POCACITO FINAL PROJECT REPORT

Grant Agreement number: 613286

Project acronym: POCACITO

Project title: POst-CArbon CIties of TOmorrow – foresight for sustainable pathways towards liveable, affordable and prospering cities in a world context

Funding Scheme: Collaborative project

Period covered: **from** 01 January 2014 **to** 31 December 2016

Name, title and organisation of the scientific representative of the project's coordinator:

Max Grünig, Senior Fellow, Coordinator EU Research, EI

Tel: +49 30 86880-108

Fax: +49 (30) 86880-100

E-mail: pocacito-coordinator@ecologic.eu

Project website address: http://pocacito.eu

1 Executive summary

Cities are of outstanding importance in addressing climate change since they are not only the centre of economic and social initiatives, but also responsible for the majority of global energy consumption and for approximately 60% of global greenhouse gas (GHG) emissions. Rapidly growing urban populations and the consequences of climate change place added pressure on the economic, environmental, and social health of cities. Thus, while stakeholders at the city level face significant challenges in terms of climate mitigation and sustainability, there is also an emerging opportunity for a low-carbon, sustainable transition. Put slightly differently: cities and urban centres contribute greatly to climate change but are also a crucial component of the solution. Furthermore, post-carbon transitions will not only increase environmental and climate integrity but could also lead to enhanced economic and social prosperity in urban centres across the globe.

The project, Post-carbon Cities of Tomorrow - foresight for sustainable pathways towards liveable, affordable and prospering cities in a world context (POCACITO) is a collaborative research project funded by the European Union's Seventh Framework Programme for Research, Technological Development. The POCACITO project consortium consists of thirteen partners from academic and policy research institutions across the EU. The underlying aim of the POCACITO project is to facilitate the transition of cities to a sustainable or "post-carbon" economic and societal model in a global context, utilising a participatory approach that engages local stakeholders in ten selected European case studies to create custom made transition strategies. These strategies are then taken as the basis for an evidence-based EU 2050 Roadmap, a stakeholder-driven guide towards the model "Post-Carbon City of Tomorrow" that merges climate, energy and social urban transitions. Project work was structured in a series of integrated work packages (WPs). At the heart of the POCACITO research activities was a series of participatory workshops in ten selected case study cities—Barcelona, Copenhagen, Istanbul, Lisbon, Litoměřice, Milan, Turin, Rostock, Malmö and Zagreb. The cities were investigated in depth beforehand to assess the various challenges and opportunities of different city types and thereby specifically selected to represent a wide range of possible city typologies, covering, e.g., different population sizes as well as geographic and topographic aspects. Each workshop served as a forum to bring together local stakeholders to develop a common post-carbon vision for 2050 as well a strategy for the transition needed to realise this vision. The strategies were based on a preliminary assessment of each case study city using Key Performance Indicators (KPIs) developed in WP1 and refined in WP3 coupled with a quantitative analysis (WP5) of the urban system and ongoing trends and changes (economic, demographic etc.). The workshops also identified current successes and enduring challenges facing the case study cities and informed a parallel discussion of innovative approaches and lessons learned from local experiences and best practices (WP2). Findings from the participatory workshops as well as a typology of post-carbon cities (WP2) informed the EU 2020 post-carbon city roadmap (WP7), the cornerstone output of the project. In addition, the project organised two study tours, which allowed city stakeholders and representatives to see best practices and innovative solutions in person and engage with officials from other EU cities (WP6). A "marketplace of ideas" was developed and used to comprise best practice examples from cities all over the world, in addition to the ten case study cities (WP6). The marketplace exists as a digital analogue to the study tours, facilitating international knowledge exchange for a wider audience of stakeholders. Project results and research activities were disseminated through various avenues (e.g. policy briefs and publications, conferences, webinars) to four main target audiences: (1) city level officials, (2) EU level officials (3) representatives from emerging economies and (4) research and academic circles (WP8).

2 Summary description of project context and objectives

Cities are the centre of human economic and social activity and thus integral to climate change mitigation and adaptation efforts worldwide. Urban areas already house more than half of the world's population, a figure that is projected to rise dramatically with increased rates of urbanization especially in developing countries, and contribute to more than 75% of greenhouse gas (GHG) emissions from energy usage, waste and land use change. At the UNFCCC COP21 in Paris, cities as well as sub-national and regional groups (e.g. Covenant of Mayors) played a significant role, demonstrating bottom-up ambition and providing a signal for higher levels of governance. Now that a global climate agreement exists, the action of cities is all the more crucial for the implementation of goals set in Paris. In the years to come, cities as political actors will likely be agenda-setters in terms of on the ground mitigation and adaptation efforts.

While cities contribute greatly to the problem of climate change, they are also a vital part of the solution. Despite immense challenges, sustainable urban solutions have immense potential to reduce GHG emissions, thereby curbing dangerous climate change, while simultaneously taking on key socio-economic concerns. Aside from environmental concerns, urban policy and planning must also address other concerns such as aging population and demographic changes, migration, poverty, health issues and the plight of the urban poor.

The underlying aim of the POCACITO project was to investigate long-term perspectives on post-carbon transitions in EU cities within a global context. More specifically, the project sought to gain insights into the innovative approaches, ongoing efforts, trends and barriers related to sustainable post-carbon transitions, which will likely prove crucial for EU urban development in the 21st century. The results of the research undertaken for the POCACITO project support the EU Innovation Union flagship initiative and have the potential to contribute more generally to sustainable growth, which is defined as a target in the Europe 2020 strategy.

The project addressed the post-carbon challenges faced by cities by developing strategic post-carbon pathways with a focus on towns, small and medium-sized cities, megacities, metropolitan areas and urban clusters larger than 1 million people. The project used a participatory approach that engaged local stakeholders to create custom made transition strategies for ten case study cities—Barcelona, Copenhagen, Istanbul, Lisbon, Litoměřice, Milan, Turin, Rostock, Malmö and Zagreb.
Building upon these local strategies, POCACITO then developed an evidence-based 2050 EU Roadmap, which is essentially a stakeholder-driven guide to creating the Post-Carbon Cities of Tomorrow, merging climate, energy and social transitions in EU cities. The roadmap for EU cities served as a key objective of the project and was achieved in seven sequential steps:

1. *Assembling an inventory of current initiatives and best practices which will serve to inform about potential measures and successful approaches to a post-carbon transition process.*
2. *Producing an initial assessment of the current situation in case study cities as an input into the scenario development.*
3. *Identifying win-win situations at the city level regarding CO2 reductions and tackling other environmental problems, such as air pollution or climate change adaptation. Partner cities in the EU and in emerging economies will be informed about best practices and potential policy transfer through a dedicated 'Marketplace of Ideas' with study tours and learning*

opportunities. Mutual learning, exchanging visions and experiences between EU cities and internationally.

