



HORTIS Horticulture in Towns for Inclusion and Socialisation

HORTIS
HORTICULTURE IN TOWNS FOR INCLUSION AND SOCIALISATION
LLP GRUNDTVIG MULTILATERAL PROJECT

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1. INTRODUCTION

It is well known and well documented through research (Armstrong, 2000) the contribution of community gardens to urban environment and sustainability. Community gardens also promote a higher consumption and supplies of fresh organic foods, psychological and physical well being, reduce vandalism in the community, creation of community places (social relations) and education, particularly for support lifelong learning.

There is a wide range of Community Gardens worldwide, each with unique circumstances, particular aims and people, so there is no unique recipe for their establishment and operation.

Due to the above mentioned is essential to analyze the community gardens needs in order to establish the adequate training needs programs to help site personnel develop skills and knowledge necessary to implement all the aspects related to starting up and maintaining an urban community garden.

Needs analysis is a tool for decision-making concerning planning and resource allocation that in most cases attempts to identify problems or gaps in knowledge or services, identify solutions and evaluate the likelihood that the proposed solutions will reduce the identified gaps or needs (McKillip, 1987).

There is a variety of sources, through internet and scientific literature, which identify the skills needed to carry out a Community Garden aimed at diverse programs (health, organic production, educational, etc.). However, we did not find any process or instrumentation to assess the training needs of Community Gardens.

Specifically, we developed two Needs Analysis Questionnaires that provided quantitative and qualitative information in relation to the training needs to set up and run a community garden. Simultaneously, we conducted a research on significant experiences on urban and social horticulture.

Hortis-project aims to train a new generation of trainers on community gardening capable to set up and run community gardens, attracting and engaging the local community. One of the project objectives was to determine the training needs in this area for future planning of training courses that will have to comprise the needs of trainers and of the end users of urban gardens. To assist in the identification of these specific needs and to identify gaps in this process, partners of the HORTIS project in four European cities (Berlin, Bologna, Budapest and Cartagena) carried out an analysis

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of knowledge and skills needs of people engaged in urban community gardens activities.

2. METHODOLOGY

1. Needs Analysis Questionnaires

Two Needs Analysis Questionnaires were developed by the Hortis-project partners (Berlin, Bologna, Budapest and Cartagena) from previous knowledge and from existing experiences and programs. All project partners (nine) acted as members of the Needs Analysis working group and submitted skills themes or issues to coordinator of this task. All issues were grouped in areas of interest and then converted into topics/questions. The first Questionnaire (Q1) was focused on competences needed by trainers in different areas related to the community building and management. The areas covered by the questionnaire were: Formation Phase and Community Building (four topics), Management, Organization and Preservation of the Community (seven topics), Training (five topics). Other competences or skills related to organizational aspects, computers and soft skills (three topics) were included. We also provided respondents with an opened topics which allowed for the identification of skills or needs not covered in the questionnaire.

A second questionnaire (Q2) was developed as the previous but focused on competences that under the opinion of the respondents were needed by gardeners (seventeen items and some opened topics). Both questionnaires (Q1 and Q2) are available in the annex 1.

For both questionnaires an adapted version of the 5-point Likert scale (1, lowest necessity (relevance) and 5, highest necessity) was used to assess the topics in order to determine the extent to which the respondents agree or disagree. Empty rows were included in each statement to develop an adequate and accurate set of attributes to measure respondents' perception on what they consider needed to set up and run an urban community garden project. At the end of the questionnaires, respondents were encouraged to add/propose new topics/issues not mentioned in the questionnaires. Other competences regarding the use of ICTs, internet, social nets and organizational knowledge were asked to self-rate as personal skills. These produced some valuable qualitative data, which were combined with quantitative data to improve the accuracy of the findings.

2. Administration of the Needs Analysis Questionnaires

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A list of potential respondents was provided by different ways (mailing lists, direct contacts, social networks, etc.) that in all cases were people who were already involved in urban community gardens, regardless of the type, size or philosophy of the community. Public and private communities were selected in all partner cities, being much more abundant public initiative communities than private ones in general. Particularly, for questionnaire #1 (Q1) long time experienced persons were contacted in Berlin and Bologna, while those selected in Budapest and Cartagena were less experienced according to the most recent development of urban garden communities initiatives. Particularly, in Cartagena was needed to extend the area of study to neighboring locations where the existing initiatives had some interesting and useful experiences. For questionnaire #2 (Q2), respondents were the same as for questionnaire #1 with the exception of Bologna, where respondents were selected only from ongoing municipal community gardens in Bologna city. Both Q1 and Q2 questionnaires were sent out and sent back by e-mail in most cases. Only face to face interviews were made for Q2 in Bologna and both Q1 and Q2 in just starting initiatives in Cartagena, due to the interest in knowing them in the latter. These interviews required 15-30 minutes. A total of 120 of both Q1 and Q2 questionnaires were delivered in the four cities (30 per city) with an accompanying covering letter on how to respond to it. All the questionnaires were returned.

3. Mapping of experiences in Urban Community Gardening

A desk research and mapping of existing and significant experiences in urban community gardening were conducted in the four partner cities. Starting from people contacted for the user's needs analysis above mentioned and internet web pages, several public and private organizations, associations were contacted to identify community garden programs. A template was drafted and agreed by the working group members in order to describe the programs and characteristics of the existing initiatives in the four partner cities. This template was administered to the coordinators or volunteers of community urban gardens in all partner cities. The template, available in the annex 2, included mainly information related to general information (name, address, type of community garden, number of gardens, total area, location, aims), operating characteristics (experience, philosophy of community, operating and management, paid staff, members and volunteers, resources and funding, promotional activities, decision making processes, fees, facilities and others) and agricultural characteristics (cultivated species, cultivation system, cultivation philosophy, chemical use, input supplies, products destiny).

