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Concepts and Methods – Deliverable 2.1 for the CROCUS Horizon Europe project on Cross-border Cultural and Creative Tourism in Rural and Remote Areas

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D2.1 CONCEPTS AND METHODS

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ACRONYMS AND ABBREVIATIONS

CCT	*Cultural and creative tourism*
MRS	*Macro-regional strategies*
RRA	*Rural and remote areas*
WP	*Work package*

1 EXECUTIVE SUMMARY

The CROCUS Project aims to support the development of sustainable and inclusive Cultural and Creative Tourism (CCT) and cross-border collaboration in Rural and Remote Areas (RRA) in Europe. This deliverable provides a literature review synthesising existing knowledge on the development of CCT in RRA to develop a conceptual basis for our analysis.

RRA face a number of significant challenges including aging populations, out-migration, low incomes and problems of accessibility. Greater integration of RRA into development processes is one aim of the Macro-Regional Strategies (MRS) developed by the EU. These adopt a place-based approach, which seeks to integrate different areas of spatial, economic and social policy. CCT can contribute to place-based development by strengthening the economic and social fabric and providing new opportunities. This document provides the conceptual basis for a holistic place-based approach to CCT in RRA.

A structured literature review conducted in early 2024 covered nearly 500 sources in the Scopus and Web of Science databases related to CCT in RRA. This revealed several main areas of research, including tangible and intangible heritage, cultural routes, events and gastronomy and some cross-cutting themes, including governance, development, community and collaboration. CCT is a major theme in each of the MRS, although the emphasis varies, mainly according to geographic concerns. Several research gaps were identified, including a lack of research on CCT business models, transnational studies of CCT, European perspectives, digitalisation and sustainability.

To provide a more holistic approach to CCT in RRA and to address these research gaps, the CROCUS Project adopted a place-based approach combining placemaking and placeshaping perspectives. A place-based approach is particularly important in the context of cultural heritage, which provides the basis for local identities. This bottom-up approach activates assemblages of cultural and creative resources to support new business models for CCT in RRA.

New CCT business models will be developed through the CROCUS Living Labs, which will be developed in eight areas across Europe. These will cover all four EU macro-regions as well as a range of different types of rurality and types of tangible and intangible heritage. The CROCUS Living Labs will operate across national boundaries, stimulating cross-border collaboration in CCT. The Living Labs will employ design thinking methodology comprising five modes: empathising, defining, ideating, prototyping and testing. This approach will be used to co-create new business models for CCT in RRA in collaboration with local stakeholders.

2 INTRODUCTION

2.1 Aims

The aim of this deliverable is to develop an interdisciplinary literature review synthesising existing knowledge about cultural and creative tourism (CCT) in Rural and Remote Areas (RRA) and to develop a conceptual basis for the Crocus Project. It draws together some of the overarching themes in CCT, noting similarities and differences between types of cultural heritage, different macro-regions and RRA. This information also forms the basis for developing a conceptual model and associated methodological approaches that will guide the future research activities of the project.

The overall aim of CROCUS is to spur the development of sustainable and inclusive CCT and cross-border cooperation in RRA across Europe, helping to realise the potential of cultural heritage as a driver for sustainable innovation. One of the first steps in this process was an extensive review of the literature on cultural and creative tourism in rural and remote areas (see Section 3). The literature review confirmed a number of gaps in the existing literature on CCT in RRA. Of particular relevance for our purposes is the lack of cross-border studies, a relative lack of attention for issues of sustainability and governance, a lack of integrated or holistic approaches linking tourism, culture and creativity, and of place-based approaches. Little attention has also been paid to issues of innovation and business model development.

In developing a conceptual basis for the work of the project, therefore, it is important to consider how CCT business model innovation can be stimulated through cross-border cooperation.

2.2 Challenges of RRA and the need for new approaches

Although RRA are rich in cultural heritage resources, they also face a range of challenges that inhibit the utilisation of these resources for innovation and sustainable development. These include socio-economic problems such as an ageing population, out-migration, and low incomes, as well as geographic issues such as low population density and accessibility. In order for CROCUS to develop CCT models that can help address these issues, three key challenges and associated knowledge gaps must be overcome: (1) place-specific business models that suit different types of cultural heritage and community needs must be created; (2) tourism development must be balanced and sustainable; (3) policies at different scales should support cooperation between RRA. A first step in addressing these key challenges is to generate knowledge about which CCT business models are most appropriate for different types of heritage and rural areas. The literature review summarised in Section 3 provides a basis for this by identifying current business models in a range of different contexts (see CROCUS Deliverable 2.2). This in turn leads us to concepts that have innovative potential, and which can serve as the basis for new business models. These concepts will subsequently be prototyped in the Living Labs to be developed in WP4 and WP5 and provide tools for addressing the challenges faced by RRAs.

Issues and challenges for RRAs

Some of the key issues in CCT in RRA include:

- Economic context of RRA – low growth potential, low level of (technological) innovation, lack of accessibility.
- Social context of RRA – bonding capital high, bridging capital low, depopulation, aging, human resource issues, low population density.
- Cultural context of RRA – conservatism, localism, lack of iconic cultural heritage attractions, thinly spread tangible heritage.
- Political context of RRA – relatively weak governance structures.

A recent analysis of cultural tourism in peripheral (or remote) regions (Harfst *et al.*, 2024:11) notes 'the low integration of different sectors, such as culture and tourism'. Although peripheral regions often have networking structures in place, these have a limited number of stakeholders and low levels of engagement. This indicates that addressing the wider challenges of RRA through CCT requires a broader view of the relationship between tourism, culture and creativity in order to engage a wider range of stakeholders in sustainable development.

Tackling these issues requires action at all policy levels, from local activities to support grass roots culture to transnational collaboration to tackle global problems, as exemplified by the so-called 'EU macro-regional strategies' (MRS) which aim to address issues cutting across borders and specialised policy silos through 'cooperation frameworks establishing networks of stakeholders that form a transnational, cross-sectorial mosaic of expertise with a potential for further cooperation, value and prosperity creation' (European Commission, 2022, p1).

Tourism can contribute to such a place-based approach by providing economic impulses for RRA and strengthening the cultural and social fabric of these areas, and thus the place-based approach of the MRS further strengthens the case for adopting a place-based theoretical framework for the CROCUS project. As Bentley and Pugalis (2014, p. 283) outline, the place-based approach 'can be conceptualised as potentially offering the scope, through supportive institutional frameworks and collaborative means of governance, for developing embedded, multi-scalar and multi-annual strategies that are tailored to the complex geographies, capabilities, knowledge-sets, assets and resources of particular places (and networks of places).' However, they also cautioned that the approach lacked conceptual clarity and operational precision.

While a place-based approach can provide an integrative framework to combine theoretical insights from different disciplines and knowledge areas and can help address the issues caused by policy 'silos', achieving this will require a clear conceptual framework and the application of suitable methods. Such an integrated approach is even more important because of the relatively fragmented nature of the literature on CCT in RRA, as outlined in Section 3.

3 Findings of the CROCUS Literature Review of Cultural and Creative Tourism in Rural and Remote Areas

A summary of the findings of the literature review and the research gaps identified is provided here. The full literature review is available on the CROCUS website (https://crocuseurope.eu/).

3.1 Methods

The structured and thematic literature reviews conducted by the CROCUS Project aimed to synthesise existing knowledge about CCT in RRA. Particular attention was paid to issues of concern for CROCUS, including placemaking and cross-border cooperation, current CCT business models and market trends in the EU. The literature review was designed to develop the overall conceptual and methodological framework of the project.

The main literature search was conducted in April 2024 in the Web of Science and SCOPUS databases. Members of the research team also conducted searches in relevant national databases where they had the linguistic skills to do so. The search terms used were 'remote region' or 'remote area' or 'rural area' or 'rural region' and 'cultural tourism' or 'creative tourism'. For the partner searches these terms were also translated into the relevant language by the national project leaders. From the qualifying sources, a total of 316 full text documents were recovered. In addition, the 467 relevant sources identified by the project partners were also analysed.

3.2 Key themes in the existing literature

This review underlined the breadth of the field, covering issues related to trends in cultural, creative and rural tourism, the rural and remote geographies related to these, the resources utilised for CCT, governance issues and future trends. We identified several areas with a particularly rich research tradition, including cultural tourism demand and tourist profiles, gastronomy and wine and heritage accommodation. The CROCUS database of WOS and SCOPUS sources shows that there has been a considerable growth in research on CCT in RRA in recent years and research on both cultural tourism and creative tourism have grown as a proportion of all tourism research (Richards, 2018). Creative tourism remains a relatively small proportion the total research output on CCT, but in the last five years, creative tourism research has mushroomed, stimulated by EU research projects and local development initiatives.

A frequency count of terms in the WOS and Scopus literature review full texts indicates that 'heritage' is the most common term, which is not surprising given the search strategy. More specific attractions such as route(s) and festivals/events are also relatively well covered. Wine and olive oil as specific food resources are also relatively common, mainly thanks to extensive research by Spanish authors.

Table 1: Frequency of terms from the WOS and Scopus full text sources

Term	Number of occurrences
Heritage	3056
Route(s)	1547
Sustainability/sustainable	1206
Festival/event	1117
Wine	1002
Museum(s)	826
Nature	733
Landscape	654
Food	650
Olives	620
Music	371
Traditions	296

Some of the most frequently mentioned terms relate to common CCT activities in RRA, each of which potentially include a range of different business models. These include cultural routes, events, food, wine, music and traditions. There is a focus in the literature on a handful of larger Mediterranean countries, most notably Spain, Portugal and Italy.

Although there are signs in RRA that tourist pressure can also be found at some cultural sites, in general CCT helps to spread tourism flows in RRA. Creative tourism is also emerging as a potential alternative to traditional cultural tourism, harnessing the potential of intangible resources. The major themes in CCT in RRA identified from the literature review were:

- **Cultural and Rural tourism trends**
  - Use of rural resources (particularly gastronomy)
  - Accommodation models
  - Routes, trails and mobility
- **Governance**
  - Place and placemaking
  - Sustainability
- **Development**
  - Business models and value creation
  - Clustering, networks and rural entrepreneurship
  - Links between tourism and the Cultural and Creative Industries (CCIs)
- **Community and collaboration**
  - Community attitudes and involvement
  - Remote areas and communities
  - Cross-border collaboration

In addition, particular attention was paid to themes of relevance to the CROCUS Project, including sustainability, gender and community involvement.

Cultural and Rural tourism trends

Rural destinations include a wide range of cultural resources, including both tangible and intangible heritage. However, rural tourism demand is highly dependent on accessibility, with areas close to major cities experiencing higher levels of tourism pressure. Although rural tourism supply benefits from lifestyle migration, there are still labour shortages which make tourism operations challenging. This is particularly true where the development of tourism experiences is based on contact between locals and tourists (Droli, 2109). Local experiences are increasingly seen as a marker of authenticity, which is complicated by the relative lack of locals in rural areas. Tourism development also means some rural areas are being transformed into consumption and lifestyle spaces, in what has been termed the 'new rurality' (Paniagua Mazorra, 2016).

