participation. Firstly, the essential sectors of the community are well represented in collaborative community partnerships, and the cultural heritage organisation is recruiting and retaining a diverse membership (Butterfoss, 2006)). Also, the degree of community participation may be perceived by the number and kind of active roles that members and organisations assume and the amount of time they contribute to the organisation (ibid.). The actual number of events and meetings that members attend and the amount of time members spend in museum meetings, activities, or community-related events on behalf of the museum can also be used as participation KPIs (ibid.).

Regarding participation KPIs related to benefits and challenges of participation, the participation KPIs dealing with benefits for members may be, for example, enhanced ability to address and learn about important issues, development of valuable relationships with other groups, ability to have a more

significant impact by working collaboratively on goals, and ability to contribute to the community (Butterfoss, 2006). On the other hand, challenges to participation may include diversion of time and resources away from other priorities or obligations, insufficient influence in partnership activities, undervalued opinion, misused or misdirected skills and time, and lack of support for members' viewpoints (ibid.).

It is good to measure whether members are satisfied with the work of the museum, satisfaction with the way people and organisations work together, with the museum's plan, and with the way the partnership implements its strategies when dealing with satisfaction with the work or process of participation (Butterfoss, 2006). Furthermore, it is beneficial to understand whether participants are involved in decision-making processes and that the process is transparent, follows standard procedures, and is timely and fair (ibid.).

Lastly, synergy items ask members whether, by working together, they achieve ten ideal tasks, e.g., identify new and creative ways to solve problems, develop understood and shared goals, and implement strategies that are likely to work (Butterfoss, 2006).

Impact-based KPIs

Moving on to the impact-based KPIs, then under the educational impact, the cultural heritage organisation may measure a contribution to broader strategic objectives, such as partnerships with schools, providing advice and support, and cascading good practices (Galloway & Stanley, 2004).

Social impact regards how museums could contribute positively to social change and to widening access to collections (Vergo, 1989; Mayrand,1985). The social impact should explore the social consequences (to areas such as health, education, social inclusion, and urban revitalisation) of different types of projects and interventions, plus the range of possible individual benefits stemming from museum engagement (learning, enjoyment, personal development, identity building) (Bollo, 2013). The museum sector contributes to social outcomes through the development of individual human capital (learning outcomes) and through activities that facilitate links, connections and relationships and create social capital (participation outcomes) (ibid.).

According to Bollo (2013), we should measure the contribution to the local economy when measuring the economic impact of the cultural heritage organisation. In this context, the economic impact stemming from the museum's existence and its activities and projects could be measured in terms of employment, demand for goods and services, multiplier effects on local economies (income and sales), the attraction of tourists and investments, place branding, influence on real estate markets, urban regenerations, and values deriving from the existence of a cultural service.

Measuring environmental impact regards environmental topics such as carbon footprint, green exhibits and energy-saving attitudes (Bollo, 2013). Also, raising awareness, among the public, about the importance of adopting intelligent and eco-friendly behaviour to reduce and make better use of private consumption of scarce resources (ibid.).

An 8-tier approach: spillover effects of culture

Concerning innovation, when measuring cultural heritage organisation's spillover effects, Sacco (2011) proposes that by learning about the rules that generate creativity, individuals learn how innovative meanings and practices can be constructed and how they come to challenge and de-structure previous beliefs, prejudices, and attitudes (Gruenfeld, 2010). Furthermore, cultural participation may drive endogenous economic growth, and the cultural and creative field may be a potent incubator of new forms of entrepreneurship (Sacco, 2011).

Cultural participation may also have substantial effects on life expectations as cultural participation is the second predictor of psychological well-being after (presence/absence of) diseases, and in this respect, has a significantly more substantial impact than variables such as income, place of residence, age, gender, or occupation when regarding welfare (Sacco, 2011). Furthermore, in connection to sustainability, cultural participation may have a critical indirect role in fostering social mobilisation and awareness about the social consequences of individual behaviours related to environmentally critical resources (ibid).

