

# PROJECT PERIODIC REPORT

**Grant Agreement number: 282834**

**Project acronym: TURAS**

**Project title: Transitioning towards Urban Resilience and Sustainability**

**Funding Scheme: FP7**

**Date of latest version of Annex I against which the assessment will be made: 30 September 2014**

**Periodic report:**                    1<sup>st</sup>     2<sup>nd</sup>     3<sup>rd</sup>     4<sup>th</sup>

**Period covered:**                    from 1<sup>st</sup> October 2014                    to 30<sup>th</sup> September 2015

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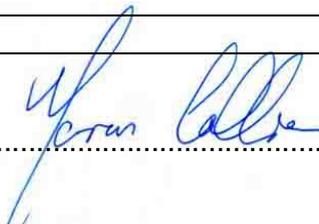
<sup>1</sup> Usually the contact person of the coordinator as specified in Art. 8.1. of the Grant Agreement.

<sup>2</sup> The home page of the website should contain the generic European flag and the FP7 logo which are available in electronic format at the Europa website (logo of the European flag: [http://europa.eu/abc/symbols/emblem/index\\_en.htm](http://europa.eu/abc/symbols/emblem/index_en.htm) logo of the 7th FP: [http://ec.europa.eu/research/fp7/index\\_en.cfm?pg=logos](http://ec.europa.eu/research/fp7/index_en.cfm?pg=logos)). The area of activity of the project should also be mentioned.

## Declaration by the scientific representative of the project coordinator

I, as scientific representative of the coordinator of this project and in line with the obligations as stated in Article II.2.3 of the Grant Agreement declare that:

- The attached periodic report represents an accurate description of the work carried out in this project for this reporting period;
- The project (tick as appropriate) <sup>3</sup>:
  - has fully achieved its objectives and technical goals for the period;
  - has achieved most of its objectives and technical goals for the period with relatively minor deviations.
  - has failed to achieve critical objectives and/or is not at all on schedule.
- The public website, if applicable
  - is up to date
  - is not up to date
- To my best knowledge, the financial statements which are being submitted as part of this report are in line with the actual work carried out and are consistent with the report on the resources used for the project (section 3.4) and if applicable with the certificate on financial statement.
- All beneficiaries, in particular non-profit public bodies, secondary and higher education establishments, research organisations and SMEs, have declared to have verified their legal status. Any changes have been reported under section 3.2.3 (Project Management) in accordance with Article II.3.f of the Grant Agreement.

Name of scientific representative of the Coordinator: ..... 

Date: ...30...../ .....09...../ .....2015...

For most of the projects, the signature of this declaration could be done directly via the IT reporting tool through an adapted IT mechanism and in that case, no signed paper form needs to be sent

<sup>3</sup> If either of these boxes below is ticked, the report should reflect these and any remedial actions taken.

### 3.1 Publishable summary

#### Summary description of project context and objectives

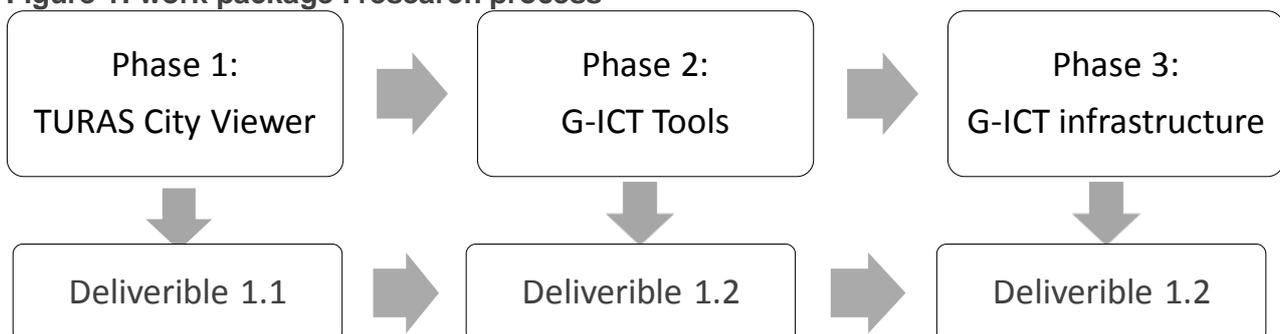
TURAS has completed the fourth of the five years of its 'journey', and the first year of the demonstration phase of the project. During this phase, extensive work has been carried out on devising and developing our transition strategies, drawing partners together into a decision-making process in order to develop an integrated transition strategy. Since the research phase is now completed, those work packages engaged in the resilience research (work package's 2 to 6) are gradually being merged in order to provide a more convenient and focussed public appearance. The work package delineation is retained in the background for ease of payments and task management, but essentially the cross-cutting work packages (1, 7 and 8) are the main activities in TURAS in this period. In essence, TURAS is now about devising and demonstrating an Integrated Transition Strategy. It is also engaged in peer-to-peer communication and exploitation of results for innovation. These two are closely aligned.

