



User-driven health Risk Assessment Services and Innovative ADAPTation options against Threats from Heatwaves, Air Pollution, Wildfire Emission and Pollen

Policy Briefs

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List of acronyms

Acronym	Definition
C3S	Copernicus Climate Change Service
CAMS	Copernicus Atmosphere Monitoring Service
CORDIS	Community Research and Development Information Service
D	Deliverable
DCE	Dissemination, Communication and Exploitation
DIAS	Data and Information Access Services
EC	European Commission
HE	Horizon Europe
HVAC	Heating, Ventilation and Air-Conditioning
IPR	Intellectual Property Rights
JRC	Joint Research Centre
KPIs	Key Performance Indicators
KTM	Key Types of Measures
M	Month
MET	Meteorological
NGO	Non-Governmental Organization
PU	Public
TRL	Technology Readiness Level
WHO	World Health Organization
WMO	World Meteorological Organization
WP	Work Package

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Executive Summary

This deliverable is a plan towards producing final policy briefs that will address science-policy dialogues. These bi-directional dialogues between the healthRiskADAPT project and (inter)national policy makers aim to 1) translate project results into practical solutions for adaptation that can inform policies and 2) incorporate knowledge about best practices and adaptation policies into the project.

This Draft Policy Brief outlines:

- Guidance on general policy brief practices to effectively reach identified stakeholders.
- Links to the Communication and Dissemination Plan and its tools, such as the project website, social media, factsheets, videos, and scientific publications.
- A clear overview of what kind of content we would like to address in our policy brief.

This deliverable will be updated in M46 to reflect the evolution of project activities, stakeholder needs, and new opportunities, ensuring that healthRiskADAPT achieves lasting impact beyond the project lifecycle.

The main outcome of this deliverable is to establish a structured activity for accessing and interacting with the stakeholders during the healthRiskADAPT project. It describes the objectives of the tasks related to this activity, such as stakeholder identification, stakeholder interaction and involvement, including its proposed related activities. This deliverable is a living document that helps to bridge research and decision-making right from the outset of the project.



1 Aim of the Document

This Draft Policy Brief builds on:

- The Dissemination, Communication, and Exploitation (DCE) Plan for the Horizon Europe project healthRiskADAPT, which addresses the growing health threats posed by extreme weather events and environmental risks—such as heatwaves, air pollution, wildfires, and pollen—by delivering innovative, user-driven risk assessment services and adaptive solutions.
- The Deliverables of WP1 with identified users' needs, the identified gaps, use scenarios, and healthRiskADAPT's architecture.
- The existing connections of the four participating cities (Naples, Oslo, Lyon and Bern) with their key stakeholders. The policy drivers are the public health targets and the local development plans.

The purpose of this deliverable is to define an operational framework for final policy briefs at the end of the project. It lays out how healthRiskADAPT will engage citizens, stakeholders, policymakers, and the scientific community, ensuring that project outputs can be disseminated widely, communicated effectively, influential to inform policy design, guiding regulatory implementation and exploited sustainably in the format of Policy Briefs. As such, this first version of a Policy Brief is a scoping brief.

This plan for Policy Briefs aligns with the broader goals of Horizon Europe and the [Mission on Adaptation to Climate Change](#)¹, supporting visibility, transparency, and long-term impact.

There is overlap with the work done in Task 7.1 for the Deliverables D7.1, D7.2 and D7.3. Task 7.1 focuses on the Dissemination, Communication and Exploitation.

This deliverable is based on the literature review, state of the art of existing tools and services and user needs addressed in D1.1, D1.2, and D1.3. In addition, the deliverable describes the general outline and purposes of a policy brief.

At the core of the healthRiskADAPT DCE strategy is a mission-oriented impact model, which integrates information delivery, co-creation through Living Labs, stakeholder engagement, and capacity building. This model is designed to increase awareness, encourage adoption of project tools and services, and foster policy and societal change. Special emphasis is placed on inclusion, multilingual outreach, and the replication of results in other regional and national contexts. The Draft Policy focuses on the science-policy interaction of the results of the project and outlines the following items.

- Strategic objectives for obtaining content on science policy dialogues
- Identification and prioritization of key stakeholder groups and audiences (D7.1)
- Identification of the most suitable approach to engage with stakeholders

¹ <https://climate-adapt.eea.europa.eu/en/mission>



- Identification of links to a suite of communication tools, channels, and branded materials, including the project website, social media, factsheets, videos, press releases, and academic publications (D7.1)
- Identification of activities with EU-funded initiatives and policy forums related to similar topics addressed by healthRiskADAPT

This DCE Plan serves as a baseline reference and coordination guide for all consortium partners, enabling coherent messaging and targeted stakeholder interaction. It will be regularly updated to incorporate new lessons, opportunities, and stakeholder feedback. A follow-up version of that plan will be delivered in the middle of the project's lifetime. A final version of this plan will be delivered at the end of the project, incorporating overall results, stakeholder feedback, and validated pathways for exploitation, reflecting the full range of DCE achievements and lessons learned during the project. The Policy Brief is one of the key outcomes of the DCE Plan.

The main objectives of the Draft Policy Brief and the final Policy Briefs within healthRiskADAPT are to:

- Foster awareness of health-related thematic focus areas associated with heatwaves, air pollution, wildfire emissions, and pollen among target groups.
- Promote the uptake of co-created tools and services for health risk assessment and climate mitigation and adaptation at local and regional levels.
- Ensure that policy-relevant knowledge and innovations produced by the project are transferred to the appropriate institutional and societal actors.
- Strengthen the visibility and policy resonance of the project at European and international levels.
- Use the thematic focus areas of the project to address emerging cross-cutting themes or specific gaps that may arise during the project or through Labs with stakeholders.
- Support the development of sustainable pathways for exploitation beyond the project lifetime through alignment with stakeholder needs and existing frameworks.