Regarding social cohesion, according to Sacco (2011), certain types of cultural projects may produce solid and significant effects regarding juvenile crime prevention, pro-social vocational orientation, or conflict resolution. The indirect effect of cultural participation on social cohesion may be overcoming stereotyping (e.g. Amin, 2002). Cultural participation is also a specific form of lifelong learning (Sacco, 2011).

Cultural and creative production may significantly increase a country's visibility, reputation and authoritativeness at all levels of international relationships, from the political to the economic (Sacco, 2011) - the role of culture in re-defining the social and symbolic foundations of the place (ibid.).

Purpose-driven KPIs, according to participants

From a participant perspective, the purpose-driven KPI (e.g. for care and preservation of heritage), allow participants to learn from past mistakes, understand where we have gotten to as a society, and appreciate how we live now compared to past generations (Thinks, 2013). Also, holding collections and mounting displays as participants have stressed the importance of rotating collections to attract

more visitors whilst keeping high-profile artefacts on display permanently and that displays were as interactive and user-friendly as possible (ibid.). One of the purpose-driven KPIs regarding cultural heritage organisations could be creating knowledge for/about society concerning public education rather than academic or elite research - museums are about education for everyone in the society equally (ibid).

4. Conclusions

The RECHARGE team is at the end of the first year, having developed a theoretical framework to inform the Living Labs, as chosen ideal methodology to engage in participatory practices. We also identified the main elements that enable a participatory business model co-creation process. Having a cooking metaphor seemed like the best approach to explain the set of iterative necessary processes, the 'recipe', and the variable elements that would be defined by each site, the 'ingredients'. This report is about defining these 'ingredients'.

Once we embarked in the operationalisation of the framework, we placed actors at the core, since these enable participatory processes and are the essence of our Living Labs, and before the end of the year we realised we were in fact enacting our phases, as project partners working together in co-creating a framework. The *Recipe* is clearly defined, with distinctly defined phases, and our Living Labs method is so far a match from heaven. The *Ingredients* are not as universal, they are meant to vary based on the *cook*. Can we devise a set of ingredients CHIs can choose from, useful for any cook? That is the wish ! This is the focus of our work in the coming year.

This report includes the first iteration of the application of our co-creation phases as our team embarks on creating a meal. The results are partial since the model requires iteration, this is the first 'round'. We expect to improve our list of ingredients with the input from the sector and the ongoing work of the Living Labs. As we deliver our report, we reflect on our current learning and calibrate on what we miss to advance in the desired next step forward.

We share our process and are open to your comments.

Bibliography

Amin, A. (2002). Ethnicity and the multicultural city: Living with diversity. Environment and Planning A 34, 959–980.

Baden-Fuller, C., & Morgan, M. S. (2010). Business models as models. Long Range Planning, 43(2–3), 156–171. https://doi.org/10.1016/j.lrp.2010.02.005.

Baran, G., & Berkowicz, A. (2020). Sustainability living labs as a methodological approach to research on the cultural drivers of sustainable development. Sustainability (Switzerland), 12(12). https://doi.org/10.3390/SU12124835.

Benghozi, P.-J. (2020). Business models. In T. and Navarrete (Ed.), Handbook of Cultural Economics (Thirsd edi, pp. 82–95). Edward Elgar.

Bergvall-kåreborn, B., Box, P. O., & Box, P. O. (n.d.). A Milieu for Innovation – Defining Living Labs Carina Ihlström Eriksson Anna Ståhlbröst Jesper Svensson.

Boland, A., Cherry, M. G., & Dickson, R. (2017). Doing a Systematic Review. A student's guide (second; A. Boland, M. G. Cherry, & R. Dickson, Eds.). London, UK: Sage.

Bollo, A. (2013). Measuring Museum Impacts. 3. The Learning Museum Network Project.

Bonacchi, Chiara & Bevan, Andrew & Keinan-Schoonbaert, Adi & Pett, Daniel & Jennifer, Wexler. (2019). Participation in Heritage Crowdsourcing. Museum Management and Curatorship. 10.1080/09647775.2018.1559080.

