

  
**Resilient  
Cities** 2016



**3rd Open European Day 2016  
Conference Report**



## Foreword

### Urban adaptation is vital for a climate-resilient Europe

Cities are at the heart of European society, economy and culture. Today, most Europeans live and work in cities. The influence and impact of urban areas extend well beyond their administrative boundaries. Cities are linked to each other, to their hinterland and other regions far away and city authorities also act in a wider legislative and institutional framework often set by regional, national governments, European and international institutions.

Like the rest of the European landscape, urban areas are affected by climate change impacts: more frequent and extreme rainfall and heat waves, sea level rise, etc. These changes can have damaging impacts on human health and property, including flooded homes and businesses, damage to transport infrastructure, and increases in heat-related deaths, especially for an ageing population. As cities are home to three quarters of Europeans, municipal authorities have to take action to make their city prepared and better equipped to cope with climate impacts, not only now but also in the future.

The European Union's Adaptation Strategy acknowledges the important role cities play in building a climate-resilient Europe. It provides support through a wide range of policies and measures, including the initiative 'Mayors Adapt – Covenant of Mayors for Climate and Energy'.

The European Environment Agency (EEA) supports these efforts as a knowledge provider. With our assessments, data, maps and the European Climate Adaptation Platform Climate-ADAPT, we provide cities and other actors with information on current and future impacts across the continent.

This European knowledge needs to be complemented by local knowhow and expertise held by stakeholders in cities across Europe. To harness this hands-on knowledge, we have been organising the Open European Day (OED) in cooperation with ICLEI. The OED is designed as a platform to gather and exchange the practical experience gained by cities. Concrete and interactive discussions not only allow cities to learn from each other, but also other knowledge providers to understand what information cities really need in order to adapt. Urban adaptation is a continuous learning process for all of us.

At Open European Day 2016, it became clear that cities across Europe have started to put in place measures to adapt to climate change. Yet, much more needs to be done. Adaptation still needs to become a task as natural as reducing greenhouse gas emissions has become for municipalities. Faced with resource scarcity, cities see integrating adaptation action into other municipal tasks, such as greening, health or disaster risk, as a promising way forward. European and national funds are available to support cities in their efforts, but cities need to be aware how they can find and access these funds.

OED 2016 has also inspired participants with out-of-the box solutions. Nature-based solutions seem to be one key area to explore in this regard. Some cities use parks, tree-lined streets, green walls and roofs to create cool spaces and to store and delay storm water. Taken together, they can transform a city. Instead of an urgent necessity, adaptation measures can be turned into a great opportunity to create better cities, offering a higher quality of life for Europeans.

Hans Bruyninckx  
*EEA Executive Director*  
*European Environment Agency*

## Urban adaptation in Europe – Where do we stand?

The Open European Day, organised by ICLEI - Local Governments for Sustainability and the European Environment Agency, has reached its third edition. When we held the first edition of the OED in 2013, we knew that at the time not only was there an urgent need in cities to start acting on adaptation, but many cities still needed to fully acknowledge the effects of climate change on their territory and to understand how to respond to them. Much progress has been made over the past few years and more cities have advanced on their climate resilience journey, sometimes only with stand-alone reactive measures and in other cases with a more proactive strategic thinking around adaptation.



Circa 130 participants joined us on the 5th July 2016 in Bonn at the 3rd Open European Day to learn about adaptation in practice, but also to share their experience through interactive exchange, touch base on their daily work on adaptation, and discuss challenges and solutions. In addition to cities, which were our main target audience and made up the great majority of the speakers during the day, stakeholders from universities and research institutes, international organizations, national and regional governments, local NGOs, as well as consultancies and freelancers participated. The audience composition clearly reflected the complex stakeholder constellation that revolves around working on local adaptation.

As it emerged during the day, many cities in Europe have set up processes to foster adaptation at the local level, starting with no-regret measures and the exploitation of co-benefits, and are now facing the challenge of implementation. This not only implies taking a shovel and digging the first hole in the ground, but most importantly, understanding and driving a process that will, in the medium and long term, lead cities to profound transformations. Adaptation is inextricably linked to urban transitions, which are influenced by macro trends that are not only of climatic, but also of economic, social and societal character. This complexity represents a challenge that can put cities at risk, if they don't take the necessary steps to tackle it. This is why, as Jerry Velasquez of UNISDR put it, "Cities are engines of growth but also the largest drivers of risk".

