



Executive Agency, Education, Audiovisual and Culture



Competences for sustainable city development

**Competences for a sustainable city  
development:  
Qualification scheme for Climate Adaptation in  
Construction, Architecture and Planning**

**ClimCAP**

Progress Report

Public Part

## **Project information**

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## Executive Summary

Even under the most optimistic greenhouse gas reduction scenarios, the ongoing process of climate change cannot be stopped. These impacts create new hazards and vulnerabilities, putting citizens' quality of life and health at risk. Even though uncertainties remain, applicable knowledge from science and practice is necessary for decision-making and for the implementation of adaptation measures. However, the integration of scientific findings into urban development and planning practice has not yet taken place, and fixed planning procedures lack both innovative approaches and adequate knowledge to integrate effective climate change adaptation measures into planning and construction practice.

The ultimate aim of CLIMCAP is to develop a training programme that supports more informed and proactive development of climate change adaptation measures in cities, towns and villages through upskilling built environment professionals working on the planning, design and implementation of adaptation schemes.

The impacts of climate change give a special importance to adaptation measures in order to ensure that all regions in Europe are becoming more resilient. The practical implementation of adaptation measures mainly takes place at the regional and local levels, particularly in urban environments. In that respect responsible planners, architects, decision makers as well as other planning and process relevant professionals play an outstanding role. Missing qualification in terms of adaptation to climate change is a bottleneck for any implementation. CLIM-CAP particularly will address these deficits by setting up a vocational training scheme for the above mentioned target groups, both from the public and the private sector.

The workload and content of this qualification scheme is set up in regard to the compatibility to existing jobs of the trainees and the knowledge gained through the projects market analysis. In this regard it will contain a significant amount of e-learning methods. Furthermore the didactical concept contains face to face meetings and excursions. Besides practical and planning relevant skills the course will also contain teachings of consultancy and management skills as well as conflict moderation and knowledge management. Every partner of the project is encouraged to develop a sustainable exploitation strategy for their respective countries beyond the eligibility period.

The marketing material for the course has been produced and is distributed to the partners via the project homepage. This homepage is also targeted as a resource for information to potential participants of the course.

The most important next steps of the project include the detailed development of the curriculum contents and the preparation and realisation of the pilot course including the following evaluation by trainers and trainees.

The developed course will contribute to the EU policies by encouraging the transnational knowledge transfer leading to a more equal basis in regard to climate adaptation using the partner countries individual strengths in different fields of urban planning.

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# 1. Project Objectives

The change of our global climate has an effect on the quality of life and local conditions in our cities. A relevant increase of vulnerability of cities to the impact of climate change is expected in the next decades. Some characteristics of urban climate have negative effects on the biotic and abiotic urban environment, such as the urban heat island and the impairment of urban infrastructure by floods, intense rain or dryness. These problems will be intensified by climate change.

The project submitted under “Leonardo da Vinci / Development of Innovation” is about the development of an innovative qualification scheme focusing on the planning and implementation of adequate adaptation measures to tackle the impacts of climate change. The target audience for the training offer should particularly be working in spatial planning which comprises spatial planners, architects, engineers and other relevant occupational groups in that field. Both experienced professionals and graduates seeking job opportunities are addressed by the training course.

It has become obvious in talking to practitioners, particularly from the field of planning, that adaptation measures still do not play an important role in urban development and the respective planning phases. One reason for this is that the above mentioned specialists do not have sufficient knowledge in the area of adaptation to climate change. Furthermore, conflicting strategies pursued by politics and other stakeholder groups involved, particularly by the potential investors, hold back the integration of climate adaptation measures in planning and construction. Therefore, it is of utmost importance that practice-oriented skills and instruments are provided to improve relevant planning processes on regional and local level. There is already a high pressure for planners to act in the field of climate change adaptation. The adaptation measures have to start now because of the slow speed of sustainable urban renewal and the long-dated impact of today’s planning decisions.

Besides technical and planning relevant content the qualification scheme will also integrate consultancy / management skills as well as aspects of conflict moderation and knowledge management. It is planned to develop a market relevant training course (in the form of a blended learning course) which should later be offered EU-wide.