4. Data analysis

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Data from Q1 and Q2 questionnaires and data from mapping were computerized using Microsoft Excel datasheet and statistical analysis were conducted using SPSS v19. To determine significant differences at 0.05 significant level Tukey's HSD test was used. Conbrach's alfa (α) test, used in this survey, revealed that the total scale reliability was high ($\alpha = 0.86$) for the attitude measurement framework examined, which indicates that the sample of items was reliable and performed well in capturing the measured social construct.

3. RESULTS

3.1. Users Needs Analysis.

The perception of the needs of the people involved in urban community gardens was analyzed by areas for a better understanding and interpretation of data, following recommendations made by Raphael and Steinmetz (1995). In this sense, graphic presentations of item means in the four partner cities are presented for each area of study in both questionnaires.

3.1.1. Questionnaire #1.

As shown Figure 1, the Formation and Community building items were highly rated by respondents of Bologna, Budapest and Cartagena, whereas in Berlin these items were significantly lower scored compared to the previous partner cities. These data show a high overall need for *Getting to know other projects*, *Sharing experiences*, *Recruiting* and *Start new communities* in all cities except in Berlin. The low importance shown by the respondents of Berlin was probably due to their numerous existing initiatives and their experiences, which pose problems and needs different to the initiatives in the previous cities, where urban gardens are relatively more recent especially in Budapest and Cartagena.

As shown Figure 2, for the *Management, organization and preservation* area, the item *Getting access to gardening space* was considered as a major concern in Bologna, Budapest and Cartagena. On contrary, Berlin respondents gave a significantly lower importance to this item compared to the scores of former cities.

Majority of the respondents gave a high score to the item *Promotion of the community garden* in all partner cities. Promoting the community garden seems to be an important issue that respondents perceived as very necessary in all cases.

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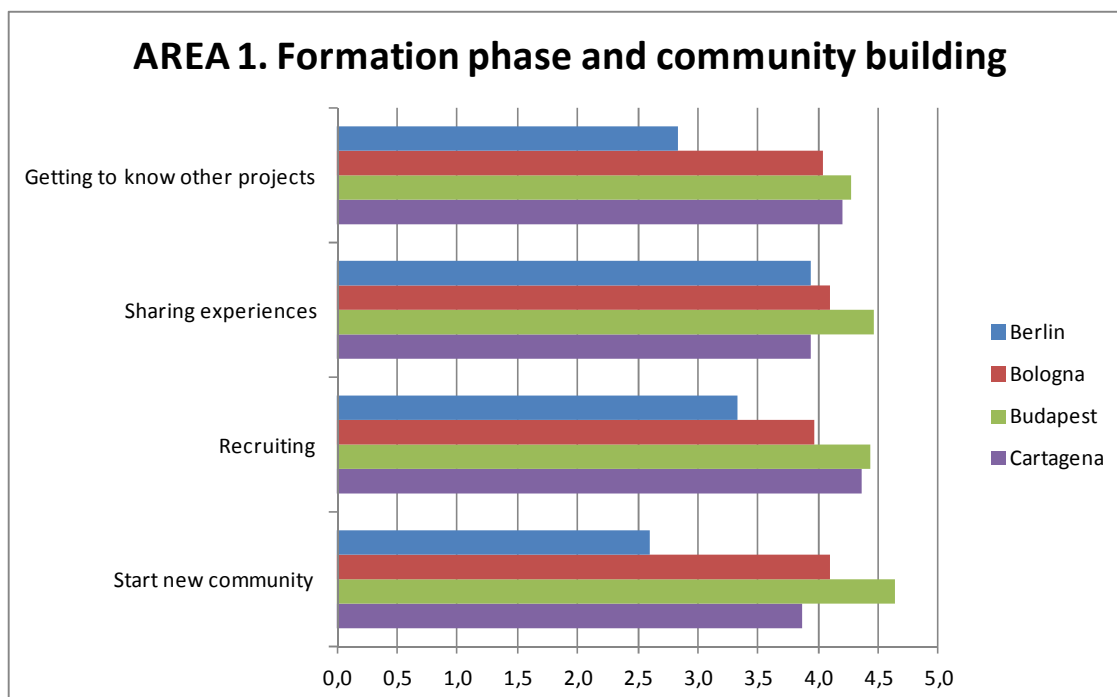


Figure 1. Formation phase and community building mean scores in the four partner cities.

The item *Access to resources and funding* (Figure 2) was scored significantly higher by respondents in Berlin, Bologna and Budapest compared to respondents in Cartagena. Most of the initiatives in Cartagena are public and financed by the government. Therefore, this could explain the lower importance perceived by respondents in Cartagena.

Manage, coordinate and create working groups item is also perceived as highly important as shown the high scores given by respondents in all cases.

Budapest respondents gave a significantly higher scores to the *Conflict management and resolution* compared to Berlin, Bologna and Cartagena where the respondents scored similarly this item. In general, this item demand attention in all the partner cities, despite the differences observed in the mean scores (Figure 2).

