Final policy report

Smart CulTour

Smart Cultural Tourism as a Driver of Sustainable Development of European Regions

Deliverable

D1.4

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Abstract

Deliverable D1.4 of the SmartCulTour Horizon 2020 project (grant agreement number 870708)[1] provides an overview of policy recommendations that originate from WP6 and WP7 of the SmartCulTour project, which related to the establishment of, and experimentation in, six local living labs, and the associated participatory tools and methods which were identified, developed, tested, and organized in the SmartCulTour Toolkit.

Living labs (LLs) and participatory methods are closely related in that LLs form a relatively novel approach towards integration of the Quadruple Helix in planning and development. LLs are then mostly operationalized via workshop events, at which a variety of participatory tools and methods can be adopted to improve stakeholder collaboration and co-creation. In this policy report, attention will be paid to the characteristics of LLs and their strengths and weaknesses as identified throughout the SmartCulTour project. Furthermore, while the use of toolkit approaches is in itself relatively obvious, the report will summarize the diversity of tools that were developed under the SmartCulTour project, as well as their link with various stages of local ideation processes in order to propose some best practices in this regard.

At the end of the report, a number of policy recommendations are given on the topics of LLs as innovation network and participatory methodologies in general, specifically:

- The need to clearly define the LL characteristics and ambitions at the start of the project in order to provide realistic expectations and thus prevent expectation disconfirmation at the end of the project;
- The need to develop action plans for difussion of results in order to allow for local integration, transferability, and scalability of innovative findings within the LL setup;
- The requirement of proper governance frameworks and legal clarity on ownership of lab results, to prevent power imbalances from potentially limiting user-involvement, and for private enterprises to avoid participation due to intellectual property issues;
- Integrating participatory methodologies at all levels of policy-making in order to allow for ownership of new strategies and visions;
- Adapting participation methods to local contexts, which might sound counterintuitive to the previous point but relates to the need of finding a balanced approach to participation depending on local needs in order to ensure efficient and also innovative outcome opportunities;
- Establishing common frameworks for evaluation and impact assessment of participatory approaches in order to move beyond the purely moral view and ensure that proper strategies are adopted to reach the expected social impacts.

[1] Which is aimed at supporting regional development in all European regions with important tangible and intangible cultural assets, including those located in rural peripheries and the urban fringe, through sustainable cultural tourism.

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01 Introduction

1.1. Sustainability, community-based approach and tourism

The development and ubiquity of the sustainability-concept in tourism, and the wider society in general, has already been highlighted in previous reports and it was mentioned how academic interest in sustainability and impacts within tourism literature even predates the seminal 'Our Common Future' report of the Brundtland Commission (World Commission on Environment and Development, 1987). Due to the complicated, multidimensional and partly qualitative nature of sustainability, there has, however, not been a single best approach towards conceptualization. As discussed by Neuts (2016), within the literature three general views on sustainable development can be recognized, each leading to different practical operationalizations:

- Weak sustainability/non-conservationism: An activity-oriented approach where economic growth is framed within existing production capitals and where substitution between capitals can be allowed for, provided that the total sum of capitals is positive. In such views, protection of natural (or cultural) resources is not always necessary if it means that their exploitation could be more than compensated through other productive resources.
- Strong sustainability/conservationism: A resource-based approach where conservation of every individual type of production capital is a prerequisite for sustainable development. In this case, no substitution between capitals is accepted and economic growth cannot be pursued if it would mean that natural, cultural, social or any other type of productive resources become eroded.
- Norm-based sustainability: A community-based view on sustainability whereby societal norms dictate what could be acceptable. Norms and democratic rules then decide on how far capitals substitution is possible and up to which level negative impacts might be accepted in return for economic growth and/or welfare generation. This point of view is encapsulated in the Limits of Acceptable Change theories (see e.g. McCool, 1994).

Each of these conceptualizations has different strengths and weaknesses and could be more (or less) appropriate under certain conditions. A weak sustainability approach provides less protection to vulnerable resources but is more likely to support stronger economic growth. Conversely, a strong sustainability approach will be necessary in cases where vulnerable ecosystems or local cultures run a risk of being irreversibly damaged. However, within a tourism context, impactless tourism can be considered a unicorn and even modest development that can support a local economy will have impacts on the natural and socio-cultural environment. Therefore, a conservationist approach might become too rigid and will diminish the potential for economic development. In many cases, a norm-based, community approach to sustainability could be viewed as most realistic and most in line with democratic thinking. Rather than enforcing a fixed resource state, it is accepted that certain substitutions need to be accommodated for in order to balance various stakeholder needs and interests.

While norm-based sustainability approaches are prevalent in law-making through parliamentary processes, they only incorporate community views in an indirect and suboptimal level. As suggested by Arnstein's

participation ladder, shown in Figure 1, such processes are at best responsive, but lack the cooperative approach to be active. Increasingly, local governments and projects have experimented with integrating community participation in a more direct fashion.

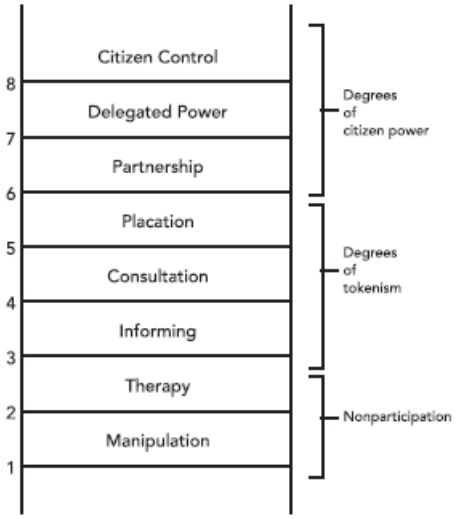

Fig 1. Ladder of Citizen Participation (Arnstein, 2019, p.26)

Tourism-related project provide particularly interesting examples, given that a relevant part of international tourism consumes shared resources with local populations (or where the local population is itself part of the tourist experience and local attractiveness). So it is logical that local communities are increasingly given a voice in the planning and development process through a variety of approaches. For instance, after purchasing the St.-Godelina's Abbey in Bruges, Visit Flanders invited local community members to ideate new potential functions for the site, leading to almost 5,000 visions for future development[2]. Resident surveys, which are increasingly structurally adopted across tourism destinations, are another example where local perceptions and priorities are collected in standardized fashion and provide information for tourism-related policies. In both cases, though, final decision-making – and financing – remains limited to the level of government, thus not leading to a true transfer of authority. This should not be surprising considering that power delegation and more active partnerships are complex and that the loss of control by policy makers could be problematic when they are ultimately to be held accountable for the success of the final project.

Examples such as Migrantour, as described in SmartCulTour D3.2 (Moretti & Klijs, 2021) are further near the top of the participation ladder since the visitor experiences are created and offered – and contribute to – the local communities themselves. Importantly, different situations might require different approaches to participation and community integration and co-design and transfer of authority might not always be an ideal solution. Depending on local and political context, as well as the stages of development, different approaches to both participation and participatory methods are therefore warranted.

[2] https://toerismevlaanderen.be/nl/nieuws/toekomst-Sint-Godelieveabdij-krijgt-vorm

1.2. Scope and objectives of the policy report

In this final policy report of the SmartCulTour project, we focus on results and experiences from WP6 and WP7, in which living labs (LLs) were established as participatory, co-creative spaces and in which tools and methods were developed to guide these participatory processes through different stages of ideation and development. As one of the main project outputs, the SmartCulTour Toolkit had the goal to provide local communities and policy makers with information and tools to start a collaborative process and integrate local stakeholders.

Without aiming to repeat the outputs of D6.5 and D7.3 in particular, this report focuses on LL methodologies and the experiences gathered from running six labs during the lifetime of the SmartCulTour project. The tools from the toolkit are also critically assessed in terms of their capabilities for improving participation across stakeholders in an inclusive, low-threshold manner. The objectives of this deliverable can then be summarized as:

- Establish the potential of LLs as innovation tools within the EU research and innovation programme on cultural tourism, particularly focusing on the relevant contextual factors that could strengthen or limit their effects;
- Identifying the potential of various methodological tools in providing inclusive stakeholder engagement throughout the different phases of destination development, from discovery and definition, to development and delivery;
- Providing policy recommendations in relation to future work programmes.

02 Supporting co-creation in tourism development

2.1. The rise of participation networks in tourism development

The recognition of a need for participation within tourism development strategies has evolved with a changing societal and technological landscape – while also not being a strictly linear and homogeneous evolution across regions. The earlier years of commercial tourism in the 1950s followed largely traditional production models, exemplified by linear production functions which are typified in the sun, sand and sea destinations. Vacations were constructed as packaged experiences at summer and winter leisure resorts and seen as bringing predominantly economic benefits such as job creation, increased income, and foreign exchange earnings to the local destination. This stage of mass tourism was characterized by product standardization, branding and homogeneous company structures (Sezgin & Yolal, 2012). In these earlier stages of tourism development, decision-making was typically centralized, with tourism authorities driving planning and development processes.