The project’s main objective is to enforce the successful integration of sustainable climate change adaptation measures into the planning practice in our cities. Connected to the main objective are the following project targets:

- Improvement of quality of life in Urban Areas
- Error prevention through a better training of planning-relevant actors
- Improving the labor market opportunities for the participants through capacity-building and training
- Learning from specific "best practice examples" for climate change adaptation in different regions in the partner countries

## 2. Project Approach

Based on a detailed market and demand analysis the consortium of six partners from five different countries will develop an innovative, target group specific curriculum. Besides modules focusing on adaptation techniques and their integration into regional and local planning the training course will also comprise teaching units focusing on conflict moderation and stakeholder inclusion. The pilot will be tested in all five consortium countries.

The focus of this project is on knowledge transfer and it is known that from a didactical point of view, such training courses have added value if the new knowledge and skills are put into practice already during the training course. The basic idea is that complex (scientific) knowledge is not only learnt through texts or lectures, but also gets translated into practical application in an integrated way. This way, basic knowledge gets internalized better by the trainee and at the same time, the skills to apply the knowledge are trained as well. For spatial planning and design professions, this learning process needs to happen on different levels of scale and complexity.

Since the course participants will be spread over a whole country, parts of the teaching have to use digital media for communication. This will mainly be texts and links to useful websites. But also a substantial amount of face to face teaching and group work is necessary. Therefore, the pilot also contains four plenary two-day meetings of the course group. Most parts of the course contents can be standardized, such as the course guides/ syllabi, lectures, readings and the project material (maps, etc.), once most of the material is made available in the language of the respective countries.

The ClimCAP project in the context of the Quality management, evaluation & optimization defines an internal process of evaluation, monitoring and assessment. The main aim of the evaluation strategy is to plan and implement quality management measures, which include both the evaluation of project activities and quality assurance, in align with the European Parliament and Council's recommendations concerning the establishment of a European Quality Assurance Reference Framework for Vocational Education and Training (2009/C 155/01).

The concept focuses on the quality aims and quality criteria both for the planned products (curriculum development and training course) and the project activities for the product realisation. A monitoring review is developed to evaluate the general development of the project and is orientated to the ClimCAP members and Steering Committee. The method of evaluation and quality assurance incorporates the background of each partner and intends to respond to the specifics problems of each task and activities. Two rounds of the monitoring review have already taken place. With an elaboration of the five on-going monitoring reviews and of the final evaluation report the work will be finished.

ClimCAP needs to be promoted to training organisations that will potentially be involved in the final product. Potential trainees (professionals working in construction, architecture, planning and other built environment professions) will need to be informed when the ClimCAP training will be available or being piloted.

The dissemination and exploitation strategy is not focussed only on this target group. ClimCAP will have several distinct target audiences like EU projects and influencers (throughout the two years of ClimCAP), professional institutes, universities and training organisations with a focus on planning and the built environment, potential trainees (particularly in year two of ClimCAP when partners are preparing for the 'exploitation' phase of the project), private sector, public sector, non-profit organisations and the general public; also National Environment Ministries and National Ministries of Construction. The need to communicate with each one will vary during the life of the project. Each partner will identify relevant stakeholders in their respective countries.

Each partner is responsible for disseminating ClimCAP in their own country. The lead partner for communication produces a range of communications materials during the lifetime of the project, to provide the partners with the information and tools to disseminate ClimCAP in their own countries in a co-ordinated way. Each partner nominates a media contact from their organisation who will be responsible for leading on dissemination in their country. Each partner has a "Communications Monitoring Table" which must be completed by the partners as regularly as possible. This will record information such as the number of press releases sent, the number of events at which ClimCAP was promoted, who attended the events; number of hits to the website; examples of media coverage (press cuttings) etc.

### 3. Project Outcomes & Results

The first step for the development of an innovative qualification scheme focusing on the planning and implementation of adequate adaptation measures to tackle the impacts of climate change (main objective of the project) was a detailed market and demand analysis. The results of a status analysis report, interviews with potential trainers as well as questionnaires for potential trainees for each partner country provide concrete information about the potential target groups, the required topics and the form of the training course.