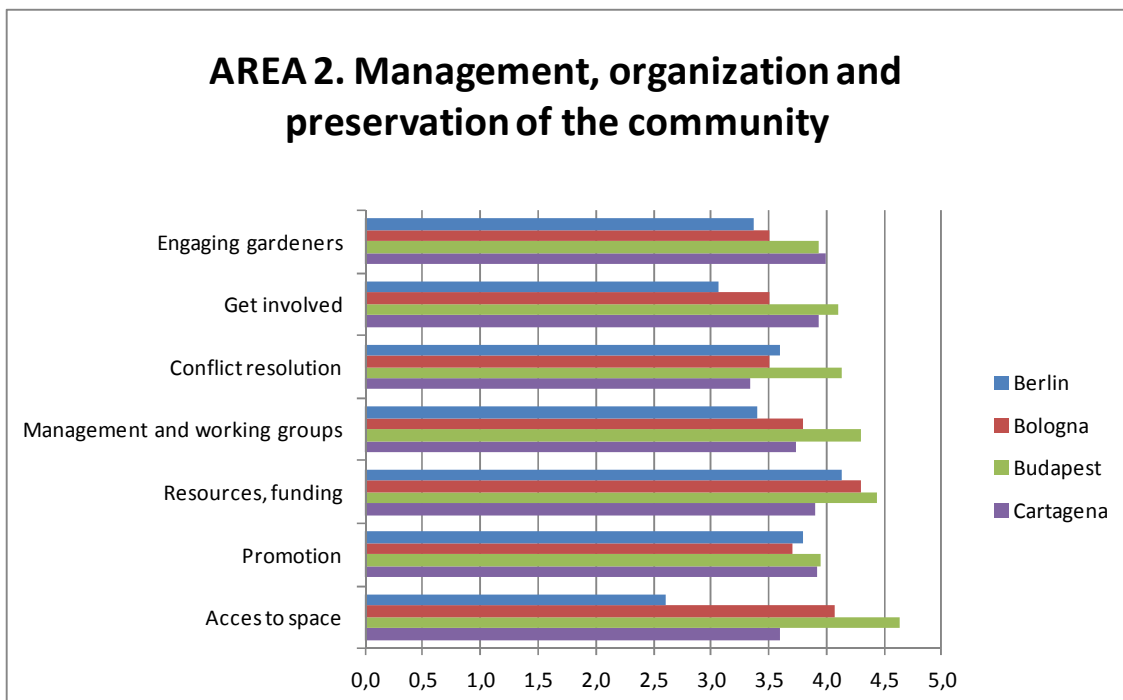


Figure 2. Management, organization and preservation of the community mean scores in the four partner cities.

Get involved in networks remained an item highly scored in Bologna, Budapest and Cartagena, while in Berlin respondents gave a significantly lower score compared to the former.

Budapest and Cartagena gave significantly higher scores to *Engaging gardeners* compared to Berlin and Bologna. These results suggest a higher emphasis in involving gardeners in Budapest and Cartagena, probably due to they are relatively less experienced in urban gardening.

Significantly higher scores were given by respondents in Bologna, Budapest and Cartagena compared to the Berlin ones, for the whole items asked for in the Training area, (Figure 3). In general, Berlin perceived that the training area items deserved attention but not demand attention as perceived by respondents in Bologna, Budapest and Cartagena cities. Only the Facilitation skills were similarly scored in the four partner cities as a very important and needed item.

Figure 4 provides findings for the personal skills asked to self-rate. These competences were *Computer and basic ICTs skills*, *Use of internet and social networks* and *Organizational knowledge*. Results suggest that the overall respondents were little

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interested in receiving a training on the above mentioned competences. Differences among partner cities probably were related with the age of the respondents.

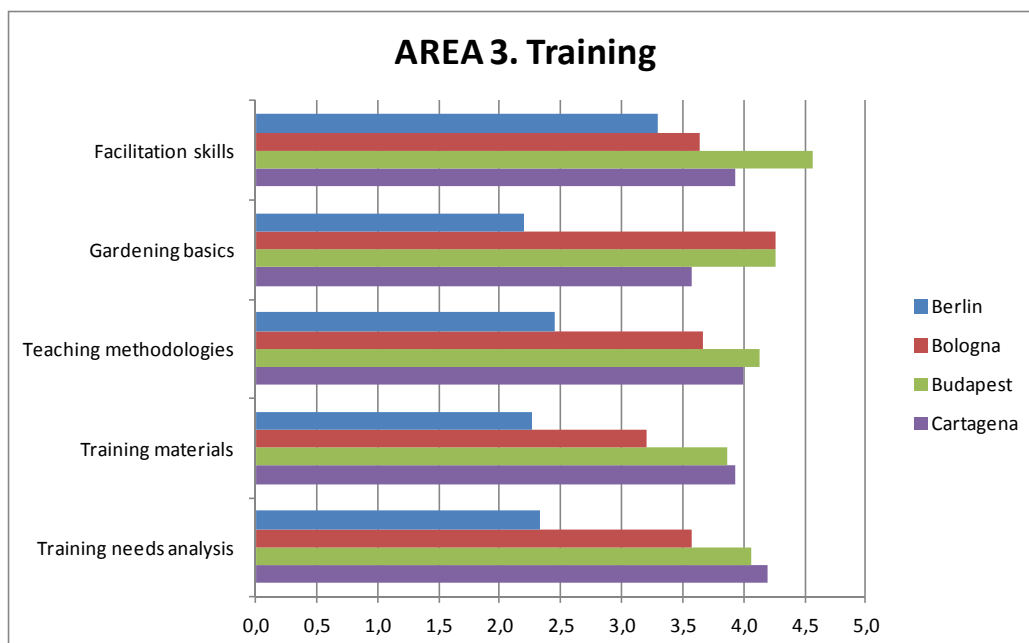


Figure 3. Training aspects mean scores in the four partner cities.