#### Description of the work performed since the beginning of the reporting period and the main results achieved so far

Work Package 1 has completed Phase 2 and Phase 3 of TURAS research. This builds on previous research undertaken by work package 1 in Phase 1 (Figure 1). Phase 2 involved the development of a range of geospatial information and communication technology (G-ICT) tools to support urban resilience and sustainability. Phase 3 is the development of the framework for G-ICT infrastructure: an integrated database and tools. As part of Phase 2, work package 1 with the assistance of relevant partners developed 5 G-ICT tools: [Reusing Dublin](#), [Twitter GI](#), [The Meadows Timeline](#), [Das Grune Zimmer QR code](#) and the [Aalborg Heat Atlas](#). Phase 2 also involved the linking of three G-ICT tools: [Sofia city development mapping video](#), [Rotterdam City Delta application](#) and [LUR PP webGIS](#). These three tools had previously been developed as part of work undertaken in other work packages. All eight tools were linked with the TURAS website and the websites of the local authorities involved.

Phase 3 of research involved the development of the framework for G-ICT infrastructure -- integrated database and tools. The framework was based on the experiences gathered from the development and integration of the eight G-ICT tools as well as a comprehensive literature review on integration of databases, tools and functionality / applications. The final output was the "Resilience Dashboard" a multifunctional dashboard where the tools and data are integrated to support smart resilience planning and decision-making. Completion of Phase 2 and Phase 3 of the work package 1 research process has resulted in the completion [Deliverable 1.2](#).

Figure 1: work package I research process



TURAS was used by the work package leadership as a learning tool for master's students in regional and urban planning with respect to addressing underused and derelict spaces. This course resulted in an exhibition and the production of a [video](#), an [editorial](#) and a downloadable [document](#).

## **Work Package 2: Greening public and private green infrastructure**

The overall aim of work package 2 was to develop state-of-the-art techniques for evaluating and enhancing the ecological 'quality' of green infrastructure within urban environments. It was planned that this would be achieved through a series of objectives. These were to:

- generate a universal evaluation model for assessing the drivers and barriers to urban green infrastructure restoration;
- design and establish field experiments investigating state-of-the-art technology and processes to maximise the biodiversity and economic value of roof-level green infrastructure leading to an overall reduction in a city's urban ecological footprint;
- develop and evaluate a design protocol for incorporating art, creativity and regional habitat characteristics into landscape design for maximising the biodiversity value of urban green infrastructure;
- pilot test design tools disseminating from field experiments at the case study area of the Barking Riverside Development in East London;
- implement monitoring and analytical strategies in order to assess efficacy and structure recommendations for other case study areas; and
- develop visions, feasible strategies, spatial scenarios and guidance tools that would enable adaptive governance, collaborative decision-making, and behavioural change in green infrastructure design across selected areas in Greater London, Rome, throughout the TURAS project network and in non-participating cities.

All of these outputs have been successfully completed, the results of which have been reported in [Deliverable 2.3](#). The work package partners are now focussing on the broader roll out of work package 2 design and planning principles through ongoing dissemination and engagement events and continued engagement with work package 7 development and Activity Unit catalogues. The work package continues to expand on the TURAS findings through PhD and postdoctoral researchers, and also to expand connections to policy-makers and planners in the case study area and in London as a whole. Helix's Green Living Room [video](#) was awarded a gold medal at the Deauville Green Awards Film Festival 2015.

