HUB-IN

HUB-IN Framework Long Read

HUB-IN Clusters of Innovation

Version 1.0, November 2021

HUB-IN Framework Long Read –
Clusters of Innovation

PREPARED BY

The HUB-IN Framework – Clusters of Innovation is one of four parts of the HUB-IN Framework led by Future Cities Catapult (WP3). It is authored by Vera Gregório and Victor Vieira (Lisboa E-Nova).

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Contents

This document focuses on HUB-IN Clusters of Innovation. It is one of three *Long Reads* related to elements of the HUB-IN Framework. You can also find:

- HUB-IN Framework Long Read – HUB-IN Alignment with European and International Policy
- HUB-IN Framework Long Read – The Ingredients of a HUB-IN Place

For information on the framework as a whole, please read the **HUB-IN Framework Overview.**

To access these papers, visit the HUB-IN project website or get in touch with the authors of this document.

HUB-IN Vision

Welcome to your HUB-IN Place, a Historic Urban Area in your city or town full of exciting opportunities for everyone. Right now it might not be reaching its full potential, but soon it will be a revitalised, vibrant destination, home to a range of innovative and creative entrepreneurs and businesses.

This place is both local and global, grounded by its sense of place, community and cultural heritage, enhanced by being part of a network of hubs all with the same mission: To promote the urban transformation and heritage-led regeneration of Historic Urban Areas through innovation and entrepreneurship, while preserving their unique cultural, social and environmental identities and values.

We have developed the HUB-IN Place vision as part of the HUB-IN European (Horizon 2020) project, a four year collaborative pilot project aiming to develop a network of Hubs of Innovation and Entrepreneurship in Historic Urban Areas (HUAs).

Collaborating across eight cities, expert organisations, universities, city networks and regional agencies to design and test the HUB-IN Place concept, we will develop the tools and methods to support sustainable implementation, before upscaling the network through Follower Cities and the HUB-IN Alliance; a wider network of historic urban areas with a common interest in sharing views and experiences in delivering sustainable hubs of innovation and entrepreneurship.

Covering a diversity of geographic locations, socio-economic characteristics and local ecosystems, the project pilot locations are:

- Belfast, UK
- Brasov, Romania
- Genova, Italy
- Grand Angoulême, France
- Lisbon, Portugal
- Nicosia, Cyprus
- Slovenska Bistrica, Slovenia
- Utrecht, The Netherlands

We will facilitate intracity and intercity collaboration, between local stakeholders (across academia, industry, government, and civil society) and across the network of hubs, with a common aim of co-creating HUB-IN Places through creative, inclusive and circular means.

The opportunity to network, learn from and work with other cities and stakeholders in the project increases the capacity of teams and intensifies the transfer of knowledge, strengthening both the HUB-IN network and the results more locally.

Adopting a human-connected approach, we envisage long-term impacts such as the revitalisation of historic heritage, the creation of new sustainable opportunities for local traditional businesses, and the development of new creative skills and jobs through the cross-sector collaborations in three clusters of innovation activities:

1. Cultural & Creative Industries

2. New Lifestyles

3. Resilient & Human-Connected Places

With this mission in mind, we hope to answer the following question:

"To what extent can networks of hubs in Historic Urban Areas incubate and unlock innovative and entrepreneurial actions that contribute to the sustainable transformation and urban regeneration of the Historic Urban Area and its cultural heritage?"

In order to answer the question above, we have developed the HUB-IN Framework to help align and guide cities and project partners towards our vision for HUB-IN Places.

Glossary of terms

The glossary of terms below aims to achieve alignment and clarity between partners, cities and other readers around the terms we use within this Framework document and throughout our thinking and doing as part of the HUB-IN project. Each term has been defined in relation to the particular context of HUB-IN, and in line with recognised resources. This glossary of terms is a living resource and will be added to as the project progresses.

Co-creation[1]

A collaborative innovation approach actively involving stakeholders (and experts) in the design process towards HUB-IN Places. From discovery to implementation (and beyond), stakeholders are informed, consulted, involved and empowered, with their insights and efforts strengthening the outputs and impact, increasing the sense of agency and pride. This results in social, economic and environmental outcomes that are essential and (in combination with greater value creation) are more likely to remain sustainable.

Cultural Heritage

HUB-IN considers the term Cultural Heritage in the broad sense, covering tangible and intangible values, exploring its ecological, economic, and social dimensions. Following work by UNESCO, the concept has been evolving during the last few decades, including not only tangible cultural and natural heritage but also intangible heritage. The tangible heritage includes elements, such as monuments, archaeological sites, paintings, sculptures, cultural landscapes[2]. The intangible cultural heritage includes local know how and cultural identities, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts[3].)

Entrepreneurship

The process by which opportunities to create future goods, services and systems are discovered, evaluated, and exploited. It involves managing risk and judgment to implement innovative ideas from wherever they originate.

Entrepreneurial Ecosystems

A set of interdependent actors and factors coordinated in such a way that they enable urban innovation and productive (value-enhancing) entrepreneurship.

Heritage-led regeneration

Regeneration with the focus on the value of heritage as a powerful catalyst for transformational change – building on the 'spirit of the place', meeting the needs of residents whilst attracting investment, jobs and improving quality of life.[4]

Historic Urban Areas (HUAs)

Defined urban areas that are result of the historic layering of cultural and natural values and attributes, extending beyond the notion of "historic centre" or "ensemble" to include the broader urban context and its geographical setting[5]. Historic Urban Areas do not exist in a vacuum and relate to both the tangible and intangible factors that shape the area's character and identity. Within HUB-IN we consider three subcategories of HUA:

1. Historic areas which are, in whole or in part, town or city centres.

2. Historic areas which are outside of the town or city centre. These will typically be part of medium and larger towns and cities.

3. Historic areas that focus on the wider urban values that define the identity and character of the town, city, or place.

HUB-IN Clusters of Innovation

Economic, social and ecological hotspots of innovation at the neighbourhood scale for the heritage and cultural led regeneration of HUAs. The HUB-IN cluster approach considers three interconnected clusters:

- Culture and Creative Industries (CCI) – Cultural heritage is at the centre of innovation and creativity, to nurture socio-economic development.

- New lifestyle (NLS) – Innovative sustainable living patterns, inclusivity, and diversity are the main ingredients to improve wellbeing.

- Resilient & Human Connected Places (RHCP) – Sustainable and regenerative use of resources, community cohesion, digital and human connectivity are key to improve ecological and social resilience of historic places.

HUB-IN Places

A physical or virtual hub of innovation, where cultural wealth and heritage provide a unique competitive advantage – a key resource for enhancing the sustainable regeneration of historic urban areas. HUB-IN Places are distinguished by their local action and their global interconnection. They are local hotspots of creativity, community empowerment and entrepreneurship, bringing together local stakeholders, academia, industry, and local governments. HUB-IN Places are hubs of innovation recognised by their project integrated portfolio approach that blends three HUB-IN clusters of innovation. They are places to co-design, test and develop new solutions, ideas, and creative businesses in a real urban environment. HUB-IN Places are also globally interconnected in a network that favours sharing knowledge, open innovation processes and the development of innovative circular models.

Human Connected Design

An integrated approach that shapes our relationship with people, technology and the planet. Whilst Human *Centred* Design puts people and their needs at the centre of the design process, Human Connected Design moves people from the centre and into networks that acknowledge our interdependence with wider humanity and the planet[6]. This shifts our perspective of how we see and understand ourselves: rather than at the centre, we are part of an ecosystem and ecology. This approach is used across HUB-IN and is particularly interconnected with the Resilient & Human Connected Places cluster of innovation.

