

	European Cooperation in Science and Technology - COST -	Brussels, 8 December 2011
	Secretariat	
MEMORAN	NDUM OF UNDERSTANDING	COST 4186/11
Subject :		g for the implementation of a European Concerted COST Action TD1106: Urban Agriculture Europe
-		of Understanding for COST Action as approved by at its 183rd meeting on 30 November 2011.

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# MEMORANDUM OF UNDERSTANDING For the implementation of a European Concerted Research Action designated as

# COST Action TD1106 URBAN AGRICULTURE EUROPE (UAE)

The Parties to this Memorandum of Understanding, declaring their common intention to participate in the concerted Action referred to above and described in the technical Annex to the Memorandum, have reached the following understanding:

- The Action will be carried out in accordance with the provisions of document COST 4154/11
  "Rules and Procedures for Implementing COST Actions", or in any new document amending
  or replacing it, the contents of which the Parties are fully aware of.
- 2. The main objective of the Action is to develop a common and specific European approach to urban agriculture among scholars and professionals in the domains of agriculture and urban development that will influence European, national and regional policies on urban agriculture.
- 3. The economic dimension of the activities carried out under the Action has been estimated, on the basis of information available during the planning of the Action, at EUR 36 million in 2011 prices.
- 4. The Memorandum of Understanding will take effect on being accepted by at least five Parties.
- 5. The Memorandum of Understanding will remain in force for a period of 4 years, calculated from the date of the first meeting of the Management Committee, unless the duration of the Action is modified according to the provisions of Chapter V of the document referred to in Point 1 above.

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#### A. ABSTRACT AND KEYWORDS

Urban Agriculture (UA) plays a key role in two global challenges: urbanization and food security. It can provide an important contribution to sustainable, resilient urban development and the creation and maintenance of multifunctional urban landscapes. In the globally emerging research field of UA, a European approach to the subject needs to be created. It has to integrate the unique European context regarding its urban and landscape pattern, the important role of the Common Agriculture Policy (CAP) and the needs of the European society. The COST-Action Urban Agriculture Europe (UAE) will initiate the definition of this European approach on the basis of existing research projects and reference regions in the partner countries.

The outcomes of the Action will help to focus future research on UA, modify the CAP and stimulate private and public activities in UA projects and planning. The Action will use an innovative approach crossing bottom-up and top-down methods, using the method of research by design and creating interfaces between the three methods. By working in close cooperation with regional stakeholders from the domains of urban development and agriculture the Action contributes to sustainable, resilient territorial development in Europe and aims for leadership in research on UA in developed countries.

**Keywords**: urban and peri-urban agriculture, sustainable and resilient cities and regions, multifunctional urban landscapes, Common Agriculture Policy (CAP), social inclusion and healthy food.

## **B. BACKGROUND**

### **B.1** General background

Urban agriculture (UA) is a subject of global interest that addresses two global challenges: production of healthy food and sustainable development of resilient cities (Steel 2009). It has therefore received growing attention in recent years. The rapid global growth of cities is leading inevitably to questions about the future of productive agrarian landscapes in and near urbanized zones. Hence the subject is discussed from multiple perspectives as the priorities change regarding different world regions.

One useful approach can be identified as the stakeholder-oriented approach. Such an approach is commonly found in development-aid-work and is also applied in English-speaking countries. It addresses the subjects of food security, health and well-being and social inclusion at small-scale and through subsistent agricultural production in cities. Playing an important role in developing countries the stakeholder oriented approach has been adopted for social work in European and American Cities since the 1990s to address vulnerable groups of the population that had to deal with migration and poverty. The urban and community gardening movement uses this technical strategy-transfer from developing to developed countries.

Another approach, the area-oriented approach, focuses on professionally used agricultural areas in the urban or peri-urban context. These areas can be valued as multifunctional landscapes that bring economic, social, cultural, aesthetic and environmental values to cities and urban societies. Until recently the multiple benefits of agricultural areas have been underestimated by urban planning. Agricultural land was seen as a reserve for future urban expansion, however the current situation of cities in developed countries is leading to a change of perception. Economically permanent agriculture has been identified to be an efficient tool for protection and management of multifunctional urban landscapes.

Also some agricultural stakeholders have developed new approaches to benefit from proximity to urban areas and its citizens. They find new market niches with special products and services adapted to the needs of the urban society, but this is mainly limited to individual initiatives. Both approaches can give important contributions to sustainable and resilient urban development. Producing food in proximity to the place of consumption and in closed loops or cradle to cradle production lines, either in a subsistent or in a professional way reduces the transport costs and CO<sub>2</sub> emissions. The maintenance of agrarian land in urban areas that can be used as multifunctional landscapes makes it easier to adapt cities to climate change and the challenge of a post fossil-fuel society.

Summarizing the advantages of urban and peri-urban agriculture, there is no doubting that it has an important infrastructural role to play in building sustainable cities that promote healthy nutrition and social stability, while maintaining green corridors and their environmental and structuring benefits in a cost-efficient way and encouraging environmental education.

Small scale research projects, often focused on a single city or region, have been established around the world, but the last international overview on UA in developed countries, the Organisation for Economic Co-operation and Development (OECD) study 'Agriculture in the planning and management of peri-urban areas, dates from 1978. In Europe many research projects stemming from local partnerships between scientific institutions and local communities or planning authorities are currently carried out, but a common European vision of the role of urban and peri-urban agriculture for sustainable and resilient cities has not yet been developed.

