Hyperion

# EU Task Force for Climate Neutral and Resilient Historic Urban Districts

Daniel Lückerath, Erich Rome (Fraunhofer IAIS, ARCH), Aitziber Egusquiza (Tecnalia, SHELTER), Antonis Kalis (ICCS, HYPERION), Emanuela De Menna (REA), Artur Krukowski (RFSAT, ARCH), Eleanor Chapman, Cristina Garzillo, Vasileios Latinos, Iryna Novak (ICLEI, ARCH), Gianfranco Lazzarin (SOGESCA, ARCH), Emilio Servera (LNV, ARCH)

daniel.lueckerath@iais.fraunhofer.de, aitziber.egusquiza@tecnalia.com, antonis.kalis@iccs.gr

#### Motivation

Climate change is one of the biggest challenges facing our planet today. From seasonal shifts in climate, with droughts, heatwaves, floods and storms, the impacts of climate change are global in scope and unprecedented in scale. Cities are heavily affected by consequences of climate change, with most of Europe's population living in cities and urban areas and projections for 2050 predicting even larger shares (Nabielek, Hamers, & Evers, 2016). At the same time, cities generate up to 80% of a country's GDP (United Nations Human Settlements Programme, 2011), but also consume 75% of the natural resources and account for 60-80% of greenhouse gas emissions. That is, **urbanisation and economic growth happening in cities are the biggest contributors to climate change.** 

Adapting to urbanisation, climate change, and other social, economic and security trends is a challenging endeavour for cities and prone to potential conflicts of interest. It requires managing tasks like accommodating a growing – and in many cases ageing – population, providing the required services, fostering social, environmental, and economic sustainability, and keeping the city liveable and attractive. But a liveable, sustainable and, above all, resilient city is not just a product of organised and well-functioning services: other crucial elements are the places that make up the city, and the communities that belong to those places. In particular, sites of significant cultural and historical value have an important role to play in fostering location-based identity and social cohesion. With the increased recognition of the threats heritage faces from climate change, but also the role heritage can play in driving climate actions, all those connected to heritage face both a profound opportunity and a challenging responsibility. (ICOMOS Climate Change and Cultural Heritage Working Group, 2019)

#### The Vision

This Task Force has been established by the Horizon 2020 projects ARCH, HYPERION, and SHELTER in response to and support of the Horizon 2020 'Heritage Alive' orientation to "[increase] resilience and sustainable reconstruction of historic areas to cope with climate change and hazard events", following in the footsteps of earlier projects like STORM and HERACLES.

It is intended to bridge the gap between urban development, resilience planning and heritage management to boost collaboration among all involved stakeholders and make our cities more climate neutral and resilient. Its vision is to stimulate and promote development and wider adoption of solutions for climate change mitigation and adaptation in historic urban districts. It

### **Hyperion**

will promote constructive dialogue, development and exchange of best practices for achieving better integration between resilient urban planning and heritage management. It will aim to increase awareness of the role of historic areas – with their unique value and importance – play in stimulating the general public to actively contribute to coordinated efforts on climate resilience in accordance with protection and preservation of heritage both within local environments as well as nationally and internationally.

In the long-term, the Task Force will not only co-ordinate EU efforts to make historic urban districts and their communities climate neutral and resilient, but also branch out to issues of contemporary urban districts in order to find synergies. In this way, the findings of the Task Force may also be useful to support the Renovation Wave (The European Commission, 2020) launched by the European Commission in the context of the European Green Deal in contemporary districts (suburbs, social housing neighbourhoods, etc.).

#### The objectives

The objective of the Task Force is to foster the development and uptake of advanced solutions for resilient urban planning for historic urban districts, supporting their adaptation to climate change and making them climate neutral. In doing so, the Task Force aims to provide support to European authorities and decision makers for developing common evidence-based policies, strategies, and procedures. To achieve these goals, the Task Force targets the following specific objectives:

- Accelerating the dissemination and uptake of advanced and harmonized strategies for climate neutral and resilient urban planning at the cross-section of heritage management, climate change adaptation, and disaster risk management that take the enabling factors of culture and heritage into account.
- Accelerating the dissemination and adoption of advanced and harmonized approaches for assessing and monitoring impacts and risks of climate change and natural hazards on historic urban districts, including effects on the structural, environmental, economic, and socio-cultural dimensions of these socio-ecological systems.
- Accelerating the dissemination and adoption of equitable solutions for climate neutrality and resilience of historic urban districts that are developed for and with (local) communities.
- Boosting liaison and spread of best practices among European initiatives with focus on climate-related effects on and from historic urban districts, including EU Task Forces, funded research projects, authorities, civil protection agencies and industry stakeholders
- Facilitating knowledge exchange and discussion among research projects, initiatives / networks, and relevant interested groups on the topic of climate neutral and resilient historic urban districts
- Provide coordinated input to European (policy) processes

Involvement of local communities, academia, industry, authorities, and policy makers across all EU member states is key to achieving tangible impact and stimulating collaboration on international level. Member states will be encouraged to promote the deployment of common technologies, procedure and policies, and to develop transnational collaboration taking into account their national specialisations and needs.

