Appendix 11: Conference Report

Adaptation Strategies for European Cities: Final Report

This is part of the Final Report of the project ”Adaptation Strategies for European Cities” which has been compiled by Ricardo-AEA for the European Commission Directorate General Climate Action

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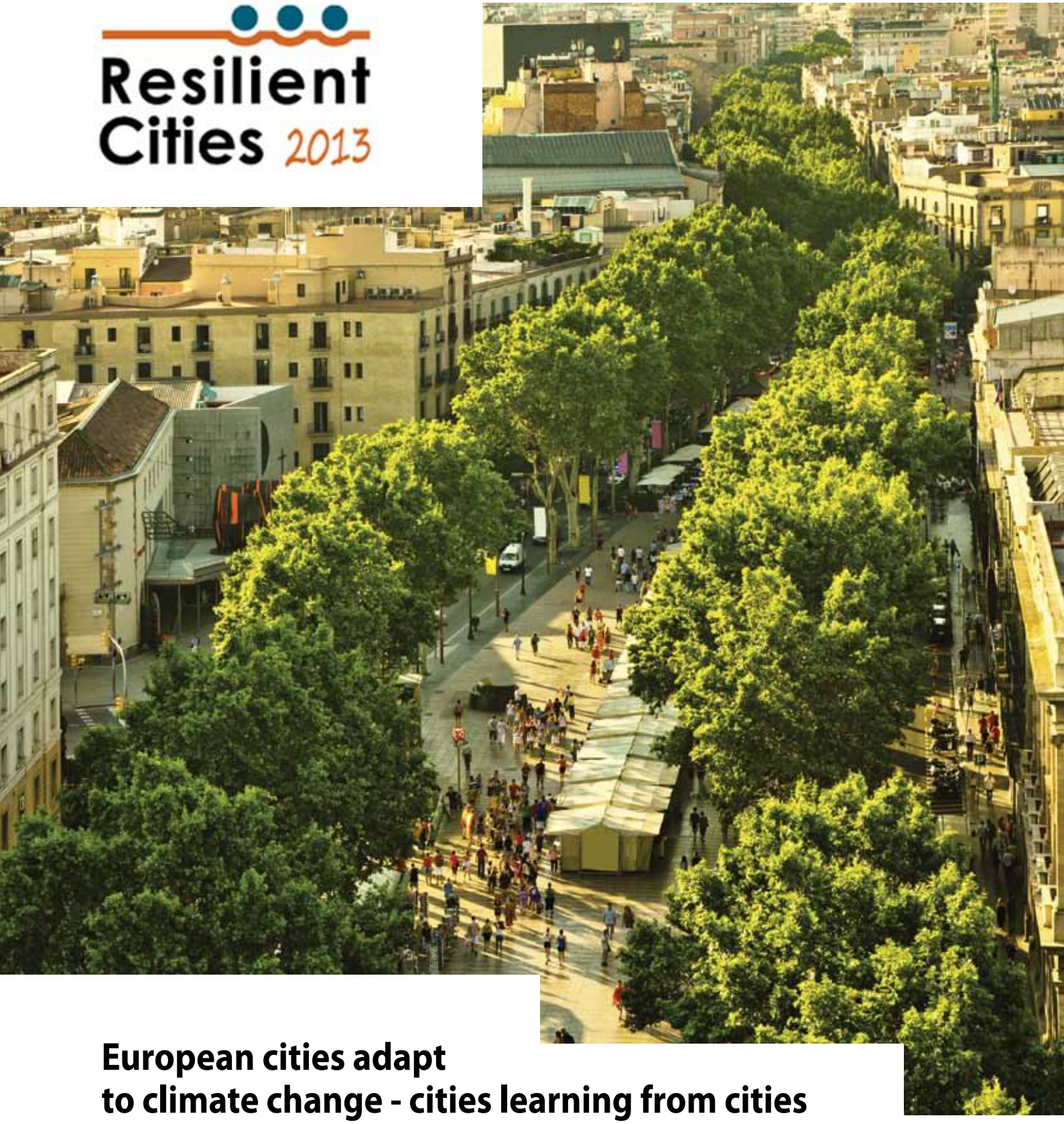
This appendix contains the final reports on:

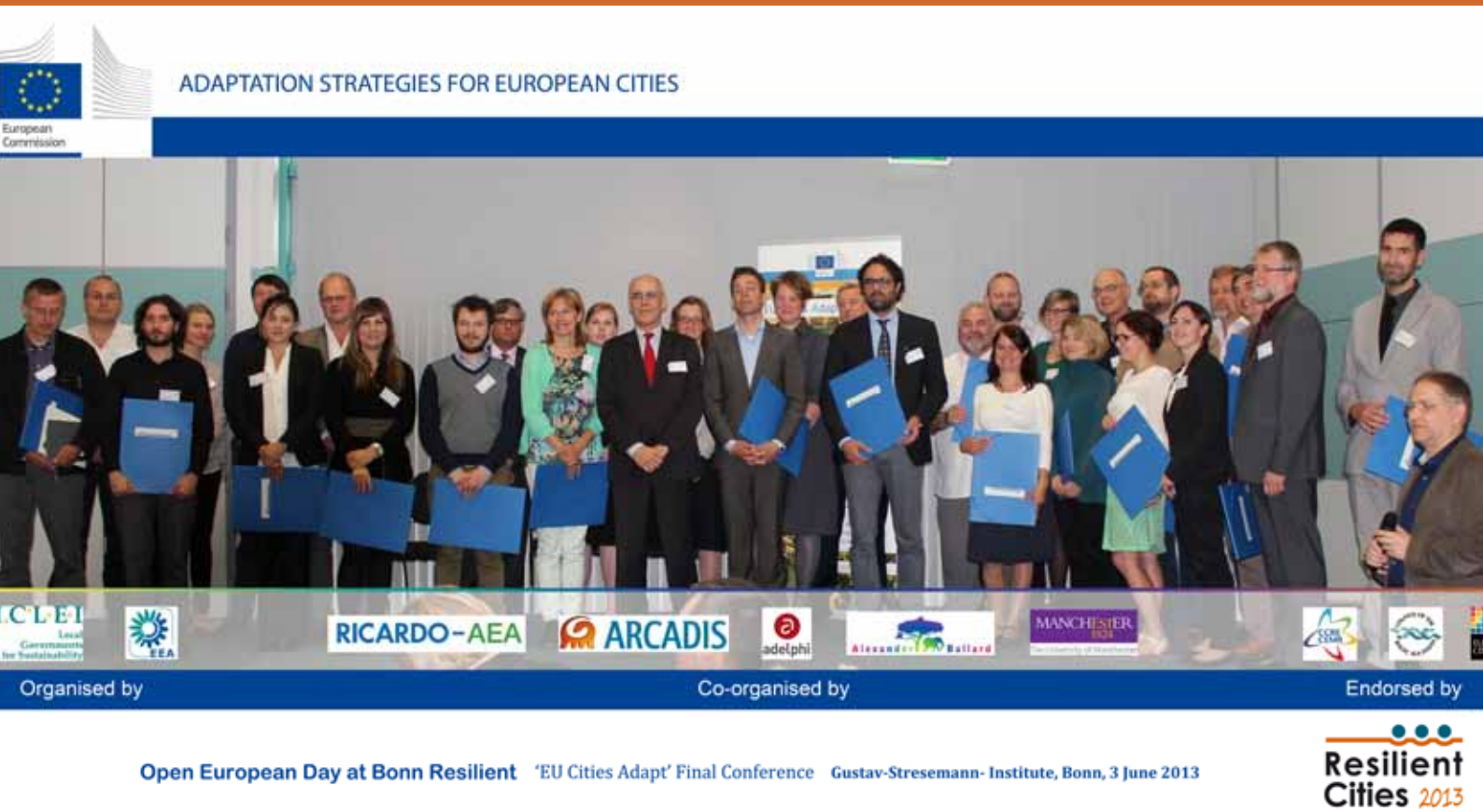
- The First Open Day at the Resilient Cities Conference, Bonn, 3 June 2013
- Key messages from the First Open Day at the Resilient Cities Conference, Bonn, 3 June 2013