Inclusive & regenerative growth

Socio-economic growth that is distributed fairly across society, creates opportunities for all and benefits the environment, creates liveable environmental conditions. Inclusive[7] & regenerative growth[8] looks at and measures economic performance through the lens of the people's/ stakeholders' priorities and environmental challenges/ balance. (How resilient is your HUB-IN Place and its people. What does post-COVID recovery look like?)

Innovation

Implementation of novel, creative ideas in order to tackle real challenges in a purposeful way. In order to create change, we need to understand interconnections and reality (intelligence), as well as empower people (talent), enable action (technology), developing interventions that shape reality (solutions)[9].

Open innovation

A concept coined by Chesbrough in 2003. "Open Innovation means that valuable ideas can come from inside or outside the company and can go to market from inside or outside the company as well"[10].

For the urban regeneration and sustainability of HUB-IN Places, open innovation processes are much more granulated and requires the development of co-creative partnerships between different groups of actors from industry, academia, citizens and local governments.

Purposeful placemaking

The value and importance of community-oriented spaces, embedded strongly in the local ecosystem with stakeholders, is key for the health and vitality of a place with purpose. Purposeful placemaking[11] has a social, cultural, economic and environmental impact on the development of individuals and neighbourhoods and can serve to spark inclusive/good growth.

Regenerative

A natural process of replacing or restoring damaged or missing parts, connections and (urban, cultural, socio-economic) fabric. Understanding places (cities and towns) as living organisms. (All living organisms have some ability to regenerate as part of natural processes to maintain it's parts, fabric and connectedness). To regenerate is to 'rethink', 'restore', 'replenish'[12].

Resilience

Putting people and local challenges at the heart of the recovery and taking a focused approach to economic and social and environmental wellbeing to build strength and elasticity – competence, confidence, connection, character, contribution – to handle future crises and deliver a fair recovery (from COVID-19 and beyond).

Systems thinking & doing

The guidelines for thinking about networks of interactions and enabling them. Going beyond 'quick fixes' and tracing the often hard-to-understand causes and effects, thinking about consequences and enabling actions. One thing to note about systems is that what matters most is often invisible[13] (this includes: their small-scale subsystems and components, the linkages and interactions between them, the large-scale context on which systems depend, the interdependencies/linkages between systems and that wider context, the rapid, and small, changes that take place inside them, the large, and slow, changes that will in due course transform them beyond recognition).

Introduction to the HUB-IN Framework

The HUB-IN Framework aims to unite project partners (including city teams, city networks, universities, experts and regional agencies) with a clear and integrated vision, through shared values and goals, agreed concepts and synchronised actions towards 'HUB-IN Places' – Hubs of Innovation and Entrepreneurship in Historic Urban Areas.

Led by Future Cities Catapult, this framework has been co-created with Heritage Europe, Lisboa E-Nova and Utrecht University, along with contributions from other HUB-IN partners. Together, we have designed the first version of this Framework (November 2021) to be used as a source of guidance and alignment for all HUB-IN pilot cities, follower cities and project partners, who should use this document both as a point of reference and as a tool to help communicate HUB-IN to their stakeholders.

This document focuses on HUB-IN Clusters of Innovation. It is one of three *Long Reads* related to elements of the HUB-IN Framework. You can also find:

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The framework is split into the following five sections:

HUB-IN Alignment with European and International Policy

(See The Long Read or Overview document)

The international and European policies and standards we integrate with and contribute to.

HUB-IN Principles

(See Overview document)

The aligned values across all HUB-IN Places and partners that guide our efforts, goals and ways of working.

HUB-IN Clusters of Innovation

The economic, social and ecological hotspots. Each HUB-IN Place focuses their innovation activities in areas where the three clusters meet and interact, for the heritage and cultural-led regeneration of HUAs.

The Ingredients of a HUB-IN Place

(See The Long Read or Overview document)

The key factors and considerations that are required to enable innovative and entrepreneurial behaviour to emerge and flourish in Historic Urban Areas (HUAs).

Activities towards a HUB-IN Place

(See Overview document)

The ways in which the HUB-IN Framework strategies, inputs and principles are being put into practice locally.
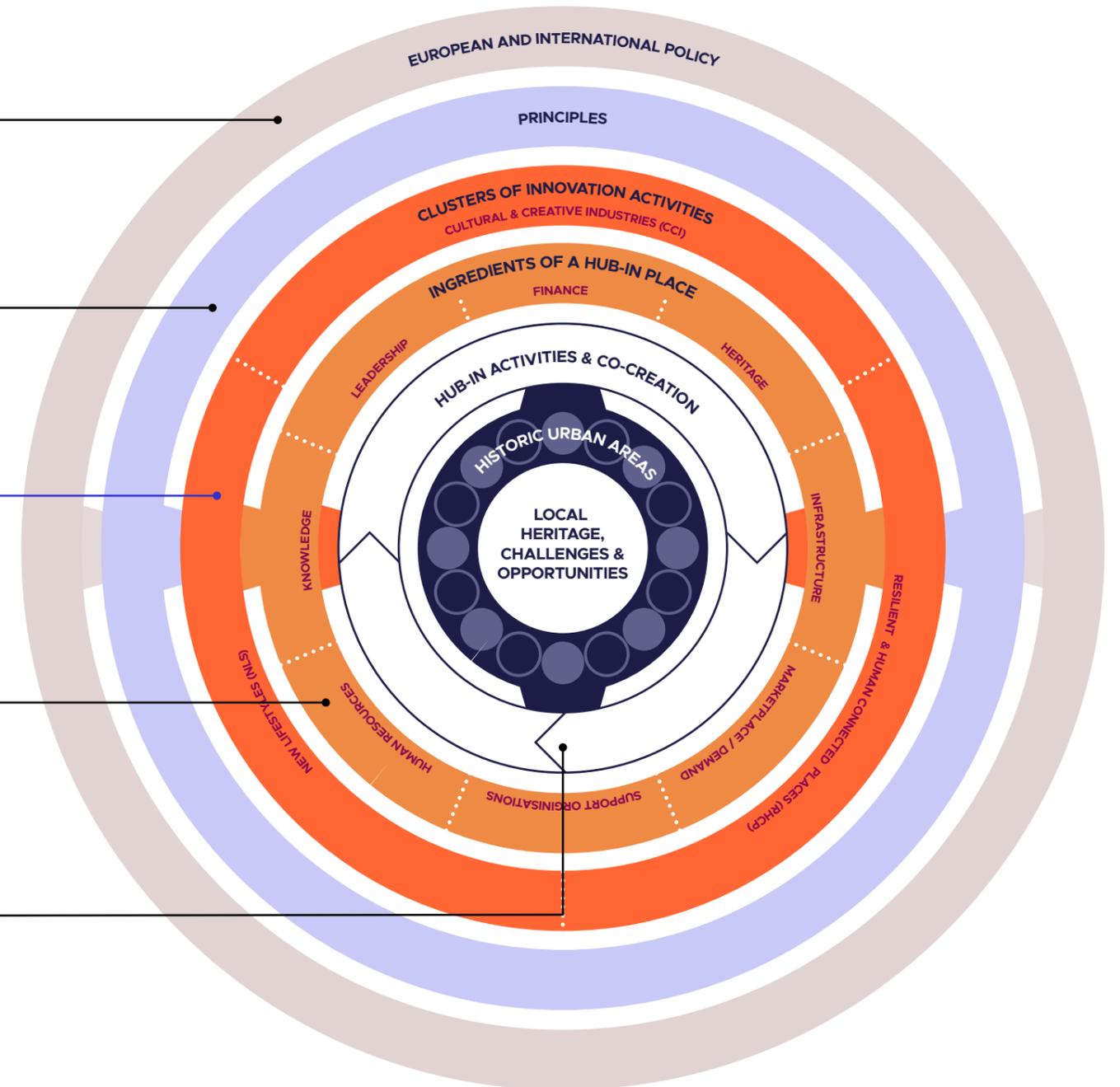
The HUB-IN Framework: HUB-IN Places are informed by their local heritage, challenges and opportunies at the core. The HUB-IN Framework aims to unite project partners (including city teams, city networks, universities, experts and regional agencies), through a clear and integrated vision, shared values and goals, agreed concepts and synchronised actions.