These objectives are operationalized through dedicated actions in WP7 and coordinated by EILD, with the active involvement of all project partners involved.



2 Introduction of Policy Brief

2.1 Objectives

The strategy of using a Draft Policy Brief at the beginning of the project follows the healthRiskADAPT ambition to maximise the visibility, accessibility, understanding, and long-term use of the project's results. It is rooted in a multi-actor engagement approach, involving a wide spectrum of stakeholders, including policymakers, public authorities, civil society, and vulnerable communities. Through tailored communication, timely dissemination of outcomes, and strategic exploitation of results, the final Policy Briefs contribute to the realisation of the project's mission and impact pathways.

What is a policy brief?

A policy brief is more than just a summary—it's a strategic communication tool designed to help decision-makers understand complex issues and take informed, timely action. Whether the topic is climate adaptation, infrastructure planning, or other policy challenges, a well-prepared brief translates research into clear, actionable insights aligned with a policymaker's scope of influence.

The effectiveness of a policy brief, however, comes not only from the evidence alone but also depends on how well stakeholders have been engaged in shaping that evidence from the start.

Engaging stakeholders early—and throughout—a project ensures that the final recommendations are rooted in practical realities and widely supported. Stakeholders bring essential knowledge: they understand institutional constraints, community needs, operational details, and political context. Their involvement helps uncover risks, refine project goals, and align expectations. It also increases their “buy-in,” which is crucial when aiming for real-world policy impact.

When these insights are captured in a policy brief, the document becomes more than a summary—it becomes a shared roadmap for action. For example, a policymaker faced with urgent climate change challenges cannot afford to read long reports or sift through raw datasets. What they need is a concise, well-informed brief that tells a clear story: what the issue is, why it matters now, the key findings, and—most importantly—what can be done about it.

Crafting a compelling policy brief means engaging the right voices: experts, community leaders, frontline staff, and technical stakeholders. Their perspectives ensure that the proposed recommendations are feasible, relevant, and backed by lived experience. This level of inclusion also helps reduce risks, avoid surprises at the end of the project, and pave the way for smoother implementation.



By the time the brief reaches a policymaker's desk, it should reflect a broad understanding of both the evidence and the real-world context. Ideally, key stakeholders will already have contributed to the recommendations and reviewed draft materials. This inclusive process strengthens credibility, fosters accountability, and increases the likelihood of policy uptake and project success.

In short, a policy brief is the bridge between evidence and action—while stakeholder engagement is the scaffolding that holds that bridge up. Without stakeholder involvement even the best research risks being ignored by endusers. With it, a brief can do more than inform—it can catalyze change.

Science-policy interface

Since the last decade, we witnessed increased attention and a call for interaction between the scientific field and 'practice' to improve the impact of both 'domains'. In (policy) science literature, this is abundantly described using the concept or framework of 'policy-science interface'. Some (academic) notes on policy science interface and stakeholder (analysis) are specifically on:

- Raising awareness (link with WP7)
- Getting (formal) support for implementing research actions
- Understanding how scientific knowledge is used in decision-making
- Understanding policy making processes in order to improve research use in policy
- Stakeholder involvement influences perceptions of research legitimacy and relevance.

The project produces scientific results that can be used in different ways. Results can be used to improve the process of risk assessment research, and the data/results can be used to improve the health and safety of the general population.

The results need to address key cross-cutting issues and integration issues. It is important that recommendations for policy making do not contradict other measures in the same or in other policy domains. This means that we attune engagement and communication to the timeframe, jurisdiction and interests of policymakers. The possible contradiction between different domains can lead to ethical issues. A policy measure might benefit one vulnerable group in society but not another.

Moreover, the results need to have added value for the users and stakeholders to improve the health and safety of the general public or of vulnerable groups. The healthRiskADAPT project has, in addition, a specific focus on threats from heatwaves, air pollution, wildfire emissions and pollen. In view of this specialized focus, we need to ask the question: what is useful information for citizens, stakeholders or authorities?

The policies that are recommended have to fit the existing structure of regulation and measures in society. Thus, the recommendations need to incorporate participant/stakeholder feedback for sustainable adaptation work. In order to do this, scientists have to increase their



familiarity and comfort with the policymaking process. In addition, the dynamics of adaptation research need to be considered in future activities.

To the extent the policies are effectively implemented and upheld they have to provide assurance that public funds are properly controlled, managed and accounted for.

The strategy is to place the products and the related outcome of the project in a well-understood context. This context is something to be discussed between the consortium and the stakeholders.

The interlinkage between societal needs for improved health and safety and the integration of both the existing and new knowledge is crucial for the success of the project.

A similar strand of (academic) literature can be found regarding ‘stakeholders’ and, more practically, guidance on ‘stakeholder analysis strategies’, both from policy science and from economic/marketing sciences.

2.2 Approach



Figure 1 Stakeholder engagement approach

The approach adopted in the healthRiskADAPT project for science policy interaction can build on a systemic and participatory model of engagement, which is both horizontal (across



disciplines and sectors) and vertical (across governance levels and population groups). There are several models or approaches to work on policy briefs. Figure 1 shows a stepwise approach for stakeholder engagement, where each step is elaborated. See description below figure.