## **Work Package 3: Urban / industrial regeneration, land use planning and creative design**

The objective of this work package is to understand what urban resilience means in practice, and to contribute knowledge to the discourse on urban resilience. Currently partners are developing projects and tools collaboratively between municipality, urban communities, academic and SME partners. The role that this package has taken on is to act as agents to facilitate change in existing practices or common wisdom and to create mechanisms for re-thinking how citizens can be included in the development of the environments they live in. The process of Adaptive Co-Management and Design (the need to actively solve problems collaboratively by exercising imagination and creativity) has been broken down into twelve key aspects within three categories, as new spatial strategies for urban communities:

- **Understanding the system:** facilitate active observation; make information accessible; identify drivers of change; adopt broader value systems
- **Operating within the system:** adopt less hierarchical approaches; collaborate and support (work across disciplines and departments); adopt experimental approaches; build community capital
- **Efficient use of resources:** use what exists optimally; build local awareness; connect people and places; design for change

## **Work Package 4: Climate change resilient city planning and climate-neutral infrastructure**

In accordance with the description of work, as good as all activities, milestones and deliverables had already been finalized during the last reporting period. The case study on Integrated [Solid Waste Management](#) which had to start late due to partner issues has now also been finalised. Correspondingly, all research activities are now finished, though partners continue with their dissemination through conferences and PhD students continue their research and publication of their results (resulting in three published papers in this period, and three further papers in the pipeline). Partners in this work package have moved towards demonstration and exploitation activities and collaborating with work package 7. Here, a case study is being performed for

Ljubljana where two of the Dutch partners (Rotterdam, IVM-VU) will transfer their tools and experiences towards Slovenia (LUR, ULFGG) in order to aid the development of a flood risk management strategy for the Ljubljana region.

### **Work Package 5: Limiting urban sprawl**

The focus of work package 5 in this reporting period was on:

- developing and augmenting the quality of empirical studies and output;
- completing residual research on the use of regulations in limiting urban sprawl and discussing the proposed measures and rules with the local authorities and representatives of the local population, interested groups and stakeholders; and
- synthesising theoretical and empirical findings and developing recommendations and guidelines.

Six research papers were published, three of them in journals with high impact factor. At the same time work package 5 has made definite progress towards the final Objective 4 - developing appropriate monitoring and assessment tools and indicators for tracking urban development trends and patterns and building recommendations and guidelines on managing urban sprawl. The work package leaders featured on a Bulgarian TV news [feature](#) on the workings of the TURAS project and benefits of EU research projects.

### **Work Package 6: Short-circuit economies**

This third reporting period was very intensive in terms of production for work package 6. The action-research collaboration between public authorities and academic partners from Brussels, Rome and London is concluding with the two deliverables Deliverable 6.8 (academic output of the research) and Deliverable 6.9 (toolbox for local authorities). These are new deliverables after the consortium agreement change and based on recommendations from the first reporting period. In addition, partners continued working according to the amended version of the description of tasks. Local authority partners, on one hand, progressed on their tasks that is to say conducting an innovative experience in terms of adaptive governance, aiming at stimulating place-based resilient economies or SREAL (Sustainable and Resilient Economic Activity Locally). Each of these experiences results with the producing of a TURAS tool, guidelines or methodological report which target local authorities who would want to put in place similar interventions at their own level. The different outputs are described in the final [Deliverable 6.9](#) entitled "Bridges for local economies: Community and place-based strategies for local authorities". The academic partners (University of East London and the Free University of Brussels), on the other hand, kept up with using the different local adaptive governance intervention as a scientific case study. [Deliverable 6.8](#) contains four different papers that were produced and published in or submitted to local and international scientific journals (Ecological Economics, International Journal of Urban Sustainable Development, Planning Theory & Practice and Brussels Studies).

An important development that needs to be highlighted and that has grown out of the methodologies created and tested during the work package 6 research, is the idea of setting-up a spin-off company. The spin-off is called "OSMOS" and will tap into the knowledge built during the 4 years of TURAS research to offer an empowerment service for communities and local authorities that want to engage in the transition towards a place-based economy system. It will help community actors - local administrations, civil society organisations, elected officials, members of a local business community - to apply system thinking in order to develop a common vision of what a local sustainable economy could look like in their specific socio-economic, geographical and cultural context. The spin-off begins with cooperation between the academic partners from TURAS but the intention is also to give an access to a dense network of universities and experts. Depending on the specific challenges encountered in one's context, OSMOS will identify a panel of international experts from different fields (urbanism, ecology, landscape planning, economy, geography, engineering etc.) in order to match state-of-the-art research with the need for action in the given community.