Hyperion

#### Initial thematic focus

The initial thematic focus of the Task Force is on climate change adaptation and resilience of historic urban districts to provide an operative foundation. Once the Task Force is established, the addition of further working groups covering adjacent issues is planned and highly welcomed. These additional working groups might go beyond climate resilient historic urban districts and include contemporary urban districts as well as solutions to achieve climate neutrality (e.g. energy efficient renovation of historic buildings). The goal of including these additional working groups would be to leverage synergies between solutions for different types of urban districts (e.g. historic and contemporary) and different topic areas (e.g. climate change mitigation and adaptation).

To begin with, the Task Force will focus on the following thematic areas, to be jointly worked on within one single working group.

#### Thematic Area 1: Developing resilience strategies for historic urban districts

- How can the planning processes for climate change adaptation, disaster risk management, heritage management, and urban planning be aligned? How can opposing objectives be reconciled?
- How can the intrinsic resilience of historic urban districts and the enabling factors of culture be (better) leveraged for climate change adaptation and disaster risk management of the historic urban districts themselves as well as the large socialecological system in which they are embedded?
- Which (hard and soft) measures and approaches are suitable to increase the resilience of historic urban districts when facing climate change and natural disasters?
- How can societal and economic transformations that will be necessary to address resilience of historic urban districts be supported?

#### Thematic Area 2: Assessing, monitoring and evaluating risks and resilience

- Which data sources and indicators for impacts from climate-change and natural hazards need to be monitored?
- How can resilience and climate change adaptation for historic urban districts be assessed, monitored and evaluated?
- What is necessary to develop risk assessments that are transparent, repeatable and applicable across different types of historic urban districts?

#### Thematic Area 3: Developing equitable solutions for and with communities

- How to (better) engage local communities and other actors in resilient urban planning, climate change adaptation, disaster risk management, and heritage management?
- Which best practices exist for including local communities and other stakeholders in the (research and) development of methods and tools?
- How to better target solutions to ensure the impacts of climate change and disasters, and the benefits of solutions, are equitably distributed – ensuring that vulnerable or marginalised groups do not disproportionately bear impacts, or miss out on benefits?



In addition to these thematic areas, the Task Force will focus on the following cross-cutting activities.

- Developing joint EU policies and mechanisms for resilient urban planning of historic districts in line with the European Green Deal (The European Commission, 2019) and the new European Adaptation Strategy (The European Commission, 2021)
- Contribute to Horizon Europe's Missions on 'Adaptation to climate change including societal transformation' as well as 'Climate-Neutral and smart cities', as well as to other European research agendas
- Liase with the Urban Agenda for the EU to provide input to the Partnership on Culture and Cultural Heritage

#### Governance

The Task Force is co-ordinated by the ongoing Horizon 2020 projects ARCH, HYPERION, and SHELTER that share the same overall objectives and were funded under call H2020 LC-CLA-4-2018: "Resilience and sustainable reconstruction of historic areas to cope with climate change and hazard events". Initially, the three projects will share the responsibility for event organisation, facilitation, and post-processing. Specifically, each project will take turns in taking the responsibility of leading the organisational aspects of the Task Force; this responsibility changes every four months.

The technical core of the Task Force is made up of partners from European research projects and other interested organisations in the fields of heritage management, climate change mitigation/adaptation, disaster risk management/resilience as well as urban planning and regeneration.

In addition, practitioners, decision makers and policy actors on European, national, and local level in those fields participate in the Task Force to discuss solutions offered by the technical partners and ensure their applicability.

The Task Force meets at least bi-annually, usually in conjunction with conferences or events (e.g. as part of the European Urban Resilience Forum). Between meetings additional work is conducted on an as-needed basis via electronic means.



These projects have received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement nos. 820999, 821054, and 821282. Commented [LD1]: Acknowledgement necessary?

#### 

### References

- ICOMOS Climate Change and Cultural Heritage Working Group. (2019). *The Future of Our Pasts: Engaging Cultural Heritage in Climate Action.* Paris: ICOMOS.
- Nabielek, K., Hamers, D., & Evers, D. (2016). *Cities in Europe Facts and Figures on cities and urban areas,.* The Hague: PBL Publishers.
- The European Commission. (2019). Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions "The European Green Deal". Brussels: COM(2019) 640 final.
- The European Commission. (2020). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives". Brussels: COM(2020) 662 final.
- The European Commission. (2021). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "Forging a climate-resilient Europe – the new EU Strategy on Adaptation to Climate Change". Brussels: COM(2021) 82 final.
- United Nations Human Settlements Programme. (2011). *The Economic Role of Citie.* Nairobi: UN-HABITAT.