Map and Prioritize Stakeholders

Identify all relevant stakeholders: policymakers, implementers, funders, affected communities, researchers, NGOs, industry, etc. Assess their influence and interest: Who has decision-making power? Who will be impacted? Who holds relevant knowledge?

Tools like a power-interest matrix can be used to prioritize engagement strategies for each group.

Engage Early and Clearly Define Roles

Start the engagement during the initiating phase of the process, not after the brief is written. While being clear on expectations: are stakeholders informing the evidence, validating recommendations, or co-authoring content?

Create a shared understanding of the brief's purpose, target audience, and desired outcomes.

Co-produce evidence where possible

Involve key stakeholders in shaping research questions or validating preliminary findings.

Use participatory methods such as focus groups, workshops, community mapping, or deliberative dialogues. This support ensures that evidence reflects lived experience, is context-sensitive, and is trusted.

Iterative drafting and validation

Share early drafts of the brief with a core group of stakeholders for input and validation.

Are the recommendations feasible? Politically and socially acceptable? Are key concerns represented?

Adjust language and framing based on feedback to improve clarity and resonance.

Align with policy windows and timing

Time your engagement and release of the brief to align with decision-making cycles (e.g. budget planning, legislative sessions, climate adaptation planning).

Engage stakeholders in identifying entry points for influencing agendas.

Communicate throughout

Use accessible language, visual summaries, and storytelling to keep stakeholders engaged.

Keep communication two-way—share progress updates, and invite feedback regularly.

Build a sense of ownership in the process.

Follow up and sustain relationships

After the policy brief is released, continue the dialogue: support implementation where possible. And host debrief sessions or policy roundtables in line with our general communication and dissemination plan.

Acknowledge contributions publicly where appropriate.



These steps can be adapted to specific stakeholders and focused topics.

3 Stakeholder Definition

The target audience of the project is divided into two main target groups: internal and external audiences. The former refers to actors directly involved in the project, among whom information must flow clearly and transparently. The latter includes all members of the public outside the project whom the project aims to engage.

Internal Stakeholders

The internal stakeholders include:

- Project consortium partners
- Project advisory board
- European Commission

External Stakeholders

The external stakeholders include several thematic categories as follows:

- End users of the services (e.g., local and regional authorities, civil protection, health authorities, citizens)
- Policy and decision-makers
- Academia and the research community
- NGOs, community groups and vulnerable populations
- Media and general public

Our project’s strategy ensures their early involvement and capacity building, thereby increasing the relevance and usability of the final outputs. The following table provides more details of potential stakeholders.

Stakeholders	Details
Local/regional authorities	City planners, several representatives from local/regional governments (resilience officers, policy officers, etc.), city departments (Public health, Climate, Urban development), environmental professionals, emergency response
National authorities	Governmental agencies (Environment Agency, Public Health Agency, Regulatory Authorities), MET offices
Health and healthcare institutions and professionals	Hospitals and other healthcare services, (public) healthcare professionals’ associations, national, regional and local public health institutes, etc.
Industries, service providers	Construction industries, HVAC contractors, other air treatment providers



Scientific community	Scientific Community, Research Centers, Universities, Research Technology Actors
EU Commission	Actions/Initiatives (EU Climate Action, European Green Deal), European infrastructures (C3S, Climate-ADAPT), European services and initiatives (CAMS, Destination Earth, Copernicus DIAS) etc.
Citizens and communities	Citizens, Patients, Communities and Society (Civil society institutions: cooperatives, savings groups), Vulnerable populations, patients, local cooperatives, neighbourhood associations

Table 1 The healthRiskADAPT target audiences

Our project will adopt a tailored communication approach addressing the specific needs, information expectations, and engagement capacities of each target group. This segmentation enables appropriate content framing, language, format, and channel selection to maximise reach and relevance.

Stakeholder Groups	Interest/Role in the Project	Communication Approach
Local/regional/ national/international authorities	Implementers of adaptation measures and crisis response; key users of health-climate data in planning.	Workshops, Living Labs, factsheets, bilingual content, local policy briefs, on-site demonstrations, training sessions.
Health and healthcare institutions and professionals	End users of risk assessment tools and services; contribute to data validation and response integration.	Webinars, training events, platform walk-throughs, user manuals, pilot testing feedback.
EU Commission	Enable integration of results into policy agendas and strategic planning (e.g., Mission Adaptation).	Policy briefs, targeted mailing, roundtables, contribution to EU-level fora, advocacy channels.
Citizens and communities	Participants in co-creation and awareness campaigns; intended end-beneficiaries of project services.	Storytelling, social media, infographics, Living Labs, community ambassadors, translated outreach materials.
Scientific community/ Industries	Scientific collaborators and end users of methods and datasets; ensure scientific validation and legacy.	Open access publications, conferences, peer review networks, data reuse protocols, Knowledge Hub.

Table 2 The healthRiskADAPT project stakeholders and the relevant approach types

Which stakeholder characteristics are analyzed?