### **Work Package 7: Integrated transition strategies**

Work package 7 aims for a project-overarching framework for sustainability transitions under a 'resilience perspective' and for putting this framework 'in action' on a local (community) level. For

the first three years of the TURAS project, the work of the work package lead partner encompassed conceptual and developmental work on:

- the respective transitional framework;
- theoretical framing of 'urban resilience' in the context of TURAS; and
- methodological work on how to capture and relate the diverse perspectives and knowledge existing within TURAS.

The main achievements of this preparatory phase are:

- the 4C (corner)-model as the primary transitional framework;
- a conceptual framework for communicating and operationalising urban resilience by introducing the idea of 'modes' of resilience;
- a methodology to overcome communicational barriers by identifying and co-defining TURAS key terms, before ultimately establishing a TURAS project glossary; and
- a methodology to capture and align locally useful TURAS output by introducing the concept of 'activity units'.

This reporting period commences the official start of the 'demonstration phase' and work package 7. The primary conceptual framework for activities during this phase was introduced to the TURAS steering committee during the scientific review of the previous reporting period, and later discussed during a workshop for Local Authority and Public Institution (LAPI) partners. Thereafter, it was translated into a strategic planning approach based on four modules (system analysis, envisioning, strategy development, and implementation) and 'packaged' in a Step-by-Step plan. This generic template was locally adopted ("implementing the ITS process") in order to develop the city specific 'Integrated Transition Strategies' (ITS).

This activity was facilitated by the TURAS local authority and public institution partners, in close co-operation and consultation with the work package lead team in the University of Stuttgart, resulting in several draft ITS documents. These documents were circulated through the TURAS office site and all partners were asked for, and many provided, feedback and constructive criticism. Concurrently, the Activity Units (AUs) were further developed, re-fined and transferred into an online format. AUs are the combined TURAS output repackaged for local application and demonstration outside their original geographic context. This activity included the co-development of a suitable format with the LAPI partners and work package 8, as well as consultation on content provision (mainly) with the academic partners. The AUs have been embedded in each TURAS City ITS for transfer and demonstration. They are also available on the TURAS website in the format of a browse-able catalogue for the internal members of the consortium. In time, this catalogue will be made available to the public, via the TURAS website. In this reporting period this package produced [Deliverable 7.10](#).

### **Work Package 8: Dissemination, training and exploitation of results**

During the first three years of TURAS RTD activity, the focus of work package 8 activities was primarily on providing a platform and online tools to:

- support good internal communications among the 28 partners and 100+ individuals registered on the TURAS internal participant portal (PPA);
- capture and communicate on the public site in an easy to navigate format the ongoing RTD work taking place at individual work package level and the resulting public deliverables and dissemination documents;
- provide a mini-site for each of the local authority regions to present the challenges they face in TURAS and the new approaches being piloted in case study regions.

In year 4 of the project, with the largest body of RTD work complete, the focus of TURAS changed from dissemination to exploitation. work package 8 activities during this period became much more closely aligned with work package 7 activities and timeline given the requirement for a catalogue of TURAS outcomes or activity units and Integrated Transition Strategy (ITS) to be developed as a basis for exploitation. In year 4 of the project, Dublin City Council, leader of Task 8.3 primarily concerned with dissemination to the general public instigated a systemised approach to using blogs to capture and communicate information to the general public in connection with other social media. Twitter in particular has been used extensively in year 4 of the project to promote relevant

content on the TURAS home page. The final deliverable of work package 8 is a report on the public training or exploitation events to be organised by each local authority partner in the final two years of the project (Task 8.5). The first such public event was organised by Bruxelles Environnement (IBGE) with support from EBN in January 2015. Despite the absence of an official catalogue of results, interim dissemination material was prepared presenting TURAS outcomes in a summary format and a large-scale promotional campaign was launched. The public event was a considerable success with an attendance of over 100 representatives from local authorities and public institutions primarily from the Benelux / Northern France region.

For the AGM in Malaga in October 2015, a template was prepared distilling work package 7 results into a summary of the ITS and/or the activity units which each local authority partners planned to present at their public exploitation event. Climate Alliance are taking the lead on this task and also on Task 8.6 relating to further opportunities for large-scale dissemination in the final year of the project.