In the early 1990s, partly inspired by the scientific literature focusing on the possible adverse cultural and environmental impacts of tourism, community-based tourism (CBT) started to gain traction, following the notion that tourism could only be viable and sustainable in the long run if destination communities benefit. Pearce (1992) mentioned how consensus-based decision-making and local control could help to ensure equal benefits, juxtaposing these alternative development models with mainstream tourism, the latter which would still place the tourist central. While CBT found a logical link with ecotourism, its relevance for cultural tourism was similarly clear, potentially causing less negative effects and disruption of local cultures due to its basis in community consensus rather than central, top-down planning. Furthermore, CBT holds the potential of enhancing the opportunity for spontaneous encounters between communities and tourists, thereby aligning it with contemporary tourism motives (Salazar, 2012).

While CBT has developed as an alternative, sometimes niche, form of tourism where the priority lies in empowering and benefitting the local communities, the late 20th century also saw a more mainstream emergence of participatory destination management and tourism planning. While similarly aiming to involve local communities, recognizing the complex and interconnected nature of the tourism industry, participatory destination management further involves other relevant actors such as government authorities, tourism businesses, NGOs, and others in destination planning, marketing and development (Trunfio & Della Lucia, 2019). Through its more expansive inclusion of stakeholders, these participatory tourism planning approaches answer at least two of the criticisms levied at CBT, namely that CBT (i) neglects external constraints by governments, enterprises, and other parties on the opportunity for local control, and (ii) tends to treat the community as singular, without accounting for local heterogeneity of interests (Blackstock, 2005). While a more mainstream inclusion of multi-stakeholder networks in tourism planning was further supported by the progress in ICT, providing new opportunities for stakeholder to connect, share information, and engage in participatory processes (see e.g. Trunfio & Della Lucia, 2018), a

critical issue remained: not all parties have equal opportunities to participate in, and weigh on, highly politicized planning processes. As mentioned by Jamal and Getz (1995), power imbalances often prevent successful collaboration.

In the last decade, the R&D-based concept of open innovation has further inspired new approaches to participative stakeholder networks. From a R&D perspective, an increased interest in LLs – as one of the potential approaches towards open innovation – to support co-development with users has been driven from the idea that such end results could better solve customers' needs and wants (Leminen et al., 2012). Its conceptualization as an open innovation R&D intermediary was strongly supported by the European Commission. As discussed by Dutilleul et al. (2010), in 2006 the European Commission instigated projects with the specific aim to advance a European innovation space based on LL environments that would combine users, firms, and other stakeholders into a co-creative process. Such ideas have later expanded towards real-life environments and the public sector, setting up collaborative environments that involve users, businesses, researchers, and other stakeholders within certain regions, covering particular policy fields or local systems (Huizingh, 2011). Sørensen and Torfing (2011) discuss how open innovation systems have become increasingly popular in public administration due to public tasks becoming increasingly complex and tangled (often as so-called 'wicked' problems) that are too difficult to solve by a single organization and require a multi-stakeholder cooperative approach in order to tackle the multiple layers of complexity.

The defining difference between LL approaches versus traditional participatory destination management is the unique focus on innovation, co-creation and testing of innovative tourism solutions. Within these labs, participatory methods, real-life experimentation and feedback loops are seen as key to drive tourism development through innovative approaches. Leminen et al. (2012) further note how open innovation networks are fundamentally built on voluntary contributions, while ensuring equality in relevance within the network. While this might seem to solve issues of power imbalance mentioned before in more traditional stakeholder networks, there are significant operational differences depending on the lab's underlying purposes, organization and composition, thus still potentially resulting in the dominance of a particular stakeholder vision.

2.2. Living labs as innovation networks

2.2.1. Types of living labs

Westerlund and Leminen (2011) define LLs in terms of the 4Ps: Public-Private-People Partnerships, taking place in physical or virtual realities. A heterogeneity of actors, including firms, public agencies, universities, institutes, and users collaborate in the entirety of the innovation process, from ideation and creation to prototyping, validating, and testing. Schaffers and Turkama (2012) and Almirall et al. (2012) further highlight the real-life context in which LLs operate as a defining quality, as well as the (supposed) equality between LL members, and the specific tools and methodologies being used to support innovation and community-building.

From this description it seems clear that the methodology aligns well with the double-diamond design process (see chapter 3) and its four phases of discovery, definition, development, and delivery. However, even though LLs have some shared underlying characteristics, they are not uniform in their conceptualization and can be organized in a variety of ways and with a pluraty of end goals in mind. It is important to note these differences when introducing LLs as a methodology within tourism-focused

development projects. Leminen et al. (2012) provide a good, concise overview of LL types, as summarized in Table 1.

Table 1. Types of living labs

Characteristic	Type of living labs			
	Utilizer-driven	**Enabler-driven**	**Provider-driven**	**User-driven**
Purpose	Strategic R&D activity	Strategy development	Operations development	Problem solving
Organization	Network forms around utilizer	Network forms around region or funded project	Network forms around provider organization(s)	Network initiated by users, without formal coordination mechanisms
Action	Utilizer guides information collection and promotes knowledge creation to support preset goals	Information collected and used together and knowledge co-created	Information collected for immediate or postponed use, knowledge is based on information that provider receives from others	Information not collected formally and guided by user interests, knowledge utilized in network to help user community
Outcomes	New knowledge for commercial development	Guided strategy change	New knowledge supporting operations development	Solutions to users' everyday-life problems
Lifespan	Short	Short/medium/long	Short/medium/long	Long

Source: Leminen et al. (2021, p.8)

A core characteristic of LLs is the core actor driving its activities, differentiating between utilizer-driven, enabler-driven, provider-driven en user-driven. Utilizer-driven LLs are commercial in nature, with a main goal to develop and test a firm's products and serivces. The procedure is mostly top-down and knowledge and information is centralized and guided by preset goals. The values of these actions are largely internalized by the acting firm. Clearly this type of LL is of less relevance to the more public field of cultural tourism development and fits a more traditional private R&D approach (Leminen et al., 2021).

Enabler-driven labs are more commonly found within public policy fields, as well as academic research environments. In such networks, the main initiators are often public sector actors, non-government organizations, towns and municipalities, or local development organizations. Rather than commercial gains, the objective of such labs is often to pursue social emprovements on a regional level. Knowledge and information are co-created and shared across the network to support a broadly supported strategic direction where the goals could include regional development and/or activating collaboration within the region (i.e. with stakeholder networks being a key outcome in itself). One noted limitation is the low level of business participation in such labs, whereby companies often fail to see the direct value of the LL targets (Leminen et al., 2021).

As a third group, provider-driven labs are characterized by their focus on knowledge-creation and theory development. As such, primary instigators are often educational institutions and research centres and the LL is used for educational purposes or for pursuing new societally relevant knowledge with the process itself being part of the outcome. Within provider-driven labs, generated knowledge is shared across the network, and the lab's actions hope to provide benefits to all participants, for instance in the form of new

research outputs, market knowledge, business solutions, improved development strategies, etc. However, as noted by Leminen et al. (2021), it is often challenging to attract broad stakeholders (businesses, local residents) to participate due to the somewhat intangible and often long-term nature of its effects.

A final group, user-driven labs, is theoretically closer alligned to ideas of citizen control and local empowerment, being established by a user community and focusing on social problems within the group. The goal is to create value for the user community, with business interests and higher-level societal values only potentially benefiting indirectly. Due to the absence of a clear primary actor, these networks are usually much more informally organized. Potentially partly due to this lack of clear and formal structure – and also a lack of financial backing – such bottom-up labs are still quite uncommon (Leminen et al., 2021).

While the typologization of LLs provides a good introduction to the various approaches and situations in which such methods can be adopted, it does need to be highlighted that the overview provided in Table 1 is slightly generalizing and is also not static. For instance, a LL might start as a provider-driven action, set up by a university to generate theoretical knowledge with location-specific consequences, while at the end of the research project, the LL might be reformalized as an enabler-driven action, in which a policy stakeholder takes over the primary initiative in order to translate the new knowledge base into policy strategies and actions. Such potential changes are also relevent when thinking about afterlife strategies for LLs that are specifically set up within a funded project.

2.2.2. Potential to contribute to open innovation

Open innovation promotes the idea that innovation is not an individual, secretive task, but that, particularly in today's information age, openness and inclusion of stakeholders and end-users can benefit the R&D process. While being somewhat counterintuitive to the idea of intellectual property, open innovation can help to reduce R&D costs, provide a better fit-to-market, create syerngies between internal and external innovations, and complement new business models. LLs enable and benefit such open innovation systems in a number of ways:

- Supporting collaboration and co-creation: As noted by Hagy et al. (2016), LLs are co-creative by design and attempt to create participant equality towards solving largely societal issues. By bringing together transdisciplinary knowledge resources, the LL and its outcomes might have more social meaning and experience larger support, particularly by including local citizens in the co-creative process and ensuring that the innovations are user-centric in design. The outcomes of the activities might then be less likely to fail on the market due to lack of local, organizational or political support. As an example, the DMO of Flanders, Visit Flanders, included the ideas and expectations of 1,800 visitors ot the castle of Leut as part of a study towards the redevelopment of the site, thereby ensuring that the final future business proposals are relevant for local inhabitants and visitors.[3]
- Accessing diverse expertise: While not unique to LLs, the underlying principle is grounded in multi-stakeholder cooperation and bringing together a diverse range of stakeholders, from researchers, to industry experts, entrepreneurs, policy makers, and users, allowing for multiple perspectives to be taken into account and for collective intelligence to potentially lead to new insights, and unexpected collaborations in local networks.