Bonney, R.; Ballard, H.; Jordan, R.; McCallie, E.; Phillips, T.; Shirk, J.; Wilderman, C. C., Public Participation in Scientific Research: Defining the Field and Assessing Its Potential for Informal Science Education. A CAISE Inquiry Group Report, https://eric.ed.gov/?id=ED519688.

Bovaird, T. (2007). Beyond Engagement and Participation: User and Community Coproduction of Public Services. Public Administration Review 67 (5): 846–60. https://doi.org/10.1111/j.1540-6210.2007.00773.x.

Bovaird, T. and Loeffler, E. (2012). From engagement to co-production: the contribution of users and communities to outcomes and public value. Voluntas, 23 (4), p. 1119-1138. https://doi.org/10.1007/s11266-012-9309-6.

Bovaird, T. and Loeffler, E. (2013): We´re all in this together: harnessing user and community co-production of public outcomes. 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. and Honingh, M.. (2018). Definitions of Co-Production and Co-Creation. In Co-Production and Co-Creation, 9–17. Routledge. https://doi.org/10.4324/9781315204956-2.

Brinkerhoff, Derick & Brinkerhoff, Jennifer. (2011). Public-private partnerships: Perspectives on purposes, publicness, and good governance. Public Administration and Development. 31. 2 - 14. 10.1002/pad.584.

Butterfoss, F. D. (2006). Process evaluation for community participation. Annual review of public health, 27(1), 323–340.

Buur, J., Ankenbrand, B., & Mitchell, R. (2013). Participatory business modelling. CoDesign, 9(1), 55–71. https://doi.org/10.1080/15710882.2012.760609.

Cabrita, P., Pereira, R., & Omar, M. N. (2021). Business Model of Non-Governmental Organizations for the Development of the Education Sector in Mozambique: a Constructivist Approach. Janus.Net, 12(2), 137–159. https://doi.org/10.26619/1647-7251.12.2.9.

Camarinha-Matos, L.M., & Afsarmanesh, H. (2012). Taxonomy of collaborative networks forms: FInES Task Force on Collaborative Networks and SOCOLNET - Society of Collaborative Networks. In Roots and Wings European Commission.

Campagna, D. (2022). Participatory Governance and Cultural Development: A Framework of Causal Mechanisms. In: Participatory Governance and Cultural Development. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-81648-3_2.

Cerreta, M., Elefante, A., & La Rocca, L. (2020). A creative living lab for the adaptive reuse of the morticelli church: The ssmoll project. Sustainability (Switzerland), 12(24), 1–20. https://doi.org/10.3390/su122410561.

Chesbrough, H. W. (2003). Open Innovation. The New Imperative For Creating and Profiting from Technology. Boston, Massachusetts: Harvard Business School Press.Falanga, R., & Nunes, M. C. (2021). Tackling urban disparities through participatory culture-led urban regeneration. Insights from Lisbon. Land Use Policy, 108(January). https://doi.org/10.1016/j.landusepol.2021.105478.

Chica Páez, Y., & Ruiz-Roqueñi, M. (2022). Trade union organizations as agents of collaborative change. The inclusiveparticipatory business model. In CIRIEC-Espana Revista de Economia Publica, Social y Cooperativa. https://doi.org/10.7203/CIRIEC-E.105.24224.

Council of Europe. (n.d.). S10 - facilitate and encourage (public and private) partnerships in Cultural Heritage Promotion and conservation projects - culture and cultural heritage - www.coe.int. Culture and Cultural Heritage. https://www.coe.int/en/web/culture-and-heritage/strategy-21-s10

Dümcke, C. (2015). New Business Models in the Cultural and Creative Sectors.

Durugbo, C.M. (2019). Collaborative networks: a systematic review and multi-level framework, International Journal of Production Research, 54:12, 3749-3776, DOI: 10.1080/00207543.2015.1122249.

Ellison, Jane. King's College London - The Art of Partnering, https://www.kcl.ac.uk/cultural/resources/reports/full-report.pdf.