Introduction to Clusters of Innovation

The HUB-IN Framework concept adopts a strategic cluster approach to the regeneration of Historic Urban Areas through innovation and entrepreneurship. This Long Read paper provides the theoretical background to this approach and expands on the focus of each cluster and their interaction with each other to deliver transformational change.

CULTURAL AND CREATIVE INDUSTRIES (CCI)

HUB-IN

RESILIENT & HUMAN CONNECTED PLACES (RHCP)

NEW LIFESTYLES (NLS)
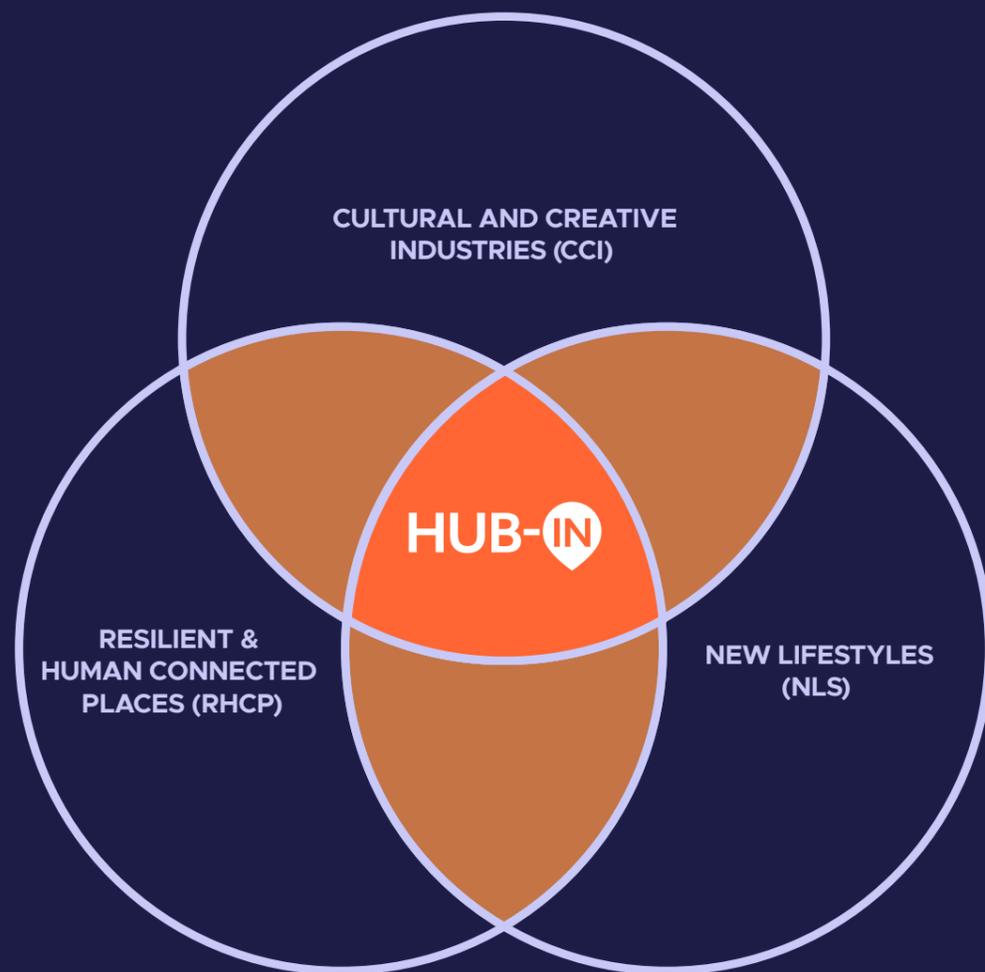
HUB-IN Clusters of Innovation

HUB-IN Places as Innovation Districts

Clusters of Innovation

HUB-IN clusters of innovation are economic, social and ecological hotspots of innovation at the neighbourhood[14] scale for the heritage and cultural led regeneration of HUAs.

There is a broad understanding that clusters contribute to productivity and economic performance but there are different models and approaches to understand their role in regional and local development. Some economists, among others, the Nobel Prize winner Paul Krugman, highlight the importance of density of economic activity within a cluster as one of the main success factors for the economic performance and the increase of productivity. Porter Diamond is a clustering model to explain and analyse the competitive advantage of nations in specific industries. It has six main components: factor conditions, home-country demand, related and supporting industries, competitiveness of the home industry, public policy, and chance (Porter Diamond, 1990)[15].

From clusters of industries to science parks, a new urban model in the geography of innovation is now rising known as 'Innovations Districts'. They are by definition, clusters of innovation located in "geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators and accelerators. They are also physically compact, transit-accessible, and technically-wired and typically offer mixed-use places e.g. including housing, office, and retail." They are resource pots of new ideas and creativity, generated by firms and workers where knowledge can be transferred more quickly and effortlessly. They are places of open Innovation "driving economy activity supported by formal and informal networks of collaboration. In this way "Innovation districts have the unique potential to spur productive, inclusive and sustainable economic development." (Katz & Wagner, 2014)[16].

In the context of HUB-IN Places, our focus is on Historic Urban Areas that we propose to transform into (or contribute to) a very special type of Innovation District where its cultural wealth and heritage provide a unique competitive advantage – a key resource for enhancing the regeneration of historic urban areas[17].

The ingredients of a HUB-IN Place set out the key elements that we consider of importance in order to build a HUB-IN Place (Twuijver, M. v., et. al., 2021)[18]. One step further, each HUB-IN Place will find – by methods of territorial diagnosis, stakeholders' involvement and by testing intervention models in practice – the specific

combination of these ingredients that will lead to a successful innovation process. In each HUB-IN Place, innovation will be delivered through the development of Clusters of Innovation, with a common goal of economic prosperity, new ways of sustainable life, and new ecological standards for HUAs. We see the creation of clusters of innovation on these sites as a way of increasing the geographic concentration of economic activity, providing a strong foundation to create firms and jobs by developing activities that will support entrepreneurs, universities, researchers, and investors. It is an opportunity to co-create and co-produce across sectors, that will lead to new discoveries for the market. It is also a practice which will help reduce urban poverty and help reverse gentrification processes in urban areas where those problems are normally most acute – a form of reducing social inequality by expanding jobs and educational opportunities. In unlocking these processes clusters of innovation also have the potential to address heritage and environmental degradation creating new mixed-use patterns of residential and employment and in some cases help repopulate HUAs.