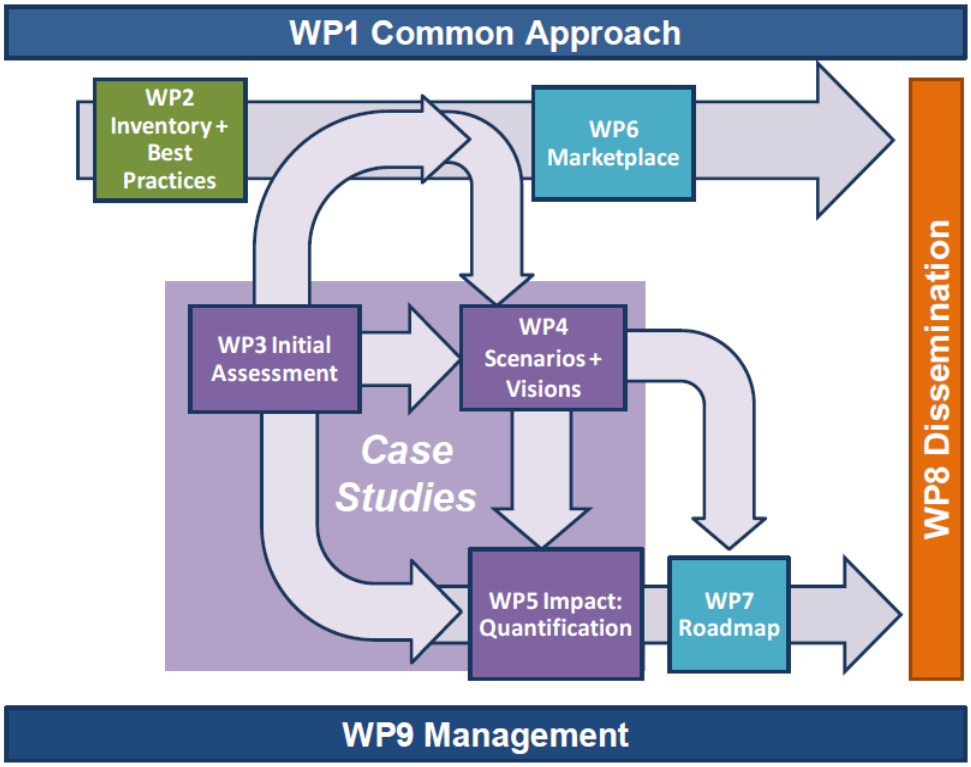
4. *Developing together with stakeholders a set of three to five qualitative socio-economic scenarios for specific case study cities. This foresight will be completed by adding a post-carbon vision to each scenario in each city.*
5. A quantitative analysis will measure the distance between the scenarios and the business-as-usual development and the post-carbon vision in each city. The result of the gap analysis will then inform stakeholders when choosing potential additional measures to be added to their scenarios.
6. In an iterative approach, the combination of scenarios and measures will be assessed as to their socioeconomic impacts in order to adjust the choice of measures.
7. Positioning the EU as one of the first movers regarding low carbon urban solutions. Based on the results of the above six components, a set of strategic transition papers, city-specific foresights, and a generic EU 2050 roadmap with recommended pathways for a set typology of cities will be produced.

3 Main S & T results

The following details the principal results and achievements since the beginning of the project. In total, 35 deliverables were submitted to the European Commission on behalf of the POCACITO project, which reflects the work plan stipulated in Annex I of the Grant Agreement. The majority of these deliverables are available for download on the project website: www.pocacito.eu. Please refer also to the project website for additional information about the project goals, activities, events and partners.

The first work package (**WP1: Common approach**) refined and outlined the common approach taken by the consortium for the project as a whole. The objectives of WP1 in the first project period were to establish and ensure a common understanding of core terminology and concepts among the POCACITO project partners, build a common approach for ex-ante and ex-post assessment frameworks to be employed in WP2-5, define the indicators (KPIs) for case study assessment and facilitate an ongoing exchange of knowledge and ideas between partners. The results from the project Kick-Off Meeting and follow-up discussions fed into two primary deliverable outputs: D1.1 Common approach framework document and D1.2 Report on Key Performance Indicators.

Figure 1: PERT Diagram of the POCACITO project



In addition to developing a common understanding within the POCACITO consortium, which was used and upheld in all subsequent WPs, the outputs from WP1 have wider societal implications—i.e., they advance the knowledge base of policymakers, stakeholders and researchers by (1) providing a concise overview of critical concepts and methodologies for the post-carbon transition of European cities and (2) identifying useful indicators (based on a survey of existing KPIs and indices) to monitor progress.

Work in **WP2: Inventory of Urban Sustainability Initiatives** was split into four deliverables. D2.1 Report on leading cities inventory provided a preliminary context-sensitive approach to rankings of European cities along with a large dataset on leading city contextual factors, activities and performance. D2.2 Good city practices outlined a policy cycle of good practices for municipalities, connecting

practices to stages and sections of transition (i.e. overall strategies, sectoral policies and demonstration projects). D2.3 Good national and EU practices analysed the multilevel dimension of transitions and good practices, especially the role of governments and the EU in a context of hierarchical, vertical and horizontal governance. D2.4 Typologies Paper explored five key types of mid-sized cities in transition.

Overall, the main findings of WP2 were the following:

Research strategies/methods: there is a need for more systematic data on activities, performance and reputation (in particular access to data on GHG emissions).

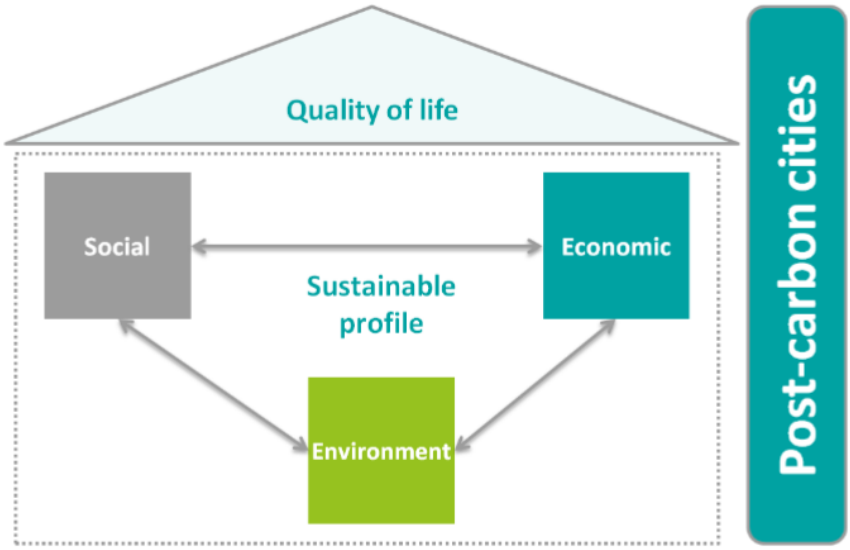
Characteristics of leading cities: the specific combination of factors (e.g. location/region; national context, (inter)national networking) must receive more attention if genuine learning and transfer between cities of different types is to occur.

Innovations/practices can be understood in terms of levels of urban governance and the interactions occurring between them: demonstration/pilot projects, sectoral strategies, integrative city-wide strategies

EU and Member States roles: upscaling of local experiments requires differentiated approaches for leaders, followers/midfielders and laggards and frameworks for "embedded upscaling", i.e., institutional arrangements which support not only (voluntary) upscaling among leaders but also upscaling from leaders to midfielders/followers and even to laggards.