Compared to other world regions Europe possesses a specific urban network and landscape identity. Its agricultural structure and production are strongly influenced by the Common Agriculture Policy (CAP) that represents 42% of the EU budget. The CAP relies on the two pillars 'direct aid' and 'rural development'. It does not address the special situation of urban and peri-urban agriculture although the major part of food production in Europe is situated in or near urban areas, due to the historic urbanization pattern of Europe that partly developed on the basis of fertile soils.

The CAP is in constant modification which, among other objectives, aims to give more value to the public goods created and maintained through agriculture, and multifunctional landscapes are one of these goods. The value of public goods can be estimated to be higher where more people are able to benefit from them. From this point of view urban and peri-urban agriculture has an important role to play in the future CAP. COST Action UAE will relate the different regional research efforts to compare innovative practices of UA policies in different parts of Europe and develop a common scientific approach to the subject. It will thus create the knowledge base for guiding change in the CAP and for transferring innovative economic models and planning concepts among European regions.

## **B.2** Current state of knowledge

The importance of agriculture in urban and peri-urban landscapes has been explored from different points of view during recent years. Research results from university studies and practical projects have identified multifunctional urban landscapes as important assets for wellbeing and environmental quality in Europe. Important ongoing or recently completed networking projects that can be named are e.g. the Sixth Framework Program (FP 6) Peri-Urban Landuse Relationships (PLUREL) project, the Interreg financed project Sustainable Urban Fringes (SURF), the Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR) project "Renaturierung als Strategie nachhaltiger Stadtentwicklung", the PUREFOOD project (Urban, peri-urban and regional food dynamics: toward an integrated and territorial approach to food), the RURBAL project (Rural-Urban-Alimentation), the DAUME project (Durabilité des Agricultures Urbaines de la Méditerranée) and others. Additionally, local collaborative projects between scholars and planning authorities or regional landscape development projects have been conducted, e.g. the Agromere project (http://www.agromere.wur.nl/), the Masterplan Emscher Landschaftspark 2010, the project "Agriculture as a visible system along the Mediterranean Corridor at the Metropolitan Region of Barcelona", the "Concours International d'Idées Urbanisme et Dévelopement durable Plateau de Saclay" or the "Le Grand Pari de l'agglomeration parisienne" design studio.

All of these projects have recognized or even stressed the importance of Agriculture for multifunctional urban landscapes, but they either did not lay their focus on further developing the subject or were not integrated in a European network that aimed to lay the foundation for a European debate on the subject that could influence the CAP and other policy fields. Similar is the situation in North America. Different approaches to UA play an important role in practical engagement and in singular research projects but a common vision has not yet been created. In other parts of the world, such as Africa and Asia, and particularly in developing countries UA plays an important role in development practice but the context is very different. The situation of international research thus shows that by COST Action UAE and its unifying approach on existing research Europe will take leadership for research on UA in developed countries.

#### **B.3 Reasons for the Action**

Researchers and practitioners from different scientific and professional backgrounds are becoming increasingly aware in the importance of UA for facing the challenges named in B.1. Many of them have been trying to create scientific approaches on UA, taking for reason policy objectives or UA practices that are growing in many places in Europe, but these approaches are limited to a geographical area or to specific research disciplines.

Therefore the creation of COST Action UAE will be an important framework to transcend these borders. Creating definitions and approaches to UA that are shared by researchers and professionals from different background will open the field of UA for further research and stimulate the ideas of professionals for practical application in policy implementation, spatial planning and agriculture. This will help to fulfill the European economic, ecologic and societal need for healthy regional food, sustainable, resilient urban development und multifunctional urban landscapes and presents the possibility for Europe to take scientific leadership for UA in developed countries. The detailed objectives and concrete outcomes that will lead to this are described in chapter C.

The COST Action UAE has been prepared by a trans-domain researcher team.

Urban agriculture (UA) is a subject that addresses two distinct areas of research and spatial planning that have been separated for some time, namely: the sectors of food production and urban development. These sectors have been concentrating their research activities in spatial settings normally considered their own domain, rural regions and urban centres, without taking into account some of the most important development processes that affect both sectors and which takes place on the urban-rural interfaces. The COST Action UAE will provide a unique opportunity to join research efforts of these two domains and proceed to a deeper reciprocal understanding of the complementary research sectors.

The skills and knowledge of researchers and professionals in the domains of agronomy and spatial development planning rarely overlap. Spatial planners have no deep understanding of agricultural economies while agronomists lack understanding of spatial development processes and qualities. Only a cooperation of both can handle the complex tasks of interdisciplinary research on UA. The different methods of spatial research and of economic research known among urban and landscape planners on the one hand and agronomists on the other hand will be combined (as detailed in chapter D.) in a new approach on location theory for UA. Both domains, agriculture and urban development, face the task to develop a common model that allows assessment of the location, qualities and benefits of UA.

## **B.4** Complementarity with other research programmes

As shown in chapter B.2 COST Action UAE can rely on different ongoing and completed research projects that have touched the subject of UA without having a clear focus on it or without networking in a context that could be representative for Europe. The Action will thus be an ideal complement to existing national research and provide a European perspective that otherwise could not be created.

The issues addressed by the COST Action UAE present no duplication to existing research in other European frameworks.