### **Work Package 9: Project management**

This work package is led by UCD and is the management work package. During this reporting period, UCD consulted widely with companion and complimentary FP7 projects, was involved in disseminating to the wider academic and public arena, and was active in partnering with new and emerging ideas. Individual members of the high level advisory board were consulted on some occasions, in order to keep the TURAS contributions current and relevant and to offer advice on specific issues. New links with ARTS, JPI Urban Europe and other were made. Academic papers continue to be produced and numerous conference presentations and other events have taken place. Much of the managerial work this period was to finally close the chapter on the liquidation of Seville Global, and addition of another partner to compensate (Promálaga) as well as formally add the University of Nottingham. A new member of the High Level Advisory Board was added, Professor Leonie Pearson.

Budget reallocations / realignments

### **Expected final results and their potential impact and use (including the socio-economic impact and the wider societal implications of the project so far)**

The TURAS project is on track to achieve the expected results, and the development of the ITS and its activity units (ACUs) is exciting. The TURAS website has been changed to reflect new ideas and approaches and to facilitate greater interaction (including blogging). The back office has now been updated to facilitate discussions and demonstrations of the Integrated Transition Strategy.

#### **Address of the project public website**

[www.TURAS-cities.eu](http://www.TURAS-cities.eu)  
[www.TURAS-cities.org](http://www.TURAS-cities.org)  
[www.TURAS-cities.com](http://www.TURAS-cities.com)



## 3.2 Core of the report for the period: Project objectives, work progress and achievements, project management

### 3.2.1 Project objectives for the period

Many of the TURAS project objectives have been completed in the first two reporting periods. These were extensively reported in Periodic Reports [1](#) and [2](#). The two main objectives of this reporting period were to commence the demonstration period of TURAS and to develop the Integrated Transition Strategy. In addition, TURAS has continued to produce academic findings for dissemination, public information events, and to begin work on exploitation and innovation.

#### **Work Package 1: Geospatial ICT-support infrastructure for urban resilience**

This work package is a cross-cutting package and provides the structure of the TURAS project. The objectives of work package 1 during this period were:

- to develop a suite of G-ICT tools which can support urban resilience and sustainability;
- to complete the development of 5 G-ICT tools for which work package 1 had responsibility for;
- to integrate 3 tools developed by other work packages into the overall framework;
- to link the 8 G-ICT tools with the TURAS website and the local authority websites;
- to develop a Framework for G-ICT infrastructure -- integrated database and tools; and
- to complete [Deliverable 1.2](#): Framework for G-ICT infrastructure: integrated database and tools.

#### **Work Package 2: Greening public and private green infrastructure**

Work package 2 is largely completed and this was reported in [Deliverable 2.3](#). During this period, residual research was carried out by PhD candidates, and the TURAS project was used to leverage interest in other research arenas. Specifically, the objectives of this period were to continue the ecosystem service monitoring of green infrastructure experimentation and case studies established earlier within the Work Package. This included the Phase 1 and Phase 2 green roof experiments at Barking Riverside, London and the Green Living Room. In addition, work package 2:

- continued the dissemination of emerging results through stakeholder workshops, local authority workshops and international conferences;
- developed and submitted additional peer-reviewed scientific literature on the research and processes behind work package 2;
- established and developed the Integrated Transition Strategies for TURAS partner Local Authorities (London Borough of Barking and Dagenham, Stuttgart, Rome) in relation to feeding work package 2 outputs into the ITS development process;
- worked with other TURAS partners to ensure the experimental results are fed into the ongoing development of the Barking Riverside community; and
- promoted SME development by showcasing results from the Green Living Room, Stuttgart and the Barking Riverside urban green infrastructure design to ensure broader roll out of design principles.

#### **Work Package 3: Urban / industrial regeneration, land use planning and creative design**

The previous reporting period culminated in [Milestone 18](#) (Inventory) and [Deliverable 3.4](#) (Spatial scenarios for urban neighbourhoods). This deliverable identified 11 key aspects of adaptive co-management and design. The individual tasks that had shaped the earlier phases of work dissolved and there was a switch of emphasis to demonstration sites in the four cities associated with work package 3:

- Dublin
- London Borough of Barking and Dagenham
- Nottingham
- Stuttgart

The objective for this reporting period was the monitoring of the spatial scenarios and practices, and liaising closely with work package 7 to consider their application in the establishment of the

ITS. In addition, innovations arising from the work of the researchers in the work package were developed further (including the 'collaboration dashboard', 're-using Dublin', etc.). Ongoing research and publications from PhD candidates continues, and there were many opportunities for dissemination at conferences and via student activities, including collaborations from students in Brazil and linking with other collaborative urban resilience projects.