Resilient Cities 2013



European cities adapt to climate change - cities learning from cities

The first Open European Day at the Resilient Cities Conference, Bonn, 3 June 2013



1. Introduction

The aim of the report is to draw conclusions from the First Open European Day organised on the 3rd June 2013. The report presents a number of themes emerging from contributions of the city representatives and from the lively discussions among the attendees. The report presents the state of play with regard to climate change adaptation in European cities in 2013; good ideas for raising the profile and mainstreaming of adaptation; and the questions that remain unanswered. Based on the opinions of the participants, the report lists possible actions for local authorities, national governments, European Commission and the European Environment Agency, research institutions and other organisations that would progress the adaptation agenda in European cities.

2. The Open European Day 2013

The Open European Day 2013 was jointly organised by ICLEI – Local Governments for Sustainability, the European Commission and the European Environment Agency. It ran as a side event at the Resilient Cities conference - the 4th Global Forum on Urban Resilience and Adaptation, which took place on 31 May - 2 June 2013 in Bonn, Germany. Resilient Cities, in which over 500 representatives of cities, academia and private sector participate each year, is a milestone event connecting local government leaders and climate adaptation experts to discuss adaptation challenges facing urban environments around the globe.

The Open European Day coincided with the final conference of 'EU Cities Adapt', a key project on urban adaptation in Europe, financed by the European Commission (Directorate-General for Climate Action). In this project, 21 European cities at different stages of progress in adaptation - have worked together towards well-informed and sustainable actions on climate change adaptation. The experience of these cities on their challenges and solutions provides a unique source of knowledge and inspiration.

The Open European Day brought together approximately 120 representatives of cities, research institutions, and other stakeholders in an interactive format aiming at maximising the exchange of knowledge between European cities on adaptation to climate change. It was dedicated to capacity building for urban stakeholders and focused on city-to-city learning. Participants were encouraged not only to speak about and learn from good examples, but to also to share their challenges and discuss solutions by exchanging knowledge with colleagues from other cities and attending experts in climate change adaptation and urban issues. It is planned to become a regular platform for European cities to exchange experiences on practical challenges and adaptation solutions towards local climate resilience.

The detailed programme of the day is available here.

3. The state of adaptation in participating cities

The cities participating in the Open European Day ranged from those considered to be very advanced in climate change adaptation (for example Copenhagen or Rotterdam) to those that described themselves as beginners (such as Zadar or Vilnius). The divide in Europe between the North West and the South East with regards to the level of climate change adaptation remains, with the North West leading the way. The lesser emphasis on adaptation in Central, Eastern or South Europe is also indicated by the low numbers of attendees from these regions present at the Resilient Cities 2013 conference.

The triggers for starting the adaptation process reported during the Open European Day varied between cities. Many participants, unsurprisingly considering the association of the event with the EU Cities Adapt project, quoted EU-funded projects as important triggers for action. EU funding (including Life+ and Interreg programmes) was described as a catalyst for starting work on adaptation, reducing the need for support from the national level (see section 4.5 for more detail on multi-level governance of adaptation).

Some cities started their adaptation planning as a result of experiencing a major climate- or weather-related event, such as for example the cloud burst in Copenhagen. However, it was emphasised that whilst such events help to secure political buy in (see also section 4.4), the cities should not wait for them to happen before taking action, as climate events in unprepared cities may result in significant economic and social losses. Thus, the exchange of knowledge between cities of similar geography, size and climate-related hazards to identify the likely risks is invaluable to avoid the need of experiencing impacts first hand.

Another starting point for many cities was the existing climate change mitigation or sustainability programmes (e.g. Local Agenda 21). Other cities used the existing sector plans, such as for example water management plans, as a springboard for adaptation. The focus on green and blue infrastructure provided a starting point not only for the cities participating in relevant projects (e.g. Interreg IVc 'Green and Blue Space Adaptation for Urban Areas and Eco Towns [GRaBS])but also for those promoting urban greening for other reasons.

Irrespective of the starting point, the cities agreed that maintaining momentum was more difficult than initiating action. In particular, progressing from the initial adaptation action plans to selecting and implementing adaptation actions was challenging due to the limited examples of implementation; uncertainty what 'successful' adaptation looks like; and absence of assessment procedures allowing the financial evaluation of the feasibility of the adaptation options.

Many of the cities at the beginning of the adaptation process are grappling with the assessment of vulnerability. In particular, one of the main problems experienced was which evidence to use and what to do in a case of evidence paucity, which is described in more detail in section 4.1.

4. Emerging themes: barriers and opportunities for adaptation in European cities

4.1 Evidence base

Good evidence base allows presenting politicians and stakeholders with facts and gaining their support. However, it was observed that for many cities there is still limited availability of evidence at the local level. Data on issues relating to social vulnerability is much more broadly available at this level than data relating to climate change and its impacts. This could be a significant barrier, as a key success factor in adaptation is taking the local context into account and balancing the occurrence of global impacts with their manifestation at the local level. The finer-scale data should be used where possible; it was observed that „street level data is needed for street level decisions".

Further, it was emphasised that access to data is not equal to access to information; interpretation of data is needed to provide information on the climate change impacts and the required adaptation actions, which may be challenging. For example, climate change projections for an area can be confused by non-experts with climate-related risks. However, the risks only occur when the climate impacts affect vulnerable areas. To add to the complexity, scenarios are not only needed to assess the future climate impacts, but also to identify the socio-economic situation in the city and how it may change.