To mitigate risks, cities need to leave behind the "silo-approach" that has limited their governance of complex phenomena, such as climate change, in the past and embrace a holistic view. According to Lina Liakou of the City of Thessaloniki "a change of culture and rhetoric is necessary to mainstream adaptation".

This report takes stock of the experiences shared at the Open European Day 2016 and synthesizes the main findings resulting from the discussions of the day, highlighting emerging themes and challenges, and giving some recommendations on how to move further.

## Governing adaptation locally

Cities have the jurisdiction over their territory and the mandate to govern it to guarantee wealth and quality of life for their citizens. City decision-makers are in direct contact with local realities and are also 'first-responders' to problems. As Sandro Nieto Silleras of DG Climate Action, European Commission said, "Local actors are best positioned to recognize their needs and vulnerabilities, and cities have tools to respond to challenges, such as urban planning and water management".

So it seems cities have the instruments they need to tackle climate change, in other words, to mainstream it into their local political agenda. Then what is slowing down the process? We know that institutional structures are fundamental in organizing the administration of a territory, but when confronted with new challenges, they take time to adapt and change. As Hrönn Hrafnstóttir, City of Reykjavik, shared, "Mainstreaming adaptation is all about people working

together. We have engineers who are used to making concrete drainage systems, we have landscape architects who are used to designing beautiful parks and planting trees, we need to combine these two and empower them to work together". Cities have been struggling over the past number of years to leverage adaptation on the political agenda. In some cases, risks that generated negative impacts in the past are now acknowledged, but they are not explicitly attributed to climate change. To overcome this challenge, the City of Burgas in Bulgaria has taken 'a horizontal approach' by including adaptation considerations in the different parts of the municipal plan. Burgas has planned 60 development projects throughout the city for the next

5 years and all of them include green measures with adaptation benefits. This example shows how mainstreaming adaptation into strategic planning documents as a horizontal principle can be a way forward in the absence of adaptation-specific strategies and can ensure that climate change resilience considerations are taken into account in all sectoral policies. Other experiences

point to the creation of pilot projects as a game-changer to take a step forward in mainstreaming adaptation, showing that it is possible to implement adaptation measures and involve various stakeholders including the private sector. They can pave the way and create a 'business case' that can lead to market replication.

Another obstacle that cities seem to struggle with when tackling climate change is its long-term character. According to João Dinis of the City of Cascais, "The challenge is that city administrations work within a different timeframe than climate change". Measures ensuring not only climate adaptation benefits, but also immediate improvements of the urban



A bird's eye shot...

@OpenEuropeanDay Jul 5  
#Thessaloniki's horizontal thinking:  
how does water management relate  
to sea level rise/ port development?  
#OED2016



environment can provide the short term benefits local policy makers need.

Sometimes the answer comes from an external opportunity. For example, the City of Essen used the application process for the Green Capital Award 2017 as an occasion to change the traditionally compartmentalised way in which problems were regarded and to start a holistic plan. This experience shows how engagement in international initiatives for adaptation or resilience can act as kick-starting mechanism for bringing together different sectors of the administration.

### Urban adaptation is a multi-level effort

Although a lot can be done at the local level, urban adaptation is not only a local issue – progressing and mainstreaming adaptation is a complex activity that involves different actors at all government levels. In fact, cities act within a multi-level governance framework that requires cooperation with regional and national governments, which can provide them with support to advance adaptation.

Such support can range from regulatory frameworks that allow a clear division of competencies and responsibilities to a proactive provision of resources and information that further enhances municipal capacity. As an example, Carme Melcion Fontbernat of the Province of Barcelona described how they provide support to cities in the region with designing adaptation strategies and also provide funding for some actions. Furthermore, the province helps find new ways of financing adaptation, for example through the ELENA facility run by the European Investment Bank, and provides technical and legal support with EU tender writing. In fact, EU projects can be a great source of adaptation funding, but participating in calls for proposals requires an administrative effort and professional use of the English language, which not all municipalities are equipped to provide – especially the smaller ones. The Province of Barcelona also supports its cities by providing communication materials, offering capacity-building for municipal staff and coordinating action with other administrative levels.