In remote areas, the challenges noted for rural destinations are further exacerbated, particularly in terms of access and supply of labour. There is considerable potential for the development of CCT, particularly where the cultural and creative industries can be effectively linked to the tourism sector. New types of CCT are also emerging in remote areas, such as 'nature-based creative tourism' as noted by Björn and Lüthje (2025).

In terms of the development of experiences that can benefit RRA, particularly in cross-border collaboration, the development of cultural routes seems a particularly appropriate option, as suggested by the Council of Europe (2020). However, the effectiveness of cultural routes in stimulating local development, and particularly in stimulating tourists to travel along the route itself, is still unproven. What seems to be crucial for the development of cultural routes is effective governance structures that can deal with diverse communities and cross-border working.

Governance

The issue of sustainability is closely entwined with governance, both particularly crucial for RRA. Studies in this area show a lot of work on agritourism and farm holidays and spas and wellness as forms of rural escape (e.g. Dubois et al., 2019). There is a diversity of business models, from demanding outdoor activities organised by tourists or local micro-firms, via small-scale farms diversifying into accommodation and agritourism, to large-scale wellness services. Tourism has often been seen as a last hope for rural regions, but the impact is mixed. Positive effects include economic development, cultural tourism, and conservation, but negative impacts include increased pollution, negative consequences for indigenous culture, and overdependence on tourism (Butler & Thompson-Carr, 2024).

Adequate governance structures should have the potential to increase the positive impacts of tourism and reduce the negative ones, but this is a challenge in RRA. There areas are often far from the seats of power, and rural actors tend to be relatively conservative. Ottaviani, De Luca and Åberg (2024) considered the Sustainable Development Goals (SDGs) in cultural tourism development during the TExTOUR EU project. Activities included heritage related routes, traditional culinary schools, creative workshops for immigrants and artistic residencies. They note a lack of transnational research in terms of cultural tourism sustainability. Even so they argue that 'Cultural tourism can be a valuable actor in promoting and enabling sustainable development in more rural and inaccessible areas.' (p. 11)

Governance is a particular challenge in cross-border projects – a central concern of CROCUS. There are several studies that outline best practice in this area (e.g. Stoffelen, Ioannides & Vanneste, 2017) underlining that creating common cause across borders is difficult because of different expectations, aims and governance structures.

Development

The challenges of thinly spread CCT supply and demand in RRA has led to numerous efforts to spatially cluster resources and/or develop networks to link different locations. In many rural areas, innovation hubs developed to stimulate rural entrepreneurship can also function as tourism resources, helping to create markets for local crafts and other rural products. Such hubs can serve both the local community and tourists, acting as spaces of encounter. Many networks have been developed in CCT that can help to link cultural and creative resources, allowing actors to increase network value and tap into external knowledge and resources.

Much of the focus in cultural tourism development has been on the valorisation of tangible heritage, including using heritage buildings for accommodation, creating visitor attractions or developing monuments and other points of interest. The challenge for RRA is to capitalise on the economic, social and creative potential of such development. In a few areas creative tourism is now emerging as an alternative development option, capitalising on intangible heritage.

There are also few studies that consider the potential of different business models for RRA, and a lack of RRA innovation research in general.

Community and collaboration

Community members usually have the biggest stake in conserving tangible and intangible heritage, and they can influence tourism development, or in some cases opt out completely. However, the 'community' is a difficult concept that masks differences between local individuals and groups. There are issues of (in)equality that need to be considered when analysing how local communities engage with culture and tourism. Among the most important of these is gender, as women are often excluded from the benefits of development while often contributing highly in terms of labour. However, intergenerational inequalities are also increasingly important.

Communities also need to collaborate across borders, both national and international. Our review of cross-border collaboration in CCT shows numerous barriers need to be overcome to increase cooperation, including economic, social and cultural ones.

Overall themes from the literature review

Our thematic review of the literature in the CROCUS Database indicates that the main focus of research remains on individual products in RRA and the utilisation of tangible resources for cultural tourism. Although studies of intangible heritage resources are increasing, there is still a relative lack of work on strategies to harness intangible heritage resources, such as storytelling and interpretation. There is also

little work on creative tourism in RRA compared to the previous focus on cultural tourism, particularly related to tangible heritage resources. Remote areas also tend to get little attention, with a few notable exceptions such as cultural tourism with the Sámi and the cultural branding of the Faroe Islands (e.g. Leban, Errmann, Seo & Voyer, 2024).

Conversely, there has been relatively little consideration of the place-based approaches to development which are central to CROCUS and suggested by the EU macro-regional strategies. The development of the place-based approach to CCT proposed by CROCUS requires appropriate governance models, which is also a weakness in the current research on CCT in RRA. Cross-border collaboration also emerges as a current blind spot, with little attention having been paid to cross-border CCT development or the governance structures that are associated with such programmes.

3.3 CCT in RRA in the EU Macro-Regions

One of the aims of the CROCUS Project is to develop macro-regional and cross-border policy scenarios for each of the four EU macro-regions (Baltic Sea, Adriatic and Ionian, Alpine, and Danube). The literature review reveals little specific research relating to the role of the EU macro-regions in CCT. However, some general trends can be noted in terms of different emphases in CCT research in RRA in the different macro-regions. The Baltic macro-region in particular was under-represented in CCT research. In contrast the Adriatic and Ionian and Danube regions are relatively strongly reflected in the CCT literature in RRA. The Alpine and Baltic macro-regions have relatively few sources in relation to their share of international arrivals, which means that relative tourism pressure does not always translate into greater research effort.

Adriatic and Ionian macro-region

Many different CCT niches have been developed in this diverse region, reflecting regional policy towards diversification and sustainable tourism (www.adriatic-ionian.eu/pillars/). Most tourism is concentrated in coastal areas, where marine heritage represents a major resource (although largely underused). Inland areas are slowly diversifying their products and adding competitive advantage, for example through storytelling initiatives in Slovenia and Croatia.

Creative tourism also seems to have considerable potential in the region, particularly in Italy in relation to gastronomy, and crafts and gastronomic experiences also exhibit growth in Slovenia and Croatia. There is a certain unevenness in CCT development because of the distribution of major tangible heritage resources. This is being addressed by developing new business models, including platforms linking distributed heritage attractions, such as the UNESCO World Heritage Journeys website (https://visitworldheritage.com).

There is debate about the effect of second homes in some areas, which may affect the relationship between permanent and temporary residents. However, in view of the depopulation suffered by many inland areas, new residents may be more welcome as a source of cultural and creative vibrancy and economic stability.

Alpine macro-region

There is an emphasis on nature and sustainability in the Alpine region (DG Regio, 2014), which also corresponds to the lack of linkage between culture and tourism in macro-regional strategies. Mountain areas can be very attractive for tourism in terms of experiencing nature and tranquillity or undertaking winter sports, but there are considerable challenges of accessibility. The traditional way of life of mountain communities is also threatened by development and second homes.

Intangible heritage such as language, storytelling and gastronomy is important in the Alpine region, which has a relative lack of tangible cultural heritage attractions. In some areas innovative products are being developed, adding cultural and creative experiences to the natural landscape (Mossböck, Steiner & Apschner, 2020). Few of the case studies in the Italian CROCUS literature review deal with the Alpine region, reflecting the rich supply of tangible heritage resources in urban areas.

Baltic macro-region

Although maritime heritage seems to be an obvious priority in the Baltic region (Council of Europe, 2020), this gets relatively little attention in the literature. There is some work on Viking heritage in Denmark, where several archaeological sites, museums and 'iconic attractions' have been developed (e.g. Bærenholdt & Haldrup, 2006).

There is particular concern for sustainability issues, with water quality, wildlife and climate change mitigation being pillars of the Baltic macro-regional strategy. These issues do not feature heavily in the CCT literature in the CROCUS database, however. This may reflect a division between 'natural' and 'cultural' heritage that is also evident in many studies that focus on activities in nature rather than cultural tourism per se. There is also very little attention paid to creative tourism, although Björn and Lüthje (2025) see potential in developing nature-based creative tourism in Lapland.

Connections can also be made with the creative industries, particularly gastronomy. The New Nordic Cuisine movement (Gyimóthy, 2017) has the potential to create links with a wide range of stakeholders, providing opportunities for new governance models to link regions and sectors, as well as a focus for co-creation between local producers and visitors.

Nordic cuisine also highlights the seasonality of produce, which can become a means of overcoming an important challenge in Baltic tourism, namely the short summer season. There is a need to develop innovative business models that provide experiences at different times of the year. There is potential in this direction with the development of sauna and wellness tourism, indigenous tourism with the Sámi and creative experiences related to crafts (Olsen, 2016).

Danube macro-region

There is more focus on cultural tourism than creative tourism in the Danube region. In contrast to many other areas, a recent decline in creative tourism research was noted in the CROCUS literature review.

There are numerous food festivals in the region, and wine-related tourism is also well developed. The style of food-related cultural tourism here tends to be different from the Nordic model, with an emphasis on traditional food and collective food consumption (Lulcheva, 2020).

Involving the local population in cultural tourism development has proved challenging and may reflect the historic focus on heritage. This positioning is also reflected in the suggestion by the Council of Europe (2020) to use the theme 'prehistoric heritage' for cultural tourism development in the Danube macro-region.

In contrast to the Baltic macro-region, sustainability has not been a major focus of research, although many significant sustainability issues are also evident here, such as the health of the Danube River itself. There are many cross-border CCT studies in the Danube region, but the overall impression is that most projects are beset by significant challenges, such as the low permeability of the border, language barriers and concentration of funding on border crossings (Čelan,2021). Stakeholder involvement is seen as crucial, particularly in cross-border initiatives and cultural routes.

3.4 Research gaps

The analysis of emerging research gaps produces a picture of potentially fruitful lines of analysis for the CROCUS Project. There is a relative lack of work on CCT in RRA in general, especially in relation to creative tourism. This also means that not much is known about the functioning of different business models. There is a lack of empirical data in many areas, including accommodation demand and flows of visitors along cultural routes. Transnational studies are also few and far between, even though differences in the scale and style of CCT have emerged from the national analyses. Without comparisons, however, it is difficult to understand the distinctions, or the processes underlying them.

Peñalosa and Castaldi (2024) also identify a need for research to examine absolute and relative levels of geographical peripherality separately, to uncover distinct patterns. These could also be linked to the macro-regions, which are themselves currently under-researched. Lack of data also allows common assumptions about tourism to go unchallenged – for example the idea that cultural tourism is a particularly fast-growing market (Richards, 2021), or that cultural tourism or creative tourism are more sustainable, for example. Such assumptions need empirical support.

