



Climate-ADAPT urban webinar

Agenda – Climate-ADAPT Urban Webinar - 23 October 2019

1. Welcome and introduction

- Climate-ADAPT: policy context. Structure and content of the platform. Objectives and structure of the webinar (*EEA, José Ramón Picatoste; 5 minutes*)

2. Climate-ADAPT Urban Adaptation Support Tool (UAST)

- Introduction to the UAST (*CoMo, Lea Kleinenkuhnen; 10 minutes*)
- Experiences in the use of the UAST (*Cascais Municipality, Joao Dinis; 10 minutes*)

3. Climate-ADAPT Urban Adaptation Map Viewer (UAMV)

- Basis of the UAMV and live demonstration (*EEA, Aleksandra Kazmierczak 15 minutes*)

4. Feedback, questions and answers (*coordinated by Aleksandra and José Ramón; 15 minutes*)



Covenant of Mayors
for Climate & Energy
EUROPE

Introduction to the Urban Adaptation Support Tool

Lea Kleinenkuhnen, Covenant of Mayors Office



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The Covenant of Mayors for Climate and Energy

MITIGATION

Accelerating the decarbonisation of their territories

ADAPTATION

Strengthening their capacity to adapt to climate change impacts

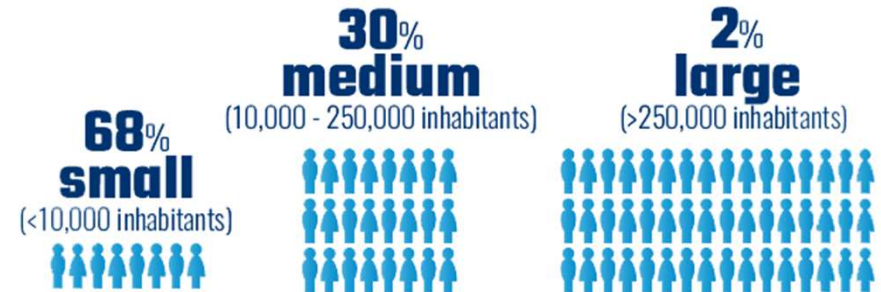
ENERGY

Allowing their citizens to access secure, sustainable and affordable energy

'-40% by 2030' + 'more resilient cities' + 'address Energy Poverty'

AN INCLUSIVE MOVEMENT

Gathering local governments of all sizes



8,800+
European cities committed

Out of which **2,200+** committed to adaptation



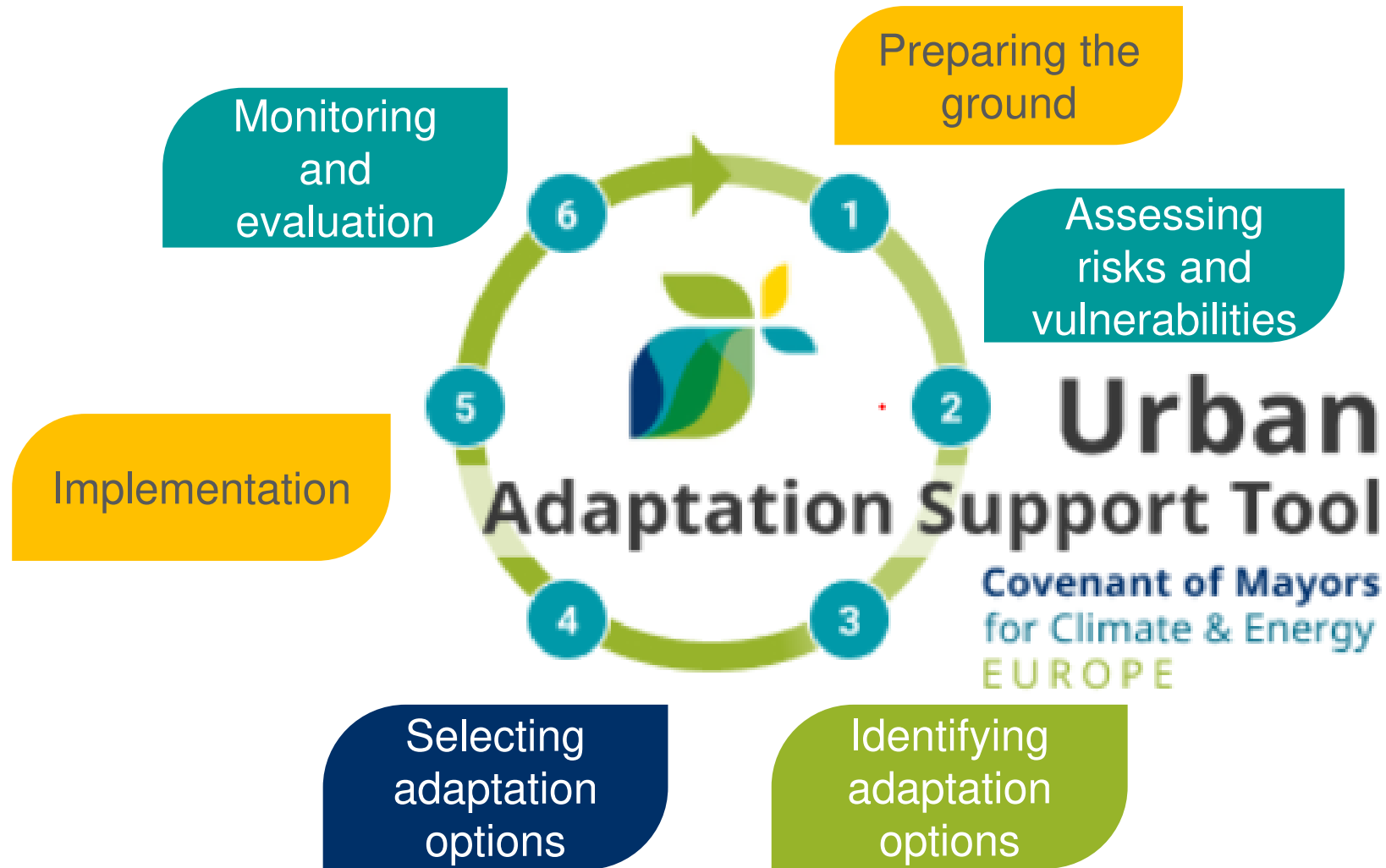
230+
million inhabitants covered = almost half of the EU population