Europeana. (2015) Report Task Force 'Connecting networks for collaborating and information sharing'. Available at: https://pro.europeana.eu/files/Europeana_Professional/Europeana_Network/europeana-

task-force-final-report-on-creating-local-europeana-networks-for-sharing-information-and-collaboration.pdf

Falk, J.H. Identity and the Museum Experience, Left Coast Press, Walnut Creek 2009

Fanzini, D., Venturini, G., Rotaru, I., Parrinello, C., & de Cocinis, A. (2020). Placemaking for the regeneration of the Costanzo Ciano neighbourhood in Piacenza. Techne, (19), 213–222. https://doi.org/10.13128/techne-7830

Florez Ayala, D. H., Alberton, A., & Ersoy, A. (2022). Urban Living Labs: Pathways of Sustainability Transitions towards Innovative City Systems from a Circular Economy Perspective. Sustainability (Switzerland), 14(16). https://doi.org/10.3390/su14169831

Følstad, A. (2008a). Living Labs for Innovation and Development of Information and Communication Technology: A Literature Review. The Electronic Journal for Virtual Organizations and Networks, 10(Special Issue on Living Labs), 99–131.

Følstad, A. (2008b). Towards a living lab for the development of online community services. EJOV: The Electronic Journal for Virtual Organization & Networks, 10(August), 47–58. Retrieved from http://ce12067.ce.ntu.edu.tw/course/TMU/TMU_02/101_01/other/student/eJOV10_SPILL4_Folstad_Towards a Living Lab for the Development_2.pdf.

Galloway, S., & Stanley, J. (2004). Thinking outside the box: galleries, museums and evaluation. museum and society, 2(2), 125-146.

Gassman, O., Frankenberger, K., & Choudury, M. (2020). The Business Model Navigator. The strategies behind the most successful companies (Second). Harlow, UK: Pearson Education Limited.

Geven, J. (2014) Best Practices on Inclusive Curating. Available at: https://framerframed.nl/wp-content/uploads/2014/04/Best-Practices-on-Inclusive-Curating-by-Julia-Geven-.pdf.

Greffe, X., Krebs, A., & Pflieger, S. (2017). The future of the museum in the twenty-first century: recent clues from France. Museum Management and Curatorship, 32(4), 319-334.

Gruenfeld, E. (2010). Thinking creatively is thinking critically. New Directions for Youth Development 125, 71-83.

Gudiksen, S., Poulsen, S. B., & Buur, J. (2014). Making business models. CoDesign, Vol. 10, pp. 15–30. https://doi.org/10.1080/15710882.2014.881885.

Hattke, F. and Kalucza, J. (2019). What influences the willingness of citizens to coproduce public services? Results from a vignette experiment. Journal of Behavioral Public Administration, 2(1). https://doi.org/10.30636/jbpa.21.60.

Head, Brian. (2007). Community Engagement: Participation on Whose Terms?. Australian Journal of Political Science. 42. 10.1080/10361140701513570.

Heinrich, A. J., Million, A., & Zimmermann, K. (2022). Spatial Knowledge and Urban Planning. Urban Planning, 7(3), 185–190. https://doi.org/10.17645/up.v7i3.6101.

Hossain, M., Leminen, S., & Westerlund, M. (2019). A systematic review of living lab literature. Journal of Cleaner Production, 213, 976–988. https://doi.org/10.1016/j.jclepro.2018.12.257.

Intille, S. S., Larson, K., Beaudin, J. S., Nawyn, J., Tapia, E. M., & Kaushik, P. (2005). A living laboratory for the design and evaluation of ubiquitous computing technologies. Conference on Human Factors in Computing Systems - Proceedings, 1941–1944. https://doi.org/10.1145/1056808.1057062.

King's College London. (2015). The Art of Partnering. Available at: https://www.kcl.ac.uk/cultural/resources/reports/full-report.pdf.

Kriss, R. (2020). What Is a Business Model? - NerdWallet. Nerdwallet, 1–8. Retrieved from https://www.nerdwallet.com/article/small-business/what-is-a-business-model.