There is a lack of a distinctly European perspective on the issues outlined here. Much recent research on RRA and CCT has come from Asia, where the concepts of cultural and creative tourism are treated very differently and the context of the rural and remote is also different. There is a need to link research on CCT in RRA to European policy frameworks. In doing so, we should also separate the effects of different drivers. Horáková (2010) points out that a big failure of previous research is separating the social consequences of tourism from other processes of social change.

Digitalisation is an increasingly important part of rural tourism, particularly in terms of place curation and the provision of information and experiences (Richards, 2024). But growth of platforms offering cultural and creative tourism has not been widely studied in relation to RRA.

Sustainability is a growing issue in relation to CCT in RRA, but few studies take a strategic approach to the issue. Sustainability is usually implicit, for example in the idea that small-scale tourism is automatically sustainable. Again, this is an issue that indicates the need for a holistic approach or a systemic approach, but the scope of most studies is limited.

There is relatively little attention for the evolution of the literature. Duxbury (2021) presents a picture of how the rural creativity literature has developed, but not in relation to tourism. There seems to be a shift from consumption to production to co-creation to place/placemaking, with the latter implying an increasingly active implication of a wider range of actors. This is also reflected in the development of the *Albergo Diffuso* model of accommodation and cross-border projects (Droli, 2019).

A more holistic view should be developed that links the context of RRA and the policy frameworks with the activities and impacts of tourist activity, particularly in terms of culture and creativity. The presence of culture is often seen as an attraction for tourists, but little account is taken of the wider context of their behaviour, and how their activities on holiday articulate with those at home. The interaction of tourists and those residing in the destination is often also ignored or reduced to narrow roles such as 'host' and 'guest'. There is a growing realisation that tourists travel for more than activities or attractions – they also travel to experience places. But what attracts tourists about a place, and what roles do culture and creativity play in this? Addressing these issues suggests the need for a place-based or placemaking approach to CCT in RRA that can account for local context and take in a wider range of actors beyond the tourism and culture sectors themselves.

Addressing the gaps

In practical terms we have decided to focus on European research, both to limit the volume of material and to maintain a 'European' view of the problem. But as the research moves forward, it could be useful to expand our view to incorporate new perspectives form other parts of the world. China has been at the forefront of research on 'cultural creative tourism' for example, and researchers in Thailand, Taiwan and Brazil have been extremely active in the study of creative tourism (Richards, 2020; Tan, Kung & Luh, 2013). One of the implications of the projects will therefore be to consider whether there is a specific European dimension that justifies relying on European sources to provide an empirical and theoretical basis for research – or if the recent growth in research on cultural and creative tourism in China and other Asian countries provide a new impulse that is important to our understanding of the field of study. By adopting a European focus, CROCUS will in other words help to address the relative lack of a European dimension in the current CCT literature, and in doing so the CROCUS Project will attempt to address some of the major research gaps in the specific literature on CCT in RRA.

However, the gaps in the existing literature also necessitate taking a wider perspective in order to be able to generate knowledge about which CCT business models are most appropriate for different types of heritage in RRA. Therefore, the following sections will look beyond the CCT literature and undertake a broader review of sources in four different areas that are central to the conceptualisation and methods of the project, namely

- Place-based development
- Living labs
- Design thinking

4 Developing place-based perspectives on Cultural and Creative Tourism in Rural and Remote Areas

The gaps identified in the literature point towards a lack of a holistic perspective on the issues of CCT in RRA. The presence of different 'policy silos' is a major barrier to developing more integrated approaches. There is a common gap between rural and tourism policy, for example. It is therefore important to 'move beyond cultural tourism in a narrow sense, as culture produced for and consumed by tourists' (Richards, 2021, p. x) towards a more holistic view that considers the wider relationships between tourism, culture, creativity and the places in which these come together.

A place-based approach – based on a specific combination of local resources and competence, addressing local concerns, and with local stakeholders playing key roles in shaping the process – arguably provides a basis for greater equity and common interest, because places are where the different actors in the system interact, but where many actors also have shared interests. For local actors there is a common economic and social interest in endogenous development, and both local and external actors (particularly tourists) can benefit from attractiveness, which is based on quality of place. A place-based perspective is also important because place attachment supports bonding within local communities, as well as providing opportunities to develop bridging capital with visitors and other external actors.

In terms of rural tourism, Kastenholz, Marques and Carneiro (2020, p. 4) argue that 'Place attachment exists when a person assigns a meaning to a place and develops emotional attachment towards it.' Based on the work of Hammitt, Backlund, and Bixler (2006), Kastenholz et al. (2020) identifies three core elements of place attachment: (a) the features of the physical environment, (b) human usage and interaction with this environment, and (c) the psychological, social and cultural interpretations and meanings associated with these interactions. Because place meanings are negotiated through the social practices of a wide range of actors, a broad, holistic view of place interactions is required.

Taking place as a central aspect of CCT in RRA therefore implies widening the conceptualisation of tourism and culture from traditional views of markets, activities or motivations, which tend to be attached to particular economic configurations, towards a practice approach that considers supply and demand as intrinsically linked, and which can explain how actors are recruited to, maintained within and leave specific social practices (Bargeman & Richards, 2020). Because practices are always embedded in a specific context, the analysis of CCT in RRA should be developed by taking the places where this occurs as central to the analysis. This is important because the specificities of RRA, and the types of CCT experiences and encounters that these develop, are at the heart of the CROCUS project and are also central to the MRS.

A placemaking approach is well-suited to analyse the relationship between the development of place and social practices in the context of cultural and creative tourism (Richards, 2021). Placemaking has two broad meanings. The first refers to organic processes of meaning-making and sense of place. It captures the complex processes through which people and communities imprint their values, perceptions, way of life, memories, and traditions on a cultural landscape (Massey, 2005). The second type of placemaking is a planned and deliberate process. It refers to the strategic and often commercial

shaping of villages, cities, or regions, sometimes based on creative and cultural activities, to make them more attractive for residents, businesses, and visitors (Markusen & Gadwa Nicodemus, 2010). The creative placemaking approach advocated by Markusen and Gadwa Nicodemus (2010, p. 3) is defined as follows:

'In creative placemaking, partners from public, private, non-profit, and community sectors strategically shape the physical and social character of a neighbourhood, town, city, or region around arts and cultural activities. Creative placemaking animates public and private spaces, rejuvenates structures and streetscapes, improves local business viability and public safety, and brings diverse people together to celebrate, inspire, and be inspired.'

Creative placemaking is largely employed in the planning and improvement of specific locations, particularly in cities (Wyckoff, 1994). More recently, however, placemaking has come to be seen as a more generalised strategy for 'making places better and making better places', which aligns more closely with the idea of placemaking as a process of meaning-making and sense of place. As Richards (2021, p. 129) argues, 'placemaking is being used in more strategic and holistic senses, which involve bringing meaning back into whole communities, cities and regions.' Placemaking is also more important in cultural tourism, as the realization dawns that places should not just be made more attractive for tourists, but that attracting tourists can also actively make places.

A place-based approach to CCT development in RRA as suggested by CROCUS helps to avoid the application of generic models and increase sensitivity to local needs. In the past for example, the 'creative class' concept of Florida (2002) has been adopted by policymakers in many different areas in Europe and has also been transferred from urban to rural contexts, usually without any consideration of place-specificity (Silva et al., 2024). More place-sensitive approaches to tourism development are emerging as critiques of the creative class and similar concepts has grown. For example, Brouder (2012) has considered the specific challenges of developing creativity in remote areas of the Arctic periphery, and the CREATOUR project (2020) has examined the prospects for creative tourism in inland areas of Portugal. This is important because of the specific challenges faced by RRA, which are very different to the densely populated cities where models such as the creative city or the creative class were first articulated. The key factor is lower population density, which is a basis for definition of RRA in the EU. In addition, rural and remote areas have challenges related to economic development, accessibility and depopulation.

Location has important implications for resource availability and distribution, which are key elements of a place-based approach. In terms of tourism development, the lack of economic capital and the thinly spread population means there can be a relative lack of tangible heritage resources in RRA. This indicates a need to focus on intangible aspects of the countryside that can attraction people and stimulate economic, social and cultural development. For example, identity is increasingly being seen as a 'resource' or form of capital that meets these needs (Panzera, 2023). This 'identity turn' is also evident in the approach to rural tourism development, where projects are increasingly based on strengthening regional identity (Scrofani & Leone, 2017). The development of strategies and policies connected to CCT in RRA in many countries underlines the importance of governance as a means of shaping tourism as a development tool.

4.1 Developing a place-based perspective for CROCUS

The concept of place in studies of RRA is usually reduced to specific locations, rather than holistic considerations of geographical inter-relationships.

Marasco et al. (2024) argue that the growing links between creativity and tourism demand a new approach. The integration of creativity and tourism places more emphasis on making links between different sectors and between urban and rural locations (Herslund, 2012). For rural areas in particular, the notion of 'reach' is important. There is a need to expand the reach of creative networks to bridge physical distance and counter the narrow stakeholder base noted by Harfst et al. (2024), gathering the resources necessary for creative development.

Panzera (2023) identifies a research gap in how the values of cultural heritage interact with local communities in shaping cultural, social and psychological attitudes, generating 'identitarian capital', creativity and intangible capital. These influence development potential and competitiveness. There is extensive research on the economic potential of tourism, but – 'economic effects may indirectly derive from peculiarities and traits of societies such as community participation, social cohesion, creation of identity, creativity and innovation.' (p. 24). For example, place attachment facilitates interactions among actors with a common interest in the local economic systems, generating collaboration. A common identity provides cohesion, but it can also create bridging capital to generate externalities. This is important because it transcends localism, and place-based collaboration creates bridging capital to secure external resources and knowledge.

Adopting a place-based view of CCT necessitates a shift from a value-chain analysis of economic process (which generally links enterprises) to a network-based approach incorporating a wider range of stakeholders across different sectors and incorporating different forms of value. In RRAs the scarcity of some kinds of local resources suggests a need for horizontal (spatial) and vertical (value chain) linkages in order to provide critical mass. Every area has an assemblage of cultural resources, but creativity is needed to link these together, and to link with largely external markets. Creativity also generates new meanings for these resources that can transform individual meanings (e.g. profit) into collective and collaborative meanings (e.g. institutional or social value). This also suggests the need for a more dynamic model of placemaking, in which the wider processes involved can be captured. Instead of the focus on physical interventions that tends to characterise more traditional placemaking approaches, we advocate an approach based on collaborative processes of meaning making.