From all EU Member States

- <100 signatories
- 100-200 signatories
- >200 signatories
- >1,000 signatories



Goal: assist local authorities in developing, implementing and monitoring climate change adaptation plans



[Revised version released in Jan 2019 >>>](#)



<https://climate-adapt.eea.europa.eu/knowledge/tools/urban-ast/>

- Jointly developed by the Covenant of Mayors-Europe Office and the European Environment Agency
- The main adaptation tool for the European Covenant community - tested and approved by Covenant signatory cities
- Takes you through all the steps to develop and implement an adaptation plan
- Contains references to valuable guidance materials, tools, reports and case studies



Getting started

1 Preparing the ground for adaptation

- 1.1 Obtaining political support for adaptation
- 1.2 Collecting initial information
- 1.3 Setting up adaptation processes within and beyond the municipality
- 1.4 Identifying and obtaining human and technical resources
- 1.5 Identifying and obtaining financing and funding
- 1.6 Identifying and engaging stakeholders
- 1.7 Communicating adaptation to different target audiences
- 1.8 Finding additional support
- 1.9 Preparing the ground for adaptation: Self check

2 Assessing climate change risks and vulnerabilities

3 Identifying adaptation options

4 Assessing and selecting adaptation options

5 Implementing adaptation

6 Monitoring and evaluating adaptation

1 Preparing the ground for adaptation

1.1 Obtaining political support for adaptation

High-level political support for adaptation in a city is a prerequisite for successful implementation of adaptation actions. Adaptation to climate change may not be high on the political agenda due to other pressures being perceived as more urgent, a lack of awareness about adaptation, negative connotations linked to the terms 'climate change' or 'risks', or the mismatch in short-term budgetary cycles and legislative periods and the long-term and future nature of climate change impacts and risks. Thus, securing political support is essential to give more prominence to adaptation.

A political commitment to climate adaptation agreed by the local council and signed by the mayor, such as signing the Covenant of Mayors, can be an important first step towards political buy-in.

High-level political support can be brought about through several triggering factors.

Top-down recommendations or legal requirements from the national level of governance are one of the most frequent triggers. National adaptation strategies may require that municipalities develop their local level strategies and provide them with support for fulfilling this task, including financing mechanisms. This is a very favourable

[▾ READ MORE](#)

Reports

- » Elaboration and implementation of a local adaptation strategy or action plan
- » Environment and Urbanization - Towards transformative adaptation in cities: the IPCC's Fifth Assessment
- » Urban adaptation to climate change in Europe - Challenges and opportunities for cities together with supportive national and European policies

Guidance and tools

- » Changing Climate, Changing Communities: Guide and Workbook for Municipal Climate Adaptation
- » Methods and Tools for Adaptation to Climate Change - A Handbook for Provinces, Regions and Cities
- » Planning for Adaptation to Climate Change - Guidelines for Municipalities
- » The Integrated Management for Local Climate Change Response: Capacity Development Package

EU-funded projects

- » Fostering resilience, Opportunities and challenges of the local economy and society to adapt to climate change


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1 Preparing the ground for adaptation

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Top-down recommendations or legal requirements from the national level of governance are one of the most frequent triggers. National adaptation strategies may require that municipalities develop their local level strategies and provide them with support for fulfilling this task, including financing mechanisms. This is a very favourable political situation for adaptation, as high-level political support is already granted. Legal obligations can also originate from sectoral policies.