Whilst the uncertainty of climate projections is often discussed in scientific circles, the cities did not see scientific uncertainty as an important factor stopping them from implementing climate adaptation; the understanding of trends was seen as more important than the availability of accurate figures. The participants said that cities should "work with what you have", rather than wait for the optimal data to be collected or processed. Nonetheless, some flexibility in plans is required to take account of the uncertainty of the future climate.

So how have cities been developing their evidence base? It is important to use the available knowledge and resources. In Stirling, the local authority's emergency planning records were reviewed to identify the main problems. In the last 20 years, 60% of emergencies were linked to extreme weather and this figure rose to 90% in the last 5 years. This data was used in addition to the existing national flood maps and climate change information to get the political buy-in.

The City of Helsinki used the UK Local Climate Impacts Profile (LCLIP) procedure, recommended by the UK Climate Impacts Programme (UKCIP), whereby the local authority data and media reports are reviewed in order to identify which extreme events occur the most often, what damage they cause and what the thresholds are (e.g. temperature, rainfall) for the hazard to become an actual risk. However, collecting evidence can be time-consuming: for example, in the City of Helsinki, the relevant stakeholders and experts were interviewed over the period of 2 years.

Also, there is a need to prepare for all climate impacts that may occur in a given place, not just the ones that have been happening so far, even though they may be easier to understand and communicate and get political buy-in for. For example, focus on managing the risk of river flooding may mean that other risks, not occurring currently, are overlooked. For example pluvial flooding, which badly affected Birmingham, had not been considered as a potential risk prior to the event happening.

Regarding the data needed for vulnerability assessments, in Alba, data was collected from family doctors and the health system to identify the elderly people living on their own, and thus facing higher risks compared to those living with families.

The use of Geographical Information Systems (GIS) allows for a comprehensive analysis of environmental, social and economic factors and was particularly extensively used by the city of Birmingham with the support of a local research institution (see also section 5.5). Effective modelling and visualisation of data is a powerful tool for communicating risks and engaging stakeholders and local communities. It can also help to secure political buy-in by presenting the extent of a given area or communities potentially at risk.

4.2 Guidance

Another make-or-break factor for successful adaptation was identified as the presence of guidance on adaptation planning and implementation. There is an urgent need for guidelines on adaptation at local level.

In particular, the national guidance was recognised as very important. The British cities present at the event reported using a number of tools and evidence bases produced nationally, including the UK Climate Change Risk Assessment 2013, the UKCIP outputs (such as the LCLIP guidance mentioned before) or the guidelines for achieving the (recently withdrawn) National Indicators. In other countries, the absence of National Adaptation Strategies was seen as a disadvantage and the cities anticipated their development.

The EU directives were used by some cities (e.g. Helsinki) with important guidance. For example, the Flood Directive could be an important impulse for action. The ClimateAdapt website was also used as a source of information by a number of cities (e.g. Stirling; Zadar). The resources developed by European projects were also helpful, for example Zadar used tools from the EU Cities Adapt knowledge bank to support the development of their adaptation plan.

The use of examples from other cities was common among the participants, and particularly beneficial for cities that described themselves as beginners in the adaptation process. For example, the city of Zadar based the identification process of their major problems associated with climate change on the examples of Copenhagen and Melbourne. In Stirling, an example of climate change impact modelling in conjunction with socio-economic factors in Manchester was used as an inspiration. However, different levels of autonomy and service provision at the local level across Member States may mean that the good examples are sometimes not applicable in a given context. Moreover, how can it be ascertained that an example is 'good practice', if there has been little implementation of adaptive actions and even less monitoring and evaluation? This calls for more research, support and guidance on implementation of actions, for example through the ClimateAdapt portal.

With regards to the international exchange of knowledge, language has proved to be an issue: most of the existing guidance, including that on the Climate Adapt website, is in English. The cities flagged that more information is needed in national languages. For example, it was pointed out that the German local authorities are rarely using ClimateAdapt as a result of the language barrier. However, it was also recognised that updating information in all EU languages would be a massive logistic exercise for ClimateAdapt.

4.3 Funding adaptive actions

Unsurprisingly, the two questions extensively discussed during the Open European Day were: How much does adaptation cost? and: Who should pay for it? It was largely recognised by the participants that adaptation should not be seen as a cost, but as an investment in the future of the city. However, they believed that this opinion was not necessarily shared by the decision makers in their locations, who tend to be more interested in the immediate monetary costs and benefits. There is a considerable time lag on the return on the investment into adaptive actions, estimated by some as 20-30 years. The ongoing difficult economic situation in Europe means that budget cuts at the local level limit the possibilities of front-loading investment. In addition, short-term spending for long-term liveability of cities is a tricky political subject due to political cycles not exceeding 5 years in most cases.

What makes upfront funding of adaptation measures even more challenging is the absence of tested, credible financial assessment frameworks which would allow a cost and benefit analysis of adaptation measures; currently there are no frameworks for calculation of avoided cost. Some cities use estimated monetary values to convince their politicians: in Almada, the need for investment into adaptation was justified by stating that 1euro invested now equals savings of 5 euro in the future. However, it is difficult to provide calculations or evidence supporting such claims

Small, low-cost actions can contribute to achieving the ultimate aim of a well-adapted city. There was a wide agreement that, following the mainstreaming approach, adaptive actions should be integrated into the development and improvement of urban infrastructure, such as for example drainage system (Almada).

Stirling advised prioritising the actions that do not cost anything, then proceeding to those that cost a little and only then suggesting major projects requiring substantial funding. This allows gaining interest from external parties to provide funding on adaptation. It was also observed that some adaptation measures are likely to increase a city's income from taxes: for example, the investment in green infrastructure can increase property value, and in turn the municipal tax returns.

The European funding was seen as an extremely valuable contribution to cities' adaptation budgets. The beginner cities participating in the EU Cities Adapt project, or previous adaptation projects such as GRaBS, emphasised that they would not have progressed this far without it. However, the funding is predominantly project-based and runs out after the project completion date. The lactl of continuous funding is predominantly project-based and runs out after the project completion date. The lack of continuous funding is an obstacle to implementation of strategies which are being developed during projects.

Some cities receive funding from national governments for adaptation: e.g. the City of Ghent receives funding from the Flemish government for adaptation activities. However, for other cities (e.g. in the UK) if adaptation is embedded in the national legislative framework, it may mean extra requirements for the local authorities but little or no additional funding.