Krithika, P. R., & Palit, D. (2013). Participatory Business Models for Off-Grid Electrification. In S. Bhattacharyya (Ed.), Green Energy and Technology. https://doi.org/10.1007/978-1-4471-4673-5_8.

Landoni, P., Dell'era, C., Frattini, F., Messeni Petruzzelli, A., Verganti, R., & Manelli, L. (2020). Business model innovation in cultural and creative industries: Insights from three leading mobile gaming firms. Technovation, 92–93(July 2019), 102084. https://doi.org/10.1016/j.technovation.2019.102084.

Lafontaine, D. (2013). Laboratoire vivant (Living Lab) une méthodologie reposant sur une approche ouverte, d'écosystèmes d'innovation centrés humains, citoyens, usagers. 21. Retrieved from https://www.scopus.com/inward/record.uri?eid=2-s2.0-85115030062&partnerID=40&md5=526647ae213799b32e43c4d479c13450.

Laminen, S., & Westerlund, M. (2016). A framework for understanding the different research avenues of living labs. International Journal Technology Marketing, 11(4), 399–420.

Larkin, J. and Burtenshaw, P. (2021). Museums and new business models. ICOM Voices, 31 March 2021, online article, https://icom.museum/en/news/museums-new-business-models/.

Legault, L. (2016). Intrinsic and Extrinsic Motivation. Encyclopedia of Personality and Individual Differences. Clarkson University, Potsdam, NY, USA.

Leminen, S. (2015). Q&A. What are Living Labs? 5(9), 29–35.

Lennon, B., Dunphy, N. P., & Sanvicente, E. (2019). Community acceptability and the energy transition: a citizens' perspective. Energy, Sustainability and Society, 9(1). https://doi.org/10.1186/s13705-019-0218-z.

Li, F. (2020). The digital transformation of business models in the creative industries: A holistic framework and emerging trends. Technovation, 92–93(January 2017), 102012. https://doi.org/10.1016/j.technovation.2017.12.004.

Loeffler, E. and Bovaird, T. (2016). User and Community Co-production of Public Services: What Does the Evidence Tell Us. International Journal of Public Administration, 39(13), p. 1006-1019. https://doi.org/10.1080/01900692.2016.1250559.

Lowndes, V. and Skelcher, C. (1998), The Dynamics of Multi-organizational Partnerships: an Analysis of Changing Modes of Governance. Public Administration, 76: 313-333. https://doi.org/10.1111/1467-9299.00103.

Lüdeke-Freund, F., Gold, S., & Bocken, N. M. P. (2019). A Review and Typology of Circular Economy Business Model Patterns. Journal of Industrial Ecology, 23(1), 36–61. https://doi.org/10.1111/jiec.12763.

Macdonald, Susan, and Caroline Cheong. (2014). The Role of Public-Private Partnerships and the Third Sector in Conserving Heritage Buildings, Sites, and Historic Urban Areas. Los Angeles, CA: Getty Conservation Institute. http://hdl.handle.net/10020/gci_pubs/public_private_partnerships.

Magretta, J. (2002). Why business models matter. Harvard Business Review, 80(5), 3–8.

Manuel-sinde, J. (n.d.). Keys for the success of the mondragon co-operative experience (GM): lessons for an inclusive- participatory business model. 1–4.

Marques, A. F., Borges, J. G., Sousa, P., & Pinho, A. M. (2011). An enterprise architecture approach to forest management support systems design: An application to pulpwood supply management in Portugal. European Journal of Forest Research, 130(6), 935–948. https://doi.org/10.1007/s10342-011-0482-8.

Martin-Rios, C., & Parga-Dans, E. (2016). The Early Bird Gets the Worm, But the Second Mouse Gets the Cheese: Non-Technological Innovation in Creative Industries. Creativity and Innovation Management, 25(1), 6–17. https://doi.org/10.1111/caim.12131.