[3] https://toerismevlaanderen.be/nl/thema/erfgoed/kasteel-van-leut

- Experimentation and validation: A clear advantage of LLs is their prospective real-life implementation, taking innovation out of sterile laboratories and allowing organic feedback loops as part of the process. Field tests can validate assumptions and combine new insights into the behaviour and attitudes of end-users into the innovation, thus iteratively tailoring goods and services. At the same time, validation is sometimes assumed a given due to the co-creative aspects of LLs and the inclusion of end-users as innovators. This can be problematic, since end-user participation does not necessarily guarantee scalability to a wider market. Therefore, Coorevits et al. (2018) discuss the need for a field testing framework, whereby they distinguish early phase testing (concept, and mock-up) with late phase testing (pilot and go2market).
- Potential for scalability and diffusion: Through the platform offered for experimentation and validation, the LL setting also allows for stepwise scaling up of solutions by identifying key bottlenecks throughout the testing periods, and thereby optimizing the implementation process. This can further be enhanced by the opportunity for public-private partnerships.
- Sustainability and social impact: While not a direct effect of LLs, particularly in enabler-driven, provider-driven and user-driven networks, the end goal of a lab is often a positive social impact and/or a sustainable development solution. In this sense it can provide similar outcomes to community-based tourism, where innovations are tailored to local needs, rather than commercial needs.
- Creation of local networks: Leminen et al. (2012) note how one of the main characteristics in open innovation networks is that the process is more relevant than the end result, with the collaborations and networking during the LL timespan being more important than the starting objective. Due to the interactive and open nature, the originally anticipated outcome can take a different shape and form during the collaborative process. This openness can be considered a strength of the approach since it alligns with a co-creative vision of citizen – and full stakeholder – participation, with participants feeling that they have a true role in changing the outcome of the project. On the other hand, certainly from a business, but also a policy perspective, this could also be considered a weakness since the ultimate responsibility for the lab's outcomes – as well as the potential financial costs and benefits – might be borne by the primary actor.

2.2.3. Main challenges

While LLs can thus be interesting vehicles to support innovation across different fields, and integrating multiple stakeholders, there are naturally a number of challenges they face as well, particularly:

- Funding and sustainability: Securing long-term funding and ensuring sustainability of the LL can be challenging since they usually require ongoing financial resources for maintaining infrastructure, staff, and operations. In many cases, LLs are project-based, hindering the ability for a sustainable afterlife if local partners are not prepared or capable to continue operations. Niitamo et al. (2012), for instance, discuss the managerial challenges in finding the necessary capacities within SMEs to support sometimes extensive LL activities.
- Stakeholder engagement and collaboration: Engaging and involving diverse stakeholders can be challenging since the success of LLs relies on active participation across various groups: businesses, researchers, policy-makers, users, etc. Stakeholders might have conflicting interests, limited time

availability, or limited engagement. This is particularly true when the activities are considered high effort – low reward, which is more likely to be the case in LLs where the goal is policy making or knowledge generation, rather than a marketable product development.

- Free riding of participants: A potential further challenge somewhat related to the first two points is that the lab's potential to generate broadly shared, successful outcomes, can provide opportunities for free riding on other network partners' efforts. As was discussed in Table 1, this would be less of an issue in a utilizer-driven setup where one party clearly has a dominant position and will also internalize most of the benefits. But in all other LL setups, where potential benefits are usually more indirect and shared, it is very difficult to move from ideas and strategies to tangible actions due to a lack of (financial) initiative by network partners.
- Scaling and generalizability: Scalability can be both an opportunity and a challenge in LLs. In particular the generalization from a specific local context towards scaling up of successful small innovations and generalizing findings can be difficult. Contextual factors could impact the transferability of results towards other regions or communities.
- Regulatory and policy barriers: While not limited to innovation via LLs, existing regulatory frameworks might sometimes impede innovation ideas. Navigating regulations and guidelines requires proper knowledge of the legal situation which might not always be present within bottom-up creative processes. As an example, when conducting a study on tourism opportunities in rural Flanders during Covid-19 lockdowns via a citizen science project, some of the most popular proposals involved water recreation on the Flemish waterways, or pop-up camping in nature areas, both of which are strictly regulated and could not be practically adopted (Vanneste et al., 2022).
- Knowledge sharing and intellectual properties: LLs require open and free sharing of knowledge across participants. In a public setting this might be less of an issue, but when the network involves private business partners that might be in competitive environments, there is not always a necessary openness to share business data that could be relevant for the network as a whole.

2.3. Living labs in cultural tourism: the SmartCulTour experience

Due to the complex network of stakeholders in the tourism industry, representing a diverse range of suppliers (e.g. restaurants, bars, airlines, hotels, tourist shops, commercial attractions, cultural venues), visitors, residents, local and regional DMOs, etc. collaborations across the network are critical in order to support a successful and sustainable destination and further develop the industry with respect for the needs of commercial parties as well as the ecological and social thresholds and needs. As such, it provides an interesting environment for experimentation via LL open innovation networks. However, practical examples of successful tourism-centric LLs are scarce. Within the SmartCulTour project, six LLs were established as local innovation networks for cultural tourism development: The Rotterdam Metropolitan Region (the Netherlands), the Scheldeland Region (Belgium), Utsjoki (Finland), Huesca (Spain), City of Split Metropolitan area (Croatia), Vicenza (Italy). The details of the six labs, their goals, structure, processes, and outcomes have been detailed in the various deliverables of WP6, particularly D6.1 which outlined the individual Terms of Reference for each lab, and D6.5 which closed the evaluation stage of the labs. Here we take away the key learnings from the labs, adopting Alcotra's harmonization cube of good practice criteria, as also adopted by the European Network of Living Labs (Gascó, 2017), to discuss the unique characteristics and associated recommendations.

The core of Alcotra's cube are its six sides, corresponding to six key aspects of LLs: (i) user involvement, (ii) service creation, (iii) governance, (iv) innovation outcomes, (v) infrastructure, (vi) methods and tools. Transversally, three rows of the cube refer to the development phases: set up, sustainability, and scalability, and the three columns reflect the organization, technological, and contextual issues.

2.3.1. User involvement

User involvement is naturally core of LLs and in the evaluation we need to consider how well the heterogeneity of local destinations was represented across the labs. General guidelines were drafted in D6.6 of the project, as SmartCulTour Living Lab standard Terms of Reference, which were later translated to local contexts in the lab-specific Terms of Reference of D6.1. From the outset, relevant groups that were targeted for participation were academics, resident groups, the tourism industry, cultural and creative industries, local policy makers, local public authorities from the cultural sector, government in general, transport authorities, rural planners, and chambers of commerce. Given an indicative size of 12-15 members, the scope of participation was rather extensive when compared to the suggested size of the LL.

While different labs had somewhat unique circumstances, there were noticeable similarities:

- Policy makers and public administrations, both from the cultural, environmental, and tourism sphere were committed to participate;
- Researchers could be activated within the LL settings to contribute to knowledge generation;
- Representatives of cultural heritage attractions were motivated to participate, particularly the public and non-profit institutions;
- Private business, both larger organizations and local entrepreneurs had much lower participation rates, and when participating, also higher drop-out rates. Therefore the private tourism sector was significantly underrepresented throughout;
- Local residents were not central to the working of all LLs, but in case they were, there was a general interest to participate – albeit often via an older population. An important exception is to be made for Utsjoki where the indigenous peoples, who form a particularly relevant group, could not be motivated to participate.

These experiences are not uncommon when compared with LL experiments in other fields and particularly the lack of private business engagement could at least be partly linked with the typology of the SmartCulTour labs, which was first of all provider-driven and served as a local knowledge base, without clear, direct effects for the participants.

2.3.2. Service creation

Service creation deals with the process for idea generation and testing. In other words, here we evaluate the co-creation processes, from idea generation, to market strategies, and supporting technologies to enable cooperation (Gascó, 2017). Within the SmartCulTour labs, the idea generation process was strongly driven by design process crafting thinking, and based around the Double Diamond process model of the Design Council (2019): Discover, Define, Develop, Deliver. A separate work package with experts in arts-

based and service design developed and proposed a range of tools[4] to help guide innovative, bottom-up approaches (see chapter 3 and D7.3 of the SmartCulTour project for further details). Depending on the stage of the innovation process and the relevant local context, LL managers could make an appropriate selection of these tools. This allowed for a structured and guided approach, balancing comparability with contextual relevance and also ensuring that the project could collect cross-culture feedback on the toolbox and general LL process.