The national level is also crucial in providing resources and setting a strong line of action on adaptation. Markus Leitner explained how his institution, the Austrian Environment Agency, focuses on combining mitigation with adaptation and disaster risk management, thus supporting cities in thinking beyond silos and providing a viable approach to effectively tackle adaptation.

Mainstreaming adaptation in Europe is a common effort of which the EC is at the forefront. As Sandro Nieto Silleras of DG CLIMA pointed out, the European Commission is supporting cities through the Covenant of Mayors for Climate and Energy by providing political leverage, technical guidance and fostering experience exchange between cities, as well as financing research, implementing projects and creating tools and data.

#### What we learned at the OED...

The EU has earmarked 20% of its 2014-2020 budget to tackling climate change!

#### Learn more:

[http://ec.europa.eu/clima/policies/budget/index\\_en.htm](http://ec.europa.eu/clima/policies/budget/index_en.htm)



## Data or information?

When cities talk about adaptation, they often flag the need for data that they can use to understand climate phenomena and develop responses, but also to support their decision makers with the necessary evidence to set the adaptation bar high on their political agenda. At the current stage, a lot of data sources (from the national or EU level) exist, but cities often bemoan the lack of information that they really need. Carlo Buontempo, from Copernicus stated, “As a scientist I have been wrong to assume that providing data alone is enough, it needs to be contextualized to be useful”, and Nicolas Faivre of the Directorate-General for Research and Innovation made an important distinction, noting, “Data is what scientists work with, information is what cities need for decision-making”.

### What we learned at the OED...

Copernicus is a European system for monitoring the Earth. Data is collected by different sources, including Earth observation satellites and in-situ sensors. The data is processed and provides reliable and up-to-date information about six thematic areas: land, marine, atmosphere, climate change, emergency management and security. Copernicus provides decision-making tools and free access data, learning about information gaps from the users and demonstrating examples of best practice of climate data use.

#### Learn more:

<http://www.copernicus.eu/>

So it clearly emerges that science and policy are sometimes aiming at the same goals, but taking different paths. But what information do cities really need?

According to João Dinis of the City of Cascais, “cities need meteorological and climate data for the local level and for short as well as medium timeframes, e.g. data projections for 10 years, as well as 30 to 50 years”. To gather that information, Cascais worked together with a local university to develop more local data through a local meteorological network.

Rainer Lucas of the Wuppertal Institute speaks from the side of science in favour of reducing the complexity of raw data transforming it into usable information for cities, “Most of the knowledge on adaptation is broad and unspecific, not tailored to specific groups. The big challenge is to select relevant information: make it simple, make it tailored to specific stakeholder groups!”.

High-resolution data can be a powerful tool in the hands of city planners, but cities at the OED advised their peers against



waiting to obtain this kind of data before acting. Resources are available from different institutions (e.g. city data, national meteorological services, universities, EU data) that reveal general climatic trends for different geographical areas, and these already provide already a clear indication of the type of risks that cities might be exposed to. Nicolas Lefebvre suggests using “visual data maps to help argue for city policy decisions and also to show citizens the problems and the benefits of solutions”. Such maps can also help prioritize actions in a situation of limited financial resources. Also, sometimes cities can gather enough climate information by working together with third parties and institutions and without significant financial investment. In Warsaw, for example, the Institute for Sustainable Development Foundation acts as a mediator between the City of Warsaw and four local universities and provides support in pulling together data from all parties.

Ulrich Reuter of the City of Stuttgart made the link between information provision and policy-making even clearer. “All development decisions need to be made by politicians. Experts can give recommendations, but politicians are the ones who will have to consider them and make a final decision by weighting climate and economic aspects”. He emphasised the importance of the science-policy interface. “A good governance structure is needed to move forward, somebody needs to be in charge of providing the bridge between science and policy”.

The Stuttgart example clearly demonstrates the political impact of data. The city developed a strategy for its hillside development corroborated by climatic data that imposed building restrictions in that area to reduce heat related risks. Thanks to that, the city won a lawsuit against private investors that wanted to obtain building permission. This example demonstrates the need not only for data, but also for bold visions that are informed by scientific knowledge.

Urban adaptation also calls for a shift in culture on the part of the research. Jeremy Carter of Manchester University said, “As researchers we should be producing outcomes that are used in practice”. This implies building a relationship with the public sector and creating mutual learning.