The analysis includes stakeholder characteristics such as knowledge of the specific topic, interests related to the topic, position for or against the topic, potential alliances with other stakeholders, and ability to affect the developed or (to be) implemented knowledge and interventions (through power, roles/responsibilities and/or leadership).



healthRiskADAPT stakeholder interaction

Various stakeholder categories are involved, and interaction (modes) will differ according to the phases in the healthRiskADAPT project (and the specific researchers' needs and outputs) and to the stakeholder characteristics (interests, roles, needs, etc.). We therefore identify four different groups of stakeholders defined by different levels of interaction, defined by the following categories (represented in Figure 2):

- A High influence, high interested stakeholders
- B High influence, low interested stakeholders
- C Low influence, high interested stakeholders
- D Low influence, low interested stakeholders

The different forms of interaction are described in the section 2.2 Approach. Moreover, identification and engagement with stakeholders is an ongoing process during the project. A dedicated action could be a helpful solution to identify and involve key stakeholders (decision/policy-makers, professionals and research networks), and to support their participation in formal stakeholder meetings and enhance regular interaction between scientists and stakeholders.

Essential to our stakeholder approach is the use of language, meaning to differentiate between jargon, popular wording, cultural and linguistic aspects.

<p>Keep engaged High Influence/ High Interest</p> <p style="text-align: center; color: orange; font-size: 2em;">A</p>	<p>Keep informed Low influence/ High Interest</p> <p style="text-align: center; color: orange; font-size: 2em;">B</p>
<p>Keep satisfied High Influence/ Low Interest</p> <p style="text-align: center; color: orange; font-size: 2em;">C</p>	<p>Monitor Low influence/ Low Interest</p> <p style="text-align: center; color: orange; font-size: 2em;">D</p>

Figure 2 Stakeholder power-interest grid (source: The power versus interest grid). ²

² Eden and Ackermann 1998, p. 122

4 Policy Recommendation at an Early Stage of the Project

4.1 Policy challenges

The EU is in dire need of high-quality climate services to inform and speed up the creation of policy, as well as help it cope with the impacts of climate change going forward. This need must be met with interactive, user-oriented solutions that improve Europe's capacity to monitor, forecast, and plan for the devastating effects of climate change on public health.

There are several challenges related to policy making progress, including the integration of engagement activities into effective policy recommendations, ensuring alignment with whole range transformative climate resilience solutions towards the resilience to health risks

Challenge 1- Better prepared ground towards successful adaptation process: European end-users face a multitude of decisions to create successful adaptation processes. An end user must dictate how adaptation pathways will be initiated, how to identify the needs and already available information, how and where to access key information on hazards, vulnerability, risks for their local regions, and how to set up adequate coordination mechanisms to balance resources efficiently and effectively. Therefore, the roadmap and strategy to tailor the user-oriented content and functionalities of risk assessment services and adaptation options are important to match the capabilities and needs of the intended users to meet different levels of user decision-making processes.

Challenge 2- Availability & Accessibility of health risk information across temporal and spatial scales for adaptation planning: European regional and local authorities have the scope to access information and services on climate risks, health, and socio-economic impacts but the information and services themselves are currently not sufficient (e.g. fine-scaled and accurate risk indicators with consideration of associated hazards and vulnerabilities are needed) to spur adaptation and mitigation measures or raise public awareness. Additionally, the tools that currently exist fail to account for projected climate hazards or identify the main objectives in facilitating future adaptation to the effects of climate change.

Challenges 3- Usability and Uptake of adaptation options to avoid maladaptation to climate change: European regions have applied a variety of climate mitigation and alertness strategies such as building adaptive capacity (e.g., knowledge creation and sharing information, etc.), establishing early warning and management systems (e.g., better Air Quality management planning), the creation of supportive mechanisms (e.g., insurance mechanisms), or technical and nature-based solutions (NBS). While well-intentioned, many of these strategies are unsuitable actions and may prove to be maladaptive to the effects of climate change. Solutions for climate change adaptation must take into account the suitability to the local context, the cost and benefit to society to improve the effectiveness of the solutions in reducing vulnerability or enhancing resilience.



Challenge 4- Maximizing impact of adaptation through motivation and building capacities of end-users spanning policy makers, governmental agencies, local authorities, civil society and the private sector: Knowledge or awareness of various adaptation solutions does not usually lead to action. In addition, the impacts of transitioning to climate resilience are not felt immediately or directly, the translation from theory to policy and practice remains ineffective. Therefore, accelerating smart and systemic transitions to climate resilience by motivating end-users to react to the effects of climate change is necessary.

healthRiskADAPT will deliver a user-driven health risk assessment framework with whole range of transformative solutions for regional and local authorities, health professionals, and other end users to protect against heat waves, air pollution (including wildfire emissions), and pollen instigated by climate change. This framework will contribute to Implementation Plan of Mission Adaptation to Climate Change with the main goal of the Mission: to mobilize at least 150 regions in testing the solutions most critical to building local climate resilience and to deliver at least 75 deep demonstrations of systemic transformations to climate resilience.

4.2 Collecting evidence for policy recommendations at early stage of the project

The deliverables of WP1 (Requirements for contents and tools (framework)) provide a starting point for the policy briefs to follow in the project.

D1.1 maps the state of the art of existing services, based on scientific and grey literature, national and European databases, and stakeholder feedback. While air quality monitoring and forecasting systems are in place both at the local and European levels, services related to heatwaves, pollen, and wildfire emissions show different degrees of maturity and integration across regions. There are 3 sources used in WP1 that feed into the content of this deliverable.

Scientific and grey literature, National and European database, Stakeholder or user needs

To establish user needs, the project consulted stakeholders through targeted questionnaires and bilateral consultations. See the applied methodology D1.1. The main outcomes from the literature for the four user cases are described below.

Air pollution

The state-of-the-art literature review seems to show that air pollution services are the most mature, covering monitoring networks, forecasting systems and regulatory frameworks at both national and European levels.