#### C. OBJECTIVES AND BENEFITS

## C.1 Main/primary objectives

The main objective of the Action is to develop a common, specifically European approach to urban agriculture among European scholars and professionals in this field. This will be established by the method of a European Atlas on Urban Agriculture grounded in field experiences and reference regions and will serve European policy makers for the further development of the Common Agriculture Policy.

## C.2 Secondary objectives

The Action guarantees knowledge transfer in three ways: besides the main intention of COST to bring together experts from different countries it will bring together experts from university level and from UA practice in reference regions or cities and also experts from spatial planning and agronomy. By crossing the various national experiences as well as bottom-up and top-down approaches on UA, COST Action UAE will act as an interdisciplinary platform that is able to create knew knowledge and new strategies of action on UA in Europe. This knowledge pool will present applicable scientific knowledge "made-to-measure" for the European context and help Europe to face the future challenges of developing sustainable and resilient cities that care for the alimentation and well-being of their citizens.

The main platform for the dissemination of the Action results, the European Atlas on Urban Agriculture, is to be published as a book in the main European languages and can be subdivided in different modules. These modules will lead to independent publications and presentations serving the secondary objectives of the Action:

- the dictionary of UA in Europe;
- a Whitebook on UA and the CAP;
- a Whitebook on UA and public policy options on regional and local level;
- a toolbox of design strategies for UA in multifunctional urban landscapes;
- a European conference on UA that address scientifics, practitioners and the great public;
- a catalogue of entrepreneurial models of UA in Europe stimulating new professional practices in all participating countries;
- articles in scientific magazines (peer-reviewed) and in professionals/practitioners magazines (editorially approved).

The European Atlas on Urban Agriculture will be accompanied by an exhibition that will be travelling the reference regions of COST Action UAE as well as other important European cities.

## C.3 How will the objectives be achieved?

The objective of COST Action UAE is a European vision of UA that will influence the CAP as well as national and region policies, private stakeholders and the planning practice concerning UA. This objective will be achieved by a network that integrates a broad selection of researchers and stakeholders from different European contexts. The Action guarantees representativeness on a European scale by gathering participants from southern/Mediterranean parts of Europe, alpine Europe, north-western Europe and central Europe including 2004 EU joining countries. COST Action UAE will use the following means (processes and products) for networking the different regional and national experiences to a European vision of UA and to distribute this vision among the target groups (cf. C.5):

- the Action Website providing dynamic interchange fora (cf. E.1 and H.) that allow exchange within COST Action UAE and with the greater public;
- a European conference on UA that will be open to the public and to non-COST participants and will create broader awareness for the issues of UA;
- a synopsis of existing research and publications on UA accessible to all Action partners.

  This will be developed into an information centre on the Action website as a resource open to the Action partners as well as to everyone interested in UA;
- workshop meetings in reference regions that bring together scholars and stakeholders and enable knowledge transfer between partner countries as well as between research and practice;
- Working Group (WG) meetings for work focussed on important themes of UA (cf. D.2 and E.2);
- special forms of cooperation giving Early Stage Researchers opportunities for international and interdisciplinary cooperation: Short Term Scientific Missions and Training Schools (cf. D.2 and E.4);

- targeted publications like Whitebooks (cf. C.2) that will be as widely spread as possible among policy makers concerned by UA;
- the publication of the research findings in a book and an exhibition (European Atlas on Urban Agriculture cf. H.3) and in articles for scientific and professional magazines to achieve a widespread information about the results in the scientific, professional and greater public.

#### C.4 Benefits of the Action

The Action will have important impacts at both the strategic and operational levels.

On the strategic level COST UAE will:

- lay the foundations for a common understanding of UA in Europe among scholars and through this enable further targeted research on UA in Europe and worldwide;
- line out the importance of UA for future urban development in Europe to policy makers and the greater public;
- introduce the issue of UA to the ongoing modification process of the CAP;
- create a culture of networking between spatial planning experts and agriculture experts.

On the operational level the Action will:

- guarantee a knowledge transfer on existing UA approaches in Europe among scholars as well as among practitioners and professionals by creating an overview of reference regions;
- stimulate the growth of private activities in UA by making existing experiences and entrepreneurial models accessible to professionals and their organisations in the COST countries;

- create region and site specific UA concepts for reference regions that can be put to application by the cooperating stakeholders and will stimulate the reflections on UA in other regions by multiplication;
- provide practical experiences of successful cooperation between agriculture and spatial planning.

## C.5 Target groups/end users

The results of COST Action UAE will be exploited by several groups of end users. These target groups will also specially be addressed by the dissemination plan (cf. H.)

On the EU level **European policy makers** will be able to rely on the support of COST Action UAE for future modifications of the CAP. They will be the main users of the Whitebook Urban Agriculture and CAP that will be the outcome of COST Action UAE.

National, regional and local stakeholders, some of them involved in the participating countries, others coming from other COST countries with comparable backgrounds, will be able to develop new public policies, planning strategies and projects on UA. The European Atlas on Urban Agriculture will inspire this by its transnational overview of existing forms and of visions of UA. It will be backed up by the catalogue of entrepreneurial models in UA that will help public stakeholders to understand the economic bases needed for successful creation and maintenance of multifunctional urban landscapes in cooperation with agriculture. Through the results of COST Action UAE national and regional stakeholders will be able to develop instruments and project proposals for support and funding of UA independent from CAP.