Three Common Clustering Areas for HUB-IN Places

According to the vision and principles of HUB-IN, we identified three main common clusters of innovation that should not be seen as silos of activities, but rather intertwining activities across the three clusters complementing and contributing to the development of HUB-IN Places as Innovation Districts:

- **Culture and Creative Industries (CCI)** – Cultural heritage is at the centre of innovation and creativity, to nurture socio-economic development.

- **New Lifestyles (NLS)** – Innovative sustainable living patterns, inclusivity, and diversity, are the main ingredients to improve well-being.

- **Resilient & Human Connected Places (RHCP)** – Sustainable and regenerative use of resources, community cohesion, digital and human connectivity, are key to improve ecological and social resilience of historic places.

Culture & Creative Industries (CCI)

Cultural heritage is at the centre of innovation and creativity, to nurture socio-economic development.
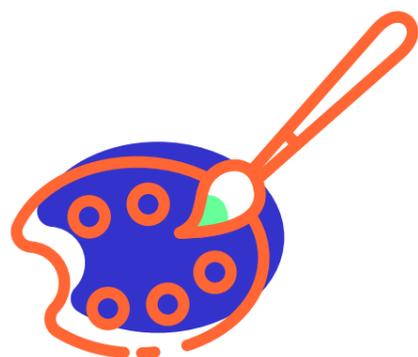
The importance of heritage and culture for the revitalisation of urban areas and in particular for HUAs is strategically framed by the Urban Agenda for the EU (Smith, B. 2021)[19] and specifically by the European partnership on culture and cultural heritage. Here, the development of Culture and Creative Industries[20] (CCI) are a priority cluster of activities that could support the economic development of HUB-IN Places, directly contributing for the creation of new jobs and innovative services and products.

The Culture and Creative Industries (CCI) have an important role in the European creative economy and are key in the continuous process of transition of our societies. These industries are knowledge intensive and mainly based on individual creativity and talent. In addition to the economic wealth that they generate they are critical to strengthen a shared sense of European identity, culture, and values. In CCI, employment, especially for young people, as well as companies, have grown strongly at and above 4% CAGR since 2013. Furthermore, important spill-over effects from CCI to other sectors exists such as cultural tourism and digital services for music film and video games. With the increasingly complexity of value chains and business models, CCI industries are becoming an important component in every product and service.

Thematic topics and sub-topics to be explored by HUB-IN Places

Innovative products & services
- Boost cultural heritage and creative industries
- Create the right business and cultural environment in each local hub of innovation
- Explore new business models, and support to start-ups and entrepreneurs (e.g creating acceleration programmes).

Through means such as:

- Multimedia: Digital animation, video gaming, film broadcasting
- Design and Fashion: Tangible and intangible cultural heritage, creative, sustainable, and circular businesses, digital fabrication, open spaces for innovation, robotic festivals, music, literature, performing arts.

Adaptive reuse of traditional skills
- Readapt traditional activities by activating ancient skills with an intrinsic value for the HUA
- Promote the creation of new services and jobs
- Traditional knowledge should be combined with creativity and innovation
- Generate new circular business models with profit or non-profit purposes.

Through means such as:

- Traditional Food: Gastronomy and beverages
- Craft Industry: wood crafting, design showcasing, textile and stone carving, ceramics and tiles
- Entertainment/festivals: Music, dance events and traditional festivities
- Traditional and historic local commerce.

Cultural & creative tourism
- Explore new cultural tourism services and solutions in close collaboration with local communities and HUA residents
- Support tourism based on local experiences that are unique, that could promote local heritage and could be hosted by the community in a sustainable and responsible way.

Through means such as:

- Tourism focused on user unique experiences
- Creative work combining business and leisure
- Tourism and social connectivity
- Destination as hubs of creative networks.

CCI Overview

Global trends

- Globalisation and digital transition
- COVID-19 accelerated the existing trends
- New ecological transition
- New forms of collaboration
- A new regulatory framework
- Culture tourism towards creative tourism.

Case study

Soho Arts District – Málaga, Spain

In the once degraded and marginalised neighbourhood of Ensanche Heredia in the Centro district of Málaga, Spain, residents and merchants decided to combine their efforts to bring life back into the neighbourhood by creating a cultural district. They formed the Soho Málaga Citizen Association, aimed at fostering business synergy and communal cultural projects in the neighbourhood. Together with The College of Architects and the Municipal Urban Planning Management Soho Málaga, the Art District (Málaga Soho Barrio de las Artes) was realised. A combination of re-utilising abandoned historic buildings, investments in the public space (e.g. to increase accessibility to the area), and support to the creative industries led to a buzzing creative area that is full of cafes, galleries and art spaces that attract many visitors to the area, and is a source of local employment.

CCI trends and challenges

Several global key trends are reshaping CCI and inspiring new business models and new ways of working:

- The **digital transition** is driving the growth of the sector and leading to an increasingly access to CCI contents. The consumer behaviour has been gradually changed due to the wide use of internet, social media, mobile apps and formats like podcasts, specially targeting the younger population.

- **COVID-19 accelerated the existing trends** driven by globalisation and digital transition. The CCI were strongly affected by the combination of COVID-19 related restrictions on society and economic recession which generated immediate drops in revenues and accelerated structural changes. In this context, there is an urgent need to pull resources and support activities that promote the recovery and resilience of cultural operators, artists and other cultural professionals.

- The CCI are assuming a leadership role to the **new ecological transition** in society. In sub-sectors like art and architecture collective movements are emerging to engage artists and other creators into environmental and climate change causes. CCI due to their need to think creatively and user-centred they are influencing consumer choices and behaviour towards the ecological transition. Several sustainable solutions are being adopted as a response to the environmental emergencies. (e.g. use of eco-friendly and/or recycled materials in production practices, reduction of carbon emissions during construction, maintenance and re-use of historic buildings, new business models in the fashion industry to extend the longevity of clothes, such as smart fashion or fashion as a service)

- **New forms of collaboration** and new models of creative spaces are responding to the needs of a high number of freelancers and micro-companies. These types of entrepreneurs need to be agile and cooperate in different CCI sub-sectors. In this context creative hubs and co-working spaces are expanding all over the world, allowing professionals and companies to benefit from financial, administrative, and accounting shared services, and from shared space and more affordable rentals. The major benefit of these collaborative models is the development of new community networks and new commercial collaborations as well as the positive social impact of the projects and initiatives themselves.

- Creative spaces also promote the regeneration of urban areas and to reconvert abandoned places and buildings, since they contribute to attract human capital and local investment.

- **A new regulatory framework**, the revised Directive 2019/7906 on Copyright in the Digital Single Market[21] opens up untapped revenue streams and strengthens the protection of creators' rights: newly introduced measures aim to increase rights holders' revenues by improving the licensing system of copyrighted material to online content-sharing providers, contributing to a level playing field in the digital market.

- **Cultural tourism** is one of the main forms of tourism in Europe which is estimated to account up to 40% of tourism in Europe. With the mobility restrictions imposed by COVID-19, the tourism sector is facing their worldwide biggest crise. The UNWTO, indicated that between January and May 2021 the international tourist arrivals were 85% below 2019 levels (UWTO. 2019)[22]. In this context the integration of place-based experiences and digital solutions are emerging. Museums and other cultural institutions are offering new solutions, not only virtual tours, but far beyond they are developing new digital forms of exploring the museums contents (podcasts, apps, video content, video games...). Moreover, several cultural organisations are using digital tools to reconnect local communities and increase proximity tourism.