In situations where there is no top-down mandate from political decision-makers or senior public management (which goes beyond the legislative period), other triggers are likely required such as bottom-up pressure from aware and initiative-ready constituencies, experience of climate-related natural disasters, or high popularity and frequency of discourse on climate change risks and adaptation in public and political circles on various levels.

To strengthen the case for adaptation in the absence of top-down requirements, administrators who would like to initiate adaptation action and win high-level political support can consider the following actions:

- Collect evidence and knowledge on climate change risks and on benefits of adaptation to make a convincing 'adaptation case' (see e.g. guidance from the RESIN project on [development of a business case for adaptation](#));
- Liaise with stakeholders who have stakes in climate-sensitive sectors, including initial awareness raising among them (see [Step 1.6](#));
- Develop concrete ideas of how adaptation action could be carried out (see also [Step 3.1](#));
- Use the momentum of incidences of extreme weather events and exposure to other climate change risks (see [Step 2.1](#));
- Consider alternative policy lines that can be bundled with adaptation, such as sustainable development, spatial planning, disaster risk management, etc., and the positive synergies and spill-overs (see [Step 2.6](#));
- Develop and use communication messages that correspond to the current policy priorities or aims (See [Step 1.7](#));
- Use the experiences of other cities and similar areas as examples of adaptation benefits;
- Collect information on available adaptation funding, thus lessening the hurdle of decision-makers to find additional funding for adaptation action (see [Step 1.5](#)).

Political support can be sustained through long-term policy documents or participation in regional or international adaptation initiatives.

[^ READ LESS](#)



Getting started

1 Preparing the ground for adaptation

2 Assessing climate change risks and vulnerabilities

- 2.1 Recognizing past and present climate impacts
- 2.2 Understanding climate projections and future impacts
- 2.3 Identifying vulnerable urban sectors
- 2.4 Conducting risk and vulnerability assessments
- 2.5 Understanding the role of surrounding areas in adaptation
- **2.6 Identifying main adaptation concerns and defining objectives**
- 2.7 Assessing climate change risks and vulnerabilities: Self check

3 Identifying adaptation options

4 Assessing and selecting adaptation options

5 Implementing adaptation

6 Monitoring and evaluating adaptation

2 Assessing climate change risks and vulnerabilities

2.6 Identifying main adaptation concerns and defining objectives

This step aims to develop a strategic direction for the adaptation planning, based on the assessment of climate-related risks and vulnerabilities (see [Step 2.4](#)). Identifying the main adaptation concerns (e.g. which sector or which climate impact should be addressed first) is based on the analysis of the immediacy and severity of impacts, but also on the opportunities to leverage existing disaster risk reduction strategies or the current resource and infrastructure management arrangements and plans. Given the broad nature of climate change risks and vulnerabilities, it is advisable to carry out such prioritisation with full engagement of stakeholders (see [Step 1.2](#)).

This step supports Covenant of Mayors signatories to develop the “Vision” and “Adaptation Strategy” (see [reporting template](#)).

There are various methods available for prioritising the main adaptation concerns (see the [reporting template](#)). In general, the main issues to be considered in prioritising the climate impacts to address are:

- Already occurring impacts (see [Step 2.1](#)), especially the ones that are projected to become more frequent and severe (see [Step 2.2](#));

[▾ READ MORE](#)

Case studies

- » The economics of managing heavy rains and stormwater in Copenhagen – The Cloudburst Management Plan
- » Realisation of flood protection measures for the city of Prague

Guidance and tools

- » Risk Systemicity Questionnaire
- » The Resilience Maturity Model
- » Guideline for Stress Testing the Climate Resilience of Urban Areas
- » RAMSES Transition Handbook and Training Package

EU-funded projects

- » Smart Mature Resilience
- » Climate resilient cities and infrastructure
- » Reconciling Adaptation, Mitigation and Sustainable Development for Cities

Check out further guidance, case studies and relevant projects





3 Identifying adaptation options

3.2 Finding examples of good adaptation practices

Although a large number of adaptation options applicable can be identified ([Step 3.1](#)), often little is known about their performance, acceptance and issues linked to implementing them. Therefore, it is also important to identify cases and examples other cities and towns that have already implemented adaptation actions to learn from their experience. Seeing adaptation measures already successfully implemented and delivering results elsewhere gives them additional credibility.