**Professionals in UA** in general and especially the **professional bodies of agriculture** that are invited to take part in the Action will use the catalogue of entrepreneurial models in UA for the improvement of their own business models and in the advisory services offered to farmers in urban areas. COST Action UAE will also help to envision new cooperation between the private sector (urban farmers) and public authorities in UA.

Scholars from universities in Europe and in other parts of the world will use the common terminology of UA in Europe developed by the participating researchers and stakeholders. The first systematic overview of UA practices in Europe will help them to define their future research objectives in this field. The creation of a common ground to start from in UA research in Europe will induce considerable additional research funding and research projects in this field.

Associations and citizens who are submitted to the promotion of urban agriculture for multidimensional reasons (social, ecologic, educational etc.) will find strategies how they can imply themselves in governance processes concerning UA using the results of Working Group (WG) 2. Besides the named end users of COST Action UAE results the **general public** is another important target group. The Action and its dissemination activities will raise the awareness of the existence and importance of agriculture in urban areas and the qualities, products and services it offers for the well-being of urban citizens.

#### D. SCIENTIFIC PROGRAMME

#### **D.1 Scientific focus**

The COST Action UAE will focus on creating a specifically European approach to two global challenges: production of healthy food and sustainable development of resilient cities. It will lay the foundations for a European understanding of UA through the exchange of the most advanced national research teams in this field. At the same time the research will be grounded in the practice of UA in Europe. COST Action UAE will be using three methods of knowledge creation: top-down methods, bottom up methods and research by design. Interfaces between the methods will be assured by workshops that integrate elements of all three. Innovation in UA is fostered especially by integrating research by design methods in the Action that will use the potential of international and interdisciplinary teams of Early Stage Researchers (ESR) confronted to real development tasks concerning UA in reference regions.

The **top down methods** will rely on existing theory created by scholars and global policy goals set by European and other transnational bodies. The Action will work on making the theoretical approaches implementable in practice. UA in Europe is highly influenced by the CAP as a European policy. Initiatives that aim to modify the CAP need theory building and standardization of vocabulary. These tasks can be fulfilled by scholars at university level.

On the other hand **the bottom up methods** are needed to assess the numerous and diverse innovations concerning UA that are created at the local and regional levels. Public stakeholders have developed strategies to strengthen UA in their region and to use the public goods it produces; private stakeholders have developed strategies to adapt to the special situation of agriculture in urban areas and to exploit its advantages. These innovations will be collected and evaluated by COST UA to enable a knowledge transfer to the scientific world and to other regions and countries.

In blending bottom-up and top-down research methods COST Action UAE needs a third methodological component to create innovation: **research by design** as understood by Prominski (2004) and von Seggern (2008). This method of knowledge Creation has previously been underestimated in science but its acceptance is rising.

Agriculture and urban development are both highly space bound. They rely on geographical and historical situations: specific regional urban landscapes. When these specific existing settings are confronted to new challenges like sustainability, resilience to climate change, new interests in food production etc., they undergo a transformation process that cannot be foreseen by classic scientific methods. Changes in the existing system have to be projected into the future on a solid and scientific knowledge base but with a spirit of creation. A method for this is the creation of spatial visions in interdisciplinary design workshops. This method produces innovation and new knowledge on specific tasks and regions, that can afterwards serve as model and reference by identifying similarities and differences to other regions. COST Action UAE will make use of the research by design method in WG 4 and in Training Schools, which additionally allow capacity building in UA among Early Stage Researchers (ESR) and the local stakeholders they will cooperate with (cf E.).

## D.2 Scientific work plan methods and means

The three research methods and their interfaces introduced in chapter D.1 will be applied in the Action by four **Working Groups (WG)** (cf. E.2) as follows:

## Top down: synopsis and theory building

Top-down research approaches and methods will be applied in **WG 1**. Today different approaches to UA are existing in Europe as described in chapter B.1: the area-oriented approach, the stakeholder-oriented approach and combinations of both. To establish on overview of the importance of the different approaches in existing research and among scholars a synopsis of publications on UA will be established. This will give an overview of actual preoccupations of scholars working on UA and the important tasks for further research. Based on the synopsis **WG 1** will develop a dictionary of UA that includes all key words and key issues of UA in Europe. The dictionary will have an open structure integration based on the approaches of Berque (1999), Berque (2006) and Colafranceschi (2007) and also using a working process made possible by Wiki-Software (cf. E.1). Its first aim will not be standardization but the reflection of different definitions that can be summarized under the entries depending from different approaches on UA.

The vocabulary collected in the dictionary will then be used for theory building: WG 1 will discuss on a thematic workshop with the rest of the Action which approaches and in which relation are decisive elements of a European vision of UA that includes the multidimensional benefits UA can have for urban landscapes at the economic, ecologic and social levels.

After having established the dictionary and the common vision of UA in Europe WG 1 will be able to use it as the reference system on which the integration of UA in the CAP can be discussed. The UA vision and an analysis of the mechanisms and potential tools of the CAP to support it will be addressed and policy recommendations will be made in a Whitebook UA and CAP.

#### **Bottom up: collection and evaluation of UA innovations**

Europe is already developing a large number of experiences in UA: innovations are also created in agricultural businesses located in urban areas, and in local and regional planning and policies dealing with UA. These innovations will be made accessible for research and for broader practical application by COST Action UAE. The bottom up approach starting from existing best practices plays an important role in COST Action UAE and will be the key method for WG 2 and WG 3. They will work on bringing together best practices from existing national research and from reference regions chosen for the Action and evaluate them.