- The global pandemic crisis is also an opportunity to move away from unsustainable practices of past towards more resilient and efficient models of tourism more aligned with Sustainable Development Goals (United Nations, 2015)[23]. Heritage Europe in its Guidelines for Sustainable Cultural Tourism identified three main areas of intervention:

  1. Improving the destination

  2. Identifying and supporting sustainable new businesses relevant to the place

  3. Identifying and supporting new products relevant to the place.

  It identifies a key role for local authorities in HUAs to take the lead post pandemic (Smith & Ripp, 2020)[24].

- One of the global trends of cultural tourism worth highlighting in the HUB-IN context is its slow change to a new model – **the Creative Tourism**. This new generation of tourism involves tourists and locals in the co-creation of tourist products and unique experiences.

CCI & HUB-IN thematic topics

Informed by the trends and challenges identified for the CCI cluster, we structured the most important thematic topics to be covered by HUB-IN Places into three main areas of activity:

Innovative products and services

Main goal: Develop innovative businesses to boost cultural heritage and creative industries in HUAs by identifying and supporting the creation of new products and services. HUB-IN Places will create the right business and cultural environment in their hubs of innovation to explore new business models, will provide support to start-ups and entrepreneurs by creating several activities including acceleration programmes to foster those processes.

For HUB-IN Places, the development of innovative businesses in creative industries could have a major role as economic activity that has the potential to underpin the regeneration of HUAs. On one hand, this is because these industries can make productive use of historic buildings that can be readily converted into workspaces, and on the other hand, in a more intangible way, because of the ambiance offered by historic areas in terms of culture, heritage and the type of associations and entities that exist there.

The challenge of attracting creative industries to historic areas is consequently much more than the existence of historic buildings available for this use. It is essentially about creating the necessary atmosphere in order to increase the attractiveness of the historic area. The development of initiatives that lead to the reinforcement of HUB-IN place branding and the creation of creative hubs are factors that can contribute to the construction of the cluster of CCI.

Main sub-thematic topics to be potentially explored by HUB-IN Places:

- Multimedia: digital animation, video gaming, film broadcast

- Design and Fashion: linked with tangible and intangible cultural heritage, design (including fashion design)

- Creative, sustainable and circular businesses: construction (e.g. adaptive reuse heritage buildings), food and fashion

- Tangible and intangible cultural heritage: exploring the interconnections between both aligning with the principles of New European Bauhaus (NEB) that links form and function of heritage values and assets

- Digital Fabrication: reintroducing the making economy into HUAs

- Open Spaces for Innovation

- Robotic: opportunities for latest technological developments to contribute to innovative and entrepreneurial activity

- Festivals, music, literature, performing arts.
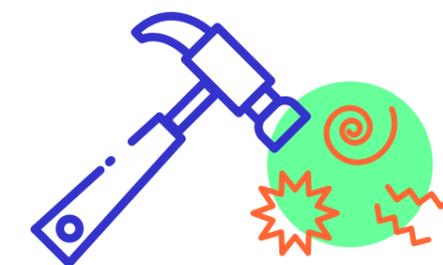
Adaptive reuse of traditional skills

Main goal: Readapt traditional activities by activating ancient skills with an intrinsic value for the HUA thus creating new services and jobs. Traditional knowledge should be combined with creativity and innovation with the purpose of generate new circular business models with profit or non-profit purposes.

Some traditional activities that are dying out or are no longer practised may have an intrinsic value for HUAs. Those traditional activities are directly linked with local communities and can be an important resource for the self-regeneration and reactivation of neighbourhoods. The traditional activities, which still preserve local knowledge, possessed only by the older population, are essential elements of the intangible heritage of these historic areas.

How to improve the effective restoration of these activities? How to reactivate these knowledge and skills that are part of the history of the place? How to reinvent these traditional businesses and create new demands for them? How to boost "new" traditional businesses with symbioses with the cultural ecosystem, using circular business models? These are some of the questions that can drive the development of activities in the hubs of Innovation in each HUB-IN city.

Main sub-thematic topics to be potentially explored by HUB-IN Places:

- Traditional Food: gastronomy and beverage

- Craft Industry: wood crafting, design showcasing, textile and stone craving, ceramic and tiles

- Entertainment / festivals: music, dance events and Traditional Festivities

- Traditional and historic local commerce: including the historic shops that preserve traditional commercial activities

- Language: sustaining traditional languages which can be an important part of the identity of the HUB-IN place.

Cultural and creative tourism

Main goal: For HUB-IN, new cultural tourism services and solutions should be explored in close collaboration with local communities and HUA residents. The aim is to support tourism based on local experiences that are unique, that could promote local heritage and could be hosted by the community in a sustainable and responsible way.

The development of these initiatives aims to encourage new local economic activities, especially oriented towards new businesses models, favouring small entrepreneurs with greater difficulty in accessing global markets. It should also be noted that the new solutions and businesses to be developed in this segment of cultural tourism should preferably create synergies and strengthen the link between the creative industries. The innovation processes and solutions should contribute to reverse the negative impacts of tourism in historic urban areas, by improving the quality of life of residents, by offering methods and tools that may manage the flow of tourists HUAs, by exploring innovative businesses and services that valorise that cultural identity of each HUA and promoting the local traditional businesses.

Main sub-thematic topics to be potentially explored by HUB-IN Places:

- Tourism focused on user unique experiences (e.g. Exchange of skills between host and visitors, Creative gastronomy, Live like a local to develop transformational experience)

- Creative work combining business and leisure

- Tourism and social connectivity (e.g. visitor's engagement in volunteer programmes with benefits for local communities)

- Destination as hubs of creative networks. Visitors choose connected places for specific creative activities or knowledge that links form and function of heritage values and assets.

New Lifestyles (NLS)

New lifestyles for sustainable ways of living – Innovative sustainable living patterns, inclusivity and diversity, are the main ingredients to improve well-being.
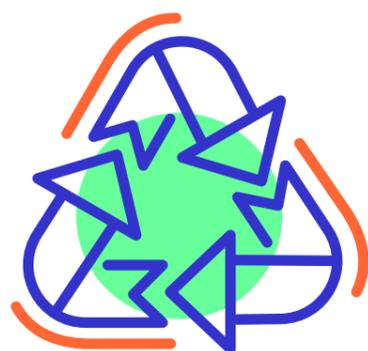
The Historic Urban Landscapes approach (UNESCO, 2011)[25] due to their holistic dimension is also a reference for our understanding about what is the cluster New Lifestyles (NLS) under the HUB-IN project. In this context the heritage (tangible and intangible) is a source of social cohesion as well as a source of creativity and innovation. To leverage this resource and revitalise HUAs, new ways of life need to be "re-invented". The balance between new and old, goes far beyond the necessary balance between preservation and renewal of the built environment.
It is about a new social interaction between local communities, new generations of residents, new workers, who are essential sources of creativity, innovation, and important drivers for changing mentalities.

The cluster NLS captures in first place the social dimension of HUB-IN Places, it is focused on citizens and social innovation. It considers activities that are meaningful
as responses to improve the way of living in HUA and effectively overcome the global challenges of HUAs.

NLS Overview

Global trends

- Active ageing
- Qualification and new skills of local communities
- Affordable and accessible housing
- Sustainable mobility
- Cultural memory as an element of well-being
- New synergies between local communities and cultural and creative tourism – increased environmental sustainability and value creation for communities.

Case study

Traditional Meadows – Wuppertal, Germany
For centuries, the Wuppertal Meadows in the region of Bergisches Land in Germany have played a key role in the local economy as their apple, pear and other fruit trees have provided an important local food source and economic model.