The objective of **WP3: Initial Assessment of the Case Study Cities** was to conduct an assessment of selected case study cities in diverse European regions, with the participation of city officials, practitioners and other stakeholders. This assessment was based on the KPIs defined in WP1 and was thus comprised of economic, social and environmental dimensions (see **Figure 2**). The case study cities mentioned above not only highlight different city types, but also different challenges for the transition towards a post-carbon model.

Figure 2: Conceptual framework for the development of Key Performance Indicators (KPIs) for the assessment of case study cities



The work performed in this WP by INTELI and case study leaders with the support of the other partners included defining guidelines for the initial assessment of case study cities; production of an initial assessment of case study cities as an input to scenario development; organisation of local assessment workshops with the participation of key stakeholders; production of an integrated assessment of case

study cities including the identification of urban challenges and pressures in the transition towards a post-carbon paradigm and the development of a scientific article on post-carbon indicators.

Key results of WP3 include the assessments of case study cities according to the KPIs, which served inputs for the visioning and scenario building exercises and helped in the identification of challenges to the transition towards a post-carbon model; a comparison of case study cities in terms of the KPIs and production of an integrated assessment of the selected cities. Clusters of cities in different development stages in the transition towards a post-carbon model were identified. Finally, a scientific paper called "Towards a Post-carbon Future: Benchmarking of 10 European Case Study Cities" was submitted and approved to be published in Innovative Energy & Research Journal.[1]

Table 1: POCACITO Case study cities

Population in Municipality and Region	Region Typology	Location	Main Aspects	
Copenhagen / Malmö	Coastal	Baltic Sea	Trans-boundary, regional capital and metropolis	CPH 549,050 (1,240,035) Malmö 303,873
Lisbon	Coastal	West Atlantic	Dominant Capital	547,733 (2,042,477)
Barcelona	Coastal	Mediterranean	Regional capital, port city; strong Economic centre	1,621,540 (3,218,071)
Istanbul	Coastal	Bosporus	Megacity; Primate city	12,915,158
Milan/ Turin	Inland	Northern Italy	Regional cooperation	Milan 1,350,267 (3,202,947) Turin 905,352 (2,308,846)
Rostock	Coastal	Central Europe	Regional centre; Mid-sized city	204,260
Litoměice	Inland	Central Europe	Regional centre; Small city	25,000
Zagreb	Inland	Southeast Europe	Historical centre	790,000

In **WP4: Qualitative scenario building**, each of the European case study cities developed local visions and scenarios detailing local long-term strategies for achieving an urban post-carbon future in collaboration with local stakeholders. The local post-carbon visions and strategies were based on backcasting scenarios and developed using a participative approach that followed a common strategy for the organization of participative workshops (**Figure 2**). The final report on post-carbon scenarios

[1] Citation: Selada C, Silva C, Almeida AL, Guerreiro D (2016) Towards a Postcarbon Future: Benchmarking of 10 European Case Study Cities. Innov Ener Res 5:140.

draws conclusions comparing the different local visions and strategies (D4.4 Paper on scenario development). Measures and initiatives contained in these strategies were quantified and assessed using the KPIs. Results from this assessment were discussed with stakeholders in the cities and used for defining a final roadmap for each city.

Figure 3: Scenes from POCACITO scenario and vision building workshops

WP5: Quantitative impacts focused on the quantification of the impacts of the post-carbon city scenarios. The impacts of both a Post-carbon City (PC2050) and a Business As Usual (BAU) scenario were modelled and quantified for each case study. An analysis was done, comparing the scenarios between case study cities and conclusions were drawn. The modelling quantified the effects caused by the pathways required to reach the scenario endpoint. Methodologies were developed under the POCACITO project to enable the quantification of scenario impact, and the project consortium agreed on which KPIs to use (based on work in WP1 and WP3) and which data sources to draw from for the BAU and Post-Carbon Cities scenarios respectively.

The 2050 BAU scenario (based on recent trends) was compared to the PC2050 scenario developed with city stakeholders. A key strength of the modelling method used was that it applied both a production-based approach and consumption (footprint) based accounting approach to assess the impacts.

The semi-quantitative/qualitative indicator approach showed that nearly all cities will improve under the BAU scenario for most indicators, but the performance is significantly improved under the PC2050 scenario. Also, the benefits of achieving post-carbon status and good performance across the sustainable KPIs far outweigh the potential costs in most cases. However, the indicators concerning poverty level and urban sprawl are consistently poor performers for the PC2050 scenario. The analysis of production-based greenhouse gas (GHG) emissions shows that most cities approach carbon neutrality under the PC2050 scenario but will not fully achieve it; only three cities were below 1 tCO2eq/capita/year. However, of far greater concern is that the GHG footprint emissions rise under the PC2050 scenario for eight of the ten cities due to increased consumption—many cities remain above 10 tCO2e/capita/year.

A further benefit-cost analysis was conducted to compares the reduced cost burden due to premature deaths from air pollution with investment costs for renewable energy and energy efficiency. The results showed that under the PC2050 scenario the cost-benefits of reduced air pollution more than compensate for the investment costs. Investment costs are typically less than 1% of cumulative gross domestic product (GDP) from 2018 to 2050. Therefore, policy needs to address not only immediate and concerted action on energy efficiency and localised renewable energy (to avoid system lock-in), but the value of green space and the disparity between the rich and poor in society if future cities are to be liveable, healthy and carbon neutral places.

WP6: Marketplace of Ideas started in month eight and thus spanned both project phases. Within the work package, a strategy paper (D6.1 Sharing EU urban solutions and technologies with non-EU and emerging cities) was prepared, analysing how the experiences from EU cities can contribute to the development of similar solutions and innovative approaches in non-EU cities. To share and export

know-how globally, two subcontracts were prepared, one with the Chinese Academy for Social Sciences (CASS) in China and one with CEIIA in Brazil. In both countries discussions and workshops with city representatives and experts were held (in Brazil in March 2016, in China in June 2015 and in June 2016) and results were reported back to the project team members of POCACITO. In the Chinese case study cities, meetings were held with stakeholders not only to share EU experiences but also to carry out vision building and backcasting exercises based on the POCACITO methodology and experiences in EU cities. The activities in Brazil were centred instead on sharing experiences with Brazilian stakeholders. Insights from Brazil and China informed the aforementioned strategy paper, while Chinese experiences were also presented in a policy brief, a webinar and will be detailed in an upcoming publication. Insights from China on technology transfer were also considered more generally in the POCACITO 2050 Roadmap. Additional activities regarding know-how transfer comprised discussions between several EU cities and CASS members and culminated in the participation of a representative member of CASS in the second POCACITO study tour.

One major output from WP6 was an online "Marketplace of Ideas" on the project webpage to highlight innovative approaches to post-carbon transitions. The marketplace was continuously updated and filled with city fact sheets from all over the world, with contributions from several other project partners. At the end of the project, there were 62 factsheets available on the POCACITO project website.