#### **Work Package 4: Climate change resilient city planning and climate-neutral infrastructure**

This work package has been completed and has resulted in [Deliverable 4.5](#). During this reporting period the objectives were to finish the research begun by PhD candidates, to publish findings and to continue to develop links with other projects, other municipalities and related projects such as ARTS. Moreover, work package 4 partners participated in demonstration and dissemination activities during this period. This resulted, for instance, in a two-day workshop on flood risk management in Ljubljana where Slovenian and Dutch partners cooperated with local stakeholders.

#### **Work Package 5: Limiting urban sprawl**

All of the objectives of work package 5 were realised in [Deliverable 5.6](#). Some were still pursued in this reporting period in order to improve the scientific rigor of research and to exploit results. The focus of work package 5 activities in this period was on the following two areas:

- to propose regulations and guidance tools which will be implemented by local governments during the lifetime of the project to address the problems of urban sprawl in their respective cities; and
- to develop appropriate monitoring and assessment tools for tracking urban development trends and patterns and to build recommendations and guidelines on managing urban sprawl which will be demonstrated in the other participating cities of the TURAS project network and in a wider European context.

This was carried out as part of the collaborations with work package 7 and the Integrated Transition Strategy.

#### **Work Package 6: Short-circuit economies**

The main objective of this work package during this reporting period was to analyse the results of the different approaches for supporting a new methodology: SREAL (which includes and Employment Environment Alliance, a Curatorial Methodology, a PSS toolkit, and a community interest company). This was integrated into the two work package 6 final deliverables

- [Deliverable 6.8](#): results of the scientific research
- [Deliverable 6.9](#): results translated into a coherent vision, strategy and guidance tools that can enable adaptive governance, collaborative decision-making, and behavioural change towards resilient and sustainable European cities.

Work package 6 continued to collaborate with other work packages (including hosting a TURAS AGM and dissemination event) and the lead partner used TURAS as leverage for developing innovations further and for developing new collaborations.

#### **Work Package 7: Integrated transition strategies**

The principal objectives of this work package, which is pivotal for the remainder of the TURAS project, were:

- To prepare an overarching framework and methodology for urban-regional authorities and agencies; facilitating local trans-disciplinary sustainability transition based on TURAS outcomes
- To synthesise and refine TURAS results for local application and further assessment
- To consult with TURAS cities on the development and demonstration of their City ITS
- To capture diverse (partially non-explicit) knowledge in TURAS
- To identify potential resilience trade-offs between urban systems

#### **Work Package 8: Dissemination, training and exploitation of results**

The principal objective of work package 8 during this period was to prepare for the communication, dissemination and exploitation of the final outcomes of the project through the project website, blogs and social media. The objectives of work package 8 are closely aligned and highly dependent on the achievement of the objectives of work package 7 i.e. the completion of the final

TURAS catalogue of results (capturing the activity units emerging from RTD and pilots carried out in years 1-3) and the Integrated Transition System (whereby activity units are proven in other European contexts).

### **Summary of recommendations from previous reviews:**

There were four deliverables in the last reporting period and these were the focus of a thorough EC external evaluation process. Other aspects of the reporting period and the remaining work packages were also examined and discussed by the evaluators with the individual work package leaders. Below are the principal recommendations of the evaluators for the four deliverables from reporting period 2. The evaluators' recommendations have been accepted by the TURAS consortium, and retroactive actions have taken place where necessary.

#### **Recommendation:**

Work package 2. Analyze findings and show barriers to implementation. Clarify the Vision Strategy Cards and refine the format better. Strengthen conceptual framework of contextualising benefits from urban green infrastructure. Show examples of best practice.

#### **Outcome:**

Work package 2 has revised the Vision Strategy Cards and a new set have been produced. These are now incorporated into the Integrated Transition Strategy being developed, and are continually being adapted. All recommendations have been addressed as part of the peer-review process of the various papers that are emanating from the deliverable.

#### **Recommendation:**

Work package 3. Incorporate better the results and findings of this work package with the 'distillates' of work package. Continue with analysis and develop adaptive collaboration further. Look for innovations.

#### **Outcome:**

The recommendations were accepted and were addressed via various dissemination and innovation initiatives devised during this reporting period. This continued analysis and development has led to a new innovation currently being developed with a view to exploitation in 2016.