In the shortage of funding, it was debated, who should be charged for the cost of adaptive measures. There was no firm agreement whether adaptation measures incorporated into city infrastructure, such as water supply networks or drainage, should be funded by the customer fees. In the case of Copenhagen, this was not considered fair, and the need to engage private investors was highlighted. In the city of Alba, businesses in the city co-fund adaptation actions as part of their corporate social responsibility (CSR) commitments.

4.4 Gaining political commitment

Political buy-in was seen as even more important than funding to successful planning and implementation of

adaptive actions. The main difficulty was seen in convincing the local politicians about the financial feasibility of the adaptation measures. It was noted that the nature of short term political cycles means that local politicians are not motivated to act and they are gambling on disasters not occurring. However, over the medium to long term, the cost of inaction will be greater than the cost of action.

The participants discussed a number of possible approaches to persuading local politicians about the necessity and urgency of adaptation. The use of experts from outside the city council can help to communicate the importance of climate change risks and the necessity to adapt. Peer pressure from other cities, for example through involvement in EU-funded projects focused on climate change adaptation, can appeal to a competitive nature of those in charge, and consequently promote adaptive action.

Some cities observed that adaptation may actually be easier to 'sell' to politicians than reducing energy emissions – whilst climate change mitigation is a global issue, climate change impacts occur locally and adaptation can bring tangible local benefits. Presenting adaptation as a means to protect important heritage or landmarks could be persuasive; this is how backing was achieved for the Thames barrier in London. However, it may be equally effective to present adaptation as an opportunity for the city to provide a liveable, attractive environment. One way to strengthen this way of communication with politicians is to remove the adaptation from the narrow confines of environmental issue led by environment departments and to reframe it as a contribution to hot political issues such as addressing strategic risks, improving public health or raising the economic competitiveness of the city.

4.5 Mainstreaming and reframing adaptation

One approach to implementation of adaptive actions was through mainstreaming adaptation into daily activities. To secure buy-in for doing so, some cities (e.g. Stirling, Gibraltar) recognised first that some activities they are already carrying out can be seen as adaptation to climate change. In Malmö, a number of existing or ongoing green and blue space projects were identified as contributing to adaptation, despite not necessarily being designed for this purpose. Branding existing initiatives as adaptation helps to convince the politicians and other stakeholders that adaptation may require small changes in business as usual rather than additional extra work. In particular, if no-

regret measures, such as urban greening, are used and other benefits are gained, adaptation may gain backing.

Adaptation, in order to be better understood or taken up by the local decision-makers, can be reframed under many different themes. Adaptive actions may be seen as more important, if climate change is treated as a strategic risk that must be addressed. This was achieved in Stirling, where adaptation is managed by the Risk and Resilience Department, and climate change has been listed on the Strategic Risk Register as one of the major risks faced by the city. The risks are reviewed every month, which allows climate change to stay on top of the agenda. The alignment of climate adaptation with risk and natural disaster management was seen as a good way to communicate risks to politicians.

An associated umbrella concept that could promote adaptation to climate change and keep it high on the political agenda was identified as community resilience. It was observed, that risks such as terrorism (after 9/11) or pandemics (bird and swine flu) precede the climate change risk, and that promoting resilience of communities to different shocks may allow for a more holistic approach than focusing on the largely environmental theme of adaptation. Boosting social capital can be a factor preventing major life, health and social losses during extreme weather events, but more work is needed on how the increase in social capital could be measured. Resilience can also be understood in the context of security of food supply and transport routes. Thus, the goal of increasing resilience encourages looking outside the city's boundaries for potential sources of risks and adaptive solutions. It promotes working with other local authorities or stakeholders beyond the administrative boundaries, e.g. at river catchment scales, as was the case for the city of Albertslund.

Improved health and well-being of local residents was seen as a very important, if not the main, co-benefit of adaptation. Thus, public health is another umbrella term that could be used to gain support for short-term investment for long-term goals. For example, in Ghent, the health argument has been used as the common denominator: everyone wants to live in a healthy city. Guidance documents, such as those produced by the World Health Organisation, collate evidence on the impacts of climate change on human health and offer guidance how to create liveable cities. The fact that climate change is framed as a health issue by WHO is important in persuading the politicians about the value of taking action.

Adaptation could also be reframed as an opportunity to improve the economic competitiveness of the city by making it more attractive to investment: more resilient in the long term, and more liveable and greener in the short term. For example in Copenhagen, the use of green and blue spaces for adaptation is justified by the improved attractiveness of the city for investors, and by making it more liveable for the residents. It was highlighted in the closing session that the association between the adaptation and economic competitiveness of cities could be one of the themes discussed at the Open European Day next year.

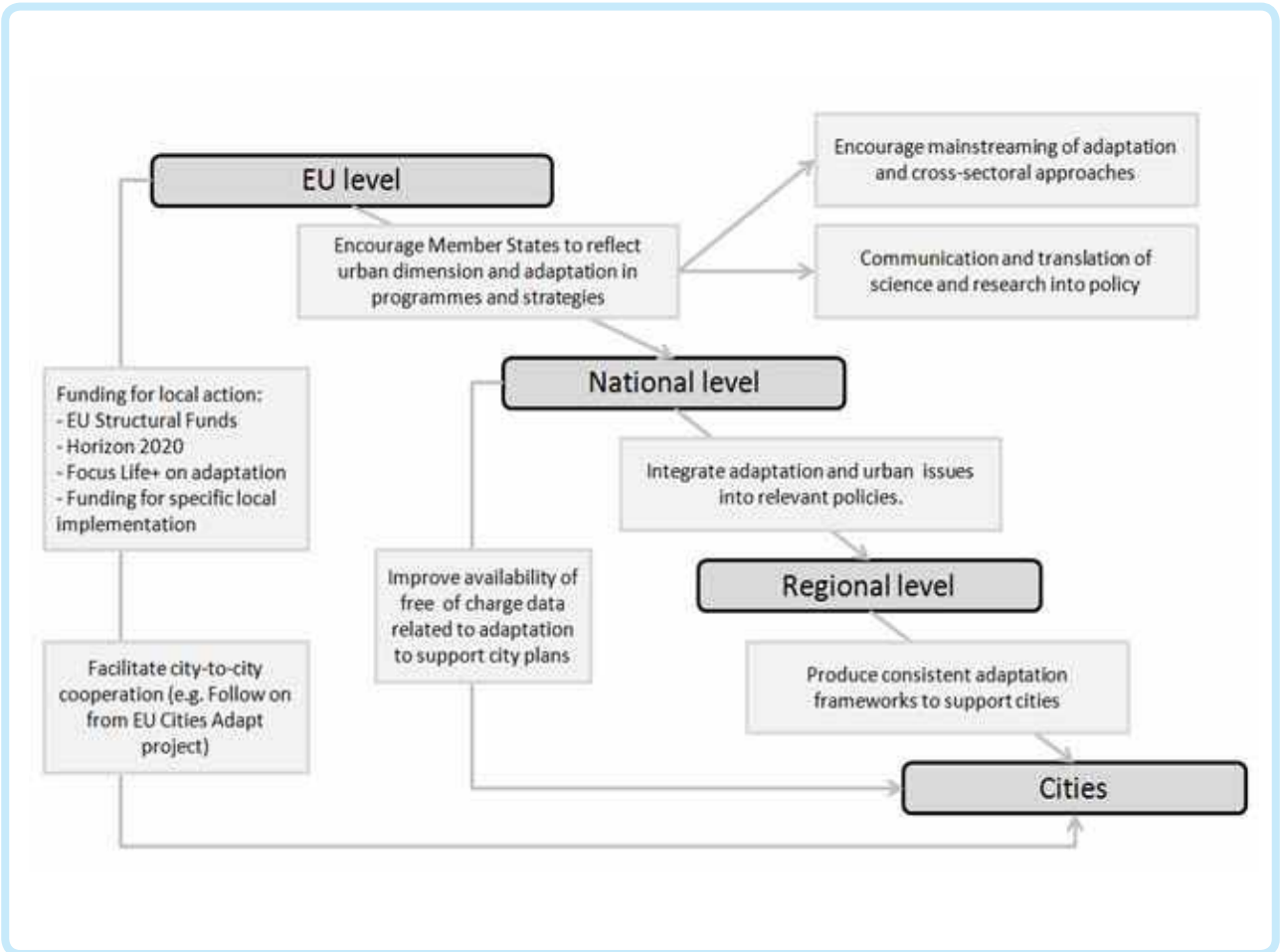
In line with the need for a comprehensive approach to adaptation, cross-sectoral approaches were emphasised, which called for engaging all relevant departments within the city council on adaptation. One particularly important department, frequently not sufficiently engaged in adaptation, was spatial planning. It was stressed that cities need to be planned and designed in a way that is conducive to sustainable and resilient lifestyles. In addition, many of the adaptation responses are based around green and blue infrastructure and the ecosystem services that they deliver. Consistent green and blue frameworks can only be delivered through spatial planning.