4.2 Collaborating for development: tourists and residents as place-shapers

Recent discussions about mobility and tourism have highlighted the centrality of place. Places provide the attractions for mobile populations, while more permanent residents usually root their identities in the places they live. Panzera (2023) argues that place attachment facilitates interactions among actors from different sectors with a common interest in the effectiveness of local economic systems (which enhance the quality of life and the quality of visit). Shared interest in place provides a common purpose – the basis for cohesion, and the creation of bridging capital to generate externalities. But at the same time, bringing different interest groups together also creates the potential for conflict over resource use.

Hill et al. (2021) argue that 'places' are essential for local economies, as they attract mobile groups, including tourists, workers, entrepreneurs and new residents. The very idea of attraction implies mobility – we can only be attracted to a place if we are able to move – which is important for the RRA in the CROCUS Project - and provides links to broader discussions about place and quality of life (Richards, 2023). 'Places' allow visitors to feel welcome in the location and to spend money locally on hospitality and retail…(but) … the process of place making requires agents or 'placemakers' to initiate and guide the process' (p. 630). Essentially, place is a temporary interaction of people in a location. Places are therefore enacted by place users, who become co-creators of place. In this sense, placemaking can be an open, bottom-up process, making use of the available place assets. Viewing place in this way enables open governance, increasing the porosity of placemaking processes. Broadly re-stated, places are made by the people who use them.

The way in which places are created has been conceptualised as a process of placemaking. Wyckoff (2014, p. 5) defined placemaking as the 'process of creating quality places that people want to live, work, play and learn in.' More specifically he considers 'strategic placemaking' as placemaking targeted to achieving a particular goal, which in the case of the CROCUS Project would be the development of CCT opportunities in RRA. Other work on 'creative placemaking' (Markusen & Gadwa Nicodemus, 2010) emphasises the role of art and culture in placemaking processes.

The placemaking role of CCT has been discussed by Richards (2021), who argues that 'Cultural tourism happens in places' (p. 128), in which the tourists as well as the residents are joined in the co-production of common spaces, which in turn shape the practices that make them. Because they are embedded in place, cultural tourism activities have a specificity that ties them to the interactions of people, non-human actors and practices that are located there. Places are not static, but constantly changing as a result of these interactions. This suggests that not just a place-based approach, but a placemaking process is needed.

To study the development of CCT in RRA, therefore, we need a dynamic model of placemaking processes that can account for the relational and contingent nature of tourism production and consumption. In the context of CROCUS, this means paying attention to the way in which rural and remote assets are utilised by producers (the cultural sector, creatives, public sector bodies) for consumption by tourists, and the effect that this has on the daily lives of locals using those same assets.

In contrast to urban areas, where the possibility for interventions at the scale of the neighbourhood or individual building place an emphasis on tactical placemaking (Wyckoff, 2014), in rural areas, the relatively slow pace of physical change and the interaction with nature requires a different approach. In most cases, rural and remote places are not made by people, but rather shaped or influenced by them. This might suggest a process of 'placeshaping', rather than the more active and interventionist process of 'placemaking', which is often utilised in urban contexts.

The term 'place-shaping,' emerged from the Lyons Inquiry into the future of local government in the UK (Lyons, 2007, p 3). Here it was defined as: 'the creative use of powers and influence to promote the general well-being of a community and its citizens'. Although the Lyons Inquiry was aimed at local authorities, it also indicated that 'the concept of place-shaping underlines the importance of communities taking responsibility for their own economic fortunes, and for striking the right balance

between economic, environmental and social objectives and concerns.' (p. 13). This link with sustainability led to the concept of place-shaping being taken up in the sustainable development literature, notably by Horlings (2016). Although no re-definition of place-shaping has apparently occurred, Horlings (2016) summarises the concept as follows: 'sustainable place-shaping occurs via and helps us to understand how people make sense of their place and attach values to place, but also provides insight in practices which re-localize and re embed daily lived practices in social–ecological systems and place-based assets, as starting points for sustainable development' (p. 35).

One of the important theoretical shifts in the CROCUS analysis of CCT in RRA, therefore, is a move from the concept of placemaking towards placeshaping. This helps us to avoid viewing RRA in terms of a narrow focus on physical development, as suggested by the term 'making', and it also provides a useful link to sustainable development. Horlings (2015) argues that from the standpoint of sustainability, a place-based approach is needed because:

- Places are arenas of debates and power struggles.
- Places are spaces endowed with meaning
- Places are sites of intervention (the global becomes tangible in local places)

Horlings sees place-shaping being expressed through practices, co-created between people and their environment. In this co-creation, culture plays an important mediating role. Place-shaping helps us understand how people make sense of their place and attach values to place, analysing practices which re-localize and re-embed everyday life in social–ecological systems and place-based resources, which provide the starting points for sustainable development. The placeshaping model developed by Horlings (2015) is based on a set of ecological, socio-cultural and political-economic processes, which are summarised in terms of the place development processes as 're-grounding', 're-appreciation' and 're-positioning' respectively. The processes identified by Horlings (2015) can also be linked to the different elements of the placemaking model proposed by Richards (2020), as well as the work of Panzera (2023) on cultural heritage and identities:

- Re-grounding can be equated to the identification and use of place-based assets and resources as suggested by Richards (2020), and the need to ground identities in cultural heritage, as suggested by Panzera (2023). These processes can be broadly grouped under the heading 'embedding', because they provide a link between place and development potential.
- Re-appreciation includes the perceptions, meanings and values attached to place, which maps very closely on to the meaning dimension of Richards' (2020) placemaking model, while the need to activate identities is an important element of Panzera's (2023) approach. These ideas can be seen as a form of valorisation, creating meaning and value from local assets.
- Re-positioning, or the process of adding value to places, mirrors Richards' creativity dimension, which focuses on the ways in which institutional and other actors can change the meanings attached to places by changing practices to provide more potential (for example through governance mechanisms). For Panzera (2023) the external environment exerts an important influence on cultural heritage, leading to a need to re-position and re-valorise heritage in response to external change. These processes can be seen as a form of strategizing.

Again, we see a movement towards a placemaking model in the shifting focus from resources (cultural sites) to meanings (identity), which can be linked through creativity (e.g. governance) (Richards, 2020). While Panzera's analysis rests on elements of place (intangible cultural heritage, identity), Richards emphasises the processes of creativity and meaning attached to resources, providing a more active, practice-based view of placemaking. The focus on activation and place potential can be increased if we shift from meaning (or identity) to meaning making (process). Panzera argues that the endowment of heritage must be 'activated' to produce feelings of solidarity, which also suggests a process of meaning-making.

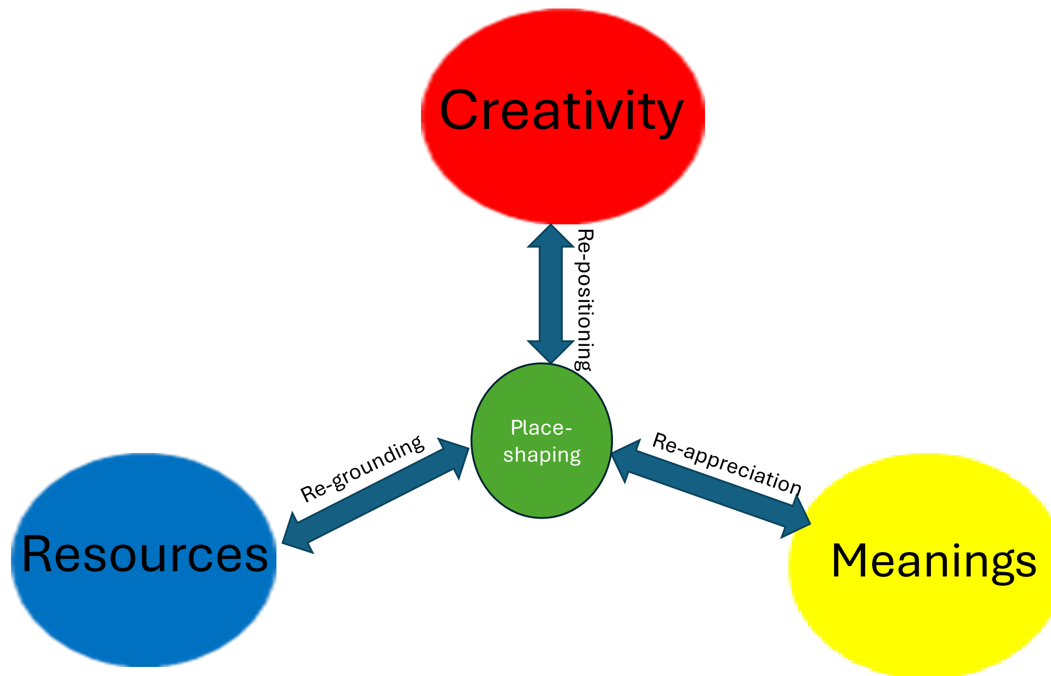
The flow of knowledge and creativity in RRA depends on 'distributed networks' of creatives rather than the creative clustering typical of urban areas as seen in Florida's (2002) 3Ts of Talent, Tolerance and Technology (Rodrigues *et al.,* 2024), but there is still a need to understand why and how rural areas are becoming attractive to creative people. This should include more empirical research in rural areas to understand the characteristics of rural creatives and how and why they decided to move to a non-urban area. This could be based on Florida's later adaptation of the 3T's, which are related to the quality of place. This encompasses three essential dimensions: resources including both built and natural elements, the backdrop these provide for the pursuit of creativity; the people and the diversity that supports creativity; and activities - the vibrancy of street life, café culture, arts, music, and outdoor activities. These elements map roughly onto the three dimensions of creative placemaking identified by Richards (2020), namely resources, meaning and creativity.

By moving towards a placeshaping perspective, we can arguably increase the scope and dynamism of the placemaking approach. Placeshaping adds a connection with the external context of places, which is particularly important in the context of RRA. However, it is important to retain the practice-based approach of Richards' model, which also provides a mechanism for placemaking and an analysis of *how* change can be achieved. In addition, whereas Richards' approach is based in cultural resources and creativity, fitting the focus of the CROCUS Project, Horling's (2015) place-shaping model is focussed more on ecological resources.

A placeshaping perspective also provides a subtle shift in the role of places, from victims of external development pressures to actors which are intimately involved in the processes of shaping themselves. This recursive view of placeshaping implies that places are shaped by, but also help to shape processes of change.

Figure 1 indicates how placemaking and placeshaping approaches can be integrated in the conceptual framework of the CROCUS Project.

Figure 1: Integrating placemaking and placeshaping approaches.