#### **Recommendation:**

Work package 4. Explain how the new-DPSIR framework overcomes the criticisms that DPSIR framework has received over the past 10 years about oversimplifying social dynamics, being too linear to provide reliable socio-ecological assessments and neglecting feedback loops between responses, drivers and pressures.

#### **Outcome:**

The evaluators' recommendations have been addressed when preparing the exploitation of this deliverable for scientific publication.

#### **Recommendation:**

Work package 5. Clarify how the comparison between the case studies has been conducted. A closer look needs to be given to the two-phase suburbanisation you found in the case studies. Explain which research method you employed to discover the motives of urban dwellers that move to the new suburban areas. The direction of this work should now shift rapidly towards how urban sprawl can be prevented, how suburban development can be improved and how the negative effects of urban sprawl can be tackled.

#### **Outcome:**

The evaluators' recommendations were addressed when preparing the exploitation of this deliverable for scientific publication, as well as in the process of the elaboration of the regulation/policy proposal discussed in detail with Sofia Metropolitan Municipality.

## 3.2.2 Work progress and achievements during the period

### Work Package 1: Geospatial ICT-support infrastructure for urban resilience

#### Summary of progress towards objectives

##### Phase 2

- On-going consultation work with other work packages on the development and design of the G-ICT tools was carried out.
- 5 G-ICT tools were developed: Reusing Dublin, Twitter GI, The Meadows timeline, The Aalborg Heat Atlas and Das Grune Zimmer QR code.
- 3 existing G-ICT tools: Rotterdam Delta mobile app, the Sofia development mapping video and the LUR PP webGIS, which were developed as part of other work undertaken by the work package 's were integrated into the framework
- 8 tools were linked to the TURAS website and the websites of the relevant local authorities.

##### Phase 3

- A comprehensive literature review on database integration and tools and functionality integration strategies was undertaken.
- Insights from Phase 2 were gathered and integrated into the development of the framework.
- The Resilience Dashboard was conceptualised as part of the framework.
- A Framework for G-ICT infrastructure -- integrated database and tools was proposed.

#### Significant results

- 5 G-ICT tools have been fully developed as part of work package 1.
- 3 G-ICT tools have been integrated as part of the generalised framework.
- All 8 G-ICT tools have been linked to the TURAS website and are available to all stakeholders.
- A generalised framework has been developed which is replicable in any European city.
- Work package 1 research has been disseminated at a European and International level.
- Linking of the [Reusing Dublin](#) tool with Dublinked (Dublin's online data portal).
- [Deliverable 1.2](#)

#### Future planning

- At this point, most of the research activities have finished for work package 1; however, the group will continue to engage with TURAS activities.
- Work is underway for Milestone 6 - a report on local authority evaluation of usefulness of GIS database and work package specific tools.
- Dissemination events and academic papers are continually in progress.
- To attend TURAS dissemination activities over the next 12 months.
- To work with work package 7 on the Integrated Transition Strategy (ITS).

#### Deviations for Annex I and impacts on other tasks, resources and planning

- For technical reasons milestone 6 this is a report on local authority evaluation of usefulness of GIS database and work package specific tools has not been fully completed.

#### Reasons for failing to achieve critical objectives

- All critical objectives have been met.

#### Statement on the use of resources

##### Budgeted distribution of resources for full duration of project:

- UCD (60pm), all other (1-3pm)

##### Actual use of resources for first 18 months:

- No deviations

#### Corrective actions

- Not applicable.

## Work Package 2: Greening public and private green infrastructure

### Summary of progress towards objectives

All tasks are now completed, but there was some legacy work carried out in the following tasks:

#### **Task 2.2 - Generate a universal evaluation model for assessing the drivers and barriers to urban green infrastructure restoration**

- Ongoing updates based on critical internal review.

#### **Task 2.4 – Develop and evaluate a design protocol for incorporating art, creativity and regional habitat characteristics into landscape design for maximising the biodiversity value of green infrastructure**

- Monitoring and emerging findings being analysed and disseminated.

#### **Task 2.5 – Pilot test design tools disseminating from field experiments at the case study area of the Barking Riverside Development in East London**

- Ongoing engagement with Barking Riverside to ensure that design principles are embedded into master planning and rolled out across the future development of the site over the next 10 to 15 years.