An open attitude to sharing and learning as well as reinforced efforts to raise awareness among different stakeholders on the necessity for adaptation are also needed. Wolfgang Socher of the City of Dresden observed that “the level of knowledge is very high but the level of awareness is

very low. There is a need for adopting a common language among different stakeholders, to build more platforms for empowering decision-making”.

## Building innovation and infrastructure through nature

Nature-based solutions are an expanding topic in the urban climate adaptation debate. They are defined as measures inspired and supported by nature and can provide social, economic and environmental benefits simultaneously.

Cities can be incubators not only for technological, but also for environmental and social innovation. Thus, nature-based solutions (NBS) can replace or be combined with more traditional “grey” approaches and can be multi-functional. The European Commission, DG Research is placing emphasis on supporting cities in adopting green solutions. According to Nicolas Faivre, “It is necessary to build the evidence base for nature-based solutions in order to increase the awareness of the benefits of these solutions”.



A bird's eye shot...

@OpenEuropeanDay Jul 5  
#NaturParif: nature-based solutions are where biodiversity, climate change adaptation and mitigation converge #OED2016

It is worth considering the innovative potential of green infrastructure when different aspects are taken into account. Most nature-based solutions are not innovative in themselves but have a tremendous potential to insulate against vulnerability and enhance the resilience of cities in light of climatic change

while at the same time providing various other benefits, such as biodiversity restoration, recreation, requalification and economic growth – all of which will ultimately enhance citizens’ quality of life. In order to unleash that potential, it is important to take a co-creational approach gathering knowledge from different stakeholders.

Peter Massini of the City of London emphasized that “technical solutions are there, the challenge is more about governance, politics and finance. There needs to be a shift of thinking towards

recognizing green solutions as an asset to the city and as part of its infrastructure”. Therefore, the city has included green infrastructure in its London Infrastructure Plan 2050 which highlights how green infrastructure is as integral to the city as other infrastructure such as rail, roads, pipes and cables. To explore how green infrastructure can better contribute to London’s growth, liveability and competitiveness, the Mayor also established a Green Infrastructure Task Force which includes a wide range of stakeholders, from green space managers to academics, policy makers and NGOs.

Fostering of green spaces should be clearly linked with improvement of life quality and citizen involvement. Kinga Lewicka of the City of Radom explained, “We aim to re-cultivate the existing water bodies in the city, creating also cycling and



running paths around them for sport activities. We have built a green roof on a kindergarten, which also serves nature and climate change education purposes. Teachers are involved in the project and can thus take ownership of it”.

The experience of Paris is significant in this sense, as Marc Barra from Naturparif shared, “In Paris we struggle to convince city planners in favour of nature-based solutions: exact measurements and evidence of the benefits and cost effectiveness of green infrastructure are needed to convince planners and inhabitants. A clear way is demonstrating to citizens that the solutions work: in a valley south of Paris green measures were implemented just before the flooding event in June 2016 and the flood levels were thus reduced by 1 metre”.

The potential of green infrastructure in tackling socio-economic challenges was repeatedly emphasised during the day. In the experience of Jonny Sadler from Manchester City, “Manchester’s green infrastructure strategy connects city people and city economy with the environment. Before that there was a range of separate strategies: trees strategy, water strategy, biodiversity strategy. The flaw was that all these good strategies had not been integrated with aspects of economic and social development. It is important to create a vision, but most important is the governance of that vision. This needs to be implemented through partnerships and with the participation of citizens.”

The City of Edinburgh has pursued the goal of transforming through NBS into a liveable and vibrant landscape. The city’s approach encompasses mapping of green spaces, identification of maintenance costs and mapping of biodiversity gains. Trees are associated with their value for capturing carbon: this makes green spaces a valuable asset to society. Edinburgh plans on planting 500,000 trees, whose location should take into account accessibility to people (with special regard to vulnerable groups).

## Making green and grey coexist

Innovation does not only happen in relation to the benefits of green spaces. Cities should think outside the box also when it comes to making room for green spaces, considering the current trends of growth and densification affecting many places. In megacities like Paris, an increasing number of inhabitants creates stress in finding appropriate space for green infrastructure. This is why the city is looking at buildings as an underutilised source of space. Marie Gantois explained how “In Paris all new buildings need to integrate either a green roof or green façades”.