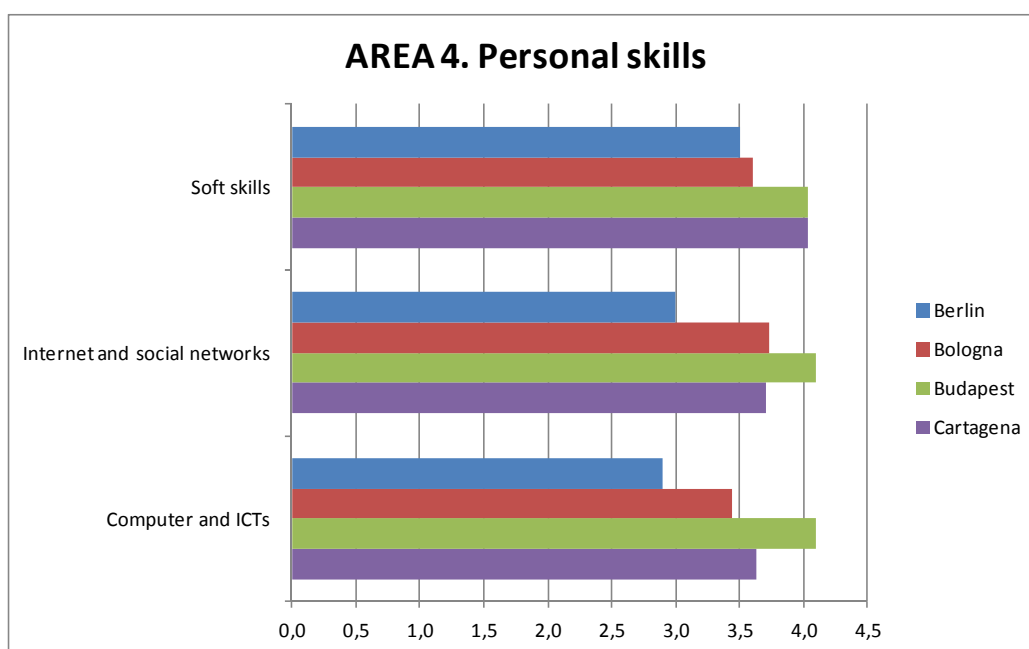


Figure 4. Personal skills mean scores in the four partner cities.

Some of the participants in the questionnaire #1 proposed some interesting additional items to those included in the questionnaire as shown in Table 1.

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Table 1. Some of the additional items proposed by participants in the questionnaire #1.

Partner city	Items proposed
Berlin	No items proposed due to most of the skills are covered by internal & external experts
Bologna	impact of pesticides, agriculture and business, recycling and micro-energy, communication skills
Budapest	monitoring of grant opportunities, writing proposals, legal framework, contacts with local authorities, contacts with specialized authorities, ecological approach of the community, organization of programs.
Cartagena	how to write and manage garden rules, improving the educational methodologies and practices, land ownership, lifespan of the projects and funding

3.1.2. Questionnaire #2

As shown Figure 5 respondents of Bologna, Budapest and Cartagena perceived most of the items related with the gardeners training as highly relevant. On contrary, Berlin respondents perceived a low relevance in most of the items, except in *Maintaining the garden, Networking and local trading, Initiation social events and Communication and Integration* items where Berliners gave similar scores to those given in Bologna, Budapest and Cartagena.

As in the questionnaire #1, in the questionnaire #2 the respondents suggested some interesting additional topics. These are shown in Table 2.

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Table 2. Some of the additional items proposed by participants in the questionnaire #2.

Partner city	Items proposed
Berlin	No items proposed due to most of the skills are covered by internal & external experts.
Bologna	recreational activities, knowledge about pests and plants diseases, urban seed banks.
Budapest	Bio-culture, balcony gardening, creating team spirit, chemical-free farming, newsletters and web promotion.
Cartagena	Urban seed banks, Access to water resources, legal background and regulation of the land.

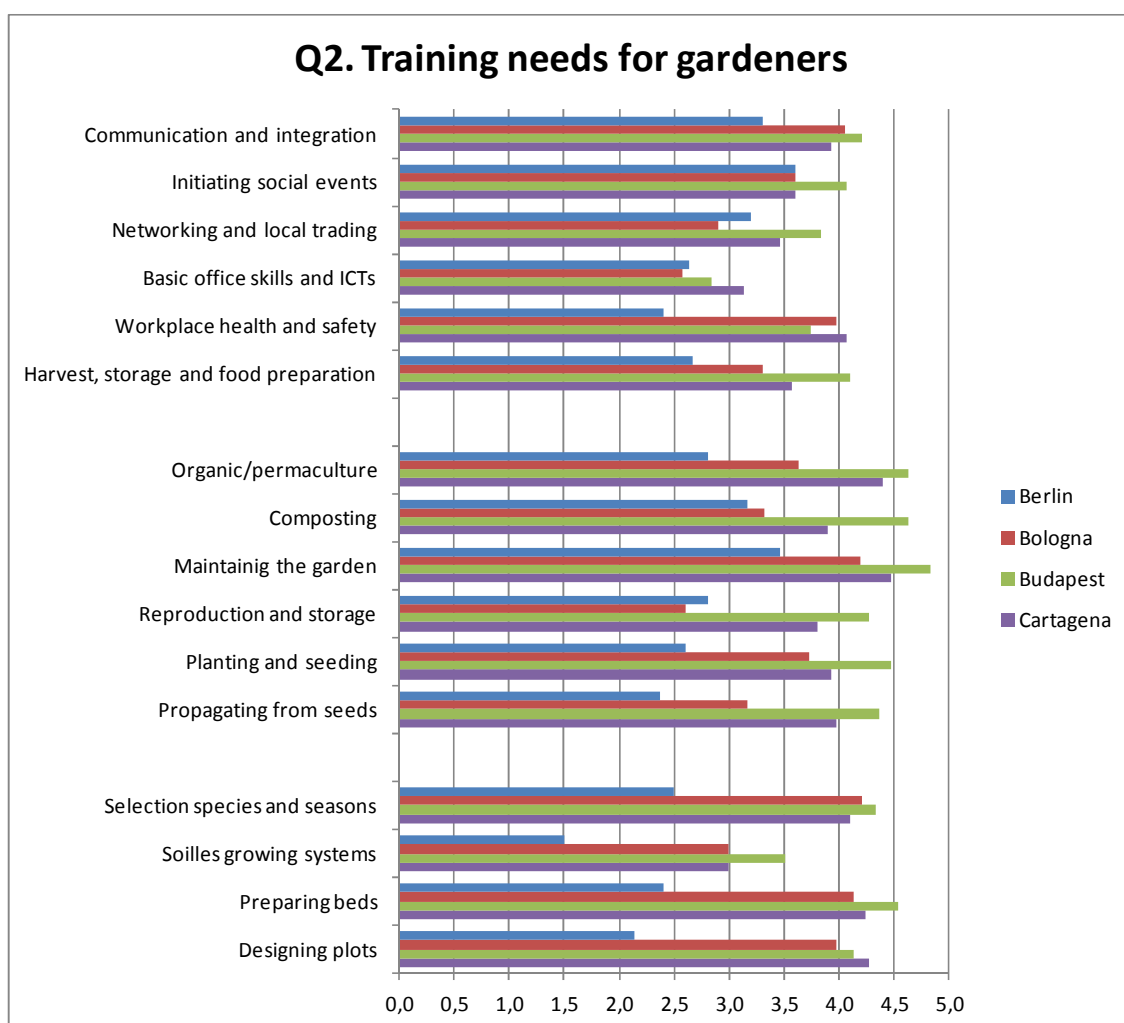


Figure 5. Training needs for gardeners mean scores in the four partner cities.