Pollen

Pollen services are expanding, driven by national initiatives and synergies with CAMS forecasts.

Heatwaves



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Heatwave-related services include early warning systems and public health actions.

Wildfire emissions

Wildfire emissions are primarily linked to meteorological risk forecasting and emergency response systems.

Results based on the work of D1.1

Across the four hazards, there is an increasing use of digital tools such as dashboards, mobile apps, and geospatial models. However, **the health and vulnerability factors integration seem to remain a challenge or gap across all four hazards.**

Open forecasting tools, early warning systems, and environmental health indicators are increasingly available, although they remain fragmented and insufficiently tailored to the health sector.

From the point of view of **stakeholders' needs**, and based on questionnaires, bilateral meetings and first workshops, heatwaves and air pollution are perceived as the most relevant environmental threats to health and well-being, followed by pollen. Wildfire is not considered as an immediately relevant threat to health. Besides the hazards addressed in the project, other hazards are widely perceived as a threat to health (mostly drought, flooding and spreading of infectious diseases).

In more detail, the key findings concerning stakeholders' needs are:

- There is a widespread demand for improved knowledge, risk assessments, and adaptation planning tools, especially integrating health considerations.
- Even with high awareness of environmental risk, several stakeholders reported limited capacity or institutional support to plan adaptation, highlighted the need for knowledge-sharing platforms and training.
- Tools such as risk maps, early warning systems, interactive dashboards and long-term climate-health impact projections were perceived as relevant across the stakeholders.
- Stakeholders emphasized the need for multilevel governance, intersectoral collaboration, and involvement of civil society, healthcare systems, private sector, local authorities.

Results based on the work of D1.2

Deliverable report D1.2 describes the high-level architecture of the healthRiskADAPT framework, indicating the complex interactions between climate change and environmental indicators, human exposure, vulnerability and risk assessment, recommended solutions, and user-oriented toolkits. The report describes the high-level architecture of different elements.

In summary:

- High-level architecture for environmental hazards (heatwaves and thermal stress, air pollution, pollen, and wildfire emissions).
- High-level architecture for conducting health impact and vulnerability assessments.



- High-level architecture of User-toolkits for assessing and selecting mitigation and adaptation options.
- High-level architecture for climate resilience solutions.

This high-level architecture is relevant for the further development of work in the different work packages of the project. The users in the project will cooperate in this process. The work presented on D1.2 and the material therein would not support a policy brief for end-users. However, the users in the four participating cities (Naples, Oslo, Lyon and Bern) need to be actively involved in developing the different products in the work packages that will support them.

Results based on the work of D1.3

Deliverable 1.3 described a roadmap for mitigation and adaptation strategies to build resilience towards health risks caused by the effects of heatwaves and thermal stress, air pollution, wildfire emissions and allergenic pollen. These strategies will be applied at the four specific cities: Naples, Oslo, Lyon and Bern. The transformative solutions of healthRiskADAPT address the root causes of vulnerability by creating positive synergies between different domains using Key Types of Measures (KTM), linking climate actions with sustainability. The adaptation strategies of the roadmap are aligned across governance, economic, technological, nature-based, and knowledge-based domains in the four cities. The roadmap will serve as a basic blueprint for initial efforts for adaptation pathways in the four cities. This includes strategies to identify, compare, and tailor measures according to specific regional and community needs.

The policy brief at the end of the project will use these pathways to translate science into material that can support policies.

4.3 Initial recommendations

A preliminary policy brief based on the results of 4.2 is shown in the following part

Policy Brief: Strengthening Climate–Health Resilience for Heatwaves, Air Pollution, Pollen, and Wildfires

Background

Climate change is intensifying the health risks from heatwaves, air pollution (including wildfire smoke), and pollen. These hazards can cause heat stress, respiratory and cardiovascular illness, allergic reactions, and mental health impacts.

The healthRiskADAPT project provides a practical roadmap to help local and regional authorities reduce these risks through better prevention, preparedness, and coordinated action.

Strategic Objectives and Actions

1. Improve Prevention and Policy-Making

- Hazard-Specific Intelligence



- Heatwaves & Wildfires: High-resolution hazard data at multiple time scales to inform urban heat management, wildfire prevention, and emergency planning.
- Air Pollution & Pollen: Monitoring and forecasting under climate change scenarios to guide mitigation strategies.
- Decision-Support Tools
 - Interactive dashboards integrating risk maps and cost–benefit analyses to identify and prioritize adaptation options.
- Health Risk Assessment
 - Multi-scale adaptive capacity indices to tailor interventions for local and regional contexts.

2. Enhance Health System Preparedness

- Technical & Nature-Based Solutions
 - Indoors: Ventilation, filtration, and cooling systems to protect vulnerable groups.
 - Outdoors: Green infrastructure to reduce heat, trap pollutants, and buffer wildfire smoke.
- Training & Capacity-Building
 - Evidence-based programs for health professionals on hazard-specific health impacts, adaptation measures, and patient guidance.
- Early Warning & Alerts
 - Risk-based, end-user-focused alerts for extreme heat, poor air quality, high pollen levels, and wildfire smoke.

Why This Roadmap Matters

- Faster, Cheaper, More Reliable: Hazard and health risk assessments at multiple scales for precise local action.
- Transformative Impact: Strategies designed to trigger positive tipping points, shifting systems toward resilience.
- Coordinated Response: Integrating governance, technology, nature, and awareness for simultaneous multi-hazard adaptation.