The potential target group consists of diverse professionals in the field of urban planning, urban design, landscape architecture and architecture. The training needs to cover the fields of general knowledge about urban climate, how to analyse urban climate in order to create a basis for urban planning and design, planning skills for urban climate adaptation on a large scale and design skills for urban climate adaptations on smaller scale levels. This also involves integration with other issues in urban planning and design. The ClimCAP project was set up to provide such knowledge because Europe wide there are hardly any courses about urban climate adaptation. This lack became apparent when university courses in different countries were examined on their contents. So, professionals do not have the necessary knowledge from their previous study. Also, there is a great lack of such applicable urban climate knowledge within the field of professional education. Obviously, the need for a training of professionals on urban climate adaptation through an accredited course is necessary. The market analysis indicated that the training needs to be combinable with the working loads of professionals and their negotiations with their supervisors. The summary of the outcome of this process leads to a training course period that will cover three months with a study load of 150 hours in total (equal to about 12 hours a week).

Before new content will be produced for the training course an availability check for existing content in the partner organisations was necessary. Based on the cooperation with the market analysis and further discussions with the ClimCAP group during the meetings, the following main topics are identified:

1. Basic theoretical knowledge on effects of climate change in urban areas
2. Knowledge about concrete urban adaptation measures
3. Implementation skills
4. Knowledge on legal framework and other regulations
5. Knowledge on the management and financial aspects
6. Soft skills

In preparation for the curriculum structure of the training course seven relevant categories of content material will be generated (Training modules, (Software-) Tools, Print media, Educational films, Field trips, Best practice examples, Contacts). The availability check showed that there is a lack of available content related to the topics 4 and 5 (legal framework, management and financial aspects). The partner consortium has to fill this gap by producing new content related to these topics for the training course. The availability check of content can be found on the ClimCAP website.

A project website can be found under [www.climcap.eu](http://www.climcap.eu).

Each partners' websites are linked to the ClimCAP project website and vice versa. Contacts to all ClimCAP partner organisations can be found on this website. Website hits will be monitored and reported. The ClimCAP-website offers a confidential area for all members of the project consortium. A registration with username and password is necessary to enter this area. Final versions of all reports and products can be found in this area.

A project brochure/flyer is produced and will be printed in the partner languages. The electronic brochure template is available to all partners for local translation and reprinting. The brochure can be downloaded from the ClimCAP website.

Beside the brochure the project logo, roll-ups and press releases are produced and are available on the ClimCAP website.



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## 4. Partnerships

It is very important that any organisation participating has a strong profile in the area of climate change / adaptation to climate change or in urban planning /architecture. This can be either a training centre (private or public), a planning relevant institution on regional or national level or a university which has the above mentioned thematic focus and is also committed to vocational training.

The partnership consists of:

- Ruhr-University Bochum, Climatology (D) - Lead Partner
- Town and Country Planning Association (GB)
- Akademie der Ruhr-Universität (D)
- Wageningen Academy and Wageningen University (NL)
- Energiaklub (Climate Policy Institute and Applied Communications) (HU)
- Technical University of Catalonia (ES)

Associated partners will be from national / regional associations and federations (mainly associations of cities and regions as well as professional associations of planners and architects).

Working together, experienced partners from five EU countries will share resources and expertise on known climate change adaptation impacts and existing training materials and modules, in order to devise a new qualification scheme. Research has identified that there is a gap in knowledge transfer and communication between those responsible for spatial design and planning in urban areas and the leading-edge research and solutions available across Europe.

For the setting up of the training course the ClimCAP project will combine knowledge from existing adaptation measures in different countries (e.g. extreme heat events in Spain, flooding events in the Netherlands) with necessary adaptation in the future. The partners and the qualification scheme will strongly benefit from these different best practice experiences.