One of the conceptual moves that comes from integrating placemaking and placeshaping perspectives is a subtle move away from top-down approaches to development. Placemaking has traditionally been linked with the strategic role of planners and politicians who have a certain power to 'make' places. The placeshaping perspective, however, is more firmly bedded in co-creation practices between actors living in and using places. From the perspective of tourism, this means that places are not made as destinations for tourists, but rather that tourists also have a role in shaping the places they visit, along with residents and other mobile places users (migrants, workers, ex-pats, students). The tourist role in placeshaping includes the generation of new resources (economic, but also image, etc), injecting creativity (their wants spur new local businesses and practices) and changing meanings (places neglected by locals become re-shaped for tourists and others). They also have a cultural, social and ecological role (as suggested by Horlings, 2016). But tourists do not act alone – they are always interacting with other residents, entrepreneurs, the media and other local and distant actors to shape the places they visit.

Some studies are now appearing that adopt placeshaping perspectives on RRA. For example, Vasta, Figueiredo, Valente, Vihinen and Nieto-Romero (2019), examine placeshaping in the village of Várzea de Calde, located in a peripheral region of northern Portugal. They argue that place-based policies have helped the village overcome the disadvantages of remote location, providing linkages to other areas via the Villages and Portugal network and cultural heritage related to flax and linen production. Similarly, Storie, Chenault, Külvik and Bell (2020) analyse the role of governance in placeshaping processes related to cultural assets in rural Estonia, showing how local struggles over the meaning of cultural resources shaped the village of Obinitsa. They operationalised the placeshaping processes, placing an emphasis on leadership: 'Leaders …. have been instrumental in developing a re-appreciation of the areas' assets and re-grounded the re-appreciation of the assets to meet the local society's needs. In addition, the leaders … have been able to re-position those assets to meet future needs through developing a close supportive

network and encourage the development of creative businesses leading to a greater place dependence.' (p. 17).

Storie et al. (2020) conclude that leadership is important in place-shaping processes to aid rural development, but continuing population decline suggests that these actions have not led to sustainable communities. In line with the creativity element in the CROCUS model (Figure 1), they argue that creativity is needed to project a vision for the future, particularly in developing intergenerational dialogue.

4.3 Implications of a place-based approach

The CROCUS Project aims to make a number of conceptual advances in relation to the study of CCT in RRA. These include adopting a holistic approach to relationships between culture, creativity and place, moving away from a sectoral view of tourism activity towards a placemaking and placeshaping approach, and emphasising the role of tourists as place actors. These shifts underpin a place-based approach to CCT in RRA.

The bottom-up, co-created placeshaping approach of CROCUS goes beyond a simple focus on places. The concept of place in studies of RRA is usually reduced to specific locations, rather than holistic considerations of geographical inter-relationships. For example, only three sources in the CROCUS literature review deal specifically with 'cultural landscapes', which suggests a lack of holistic approaches to cultural tourism. In a place-based approach the specificities of places are seen as parts of a system of practices, which influence the actions and potentials of that place. What becomes important is not who is in a place, but rather what practices attract them, involve them and embed them in place. This should also go beyond a simple translation of Florida's 3Ts for a rural creative class to embrace ideas of place attachment and identity capital, as suggested by Panzera (2023).

A place-based approach also leads to the idea of places as assemblages of cultural and creative resources. These assemblages, as Panzera (2023) suggests, need to be 'activated' to make them attractive and accessible for visitors and residents alike. This process of activation can be seen as the construction of different 'business models', which provide an architecture of value creation opportunities. Each business model gives structure to a different part of the assemblage of cultural and creative resources, providing a practice bundle involving different sets of actors (producers, consumers and organisations) in the generation of experiences.

CROCUS will advance the theorisation of CCT business models as inherently place-based, incorporating not only directly business-oriented aspects, such customer segments, revenues and costs, but also processes of meaning-making and representation, as well as diverse activities such as conservation, infrastructure development, and place branding, involving many different stakeholders. Embedding CCT business models in placemaking signals a shift from concern with short-term economic gain to long term sustainability and value creation (Richards, 2020). This also offers a potential solution to the 'serial reproduction' problem, whereby small communities in RRA develop very similar tourism products, increasing competition between them. Incorporating bottom-up placemaking can help to identify distinct experiences that give meaning for both local communities and tourists (Miettinen *et al.*, 2019).

Finally, conceptualising CCT development as part of placemaking underlines the importance of the wider environmental impacts and planning implications of different business models in terms of resource use, mobility patterns and carrying capacity.

In the following sections we outline how the CROCUS will implement a place-based approach through its methodological framework based on a design thinking approach to business model innovation in cross-border living labs.

5 LIVING LABS

CROCUS studies the development of inclusive and sustainable cultural and creative tourism business models as an integral part of place-shaping in cross-border rural and remote areas (RRA). These business models are set in the context of wider international trends described in Section 3 of this report, and in relation to regional, national, macro-regional and EU policies and strategies which set priorities, provide funding opportunities, and establish the governance framework within which CCT development processes take place.

At the heart of CROCUS is a process of cross-border cooperation to prototype sustainable CCT business models in eight living labs, which will be established in cross-border RRA, comprised of two neighbouring border regions, and led by a living lab core group of stakeholders.

5.1 What are living labs?

Living labs have become increasingly popular platforms for collaborative innovation involving multiple stakeholders. Their roots can be traced back to the 1980s and social experiments with ICT, and then through the digital city concept in the 1990s (ENoLL, 2017) and to the testing of new technologies in home-like environments in the early 2000s (Bergvall-Kåreborn & Stålbröst, 2009).

Living labs can be defined as an approach to innovation in which all stakeholders in a product or service participate directly in the development process. Living labs are spaces for open innovation where real-life issues are addressed through co-creation involving representatives from business, society, and academia (Hagy, et al., 2017). Co-creation is a method based on the assumption that value cannot be delivered by firms alone but requires exchanges with users, partners, and community stakeholders. This approach is critical to achieving sustainable cultural tourism, defined as 'the integrated management of cultural heritage and tourism activities in conjunction with the local community, creating social, environmental and economic benefits for all stakeholders in order to achieve tangible and intangible cultural heritage conservation and sustainable tourism development' (European Commission, 2019), and it is arguably even more crucial in creative tourism (Binkhorst & Den Dekker, 2013). In living labs stakeholders are brought together to explore, examine, and evaluate new ideas, scenarios, processes, and creative solutions, and they have previously been successfully used in inclusive, community-based cultural tourism development processes.

Despite their popularity, however, the key characteristics of living labs are still widely debated (Westerlund, Leminen & Habib, 2018) and there is disagreement over the similarities and differences between them and other innovation platforms (Dell'Era & Landon, 2014). In their paper on the defining characteristics of urban living labs, for example, Steen and van Bueren (2017) noted that the term is often used interchangeably with other concepts, such as 'hub', 'urban lab', 'city laboratory' or 'incubator'. Koens, et al. (2024) also note the confusion, and present a typology which distinguishes living labs from other kinds of labs on the basis of the complexity of stakeholder involvement. At the lower end of the scale, university labs are used mostly with students. Field labs and research-driven labs involve greater stakeholder involvement in local 'controlled' practice, while living labs involve complex and dynamic 'real life' problems, taking a systemic perspective.

Many of those writing about living labs focus mainly on their role in relation to innovation processes, noting that they are used in 'the development of new products, systems, services, and processes.' (JPI Urban Europe, 2015: 59). The European Network of Living Labs (ENoLL) thus defines living labs as:

'open innovation ecosystems in real-life environments using iterative feedback processes throughout a lifecycle approach of an innovation to create sustainable impact. They focus on co-creation, rapid prototyping & testing and scaling-up innovations & businesses, providing (different types of) joint-value to the involved stakeholders' (ENoLL, 2024, np).

Other definitions take a broader perspective on the purpose of living labs. Westerlund, Leminen & Habib 2018, p56-57) for example, explicitly broaden the definition beyond the development of new technologies, products or services:

‘A living lab is a sociotechnical platform with shared resources, collaboration framework, and real-life context, which organizes its stakeholders into an innovation ecosystem that relies on representative governance, open standards, and diverse activities and methods to gather, create, communicate, and deliver new knowledge, validated solutions, professional development, and social impact.’

Many other definitions of living labs exist, and a list is provided by Steen and van Bueren (2017) in an online appendix to their article. Based on their review of the literature, Steen and van Bueren (2017) suggest defining characteristics of living labs across four dimensions: aim; activities; participants; context. In relation to aims, they argue that the overall purpose of living labs is to learn and experiment, and that the emphasis on formalise knowledge production and exchange sets living labs apart from other policy experiments. In relation to activities, the development of a product or process is the focus, and co-creation, where a solution is developed together with users is key. Furthermore, this process is iterative, such that the prototype product is used and evaluated by the stakeholders. Participants in a living lab comprise all actors who have a stake in the product and process leading to it. Steen and van Bueren argue that this should include, at a minimum, users (who may be citizens), private actors, public actors, knowledge institutes. Finally, there is a clear consensus that living labs take place in real-life contexts (which could be physical or virtual).

Steen and van Bueren's list of key characteristics is similar to those identified by other scholars and practitioners. Bergvall-Kåreborn and Ståhlbröst (2009) suggest that living labs have three core principles: empowerment of users; openness through crowdsourcing and engaging lead users, and realism by

operating in real-world settings. Guimonte and Lapointe (2016) highlight a technology infrastructure, an ecosystem of stakeholders, an open innovation process, active user involvement, a human-centric design approach, sustained interaction and community involvement, as well as consideration of users' natural environments. Finally, ENoLL lists the following on its website: active user involvement; real-life setting; multi-stakeholder participation; multi-method approach; and co-creation.

Although most living labs share many similar characteristics, they also take many different forms and have different aims and organisational structures. In their analysis of 40 applications from the European Network of Living Labs (ENoLL), Westerlund, Leminen and Habib (2018) identified various aims and objectives for living labs, including teamwork and collaboration and establishing joint operations to manage resources such as incubation spaces and knowledge databases. Some labs aimed to create positive social impacts in their regions, including citizen engagement, developing technologies that meet community needs or improve urban infrastructure. Others provided business development support and services such product research, market analysis and training. Living labs also acted as test beds offering a space for experimentation and testing new ideas and products in real-world settings with users. In relation to governance, Westerlund, Leminen and Habib (2018) note that it is difficult to identify a specific governance structure for living labs. The legal structures of living lab applications they analysed include private labs, public-private partnerships, and public labs, and funding came mainly from government grants and the public sector, but some income was also generated from consulting, leasing facilities or royalties/sales of products developed in the lab.