Hamburg is trying to make the most of its built environment too. Hanna Bornholdt explained how, “In 2014, Hamburg has introduced a strategy for green roofs, aiming at taking advantage of unused space in a growing city. The aim is to acquire 100ha of green space in the next 5 years only through roofs. At least 70% of new buildings





will have green roofs and 20% of these are planned to be publicly accessible. The incentives for green roofs are multiple, from giving a value and destination to unused space, to biodiversity enhancement, to positive effects on urban climate through heat reduction, to making rainwater infrastructure more resilient through water retention, and to even enhancing efficiency of solar panels up to 5-6%".

Further to creating new green space, refurbishing the ones at hand can also bring benefits. For example, London is working on improving existing parks to better suit people's needs. In fact, a park can be a source of great ecological richness, if planned correctly.

Madrid is investing in green infrastructure too. The +Natural programme is currently being implemented as a nature-based climate change adaptation program. It foresees a comprehensive uptake of green spaces including façades, roofs and corridors as a means to fight climate change at the building, neighbourhood and city level.

And green spaces can be engineered to provide flexible infrastructure and immediate comfort in situations of need. In Ludwigsburg, a 'green living room', i.e. a portable green space containing different plant species, is positioned in hotspots during heat waves, instantly showing citizens the benefits of greenery in the city.

Participants stressed the importance of a transformative approach to urban planning for green infrastructure development. It was pointed out how, for example, the switch to a more sustainable mobility system in which the number of private cars is reduced could free a great amount of space to be dedicated to green, thus changing the face of cities of tomorrow.

### **Participation, co-development, co-creation**

Successful approaches for mainstreaming adaptation must not only entail an institutionalization of the issue on the part of the municipality, but also the involvement of all the actors that compose cities' social and economic makeup. Adaptation is, as such, an activity which requires very different sets of knowledge to come together, and fragments of this knowledge are held by



many different stakeholders, such as utilities, the private sectors, local NGOs, and citizens. There are different approaches to stakeholder inclusion, ranging from participation to co-creation: while in participatory processes stakeholders are consulted and then presented with the outcomes of a process that they have informed, in co-creation they are integral part of the process themselves.

João Dinis shared his experience on the characteristics and benefits of co-creation: “co-creation means involving the people in the development of projects and welcoming the opportunity to learn from the process. With the co-creation process, you keep learning and building upon knowledge by getting involved with the relevant stakeholders and workshop participants. Instead of paying for a service, you learn to listen and to get the information you need from the stakeholders that are involved in the co-creation process”. In other words, co-creation not only uses but also creates data. Cities become in this sense information ‘prosumers’.

This makes it very clear that knowledge production is crucial for co-creation. As Niki Frantzeskaki puts it: “to really have a co-creation process, you need to find the knowledge holder, you need to talk to everyone”. So, not only, as reckoned by Björn Grün, “Involving citizens in the planning process creates a higher sense of ownership and higher perceived level of responsibility”, but co-creation and citizen involvement can be a real innovation boost. In fact, knowledge exchange is crucial in understanding the link between adaptation and other issues, which is the key to success. Thessaloniki is an example of knowledge co-production: by engaging more than 2000 citizens in a resilience dialogue, the city identified more than 100 research projects on climate change of which the administration was not aware before.

Citizens can also surprise local administrations by taking a proactive stand in tackling problems. As an example, Matthias Sinn of the City of Essen reported how “in the Emscher Valley in 2014 a storm uprooted or damaged 20-30% of the trees in the city. Thanks to citizens’ self organization on Facebook, 4000 people helped remove the branches and trunks from the streets and within 3 days



the transport could run again. Local NGOs were key in mobilizing people". Also, in the experience of Kinga Lewicka, City of Radom, "When Radom got LIFE funding for a big re-naturalisation project, some citizens approached us to provide input on which spots needed to be improved and what could be done. There is a need to cooperate with the people more and to stimulate also NGOs to apply for funds and implement actions."

#### What we learned at the OED...

The Nature Capital Finance Facility is a specific instrument set up by the EIB together with the EC to finance projects on nature-based solutions.