In the second half of the 20th century, the majority of meadows disappeared, often in favour of industrial development. Nowadays, a small amount of meadows are restored. Among others through harvest events with the local community and the involvement of a nationwide food sharing initiative, the meadows promote sustainable food production and consumption, support nationwide research into local self-sustainability, and increase awareness of nature-based solutions in an urban setting.

Thematic topics and sub-topics to be explored by HUB-IN Places

Consumption & *prosuming*
- Influence and promote sustainable consuming and prosuming behaviours
- Explore the linkage between new patterns of consumption and the reuse and readaptation of intrinsic heritage values whether tangible or intangible.

Through means such as:

- Cultural services for diverse and inclusive cities
- Sharing economy
- Circular consumption patterns
- Local and sustainable food
- Local energy communities.

Living & mobility
- Influence the way people live (housing conditions, enjoying public spaces)
- Influence the way people move, promoting a sustainable and active behaviour
- To adopt art and cultural heritage as a vehicle to engage people and create awareness about sustainablity issues.

Through means such as:

- Urban poverty mitigation
- Green buildings
- Promotion of inter-generational co-living models
- Public spaces for people, as places of culture, beauty, and sustainability
- Exploring shared mobility solutions for HUAs
- Developing sustainable mobility and accessibility solutions, e.g. 15-minute city
- Testing zero emission zones
- Promoting sustainable and active mobility behaviours
- Exploring micro logistic solutions for HUAs.

Health & well-being
- Inclusion, diversity, nature based solutions, HUAs and sense of place
- Influence the behaviour of local communities and aim to improve their mental and physical health
- Promote active ageing, well-being and happiness, linked with the cultural memory of the place – intangible heritage
- Explore the relationship between local communities, public space, nature in urban environment.

Through means such as:

- Inclusion of migrants and refugees
- Local communities' well-being and engagement with sustainable tourism
- Nature-based solutions for healthier HUAs
- The role of public spaces in health and happiness
- Exploring cultural memory as a component of well-being in HUAs/sense of place, identity and place purpose.

NLS trends and challenges

Encouraging new lifestyles in historic areas is inseparable from their pre-existing demographic conditions. Overall Europe is ageing rapidly. We currently have the highest median age in the world and the proportion of people aged 65 and over will increase from 14% in 2010 to 25% in 2050. Although people are living longer, the likelihood of maintaining a healthy and happy life in their later years is extremely variable between different regions and cities across Europe and very dependent on socio-economic conditions (WHO – World Health Organization, 2020)[26]. In historic areas, this problem is even more accentuated and aggravated by the gentrification tendencies of these territories and in some cases by desertification and abandonment of places.

Creating new lifestyles in HUAs means developing initiatives that encourage active lifestyles, well-being, healthy ageing and age-friendly environments especially important where these areas often have ageing populations, that combat poverty in these territories and help reducing the problems of isolation and loneliness of the elderly. It also means creating socio-economic and environmental conditions, including new jobs that will attract new residents, encouraging an intergenerational dynamic.

A large part of the historic areas in Europe, due to their heritage and cultural assets promote and rely on tourism as the main economic activity. On the one hand these HUAs have enormous touristic potential that can and should be activated as an economic resource. However, on the other hand this can lead to mass tourism that has the perverse effect of destroying the heritage value of the place, and impacting adversely on both local communities and the local environment. It is critical therefore that Europe's historic areas evolve from the conventional cultural tourism policies to new forms of sustainable and creative tourism, with focus on activities that will foster creativity and innovation, favouring the offer of unique experiences for visitors by reinforcing their connection with local communities and their skills and capabilities towards a smart specialisation of products and services. By developing initiatives based on these principles HUB-IN is not only contributing to the economic development of HUAs but also to residents' sense of belonging and quality of life through improved lifestyles.

The development of new sustainable ways of living it is also one of the major European priorities, clearly expressed in many cross-sectorial policies and initiatives, where we highlight the European Urban Agenda, the Green Deal and the New European Bauhaus Initiative.

NLS & HUB-IN thematic topics

Informed by the sustainable ways of living (Backhause, et al., 2011)[27] and the trends and challenges identified for the NLS cluster, we structured the most important thematic topics to be covered by HUB-IN Places into four main areas of activity:

Consuming & prosuming

Main goal: Influence and promote sustainable consuming & prosuming behaviours along with the reuse and readaptation of intrinsic heritage values, whether tangible or intangible.

New consumption patterns are emerging due to an increased awareness of sustainability issues among many European citizens. This is an opportunity to develop new forms of collaborative consumption (e.g. sharing, lending, trading, swapping) that could reinforce local communities' interactions in HUAs and it could be also an opportunity to mitigate in certain circumstances urban poverty and improving social cohesion. There is also a global increase in responsible prosuming trends in several areas, from energy to food. These movements have been leading for example to a growth in urban agriculture practices or to the development of local energy communities where neighbours become electricity producers. For example, urban agriculture practices to produce local and sustainable food could be combined with activities to recover ancient practices or reintroducing old and healthy food recipes in the local diet.

The adoption of these trends in HUAs, will contribute to improving the health and well-being of the populations.

Main sub-thematic topics to be potentially explored by HUB-IN Places:

- Cultural services for diverse and inclusive cities
- Sharing economy
- Circular consumption patterns
- Recycling & upcycling, material reuptake (sustain) & Rethink, restore & replenish (regenerate)
- Local and sustainable food
- Local energy communities.

Living

Main goal: Influence the way people live in HUAs, namely in terms of housing conditions and its accessibility as well as how they enjoy public spaces. To adopt art, cultural heritage, and aesthetic sense as a vehicle to engage people and create awareness about sustainable issues to improve indoor conditions as well as outdoor. Ensure that all the activities implemented will contribute to increase diversity and inclusion of local communities.

The COVID-19 pandemic exacerbated a pre-existing crisis in affordable housing with regard to its quality and lack of availability. During this period, cities in severe lockdown saw their urban regeneration projects postponed and many people who suffered loss of income were at risk of losing their homes. With the change in the patterns of staying at home, both in the lockdown phase and due to remote work, the quality of housing, namely in terms of thermal comfort, or the existence of larger and more airy spaces, became decisive for the physical and mental health of its inhabitants.

Another unique phenomenon that has been witnessed in the last 10 years in Europe is a significant increase in homelessness. At the same time this has been accompanied by a change in the profiles of the homeless, reflecting the widespread shortage of suitable affordable houses and also the increase in the number of people seeking asylum in Europe.

Historic areas have been particularly affected by these problems, both because of the age of their buildings and the fact that many of these areas are occupied by elderly and low-income populations. Overall, there has been a worsening of inequalities that can only be overcome with more incisive policies aimed at social housing, cooperative models or other models of affordable rent.

The habitability of historic centres also depends, to a great extent, on the correct balance between conservation policies for buildings with historic value, which sometimes limit more profound interventions, and the renovation policies necessary to ensure the required comfort appropriate to contemporary lifestyles.

Main sub-thematic topics to be potentially explored by HUB-IN Places:

- Urban poverty mitigation (including homelessness situation)

- Energy poverty mitigation

- Housing affordability and quality

- Social housing/affordable renting/cooperative models

- Green buildings

- Promotion of inter-generational co-living models

- Building conservation vs regeneration to improve life conditions

- Public spaces for people, as places of culture, beauty, and sustainability.