4.6 Multi-level governance

The national level was recognised as very important in multi-level governance of adaptation. This is where a considerable amount of data relating to climate change and its impacts is produced (e.g. in the UK, climate projections and flood risk data are produced at the national level) and where the guidance on adaptation processes comes from. Moreover, the national legislation and regulations provide a framework for local authorities to work in (e.g. in the UK Climate Change Act). However, it was also observed that detailed regulatory frameworks at the national level tend to impose additional requirements on urban authorities that are not followed by funding.

The National Adaptation Strategies (NAS) are envisaged as the main regulating mechanisms at the national level. These have been produced for 17 Member States. It was observed that they tend to have certain deficiencies which limit their value as the main regulatory frameworks for cities. They tend to focus on broad issues at the national level, and they may omit urban issues and focus overtly on sectoral challenges. Also, it is not clear how NAS relate to regional and local level adaptation strategies; frequently there is a lack of consistency between the spatial levels. One of the cities recommended bringing the representatives of the regional and national institutions into the adaptation working group at the city level in order to improve communication and resolve the issue of unclear responsibilities attached to each level; further, it was observed that multi-level governance is often built on personal relationships, which can be formed in this context.

Summary of the required support for cities from different levels of governance (based on session 3c – How does the multilevel governance framework support and mainstream local adaptation?).



On the other hand, where there are no national adaptation strategies or other relevant frameworks, cities are working in a regulatory void. This may mean absence of coordination of the activities of different cities, even resulting in maladaptation. In some situations the national level is bypassed by the local authorities who take the guidance directly from the EU level. In the case of some Italian cities, it empowered them to start lobbying for a development of the National Adaptation Strategy. This indicates that the multi-level governance operates not only from top down but also from bottom up.

4.7 Engaging with stakeholders

The participants frequently reported issues relating to the unclear division of responsibility for adaptation actions and for financing adaptation, prevalent in multi-stakeholder contexts involving the private sector. Further, the private sector may be able to provide the funding missing from the public sector. It was also recognised that business are important landowners in cities, and that this land may need to be utilised for e.g. sustainable urban drainage systems. Water management and drainage companies were particularly important stakeholders in the context of flood risk, especially as the water management plans were recognised as one potential trigger for starting the adaptation process. The early and frequent engagement was seen as one of the means to ensure positive relationships between the city and the private sector and to develop successful collaborations. For example, the city of Essen reported an innovative way of engaging the private sector. They invited the companies with a potential interest in climate change adaptation to a „corporation fair" where they could talk about what they were doing and exchange experiences and establish partnerships.

An important type of stakeholder was academia and research institutes. In Birmingham, a close cooperation with the local university allowed the development of a GIS evidence base bringing together environmental, social and economic issues. In Cascais, a framework of indicators was developed in a collaborative way by the city and the university. Stirling, within the EU Cities Adapt project, benefited from coaching from the University of Manchester.

The city residents and the local communities also need to be engaged on adaptation, but the nature of their involvement was debated. For example, consultation on issues that the communities may not have influence over was considered counterproductive. However, the urban residents' awareness of climate change impacts and the need to act was seen as crucial to developing community resilience and successful implementation of adaptive actions. The risks need to be communicated in a sensitive manner; communication with the use of GIS was considered effective, as was social networking and the use of external experts or organisations to deliver the message in an effective manner. Using terms such as 'adaptation' may be a barrier to communication; in contrast, using local terms, or focussing on particular local projects as examples was considered good practice. For example, in Rotterdam it was easier to get the message across by consultation on a specific project (underground water storage) rather than communicating a more abstract vision or strategy. Through an appropriate communication, the communities can develop significant knowledge: for example in Ancona, awareness of landslides was raised among the local householders, who became aware of the geological conditions increasing their risk.

5. Progressing adaptation in European cities

This section presents the recommended actions to be taken by cities, national governments, the European Commission and the EEA, ICLEI and other organisations in order to progress adaptation in European cities.