The first of two planned study tours took place in June 2015, conducted in close cooperation with the project leader, Ecologic Institute, and consortium partner, Energy Cities. The study tour took five days, beginning in Zagreb and continuing on through Ivanvic Grad, Maribor, Graz, Güssing and Vienna. In Graz, study tour participants had the chance to meet the project partners and some members of the project's advisory board as the third POCACITO project meeting was arranged back-to-back with the study tour. The 11 participants came from 10 countries. One participant came from the Clean Air Asia project, which provided an opportunity for exchange on experiences from the Philippines. The second study tour was scheduled for three days in October 2016, and led a group of 19 people from 14 countries to the North of France and Belgium. The second study tour was organised back-to-back with the final conference of the project (held in Brussels on 21 October). A short report on the second study tour can be found on the POCACITO blog online. Both study tours provided excellent opportunities for the exchange of ideas and experiences.

Drawing from lessons learned and results gather from the exchanges described above, CASS together with JR wrote the first POCACITO policy brief on Low-carbon urban development in China: Current initiatives, future plans and first lessons (July 2016). In addition, JR and CASS wrote a working paper in December 2016 entitled *Comparison of Xiamen and EU case study cities and outlook for cooperation*. This paper aimed to expand the analysis of low carbon development of selected European cities as carried out in the POCACITO project to the Chinese city of Xiamen and compare the findings with the EU results.

WP7: 2050 Roadmap was responsible for the final phase of the POCACITO project and was tasked with developing and presenting one of the main deliverables, a 2050 Roadmap for European cities in the world context. After the completion of visioning, scenario-building and backcasting (with quantification) sessions, WP7 invited stakeholders in each case study city to workshops in order to develop city-level strategic papers. At the same time, this WP discusses a draft 2050 Roadmap with EU-level stakeholders and city representatives. The main outputs included two EU stakeholder workshops, the final city-level stakeholder workshops for the POCACITO case studies as well as the publication of the city-level strategic papers, the 2050 Roadmap and a list of recommendations. WP7 also culminated in the submission of a paper on the roadmap process. As foreseen from the extent of stakeholders' interests in the EU-level and city-level workshops as well as the final conference, the final results have the potential to have a large impact on cities' and citizens' engagement in transition to a post-carbon future in Europe and beyond. The findings and insights from this work package not only support evidence-based policy-making but also encourage citizens' co-creation of the roadmap and city-specific strategies.

WP8: Stakeholder involvement and dissemination focused on two major strands of work: engaging European stakeholders throughout the project and disseminating achievements and findings of the research undertaken by the POCACITO project consortium. In the first phase of the project WP8 established a network of referents at the European level by compiling a list of contacts in the POCACITO database, successfully convening a workshop on 27 June 2014 with European stakeholders and engaging members of the POCACITO Advisory Board in project activities. A deliverable, D8.1 Dissemination strategy guidebook, was produced, which identified the key target audiences and outlined a general dissemination strategy for the project as a whole. Furthermore, graphics (e.g. the POCACITO project logo, color set and templates) and a communication identity were developed in order to give the project a recognisable identity and develop a framework for communication activities.

In the second phase of the project work in WP8 focused on (1) upkeep of the project's web presence, including the project website and various social media accounts (i.e. LinkedIn, Facebook and most importantly Twitter), (2) the publication and circulation of a series of six policy briefs on key project outputs and findings and (3) the production of a final PDF booklet (D8.2 Synthesis booklet) summarising all major project findings including the EU 2050 Roadmap, presentations of case studies and the policy briefs. In addition, multiple project meetings and workshops pertaining to the creation of the EU Roadmap were successfully organised, including the first meeting on 11 March 2016 and a follow-up on 27 June 2016.

The projects **final results and impacts** relate to three core impact areas: Policy, Research and Citizens/ Cities:

a) policy-relevant results include the EU roadmap and policy recommendations at the EU and national level, as well as a series of six policy briefs on key project outcomes;

b) research-relevant results include deliverables in the form of reports and academic and other publications on the various research and innovation aspects of POCACITO;

c) citizen-relevant results include a video, a flyer and detailed documentation of the work in the case study cities.

The impacts of POCACITO are felt in all three domains:

a) supporting the deep decarbonisation of cities and EU urban policy

b) contributing to monitoring and assessment tools as well as strategy and visioning approaches

c) providing cities and citizens with relevant information for local decarbonisation pathways.

Main Results

Common Approach

The first work package (WP1) established the methodological and conceptual foundation of the entire POCACITO project by outlining a common understanding of relevant concepts, objectives and terminology across all members of the multidisciplinary consortium. The common approach and operationalisation of key concepts was developed based on the results of interactive sessions at the project kick-off meeting and follow-up research and discussion. The work completed in WP1 also served as a catalyst for scientific discussion among the project partners, which greatly enhanced communication within the team. The outcomes of WP1 were documented in *D1.1 Common Approach Framework Document* and *D1.2 Report on Key Performance Indicators*. The former report was a working document that served as the main reference for project methodologies and terminologies while the latter established a set of POCACITO Key Performance Indicators (KPIs) that were used later for the assessment of selected case study cities in WP3.

The outputs from WP1 have wider societal and scientific implications—aside from their significance for the project consortium internally. For one, the research undertaken and findings advanced the knowledge base of policymakers, stakeholders and academics by providing a concise summary of important concepts and methodologies relevant to post-carbon transition in EU cities and also arriving upon a set of useful indicators to monitor progress within cities. The KPIs were based on a survey of existing indicators and indices and thus draw from the state of the art of the field at that time.

Inventory of Urban Sustainability Initiatives

Work in the second work package (WP2) was split into four deliverables. *D2.1 Report on Leading Cities Inventory* provided a preliminary context-sensitive approach to rankings of European cities along with a large dataset on leading city contextual factors, activities and performance. This data set can and will be used for publications on the relationship between activities/actions of cities (such as the development of a sustainability or a climate protection strategy), the performance of cities (in particular CO2 emission reductions) and the reputation of cities (based on a Delphi study including experts from research, government and civil society). *D2.2. Good City Practices* provided a policy cycle of good practices for municipalities, connecting practices to stages and sections of transition (demonstration/pilot projects; sectoral strategies such as transport strategies; integrative city-wide strategies). This inventory served as a basis for developing a policy brief entitled "Drawing lessons from good city practices: promoting post-carbon transitions".

D2.3 Good National and EU Practices analysed the multi-level dimension of transitions and good practices, especially the role of member states and the EU in a context of hierarchical, vertical and horizontal governance. On this basis, additional document analyses and expert interviews were conducted at local and regional levels in Germany, the Netherlands and Sweden to analyse the triangle between cities, regions (such as German Länder or Dutch provinces) and national governments. An analysis of the results will be published as a journal article. *D2.4 Typologies Paper* explored the types of transitions in five mid-sized cities in (1) Northern Europe (Malmö, Sweden), (2) Continental Europe (Freiburg, Germany), (3) the UK (Bristol), (4) Southern Europe (Vitoria-Gasteiz, Spain), and Central and Eastern Europe (Ljubljana, Slovenia). This research resulted in a working paper published on Research Gate.

The findings of work package two were multifaceted and have broad implications. First, in terms of research strategies and methods, there is a need for collecting and analysing data on activities, performance and reputation of post-carbon cities in a more systematic way. Although quantitative studies on climate change in European cities do exist, there are still considerable problems in getting access to relevant data (for example data on the municipalities which are signatories to the Covenant of Mayors). Data which were collected during the POCACITO project can be used for follow-up research or combined with other data sets to serve as a basis for additional publications.