WG 2 will establish reviews of policies on UA collected from existing research and four reference regions. These best practices will be analysed addressing concerning the different policy fields they are linked to (e.g. social, ecological, economic policies, spatial development, leisure and tourism etc.). Also the governance models of regional and local UA strategies will be analysed: In which way stakeholders are implied, which modes of cooperation are adopted and how the integration of private economies in the production of public goods have been organized.

The best practices collected and analysed will lead the WG to edit a Whitebook on public policies on UA that regroups recommendations on policy options and the contexts in which they can be applied.

WG 3 will concentrate on the economic, ecologic and social aspects of entrepreneurial models of UA professionals. Their market opportunities and their income potential will be assessed. Using a catalogue of entrepreneurial models of UA in Europe the WG will define the success factors for innovative agricultural businesses in urban areas.

#### Research by design: toolbox and capacity building

UA in Europe has still to find its place in the European Agricultural Model that states that agriculture besides its importance for food production also produces public goods like cultural landscapes, biodiversity and others. In urban regions the public goods of the European Agricultural model can be e.g. the contribution of agriculture to sustainable resilient cities, healthy regional food and the health and well-being of the citizens concentrated in urban areas. These contributions can only be fulfilled in multifunctional urban landscapes. It is the profession of urban and landscape planners to identify the most important components of these landscapes and to bring them together in their multidimensional spatial visions and designs by also integrating planning objectives from other disciplines.

To create a European vision of UA for multifunctional urban landscapes COST Action UAE will have to answer the question what functions these landscapes should fulfil and what they should look like depending on their local context. To achieve this objective the Action will work on two levels: WG 4 will lay the foundations by identifying a set of characteristics that can define the qualities needed for multifunctionality and resilience of urban landscapes. This will be followed by an analysis of spatial visions and development projects for urban landscapes of the last 10 years to identify design strategies that have been used to integrate UA in the planning. These design strategies are going to be compiled in a design-toolbox. The toolbox will give an overview which design and planning strategies have led to innovation in UA policies. For an important progression towards the integration of UA in future strategies for urban landscapes COST Action UAE will apply the research by design approach in practice. This will be undertaken by means of 4 **Training** Schools that will regroup ESR from different disciplines and countries to work with the help of experienced planning professionals/teachers and local stakeholders on 4 reference regions. The Steering Group of the Action will set the working tasks for the Training Schools together with local stakeholders regarding the needs of the scientific work plan and the actual pressing planning tasks for UA in the reference regions.

The results of the training workshop will be published in articles and as a part of the European Atlas on Urban Agriculture. Furthermore they can be the subject of exhibitions.

## Interface: workshops bringing together the Working Groups and theory and practice

Four thematic workshops will be playing a crucial role in this Action. They will be conceived as an interface, between the different WGs and their themes and also between research and practice. The workshops will take place in 4 reference regions chosen by the Steering Group (cf. E1) at the beginning of the Action. Each Workshop will have a thematic focus on one of the WG subjects and give the possibility to the WG members to discuss their work in progress with the other participants of the Action. To ground this discussion in reality, UA in the reference region chosen for the workshop will be presented in field trips and by local stakeholders. This will be made possible by the local organizer and prepared by Early Stage Researchers who have visited the region and its stakeholders on a **Short-Term Scientific Mission** (STSM) before. Another interface between research and practice will be established by the participation of stakeholders in the workshops which enables direct dissemination of the Actions results to important target groups.

To assure the interface between theory and practice stakeholders from important European cities or regions have been contacted in the preparation of the Action and confirmed their interest in participating as reference regions. These are the cities, regional bodies, chambers of agriculture or associations from: London (UK), Berlin, Cologne, North-Rhine Westphalia (Germany), Vienna, Vorarlberg (Austria), Geneva (Switzerland), Barcelona, Girona, Madrid (Spain), Warsaw (Poland), Milano, Lombardy Region (Italy). Possible reference regions in France and the Netherlands have been identified and will be contacted.

#### E. ORGANISATION

## E.1 Coordination and organisation

COST Action UAE has been proposed by a network of researchers from 9 COST countries and encourages additional COST countries and researchers to join. Its coordination is assured by a Management Committee (MC) according to the COST regulations.

The Action will hold two meetings per year of a duration of two and a half days that include plenary sessions of all participants, WG meetings, MC meetings and short field trips.

The Chair and the Vice-Chairs of the COST Action and the Lead Partners of the four WG will form a Steering Group (SG) as managing board of the Action. The SG is responsible for maintaining communication between Action members, the coordination of the Working Groups and the preparation of the Management Committee meetings. In addition, the SG is responsible for monitoring and evaluating the implementation of the COST Action together with the MC. On the agenda of each MC and SG meeting, the evaluation and monitoring of the planned, ongoing and completed activities will be a standard item. The deliverables of the WGs will be controlled by the SG that will dispose of the means to publish the different papers of the Action (Whitebooks etc. cf. C.2 and H.2) as well as the European Atlas on Urban Agriculture and the exhibition.