As a general observation, it could be noted that the tools worked well for ideation and equitable participation throughout the discovery and defining stages of the process. However, there was an important implementation gap between the development and actual delivery of interventions. This related to a lack of available project resources to finance ideas and develop actual tangible innovations.

2.3.3. Governance

Governance of the LLs was guided by the standard Terms of Reference, which provided a comparative template across the labs. All six SmartCulTour labs were set up as provider-driven labs, with one of the project partners taking on the role of instigating actor and lab manager. Within the labs, some variations in governance structure still existed. For instance, the LL of Scheldeland in Belgium established both a working group and an advisory board, whereby local policy makers were represented in the advisory board but not in the working group. As such, the advisory board decided on a more general objective for regional cultural tourism development, but the details on how to achieve the objectives were left to the discretion of the working group, which consisted of non-politicized local actors. Such distinction allowed for an ideation phase that was not inherently grounded in prior strategic plans and power imbalances. At the same time, however, it was important to recognize that any bottom-up ideation would ultimately need the support of the policy level as well, both in terms of longer-term support and in term of potential financial support.

As a general conclusion, by laying the responsibility of day-to-day LL management with project partners, it could be ensured that the processes remained on track with regard to higher level project objectives, while also providing the local partners with research and managerial support. At the same time, such approach might also have led to a lower level of agency among the participants.

2.3.4. Innovation outcomes

From an academic perspective, the experience of the LLs provided valuable inputs for the testing of participatory tools, and the identification of processes to integrate wider stakeholder networks in a co-creative approach. Also for the local LL members, the main outcomes are related to processes, rather than products. As indicated by the participants, a main value had been the establishment of local networks and potential new partnerships within the regions. These cooperative networks have a chance to further grow and strengthen a regional tourism experience. At the same time, though, the ideation has at most led to new local cultural tourism strategies and the identification of potential tangible interventions through intervention lists or final project plans. Without a dedicated funding source and/or clear responsibilities on future tasks, the gap between strategic ideas and real products remained large.

Practical operationalization would then require an afterlife strategy whereby the original provider-driven lab is succeeded by a more utilizer-driven lab, where actors have clear responsibilities as well as associated

[4] https://smartcultour.maglr.com/toolkit/smartcultour-toolkit

benefits linked to the innovation action. In some of the SmartCulTour labs, further activities are supported through an integration of the lab within new or existing local networks, who continue the work previously done. Although in these cases, it is then largely led by local policy makers in an enabler-driven environment which would, once again, help to support strategic thinking, but not necessarily actual development of new products or services.

2.3.5. Infrastructure

The SmartCulTour LLs required a physical meeting space. Since production facilities were not needed, this space did not need to be fixed, although one defined locations might help anchoring in the local environment. Within the various LLs of the project, different approaches were taken. For instance, in Huesca and Scheldeland, where the region included multiple municipalities, selecting one specific location might have led to a certain level of alienation of partners. Therefore, in these cases locations for meetings were chosen on revolving and flexible basis in order to remain inclusive across the various partners. Rotterdam, on the other hand, is a good example where the SmartCulTour LL was embedded in a single location: the Urban Leisure & Tourism Lab Rotterdam[5], associated with the Inholland University of Applied Sciences. This approach could help to ensure longevity of the project since there is a clear organizational actor present which anchors the lab and can include it in an academic curriculum.

In general, though, establishing LLs as innovation networks for cultural tourism projects requires little investment in infrastructure, lowering the implementation threshold. All that is needed is an accessible meeting space and relatively basic supporting material for workshop organization.

2.3.6. Methods and tools

The tools and methods that supported the different LL stages were an indelible part of the SmartCulTour project and were briefly introduced before under 2.3.2. In the next chapter these will receive further attention. Essentially, the labs used a design thinking methodology with predominantly analogue tools. Although some of the tools were similarly provided in digital format due to the fact that in the first year the LLs had to partly operate under Covid-19 lockdowns. Therefore some tools were translated to online co-working environments such as Miro[6] or Mural[7]. The SmartCulTour Game[8] could also be singled out as a particular case in which an analogue serious game was expanded by an online dashboard. The dashboard specifically served to give immediate feedback of tested interventions and was therefore strongly linked to the idea of incremental learning and testing via feedback loops, even though this happened in a fictional game setting.

Another digital tool that was adopted, particularly to support the descriptive analysis, was the SmartCulTour Platform[9], which was the main outcome of the SmartCulTour WP5. The platform was populated with data collected via official statistical resources, web scraping, other desk research activities, and resident surveys, and was designed as a flexible, modular decision-support system that would allow

[5] https://www.tourismlabrotterdam.nl/en/about-us/
[6] https://miro.com/index/
[7] https://www.mural.co/
[8] http://www.smartcultour.eu/smartcultour-game/
[9] http://www.smartcultour.eu/smartcultour-platform/

individual users to make relevant selections of visuals for themselves in order to better compare and contrast data without being overburdened with non-consequential information.

2.4. Key learnings and recommendations for living lab implementation

LLs can offer a fertile environment for locally supported tourism innovations, providing a method to tackle so-called 'wicked' problems – provided that the right combination of actors are engaged. The learnings from the SmartCulTour LLs, framed within the wider LL literature, leads to some final recommendations:

- Logically, the success of the LLs as a value-creating tool depends on inviting the right actors. This includes stakeholders who perform complementary roles, participate regularly and strive to advance the progress of the lab towards communal goals. An important aspect to ensure such engagement is to provide clarity from the start on objectives, activities, and expectations. If the lab is provider-driven, this needs to be clearly indicated in order for participants to understand what the direct and indirect benefits of engagement might be. Unfortunately, this can sometimes lead to a failure to attract business owners, due to the potential imbalance between time investment and bottom-line outcome. A potential, albeit imperfect solution, might be to engage in bilateral consultation with such key stakeholders at certain moments in the process when their inputs are of particular relevance.
- A recognized limitation for LLs dealing with tourism experiences is the difficulty of including the end-user, i.e. 'the tourist' in the LL. Due to the inherent characteristics of a tourist as being transitory to the destination, such stakeholders cannot be expected to continuously participate in LL meetings. As such, local and regional DMOs and other tourism experts need to play the indirect role of visitors.
- Particularly within the scope of cultural tourism, municipalities and policy makers are seen as crucial actors and critical success factors. This is both due to the fact that many cultural heritage resources are publicly owned and tourist experiences often take place in public space, as well as to the fact that regional development is contingent upon a political will to move forward with particular initiatives.
- In most cases, having a clearly identified LL manager for day-to-day management is seen as essential in order to maintain the complex ecosystem and manage the flow of information. They can provide structure, workflow, and tools and methods to engage with and support collaboration. Furthermore, these managers have a reflective function by contextualizing the process and providing feedback to the participants.
- Participatory tools and methods (such as the ones in the SmartCulTour Toolkit) can help to facilitate out-of-the-box thinking, create equality across participants, and avoid dominance of singular viewpoints. The right tools can help to break the status quo and force people to let go of preferred options, thinking about solving a problem that might be relevant for other community members instead. Here, the contribution of academic actors is particularly valuable since they bring in expertise and are seen as objective contributors.
- Value-creation should be seen more broadly than only tangible, hard investment projects, which are often not possible within the context of a LL. Instead, regions can benefit from additional

capacity-building activities which could have a longer term effect, as well as the creation of a functioning local network of engaged tourism actors. Still, for the full integration of the innovation cycle, additional resources might be needed to solve financial constraints and fully implement the interventions. Such resources could come from the public sector, private businesses, or third party funds (such as federal or EU subsidies), but require an additional strategy for fund collection. This can only be possible if participants take ownership of the outcome as well.

03 Tools and methods for stakeholder integration

3.1. Design thinking and the double diamond

Under chapter 2, the importance of inclusive and participatory tools and methods to support the LL process was already mentioned. Within open innovation systems, this can be linked to design process models that help the structuring of activities and stakeholder contributions to the design of new or improved products and services (Smit et al., 2021). Design process models are organised around a problem space and a solution space, which is visually captured in the Double Diamond model of the British Design Council (2019), as shown in its adapted form in Figure 2.