Call to Action:

Local and regional authorities should act now to strengthen resilience to heatwaves, air pollution, pollen, and wildfires. Early investment in prevention and preparedness will save lives, reduce healthcare costs, and protect communities from worsening climate-related health risks.

This policy brief matters for a broad range of decision-makers, implementers, and influencers working at different levels of governance and sectors that intersect with climate, health, and emergency preparedness.

1. Local & Regional Authorities

- Municipal governments (mayors, city councils, urban planners)
- Regional public health agencies and health departments



- Emergency management offices responsible for heat, air quality, and wildfire response
 - Environmental departments focused on climate adaptation and resilience
2. National-Level Policymakers
 - Ministries of Health, Environment, Climate, Agriculture, and Spatial planning
 - National public health institutes
 - Parliamentary committees on climate change, environment, safety or health
 3. Health Sector Leaders
 - Hospital and primary care network managers
 - Professional associations of doctors, nurses, and public health professionals
 - Occupational health and safety bodies
 4. Environmental & Urban Planning Stakeholders
 - Urban and regional planners
 - Transport and infrastructure authorities
 - Housing agencies and building regulators
 5. Civil Society & Community Organizations
 - NGOs working on climate, health, environment, and vulnerable groups
 - Citizen science and community monitoring networks
 - Advocacy groups for air quality, respiratory disease NGOs, and wildfire-affected communities
 6. Research & Innovation Bodies
 - Universities and climate–health research institutes
 - Technology companies providing monitoring, forecasting, and adaptation tools

5 Dissemination and Communication Plan

5.1 Strategy and Objectives

This section describes the links with the DCE Plan of the project. The dissemination and communication strategy of the healthRiskADAPT project is designed to raise awareness of the project's goals, processes, and results among key target audiences, including public authorities, citizens, policymakers, health professionals, and the research and innovation community. It is structured to ensure inclusive outreach and wide accessibility of outputs across geographic, linguistic, and sectoral boundaries.

The communication strategy aligns with the overarching mission of the project and the Horizon Europe programme's emphasis on stakeholder engagement, co-creation, and societal impact.

It adopts a multi-channel and multi-format approach combining digital outreach, direct stakeholder interaction, events, and participatory activities.



This approach feeds into the stakeholder engagement plan. The strategic objectives feed into the content that has to be shared with the stakeholders at an early stage.

To make the bridge of content clear between the dissemination/communication strategy with the stakeholder engagement approach, we describe here the strategic objectives of the DCE plan.

Strategic objectives include:

The strategic objectives of our dissemination and communication strategy are outlined below:

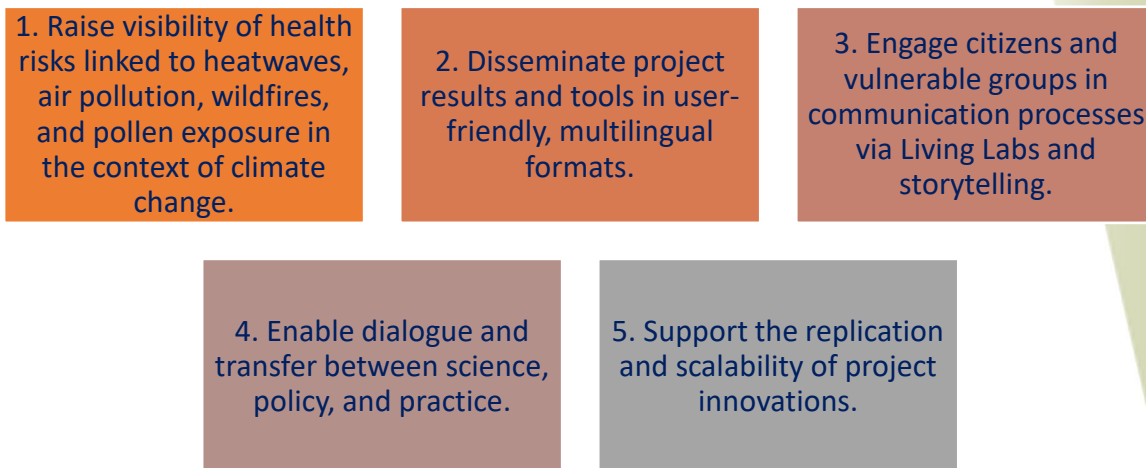


Figure 3 Dissemination strategic objectives

Below we provide a short analysis of these strategic objectives:

1. Raise visibility of health risks linked to heatwaves, air pollution, wildfire emission, and pollen exposure in the context of climate change.

The project’s major aim is to develop integrated, user-driven health risk services that respond to environmental threats exacerbated by climate change. It is (*proposal part b section 1.1 & 2.1.1*) highlighted that the four considered hazards (heat, air pollution, wildfires, and pollen) represent growing and under-communicated threats to human health. This strategic objective aligns with Specific Objective 1 of the project, which calls for enhancing risk awareness through inclusive, evidence-based communication. To achieve this, the DCE strategy must prioritize the production of targeted, hazard-specific content (e.g. factsheets, infographics, videos) and ensure regular dissemination through digital media, public events, and stakeholder networks. The healthRiskADAPT project will also work with local authorities and pilot sites to localize messages, making climate-health links more relevant and urgent to citizens and decision-makers alike. This approach is also in line with Horizon Europe’s requirement to address public understanding of climate risks as part of Mission Adaptation’s citizen engagement goals.