Results also pointed towards the characteristics of leading cities. The specific combination of factors which characterise leading cities (e.g. location/region; national context, national and international networking) must receive more attention if genuine learning and transfer between cities of different types is to occur. The development of leading cities is path-dependent and the replicability of local experiments thus depends on certain preconditions. Apart from the

well-known examples of leading cities in Europe, which are mainly larger cities in Northern Europe, Continental Europe and the UK, there is a need to explore (1) examples for leading mid-sized cities and towns and (2) examples for leading cities in Southern Europe and Central and Eastern Europe. Furthermore, pertaining to policy innovations, good/best practices can be understood in terms of levels of urban governance and the interactions occurring between: (1) demonstration/pilot projects, (2) sectoral strategies and (3) integrative city-wide strategies. Leading cities have developed various strategies to combine demonstration/pilot projects with sectoral strategies and integrative city-wide strategies. Such combinations seem to be necessary to develop successful transition strategies.

The results of the second work package suggest that there is a need for the upscaling of local experiments in multi-level systems (involving neighbourhoods, cities, regions, member states and the EU). Four types of upscaling can be distinguished:

1. *Experimental upscaling* within cities: roll-out of demonstration/pilot projects to establish sectoral and integrative city-wide strategies, assessments on the transferability of (pilot) projects (e.g. in Amsterdam);
2. *Horizontal upscaling* between leading cities on a voluntary basis within national borders, among European cities and world-wide, often supported by national and transnational city networks such as Energy Cities or the Climate Alliance;
3. *Vertical upscaling* between leading cities and followers/midfielders which need to be supported by regions, member states and the EU. Examples include national and EU (subsidy) programmes such as the German Kommunalrichtlinie and the Covenant of Mayors which led to direct relationships between the federal government and municipalities in case of the German Kommunalrichtlinie and between the EU Commission and municipalities in the case of the Covenant of Mayors;
4. *Hierarchical upscaling* between leading cities and laggards refers to the need to set mandatory rules and minimum standards. This seems to be necessary to guaranty that post-carbon transitions in leading cities are developed into common strategies which are not limited to leading cities and some followers/midfielders only. As the majority of municipalities in Europe are rather laggards, which have not yet taken any action, hierarchical upscaling needs more attention.

The higher levels of governance, i.e., the EU and its Member States, have roles to play. Upscaling of local experiments requires differentiated approaches and a conceptual framework for **"***embedded upscaling***",** i.e., institutional arrangements which support not only (voluntary) upscaling among leaders (horizontal upscaling) but also upscaling from leaders to midfielders/followers (vertical upscaling) and even from leaders to laggards (hierarchical upscaling). This was demonstrated using empirical results from Germany, the Netherlands and Sweden. The empirical results show:

(1) the path-dependency of the development in leading cities which is often triggered by charismatic leaders and key actors;
(2) the need to support midfielders/followers by national and EU funding programmes because such cities and towns lack the capacities to start post-carbon strategies without external support;
(3) the need to develop strategies which involve even laggards.

Embedded upscaling leads to new institutional arrangements which involve not only national governments but also regions, counties and regional energy agencies—all key actors in local climate governance.

Initial Assessment of the Case Study Cities

The objective of the third work package was to make an initial assessment of selected case study cities in diversified European regions, with the participation of city officials, practitioners and other stakeholders. This assessment was based on the Key Performance Indicators (KPIs) defined in WP1, comprising economic, social and environmental dimensions. KPIs are an important scientific result of this WP because they can be used in other European and regional/local projects.

The case study cities (Copenhagen, Malmö, Turin/Milan, Barcelona, Zagreb, Litomerice, Istanbul, Rostock and Lisbon) not only highlight different city types, but also different challenges for the transition towards a post-carbon model—energy, water, environment, mobility, food, climate change, etc.

The work conducted in this WP by INTELI and case study leaders with the support of the other partners was: definition of guidelines for the initial assessment of case study cities; production of an initial assessment of case study cities as an input to scenario development; organisation of local assessment workshops with the participation of key stakeholders; production of an integrated assessment of case study cities including the identification of urban challenges and pressures in the transition towards a post-carbon paradigm and the development of a scientific article on post-carbon indicators.

Key results of WP3 were: the assessment of case study cities according to key performance indicators as inputs for the visioning and scenario building exercises and for the identification of challenges in the transition towards a post-carbon model; and comparison of case study cities in terms of key performance indicators and production of an integrated assessment of involved cities. Clusters of cities in different development stages in the transition towards a post-carbon model were identified. Finally, a scientific paper called "Towards a Post-carbon Future: Benchmarking of 10 European Case Study Cities" was submitted and approved to be published in Innovative Energy & Research Journal.

Qualitative Scenario Building

In the POCACITO project, foresight exercises, framed as systematic, vision building processes, were chosen as the appropriate framework for reflecting on how to enable local action leading to the fundamental changes required to reach post-carbon trajectories. Foresight exercises are both more flexible for taking into account novel impacts and changes in trends, and are at the same time sufficiently formalised for producing outputs which can be considered robust enough to support policy making while being sufficiently ambitious for representing those radical policy changes needed for a post-carbon transition and to inform decisions that will change the urban shape, urban carbon performance and ultimately urban lifestyles. Among the different existing scenario typologies, normative scenarios have been chosen as they can be used for describing how a certain (desirable) future can be reached. These desirable futures were defined, specifically for each local context, in the form of visions defined by the same stakeholder groups which subsequently had to translate them into roadmaps or operational programmes using backcasting scenarios.

In each of the POCACITO case study cities local scenarios were developed, involving local stakeholders, representatives from local administrations and other potential "end users of the

scenarios developed. The added value of involving eventual end users of the scenario analysis like authorities that are relevant for the implementation or the general public was to provide tailored inputs to the local context while providing results that are not trivial but offer novel inputs into the local context.

Quantitative Impacts

The 5th work package has focused on the quantification of the impacts of the post carbon city scenarios. The impacts of both the studied Post Carbon City scenarios and the Business as Usual scenarios have been modelled and quantified for the case study cities. These scenarios have also been compared for the studied cities, and conclusions drawn. The quantification has been done by quantifying the effects of the pathways needed to reach these scenarios. Methodologies to enable
this have been further developed in this work. The project group has agreed on the KPIs to quantify (also base on WP1 and WP3), and which data sources to use for the BAU and PostCarbon Cities respectively.
The 2050 business as usual scenario (based on recent trends) with a 2050 post carbon (PC2050) scenario developed with city stakeholders. A key strength is that it applies both a production based approach and consumption (footprint) based accounting methodology to assess the impacts.