#### Learn more:

<http://www.eib.org/products/blending/ncff/index.htm>

Stakeholder involvement is even more crucial if one takes into account that only a small part of the city space is owned by the city administration and the rest belongs to private owners. In order to involve them, the right narrative is needed. Awareness raising and building relations are crucial to working together. As Meinolf Koßmann (German National Meteorological Service) puts it, "For a successful and fruitful co-creation process, you need to find the way to convince each participant to try and leave behind their background and enter the room with an open mind". To do that, knowledge brokers are needed in order to bridge the gap between technical and non-technical language and between cultures.

And last but not least, it shouldn't be forgotten that co-creation is also about involving the market: co-creating a service goes hand with developing new skills for climate adaptation, which can lead to generating new jobs in the city.

A recommendation from participants when it comes to designing a co-creation process is not to get lost on the way to the vision. Even if the ultimate goal of the co-creation is a long-term development, short-term outputs must be included to secure buy-in. If stakeholders see no outcome, they will lose trust.

### Funding adaptation and seizing opportunities to create better cities

Even though financing adaptation remains a challenge for cities, over the past years more and more have found new ways to back up projects. Often it is not about spending more, but about spending differently, and in some cases it is even about understanding how to save money. Also, new forms of adaptation funding from EU institutions have been designed to support cities in their endeavours. For example, large-scale nature-based solution demonstration projects are currently financed under Horizon 2020, with a focus on innovation through co-development and co-creation.



Furthermore, as Stefanie Lindenberg of the European Investment Bank explained, “The EIB is studying framework loans that can fund several projects at the same time so as to make it easier for cities to apply for funding. Climate resilience is one of the main three pillars of the new EIB climate policy. In 2015, only 10% of financing was dedicated to adaptation and the bank is working to increase this share. The main current obstacles for cities to access EIB financing are their capacity to design projects that qualify, given that adaptation is not a standalone but it is part of broader policies, and that urban issues are complex and holistic, including broader vulnerabilities of value chains and networks”. In other words, this calls for cities to think in terms of their overall development and group together several adaptation and urban regeneration actions in framework projects that can be more interesting to financiers.

Thinking in broader terms also speaks to using various municipal budget lines to fund adaptation actions, even without a dedicated adaptation budget. In this respect Jonathan Sadler of Manchester said, “Green infrastructure is not necessarily innovative. What is innovative is how you integrate it into city management, different sectors and businesses. The challenges are mostly non-technical. Funding is a significant barrier. We tend to talk little about climate change, adaptation and biodiversity and more about property prices, water management, quality of environment, health issues – because that is where there is existing funding. It is about using the money you have in a different way. This is where you need to talk to stakeholders who have previously not thought about adaptation. We always match our argumentation and narrative to the objectives of the respective organization.”

Mainstreaming adaptation is crucial for correctly recognizing resources in city budgets. In Milan, according to Maria Berrini: “the main source of adaptation funding is municipal budget, and it doesn’t even need to be labeled as adaptation. Budget for social policies can be used for assisting elderly people during heat waves, budget for green areas is a strong part of adaptation financing and, for example budgets for water management and civil protection can be used to make the city more resilient.”

And the experience of Edinburgh shows how pooling different budget sources together can very quickly lead to savings for cities. David Jamieson shared that, “By investing in nature-based solutions we have been saving a quarter of a million pounds in revenue costs a year already. We focus on various funding mechanisms for NBS such as crowd sourcing, 50% of the neighbourhood budget is dedicated to green space development, and we also use funds from the national lottery”.

#### What we learned at the OED...

The LIFE Programme has 10-12 million euro available to finance local climate projects.

#### Learn more:

<http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.getProjects&strandID=3>

## To monetize or not to monetize...

So if on the one hand cities need financing to implement adaptation projects, on the other they need evidence of the benefits that adaptation ensures. This speaks to monitoring the impacts of adaptation measures. Although monetizing those impacts can provide an easily understandable argument to politicians, on the other hand, some participants warned that cost-benefit analysis (CBA) is limited in evaluating the benefits of, for example green spaces and should be substituted with a Natural Capital Assessment. Nonetheless, there was no clear agreement in this respect, as in the opinion of other participants CBA still remains a means to show practical results if cities want to persuade decision-makers of the importance of green infrastructure. As an example, in the case of Hamburg, CBA has proven that, taking into consideration installation and maintenance costs, green roofs provide 5000 € of savings for a ca. 300 sq.m roof surface [compared to traditional technologies]. These experiences point to the fact that there are different methodologies to show the importance of adaptation, cities should consider carefully which one to use in their particular situation.