Climate-ADAPT portal maintains a database of adaptation implementation [case studies](#). The most popular urban adaptation case studies within Climate-ADAPT are listed below.

The Covenant of Mayors Office regularly compiles [case studies](#) to highlight good examples of adaptation action undertaken by signatory cities in detail. Good practices are also promoted through the various Covenant [communication materials](#) (leaflets, brochures, publications). Key actions reported by Covenant of Mayors signatory cities are collected as [good practices](#) (choose 'Adaptation action' under the filter field 'Action type').

Similarly, other city networks and initiatives on the international, European or national levels have been compiling good practice examples and also d

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- 3 Identifying adaptation options
 - 3.1 Creating a catalogue of relevant adaptation options
 - 3.2 Finding examples of good adaptation practices
 - 3.3 Identifying adaptation options: Self check
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Climate impact

All climate impacts

Sector

All adaptation sectors

- » Zaragoza: combining awareness raising and financial measures to enhance water efficiency
- » White roof, innovative solar shadings and bioclimatic design in Madrid
- » Vrijburcht: a privately funded climate-proof collective garden in Amsterdam
- » Urban storm water management in Augustenborg, Malmö
- » Urban river restoration: a sustainable strategy for storm-water management in Lodz, Poland
- » The refurbishment of Gomeznarro park in Madrid focused on storm water retention
- » The economics of managing heavy rains and stormwater in Copenhagen – The Cloudburst Management Plan
- » Tatabánya, Hungary, addressing the impacts of urban heat waves and forest fires with alert measures
- » Stuttgart: combating the heat island effect and poor air quality with green ventilation corridors
- » Storm water management in Växjö - the Linnaeus canal and Växjö lake lagoons, Sweden
- » Social vulnerability to heatwaves – from assessment to implementation of adaptation measures in Košice and Trnava, Slovakia
- » Room for the River Waal – protecting the city of Nijmegen
- » Room for the River Regge, Netherlands - restoring dynamics
- » Realisation of flood protection measures for the city of Prague

The symbol  indicates information with particular relevance to Covenant signatories



uast_logo_3

Getting started

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Initiatives on the international, European or national levels have been compiling offer knowledge exchange and peer to peer learning events.

^ READ LESS

Sector

All adaptation sectors

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ABOUT CLIMATE-ADAPT

Urban adaptation support tool | Urban AST step 5-2

SITE MAP



Getting started

1 Preparing the ground for adaptation

2 Assessing climate change risks and vulnerabilities

3 Identifying adaptation options

4 Assessing and selecting adaptation options

5 Implementing adaptation

- 5.1 Designing an effective adaptation action plan
- **5.2 Finding examples of adaptation action plans**
- 5.3 Mainstreaming adaptation in urban policies and plans
- 5.4 Addressing climate change through adaptation and mitigation
- 5.5 Implementing adaptation: Self check

6 Monitoring and evaluating adaptation

5 Implementing adaptation

5.2 Finding examples of adaptation action plans

Adaptation strategies and action plans already developed by European municipalities can serve as helpful examples for those cities embarking on the road to develop their own adaptation planning documents. It should be noted that adaptation plans can be very different in their content, ambition and coverage. Therefore, it is best to examine several documents, compare and use their best aspects as practical examples. It is also recommended to establish contacts with other urban areas facing similar climatic challenges.

Some examples of adaptation plans are available in the table below.

More examples of adaptation action plans can be found on the Covenant of Mayors [website](#) (under the filter field 'Commitment' > 'Adaptation').

Country	City	Main climate impacts	Links to strategy or plan
AT	Vienna	Heat island effect	Urban Heat Island Strategy (DE) (2015)
BE	Ghent	Heat waves, Water shortage, Extreme rainfalls	Adaptation Plan 2016-2019 (EN) (2016)
BE	Antwerp	Sea level rise, Storms	Adaptation Plan (NL) (2016)
BG	Sofia	Extreme heat, Floods	Climate Adaptation Strategy (BG) (2016)
CZ	Prague	Heat waves, Drought	Adaptation Strategy (CZ) (2016)
DE	Dresden	Floods, Heat waves, Heavy rain, Drought	Dresden Region Climate Change Adaptation Programme (DE) (2013)



Also accessible from Covenant „Adaptation resources“ page



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LIBRARY

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ADAPTATION
RESOURCES

ENERGY
POVERTY

FAQ

Adaptation resources

The Covenant of Mayors - Europe Office, often in cooperation with European or national authorities and other stakeholders, offers online and offline support, and also allows signatories to learn from each other. Whether you are just getting started on adaptation or already implementing or monitoring your adaptation plan, the Covenant community is here for you.