2. Disseminate project results and tools in user-friendly, multilingual formats.

The dissemination activities are structured to ensure that the project's scientific outputs and digital services are accessible to non-expert audiences, as already described (proposal part b section 2.2.2 and WP6). This includes both the user-facing risk dashboards and knowledge materials, which must be translated and adapted to multiple linguistic and cultural contexts across pilot countries and stakeholders.

Our project specifically aims to co-design services and communication formats via Living Labs and stakeholder workshops (WP5). Therefore, co-development of user guides, visual explainers, and video tutorials will be an integral part of the DCE strategy. As it is well known, multilingualism ensures wider access and equity, particularly for vulnerable groups and local actors.

This approach also aligns with Horizon Europe's open science and inclusive communication principles, which underscore the importance of plain language, visual literacy, and multilingual outreach in all dissemination efforts.

3. Engage citizens and vulnerable groups in communication processes via Living Labs and storytelling.

A key innovation in healthRiskADAPT project lies in its participatory approach, with Living Labs as central platforms for co-creation, piloting, and mutual learning (proposal part b sections 2.1.1, 2.2.2, and WP5). In our project, we emphasize the need to include at-risk populations — such as the elderly, children, and those with chronic conditions — in both the design and communication of health risk services. Storytelling, testimonial formats, and real-life experiences will be employed to humanize climate and health risks and make them more relatable. With such approach, we also support trust-building and ensure that the services developed are not only technically robust but socially accepted and usable.

This approach matches a widely adopted best practice in Mission-oriented projects: leveraging personal narratives and community storytelling to build awareness, relevance, and behavioural change.

4. Enable dialogue and transfer between science, policy, and practice.

In the project, we will follow a transdisciplinary integration as a mechanism to amplify the project's societal impact. WP6 (Impact) and WP5 (Co-creation and Pilots) emphasize the project's intention to bridge scientific results with local planning, public health strategies, and policy frameworks at multiple levels. This strategic objective will be fulfilled by participating in joint events with policymakers, contributing to shared policy briefs, and engaging with platforms such as Climate-ADAPT and the EU Mission Adaptation Implementation Platform. Our project will also contribute to national and EU-level dialogues on climate-health governance.

Such cross-sectoral translation is strongly recommended under Horizon Europe in order to ensure that scientific innovation leads to real-world adoption and policy-informed change.

5. Support the replication and scalability of project innovations.



Scalability and replication are major goals under the project’s impact strategy (proposal part b sections 2.1.1 and 2.2.2). To this end, healthRiskADAPT project will develop modular, open-access tools and generate guidelines that allow other regions and sectors to adapt and reuse the solutions. This will be reinforced by the project’s involvement in clustering activities with “sister” projects (see Section 5.4 of the D7.1 document), participation in EU-wide adaptation platforms, and engagement with umbrella organizations such as ICLEI Europe and the Covenant of Mayors.

With this, we remain aligned with European Commission guidance that stresses the need to embed scalability into the design of services and tools and to provide transferable use cases for uptake in other territories.

The dissemination and communication strategy targets a broad set of stakeholder groups at different levels of governance and across sectors, as they are categorized and described in Chapter 4 “Target Groups Definition and Approach” of D7.1.

5.2 Stakeholder involvement

The healthRiskADAPT consortium has already started the engagement process for the project stakeholders by reaching out to them and has invited them to connect with us. In the figure below, we show the relation between healthRiskADAPT and stakeholders. The basis of this activity is that by engaging diverse stakeholder groups in a continuous process involving several personal interactions, they become multipliers that promote further dissemination of the project results within their networks.

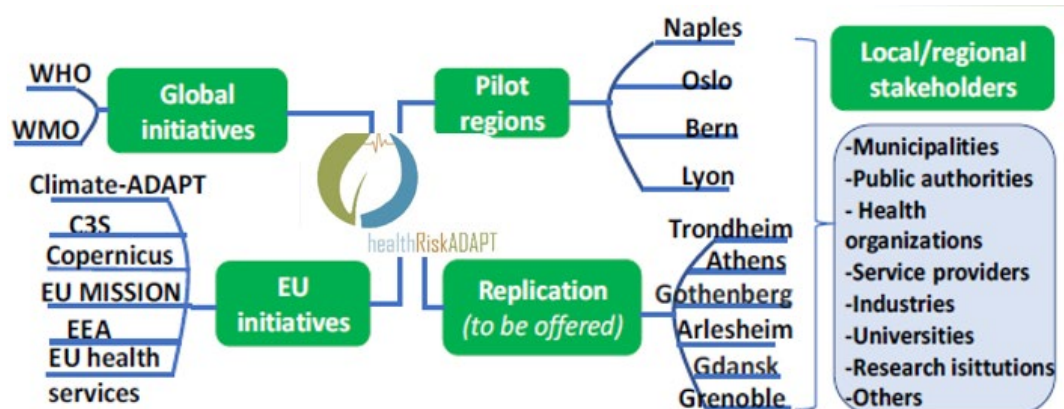


Figure 4 Stakeholder mapping

Specifically, regarding the local and regional governments in the considered Pilot regions and beyond, we understand that effective communication with them is key to impact, replication, and long-term integration into policy and practice. From the policy brief point of view, we will Engage Early and Clearly Define Roles with these early stakeholders and be clear about their expectations.

The format and content of the Policy Briefs will be based on the broader activities in WP7.

Such as science-policy workshops, and end-user exploitation activities. Some more details are mentioned in the DCE plan.

WP7 will organize a series of **science-policy workshops** with policymakers, regulators and WP leads. In these meetings, we will work with stakeholders to:

- (1) Identify city specific challenges and needs;
- (2) Translate research recommendations into layman's terms;
- (3) Identify potential policies and interventions on adaptation solutions;
- (4) Develop a governance model for adaptation policy practice.