5.1 Actions for cities

Cities are considered by the DG Clima to be major players in the adaptation process, due to the high concentration of people, infrastructure and value of assets in urban areas. In the opening address, it was observed that if the European cities address the adaptation challenge, it will help to adapt the whole of Europe. Cities need to start acting NOW. They need to accept that their knowledge about climate change, the understanding of the local conditions and the technology in place may not be perfect, but it should not be an excuse for inaction. The specific actions recommended were as follows (listed in order of actions in a generic process of adaptation planning):

- Start developing local-level information databases, at the resolution needed to make decisions: this will take time but it is the only way to systematically assess the situation of the city and choose and apply relevant adaptation measures.
- Use GIS to compile locally sourced data and information for assessment of the level of risk and for communication with stakeholders and engagement of politicians.
- Involve stakeholders and relevant departments from the start.
- Use the ClimateAdapt platform as the knowledge hub, in particular to gain an overview of the ongoing adaptation and good practices in other European cities and to access information on EU policy and national level actions.
- Participate in knowledge exchange events, such as the Open European Day. Further, seeking involvement in projects such as EU Cities Adapt can provide an impulse for starting adaptation planning. The knowledge-exchange projects and events allow information sharing between cities characterised by similar climate risks, geographical conditions or socio-economic characteristics. A particular value was seen in exchanging good practice on the collection and interpretation of data, working with GIS, and visualisation of risks and vulnerabilities. Working on a project with other cities can encourage and maintain the progress on adaptation, for example through healthy competition between cities or friendly peer pressure.
- Apply for EU funding, including JESSICA (Joint European Support for Sustainable Investment in City Areas) and JASPER (Joint Assistance to Support Projects in European Regions).
- According to the city of Rotterdam, „Don't be afraid of making mistakes". Learning by doing is valuable, and if it is practiced on no-regret adaptation measures such as green infrastructure then potentially costly mistakes can be avoided.
- Implement first the adaptation measures that are likely to provide additional tax revenue, which can justify spending. For example, investing in green infrastructure can result in higher property prices and therefore higher taxes.
- Include issues such as health and attractiveness of cities in the standard cost-benefit analyses for adaptation measures.
- Monitor the progress on adaptive actions – assess whether the measures are working.

5.2 Actions required from national governments

- Work towards developing the National Adaptation Strategy or a comprehensive framework of regulations and guidance, including performance indicators focused on climate change adaptation. However, if extra requirements are placed on local authorities' budgets or staff, additional funding should follow the regulations. In addition, the national adaptation strategy should be effectively filtered down to regional and local levels.
- Develop climate change projections data and information on the predominant climate-related risks (such as flooding). Where this data exists, work towards downscaling it to local level.
- Develop regulations for or agreements with the insurance industry that would promote using adaptive measures. For example, properties using flood resilience measures should be subject to reduced insurance premiums.
- Cooperate with other countries in the same geographical region in order to develop consistent approached to dealing with floods (for example, if river systems cross several countries), and to exchange the experiences to date on climate change adaptation.

5.3 Actions at the EU level

In the opening session, Humberto Delgado-Rosa, the Director of Directorate General Climate Action, European Commission, observed that the recently released EU Adaptation Strategy is fostering action at the city level. It has three priorities: to stimulate action (such as production of National Adaptation Strategies), to promote adaptation knowledge and to mainstream adaptation. DG Clima offers ongoing guidance and review; supports activities such as the Mayors Adaptation Forum hosted by the Resilient Cities congress; and promotes knowledge through offering funds for research and supporting the Climate Adapt platform. Cities are being prioritised in funding streams, for example in Life+. In addition, it emerged that the EU should:

- Provide more funding for knowledge exchange projects, considering the unanimous consensus on their value for the participating cities. In particular, projects matching adaptation leaders and followers were appreciated by the latter.
- For more advanced cities, provide funding for projects focused on implementation and monitoring of adaptation actions, rather than adaptation planning.
- Develop or promote mechanisms that could be used by cities to monitor their progress on adaptation.
- Further develop the ClimateAdapt platform to become the one-stop shop on adaptation for EU cities, supporting adaptation planning and decision-making:
  - The platform needs to be advertised more widely. It was flagged up that at the moment it is difficult for the practitioners to learn about the existence of the portal.
  - The exchange of knowledge needs to be facilitated by the provision of templates for uploading information. As cities may have limited resources (for example staff time) to upload the information, some help may be needed in uploading and sharing data.
  - There is a need for guidance on vulnerability assessments.
  - More justification is needed on why the presented case studies are good practice, especially considering the minimal monitoring of the success of adaptation actions to date. There was also a need for 'bad practices' or bad experiences from cities, which could show how to avoid making mistakes. However, this information may be difficult to collect as cities would not like to be presented in a negative light.
  - Provide more information on implementation of actions, rather than planning.
  - Provide guidance on dealing with climate change uncertainty, identifying and assessing adaptation measures, and promoting adaptation to local decision makers.
  - Offer more information about the financial aspects. For example, cost-benefit analysis of the most common adaptation measures should be provided.
  - There is a need for frequent updating of the website to keep it relevant.
  - English as the main language does not encourage the use of the website by many practitioners. There was an agreement that future developments including provision of information in all EU national languages and summaries in English would be welcome.

5.4 Actions for other organisations

- ICLEI should organise further events offering a platform to exchange experience; especially follow up meetings would be welcomed for the cities participating in the EU Cities Adapt project to exchange experiences at the later stage of the adaptation process.
- Banks and the insurance industry need to develop appropriate financial mechanisms to support adaptation.
- The private sector needs to take initiative. For example, the utility companies need to understand the long-term financial benefits of resilient infrastructure. The developers should take greater responsibility for climate-related risks to investments located in e.g. flood areas.
- Global organisations, such as WHO, the World Bank or the United Nations should continue producing evidence base on climate change impacts. Information coming from these sources is seen as credible and can effectively be used in persuading the local decision makers to take action.

5.5 Actions for research

- Share the existing scientific knowledge with cities.
- Work with cities to develop scaled-down climate change projections relevant to local decision making.
- Develop straightforward but not simplistic approaches to vulnerability and risk assessments.
- Develop financial assessment methods and mechanisms helping to carry out a cost-benefit analysis for adaptation measures, in particular considering the long terms effects. They should also factor in the uncertainty of climate change; the costs avoided; and the distribution of costs and benefits among different entities.
- Improve the understanding on how cities work from the ecosystem services perspective and transfer this knowledge to cities.Develop indicator frameworks for assessing the progress towards adaptation and monitoring the change.
- Develop indicator frameworks for assessing the progress towards adaptation and monitoring the change.

6. Conclusions

The First European Open Day offered an insight into the state of climate change adaptation of European cities. The contributions from the cities and the discussions among the participants have shown that whilst a significant progress has been made in many locations, there is a number of challenges that preclude cities across Europe from progressing the adaptation agenda, including absence of guidance from higher governance levels; problems with development of local evidence; difficulties with gaining political buy-in and with identifying and accessing funding. Some of the solutions to these difficulties involved engaging private sector and academia; mainstreaming adaptation into everyday activities and emphasising the co-benefits of adaptive actions such as public health gains.

The event offered a unique opportunity for city-to-city exchange of knowledge and learning. It was suggested that similar events are organised in the future. The specific themes suggested for future events include assessments of climate change vulnerabilities; financial aspects of adaptation options and measures; and linkages between adaptation and the economic competitiveness of cities.