The Action Website that will be set up in the first phase of the Action will not only present the Action, its progress and the outcomes to the greater public as part of the Dissemination Plan (cf. H.), but will also work as a communication and development tool for the Action members. For this reason the platform will contain several interactive working tools that will be used for interchange, coordination and compilation of results from Working Groups, Workshops, STSMs and Training Schools. These communication tools will be partly available to public access and have the advantage that not only are the final deliverables of COST Action UAE addressing the public but already the process of their creation is part of the dissemination. Important components of the Action Website for this purpose will be:

a dictionary-wiki for the interactive editing of the dictionary of UA that will be able to represent the wide range of differing perceptions of the vocabulary of UA (for the functional principals of Wikis see: http://en.wikipedia.org/wiki/Wiki);

- a cartography-tool where places of particular interest for UA can be posted and illustrated. These may be points of interest in the reference regions, best practice landscape projects or presentations of special offers by private stakeholders in UA. This tool acts as a first phase of the European Atlas on Urban Agriculture. Additionally stakeholders and also people from outside the Action will be able to use it for presenting their UA activities to a greater public;
- a discussion forum with private components for members of the Action, e.g. the Working Groups, and public components for general discussion on UA.

Additionally to the dynamic and interactive parts the Action Website will propose an information centre on UA where all papers, proceedings etc. worked on by COST Action UAE will be downloadable and where links to UA related other research, initiatives etc. will be presented. The Action Partner responsible for hosting and administration of the Action Website will be a member of the SG to assure direct information flow and immediate dissemination of working results.

## **E.2 Working Groups**

There will be four interacting Working Groups (WG) working with different scientific methods as explained in chapters D.1 and D.2. The WGs will hold two meetings per year presided by a WG chairman. First milestones of the WGs have been defined in the timetable (cf. F.) and can be adjusted by the WGs following the workplan they will set up at the first meeting.

### WG 1: Urban Agriculture and the Common Agrarian Policy (CAP)

The Common Agricultural Policy (CAP) presents the most important part of the EU budget. In its last steps of modification the CAP has developed to be an instrument that also stimulates environmental and territorial qualities. This direction is to be continued in the next modification that will take place for 2014. Environmental, territorial and societal services guaranteed by agriculture are of special importance where a large number of people can profit from them: in urban areas.

For this reason a common vision of UA in Europe has to be developed to enable its placement in the CAP funding schemes. WG 1 will work on a definition of UA in Europe as a first step and elaborate a dictionary of UA that not only provides a common vocabulary but will set out the special qualities UA can provide to sustainable development.

## WG 2: Urban Agriculture in public policies/governance

In UA important aspects of the future development of urban societies are at stake. Cities and urban regions have to develop strategies on UA to assure food security and quality, environmental quality and the well-being of their citizens. But more they can also use UA to strengthen social inclusion, citizens' responsibilities and active participation in the development of their urban environment. To reach these objectives countries, regions and cities but also civic and societal initiatives are establishing new kinds of public policies and new forms of governance dealing with UA. WG 2 will start with a survey of existing public policies on UA that can be established in close cooperation with the stakeholders present in the Action and the reference regions. The policies will be analysed on the background of the different national and regional institutional settings and classified accordingly.

### WG 3: professionals and entrepreneurial models of Urban Agriculture

UA has extensive public interest as shown by the subjects of the WG mentioned before, but it is not a sector of the public economy: the most important stakeholders of urban agriculture are the farmers that run businesses, often family owned, in urban and peri-urban areas. Existing research has proven that the entrepreneurial models of UA differ in many ways from those in rural areas. This is partly due to issues urban farmers have to cope with but also to opportunities they can use in offering far more than classic food products to the market (like environmental and public services, pedagogic and leisure activities, special products etc.).

WG 3 will analyse and evaluate the entrepreneurial models that have developed in the partner countries through an inventory of case-studies and establish a catalogue presenting their characteristics, success factors and income potentials amongst other aspects, to allow knowledge transfer among the partner countries that create innovation.

## WG 4: urban and landscape planning with urban agriculture

UA is an important factor for the creation of sustainable, multifunctional and resilient urban landscapes, but the realities of agriculture and the possibilities to integrate them in the landscape development of urban regions have long been neglected in theory and practice of urban and landscape planning. WG 4 will develop new approaches and visions for spatial planning in urban regions that integrate urban agriculture. This will be done on the basis of an analysis of the role of UA in important spatial visions and designs from the last 10 years and in close cooperation with the Training Schools of the Action that work on spatial visions of UA for reference regions. The results of the WG will lead to the definition of a design-toolbox for UA in multifunctional urban landscapes.

Crosscutting tasks of all Working Groups cover the preparation and wrap-up of the meetings, and the discussion of intermediate results via website and chats.

The membership of the four Working Groups will be determined at the Kick-off meeting of the MC. Overlaps between Working Groups will exist with members active in more than one WG. Each of the four Working Groups will be chaired by a member of the SG. Working Group leaders will be responsible for the preparations of the WG meetings and the dissemination of the outcomes.

## E.3 Liaison and interaction with other research programmes

Chapters B.2 and B.4 have shown the complementary dimensions of COST Action UAE to existing research projects that partly touch the subject of urban and peri-urban agriculture in Europe or that have begun to establish networks in European sub-regions.

Researchers taking part in these projects are invited to cooperate with COST Action UAE and to attend its WG meetings and Workshops. The online discussion and working platforms provided by the Action website, especially the Wiki and the cartography tool (cf. E.1 and H.) present an ideal opportunity to open the discussion of COST Action UAE to researchers from other programmes.