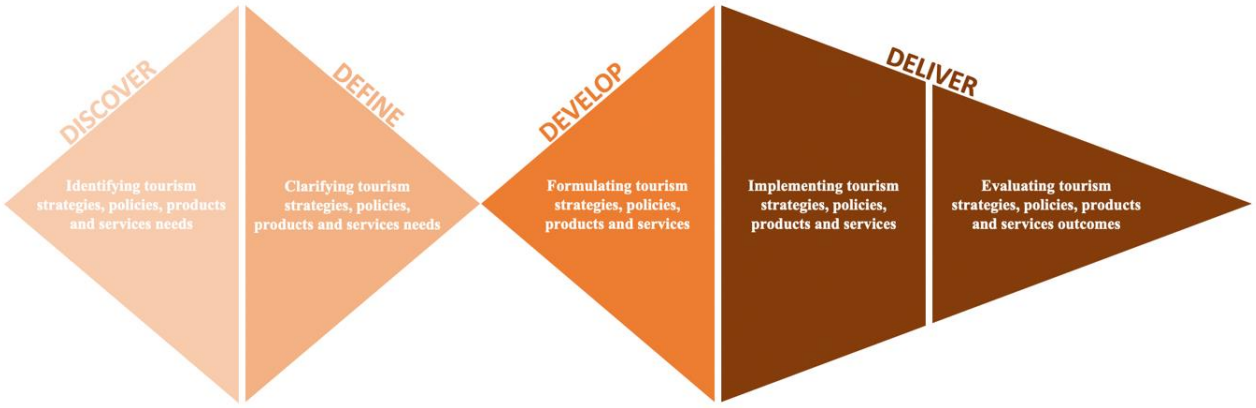

Fig. 2. The double-diamond model applied to SmartCulTour (adapted from Design Council, 2019)

The left diamond represents the problem space, in which activities are performed to understand the local situational contexts, stakeholder views and priorities, and existing strategies, policies, and products. The two phases included here, Discover and Define, are needed in order to generate a shared understanding of the objectives (whether it is associated with leveraging a potential opportunity or solving an existing problem). The right diamond then represents actions taken to solve the 'problem'. This solution space covers both development of ideas, strategies, policies, as well as prioritization, iterative implementation, and evaluation via feedback loops. Naturally, the stages are not necessarily linear and might involve feedback loops and revisions during the duration of a project (Design Council, 2019).

Design thinking and LLs might offer complementary approaches, as can be seen from Almirall et al.'s (2012) mapping of user-innovation methodologies. These authors notice a main difference in the driving force behind the innovative approach, whereby they see LLs as being 'user-driven', while design thinking is considered 'design-driven'. However, as also mentioned when considering the different typologies of LLs (see Table 1), not all labs are inherently user-driven. Maybe a better distinction lies in the scope and objectives of the methods, whereby design thinking is first of all related to products, services, and business models, while LLs are often scaled towards somewhat larger networks or territories. Adopting design

thinking within LLs then allows for structured and systematic design approaches to be adopted in order to support a logical stepwise process of co-creative destination development.

From the design thinking literature and practices, and based on the four process stages, various tools and methods can then be identified and tested in LL settings in order to support stakeholder engagement throughout every phase. Since not all tools and methods might be universally implementable, a toolkit approach offers a selection of different tools, each with their particular function in the process.

3.2. A toolkit for co-creation and stakeholder engagement

3.2.1. Key characteristics of proposed tools and methods

Toolkits have become popular project result deliverables as flexible outputs that provide guided methods for co-creation under a variety of formats, expected outcomes, and complexity of tools. A first key element is the recognition that different tools serve different purposes, thus often leading to a categorization which roughly follows the four stages of the Double Diamond. A slightly different categorization was proposed by the UNaLAB project[10] which proposes five stages:

- Need finding: Tools to discover user needs, goals and values;
- Ideation: Tools to inspire creative thinking and innovative solutions;
- Strategy: Tools to design action plans for long-term aims;
- Experimentation: Tools to test and validate the solutions;
- Feedback: Tools to evaluate the solutions and user reactions to the solutions and processes.

These five categories largely overlap with the four stages of the Double Diamond, with Need finding reflecting both the Discover and Define aspect of the model, Ideation and Strategy being closely related to the Develop stage, and Experimentation and Feedback linked to the Delivery.

Other useful aspects to include in the description of various tools are the necessary group size – since participatory tools are aimed at co-creative exercises in groups – time needed for the intervention, format of the activity, and complexity for the participants. This information will help lab managers to make informed decisions on the selection of tools and methods to facilitate the various workshops.

3.2.2. Overview of presented tools

In Tables 2 and 3 we present the tools that were developed and tested within the SmartCulTour project across two groups: tools for identifying the problem space (i.e. combining the Discovery and Define stage) and tools for supporting a solution space (i.e. combining the Development and Delivering stage). This is done because the assignment of tools to particular stages of the process can be somewhat arbitrary and it is possible to remodel or reframe them in order to use these tools for a variety of purposes. So while we attempt to characterize the tools according to their most useful application space, it needs to be kept in mind that these approaches are flexible.

[10] https://unalab.enoll.org/

Table 2. Tools for identifying the problem space

SmartCulTour Tool	Description	Outcome
Placemaking	An arts-based approach to create in-depth understanding of places, culture and natural/geographical values. Can be adopted in multiple ways, e.g. by asking participants to bring a picture or video of a place in their own neighbourhood on which they have imprinted and explain the personal significance.	Learn about different values, perceptions, memories, and traditions of landscape and culture.
Q-Sort methodology	A mixed methods approach to identify differences in priorities and worldviews among stakeholders by making participants ordinally sort a wide range of statements in terms of their agreement.	Sets of (shared or dissonant) worldviews to identify diversity in interests.
Stakeholder mapping	Stakeholder mapping can done in a variety of ways. One approach categorizes stakeholders along three layers: crucial, important, relevant. A stakeholder network map also adds information about relationships between stakeholders to highlight interdependences and vulnerabilities. As a participatory approach, it can help participants understand the complexity of local cultural tourism networks.	A stakeholder network map that visualizes the local cultural tourism ecosystem.
Persona development	Personas describe function-based needs, wishes and behaviours of representative groups of visitors in a narrative fashion. Personas can be created via a combination of available (survey) data and personal locational experience.	A limited (3 to 6) set of created personas, containing information on generalized visitor behaviour and needs, wishes and values.
Customer journey mapping	Provides a time-based flow of the visitor experience via a series of relevant touchpoints or activities. Ideally these touchpoints are accompanied by customer evaluations in order to identify bottlenecks and problem areas in the destination. Information can come from tacit or explicit knowledge of participants.	Generic journey maps for different visitor profiles are created in order to summarize and share tacit and explicit knowledge on tourist itineraries.
Participatory systems mapping	A spatial representation of a geographical map, depicting the tourism resources in various layers. Through combined expertise of local stakeholders, layers can be enriched to include (historic) events, public transport, planned real estate development, and qualitative information.	A collaboratively created systems map depicting the destination's resources on a geographical scale.
Visitor flow mapping	Can be seen as an extension to the systems mapping, providing a sequence of geographical touchpoints that tourists combine while visiting a destination. It identifies key attractions and supporting tourist resources on particular trajectories.	A map that indicates visitor flows across the destination, highlighting relevant trajectories.
Dynamic House of Quality	The Dynamic House of Quality supports decision-making in high complexity destinations with many stakeholders by weighing and balancing the different needs of stakeholders in relation to the expected impacts of potential interventions. The structured approach helps to prioritize interventions as well as clarify individual preferences between participants, supporting an open discussion.	A structured scorecard per intervention in relation to their potential to solve specific needs, potentially leading to a ranking of priorities.

Source: Smit et al. (2022)

From the tools presented in Table 2, it can be seen that they serve to improve understanding of a local destination by including multiple viewpoints and dimensions. Stakeholder mapping, the Q-Sort methodology and Placemaking are primarily aimed at identifying important actors in the complex tourism ecosystem, as well as uncovering their particular worldviews and priorities. Persona development and the customer journey mapping are focusing on the demand side, using participants' local knowledge and experiences, as well as available data sources such as visitor surveys, to draft a narrative of diverse visitor

segments and their relevant customer journey(s) during the visit. Participatory systems mapping covers the supply-side perspective and creates a spatial depiction of tourism resources and supportive infrastructure, while visitor flow mapping bridges supply and demand by overlaying the systems map with the predominant visitor routes. These tools give a good basis to assist the Discovery-stage of creating a general understanding of the locale's potential, as well as urging participants to Define priorities. Particularly in this last stage of closing the first diamond, the Dynamic House of Quality can serve a function, by offering a systematic approach to compare and contrast a multitude of possible priorities and interventions. At the end of this stage, the characteristics and prioritized needs of the destination should be more clearly defined, at which point additional tools can help to Develop and Deliver on these needs.