The [Urban Adaptation Support Tool](#) jointly developed by the Covenant of Mayors –Europe Office and the European Environment Agency, is the main adaptation resource for the Covenant community. It takes you through all the steps needed to develop and implement an adaptation strategy and refers you to valuable guidance materials and tools. The tool has been tested and approved by Covenant signatory cities.



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Leaflet



How to prepare for floods, heatwaves and other climate change impacts

Get inspired by Covenant of Mayors cities and regions!

Check out [our latest adaptation publication](#).

Webinars



Watch the recordings of our webinars on adaptation to climate change!

Check out the next ones in our [online agenda](#).

<https://www.covenantofmayors.eu/support/adaptation-resources.html>

What's next

- Regular updates
- Additional information to be added is welcome

-
- How do you use the tool?
 - Feedback and suggestions are highly welcome!

Lea Kleinenkuhnen

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www.eumayors.eu



Experiences in the use of the UAST

Joao Dinis, Cascais Municipality



Cascais

- + 97 km²
- + 30 km coastal line
- + 1/3 of protected landscape
- + Metropolitan Area of Lisbon
- + Renowned tourist destination
- + 206 000 inhabitants
- + Unrivalled heritage



Climate Impacts and Vulnerabilities



Water resources



Agriculture



Coastal zones



Human health



Biodiversity