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Resilient Cities 2013

European cities adapt to climate change - cities learning from cities

Key messages from the first Open European Day at the Resilient Cities Conference, Bonn, 3 June 2013

1. A conference for cities - by cities

The European OpenDay was dedicated to capacity building for urban authorities and focused on city-to-city learning. This interactive event brought together 120 representatives of city administrations, as well as scientists and other stakeholders.The participants were encouraged to not only learn from good examples presented by the contributing cities and experts, but also to actively share the challenges they faced and the solutions they had found. The event is planned to become a regular platform for European cities to exchange experiences on practical challenges and adaptation solutions towards local climate resilience.

This short document draws conclusions from the event, which was jointly organised by ICLEI- Europe, the European Environment Agency and the European Commission following the global Resilient Cities conference - the 4th Global Forum on Urban Resilience and Adaptation. The Open European Day also coincided with the final conference of EU Cities Adapt, a key project on urban adaptation in Europe, financed by the European Commission (Directorate-General for Climate Action – DG Clima). In this project 21 European cities – at different levels of progress in adaptation - have worked together towards well-informed and sustainable actions on climate change adaptation.

2. Where we are - cities and the European Adaptation Strategy

Cities are considered by the European Commission's DG Clima as major players in the adaptation process, due to the high concentration of people, infrastructure and value of assets in urban areas. In the opening session, Humberto Delgado-Rosa, the Director of Directorate General Climate Action, European Commission observed that if the European cities address the adaptation challenge, it will help to adapt the whole Europe.

In this regard, the EU strategy on adaptation to climate change (2013)supports action at city level,for example through facilitating the exchange of information and experience between cities by further developing the Climate ADAPT platform, promoting urban adaptation strategies and providing funding.The Commission, on the basis of the model of the Covenant of Mayors initiative, plans to launch a voluntary commitment to adopt local adaptation strategies and awareness –raising activities.

The cities participating in the Open European Day ranged from those advanced in climate change adaptation planning (for example Copenhagen or Rotterdam) to those that described themselves as beginners (e.g. Zadar or Vilnius). Many cities accross Europe have initiated the adaptation plannning process. However, the cities

found progressing from the action plans to selecting and implementing adaptation actions difficult due to the complexity of assessing cities' vulnerability and evaluating the financial feasibility of adaptation; limited worked examples of implementation of adaptive actions and uncertainty what a 'successful' adaptation looks like.

This document summarises the challenges for cities, the key messages and the way forward in planning and implementing successful adaptation, based on the discussions between cities during the Open European Day.

3. Key messages from the Open European Day

3.1 Data, information and evidence base

Collecting information about climate change impacts and vulnerability in the local area is crucial to enable decision making. Good evidence base also allows presenting politicians and stakeholders with firm facts and gaining their support.

The challenge:
Local climatic data is frequently not available to cities; the majority of this data is produced at the European or national level.

> *"There will be multiple generations of solutions - we need to get on with the first."*
>
> Lykke Leonardsen, Head of Strategy, Technical and Environmental Administration
> City of Copenhagen, Denmark

For some cities, the data on socio-economic characteristics of the population is difficult to obtain and this is a challenge in understanding the vulnerability of cities. Developing a good evidence base is time-consuming and may involve working with stakeholders to collect and analyse data.

The message:
The information that cities have or want to collect will never be 'perfect' but cities cannot wait until the data or technology to analyse it is in place. Cities need to accept that their knowledge about climate change, the understanding of the local conditions and the technology in place is not complete, and may never be, but is usually sufficient to start action. Knowledge gaps should not be an excuse for inaction. The cities need to start acting now, as developing information databases takes time. It is important that data and information are collected at the scale of local planning and decision making.

How to do this?
One way of developing the local evidence base is by looking at the past weather events and assesing which the most frequent and which cause the most disruption; such events are likely to continue in the future and may get worse. For example, cities can use the UK Local Climate Impacts Profile procedure, recommended by the UK Climate Impacts Programme, whereby the extreme events that are the most urgent to address are identified through reviews of local media reports. The use of Geographical Information Systems (GIS) is recommended as it allows for a comprehensive analysis of multiple layers of environmental, social and economic information. Effective modelling and visualisation of data is also a powerful tool for communicating risks and engaging stakeholders and local communities.

3.2 Guidance and regulation

The presence of relevant guidance can be a make-or-break factor for successful adaptation.Preferably the guidelines should be available in national languages. In particular, the support from the national government was recognised as very important. The national legislation and regulations can provide a framework for local authorities to work in.The National Adaptation Strategies (NAS) are envisaged by the European Commission as the main regulating mechanisms at the national level.

The challenge:
Where there are no national adaptation strategies or other relevant frameworks, cities are working in a regulatory void. This may mean that cities follow a 'trial and error' approach and there is no coordination of the activities of different cities. The existing National Adaptation Strategies tend to focus on broad problems at the national level, rather than local issues; they are not specifically tailored to urban areas and their relation to regional and local adaptation strategies is unclear. There is a need for more support and guidance on implementation of adaptation actions coming from national governments.

How to do this?
The EU directives can be used by cities for guidance in absence of national strategies. European resources such as the ClimateADAPT information platform are good sources of informationsupporting development of the adaptation plans. The use of worked examples from other countries and cities was common among the participants, and particularly beneficial for cities that described themselves as beginners in the adaptation process. The cities wanting to develop their adaptation action plans are advised to:

- Use the Climate ADAPT platform or national platforms as the knowledge hub, which allows gaining an overview of the ongoing adaptation and best practices in other European cities and to access information on EU policy and national level actions.

- Participate in knowledge exchange events, such as the Open European Day and the Resilient Cities conferences, and in knowledge exchange projects such as EU Cities Adapt. Such projects and events allow information sharing between cities, particularly effective if they face the same climate risks or havesimilar geographical conditions or socio-economic situation. Exchanging good practice on collection and interpretation of data, working with GIS, and visualisation of risks and vulnerabilities is very valuable. Many of the participating cities started working on adaptation as a result of their participation in European projects, such as EU Cities Adapt; Green and Blue Space Adaptation for Urban Areas and Eco Towns or Life+ projects. Working on a project with other cities can encourage and maintain the progress on adaptation, for example through healthy competition between cities or friendly peer pressure.

3.3 Funding adaptive actions

The challenge:
Adaptation is generally underfunded; often,if adaptation is considered in the legislative framework at the national level, it may mean extra requirements for the local authorities but little or no additional funding. The main difficulty lies in the fact that there is a considerable time lag on the return on the investment into adaptive actions, estimated by some as 20-30 years. This means that justi-fying spending on adaptation is difficult in the

current economic climate and in the context of short political timeframes. What makes it even more challenging is the absence of worked, credible financial assessment frameworks which would allow cost and benefit analysis of adaptation measures; there is no framework for calculation of avoided cost.