3.2. Comparative analysis. Interpreting the data

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In questionnaire #1, the whole respondents perceived that most of the elements proposed in the User Needs Analysis questionnaire demanded attention, suggesting the need to provide assistance in all the areas with a strong focus on *Formation phase and Community building*, followed closely by *Management, organization and preservation the community and Training aspects*.

Among all the topics interviewed, interest was greater in receiving a training on how community experiences starts and grow, how to involve people, getting to know the variety of ongoing projects, how they can access funding, get structured in working groups, engaging and promote themselves through social networks.

Particularly, the access to funding Seems to be a common key concern, since this makes more difficult a project succeed or sustain over time, particularly in the case of initiatives that draw on public funds. In the case of private initiatives is also important to have an initial count on help and some funding, although sometimes this is not enough not even to cover the human and technical needs of the project.

Conduct a training needs analysis, gardening basics and facilitation skills were perceived as very important issues, since these items were highly scored in general. Particularly, in Cartagena almost 50% of the respondents perceived a high need in training in gardening basics, whereas in Bologna more than 50% and in Budapest more than 60% of the respondents gave the highest score to this topic.

Only Berliners gave significantly lower scores than Bologna, Budapest and Cartagena respondents to the questioned topics in the questionnaire #1, except in sharing experiences, promotion of the gardens, resources and funding, management of working groups, conflict resolution and engaging gardeners, where the scores given suggest relevant training needs as occurred in Bologna, Budapest and Cartagena.

In questionnaire #2, people interviewed shown to have a very high need for training on the most basic issues such as designing plots, preparing the garden, appropriate selection of species, planting, maintaining the garden, organic agriculture and communication and integration. All the mentioned topics were highly rated in Bologna, Budapest and Cartagena, while in Berlin were maintaining the garden, reproduction, seeds storage and initiating social events. In this respect, it seems to be very important collaborating with other horticultural projects in the territory, not only urban (connection with rural areas), therefore, it could be interesting to create an international network of urban gardens.

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The significantly lower scores given by the respondents of Bologna and Cartagena compared to Budapest ones in the topic *Soilless growing systems* were due to different reasons. In Bologna, one third of the respondents were younger people, so they were less experienced in farming, while Cartagena respondents were more familiarized with the soil cultivation because agricultural soil is not a limiting factor for growing even in periurban areas where urbanization are mixed with agricultural plots. Anyway, more than 50% of the overall respondents in these cities scored 3 or higher in this topic.

Basic office skills self evaluation showed an adequate level of users in general.

4. URBAN COMMUNITY GARDENING EXPERIENCES IN THE PARTNER CITIES

Here it is shown the main results of the desk research and mapping of existing and significant experiences in urban community gardening conducted in the four partner cities.

4.1. Urban agriculture in Berlin

Berlin is looking back on a long history of urban agriculture, and, beneath the more traditional forms such as allotment gardens, school gardens or the „Gartenarbeitsschulen“ (a form particular only to Berlin). In the recent years a growing number of new examples of Urban Agriculture have been established. Thus, next to the numbers of 925 colonies of allotment-gardens, 1270 school gardens and 12 „Gartenarbeitsschulen“ you can today find up to 100 Community Gardens (i.e. Intercultural Gardens), Self-harvesting Gardens, and other new forms of urban agriculture that have emerged (cf the garden map: <http://gartenkarte.de/gartenplane/>). With this variety in form and function, Berlin has achieved the reputation of being one of Europe's capitals of Urban Gardening. The growing coverage of some Berlin-Gardens such as Prinzessinnengarten or Allmende-Kontor by international media has contributed to the fact that our city is now considered a reference by garden activists, researchers and urbanists from all over the world.

Inside the gardens and from one project to the other, there is a big ecologic diversity. Gardeners in the city are often politically motivated, and see the social benefits of their doing. The urban garden becomes a place where food production is linked to sharing knowledge, and the site becomes a place for informal education (Madlener 2009). For many, the practical and the social aspects are in the focus (Bendt 2010). Growing organic products in a community plays a central role, and that way, local networks are created and there is a participative potential for more activism inside the

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neighborhood (Rosol 2006) and even beyond that (globalization). Some appealing and innovative forms such as the peaceful "Guerilla Gardening" gained a certain influence, and made the Urban Gardening-movement a platform for eco-activism.(cf Jahnke 2010).

The following is a list of some chosen examples showing the big variety of Community Gardens and projects of Urban Agriculture throughout the city:

- 1) Self-harvesting garden: Bauerngarten
- 2) Community garden with individual harvest: Allmende-Kontor
- 3) Community garden with community harvest: Stadtgarten.org
- 4) Community garden with commercial orientation: Prinzessinnengarten
- 5) Community gardens with intercultural focus: Wuhlegarten
- 6) Community gardens with squatting history: Rosa Rose

4.2. Urban gardens in Bologna

In Bologna urban gardens are integral part of the city structure involving both the suburban and the central areas, being located mainly on the roadsides, railways and rivers. At the beginning of the 80s, the urban garden surface in Bologna was about 62.25 ha. Most of the areas, generally located in public housing districts, were managed by the local administration and were mainly distributed to retired and elderly people. At that time, urban gardens were one of the consequences and reactions to the urbanization (very strong phenomenon between 1951 and 1971) and represented an "open air" distraction and recreation activity for many people who were in charge of repetitive work (factory labour and employees). Moreover, this activity recalling the agricultural traditions was giving an opportunity to reduce the costs for buying food.