End-users will be able to exploit healthRiskADAPT results for climate resilience planning and a better understanding of climate change related risks. The direct end-users of healthRiskADAPT have 2 levels as follows:

1. Individual/Local Level

At this foundational level, the project targets direct users such as municipal authorities, local civil protection units, healthcare providers, and community actors. Through living labs, these stakeholders are engaged in co-creation processes that foster ownership of tools, services, and methods developed by the project. This bottom-up approach is critical for real-world integration of adaptation strategies and climate-health risk services.

2. Institutional/Regional Level

The second tier addresses institutional and policy actors such as regional governments, civil protection authorities, public health agencies, and planners. The goal here is to integrate the project's outputs into existing planning and policy frameworks. This includes promoting the uptake of toolkits, indicators, and evaluation frameworks as part of regular risk governance and health adaptation systems. Policy briefs and technical guidelines are some of the mechanisms to be applied.

At the highest level, the healthRiskADAPT project aims to influence EU-level discourse and align with broader strategies such as the Mission on Adaptation to Climate Change, the EU Green Deal, and the One Health frameworks. This is achieved through participation in relevant policy fora, networking with other Horizon Europe and HE Mission projects, and sustaining open access to results via a central Knowledge Hub.

We plan to ensure the long-term viability of healthRiskADAPT by nurturing a collaboration framework with the TG6 (Climate-ADAPT, C3S, European Common Data Space and other relevant initiatives such as CAMS, GEOSS, and JRC).



5.3 Role of Partners in policy brief development and exploitation strategy

The project proposes to work on an exploitation strategy. There are several levels proposed based on the inputs given by all the partners.

Level 1: Exploitation by Project Partners (Consortium Members)

These partners integrate project results into their own research, policy, publishing and innovation activities:

- **Public Authorities (National/Regional/Local):**
Use hazard maps, vulnerability data, and toolkits for policy-making and adaptation planning.
- **Environmental & Climate Change Researchers:**
Apply hazard modeling and downscaling techniques for future climate scenarios.
- **Health Sector Partners:**
Use fine-scale data to assess health impacts of climate hazards (e.g., heatwaves, air pollution, pollen).
- **Socio-Economic Science Partners:**
Study social vulnerability and adaptive capacity linked to health, income, education, and geography.
- **Industry Partners:**
Use climate and health data to inform business planning and technical solutions (e.g., indoor air quality).
- **EU Associations & NGOs:**
Promote project solutions across Europe and use educational tools for public awareness and training.

Level 2: Exploitation by Direct End Users

These users apply project outputs directly in operational or planning contexts:

- **Local Authorities:**
Use hazard and risk maps, cost-benefit tools, and nature-based solutions for short-term climate resilience planning.
- **Industry (e.g., HVAC Companies):**
Assess local risks and apply technical guidelines to develop air treatment solutions.

Level 3: Exploitation by Other Stakeholders & Third Parties

These stakeholders ensure long-term impact and broader dissemination:

- **EU Platforms & Initiatives (e.g., Climate-ADAPT, C3S, EBAS):**
Integrate project data, indicators, and tools into European data platforms for wider access.



- **European Health Associations:**
Use datasets and toolkits for health assessments and to implement adaptation measures.

The project provides actionable tools and data to support climate resilience and health-informed policymaking. National and local authorities can use hazard maps, vulnerability assessments, and early warning systems to guide adaptation strategies and improve public safety. The project enables cost-benefit analysis of nature-based solutions and supports integration into national and EU-level climate initiatives. Collaboration with platforms like Climate-ADAPT and C3S ensures long-term accessibility and relevance. Policymakers benefit from stakeholder-oriented reports and datasets that enhance decision-making on climate risks, public health, and urban planning. Exploitation responsibilities will be distributed among all partners based on their expertise, stakeholder networks, and type of contribution to project outputs. Each partner will contribute to the refinement and promotion of relevant results, especially those aligned with their domain or geographical focus.

A joint exploitation workshop will be held in the final semester of the project to consolidate commitments and explore post-project pathways.

6 Conclusion

This Draft Policy Brief outlines key aspects of developing a policy brief. The Communication, Dissemination and Exploitation Plan forms the basis of the continuous interaction with stakeholders during the project. The results of the healthRiskADAPT project will be the backbone of the policy brief at the end of the project. This deliverable reflects the project's strong commitment, at an early stage of the project, to transparency, stakeholder involvement, and long-term impact across sectors and geographies.

The Policy Briefs ensure that project outputs reach key target groups—ranging from public authorities and health professionals to vulnerable communities and citizens—through a variety of channels and tools. It places particular emphasis on co-creation, local engagement via Living Labs, and alignment with major EU policies such as the Mission on Adaptation to Climate Change.

By leveraging the work done in WP7, the diverse communication formats, rigorous stakeholder mapping, continuous KPI tracking, and structured exploitation pathways, healthRiskADAPT aims to maximise its scientific, societal, and policy contributions beyond the life of the project. All partners are actively involved in delivering these DCE actions, ensuring a unified voice and a broad outreach for the innovations developed under the project. The Policy Briefs are a relevant part of this work.

This Draft Policy Brief will remain a living document and will be updated periodically to adapt to new opportunities, lessons learned, and evolving stakeholder needs throughout the project duration. To this end, we should note that the further updates of this document are planned to be concluded in M46.