To increase global dissemination of the knowledge produced by COST Action UAE through multiplication persons, external experts from non-COST countries the proposers are in contact with (1 from Africa, 1 from Asia, 1 from South-America, 1 from North-America) will be invited to assist and to contribute to the public conference of the Action.

#### E.4 Gender balance and involvement of early-stage researchers

This COST Action will respect an appropriate gender balance in all its activities and the Management Committee will place this as a standard item on all its MC agendas. The Action will also be committed to considerably involve early-stage researchers. This item will also be placed as a standard item on all MC agendas.

COST Action UAE will be carried out by a gender-balanced network of scholars. In the formation of Working Groups and other organizational units (MC, STSMs, training schools etc.) particular attention will be paid to gender balance.

Considerable responsibilities of the Action will be entrusted to Early Stage Researchers (ESR) to promote capacity building and personal qualifications in the field of UA. The instruments of Short-Term Scientific Missions (STSM) and Training Schools will be used on this purpose.

STSMs will be used to prepare the Actions' Workshops held in reference regions. This will allow ESR to visit the scientific institutions and stakeholders (e. g. regional planners, policy makers and professional bodies of agriculture) in a different country for 2 weeks and elaborating a report contributing to the Workshop and to the European Atlas on Urban Agriculture. The reports will follow a structure developed by WG2 and approved by the Steering Group. The ESR will be hosted and supported by senior researchers from the visited country.

Training Schools will add a more future-oriented element to the Action. Following the research by design approach (cf. D.) ESR will profit from capacity-building by problem solving: 4 Training Schools will be held in reference regions. A team of ESR from multi-disciplinary backgrounds will be confronted to actual problems of UA in the region. During one week the team will work on new concepts for UA adopted to the regional context. The Training Schools will take place in close contact with the regional stakeholders of UA and allow ESR to develop their competences in interdisciplinary and transnational cooperation. The results will be presented in the European Atlas on Urban Agriculture as visions for the future role of UA in Europe.

## F. TIMETABLE

The duration of the Action is four years (48 months). It will be divided in six phases. While continuous work on the WG subjects will be effectuated in all phases, every single phase will additionally have a focus task. In phases 2-5 these focus tasks correspond with the subject of the WG that prepares the Workshop of this phase. The following table presents the phases and the tasks and milestones for the different units of the Action.

	MC	SG	WG1	WG2	WG3	WG4	ESR	RS
Phase 1: focus kick-off (6 months)								•
Constitution of Management Committee (MC), Steering Group (SG), Working Groups (WG)	X	X	X	X	X	X		
Plenary kick-off-meeting	X	X	X	X	X	X	X	X
Determination of reference regions for Workshops STSMs and Training Schools	X	X						X
Development+Launch of Action website		X						
Phase 2: focus UA and CAP (8 months)								
STSM in reference region A to prepare Workshop 1							X	X
First Action Workshop in reference region A, subject: UA and CAP	X	X	X	X	X	X	X	X
Training School in reference region B							X	X
Publication of Whitebook UA + CAP timely to CAP modification process for 2014	X	X	X	X	X	X		X
Establishment of wiki for dictionary of UA and start of entries			X					
Compilation of references eligible of survey of public policies				X				(X)
Collection of case studies entrepreneurial models completed					X			(X)
Definition of assessment criteria for multifunctional urban landscapes						X		П
Phase 3: focus UA and planning (10 months)		<u> </u>						
STSM in reference region C to prepare Workshop 2							X	X
Second Action Workshop in reference region C, subject: UA and planning	X	X	X	X	X	X	X	X
Training School in reference region D							X	X
Giving first public access to dictionary wiki on UA			X					П
Definition of analysis grid for public policies				X				П
Assessment criteria for entrepreneurial models established					X			П
Collection of best practice design and spatial visions						X		(X)
Phase 4: focus UA and professionals (10 months)								
STSM in reference region E to prepare Workshop 3							X	X
Third Workshop in reference region E, subject: UA and professionals	X	X	X	X	X	X	X	X
Training School in reference region F							X	X
Decision on dictionary structure between wiki-approach and standardisation approach			X					
Discussion of policy analysis with stakeholders from reference regions				X				X
Discussion of catalogue of entrepreneurial with stakeholders, consultation for public policies possible					X			X
Definition of structure for toolbox UA in multifunctional urban landscapes						X		
Phase 5: Focus UA and public policies/governance (8 months)			•	•		•		
STSM in reference region G to prepare Workshop 4							X	X
Fourth Workshop in reference region G, subject: UA and professionals??	X	X	X	X	X	X	X	X
Training School in reference region H							X	X
Publication of dictionary of UA as a small book			X					
Publication Whitebook UA and public policies				X				
Publication catalogue of entrepreneurial models					X			
Completion of toolbox UA in multifunctional urban landscapes	T					X		П

Phase 6: Focus results and disseminiation ( 6 months)									
European conference on UA open to great public		X	X	X	X	X	X	X	X
Publication of European Atlas Urban Agriculture			X						
Travelling exhibition on UAE			X						
All Phases									
Meetings		X	X					$\Box$	
Continous work + meetings in Working Groups				X	X	X	X		
Abbreviations: ESR: Early Stage Researchers, MC: Management Committee, RS: Regiona	al Stakeholders, SG: St	teerin	g Grou	ıp, WC	3: Wo	rkir	ıg (	Gro	เม

### G. ECONOMIC DIMENSION

The following COST countries have actively participated in the preparation of the Action or otherwise indicated their interest: AT, CH, DE, ES, FR, IT, NL, PL, UK. On the basis of national estimates, the economic dimension of the activities to be carried out under the Action has been estimated at 36 Million €for the total duration of the Action. This estimate is valid under the assumption that all the countries mentioned above but no other countries will participate in the Action. Any departure from this will change the total cost accordingly.