Each work package of the ClimCAP project is led by one partner. This partner is responsible for the co-ordination of tasks and activities towards the WP objectives, the smooth running and co-ordination with other Work Packages and the monitoring of the tasks progress with respect to task goals, milestones, and adequacy of results.

## 5. Plans for the Future

The main project's outcome will be a marketable blended learning course dealing with climate adaptation in regional and local planning. In the long run an European wide dissemination of the training course is planned to maximise the project's impact. At the heart of the ClimCAP project is a focus on training and skills for effective climate change adaptation, aimed at planners, architects, and other professionals who work to plan, design, build and maintain our cities, towns and villages.

The next steps in the project process on the way to this marketable blended learning course are:

- To develop a curriculum that fulfils trainee needs – as identified by market and demand analyses – by filling the existing gaps in climate change adaptation training currently provided by partner countries.
- To develop a training programme that facilitates the transfer of integrated knowledge on climate change adaptation within the built environment and within the processes of urban planning.
- For each project partner to pilot the training course within their partner country and to monitor the experience of trainees and trainers in order to provide feedback that will improve the final ClimCAP training programme.
- To enable the development of new skills among built environment professionals that foster an integrated approach to the implementation of climate change adaptation within the built environment through the ClimCAP curriculum and learning environment.
- To continually monitor, assess and improve the effectiveness and efficiency of the ClimCAP curriculum development and training course during the lifetime of the project.

The pilot training course will cover three months with a study load of 150 hours. It will take place from Mai to July 2015 so that a sufficient amount of time is left for the evaluation of the pilot. There will be an opportunity to get involved in free ClimCAP training pilots that will take place during mid-2015 in Germany, England, the Netherlands, Hungary and Spain. To find out more about the ClimCAP training, see the website [www.climcap.eu](http://www.climcap.eu). Several press releases and flyers, produced in the partner countries, will inform about the pilot and will help to advertise the training course.

The report on pilot test results will be produced on the basis of 50 questionnaires filled in by participants of the 5 pilot seminars, 16 expert questionnaires and statistics of the online sessions. The aim of this report is to present potential problems (defects and drawbacks of the training curricula and content) and to provide knowledge on how to make necessary amendments to the project's product.

An evaluation report will be provided for the project consortium in order to support the standardisation process of the curriculum development. The principal goal of the Evaluation Report is to summarise the main outcomes in the project by focusing on

the identification of cause-and-effect relationships and assessment of long term effects. Additionally, based on the experiences of the Pilot Training, the Report will include practical recommendations for interested parties responsible for conducting training in the future.

Parallel to the development of the training course, an exploitation plan will be prepared. Along with the results of the assessment of the target groups and the market's demands, the Exploitation Plan will give a clear vision on how to exploit the project's results by approaching the end users. For this, a set of practical, target group specific marketing measures will be described in the Exploitation Plan. The Exploitation Plan is the strategic document describing all exploitation measures to be carried out during the project's duration and beyond. Interested parties responsible for conducting training will find the exploitation plan on the ClimCAP website ([www.climcap.eu](http://www.climcap.eu)) in autumn 2015.

## 6. Contribution to EU policies

Climate adaptation is a future-oriented, demanding task for professionals and decision makers in urban and regional planning. The content of the ClimCAP vocational training course will contain input concerning climate adaptation from different EU countries and thus contributes to different levels of adaptation strategies. The project's main objective is to enforce the successful integration of sustainable climate change adaptation measures into the planning practice in our cities. This contributes to the EU White Paper 'Adapting to Climate Change' aiming to reduce the vulnerability to the impact of climate change.

ClimCAP focuses on the transnational development and practical application of innovative urban planning strategies within the given spatial planning systems. Different topographical and climate conditions in the partner countries will be taken into consideration. The developed course, as well as the partners developing this course, will benefit from the individual strengths of the respective countries in different fields of climate adaptation. As a result this will lead to an equalised level field of knowledge in the regard of adaptation strategies and sustainable city development.

With regard to existing national / regional / local approaches and project results and with a procedural integration of relevant stakeholders in the partner countries the transfer of adaptation and innovation approaches on a transnational level is a necessity.