Tourism



Climatic variable



Impacts



Decrease of average of precipitation



Increase of average temperature, mainly maximum



Sea level rise



Increase of extreme precipitation events

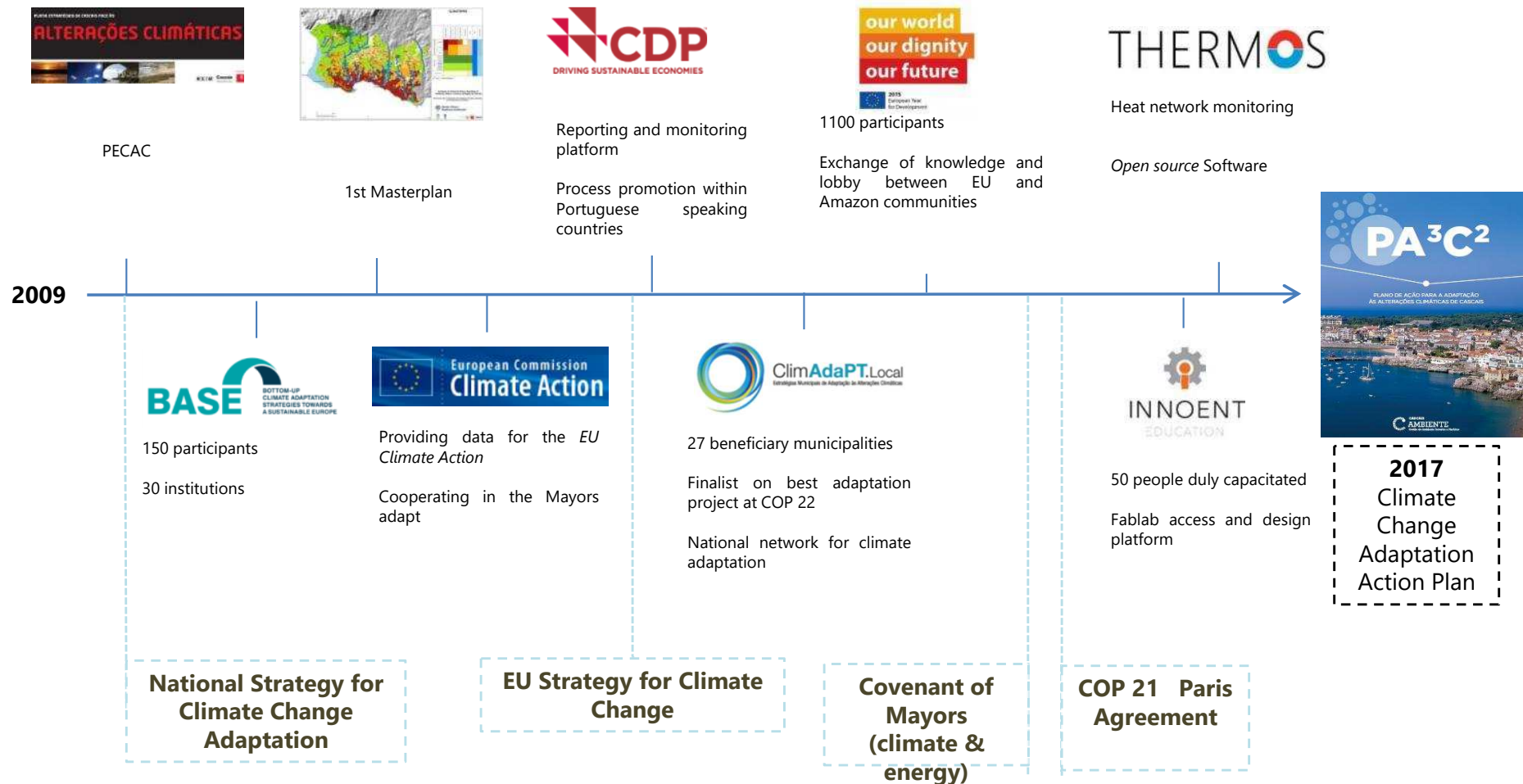


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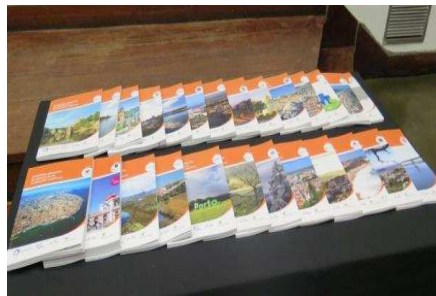


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Climate action timeline



Integrated work



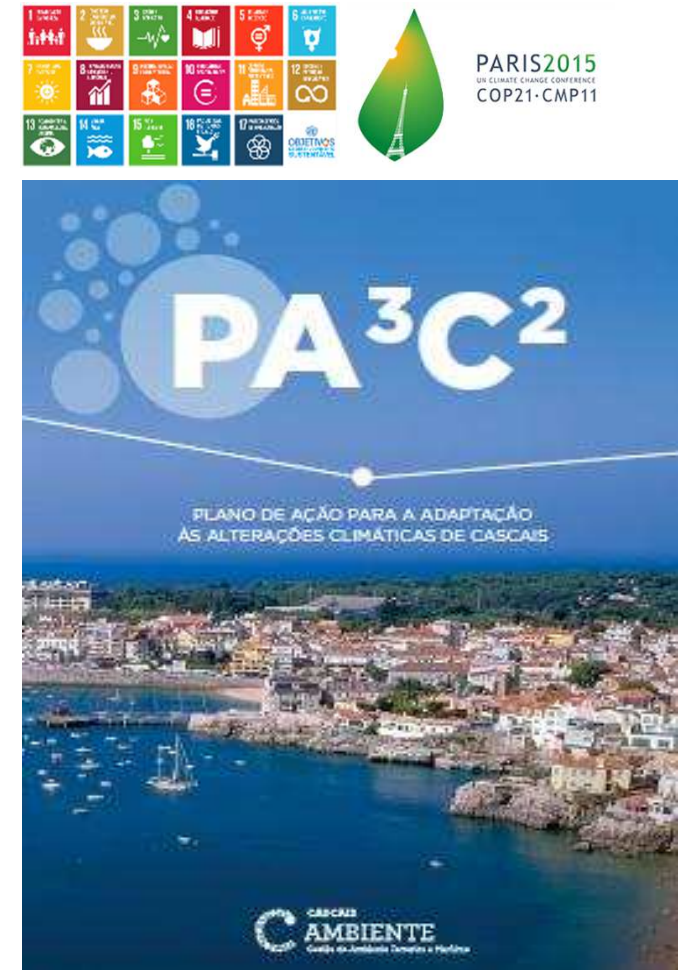
Urban Adaptation Support Tool

- + Provided guidance to develop the Adaptation action plan as current work was “unstructured”
- + It furthered our knowledge on adaptation work frames and action classification
- + Together, with existing ongoing projects (financed by the EU) gave us a participatory and inclusive approach on local adaptation for stakeholder engagement
- + Monitoring was also established based on recommendations for implementation and action



Cascais' Action Plan for Climate Change Adaptation

- + Planning ahead: 3 political terms
- + Updated climate scenarios with IPCC 5. Corroboration of PECAC's scenarios.
- + inter-institutional collaboration and co-responsibility
- + Integration with UN's Sustainable Development Goals 2030 and national commitments
- + Submitted on Town Hall Meeting – mandatory commitment



Climate Action

Cascais' Action Plan for Climate Change

Adaptation

+ 13 Measures

+ 82 actions

+ €11 500 000 investment

+ Mostly “non-structural” or “green solutions”.