One of the main reasons for this diversity is that living labs are established by different actors with different aims, 'including researchers focused on 'sustainability' issues, as well as the private sector, that sees such platforms as an opportunity for new forms of business development, and finally a public sector that also sees the value in such participative methods' (Mastelic *et al.*, 2015, p16). Thus, living labs vary according to the type of actor that drives their activities. Leminen, Westerlund and Nyström (2012) distinguished between four main types. *Utilizer-driven* living labs, launched by companies, are used to develop and test the firm's products and services. *Enabler-driven* labs are set up by public sector and non-governmental organisations such as municipalities or development agencies, and typically pursue societal goals. *Provider-driven* labs are launched by organisations such as universities or consultants and promote research and knowledge creation, for example, for educational purposes. Finally, *user-driven* labs are established by user communities and aim to solve their everyday problems, typically associated with a particular problem or community of interest, such as the indigenous Sámi community in Finland. The CROCUS Living Lbs will include elements of user, enabler and provider driven strategies, because they involve a wide range of stakeholders in testing concepts of societal value that will also generate research outcomes.

Many writers emphasise the benefits of living labs. These include support for collaborative innovation that improves the products and services, creating customised solutions that are tailored to the needs of the user and/or local community (Westerlund *et al.*, 2018). Others highlight their role in providing insight into potentially hidden user and consumer needs in real life settings, facilitating knowledge-sharing and reducing the risks of product/service failure (Guimont & Laponte, 2016; Westerlund & Leminen, 2011). Due to the involvement of a wide range of stakeholders, living labs are considered to be inclusive (Franz *et al.*, 2015; Zavratnik *et al.*, 2019) and valuable not only in terms of economic growth and technological

innovation, but also promoting social well-being and sustainability (Claude *et al.*, 2017; Leal Filho *et al.*, 2023; Steern & van Buren, 2023).

There are also challenges associated with establishing and running living labs. Leal Filho et al. (2023) identify tensions between different interest groups and the administrative burden of running labs as key difficulties. Securing long-term community participation can also be challenging (Šker & Floricic, 2019) Other researchers have highlighted the difficulties of moving from ideas to coherent products or services and have found the development of realistic business models for entrepreneurship to be problematic (Torres Valdes et al., 2019; Sker & Floricic, 2019).

5.2 Living Labs in a tourism context

Koens et al. (2024) reflects on their experiences working with the EU projects SMARTDEST and SmartCulTour, which are particularly relevant for CROCUS because they aimed to design interventions for developing sustainable cultural tourism. They argue that the living lab concept was attractive but lack of clarity about what they are and do was problematic, especially confusion about who has ownership of outcomes. Stakeholders expected clear guidelines and goals. Koens et al. (2024) also note that community and business stakeholders wanted results as they participated in their spare time. They argue that some stakeholders may not engage unless they are remunerated or otherwise motivated. Other issues noted by the authors were the difficulties balancing structured, rational, problem-solving interventions and opportunities for engagement and interactions. Finally, Koens et al. (2024, p6) also highlights the challenges facing project-based lab such as CROCUS, which 'often have a limited lifespan and a set agenda as they lack funding options to keep running after a project ends. If only a few workshops are conducted, one may question whether the activities really represent a living lab, or whether they represent another lab-based environment'. They advise others to be modest in their ambitions for living labs rather than over-promising.

In their report on the experiences of the SmartCulTour project's six living labs, Fidelbo et al. (2023) also identify several challenges that CROCUS needs to take into account. Firstly, securing long term funding for living labs can be difficult, which makes it difficult to continue activities after project funding runs out. Secondly, it can be challenging to engage a wide range of stakeholders because so many different groups need to be involved, and they may have conflicting wishes, limited availability or interest in the lab. Thirdly, free-riding of participants was also identified as a challenge, especially where potential benefits are indirect and shared across a community. Fourthly, scaling and generalisability is both an opportunity and challenge, since labs are focused on local problems and are very context dependent. Fifthly, regulatory and policy frameworks are also identified as a potential barrier to innovation, since the living lab participants might not understand the regulatory landscape and how it may limit the implementation of their ideas. Finally, knowledge sharing, and intellectual property is a particular issue when the lab involves private sector stakeholders who may be competing with one another. These issues will be considered in relation to the risk assessment and mitigation sections of the CROCUS living lab terms of reference.

On the basis of the SmartCulTour experiences, Fidelbo et al. (2023, p 124-125) make a number of concrete recommendations for the set-up of living labs on sustainable cultural development:

- Clearly define characteristics and ambitions at the start of the project
- Appoint a local lab manager
- Work in local languages
- Embed the living lab into already existing structures
- Adapt participation methods to local contexts
- Ensure flexibility in planning
- Establish governance frameworks and legal clarity on ownership of lab results
- Ensure clear division of roles and responsibilities
- Set up effective and efficient monitoring system and common frameworks for evaluation
- Provide participants with a roadmap for future action
- Ensure inclusion of local communities, cultural groups, government entities, tourism operators, NGOs and academia.

Calzada (2019) presents findings from a tourism living lab in the town of Sumaia in the Basque Country. The lab used a Penta Helix framework, including stakeholders from the public sector, private sector, civic society, academia and social entrepreneurs. The lab aimed to develop a touristic roadmap in the context of growing 'tourismophobia' sparked by a rapid increase in visitor numbers due to the promotion of Sumaia in the UNESCO Global Geoparks Network and the production of the well-known TV series *Game of Thrones* in the area. The case is particularly interesting for CROCUS because it conceptualises the living lab as part of locally-rooted, organic placemaking through participatory planning processes. Calzada (2019) emphasises the importance of including local entrepreneurs, whose initiatives helped create overall agreement and opportunity for collective action, even when stakeholders held a variety of views. Calzada (2019) argues that this living lab case is an example of a new placemaking touristic paradigm based on local entrepreneurship, real-time deliberation through data literacy, citizen-centric engagement, and prototyping, as well as a democratic bottom-up process. He suggests that the multistakeholder framework, based on the Penta Helix is a promising way of breaking down silos to foster local entrepreneurship.

Dickinger and Kolomoyets (2024) focus on value co-creation in their analysis of six tourism living labs, including three in rural destinations. They highlight several important factors. Their respondents emphasised the importance of including stakeholders with complementary roles in the living lab who contribute regularly. Engaging a local individual who has a preexisting relationship with a specific social group is important to ensure the inclusion of minorities. Entrepreneurs are considered to be very important since they shape the components of the tourism product; however, it can be challenging to get them to fully engage due to the time commitment. They are also likely to have conflicting motives since they prioritise the development of their own business. Municipalities and policymakers were also considered to be critical in relation to implementing innovations. Given the diverse backgrounds of participants, it is crucial for them to agree on a set of collaboration principals, focusing on collective goals rather than individual interests. Dickinger and Kolomoyets (2024) note that fluctuation in the rate of participation is likely due to the inclusive nature of living labs. Bi-lateral consultations are suggested for key actors who are not able to participate in key workshops or meetings. Respondents also emphasised the importance of good facilitation, including moderating, providing creative tools and initiating experimentation in the living lab. Clear structure and transparency are highlighted as essential to keep stakeholders' motivation, even when an idea they do not initially support is chosen. A predefined

set of rules and a dedicated living lab manager, responsible for coordination and communication is important.

Dickinger and Kolomoyets (2024) found three main outcomes from the living labs. First the interaction and discussions in the labs strengthened or even created new inter-organisational networks, which support collaboration between often isolated actors in the tourism sector. Second, the development of innovations was seen as a valuable outcome, but implementation required commitment from participants who must take ownership of implementation. Third, capacity-building activities in the living labs promoted the creation of intangible resources, such as more informed residents and businesses, networks and training, which were seen as important for the longer-term impact of the labs.

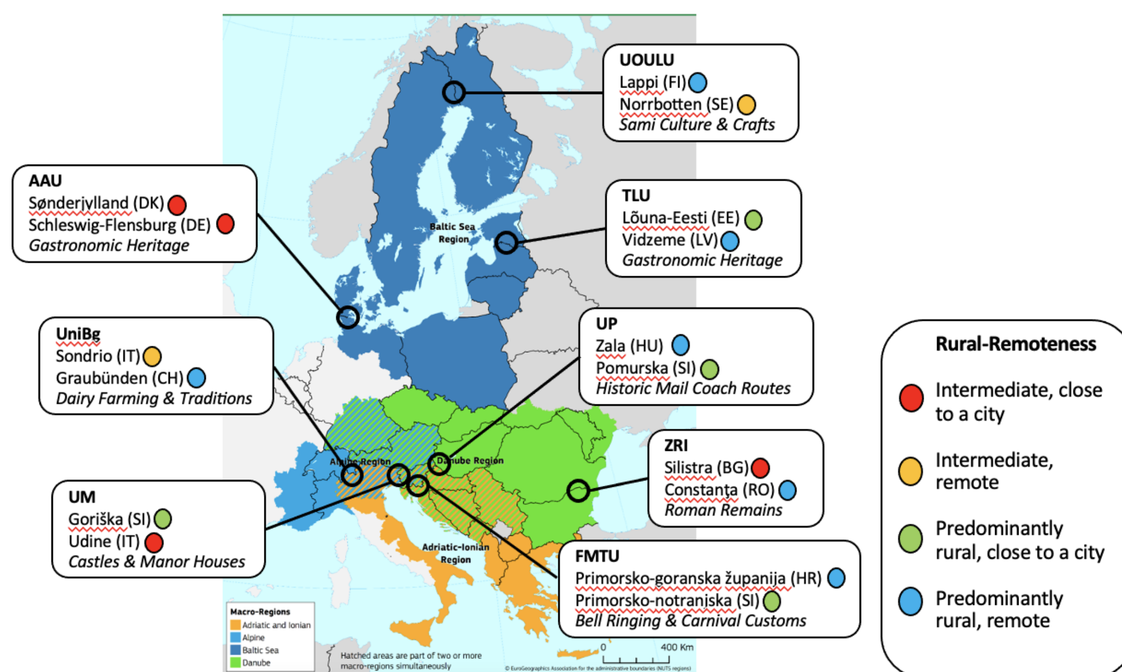
5.3 Place, scale and territoriality: Living labs in CROCUS

At the heart of CROCUS is a process of cross-border cooperation to prototype sustainable CCT business models in eight living labs, which will be established in cross-border RRA, comprised of two neighbouring border regions, and led by a local living lab coordinator. The project focuses specifically on cross-border areas, which have been selected to ensure coverage of:

- all four EU macro-regions
- a range of different types of rurality, from rural areas close to cities to extremely remote regions
- different types of tangible and intangible cultural heritage that can become part of placemaking processes.

The location of the living labs, consortium partner responsible, border regions and countries involved, type of cultural heritage and degree of rural remoteness for each border region (NUTS 3 level) is shown in Figure 2.