Mayrand. (1985). 'The New Museology Proclaimed' Museum 32 (4): 200–201.Mccormick, K., & Hartmann, C. (2017). The Emerging Landscape of Urban Living Labs Characteristics , Practices and Examples. Retrieved from https://lup.lub.lu.se/search/ws/files/27224276/Urban_Living_Labs_Handbook.pdf.

MIT Media Lab. (n.d.). City Science. Looking beyond smart cities. Retrieved from https://www.media.mit.edu/groups/city-science/overview/.

Mulder, I., Velthausz, D., & Kriens, M. (2008). The Living Labs Harmonization Cube : Communicating Living Lab's Essentials. EJOV Executive – The Electronic Journal for Virtual Organizations and Networks, 10(Special Issue on Living Labs), 1–14.

Nair, P. B. (2022). EMBRACING HYBRIDITY : A BUSINESS MODEL. 23(3), 1600–1617.

NEMO. (2022). Report Museums in the climate crisis. https://www.ne-mo.org/fileadmin/Dateien/public/Publications/NEMO_Report_Museums_in_the_climate_crisis_11.2022.pdf.

Newig, J., Adzersen, A., Challies, E., Fritsch, O., & Jager, N. (2013). Comparative analysis of public environmental decision-making processes. A variable-based analytical scheme. Retrieved May 05 2023, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2245518.

Osborne, Stephen & Radnor, Zoe & Kinder, Tony & Martínez, Isabel. (2015). The SERVICE Framework: A Public-service-dominant Approach to Sustainable Public Services. British Journal of Management. 26. 10.1111/1467-8551.12094.

Osterwalder, A., & Pigneur, Y. (2010). Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. Hoboken, New Jersey: John Wiley and Sons.

Perjo, Lisa (ND) Public-Private-People partnerships. A New concept to bring public and private actors and citizens together. Nordregion Magazine. Issues People and Cities. https://nordregio.org/nordregio-magazine/issues/people-and-cities/public-private-people-partnerships-a-new-concept-to-bring-public-and-private-actors-and-citizens-together/

Pestoff, V. (2012). Co-Production and Third Sector Social Services in Europe: Some Concepts and Evidence. VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations 23 (4): 1102–18. https://doi.org/10.1007/s11266-012-9308-7.

Pestoff, V. (2014). Collective Action and the Sustainability of Co-Production. Public Management Review 16 (3): 383–401. https://doi.org/10.1080/14719037.2013.841460.

Pettersen, L., & Krumsvik, A. H. (2021). Rocking the Boat: Proposing a Participatory Business Model for News. The Journal of Media Innovations, 7(1), 63–78. https://doi.org/10.5617/jomi.6561.

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., … Duffy, S. (2006). Guidance on the Conduct of Narrative Synthesis in Systematic Reviews. Archives of Dermatology. https://doi.org/10.1001/archderm.1985.01660090059014.

Prokůpek, M., Loots, E. & Betzler, D. (2022). Emergency or emerging financing strategies of art museums in the context of a pandemic? Museum Management and Curatorship, DOI: 10.1080/09647775.2022.2111327.

Quinonez Zuniga, C., & Laverde Urrea, L. E. (2019). Construction of business models in rural organizations. Telos-Revista Interdisciplinaria En Ciencias Sociales, 21(3), 776–794.

Ridge, M., Blickhan, S., Ferriter, M., Mast, A., Brumfield, B., Wilkins, B., … Prytz, Y. B. (2021). 1. Introduction and Colophon. In The Collective Wisdom Handbook: Perspectives on Crowdsourcing in Cultural Heritage - community review version (1st ed.). https://doi.org/10.21428/a5d7554f.1b80974b.

Rollin, P., Bamberg, S., Ketterl, C., & Weiland, S. (2021). Cracks in the wall of a car-oriented local mobility system – Results of an urban living lab. Journal of Environmental Psychology, 77(August), 101678. https://doi.org/10.1016/j.jenvp.2021.101678.

Ryan, R.M. and Deci E. L. (2000). Contemporary Educational Psychology 25, 54–67.