## H. DISSEMINATION PLAN

### H.1 Who?

The dissemination plan of COST Action UAE addresses three main target groups (detailed target groups cf. C.5): researches in the field of UA, stakeholders of UA on different levels and the general public.

**Researchers** can be divided in scientists from the participating and other European countries that will be able to build further research on the foundations laid by COST Action UAE and scientists worldwide that can follow the European leadership established by COST Action UAE and set up comparable approaches for other world regions.

**Stakeholders** of UA can be found on very different levels that will be integrated in the work plan and the dissemination plan of COST Action UAE: European policy makers responsible for CAP, spatial development policies and landscape policies, national, regional and local policy makers responsible for agriculture and urban development, spatial planning professionals, their professional bodies and teaching institutions, professionals of agriculture, their professional bodies and advise-institutions.

Dissemination among this group of stakeholders is assured by the implication of national and European networks of cities and regions in the Action.

In the **general public** can be found citizens in their role as consumers of agricultural products and services and as users of urban landscapes but also engaged citizens or associations with special interest for the issues of UA. The latter will also be addressed as stakeholders.

The dissemination plan of COST Action UAE addresses all these target groups not only by the publication of final products and report but also by their active participation in the working process of the Action.

## H.2 What?

COST Action UAE will have two types of dissemination outputs: deliverables (listed in chapter C.1) that will be published in different forms and media adapted to their target groups (cf. H.2) and fora/platforms for direct dissemination and interaction with the target groups. The following table shows the fora/platforms and the deliverables/publications that will be used for dissemination. Concerning the target groups a distinction is made if the group is addressed by the final product or if it is already implied in an elaboration process.

	Res.	RS	SP	PS	EPM	GP
Fora/Platforms:						
Europ. Atlas on UA (website cartography tool)	X	X	X	X	х	X
website discussion forum: internal part / (public part)	X	X	(X)	X	X	(X)
dictionary of UA (Wiki)	X	X	X	X	х	X
Thematic Workshops COST UAE	X	X	X	X		
European Conference on UA	X	X	X	X	X	х
Deliverables/Publications:						
scientific articles (peer reviewed)	X				х	
professional magazines articles	X	X	Х	х		
Whitebook UA + CAP	X	X			х	
Whitebook UA + Planning Policies / governance	X	X	Х	х		
dictionary of UA (book)	X	X	х	х	х	х
toolbox UA in multifunctional landscapes (publication)	X	X	X			
catalogue of entrepreneurial models UA (publication)	X	Х	х	X	х	
website information-centre	X	Х	х	х	х	х
Workshop Documentations	X	Х	Х	х		
documentation of European Conference on UA	X	Х	Х	х	х	х
European Atlas on UA (book)	X	X	Х	х	х	х
exhibition on UA Europe	X	X	Х	х	х	х

Abbreviations: Res: Researchers, EPM: European Policy makers, RS: Regional Stakeholders, SP: Spatial Planners, PS: Professional stakeholders, GP: General Public;

**Meaning of signs:** X = group is addressed and implied in elaboration, x = group is addressed

#### **H.3 How?**

Chapter H.2 already explains the two strategies of dissemination of COST Action UAE: continuous dissemination in fora/platforms and targeted dissemination by publications.

For a that work by personal contact and close cooperation of scholars, stakeholders and persons from outside the Action are the four Workshops and the final conference of the Action. Worldwide contacts and dissemination will be fostered by the invitation of renowned experts of UA from Africa, Asia, South-America and North-America to the conference.

Another important forum for a continuous dissemination process is the Action website. Interactive elements will be implemented. They will have public parts and login-protected parts with different possibilities of editing for people from inside and outside the Action. These elements will be the discussion forum that besides an open discussion area will have closed areas for WGs, Training Schools, reference regions etc., the dictionary wiki, where different proposals for definitions can be given depending on the login-status of the participant and the cartography tool where entries are marked depending on the status of their authors (researcher, stakeholder, professional, guests).

The targeted dissemination of results by publication addresses different target groups as shown in the table in chapter H.2. Peer-reviewed articles will reach the scientific community worldwide. Policy makers at the European level and at the national, regional and local levels will be addressed by Whitebooks concerning their policy fields. The Whitebook on UA and the CAP will be published in time for influencing the process of the CAP modification for 2014. Professional magazines will be used to spread the results that can be put to application e.g. by spatial planners or farmers.

COST Action UAE will make a special effort to also make accessible the scientific results to the greater public. The European Atlas on urban Agriculture will be a popular book that raises awareness for the issues of UA be presenting an overview of all scientific components of the Action from the basics of UA to existing strategies and models of UA in Europe and finally visions for future urban landscapes with agriculture. Besides the Atlas published as a book these views on UA will also be subject of an exhibition that will be travelling the reference regions represented in the Action as well as other important European Metropolises.