+ “gray solutions” for water supply infrastructure

+ Transversal reply to the Sustainable Development

Goals 2030

	Adaptation Measures
1	Stakeholder awareness
2	Residual and pluvial water separation network
3	Sustainable school
4	Local alternatives to water supply
5	Green corridors and riverbeds requalification
6	Eliminate pollution in water beds
7	Reforestation in the natural park with native species and control of invasive ones
8	Full implementation on the fire prevention plan
9	Coastal erosion prevention actions
10	Contingency plan for heat waves
11	Vigilance and control of vector diseases
12	New urban green parks and natural infiltration areas
13	Legislation for bioclimatic architecture in urban areas

Adaptation Sectors

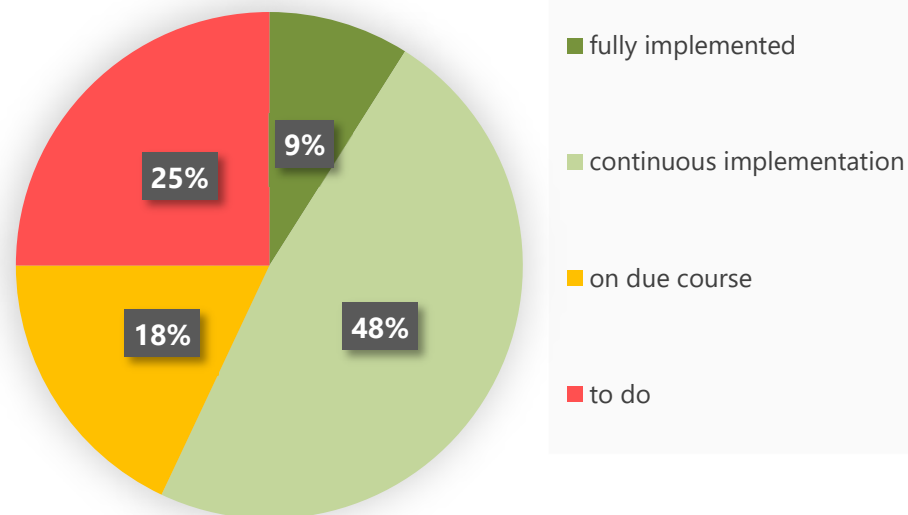
- + Awareness and education
- + Water resources
- + Civil protection and health
- + Ecological infrastructure and resilient urban green spaces
- + Spatial planning



Monitoring

- + 30 000 citizens engaged
- + 5 000 volunteers
- + all year weather monitoring
- + water elevation stations concluded and local supply infrastructures at maximum potential level
- + 600 professionals trained

Implementation (%)



Lessons learnt

- + Adaptation is a highly replicable process among cities
- + Non-structural actions, such as training and awareness should be considered **a priority for action momentum**
- + Most adaptation actions which tackle vulnerabilities are **nature based solutions**.
- + Cities must ensure the inclusion of adaptation actions in **planning instruments and construction regulation**.
- + Together, climate action strategies will provide a **transformative spirit to innovate** and find new approaches for resource efficiency: win-win



Climate-ADAPT Urban Adaptation Map Viewer

live demonstration

<https://climate-adapt.eea.europa.eu/knowledge/tools/urban-adaptation>

Aleksandra Kazmierczak, EEA



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UAMV - <https://climate-adapt.eea.europa.eu/knowledge/tools/urban-adaptation>