Figure 2 Location of CROCUS Living Labs



The centrality of place-shaping and cross-border collaboration in CROCUS means that we pay particular attention to issues related to place, scale and territoriality in the establishment and operation of the project's living labs. As Bergvall-Kåreborn and Ståhlbröst (2009) notes, living labs themselves can be conceptualised as method and as a milieu or environment. Guimont and Lapointe's (2016) report on a living lab that worked with developing a technology-enhanced tourism experience stresses that the question of territories and scales 'is extremely relevant when considering living lab interventions in a regional development context, especially in strongly territorial industries such as tourism' (ibid, p23). Schuurman (2015) and Schuurman et al. (2015) propose a three-level model for living labs consisting of the macro, meso and micro level. The macro level is the living lab constellation, which is a public-private-people partnership of different stakeholders who organise innovation projects and share knowledge. At the macro level the focus is not only on the completion of specific innovation projects but also on the broader impact and innovation capacity of stakeholders not directly involved in the living lab project. Guimont and Lapointe (2016) describe this as the 'concertation/governance' level. The meso level is the specific living lab project where users and other stakeholders interact and co-create. It is at this level that the planning of workshops and other activities takes place and Guimont and Lapointe (2016) describe it as the 'intervention/steering' level, and they note that in project-based living labs the macro and meso level often overlap. Finally, the micro level is the level where stakeholders meet and work together to co-create and test innovative concepts, for example through workshops and testing. This level comprises the concrete, methodological steps and actions for the living lab. Guimont and Lapointe (2016) call this the 'socialization/encounter' level.

CROCUS adopts a holistic approach to culture, creativity and place, moving away from a sectoral view of tourism activity towards a placemaking and placeshaping approach. Thus, the project's living labs are concerned not only with micro-level innovation processes (living labs as methodology) aimed at developing products or services for individual firms but integrating the needs and concerns of stakeholders and impacts at the macro level (living labs as milieu). The relatively short time span of the project means that it is particularly important to embed the labs work in existing structures and initiatives at the macro level and ensure a clear roadmap for implementation after the project ends.

The CROCUS living labs are unusual in that they operate across national borders. Over the last few decades, the internal borders of the EU have become more permeable. This has led to a huge increase in cross-border travel, and integration policy has promoted border regions as spaces of communication, connection, and interaction (Prokkola, 2007). Borders and their adjacent regions are spaces where social, cultural, and economic differences are negotiated. For this reason, they are often popular tourist attractions that offer encounters with different types of 'otherness' (e.g., gastronomic, linguistic), and tourism features heavily in cross-border cooperation initiatives.

Cross-border cooperation is particularly important in relation to tourism development in rural border regions because it can counterbalance the peripheralization that they often experience in relation to their nation state and metropolitan areas (Nienaber & Wille, 2020), as well as helping to avoid damaging competition between neighbouring destinations and the duplication of efforts in relation to marketing and infrastructure (Stoffelen, Ioannides & Vanneste, 2017). Cross-border tourism projects have led to job creation, better management of tourism flows and environmental impacts (Prokkola, 2008), and an increase in social, economic, and political cross-border relations (Stoffelen, 2018). There is therefore a consensus that tourism cross-border cooperation is desirable, but tourism-related cross-border

cooperation can be complicated due to differences in legal and institutional structures and the degree of cultural, linguistic, and political similarity also varies greatly between border regions, creating obstacles to successful collaboration. Existing research suggests that a bottom-up approach, active local involvement of citizens and businesses (Marton et al., 2017) and securing longer-term funding so that activities are economically sustainable beyond the life of individual projects is critical (Shepherd and Ioannides, 2020).

CROCUS attempts to address these challenges by setting up its living labs in such a way that they contain both a cross-border knowledge sharing and development process (core development team) but with some activities taking place at the local level on each side of the border (prototyping and testing workshops). In this way the project aims to stimulate cross-border exchanges and collaboration at the macro level, but also allow for cross-sectoral and cross-community processes of co-creation on each side of the border at the meso and micro level.

The rural context of the CROCUS living labs is also crucial. Although real life context is central to the living lab concept, we know little about how context affects co-creation processes. As Soini et al. (2023, p2) argue, 'neglecting the influence of the context on co-creation may lead to standardized and 'placeless' processes, and the underlying reasons for possible success factors as well as problems (e.g. stakeholder fatigue) in Living Labs may remain poorly understood'.

Living labs in rural areas face specific challenges. As Zavratnik, Superina and Stojmenova Duh (2019, p. 6) argue, rural living labs 'have to take into consideration the complexities of demographic challenges, consequences of emigration/immigration, ageing of the rural population, climate change and its implications for the livelihoods of the rural population, etc.' Rural and remote areas face specific issues in relation to bringing stakeholders together. Populations are more dispersed and there may be long distances between towns and villages.

A number of EU projects have previously worked with rural living labs and offer insights into how CROCUS can best develop its living labs. One project, which is the subject of several reports and articles is Collaboration@Rural (C@R), funded under the EU FP5 programme, which ran from 2006 to 2009 and established seven rural living labs in Cudillero and Soria (in Spain), Åboland (Finland), Frascati (Italy), Homokhatsag (Hungary), Vysocina (Czech Republic), and Sekhukhune (South Africa). The project aimed to address the challenges faced in rural areas by developing and experimenting with a collaborative platform to enhance living and working conditions. It worked with business value chain innovations in sectors such as agriculture, fisheries and forestry. Schaffers, Merz and Guzman (2009) report on the experiences of the project and make a number of recommendations for the establishment and operation of rural living labs. These include establishing collaborative agreements with key rural stakeholders before starting the project, developing open innovation/collaboration agreements to ensure the afterlife of the labs, monitoring the living lab processes continuously and capitalising on the network of labs to support knowledge exchange and learning. Guzman et al. (2008, p. 8) reporting on the same project, concluded that 'it is relatively easy to envisage a toolbox of concepts, methods and strategies. However, the crucial challenge is to intelligently adapt such methods and strategies to local context and make them really work in complex and even conflict-rich situations'. The project's final report emphasises that the context of rural areas needs to be taken into consideration, including infrastructure and resources, local interests, external drivers and developments (funding, policies, investment).

Researchers from the Open Air Laboratories for Nature Based Solutions (NBS) to Manage Hydro-Meteorological Risks (OPERANDUM) project have also reflected explicitly on the differences between urban and rural living labs, and the importance of a place-based co-creation process (Soini et al., 2023). This project explored NBS in the context of natural hazards but many of the insights from the project are relevant to CROCUS. Soini et al. (2023) note that research teams involved in rural living labs may face challenges due to the distance from research institutions and stakeholders, which may impact on the frequency of visits and trust-building with local communities. In addition, demographic trends such as outmigration and aging may influence stakeholder engagement and participation in the co-creation process. They also suggest that collaboration between researchers, businesses and the public sector is often weaker in rural areas, so more time is needed to build collaboration. They also suggest that institutional arrangements may be more straightforward in rural areas as there is less overlap and fewer people involved.

More generally, Soini et al. (2023) emphasise the importance of ecological and physical context (including the size and type of ecosystem, nature and cultural landscape of the living lab), the socio-economic and cultural context of co-creation (social and cultural diversity, conflicts of interest) and the institutional context (especially the public section in relation to planning and regulation, previous experience and trust in public authorities).

In summary, Living Labs can generate innovation through direct stakeholders' involvement in the development of a service or experience. They work through bottom-up processes to support collaborative innovation, customising solutions to local needs and reducing the risks of new service failure. Living Labs have a wide range of aims, but basically support learning and experimentation through direct involvement of stakeholders. They are now beginning to be applied in tourism, including in other Horizon projects. Previous studies show that clearly defined aims, local input and embedding, flexibility, good governance and inclusion are key success factors. For CROCUS it will be important to ensure responsiveness to local needs within the European context of the project. The appointment of local Living Lab facilitators will help to support local embedding, while keeping sight of the EU macro-region context.

The development of the CROCUS Living Labs will therefore need to respond to a range of different types of rurality and remoteness in areas with widely differing tangible and intangible heritage resources. The cross-border collaboration integral to the CROCUS approach provides additional challenges. This will require Living Lab strategies that are sensitive to diversity in terms of both language and culture.

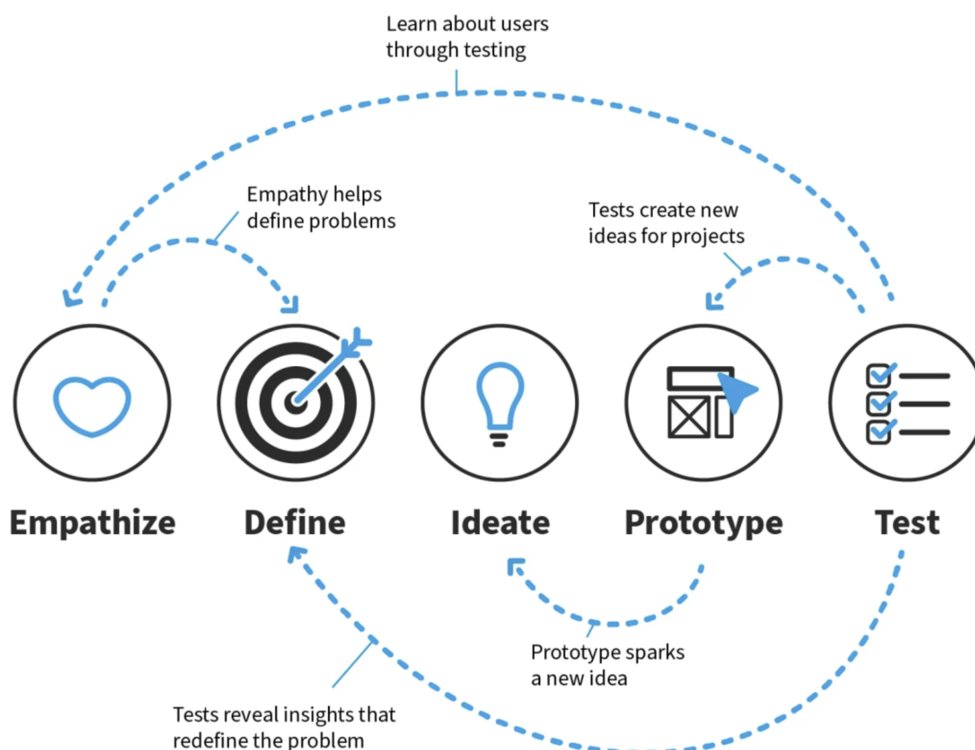
6 DESIGN THINKING IN CROCUS

6.1 Design Thinking and Responsible Innovation

CROCUS adopts a design thinking approach to the operation of its living labs. Design thinking is a form of human-centred problem solving that takes the form of an interactive and iterative process through which products, processes or services can be designed (Brown, 2008; Seitz, 2020).

CROCUS adopts the five-stage design thinking model proposed by the Hasso Plattner Institute of Design at Stanford (the d.school) as depicted in Figure 3. It consists of five 'modes': empathising, defining, ideating, prototyping, and testing. The 'empathising' phase is about understanding what the problem is and involves engaging with those who are affected by the issue. The 'define' phase is about using the insights from the 'empathising' phase to clearly define the problem to be addressed. The 'ideating' phase is about generating a variety of answers to the defined problem, co-designing with a range of different stakeholders. The 'prototyping' and testing phases involve creating small-scale prototype solutions to test with users and stakeholders.