Table 3. Tools for creating a solution space

SmartCulTour Tool	Description	Outcome
SmartCulTour Game	The SmartCulTour Game is an example of a gamification approach. Specifically, the game aims to engage stakeholders to learn about each other's interests and priorities via a roleplaying approach. Via a hybrid combination of a digital dashboard and back-end, a mobile app, and physical intervention cards, players create interventions or support other players' interventions to achieve certain goals and needs. Interventions are then evaluated and discussed on potential destination impacts.	Better understanding of multi-stakeholder perspectives and potential selection of preferable interventions.
Benchmarking and Honeycomb mapping	The technique is meant to document visitor experiences on location, giving information on the visitor's behaviour and values. Benchmarking refers to documenting experiences against expectations, potentially using the Polarsteps application for providing location mapping. A follow-up honeycomb mapping exercise then analyses and discusses the pictures across different themes: sustainability, learning, accessibility, credibility, findability, and memorability.	If a travel app such as Polarsteps is used, a visitor route is mapped. Furthermore, at specific locations, pictures and emotions/experiences are collected which are later thematically grouped, helping to understand how the destination is viewed during a trip and what its strengths and weaknesses are.
Multi-method process flow	Multi-method process flow is adapted from the 3S principle of Storytelling, Sense, and Sophistication and is designed to help participants formulate ideas that further develop unequal assets through a multi-sensorial and storytelling experience. Starting from tangible/intangible local assets, through various steps, the sense of place, narrative, sensorial impacts and learning experiences are mapped out in order to create memorable tourism interventions.	Further developing original ideas and insights into multi-sensorial and educational visitor experiences.
Ideation washing machine	A brainstorming method to engage creative thinking. The method inspires participants to build unique and unexpected combinations, to see how a product or service can be developed by combining different elements. This is done by asking participants to first individually write down three things: (i) a local intervention/cultural tourism product, (ii) a placemaking keyword or emotion that describes a strength of place, (iii) a hobby or object that makes them happy. These are then randomly combined within a group and participants are challenged to combine the three themes into a new potential tourist experience.	Creative potential tourism interventions. While potentially not wholly implementable, they can have seeds of interesting elements or be starting points for further discussion.
Destination design roadmapping	A more structured timeline approach that lets stakeholders critically engage with the development of primary experiences, as well as supporting facilities and other interventions for different groups of visitors. It can facilitate discussions on the desirability and impacts of	Improves understanding of the complexity of tourism development and integrates supporting

	individual experiences by framing them in a larger development framework.	facilities in the planning.
Strategic roadmap for cultural tourism change	Similar to the previous tool, it offers a structured approach for mapping future directions of cultural tourism change by prioritizing the order of implementation in terms of long-term goals. It works as an action plan for sustainable tourism initiatives within a larger strategic framework.	Clear visualized action plans that identify tourism strategies, policies and products and services needed, offering concrete implementation steps.
Policy round tables for cultural tourism change	Policy round tables ideally follow the more grassroots level developments. After drafting initial interventions, policy round tables then help frame the initiatives in a wider context. Using the strategic roadmaps as a starting point, policy recommendations are drafted that could support the needs of the proposals.	Around 4-5 clearly formulated policy recommendations that identify supporting policy needs for ideated interventions.

Source: Smit et al. (2022)

The tools highlighted in Table 3 can be useful in later stages of the development process, although it could be noted how the Benchmarking and Honeycomb approach can equally serve as an addition to the visitor flow and customer journey analysis, in terms of better identifying the 'as is' situation of the destination from the visitor perspective. The ideation washing machine aims to support creative ideation of new interventions, which could be included in the selection of potential interventions offered by the SmartCulTour Game that serves to integrate intervention potentials with stakeholder interests and potential destination impact analysis. The multi-method process flow provides a natural extension in that it is mainly centred around the further, multi-sensorial development of a particular suggested local innovation. Destination design roadmapping and the strategic roadmap for cultural tourism change further offer systematic processes to operationalize specific interventions within wider timelines and action plans, as well as highlighting the existence (or need of) facilitating services around the intervention. Finally, policy round tables translate intervention choices into underlying policy recommendations that are required or recommended in order to support the sustainable development initiatives.

3.3 Key learnings from toolkit applications in SmartCulTour

The SmartCulTour Toolkit combined more systematic design-oriented approaches, with a few art-based methods that offer more unbounded brainstorming and creativity. The combination of more ratio-based approaches and more emotive approaches is important in balancing the dual needs of innovative thinking, and realism in application and can also be found in other available toolkits such as the one developed by the UNaLAB project[11]. Figure 3 highlights how the different tools, depending on the particular priority of a stage, ought to support rational, systematic thinking, and when creativity and pure innovation should be prioritized.

[11] https://unalab.enoll.org/

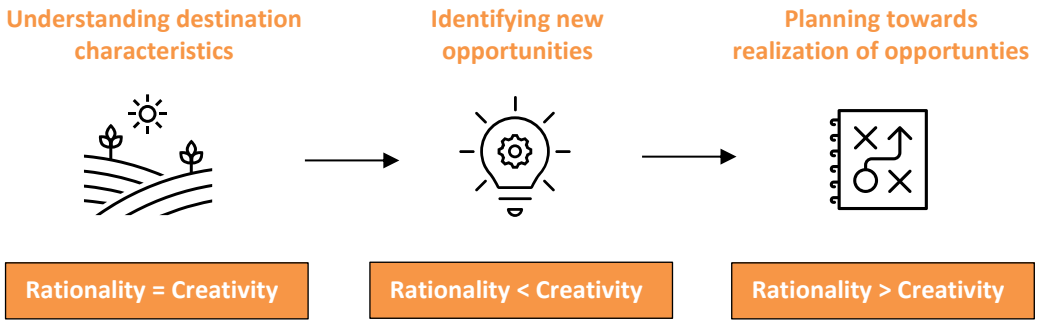

Fig. 3. Balancing creative and rational thinking through the design process

From the development of the SmartCulTour Toolkit as well as its testing in six diverse LLs, some final recommendations can be made with regard to toolkit adaptation in cultural tourism development processes:

- Importance of context: In order for participatory tools to be used successfully, it is important to understand the context in which they will be applied, among which the problem that is being analysed, the participants involved, existing power relations and sensitivities, potential ethical concerns, etc. Participatory approaches require an openness between participants which should be allowed for by local contexts.
- Combining methods: During the application of such tools in a workshop environment, it could be noted that some participants are more comfortable with structured thinking approaches, while others thrive more in an unbounded creative approach. Therefore a combination of tools, as well as a group-based task approach helps in allowing for everyone's strengths to be fully utilized during the ideation process.
- Flexibility and adaptability: Another key takeaway was the need to select tools that are appropriate for the specific stages of the LLs, rather than serving a need to test the same tools everywhere. As an example, within the Scheldeland LL, Lego Serious Play was used as a gamification alternative to support ideation of interventions since the SmartCulTour Game was not yet fully operational at that point of the LL lifecycle. Within this specific lab, it therefore did not make much sense to repeat a similar process with a slightly different tool at a later stage. The tools themselves could also be adapted based on specific local contexts and needs, as well as stakeholder typologies and research support staff. For instance, when destinations lack detailed data on tourist attractions, other resources and demand characteristics, it is most efficient to follow a bottom-up, participative process for the systems mapping and persona development. However, in destinations with reliable recent visitor survey data being available and tourism resources being well-mapped, it could be considered more efficient if researchers make a first draft of visitor typologies and the local spatial tourism ecosystem, and offer this up for feedback and discussion, rather than starting from a complete blank canvas. This ensures that previously collected relevant data is acknowledged and used and that a proper place is also reserved for existing expertise.
- The importance of facilitation support: Facilitators play a crucial role in drafting the various stages of the LLs and the supportive tools to be used within each session, as well as in creating safe and

collaborative spaces that encourage participation and prevent dominance of certain actors over others.

04 Policy recommendations

From the key findings and experiences in WP6 and WP7 of the SmartCulTour project , the following policy recommendations with LLs as innovation spaces and participatory design methods are considered.

Table 4. Policy recommendations

Dimension/ Subject	Recommendations
Living labs as innovation spaces	▪ Given the different typologies of LLs, with unique goals and characteristics, when designing or participating in a LL, a clear understanding needs to be given with regard to the purpose of the lab in order to not create false expectations and avoid frictions and drop-outs later in the process. ▪ While LLs can provide fertile grounds for multi-stakeholder engagement and shared innovation, they seem to work best as pure innovation spaces within a Research and Innovation context. In order to create actionable outputs, follow-up strategies are required to either change the composition of the labs or to assign roles for potential uptake and operationalization. Therefore, diffusion processes need to be identified and applied for maximal effect. ▪ LLs require multi-stakeholder participation, shared understanding and co-creation/co-sharing of knowledge. In order to fully serve as a Quadruple Helix cooperative model with equality in representation, honest brokers or dedicated coordinators are needed and differentiating between steering and coordinating functions might be preferable. Furthermore, in order to integrate private businesses legal frameworks should be explored.
Participatory methods for stakeholder integration	▪ Incorporating participatory elements directly into policy-making processes, thereby involving stakeholders across local communities and adjacent policy domains. Available toolkits such as the SmartCulTour Toolkit can provide different tools for different purposes. An added value is found in adopting tools that allow for people to take on different perspectives (e.g. role playing) in order to overcome myopic views. ▪ Adapting levels of local participation mechanisms to specific needs. Full community participation might not necessarily always be desirable and sometimes instils status quo bias. In this sense both opportunities and limits of co-creative innovation need to be recognized and the role of expertise should not be disregarded. ▪ Establishing an evaluation and impact assessment framework for the effectiveness of participatory approaches in cultural tourism development. Indicators should measure the social, economic and cultural outcomes of participatory processes on the short, medium and long term in order to inform evidence-based policy decisions.