Currently, the urban gardens organization in Bologna is changing. They are still mainly the elder or adult men, both immigrant or Italian, but in the last years the presence of women and young people started to grow. This is being possible thanks to the change of the regulation in May, 2009 that opened the possibility to apply for the garden assignment to any person residing in Bologna. The city council reformulated the criteria for the assignment in the following order: 1) residence in the neighborhood, 2) age (priority to elderly people), 3) date and time of the application.

Bologna presents two main typologies of urban and periurban gardens: one addressed to schools for didactic-educational activities and one addressed to elderly and immigrant people. Bologna Province counts 5,425 urban gardens (with an average size of 30-40 m²), 3,000 of them only in the Bologna municipality. The gardens are

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distributed in 20 garden areas located in different districts and covering a surface of around 100,000 m².

Extremely important aspects of both urban and periurban gardens are the good management of water and the recovery and disposal of solid and liquid wastes (including pruning). In Bologna, in most cases water is collected from single “water spots” connected to the general water system and then stored in tanks present in each garden. Water spots are made of wells or pipes each having 2 or 3 valves and are distributed within the garden area to be accessible to 2-4 assignees. The water supply varies depending on the season and is carried out, as prescribed by regulation, only in certain time slots using the water contained in storage tanks. Water consumption is charged to the associations and organizations responsible for the vegetable garden. For the electricity, the system works the same way and the total expense for each assignee varies between 30 and 50 Euros per year.

In the vicinity of the gardens, tanks for fluid residues collection are normally present to, after a process of decantation and fermentation or sterilization, reuse them as fertilizers. For the waste management it is recommended to have a composting structure to collect crop residues derived from leaves, herbaceous residues and pruning, that after crushing and maceration will also be useful for fertilization. In Bologna, HERA (the municipal cleansing service) encourages the waste sorting and provides different waste containers for the organic and inorganic in the vicinity of the garden areas. Within the horticultural areas, the city council provides huts for facilities shelter, toilets and recycled building materials. All areas are fenced and equipped with locked entrance gates, whose keys are in possession of the assignees, to make sure they can access the garden at any time of the day. The parcels are separated within the area and each parcel has an identification number that corresponds to the name of the assignee.

Beyond the formal, traditional urban gardens, the city of Bologna hosts some of the most innovative experiences of urban greening in Italy. Among them, most relevant are the following:

- 1) Biodiversity, no-profit association organizing dissemination events on the role of urban agriculture and biodiversity in shaping greenest cities;
- 2) Città-Campagna project, where producers and consumers have met in order to self-cultivate their food;
- 3) Coltivare rapporti, a two-days event for participatory discussion on city greening initiatives;

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- 4) Eta Beta Bio: social cooperative working with disadvantaged people for the short-chain production of vegetables;
- 5) Giardini in Rete (a simplified soilless and biodiversity garden in a primary school);
- 6) Gramigna, the interactive map of city green spots;
- 7) Greenhousing, the first Italian rooftop garden in public housing buildings;
- 8) Mercato della Terra and Campi Aperti, short-chain producer to consumer street markets.
- 9) Orto dei Popoli, an inter-cultural garden where immigrants cultivate vegetables and herbs from their country of origin;
- 10) Terra di Nettuno, a guerrilla gardening association that organises events and demonstrations for greening the city.

4.3. Urban gardens in Budapest

There is no long history of the community gardens in Hungary. There are more and more younger and older people who are interested in and ready to take part to establish and to maintain community gardens. The first urban garden was established in 2010. This garden was organic, privately owned and about 400 m² and there weren't parcels, it was cultivated together. They were inspired by the "Reclaim the Fields" movement. This garden isn't active now.

Currently seven gardens are working in Budapest and four gardens are under construction. In Hungary there are two organizations who manage the most of community gardens, one is the Hungarian Contemporary Architecture Centre, and they started 3 gardens. The other is the Urban Garden Association, they manage 3 gardens, too. One garden was organized by Youths for the Hungarian Countryside Foundation. The gardens started to work with the local authorities support in 2012 and 2013. The 7 gardens have around a total of 10,000 m² and they are in different districts.

There are two types of gardens. One is where everyone has his or her own parcel, the other is where there is a common cultivation and a common distribution.

There are gardens where cultivated plants are grown and the others have only flowers. Every garden is organic, the gardeners don't use any type of agro chemicals. The parcels are numbered and the gardeners have the right to use them. There is a garden where are raised beds for the sake of elderly people.

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It is difficult to determine the group of people who work the lands. Some people are involved with his / her granddaughters or grandsons, there are a lot of families with small children, but there are also a good number of university students. There is a significant number of young intellectuals who are involved in horticulture. Some gardens almost exclusively involve local people, but there are other some gardens where people also come from other districts, too.

Solutions for water and power supply are various. Most of the gardens have access to mains water or they get water from their own wells. One area doesn't have access to water, so they bring it by car and they also collect the rain-water. In most the gardens electrical supply is available, but not in all of them.

The waste management in the gardens means only composting. The other type of waste is taken away by the individuals. One garden have homemade selective waste collector.

Every garden has a storage place for the tools with a lock but there is no toilet in the gardens, the people working here often use nearby public restrooms.

All of the gardens have some expenses and they cover it from the contribution fees and other sources, as well. The contribution fees are from 4 Euro to 35 Euro for a year.

The gardens are important and organic parts of their neighborhoods. Some gardens have only symbolic fences, but most of the gardens have fences with a lock, and all the members have his / her own key or the gate is closed with a number lock and the members know the code. Every garden can be visited all-day except one garden which is open 6⁰⁰-23⁰⁰.

4.4. Urban gardens in Cartagena.

Cartagena is a city with very few urban gardening initiatives. Only the University holds a program of leisure gardens on the outskirts of the city mainly aimed at elder people and some very recent private initiatives no longer than two years. For this reason we considered interesting to study a greater area where to find a greater variety of projects and experiences. This greater area was referred to the Region of Murcia.

The Region of Murcia is a territory with a significant agricultural tradition, where approximately 50% of the land is under intensive vegetable and orchard cultivation.