A semi-quantitative/qualitative indicator approach shows that nearly all cities will improve under
Business As Usual (BAU) for most indicators, but the performance is significantly improved under
Post Carbon Cities 2050 scenarios. Also, the benefits of achieving post carbon status and a performance across sustainable KPI's far out weight the potential costs in most cases. However, the indicators concerning poverty level and urban sprawl are consistently poor performers for the Post Carbon Cities scenario. The analysis of the production based Greenhouse Gas (GHG) emissions shows that most cities approach carbon neutrality under PC2050 but will not fully achieve it, with only 3 cities being below 1 tCO2eq/capita/year. However, of far greater concern is that the GHG footprint emissions rise under PC2050 for 8 of the 10 cities due to increased consumption with many cities above 10 tCO2e/capita/year. A benefit-cost analysis compares the reduced cost burden due to premature deaths from air pollution with investment costs for renewable energy and energy efficiency. It shows that under PC2050 the cost-benefits of reduced air pollution more than compensates for the investment costs. Investment costs are typically less than 1% of cumulative Gross Domestic Product (GDP) from 2018 to 2050. Therefore policy needs to address not only immediate and concerted action on energy efficiency and localised renewable energy (to avoid system lock-in) but the value of green space and the disparity between rich and poor if future cities are to be liveable, healthy and carbon neutral places.

Marketplace of Ideas

Work package six gave important insight into options to transfer know-how and technologies from the EU to emerging economies and vice-versa and created new stakeholder contacts and cooperation enabling know-how transfer. The EU has initiated successful processes that complement top-down strategies with local bottom up activities to create dynamic implement measures, one such initiative being the Covenant of Mayors. On a technological level, the EU

is leading in several areas such as low-carbon buildings that are mandated by the EU, energy and climate policies, bioenergy technologies, in which the EU has a strong domestic market, waste water treatment, urban logistics, and adaptation technologies. The report shows that low-carbon city plans in emerging countries mainly focus on buildings, urban planning, water and transportation, even if the concrete actions differ by country and city. This partly aligns with EU strengths and best practices and, in principle, opens up the opportunity for technology export from the EU to emerging countries. Transfer of technologies, however, depends on a range of factors including technological, political and socioeconomic preconditions in the host countries. Such preconditions also apply to the export of soft measures and the transfer of technologies or processes requires careful planning and a good understanding of host country framework conditions. Some of the EU's technology strengths are not yet sufficiently considered in emerging country plans, such as bioenergy technologies or adaption. Regarding buildings, energy efficiency measures are an aim of many emerging countries, but this rarely includes zero-carbon buildings. Urban logistics and intelligent transport systems are other areas in which the EU has initial experiences. These may become important issues in emerging countries in the future and the EU should observe developments in emerging countries carefully.

WP6 also expanded the analysis on low carbon development of selected European cities as carried out in the POCACITO project to the Chinese City of Xiamen and compare it with the results for EU cities. On this basis, similarities, differences and potential starting points for cooperation and transfer of know-how or technologies were discussed. Based on generic quantitative city data as well as "key performance indicators" for low carbon development a quantitative comparison between Xiamen and EU case study cities is undertaken. The results show that Xiamen catches up quickly in terms of economic development and currently may be situated already at the lower end of EU cities. A major element for cooperation may be the sectors which are of major importance but also of concern for cities in order to have a common ground for exchange. Given the historical and economic development-related proximity to Europe and its specific situation as special economic zone and low carbon pilot city, Xiamen might thereby act as a "hot spot" for cooperation. Xiamen is highly active in the IT and technology sectors that are of relevance for, e.g. transport and the development of the building sector. Tourism is a major economic sector and the coastal situation with its major harbour provide for specific potentials, low carbon solutions as well as development challenges. Xiamen shared the importance of technology and innovation as well as tourism with Litomerice, Barcelona, and Lisbon where the latter two also share the costal situation and may thus be of prime interest for cooperation. Given that all EU case study cities equally share important challenges such as in transport, cooperation may equally be of interest but would require further analysis in order to identify more specific areas/projects in which a valuable exchange would be possible.

Within the study tours different topics have been addressed (e.g. policy support, specific sectors, specific technological questions concerning energy, water, etc.). The study tours enabled an exchange of ideas and experiences, reciprocal learning of the socioeconomic success factors and limitations when implementing post-carbon solutions. Inviting representatives and stakeholders of both EU cities and non-EU cities enhanced the exchange of ideas and experiences in different cities. The organization of two study tours was another instrument of giving cities (represented by city officials, administrative people or people from originations like energy agencies, closely linked to the cities) the opportunity for exchange

with and learning from other cities. The study tours not only provided a broad range of visits to cities in different parts of Europe but also the opportunity for participants to exchange with fellow tour participants and build up a network that lasts beyond the study tours.

Participants confirmed that it was definitely useful to get to know experiences and a better insight on how other cities are dealing with sustainability issues. The study tours also provided the opportunity to see examples on-site that have been known as a good model (e.g. Güssing, visited on the 1st study tour). With presentations on the one hand and on-site visits on the other hand, enriched with discussion among participants as well as with experts in the different cities, multiple levels of knowledge gathering and networking were used. The study tours gave the opportunity to ask questions and discuss experiences, success and barriers with experts and get first-hand information on site. On both tours, the participants were very active in talking about their own experiences but also in their discussions with other experts and participants. The groups were quite diverse, including high ranked city officials, representatives of the planning, mobility and energy departments as well as project officers and consultants, all of them bringing in their very special view.

With visiting places and cities in Central Europe on the first tour and in Norther Europe on the second tour, a maximum range of geographical divergence could be covered, given the monetary and time limits within the project. Capitals were visited as well as medium and small cities and towns and the addressed topics covered participation and citizen involvement, urban planning and mobility, environment and air quality, eco-districts, energy efficiency in buildings, energy transition and the use of local and renewable energy resources as well as urban gardening. Including participants from the Philippines (on the 1st study tour) and from China (on the 2nd study tour) brought in the non-European view which was also very much appreciated by the other participants. The study tours helped to establish, according to the feedbacks, a long-lasting and valuable network of knowledge for all participants.

2050 Roadmap

WP7 was responsible for the final phase of the POCACITO project to develop and present one of the main deliverables, a 2050 roadmap for European cities in the world context. After completion of visioning, scenario-building, and backcasting with quantification, this WP invited stakeholders to city-level workshops in order to develop together city-level strategic papers. At the same time, this WP discussed a draft roadmap with EU-level stakeholders and city representatives. Main results included two EU stakeholder workshops, the final city-level stakeholder workshop in POCACITO case studies, the publication of the city-level strategic papers, the roadmap and a list of recommendations, submission of a paper on the roadmap process.

4 Potential impact, main dissemination activities and exploitation of results

Potential impact

As foreseen from the extent of stakeholders' interests in the EU-level and city-level workshops as well as the final conference, the final results could create a significant impact on cities' and citizens' engagement in transition to a post-carbon future in Europe and beyond. It would not only support evidence-based policy-making but also encourage citizens' co-creation of the roadmap and city-specific strategies.