Mobility

Main goal: Influence the way people move in HUAs, contributing to promote a sustainable and active behaviour by encouraging walking, cycling and public transport use and minimise the use of private vehicles. Experiment with new solutions to make HUAs more accessible and liveable. Explore urban mobility innovation and the deployment of new mobility services considering the integration between socio-cultural aspects and functional aspects.

Urban mobility faces several challenges, including increasing traffic congestion, air and noise pollution, the negative impact of climate change on transport infrastructure and the need to make an energy transition to alternative modes of transport to fossil fuels. In many historic areas of Europe, due to old infrastructure and narrow streets, mobility problems are aggravated. Mass tourism in these historic locations has also contributed greatly to the increase in congestion and the degradation of the quality of public space.

We are witnessing a paradigm shift where cities are primarily for people and not for the car. In this context, the development of shared mobility solutions, the encouragement of walking and bicycling and the use of public transport, contribute in a complementary way to the development of healthier historic areas. In these historic sites it is also essential to promote accessibility in a neighbourhood logic, in which to access services and basic commerce, people do not need to make journeys on foot longer than 15 minutes. To make this 15-minute city model feasible in historic areas it is necessary not only to promote the use of soft modes, but also to promote the adequate supply of commerce and services following a logic of multifunctional historic areas.

Main sub-thematic topics to be potentially explored by HUB-IN Places:

- Exploring shared mobility solution for HUAs

- Developing sustainable mobility and accessibility solutions: 15-minute city

- Testing zero emission zones

- Promoting sustainable and active mobility behaviour

- Exploring micro-logistic solutions for HUAs

- Exploring new mobility services with impact on decarbonisation, air quality and social inclusion

Health & well-being

Main goal: Influence the behaviour of local communities and foster the development of solutions, which aim to improve their mental and physical health, more active lifestyles and their well-being and happiness. In this way, health and well-being are intrinsically linked with the cultural memory of the place (intangible heritage), with how local communities enjoy public space and how they relate to nature in an urban environment.

The urban environment affects health and well-being in two potentially conflicting ways. On the one hand, there are obvious urban health advantages resulting in easier access to health infrastructure and services, good sanitation, better health literacy levels and overall higher incomes. On the other hand, health in urban areas can also generate negative situations. Due to high population density the spread of infectious diseases is much higher than in rural areas, or with regard to air quality which is in many cases much lower. However, where people live within a city is a determining factor for the health and well-being of its inhabitants. There is now a growing recognition that urban health disparities must be analysed in a broader societal context to understand the varied environmental conditions to which individuals are exposed. Historic urban areas are typically the places within the city where urban health disparities are most acute due to a predominance of disadvantaged and low-income populations. Another major trend that affects urban areas and in particular HUAs is the ageing population which implies additional healthcare support not only for physical well-being but also for mental health including aspects related to social exclusion.

Main sub-thematic topics to be potentially explored by HUB-IN Places:

- Healthy ageing

- Well-being and inclusion of migrants and refugees

- Local communities' well-being and engagement with sustainable tourism

- Nature based solutions for healthier Historic Urban Areas / the role of public spaces in Health and happiness

- Health and built environment (e.g. effect of Urban Heat Island, or poor indoor thermal comfort, lack of indoor ventilation)

- Exploring cultural memory as a component of well-being in HUAs / sense of place identity

Slovenska Bistrica. Photo by Nino Verdnik

Resilient & Human Connected Places (RHCP)

Regenerative use of resources, community cohesion, digital and human connectedness are key to improving ecological, social and economic resilience of Historic Urban Areas.

The concept of urban resilience has been explored over the last few decades by several scientific areas. Commonly associated with the fields of catastrophes and natural/man-made disasters, as an indicator of capacity of systems to absorb, recover, restore and prosper following an impacting event, it has gradually grown with the introduction of other components associated with natural and social systems[28] (Alberti, V. et. al , 2019).

The connection of the concept of resilience to the theme of cities has been one of the topics explored and with very interesting contributions in terms of introducing new domains to the concept of resilience. Among them, the exploration of methodologies focused not only on the amount of disturbance that an urban system can absorb and remain functional, but also on the exploration of components such as the level of opportunity to increase the capacity of territories to learn from risk factors and observed vulnerabilities and, in the face of them, adapt to disturbing factors[29] (Folke, C., 2006).

The interest dedicated by cultural sectors to resilience introduced the perspective of exploring how disturbances in city systems impact on the historical components and preservation of neighbourhood identities. This highlighted the contribution of a set of long-term relationships between cultural identity of a community and how the socio-ecological relationships, on which that identity was founded, have the capacity for resilience as a whole in a territory[30] (Rotarangi & Stephenson, 2014).

At the European level, investment in the consolidation of urban spaces as resilient territories has become one of the relevant themes of European policies[31] (Council of the European Union, 2016). It is also one of the concerns of the UN's 2030 Agenda embedded in their ODS. Specifically, for Goal 11 "Making cities inclusive, safe, resilient and sustainable".

In addition to the unexpected and sudden events that can cause disruptions in the balance of cities, namely, earthquakes, floods, terrorist acts, cities can be subjected to gradual stress phenomena (population abandonment, disruption of local economic systems, increased poverty and environmental and quality of life degradation). It is in this perspective that the Cluster Resilient & Human Connected Places (RHCP) emerges as one of the pillars of change intended within the scope of the HUB-IN Project. This cluster intends to deepen through the analysis of the different threat and vulnerability factors identified in Historic Urban Centres, in their natural and socioeconomic components, and through innovative and participating processes of change, contribute to their resilience, resources sustainability and stability of the social and economic system.

RHCP Overview

Global trends

- Climate change as a global emergency

- Transition from a linear to a circular city

- Smart cities & smart citizens

- Inclusion, equality & equity

- Intergenerational connectedness

- Innovative circular models to rethink and readapt cultural values and heritage by blending tradition with new techniques and solutions.

Case study

Loos in Transition – Loos-en-Gohelle, France

After the mining industry closed in Loos-en-Gohelle in the 1980s, this mining town had to reinvent itself. It decided to transform its past to shape its future. Nowadays, the former mining base, which is a UNESCO World Heritage site, is utilised as a cultural and sustainable development centre, focusing on R&D, education and entrepreneurial activities around renewable energies and green technology.

The site now supports over 600 eco-companies, 150 of which operate in the field of renewable energies. Specific attention has been paid to stimulate ideas and initiatives from the community, for example by providing funding and support for projects arising from the community. In doing so, the former mining base enables the creation of a sustainable future for the town, which is striving to rely completely on renewable energy by 2050.

RHCP trends and challenges

Thematic topics and sub-topics to be explored by HUB-IN Places

Environmental balance

- Improve the territory's environmental balance, tapping into the potential of endogenous resources and social dynamics, promoting sustainable/regenerative use and resilience.

Through means such as:

- Climate resilience (adaptation and mitigation)
- Resource efficiency
- Nature-based solutions
- Ecosystem services
- Energy transition in Historic Urban Landscapes
- Sustainable food and local food production
- Adaptive reuse for circular cities

Empowering communities

- Develop a new way of looking at heritage, by setting the ground to reframe relations between all involved stakeholders.
- Develop initiatives that demonstrate to the communities that local involvement is significantly better than inaction and could lead to more ambitious opportunities and new partnerships.