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Most of the recent urbanized areas in Murcia, including Cartagena, are embedded in agricultural lands. So, most of the urban garden initiatives in Murcia and Cartagena are located in agricultural lands.

There are three types of urban gardens in Murcia: Public gardens, school gardens and Private gardens.

1) Public leisure gardens

Leisure gardens are managed by the municipality of Murcia. Originally were aimed at retired people, since these were able to spend their time returning to agriculture labour and most of them were people with an important agricultural background. Recently, Municipality of Murcia is extending the access to individual allotments to unemployed, families and associations due to the growing demand of these social groups.

Allotments are embedded and widespread in the public parks and gardens of the new urbanizations of Murcia city, mainly with a total extension close to 10,000 m², fenced, with some facilities such as irrigation water, a storage place for the tools, toilets, etc. The allotments are coordinated and supervised by a municipal technician and have an operating rules.

Other similar gardens are: "Huertos Ecológicos Familiares" Organic familiar gardens in Alhama de Murcia, "Huertos Ecológicos Urbanos" Organic urban gardens in San Pedro del Pinatar (near the coast) and "Huertos de Ocio de la Universidad de Mayores" Allotment gardens for elder people in Cartagena (managed by University of Cartagena-UPCT).

2) School gardens

They are probably the oldest initiatives, since some of them have almost 10 years of operation, depending on the funding they received from de Department of Education. The presence of these urban gardens is variable depending on the available space, being rather limited in the downtown schools.

These gardens arise in order to provide a real knowledge of nature to students and to awareness on environmental issues. Maintaining these initiatives over time strongly depends on public funding, but in most cases the school has to take over by itself.

Teachers are not scheduled to devote to gardening and generally they are poorly trained in this respect, so that external assistance from environmental education companies or public bodies such as the council, are critical.

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There are more than 35 school gardens widespread throughout Región de Murcia. Particularly, in Cartagena there is a reference school garden that stands out as coordinator of "Our School Garden" project supported by a Comenius program since 2010.

3) Private gardens with commercial purposes

This type of initiatives arise from associations or individuals looking for an economic benefit and promotion of agro ecology, providing the space and knowledge needed for organic farming for individuals that pay a fee which pay for the use of a single parcel ranging from 20 to 40 m². Some services and facilities are provided within the fee while others are charged separately. In some cases it is possible to rent a "turnkey" plot where we only care about harvesting our vegetables.

They are the more recent initiatives in Región de Murcia, with less than one year of experience that sometimes counts with the advising of trained people. These initiatives are scraping by on the citizen demand while are making great efforts to become known through the internet and social networks.

Some good examples of this type of gardens are: "OcioHuertosCartagena": <http://www.ociohuertoscartagena.com/> and "Huertoyou" www.huertoyou.com.

5. RECOMMENDATIONS FOR HORTIS MATERIALS AND COURSES

Successful Urban Community Gardens require a wide range of skills as evidenced in this report.

The Needs Analysis questionnaires worked well, since new topics (not included in the questionnaires) suggested by the respondents were acceptable and mostly focused on a few aspects regarding the community building, community management and gardeners training. Therefore, the questionnaires presented here could be helpful to urban communities to identify gaps in knowledge and skills when they occur after only a few modifications.

As a result of the process of Analysis we were able to identify needs for people involved in urban and community gardening in all HORTIS project cities.

Community building and development was perceived as an important area of training needed for support the starting initiatives, as well as ongoing ones. Particularly, the

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variety of existing initiatives in Berlin and their long experience can be taken advantage to support initiatives in other cities that are keen to receive information and experiences on how community starts and grow up. Likewise, some experiences existing in the other HORTIS project cities can serve as an example to communities in Berlin. In example, the individual allotments managed by the municipal urban gardens program of Murcia in public green spaces.

The Analysis showed that there is also a strong need to provide training and tools in most of the issues of management, organization and preservation of the community with particular emphasis on promotion through social networks, access to resources and funding. Also issues on how to mobilize, involve the community and conflict resolution were perceived as very relevant topics. In Berlin, a large topic in the open topics addressed conflicts and elaborated communication, especially with the lack of time of the garden initiators. An exchange between different garden projects seems to be a main issue, representing the need to interact and support each other.

Training aspects were also important, since in most of the cases the topics covered in this area were highly rated, with particular emphasis in Gardening basics.

The gardeners needs analysis (questionnaire #2) stressed a great interest in almost all the topics listed in the questionnaire. As in the questionnaire #1, some of the highlighted topics were linked to cultivation techniques and practices, management and storage of seeds and composting of organic residues in urban environments.

The needs for socialization, communication and creation of relationships among communities (networking) and local trading were also important for respondents in all the partner cities.

In conclusion, we strongly recommend developing a set of educational materials that collects the aspects discussed above in the form of electronic documents. These documents would be consistent with the skills detected in the self-rating topics regarding the use of internet, social networks and computer skills. Therefore, an e-book would be a suitable format, since it allows to collect a wide range of information on a single tool, that can be easily read online and used by both trainers and gardeners.

Due to the huge list of important topics, here we propose the realization of a set of e-books to cover the greatest possible number of the topics. This set is proposed to not

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fail in the completion of an e-book extensive and difficult to handling. Relatively short and practical e-books should be developed to cover the following aspects:

- 1) Community building and development based on existing experiences and focused on how to starting up initiatives and organization and preservation of the community.
- 2) Management of the gardens focused on agricultural practices (land, water, plant species, etc.).
- 3) Urban garden cultivation systems, including soilless. Depending on the length of this e-book could be considered to split it into two. The first dedicated to cultivation systems in urban gardens, and the second focused on soilless techniques. This would be of great interest since one of the main problems of cities is the availability of land for traditional farming.
- 4) Zero-km agriculture focused on how the urban community gardens can promote local food markets, environment and local economies.

All these e-books may serve both trainers and gardeners and could be available on-line in the project website.

Similarly to e-books, the topics of the plastic cards came out from the users' needs analysis. Therefore, plastic cards should cover similar contents to those proposed for the e-books, considering that these should be easily used by trainers in the pilot courses.