4.1. Living labs as innovation spaces

4.1.1. Clearly defining living lab characteristics and ambitions

In chapter 2, four different types of LLs were identified, which can be categorized by the actor that drives the network's operation and innovation activities: utilizer-driven, enabler-driven, provider-driven, and user-driven LLs. Since the purpose, value-creation logic, and outcomes differ between the types, a logical practical implication follows: when designing (or choosing to participate in) LLs as methodologies within innovation-driven projects, the overall purpose of the LLs and the main driving actor(s) should be explicated. This allows for a better understanding of the realistically expected outcomes and for stakeholders to take up a feasible role within the network. As mentioned by Leminen et al. (2012) this can mean that a company chooses to takes on a central innovation role within a utilizer-driven network, since the benefits can be tangible and direct, while adopting a more passive supporting role in user-driven or provider-driven labs. The importance of realistic expectations is further highlighted by the empirical research of Nguyen and Marques (2022) which showed that unfulfilled expectations – in their study with regard to entrepreneurship growth and industry engagement – was a significant source of dissatisfaction.

Clarity of definitions should already be provided at the stage of project proposal level since it can help to identify risks and frame outcome expectations. For instance, provider-driven labs can feasibly be implemented within a theory-building or strategic research context and be effective tools for multi-stakeholder integration, however, without additional afterlife support, application of findings might be limited if the innovations cannot be proven to be quickly implementable and serve the company bottom-line. The level of successful integration of results will also thus also strongly depend on the research topic, with von Wirth et al. (2019) for instance proving that, under the right conditions, urban LLs have contributed to the diffusion of sustainable practices and structures.

4.1.2. Developing action plans for diffusion of results

Following up on the previous point, within research-focused European actions, the primary motivation might lie in the establishment of a provider-driven network that serves to generate new knowledge for the locality. In order to prevent the findings to remain largely theoretical and local, diffusion strategies should be planned out from the start and be part of the evaluation process. Wirth et al. (2019) discuss three types of diffusion: (i) embedding, (ii) scaling, and (iii) translating.

Embedding relates to the adoption and integration of the outcome into existing local structures. This type of diffusion therefore focuses on longevity at local level and can be achieved via socio-spatial embedding of the lab, for instance through establishing a permanent physical lab which is integrated into the local community, or by activating network partners, often local administrations, which have the capacity to support further activities. Within the SmartCulTour project, the Urban Leisure & Tourism Lab Rotterdam and the 'La Vigna' International Library can be seen as two such examples where a permanent physical space was created.

Scaling refers to internal development and growth of small-scale experiments. Scaling can have multiple dimensions and focus on either geographical expansion, content expansion (across different domains), actor scaling (extending the partnership), and resource scaling (expansion of funding). Central to scaling from theoretical innovation to practical uptake is to stimulate entrepreneurial growth (Wirth et al., 2019).

Of the three diffusion processes, scaling might be the most challenging one, since it often (although not always) requires financial support systems. In the Innovation Actions under Horizon 2020 and Horizon Europe we might find good examples of scaling strategies. For instance, the Be.CULTOUR[12] project's hackathon supported selected innovations via an accelerator.

Translation refers to horizontal diffusion whereby processes support the replication and reproduction of experiments elsewhere, thus explicitly factoring in changing contexts. This can require multiple (international) actor-networks and new forms of collective learning. Wirth et al. (2019) recognize two potential diffusion strategies from their empirical research: replication of lab structures in order to transpose the lessons learned from one lab onto another context, and education and training via capacity-building programmes. Within SmartCulTour we could see this approach first via the setup of standardized Terms of Reference that provided somewhat of a blueprint for the initial establishment of LLs, and secondly via the exchange visit activities between the six established labs which served to exchange localized knowledge throughout the international network.

In order to further improve the diffusion of results, at European level mechanisms could be set up to facilitate knowledge exchange and dissemination of insights gained from LL initiatives across sectors. This could be achieved through the creation of a dedicated platform that allows European LLs to share experiences, challenges and successes and should ideally also entail establishing common guidelines for impact assessment.

4.1.3. Setting up proper governance frameworks

Nguyen and Marques (2022) note how Europe's Smart Specialization Strategy has an entrepreneurial discovery process at its core which is framed within a Quadruple Helix model of collaborative partnerships and co-creation in innovation systems. LLs have recently received much attention as a methodology to implement such a regionalized Quadruple Helix. However, empirical observations often suggest remaining power imbalances and uneven cooperation across stakeholders, with unorganized citizens sometimes being somewhat neglected as compared to representatives from predominantly government and academia. Palomo-Navarro and Navío-Marco (2018) therefore call for a potential disentanglement between steering committee functions (as part of a general governance board) and day-to-day coordinating functions, suggesting for a need to appoint a dedicated coordinator or 'honest broker' to steer equal user engagement. An example of this can be found in the SmartCulTour Scheldeland LL where the municipal and regional policy makers took on the role of a steering committee that set out general goals, provided higher-level guidance, and was responsible for a few key decisions in the process, while day-to-day activities where supervised by an external coordinator and incorporated members of the industry, general public, academia and public sectors.

A further often recognized limitation in LL innovation networks, particularly when they are focused on regional development and general knowledge dissemination, is the difficulty to include industry partners in the process. While one issue might lay in the lack of scalability from general innovations to marketable products or services, leading to an unclear return on investment for the time spent on LL activities, a second issue is the absence of a legal framework. LLs require a sharing of intrinsic knowledge, which might go against ongoing intellectual property rights strategies. Furthermore, also when LLs could lead to new ventures and commercial potentials, it is often unclear/undefined who would own the relevant patents.

[12] https://becultour.eu

While this might be less of a concern for LLs related to cultural tourism, the general lack of an established framework and whitepaper for LL operations can be perceived as a risk for companies (Nguyen & Marques, 2022).

4.2. Participatory methods for stakeholder integration

4.2.1. Incorporating participatory methods in policy-making

There has already been a general shift in policy-making with a participatory approach being increasingly institutionalized in democracies to integrate multi-stakeholder views. As an example, the Commission's Transition Pathway for Tourism was co-created with stakeholders in a collaborative process with the aim to guide necessary transformations of the tourism ecosystem. Apart from the drafting, further collaborative processes are expected for implementation and monitoring – among others via an online stakeholder collaboration platform (European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, 2022).

Analysing the participatory instruments available to EU citizens, Russack (2018) concluded that top-down instruments are still prevalent, rather than bottom-up tools involving citizens, with citizen inputs still often limited to the consultive phases of policy-making. A recent study commissioned by the European Parliament, Policy Department of Citizens' Rights and Constitutional Affairs (2022), under the Directorate-General for Internal Policies, recognized the increased expectations for greater citizen participation and proposed the creation of a permanent deliberative mechanism in this regard, which would randomly select citizens for providing advice on proposals.

Available toolkits, such as the SmartCulTour Toolkit, can further help to identify tools, methods and procedures for stakeholder activation and co-creation of knowledge across stakeholders, communities, and policy domains that are relevant for the specific purpose (i.e. Discover, Define, Develop, Deliver). Particularly given the complexity of the tourism ecosystem and the sometimes conflicting expectations and preferences, particular attention should be given to tools that allow for role playing opportunities to overcome entrenched positions.

4.2.2. Adapting participation mechanisms to local contexts

While it seems logical that democratic regimes should aspire to participatory processes, Cleaver (1999) already noted two decades ago that participation should not be chased simply as an act of faith (i.e. because it is intrinsically 'good'), but the benefits need to be examined empirically and need to be contrasted with the idea of institutions and the models of individual action. The author recognized a number of critical theoretical limitations of participatory models in regional development, namely:

- Combining project-based philosophies with participatory discourses might be challenging since projects have defined objectives, activities, budgets, timeframes, with an imperative for practical, rather than strategic needs. Project rigidity might thus limit participants' influence on wider structural factors.
- Empowerment, as a critical goal of community participation, is often implied and the relationship between the actual involvement and local empowerment can be vague. Empowerment is mostly

either linked with potential future economic benefits, or assumed as a personal benefit by participating in the management committees.

- While literature recognizes the importance of informal social networks in participatory methods, the aims are often turned to an institutionalization of co-operation via associations, committees, contracts, or other mechanisms. Such formalization can decrease transaction costs and provide a more enduring network, but evidently erode individual participation in favour of committees.
- A further complication lies in the fraught view on 'community', which is too often idealized as a desirable and singular social entity, linked with clear administrative and/or geographical boundaries. Such simplistic views on communities were also criticized by Salazar (2012) in his writings on community-based tourism processes. Clearly, adopting too simplistic a view on communities can lead to underrepresentation of the existing heterogeneity, alliances, and social power structures. At the same time, this leads to an undervaluation of individual incentives for participation.
- Cleaver (1999) further critiques the empirically largely unsupported claim that communities have near unbounded latent capacities for innovation, change and progress that only need to be activated through sufficient mobilization. This ideology disregards existing structural and resource constraints.

The above critiques do not necessarily dissuade the use of participatory models, but call for a deeper analysis of the resources needed for locals to participate, particularly identifying low cost/high benefit participatory approaches from individual perspectives rather than imagining vague empowerment effects.