Urban policies are crucial for global strategies aiming at the reduction of greenhouse gas emissions. A significant proportion of global greenhouse gas emissions are attributed to urban areas, with figures reaching as much as 80 % of global emissions (Duren and Miller 2012; Satterthwaite 2008). It is therefore of pivotal importance that cities, who are the centre of economic and social activities, become key players of carbon reduction strategies worldwide. Recognizing both their importance and the potential urban action can have for global mitigation, many cities initiated, often independently from national policy framings, to engage in ambitious strategies for the reduction of carbon emissions in their areas. (Carmin, Nadkarni, and Rhie 2012; Castán Broto and Bulkeley 2013; Diana Reckien et al. 2014). The most ambitious strategies aim at the concept of "Post-Carbon Cities" which is conceived as a development based on a rupture in the trajectories of carbon-dependent urban development. The term post-carbon, as defined in the POCACITO Project, emphasises the process of transformation connected to a shift in paradigm, which is necessary to respond to the multiple challenges of climate change, ecosystem degradation, social equity and economic pressures (Ridgway et al. 2014).

Given the high inertia of urban ecosystems (Vidalenc and Theys 2013), disruptive urban trajectories need to be conceived and planned on time horizons, which stretch well beyond those considered in normal planning processes. Foresight exercises, framed as systematic vision building processes, offer the necessary framework for reflecting on how to enable action can lead to such fundamental changes. Future science methodologies can be of support for dealing with the long time frames and the increasing uncertainties these timeframes entail. Among these, especially scenario building techniques can be used for addressing future uncertainties, as they are more flexible for taking into account novel impacts and changes in trends, and are, at the same time, sufficiently formalised for producing outputs which are robust and thus credible for providing policy support, and can be sufficiently ambitious for representing the radical policy changes needed for a post-carbon transition which will change the urban shape, urban carbon performance and ultimately urban lifestyles.

Rather than providing reliable predictions of the future, scenarios support the learning process about factors and trends conditioning future developments (Schoemaker 2004). In the literature it is widely agreed that scenarios represent structured and systematic forms of constructing "possible futures" and are useful inputs in policy processes. Different scenario typologies can be distinguished according trajectories for instance, like "predictive, explorative and normative" (Börjeson et al. 2005, 14). Among these, the normative scenarios are of particular interest for the post carbon transitions, as they, rather than at exploring into which future observed trends or policy interventions might evolve, describe how a certain future can be reached.

Part of the normative scenario is the "backcasting" technique which explores the way "… desirable futures can be attained" (Robinson 1990). It is based on an activity of working backwards from a particular desired future end-point (the vision) to the present in order to determine the physical feasibility of that future and identifying the policy action required and their timing needed to reach that point, while taking into account possible obstacles and opportunities.

Within foresight studies, the participatory element plays a prominent role. The term 'foresight' has been defined as a "systematic, participatory, future-intelligence-gathering and medium-to-long-term vision-building process aimed at enabling present-day decisions and mobilising joint actions," (Gavigan et al. 2001; Van Cutsem 2010, 5). This definition, which is used by the European Foresight Platform, has been adopted in the POCACITO project.

In each city, visioning and backcasting workshops followed a common three-step procedure, involving different types of stakeholders considered potentially relevant for the local context. In the workshops, a creative brainstorming technique was employed to induce stakeholders to think beyond existing policy constraints while envisioning the future of their city, and operationalize these visions in as subsequent step defining in single steps and actions towards the goals, alongside with monitoring and risk assessments and a robustness test of the strategies considering different global socio-economic trajectories. The strategy was quantified in a subsequent work step in order to verify its efficiency with respect to the decarbonisation of the city, identifying eventually necessary further action.

The working strategy adopted in the POCACITO project produced relevant results both at the cities' level and in an European comparison: showing the potential range of actions and respective limits, urban administrations are facing with respect to decarbonisation strategies:
The urban post-carbon visions developed in the case study cities envisage changes in many different policy sectors, mainly those where urban administrations are responsible or have some autonomy for decision making. The sectors considered in the visions encompass, in addition to energy policies (where the possibility of policy changes at local level are somehow limited), many aspects of the urban policies that contribute to shaping future patterns of urban energy consumption. Regarding urban form, this includes both design of urban form and growth, and energy performance of single buildings and transport alongside with aspects of waste management and consumption. Furthermore, economic development was considered as a central issue in the visions of several cities, specifically promoting technology change and research activities in the private sector to support innovators, supporting innovative business models, and increasing tourism. On the other side, technology change was seen as a field of action not so much for creating new technological options for urban infrastructures, but rather as a means of economic development, issues like tourism and protecting or enhancing biodiversity were seen as direct or indirect means of improving urban quality within existing development paths. Economic innovation was addressed referring to a "circular economy", mentioning changes in consumption patterns and in waste management. The content of the visions formulated was not restricted to decarbonisation alone, but encompassed also fundamental elements of a sustainability vision, like social justice or improved governance.

Results from the eight case study cities show similar elements in the actions that have been proposed by local stakeholders. All cities considered have given great attention to the transport and energy sectors, where many of the envisaged actions are concentrated. The actions are largely pointing at non-fossil energy generation, new energy efficiency at building level, increasing the quality of public transport, decarbonising private transport, and increasing the share of non-motorised movements (walking, cycling).

Further to these "carbon focussed" urban issues in the transition to become a post-carbon city defined by the objectives of the POCACITO project, some actions contained, for instance, more or less pronounced goals related to local economic development and social inclusion. An

interesting fact to be underlined is the great importance attributed to urban governance in several local contexts. The role of public policies for achieving goals described in the post-carbon visions is seen as crucial by many stakeholders and in most cities, and in some cases enhanced possibilities for participation and social inclusion are mentioned as a condition for achieving the goals. In connection to this, the call for "education" was mainly understood as a tool for awareness rising promoting a more conscious behaviour of citizens as a first step toward active involvement in post-carbon strategies. Interestingly for a study on European cities, some strategies address education furthermore as an issue related of social justice, proposing actions promoting access to all forms of education for all.

Especially for some cities with relatively low GDP, great emphasis is laid in the visions for promoting urban economies and for making cities more competitive, aiming at attracting investments. A specific role is reserved for urban tourism in this context, as high quality of urban spaces can attract tourism, translating thus urban qualities directly into preconditions for urban economic development. Further to this relationship between urban quality and economic development, there was a very low consciousness about potential synergies between decarbonisation strategies and economic development. On the contrary, the high priority attributed to economic activities if compared to those directly connected to decarbonisation could be interpreted as related to the fact that economic wealth is seen as a prerequisite for activating new strategies related to decarbonisation. The potential impact of increasing economic activities, and in turn increasing energy demand and carbon emissions, is reflected in some visions aiming at a transition of the urban economy to a sustainable low-carbon economy. In the visions for Barcelona and Milan, this aspect is not explicitly noted; only increasing competitiveness or increasing the use of smart technologies is envisaged as a goal.

A certain importance is also given to technological innovation, seen mainly as a means of enhancing competitiveness of urban areas. Interestingly, de-carbonisation of industrial production or in the services sector was not addressed at all, if not (in relation to the services sector) implicitly included in the consideration of de-carbonisation of heating and cooling of buildings. Technological innovation as an instrument for new energy generation was not addressed as an important perspective, as actions rather pointed to existing technologies (smart technologies, electric and hybrid cars, etc.).

Aspects related to the quality of the urban environment were addressed either as part of sector oriented strategies (increasing walkability of and cycle path in cities, conserve and enhance biodiversity) or as an instrumental for economic growth, as far as the increase of the tourism sector as an economic sector valorising urban spatial qualities is concerned.