Figure 3: Design thinking process. Source: Interaction Design Foundation, CC BY-SA 4.0



Design thinking can be understood as a paradigm, that is, 'a set of specific principles, methods, and tools to practice design' (Verganti, Dell'Era and Swan, 2021, p 605). Drawing on the work of Liedtka (2015) and Micheli et al. (2019), Verganti, Dell'Era and Swan (2021) identify three key characteristics of all models of design thinking: user centredness; ideation and; iterative prototyping. User centredness refers to the fact that design thinking processes always start from the user's perspectives, problems and unmet

wants and desires. Ideation refers to the process of generating many ideas in a creative manner. It implies that good solutions emerge from a large number of initial ideas and by including a variety of perspectives. Finally, iterative prototyping lies at the heart of the design thinking process. It implies that design is a process that requires trial and error, and that visual and material representations.

Although design thinking has been widely identified as a useful tool for innovation, it has also been critiqued as being too abstract (Leal Filho et al., 2024) and potentially too focussed on user needs rather than broader societal goals (Mahato, Phi & Prats, 2021). In their critical review of the literature on design thinking, Baldassarre et al. (2024) found that it has become increasingly associated with competitive advantage and economic outcomes. Of the 115 articles they reviewed, 90% discussed design thinking as an approach for business to gain competitive advantage through superior innovation performance. By contrast, 40% discussed it as user-centred approach that businesses, non-profits and governments can use to improve people’s lives through social innovation, and only 7% discussed it as a way to address environmental issues. Baldassarre et al. (2024) set out a framework to integrate design thinking with business ethics and the concept of responsible innovation, which would address the broader social and environmental implications of innovation. This framework for responsible design thinking builds on the four characteristics of responsible innovation set out by Stilgoe, Macnaghten and Owen (2013): reflexivity; anticipation; inclusion; and responsiveness.

Reflexivity refers to the ability of individuals and organisations to critically reflect on their own assumptions, values and practices, thereby contributing to more transparent and ethical innovation processes that integrate societal considerations. It requires openness to alternative perspectives and values, which may not align with stakeholders’ initial assumptions.

Anticipation refers to systematic reflection and ‘what if’ questions that help individuals and organisations foresee the implications of innovation. It involves consideration of contingencies, the likelihood of different consequences and plausibility of outcomes. Successful anticipation requires an understanding of the dynamics that shape futures.

Inclusion refers to the active involvement of a variety of relevant stakeholders and incorporating different perspectives, values and knowledge into innovation processes. It is recognised that inclusion can be challenging due to power dynamics and the need for clarity about the purpose and motivations for dialogue between stakeholders.

Responsiveness refers to the ability of individuals and organisations to adapt innovation pathways in response to changing societal needs and values. It involves reacting to new knowledge and perspectives, aligning innovation with societal needs and values in the context of evolving social, ethical and political contexts.

CROCUS aims to incorporate these characteristics into the design thinking processes of its living labs, using the five phases of the d.school approach, as set out in the following sections.

6.2 Empathising and defining

Empathising refers to understanding the needs, challenges, and values of users. In relation to CCT as part of placemaking, this entails the inclusion of local businesses and citizens in the cross-border RRA, as well as tourists. The empathising phase will begin with the research team collecting data and analysing the specific needs, challenges, and capacities of each cross-border area through interviews with key CCT stakeholders, as well as surveys of citizens, businesses and tourists regarding their needs and preferences. Following Baldassare et al. (2024), the aim of these phases is to engage in 'reflective framing', which generates multiple perspectives on social and/or environmental challenges associated with CCT in the living lab areas, and 'anticipatory envisioning', which foresees the implications and desired outcomes of innovation. A number of contributions to the literature focus on concrete tools and processes to support sustainable business model innovation, which are relevant to the empathising work of the CROCUS living labs. Baldassarre et al. (2017) for example, build on ideas from user-centred innovation and design thinking in their proposal for sustainable value proposition design. They emphasise the importance of talking to a network of stakeholders to understand the multiple perspectives on the sustainability problem and potentially unexpected connections to other types of problems and stakeholders.

Based on a common framework for the empathising phase, the core development team for each lab will together identify other important stakeholders and sources of data so that the researchers can investigate the social, economic, environmental, and institutional contexts, cultural and natural heritage and capacities of the cross-border area as well as the needs and perspectives of local businesses, citizens and tourists. The research teams will collect secondary data and analyse relevant indicators (including tourism statistics, environmental, social, economic and CCT indicators). They will also undertake surveys of citizens, businesses, and tourists to establish their engagement with CCT, understand the impacts of existing tourism activities on local communities, and identify the needs and priorities of different stakeholder groups regarding CCT development. The framework for empathising and defining is described in D4.1

The researchers' analysis will enable the core development team to define the parameters for the further work of the living labs.

6.3 Ideating

The ideating phase takes place in two workshops (one on each side of the border) and will engage a range of CCT stakeholders, citizens and policymakers in discussions and idea-generation regarding the development of new, sustainable CCT business model prototypes. Drawing on Baldassarre et al. (2024), the aim here is to engage in 'inclusive co-creating' where multiple stakeholders are part of the design process.

The workshops will be run by a local facilitator who is familiar with the area. The process will be based on inclusive and participatory tools, such as placemaking sketches, participatory systems mapping and persona role playing. Micheli et al. (2019) describe several relevant tools and methods, including

personas, journey maps, brainstorming, mind maps and visualisation. CROCUS will also draw on the service design and art-based methods used in the SmartCulTour project (Li *et al.*, 2021).

Drawing on the input from this phase, the core development team will develop the ideas into prototypes and present them using the sustainable business model canvas tool. Each living lab will produce two sustainable CCT business model prototypes, which will be refined following feedback workshops in each border region. The core development teams will also develop roadmaps for piloting, promotion, and future cross-border cooperation so that the testing phase of the design thinking process can be implemented after the end of the project.

Achieving buy-in and engagement from businesses and citizens is crucial, particularly in the ideating phase where a wide range of input and perspectives is necessary, and in providing feedback on draft prototypes. The number of workshops with physical attendance will be limited so that stakeholders are not over-burdened. The prototyping process (Task 5.2) begins with ideation workshops (one on each side of the border) that will be used to gather ideas and input regarding possible new sustainable business models and potential for cross-border cooperation from a range of stakeholders in the two border regions involved in each living lab. It is anticipated that 10-20 stakeholders will take part in each workshop. Various participatory methods and tools will be used during the workshops, such as honeycomb mapping, persona development tools, customer journey mapping, and creative platform ideation tools, and these will be tailored to the local context. All workshop materials will be translated into the local languages. CROCUS is mindful of the importance of culturally sensitive and sustainable tourism development and the core development teams will use their local networks to ensure the inclusion of a wide range of stakeholders, including citizens of different social backgrounds, age groups and gender. The local knowledge of the living lab coordinators will be crucial to navigating potential existing or potential clashes in the community around the use of cultural heritage.

6.4 Prototyping and testing

Following the ideation workshops, the core development team in each living lab will then use the material produced develop two draft business model prototypes in dialogue with other stakeholders. The prototypes will take the form of sustainable business model canvases that summarise the main value proposition, partners, resources, customer segments, communication channels, revenue, costs, and eco-social costs and benefits. This format has been chosen because it is simple and comprehensive and integrates sustainability issues as a core part of business model development. Development of the prototypes will specifically consider any processes of settlement development that might be required and will consider the protection of nature and built heritage. Given the importance of digital communication channels, each business model prototype will include a digital marketing element, which will help to promote the cross-border area. The draft prototypes will be tested in a feedback and refining workshop with local stakeholders.

The final part of the prototyping process will be to lay the groundwork for long-term project sustainability by developing roadmaps for piloting and future promotion of the new business models (including possibilities for funding) after the project ends, and for further development of cross-border cooperation. This will include strategies to monitor the development and social, economic, and

environmental impacts of the business models in the longer term. The overall aim is therefore to engage in what Baldassarre and colleagues (2024) call ‘responsive prototyping’, that is, recognising that the prototypes produced during CROCUS it will continue to be adjusted and improved in collaboration with local stakeholders after the project ends, and that evolving economic, social, and environmental impacts must be taken into account.

The basic model for the operation of the living labs and business model prototyping in WP4 and WP5 is illustrated in Figure 4. The progress of the living labs will be monitored and evaluated through reporting templates for the workshops and bi-monthly online meetings attended by the living lab coordinators. These meetings will also enable the sharing of experience and knowledge between the labs. Members of the research teams will be present at workshops and will be part of the core development teams. They will study the cooperation processes in the as they unfold, using participant observation and interviews with participants (minimum 8 per living lab) to gain an in depth understanding of the process from the perspective of different stakeholders.

Figure 4: CROCUS living labs design thinking process and stakeholder input & participation in workshops

	WP4			WP5						
	Empathising research		**Definition workshop**	**Develop prototyping protocol, tools & resources**	**Ideation workshop**		**Develop draft prototypes**	**Feedback & refining workshop**		**Develop piloting, promotion & cooperation roadmaps**
	Cross-border area with data collection in border regions A & B		**Cross-border area**	**Cross-border area**	**Border region A**	**Border region B**	**Cross-border area**	**Border region A**	**Border region B**	**Cross-border area**
Living lab core development team (e.g. university, DMO/local authority x2 CCT organisation x 2)	●		●	●	●	●	●	●	●	●
Local stakeholders (e.g. businesses, citizens, tourism & culture policymakers, cultural institutions & organisations)	●	●			●	●		●	●	
	Ongoing dissemination & engagement with local stakeholders (WP8)									

7 CONCLUSIONS

Our review of the literature on CCT in RRA in Europe indicates that there are still a number of gaps in the literature that need to be addressed in order to meet the CROCUS objectives of developing innovative, sustainable cross border initiatives. There has been a substantial growth in CCT research in recent years, but relatively little attention has been paid to CCT in RRA or cross-border initiatives. There is also a need to develop more holistic, place-based perspectives on CCT, which is often treated separately from other areas of development.

There is also a lack of research on placemaking and placeshaping processes in relation to CCT. The holistic approach proposed by CROCUS combines placemaking and placeshaping perspectives in order to integrate major elements of place (resources, meanings, creativity) and place-based practices (re-grounding, re-appreciation and re-positioning). These bottom-up processes must be implemented in collaboration with local stakeholders, and this collaboration will be supported by the CROCUS Living Labs. The Living Labs will employ design thinking to stimulate innovating in CCT business models. The CROCUS approach to business model development will be discussed in more detail in Deliverable D2.2: Cultural and Creative Tourism Business Models in Rural and Remote Areas.

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