Sacco, P.J. (2016). Digital Humanities and the Future of Universities, slides 22-23, https://www.slideshare.net/stunome/culture-paradigm-university-digital-humanities .

Sacco, P. (2011). Culture 3.0: A new perspective for the EU 2014-2020 structural funds programming, European Expert Network on Culture (EENC).

Sacco PL, Segre, G. (2009). Creativity, cultural investment and local development: A new theoretical framework for endogenous growth, in Fratesi U & Senn L (Eds), Growth and innovation of competitive regions. The role of internal and external connections, Springer, Berlin, 281-294.

Scaillerez, A., & Tremblay, A.-G. (2017). Coworking, Fab Labs and Living Labs: State of Knowledge on Third Places. Territ. Mouv., 34. Retrieved from https://doi.org/10.4000/tem.4200.

Schuurman, D., Mahr, D., De Marez, L., & Ballon, P. (2015). A fourfold typology of living labs: An empirical investigation amongst the ENoLL community. 2013 International Conference on Engineering, Technology and Innovation, ICE 2013 and IEEE International Technology Management Conference, ITMC 2013, (February 2015). https://doi.org/10.1109/ITMC.2013.7352697.

Simon, Nina. (2010) *The Participatory Museum*. Santa Cruz: Museum 2.0.

Sinde, J.M. (2019). Keys to the success of the Mondragon (GM) cooperative experience: lessons for an inclusive-participatory business model. 1-4.

Ståhlbröst, A. (2012). A set of key principles to assess the impact of Living Labs. Int. Ernational Journal Product Development, 17, 60–75.

Steen, T. (2021). Citizens' Motivations for Co-production: Willingness, Ability and Opportunity at Play. In Loeffler, E. and Bovaird, T. (ed.), The Palgrave Handbook of Co-Production of Public Services and Outcomes, p. 507-525. Palgrave, Switzerland.

Suteu, I., & Perondi, E. (2016). BM4NP: business model canvas for non-profit. Increasing the participatory aspect of the business modeling activity. Proceedings of the 20th DMI Conference ..., (July). Retrieved from https://www.academia.edu/download/47738521/_356_camera_ready.pdf.

Teece, D. J. (2010). Business models, business strategy and innovation. Long range planning, 43(2-3), 172-194.

Thinks, B. (2013). Public perceptions of–and attitudes to the purposes of museums in society. London: Museums Association, 50.

Tyl, B., & Allais, R. (2021). A design study into multi-level living labs for reuse and repair activities in France. Journal of Cleaner Production, 321(May 2020), 129032. https://doi.org/10.1016/j.jclepro.2021.129032.

Umar, A., Sasongko, A. H., Widyastuti, I. T., & Christanti, Y. (2020). Improving the social enterprise-based business performance from the aspect of social business model canvas. International Journal of Entrepreneurship, 24(1), 1–13.

UNECE (United Nations economic Commission for Europe) (2016) Promoting People first Public-private partnerships (PPs) for the UN SDGs. Issue Brief Series. Inter-Agency Task force on financing for development. https://www-un-org.eur.idm.oclc.org/esa/ffd/wp-content/uploads/2016/01/Promoting-People-first-Public-Private-Partnerships-PPPs-for-the-UN-SDGs_UNECE_IATF-Issue-Brief.pdf.

Vergo, P. (Ed.) (1989). The New Museology, London, Routledge.

Voytenko, Y., Mccormick, K., Evans, J., & Schliwa, G. (2016). Urban living labs for sustainability and low carbon cities in Europe : towards a research agenda. Journal of Cleaner Production, 123, 45–54. https://doi.org/10.1016/j.jclepro.2015.08.053.

Wendt, S., Bastian, C., & Jones, M. (2021). Building collaboration with child protection and domestic and family violence sectors: Trialling a living lab approach. British Journal of Social Work, 51(2), 692–711. https://doi.org/10.1093/bjsw/bcaa206.

Zott, C., Amit, R., & Massa, L. (2011). The business model: Recent developments and future research. Journal of Management, 37(4), 1019–1042. https://doi.org/10.1177/0149206311406265.