The analysis shows that the specific mix of strategies envisaged for each city has been influenced by local characteristics, such as the geographical location of the cities, the size of the cities as well as different points of departure with regards to emission reductions (greater or smaller achievements in terms of CO_2 intensity). On the contrary, economic considerations, such as the level of GDP per capita of the city, seem to be less influential in driving the policy mix.

The relative homogeneity of the results across cities and the high rate of correspondence to issues considered in the international debate on post-carbon transitions can be interpreted as a

sort of bottom-up confirmation for these arguments brought forward by the international debate.

The exercise promoted by POCACITO allowed, within the case study cities, to focalize on the need for long-term strategies. Although no direct policy implication was achieved, it contributed to raising the attention and provided, with the local roadmaps (WP5) an input for future policy debates.

Main dissemination activities

Stakeholder Involvement and Dissemination

The POCACITO project builds on three layers: research, urban and EU policy. The research layer being the one leading this project, involvement of external research layer was not seen as a priority. Stakeholders' involvement was foremost targeted toward EU policy layer and urban layer.
The aim of involving stakeholders in the project was in the first place to benefit from feedbacks and inputs from relevant actors, but also to contribute to the implementation phase of the project which is not carried on by the project partners. In the case of POCACITO, those implementing outputs and results of the projects are those with decision making powers within local authorities and those acting at EU level in the EU institutions directly, but also NGOs, thematic networks or private enterprises. While involving those stakeholders in the project, the project consortium hoped to be able to link directly with practitioners.

Main activities included:

- Organisation of a network of referents
- Starting the EU roadmap process
- Involvement of the advisory board
- Organisation of the final conference
- Close contacts with and involvement of local authorities
- Organisation of study tours (wp6)
- Local workshops with local stakeholders

The main challenge of the POCACITO project was to involve local stakeholders in an academic project. Even though their objectives are quite similar, these two worlds have different agendas, different codex and ways of dealing with the same issues. Although this challenge was taken into account, there is still room for improvement. Participation from EU and local stakeholders was there, but the process of involving those actors within the project was resource intensive. The participation of external stakeholders was also not as high as expected during the phase of preparation of the project.

Still, the inputs of the stakeholders involved proved highly valuable and could be included in the project outputs. As well, the project showed that there is a need for participation at the local level, and that promoting exchanges between peers and discussing points of view has a positive impact on participants. They gain confidence, expands their knowledge, and are faced with new ideas which can inspire them back home. Also, such exchanges allow participants to reflect on their own practices.

Dissemination and Communication

The dissemination strategy and activities of the POCACITO project enabled to organise and assess various information supports and canals towards the different target groups of the project, throughout its 3 years of implementation. An audience is now retained and some information chains well-established, that will enable the project partners to keep on promoting and disseminating the results and findings of POCACITO, beyond its ending date. It will be especially the case for the EU Roadmap 2050 and all the policy briefs, published in the late months of the project and whose impact on European, national and local decision-makers can still be increased. In the same way, a series of scientific articles is still in preparation and are expected to be submitted in the first quarter of 2017.

Main activities included:

- Development of a communication and dissemination strategy
- Production of a corporate design: logo and templates
- Development and running of a POCACITO website
- POCACITO social media (twitter and LinkedIn)
- POCACITO flyer/brochure
- POCACITO case study cities posters
- POCACITO video
- Publication of factsheets
- Publication of 6 policy briefs
- Scientific publications
- Organisation of POCACITO workshops
- Presentation of the project at external conferences and events
- Organisation of POCACITO study tours
- Organisation of a POCACITO final conference

Table 2: Main outputs and means of dissemination

WHAT The main content promoted	**TARGET GROUPS**	**WHO** Partner in charge	**HOW** The main means of dissemination
EU Roadmap	Decision makers at EU level and National level	ENC	Press release + ENC newsletter, including secondary links to PBs, local strategy papers, marketplace and video https://www.youtube.com/watch?v=QW10MUu3Flg
Policy Briefs http://pocacito.eu/results/policy	Decision makers at EU level and National level	EI/CEPS	EI and CEPS newsletters, including secondary links to the EU Roadmap and to the video
Local strategy papers (under each city webpage) http://pocacito.eu/case-studies	City level	Case study city leaders	Email message to all the local stakeholders, including secondary links to the EU Roadmap, policy briefs, marketplace and video.
Marketplace/Factsheets http://pocacito.eu/marketplace	Emerging countries	JR	Email to all contacts in China and Brazil, including secondary links to the EU roadmap and to the video
Proceeding of the final conference http://pocacito.eu/blog/2016-12-20/proceedings-pocacito-final-conference	Participants to the conference	CEPS	Email to participants, including secondary links to the EU roadmap and to the general result section on the website
Scientific publications and project reports http://pocacito.eu/results/science	Research and academia	EI	EI newsletter, Climate list, Covenant of Mayors' Academia corner

POCACITO was presented at over 47 external events, including workshops, seminars and conferences. Most notably, POCACITO was present at two UNFCCC international climate negotiations: December 2015 at COP21 in Paris and November 2016 at COP22 in Marrakech. The participation in these external events increased the reach and visibility of the POCACITO project significantly.

A key dissemination opportunity was also the September 2014 conferece: Research for a Post-Carbon Future conference in Berlin.
The final conference of the project, entitled Post-carbon cities of tomorrow - Building an urban long-term vision together, took place on 21 October 2016 in Brussels at CEPS premises. The Final Conference highlighted a creative approach for dissemination and participant engagement. The messages of the sessions drew attention to the need for an integrated approach to urban development to reduce greenhouse gas emissions, in particular concerning urban planning of infrastructures and land use, using the opportunities provided by Information and Communication Technology. The emphasis had been placed on POCACITO's successful adaptation of visioning and backcasting exercises as powerful tools to engage stakeholders and increase their awareness and participation in the steps towards a post-carbon future. To create cross-sectoral synergies and effective dissemination of knowledge, CEPS had invited stakeholders from research institutes, academia, journalists, associations, EU institutions, city authorities, companies, think-tanks and governmental representatives. The format of the conference was designed to reflect dynamism and exchange of ideas over the project findings with the aid of a moderator for discussions and group activities. The conference was very successful with 127 registrations of which close to a hundred attended.
The conference was designed to present the highlights of the project and to be participatory. Participants not only were able to listen to project participants, but also urban specialists, and were able to review the Roadmap document's recommendations, comment on it and contribute through a collaborative setting, which allowed participants to discuss them in groups. The innovative layout of the event was further strengthened by creating the opportunity for participants to see in practical terms what the future of urban transport could look like. For this, the organizers have brought in a local electric car-sharing initiative that would illustrate the mobility and transport future outlook in Brussels while allowing participants a unique test-drive of some of their newest urban electric cars. The event was very successful in gathering feedback from the participants which then was incorporated in the Roadmap document. Furthermore, it has led to some cities to contact partners to perform the visioning and backcasting exercise in their town. Concrete case has been of CEPS being contacted to present the POCACITO method in Sofia Bulgaria on 28 November 2016. After the conference the presenter has been approached for the possibility to use the method for the development of the city's green capital strategy. The proceedings of the final conference are published in the events section of the project website. They were also disseminated via the blog and social media.