Training of trainers' course program in all partner cities should cover most of the topics of the needs analysis too, but in a practical way and meanwhile the e-books are not yet edited, since this task will probably take more time than expected and the e-books may not be ready until sometime after the completion of training courses. Additionally, e-books will serve the participants of the training courses as an extra tool that can be subsequently used in the pilot courses together with plastic cards. This probably will result in a higher quality of education and a richer experience.

All the materials will be designed with the aim to foster the acquisition of key competences (Learning to learn, Sense of initiative and entrepreneurship, social and civic competences) through gardening activities.

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6. ANNEXES

6.1. Templates used the Users Needs Analysis questionnaires (English version)



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Questionnaire on training needs in urban and community gardens

INSTRUCTIONS

1

HORTIS aims to train a new generation of trainers on community gardening able to set up and run community gardens, attracting and engaging the local community.

One of our main objectives is to determine the training needs in this area for future planning of training courses that will have to comprise the needs of trainers and of the end users of urban gardens. Thus, we would like to ask you to rate the necessities, which you need in order to set up and run a community garden

Before filling the questionnaire, we would like to draw attention to the following general instructions:

- Please read the questions and these instructions unhurriedly.
- Completion of the questionnaire will take you approximately 15 minutes.
- Please answer ALL questions, even if you are not sure or even if you notice a difficult response, please tick the one that best applies. There are no right or wrong answers.

Please use a pen to complete the questionnaire. If you accidentally fill in the wrong box, so you can use an orbit inside the cell to correct it and then tick the appropriate box with a cross as indicated in the figures below:

Topic	Necessity					Comments
	1	2	3	4	5	
Topic # 1			⊗			
...						
Topic	Necessity					Comments
Topic # 1			⊗	⊗		
...						



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Q1. This questionnaire addresses people involved in urban and community gardening, in order to allow us to detect the competences that are relevant for the different aspects linked to this activity.

2

Please, rate the necessities (1= very low; 5 = very high) in the following areas and topics. Feel free to add any comment for any of the competences that appeared below.

AREA 1. FORMATION PHASE AND COMMUNITY BUILDING	Necessity 1= very low 5= very high					Comments
	1	2	3	4	5	
Start and be part of the implementation of a new community						
Involve people (recruiting)						
Sharing experiences with given projects in town/area						
Getting to know the variety of different garden projects						

AREA 2. MANAGEMENT, ORGANIZATION AND PRESERVATION OF THE COMMUNITY	Necessity 1= very low 5= very high					Comments
	1	2	3	4	5	
Get access to gardening space						
Promote the community garden (newsletters, blogs, flyer...)						
Access resources and funding						
Manage, coordinate, and creating/organizing working groups						
Conflict management and resolution						
Get involved in Networks (i.e. local seed network, etc.)						
Engaging gardeners (retaining, keep involved)						



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AREA 3. TRAINING	Necessity 1= very low 5= very high					Comments
	1	2	3	4	5	
Conduct training needs analysis						
Identify, adapt and use existing training materials						
Identify, adapt and use appropriate teaching methodologies						
Gardening basics*						
Facilitation skills, ability to consider different ways of learning and needs						

3

* Please, remember to fulfil Q2 questionnaire, once you have completed Q1.

This time, you are asked to self-rate (1 None; 5 Good) your competences (skills) in the following topics:

AREA 4. OTHER COMPETENCES	Self-rating					Comments
	1	2	3	4	5	
Computer and basic ICT skills						
Use of internet and social networks						
Organizational knowledge (soft skills)						

Are there any more topics you would need to set up and run a community garden? Please name them and, as above, rate the necessity in your project.

Topic	Necessity 1= very low 5= very high					Comments
	1	2	3	4	5	
...						
...						
...						



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Q2. This questionnaire aims to detect competences needed by Gardeners/Volunteers. Please, rate the necessities (1=very low; 5 = very high) in the following areas and topics. Feel free to add any comment for each of the competences below.

4

Topic	Necessity 1= very low 5= very high					Comments
	1	2	3	4	5	
Designing plots						
Preparing the garden beds (soil or soilless)						
Soilless growing systems						
Selection of appropriate species and seasons						
Propagating plants from seeds						
Planting seedlings and direct seeding						
Reproduction and storage of seeds						
Maintaining the garden (irrigation, organic fertilization and organic pest control)						
Composting (green recycling)						
Permaculture/organic agriculture						
Harvest, storage and preparation of foods						
Workplace health, safety and tools						
Basic office skills and ICTs						
Networking and local trading						
Initiating social events						
Communication and integration of different gardeners						
Others: please name them and, as above, rate the necessity in your project						
...						
...						
...						



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6.2. Template used for the Urban Community Gardening experiences (English version)



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In order to map the existing community garden initiatives in each partner country and to identify existing good practices cases we proposed to collect the following data:

GENERAL CHARACTERISTIC	
1. Title (name of the community):	
2. Postal address and additional info needed to reach the garden:	
3. Telephone:	4. E-mail:
5. Contact person:	
6. Garden type:	7. Overall surface (m2):
8. Location (urban, periurban or rural):	
9. Type of organization that legally represents the garden (in case of public communities):	
10. Aims:	

RUNNING CHARACTERISTICS
10. State of development (years running) and previous experiences:
11. Ecology based garden (yes/no) and principles of gardening:



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12. Running/organization:
11. Total number of employed. How many gardeners employed?
12. Number of partners and/or participants and their situations (volunteers; active; non active)
13. Funding:
14. Existing contacts or cooperation with other communities? (yes/no) What is it?:
15. Networking (yes/no) and web address:
16. Social processes supported (conflict mediation, time management, collective decisions, motivation,...):

AGRONOMIC CHARACTERISTICS
14. ¿What we plant? Type of species (tomatoes, onion, potatoes, etc)
15. Origin seeds and plant. (owns partners, others communities, garden centers nearly,etc)
16. Destination of production. (Partners, food banks, etc)



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