The message:
In the long term, the economic losses associated with loss of life and health implications and damage to infrastructure and property in urban areas will be very significant. Over the medium to long term, the cost of inaction will be greater than the cost of action.

> *"Adaptation is not a cost; it is an investment"*
>
> João Dinis, Technical Department
> City of Cascais, Portugal

How to do this?
European funding such as Life+,theInterreg programme, Framework Programmes for Research and Innovation and Cohesion Fundsprovides an extremely valuable contribution to cities' adaptation budgets. However, this funding is largely project-based and adaptation needs continuous support. Cities are encouraged to apply for EU funding, including JESSICA (Joint European Support for Sustainable Investment in City Areas) and JASPER (Joint Assistance to Support Projects in European Regions).

Small actions can contribute to achieving the ultimate aim of a well-adapted city. To avoid extra costs, adaptive actions shouldbeintegratedintothedevelopmentandimprovement of urban infrastructure, such as for example drainage system, when maintenance takes place. Implementation of some adaptation measures is likely to increase city's income from taxes: for example, the investment in green infrastructure can increase property value, and in turn the municipal tax returns. Engaging private sector, e.g. water management companies, can help to leverage funding.

3.4 Gaining political commitment

Political buy-in can be even more important to successful planning and implementation of adaptive actions than funding. The decision-makers need to consider adaptation as an important issue on the local agenda, which they want to support.

The challenge:
The main difficulty in persuading the decision-makers to get on board is to convince them about the

severity of the future climate change-related risks and the financial feasibility of the adaptation measures. The short term political cycles mean that decision-makers are less motivated to act on long-term issues and they are gambling on disasters not occurring.

> *"Adaptation is a hard selling job"*
>
> Bernd Hoermann, Sustainable Development Officer
> City of Sheffield, United Kingdom

The message:
To communicate the need of adaptation to local decision makers, adaptation can be presented as a contribution to hot political issues such as resilience to strategic risks (whereby climate change is treated with a similar gravity as threats associated with terrorism or pandemics) or improving public health. Itis also effective to present adaptation as an opportunity for the city to provide a liveable, attractive environment for its residents, visitors and investors, consequently raising the economic competitiveness of the city.

> *"Adaptation is an opportunity not a cost"*
>
> Lykke Leonardsen, Head of Strategy, Technical and Environmental Administration
> City of Copenhagen, Denmark

How to do this?
The use of experts from outside the city council can help to communicate the importance of climate change risks and the necessity to adapt. Peer pressure from other cities, for example through involvement in EU-funded projects focused in climate change

adaptation, can appeal to a competitive nature of those in charge and promote adaptive action. Presenting adaptation as means to protect important cultural heritage could be persuasive. Branding the already ongoing activities (e.g. increasing or maintaining green spaces; investing in flood protection; maintenance of drainage systems etc) as adaptation actions can help to convince the decision makers and other stakeholders that adaptation is relatively easy to implement and may only require small changes in business as usual rather than additional extra work.

3.5 Working with others

Climate change adaptation is very complex as it spans environmental, social and economic issues. Adaptation cannot be effectively tackled by one department in a city council and engagement with other stakeholders may be crucial for effective adaptation.

The challenge:
Adaptation is seen sometimes as an environmental issue, and thus a remit of environmental departments rather than those responsible for public health or infrastructure. It is often unclear, which department is responsible for adaptation actions, or how the financing of adaptation is split between the city council and other stakeholders.

The message:
Engaging all relevant departments within the city council on adaptation is crucial, in particular the spatial planning departments. Other stakeholders need to be involved: as financial partners, due to being major landowners in the city or because of their knowledge and access to information.

How to do this?
The early and frequent engagement with the private sector was seen as one of the means to ensure successful collaborations increasing the potential to leverage funding. Further, private sector may be able to provide the funding missing from the public sector. It was also recognised that private sector companies are important landowners in cities, and this land may need to be utilised for e.g. sustainable urban drainage systems. Water management and drainage companies were particularly important stakeholders in the context of flood risk, especially as the water management plans were recognised as one potential trigger for starting the adaptation process. An important type of stakeholder was academia and research institutes, which can help

with development of the evidence base or its analysis with the use of GIS.

The representatives of the regional and national institutions with an interest in adaptation can be brought into the adaptation working group at the city level in order to improve communication and gain support and guidance.

3.6 Conclusions

The last years have seen a great leap from the European cities in adaptation planning and implementation. Many cities across Europe are advanced in planning their adaptation activities. However, there are still those that lag behind, and even the most advanced ones are only starting to implement actions. Cities bring in the willingness to act and local expertise and they are creative in developing approaches and framing adaptation in a way that works for them. However, they need a helping hand in terms of information, guidance and support from higher levels (regional, national and EU). These needs are summarised below.

Based on what was discussed during the First Open European Day, the participants call on the national governments to:

- Work towards developing the National Adaptation Strategies or other comprehensive frameworks of regulations and guidance, including performance indicators, focused on climate change adaptation. However, if extra requirements are placed on local authorities' budgets or staff, additional funding should follow the regulations. In addition, the national adaptation strategies should be effectively translated at regional and local levels.
- Develop climate change projectionsand information on the predominant climate-related risks (such as flooding). Where this data exists, work towards downscaling it to regional and local levels to enable locally-specific adaptation.
- Cooperate with other countries in the same geographical region in order to develop consistent approaches to preventing floods (for example, if river systems cross several countries), and to exchange the experiences to date on climate change adaptation.

The participants call on the European Union to:

- Provide more funding for knowledge exchange projects, considering the unanimous consensus on their value for the participating cities. In particular, projects matching adaptation leaders and followers were appreciated by the cities at the beginning of the adaptation planning process.
- For more advanced cities, provide funding for projects focussed on implementation and monitoring of the adaptation actions.
- Develop or promote indicators and benchmarking mechanisms that could be used by cities to monitor their progress on adaptation.
- Further develop the ClimateADAPT platform to become the one-stop shop on adaptation for the EU cities, supporting adaptation planning and decision-making.

The participants call on the research institutes to „bridge the gap between knowledge institutes and practice" and to:

- Share the existing knowledge with cities in order to develop scaled-down climate change data relevant to local decision making and to comprehensively analyse the environmental, economic and social data.
- Developing straightforward (but not simplistic) approaches to assessment of vulnerability and risk.
- Develop financial assessment methods and mechanisms helping to carry out a cost-benefit analysis of adaptation measures, in particular considering the long terms effects, and factoring in the uncertainty of climate change; the costs avoided; and the distribution of costs and benefits among different entities.
- Develop indicator frameworks for assessment the progress towards adaptation and monitoring the change.

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