## Transforming cities: what do we need to take the leap?

The Open European Day 2016 registered a progress in urban adaptation over the past years. According to Marc Barra (Natureparif), "Different departments in municipalities are increasingly working together. This was not the case 10 years ago". So cities are moving forward, making their way from planning to implementation of adaptation measures, but this is far from being a linear smooth path. Many challenges still remain. To cite but a few, cities are still struggling with mainstreaming adaptation into their local political agenda, with identifying and involving all the right stakeholders and governing complex co-creation processes, with finding the right information (in the right format) that they need in order to support their decisions, with pooling together manpower and knowledge from their own institutional capacity to deal with the complexity of adaptation processes, with finally breaking the silo-thinking and tackling problems holistically, and with accessing good financing schemes for adaptation.



Due to this complexity, in many cases, adaptation remains rather still reactive. As Peter Bosch (TNO) put it, "Are we implementing more? Yes, but in some cases it took a flood!"

What we have observed at the OED is that, undoubtedly, cities know more than they used to. They also increasingly understand the implications and the potential of climate adaptation. During this edition of the Open European Day, the term "transformation" was often echoed by speakers and participants as it became clear that purely incremental approaches to adaptation are often not enough and provide only short term benefits, while transformative approaches, although requiring more time and effort, bring long-term wins and a series of socio-economic co-benefits with them.

According to Margaretha Breil (CMCC), “The importance of mainstreaming is linked to having a long-term strategy connected to a vision of what a city is and what it should look like in the future. Cities need to emphasise the integration of adaptation solutions with overall goals for urban development. The formulation of a strategy requires a big involvement of policy, decisions are not based on climate solely, a contextualization is necessary.”

Peter Bosch reinforced how, “It is becoming clearer that adaptation is inextricably linked to social issues and citizens’ participation. This leads to ‘social co-creation of adaptation planning and actions’. Many cities find it at the same time difficult to get funding but still they manage to find ways around this, for example by using national research funding or by adapting the narrative to the different municipal departments that might contribute budgets.”

The Open European Day also hosted the launch of the new European Environment Agency Report on urban adaptation, during which Hans Bruyninckx, Executive Director of the EEA, gave a clear perspective on the state of play and the way forward for cities, “When it comes to adaptation, we are just scratching the surface, in a multi-level governance system we need to identify which instruments can give us leverage. We should look into places of agency and existing actionable structures. More than theory, it will be practices that create a real change; this is why the EEA report is practice-oriented. Transformation is key for a truly future-oriented approach and requires a different level of vision and understanding of the city as a complex system. In the Paris agreement there are objectives reaching to 2100. Not many other policies have such long planning horizons. Adaptation will take time, decades, and key is the long-term vision. A transformational vision is needed and policies have to be geared towards that vision.”

In other words, the real challenge for all those engaged in urban adaptation is to think beyond spot-on approaches towards larger overarching goals and pursue them in their everyday work.

This idea was reinforced by Wolfgang Teubner, Managing Director of ICLEI Europe. “What your idea of your city in the future is and how adaptation fits in is a cross-cutting issue. We are still lagging behind in a cultural switch to see the city as a consumptive and productive system.”

Launched at the OED...

EEA Report | No 12/2016

Urban adaptation to climate change in Europe 2016  
Transforming cities in a changing climate



European Environment Agency

EEA Report: Urban adaptation to climate change in Europe 2016 — Transforming cities in a changing climate  
This report focuses on the state of actions in the field and progress achieved since the first EEA report in 2012, and it considers this analysis in relation to current challenges: Do existing actions lead to attractive, climate-resilient cities and if not, what needs to be changed? The report broadens perspectives on and provides input to advancing urban adaptation.

Learn more:  
<http://www.eea.europa.eu/publications/urban-adaptation-2016>

Also, he reminded that for the hundreds of cities that are working on adaptation in Europe, there are thousands, especially smaller ones, who have not started yet. "How to support smaller cities? Working together with regional authorities to reach out to them can be efficient. Not each small city needs a vulnerability assessment; they could be done at the regional level and cities with similar conditions could be grouped. Also, translating the EEA urban adaptation report into a capacity building programme could be very beneficial to bridge the knowledge gap".



A bird's eye shot...