Furthermore, related to the critique of the idea of latent community capacity for innovation, is the potential of status quo bias, i.e. a preference for the current, known, state. In a historic article, Samuelson and Zeckhauser (1988) already identified experimentally how individuals disproportionately tended to prefer the status quo in real-life decisions. From an innovation perspective, this can be somewhat related to Steve Jobs' famous claim against the use of market research: "People don't know what they want until you show it to them. That's why I never rely on market research. Our task is to read things that are not yet on the page." Ultimately, while status quo bias can exist at all levels of decision-making, participatory decision systems might potentially exacerbate this when the topic in question requires a relatively high level of expert understanding of situations and implications. To use a real-life example, in 2014 the then mayor of Brussels Yvan Mayeur announced plans to ban cars entirely from the central Anspachlaan in the heart of the city, a decision which was largely taken without a public consultation process and led to waves of protests from entrepreneurs and commuters, with people fearing even larger traffic chaos. Only after its implementation and evaluation did the benefits appear more palpable to a majority of people. While this example does not advocate for traditional, one-sided decision-making, certain problems ultimately require high-level expert knowledge (of, for instance, mobility experts and urban planners) that might get lost in a participatory approach where facts and perceptions are not always properly weighted.

4.2.3. Evaluation and impact assessment framework

Participatory methods for stakeholder integration can come in a variety of forms and, as also pointed out above, should be chosen selectively according to the specific aims of projects. Further progress is needed in establishing a common blueprint for evaluation and impact assessment of the effects of participatory

methods, in order to ensure that expected benefits such as community-empowerment, better stakeholder networks, scalability and ownership of results, are properly realized and do not remain theoretical.

A common methodology on impact assessment should include measurements of social, economic and cultural outcomes on both short, medium and long term and potentially combine a universal variable selection with a flexible, topical addition in order to be applicable for participatory methods across regional and topical settings. A first starting point can be to analyse currently applied impact variables within previous and past European research projects in order to identify best practices.

A1 Reference list

Almirall, E., Lee, M., & Wareham, J. (2012). Mapping living labs in the landscape of innovation methodologies. Technology innovation Management Review, September issue, 12–18. https://doi.org/10.22215/timreview603

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

Blackstock, K. (2005). A critical look at community based tourism. *Community Development Journal, 40*(1), 39–49. https://www.jstor.org/stable/44258928

Cleaver, F. (1999). Paradoxes of participation: Questioning participatory approaches to development. *Journal of International Development, 11*, 597-612.

Coorevits, L., Georges, A., & Schuurman, D. (2018). A framework for field testing in living lab innovation projects. *Technology Innovation Management Review, 8*(12), 40-50. https://doi.org/10.22215/timreview/1204

Design Council (2019). *Framework for Innovation: Design Council's evolved Double Diamond. designcouncil.org*. Retrieved June 14, 2023, from https://www.designcouncil.org.uk/our-work/skills-learning/tools-frameworks/framework-for-innovation-design-councils-evolved-double-diamond/

Dutilleul, B., Birrer, F., & Mensink, W. (2010). Unpacking European Living Labs: Analysing Innovation's Social Dimensions. In K. Müller, S. Roth, & M. Zak (Eds.), *Social Dimension of Innovation* (pp. 87-105), Linde.

European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (2022). *Transition pathway for tourism*. https://data.europa.eu/doi/10.2873/344425

European Parliament, Policy Department of Citizens' Rights and Constitutional Affairs (2022). *Towards a permanent citizens' participatory mechanism in the EU.* https://www.europarl.europa.eu/RegData/etudes/STUD/2022/735927/IPOL_STU(2022)735927_EN.pdf

Gascó, M. (2017). Living labs: Implementing open innovation in the public sector. *Government Information Quarterly, 34*, 90-98. http://dx.doi.org/10.1016/j.giq.2016.09.003

Hagy, S., Morrison, G.M., & Elfstrand, P. (2017). Co-creation in living labs. In D. Keyson, O. Guerra-Santin, & D. Lockton (Eds.), *Living Labs* (pp. 169-178). Springer.

Huizingh, E.K.R.E. (2011). Open innovation: State of the art and future perspectives. *Technovation, 31*(1), 2-9. https://doi.org/10.1016/j.technovation.2010.10.002

Jamal, T.B., & Getz, D. (1995). Collaboration theory and community tourism planning. *Annals of Tourism Research, 22*(1), 186–204. https://doi.org/10.1016/0160-7383(94)00067-3

Leminen, S., Westerlund, M., & Nyström, A.-G. (2012). Living Labs as open-innovation networks. *Technology Innovation Management Review, 2*(9), 6-11. http://timreview.ca/article/602

McCool, S.F. (1994). Planning for sustainable nature dependent tourism development. The Limits of

Acceptable Change system. *Tourism Recreation Research, 19*(2), 51-55. https://doi.org/10.1080/02508281.1994.11014708

Moretti, S., & Klijs, J. (2021). Cultural tourism interventions towards sustainable development. Deliverable D3.2 of the Horizon 2020 project SmartCulTour (GA number 870708), published on the project web site on March 2021: http://www.smartcultour.eu/deliverables/

Neuts, B. (2016). An econometric approach to crowding in touristic city centres: Evaluating the utility effect on local residents. *Tourism Economics, 22*(5), 1055-1074. https://doi.org/10.5367/te.2015.0477

Nguyen, H.T., & Marques, P. (2022). The promise of living labs to the Quadruple Helix stakeholders: exploring the sources of (dis)satisfaction. *European Planning Studies, 30*(6), 1124-1143. https://doi.org/10.1080/09654313.2021.1968798

Niitamo, V.-P., Westerlund, M., & Leminen, S. (2012). A small-firm perspective on the benefits of living labs. *Technology Innovation Management Review, 2*(9), 44-49. https://doi.org/10.22215/timreview/608

Palomo-Navarro, Á., & Navío-Marco, J. (2018). Smart City Networks'Governance: The Spanish Smart City Network Case Study. *Telecommunications Policy, 42*(10), 872–880. https://doi.org/10.1016/j.telpol.2017.10.002

Pearce, D.G. (1992). Alternative tourism: Concepts, classifications, and questions. In V.L. Smith & W.R. Eadington (Eds.), *Tourism alternatives: Potentials and problems in the development of tourism* (pp. 15–30). University of Pennsylvania Press.

Russack, S. (2018). Pathways for citizens to engage in EU policymaking. *CEPS Policy Insights,* No 2018/14

Salazar, N.B. (2012). Community-based cultural tourism: issues, threats and opportunities. *Journal of Sustainable Tourism, 20*(1), 9-22. http://dx.doi.org/10.1080/09669582.2011.596279

Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty, 1*, 7-59. https://www.jstor.org/stable/41760530

Schaffers, H., & Turkama, P. (2012). Living labs for cross-border systemic innovation. *Technology Innovation Management Review*, September issue, 25–30. https://doi.org/10.22215/TIMREVIEW/605

Sezgin, E., & Yolal, M. (2012). Golden age of mass tourism: Its history and development. In M. Kasimoglu (Ed.), *Visions for Global Tourism Industry – Creating and Sustaining Competitive Strategies* (pp. 73-90). InTech.

Smit, B., Alhonsuo, M., Björn, E., & Melissen, F.(Eds.) (2022). The SmartCulTour Toolkit. Deliverable 7.3 of the Horizon 2020 project SmartCulTour (GA number 870708), published on the project web site on (30-11-2022): http://www.smartcultour.eu/deliverables/

Smit, B., Melissen, F., Font, X., & Gkritzali, A. (2021). Designing for experiences: a meta-ethnographic synthesis. *Current Issues in Tourism, 24*(21), 2971-2989. https://doi.org/10.1080/13683500.2020.1855127

Sørensen, E., & Torfing, J. (2011). Enhancing collaborative innovation in the public sector. *Administration and Society, 43*(8), 842–868. https://doi.org/10.1177/0095399711418768

Trunfio, M., & Della Lucia, M. (2018). Engaging destination stakeholders in the digital era: The best practice of Italian regional DMOs. *Journal of Hospitality & Tourism Research, 43*(3), 349-373. https://doi.org/10.1177/1096348018807293

Trunfio, M., & Della Lucia, M. (2019). Co-creating value in destination management levering on stakeholder

engagement. *E-Review of Tourism Research, 16*(2/3), 1-10.

Vanneste, D., Steenberghen, T., & Neuts, B. (2022). COVID-19 and tourism opportunities in rural Flanders (Belgium). In A. Trono, T. Duda, & J. Schmude (Eds.), *Over-tourism" and "tourism over: Recovery from COVID-19 tourism crisis in regions with over- and under-tourism* (pp. 193-209). World Scientific.

Von Wirth, T., Fuenfschilling, L., Frantzeskaki, N., & Coenen, L. (2019). Impacts of urban living labs on sustainability transitions: mechanisms and strategies for systemic change through experimentation. *European Planning Studies, 27*(2), 229-257. https://doi.org/10.1080/09654313.2018.1504895

Westerlund, M., & Leminen, S. (2011). Managing the challenges of becoming an open innovation company: Experiences from living labs. *Technology Innovation Management Review, October 2011*, 19-25.

World Commission on Environment and Development (1987). Our Common Future. Oxford University Press.