Through means such as:

- Promotion of participatory processes
- Social cohesion
- Migrant integration and equity
- Local economy

Liveable and connected places

- Promote actions that contribute to the increase in quality of life and sense of belonging of the community and all shared places and environments.
- Promote connectedness, including digital connectivity, environmental and social connectedness, improving inclusiveness

Through means such as:

- Urban design and public spaces
- Urban regeneration
- Reuse of spaces and buildings
- Digitalisation
- Sense of place/place purpose
- Immersive technology
- Data science
- Smart cities & neighbourhoods,
- Historical and cultural requalification

Given the urban characteristics found in almost all historic urban areas, contributing to their improvement, in terms of resilience, is a challenge. Not only in terms of preserving the unique cultural identity, by interacting with system components that sometimes require the introduction of innovation factors that could have a negative impact on the territories' identity. In this context, reference is made to the classic example of energy efficiency. In this field, the introduction of improvements often requires dedicated and fully integrated interventions in terms of construction materials or the introduction of equipment with an aesthetic and visual impact, so as not to negatively detract from the area identity and sense of place.

Promoting resilience and connectivity in historic urban areas implies the interaction and optimisation of a wide range of factors that affect their potential as endogenous natural and social resources. In practice, leveraging and taking advantage of factors such as water, wind and solar availability, the human potential intrinsic to their communities, the characteristics of their public space, among many others.

RHCP & HUB-IN thematic topics

The RHCP cluster is designed in three main thematic areas with the objective of aggregating in a comprehensive way the main topics associated with the concepts of resilience and connected places.

Environmental balance

Main goal: Improve the territory's environmental balance, taking advantage of the potential of endogenous resources, as well as promoting their sustainable use. Identifying opportunities and barriers for their implementation and exploring current examples of best practices.

The increasing impact of natural phenomena on the daily life of Historic Neighbourhoods has been shown as to be one of the emergent aspects of improving the attractivity and the quality of life in these territories. An example of this is the increasing frequency of changes in rainfall patterns, humidity, and temperature, as well as greater exposure to severe weather events with severe consequences in human and material losses (Sesana, E. et al., 2018).

In order to improve the resilience level of territories, it is also the objective of this topic to explore innovative and integrated solutions that allow adapting HUAs to natural phenomena related to climate change, both in terms of adaptation and mitigation, combined whenever possible with nature-based solutions and with the real aim of being active through the global climate emergency.

From another perspective, the historical heritage values of HUAs can be used to promote the ecosystem services component. Exploring its potential by linking endogenous ecological structures to their functionality in favour of cultural values is also one of the objectives to be integrated into the design of the pilots to be developed. Approaches of this type promote balance in addition to acting as facilitating agents in the processes of communication and articulation between the different existing stakeholders.

Main sub-thematic topics to be potentially explored by HUB-IN Places:

- Climate resilience (adaptation and mitigation)
- Resource efficiency (use of water, energy, and materials)
- Nature-based solutions
- Ecosystem services
- Sustainable food (Consumption and production)
- Energy transition in Historic Urban Landscapes
- Adaptive reuse for circular cities and sustainable food production.

Empowering communities

Main goal: Develop a new way of looking at heritage, by setting the ground to reframe relations between all involved stakeholders. In this perspective it is also relevant to develop initiatives that demonstrate to the communities that local involvement is significantly better than inaction and could lead to more ambitious opportunities and new partnerships.

Problems and challenges common to several historical areas are identified as situations of economic crisis/generalised gentrification, abandonment of the territory by more qualified population groups, as well as the ageing of the population. In this sense, the promotion of participatory practices and engagement of the local community for the preservation and reactivation of cultural heritage becomes more complex.

It is in this context that the engagement processes to be carried out must be structured. While being a challenging task, it is important to balance with innovative methods of participation that promote the participation of all stakeholders that make up the community, leaving none behind. It is believed that only in this way will it be possible to reinforce the sense of community and the feeling that everyone has the same level of importance in the community context.

Main sub-thematic topics to be potentially explored by HUB-IN Places:

- Social cohesion
- Migrant integration
- Equity and local economy
- Participatory processe.s

Liveable and human connected places

Main goal: Promote actions that contribute to the increase in quality of life and in the sense of belonging of the community and all shared places.

Implement emblematic measures that improve the use of spaces and, at the same time, take advantage of the inherent cultural identity, harmonising them with innovative and technological solutions that facilitate the daily lives of populations (smart solutions).

Common spaces in the HUAs are often presented with levels of stagnation and lack of conservation that reduces their use by residents or workers in these areas. This is one of the main causes of the increase of security.

Shaping relationships with technologies, with people and with the endogenous natural resources promote new possibilities, creating solutions that are purposeful, desirable, feasible – as well as inclusive, regenerative, and strategic that are just and ethical.

A lot of efforts to promote usage and frequency are being applied to other urban areas. Their adaptation to the context of the HUAs becomes important. Measures such as renaturalisation by investing in a rehabilitative design through the introduction of new equipment and components, for example, infrastructures that promote meeting, conviviality and debate among the population are very important aspects. On the other hand, another weak point associated with these locations is also the lack of spaces or green spots. The effort to introduce alignment trees or small vegetation spots should be considered in the context of the work to be developed in the pilots to be built.

Main sub-thematic topics to be potentially explored by HUB-IN Places:

- Urban design and public space
- Urban regeneration
- Reuse of spaces and buildings
- Digitalisation
- Sense of place/place purpose
- Immersive technology (virtual & augmented reality, XR, metaverse, artificial intelligence, digitally enabled social innovation solutions with communities in a smart district)
- Data science
- Smart cities & neighbourhoods,
- Historical and cultural requalification

Interrelation among the three clusters and cross-cutting topics

The activities and trends in these three clusters do not represent strictly demarcated areas of operation. There is considerable overlap and interaction between them. As an analytic tool, the three clusters bring together different dimensions of a HUA, at the base of which lie different assumptions about value creation. Broadly speaking, CCI is focused more on economic value creation, NLS more on social value creation and RHCP on environmental value.

The development of activities in one cluster will have an influence on, and are influenced by, activities and trends in the other clusters. Innovations are likely to happen in areas where the three clusters meet and interact. Activities developed in one cluster, for example the support of a creative cluster based on traditional industries, provide opportunities and challenges in the other clusters (e.g. opportunities related to educational activities in CCI or sustainable (re)-use of materials in RHCP). By taking into account the opportunities and challenges those actions in one cluster create in the other clusters, this approach supports development that is sensitive to different types of value creation. The cluster approach, and in particular a HUA-specific analysis of the interrelation between activities developed in the three clusters, thus contributes to the sustainable and inclusive regeneration of Europe's HUAs.

In addition to these inextricable links between clusters, the innovation processes to be developed in each of the HUB-IN places should consider three transversal topics:

- **Integrated and interdisciplinary governance** approaches, which means working collaboratively across sectors, breaking silos and creating a portfolio of activities covering the three clusters of innovation
- **Adopting a Baukulture perspective** by addressing the gap between cultural heritage conservation and high-quality built environment. This high quality promotes crucial societal values such as well being and social cohesion and creates conditions to generate positive economic value
- **Leveraging funds** and financial sustainability is crucial to ensure that innovation based on cultural heritage will generate economic value.

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Related documents

For information on the framework as a whole, please read the **HUB-IN Framework Overview.**

This document focuses on HUB-IN Clusters of Innovation. It is one of three Long Reads related to elements of the HUB-IN Framework. **You can also find:**

HUB-IN Framework Overview

HUB-IN Alignment with European and International Policy

Led by Heritage Europe

The Ingredients of a HUB-IN Place

Led by Utrecht University

To access these papers, visit the HUB-IN project website or get in touch with the authors of this document (details overleaf)

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