@OpenEuropeanDay Jul 5  
#HansBruyninckx: Multiple cities  
are built along the same waterways;  
green infrastructure could  
complement these ready-made  
systems #OED2016

In conclusion, to expand knowledge and awareness, experience exchange and resource sharing is crucial at all levels. This calls for training and capacity building of municipal staff and of different stakeholders including civil society, which needs to be activated. Many resources exist but, as Laura Creazzo of Covenant of Mayors for Climate and Energy pointed out, "The existing knowledge needs to be transferred to the ones that should apply it!". This calls for a shared effort in keeping the debate open and inclusive for cities to keep learning, progressing and to transform into well-adapted, resilient places.



## Acknowledgements

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## Pictures

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## Useful links

<https://www.youtube.com/watch?v=7DdoF-rMS58> (OED video)

<http://www.placard-network.eu/>

<http://www.resin-cities.eu/home/>

<http://climate-adapt.eea.europa.eu/>

<https://ec.europa.eu/research/environment/index.cfm?pg=nbs>

### 3rd Open European Day 2016 – List of Speakers

Alessandro Coppola - *Visiting Scholar Gran Sasso Science Institute – Former Chief Resilience Officer Rome*

Annemarie Groot - *Drift / PLACARD Project*

Bernd Decker - *European Commission – LIFE Programme*

Bernd Eisenberg - *University of Stuttgart*

Birgit Georgi - *European Environment Agency*

Björn M. Grün - *Emschergenossenschaft*

Carlo Buontempo - *European Centre for Medium-Range Weather Forecasts*

Carme Melcion Fontbernat - *Diputació de Barcelona*

Chantal van Ham - *IUCN*

David Jamieson - *City of Edinburgh*

Efrén Feliu - *Tecnalia*

Filip Lefebvre - *VITO*

Hanna Bornholdt - *City of Hamburg*

Hans Bruyninckx - *Executive Director of EEA*

Holger Robrecht - *ICLEI Europe*

Hrönn Hrafnisdóttir - *City of Reykjavik*

Ingrid Coninx - *Drift / PLACARD Project*

Jana Koleva - *City of Burgas*

Jeremy Carter - *University of Manchester*

Jerry Velasquez - *UNISDR*

João Dinis - *City of Cascais*

Jonathan Sadler - *City of Manchester*

Julia Peleikis - *ICLEI Europe*

Kinga Lewicka - *City of Radom*

Kit England - *City of Newcastle*

Laura Creazzo - *Mayors Adapt Initiative*

Lina Liakou - *City of Thessaloniki*

Luís Dias - *ClimAdaPT.Local*

Luis Tejero - *City of Madrid*

Marc Barra - *Natureparif Île-de-France*

Margaretha Breil - *Euro-Mediterranean Centre on Climate Change*

Maria Berrini - *City of Milan*

Maria Kazmukova - *Institute for Planning, Prague*

Maria Vankann - *City of Aachen*

Marie Gantois - *City of Paris*

Mário Pulquério - *PLACARD Project*  
Markus Leitner - *Environment Agency of Austria*  
Matthias Sinn - *City of Essen*  
Mauro Bigi - *EY Consultant to the City of Bologna*  
Meinolf Koßman - *Deutscher Wetterdienst*  
Nicolas Faivre - *European Commission – DG Research*  
Niki Frantzeskaki - *DRIFT*  
Peter Bosch - *TNO / RESIN Project*  
Peter Massini - *City of London*  
Piero Pelizzaro - *Climalia*  
Rainer Lucas - *Wuppertal Institut*  
Rasmus Lauridsen - *European Investment Bank*  
Reinhard Limbach - *Deputy Mayor City of Bonn*  
Roberto Cavallo - *City of Alba*  
Sandro Nieto Silleras - *European Commission – DG CLIMA*  
Stefanie Lindenberg - *European Investment Bank*  
Stephan Brenneisen - *University of Zurich*  
Susana Ruiz - *City of Bilbao*  
Timo Leiter - *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)*  
Ton Verhoeven - *City of Nijmegen*  
Ulrich Reuter - *City of Stuttgart*  
Wojciech Szymalski - *Institute for Sustainable Development Foundation Warsaw*  
Wolfgang Socher - *City of Dresden*  
Wolfgang Teubner - *Regional Director of ICLEI Europe*

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