Urban Adaptation Map Viewer



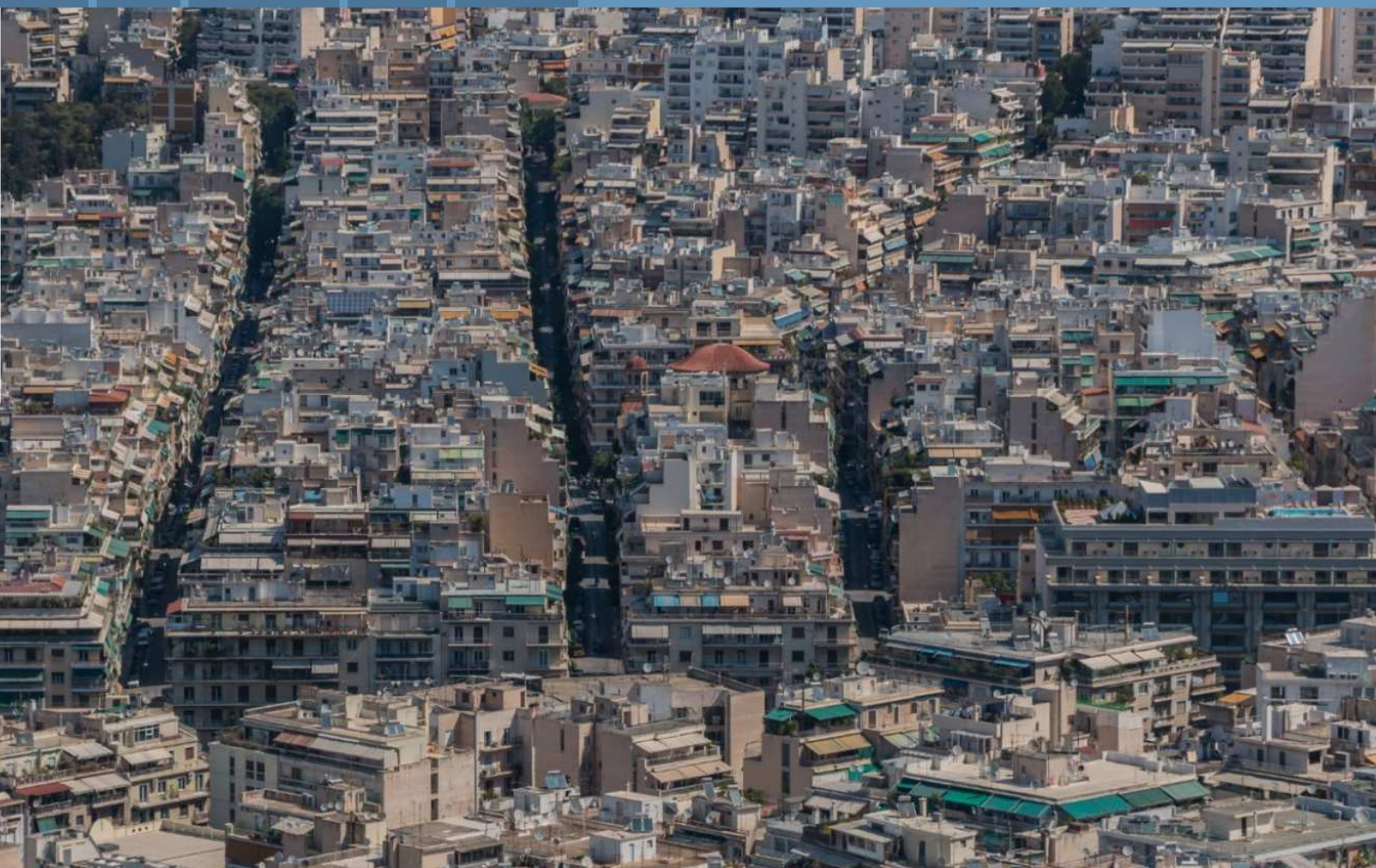
- About
- Heat
- River flooding
- Coastal flooding
- Pluvial flooding
- Water scarcity
- Wildfires
- Social vulnerability
- Adaptation
- City factsheets

About Urban Adaptation Map Viewer

The aim of this map viewer is to provide an overview of the current and future climate hazards facing the European cities, the vulnerability of the cities to these hazards and their adaptive capacity. The map viewer collates information from various sources on the observed and projected spatial distribution and intensity of high temperatures, flooding, water scarcity and wild fires. It also provides some information on the causes of cities' vulnerability and exposure to these hazards, linked to the characteristics of cities and their population. Finally, the map viewer provides information on adaptation planning and actions of European cities .

The information contained in the maps, combined with the Urban Audit [city factsheets](#) allows gaining understanding about the current and projected climate impacts in European cities. It is also possible to compare individual cities to each other, and to identify other cities in similar situations. Additional sources of information, illustrative case studies and relevant indicators are suggested for learning more about the climate risks to European cities. The underlying datasets and metadata can be viewed [here](#).

Photograph © Bruno Coelho, My City /EEA



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Feedback, questions and answers



Possible topics for discussion:

- Are the Climate-ADAPT urban tools useful? For what purposes?
- What shall be the focus to further develop the Climate-ADAPT urban tools?
- Can you contribute to disseminate Climate-ADAPT urban tools?

Climate-ADAPT urban webinar



Thank you very much for your participation and interest...

climate.adapt@eea.europa.eu