#### **Task 2.6 – Develop visions, feasible strategies, spatial scenarios and guidance tools that would enable adaptive governance, collaborative decision-making, and behavioural change in green infrastructure design across selected areas in Greater London, Rome and throughout the TURAS project network**

- Ongoing delivery of this task is being carried out through the continued development of a central Integrated Transition Strategies and Activity Units for transfer to local authorities, and with local engagement with Local Authorities to develop regionally relevant Transition Strategies.

### Significant results

- Continued development of the work package 2 Vision + Strategy Cards and dissemination of cards at various local authority, SME and community events across the TURAS network.
- The Institute for Sustainability completed the Urban Green Infrastructure Green Value toolkit. Following detailed review by work package 2 partners, the toolkit has now been launched on the TURAS PPA.
- Numerous publications (see below)
- Poster presentation accepted for European Conference on Nature-based Solutions to Climate Change in Urban Areas and their Rural Surroundings – Linkages between Science, Policy and Practice to be held in Bonn.
- Successful tendered opportunity to bring TURAS urban green infrastructure monitoring expertise to work on EU LIFE green infrastructure social housing retrofit project in the London Borough of Hammersmith & Fulham.
- The retrofit project green infrastructure designs were led by TURAS project partner and Advisory Board member Dusty Gedge.
- Report on water attenuation performance of standard green roof and experimental green roof submitted to Transport for London: *Connop, S., Clough, J, Carneiro, M A, and Borland, T. (2015) Report on water attenuation performance of green roof in the Ruislip Depot. London: University of East London.*
- Establishment of a draft London Integrated Transition Strategy at the London Borough of Barking and Dagenham to embed TURAS visions and strategies into Local Authority planning policy.
- Community workshop at Barking Riverside as part of the No Fit State Circus to showcase TURAS design principles to new residents. TURAS stand throughout the event with a particular focus on urban green infrastructure within the development.
- Helix represented TURAS at the 2015 Green Week in Brussels, the biggest annual conference on European environmental policy, with the theme being nature and biodiversity. Helix's attendance was then reported in a number of local and national horticultural and sustainability publications.

- A short film was produced documenting the background to, construction of, and community engagement with the Green Living Room project in Ludwigsburg. The film was nominated for the Deauville Green Awards Film Festival 2015 and was a Gold Winner in the category Housing & Eco-innovations. The film was also uploaded to YouTube and the TURAS website.
- Verband Region Stuttgart, University of Stuttgart and Helix Pflanzen held a citizens information event at the Green Living Room.
- Helix continued to provide maintenance for the Green Living Room, managing irrigation, fertilising and renewing any plants that were not healthy.
- Helix also presented the Green Living Room concept at the GaLaBau - International Trade Fair for Urban Green and Open Spaces.
- The University of East London's Sustainability Research Institute were invited to bring urban green infrastructure design and monitoring expertise to three major London greening initiatives: [London B-Lines](#); [Victoria BID](#); [Crown Estate urban greening programme](#). The initial stage of this process was a series of exploitation meetings and it is intended that TURAS will be collaborating with these projects in the future to shape the design and monitoring of green infrastructure interventions.
- Barking Riverside was selected as a key destination for a visit by a group of Urban Planners from the UK's national statutory agency for the environment - Natural England. Planners attended a workshop giving background on TURAS, the experimental work carried out at Barking Riverside, and results from the experiments. Following this, they were taken on a site visit to view the experiments and early phases of the development.
- Barking Riverside was also visited by a group of urban planners and environmental managers from the Greater London Authority again attendees were given a site visit and background on TURAS and urban green infrastructure design on the site.
- The University of East London's Sustainability Research Institute and the London Borough of Barking and Dagenham are now working with Barking Riverside to feed TURAS research outputs in the new Environmental Impact Assessment for the revised transport infrastructure and into master planning for the latter stages of the development. This includes providing species records and feeding urban green infrastructure design principles into infrastructure planning.
- London Borough of Tower Hamlets Sustainable Urban Drainage Systems (SUDS) Planning Guidance is now live on their website. The guidance was made in collaboration with TURAS researchers at the University of East London's Sustainability Research Institute to showcase [SUDS solutions](#) that enhance urban biodiversity and multifunctionality to maximise resilience.
- Leading directly from the SUDS guidance collaboration, a pocket park was developed in Derbyshire St (Tower Hamlets) to showcase the SUDS components recommended in the TURAS guidance. The pocket park was launched at community event on the 12th November 2014. It has since been used for a number of social events for the community and is also now being used as a case study for [CIRIA](#) - an independent SUDS information and resource platform. The pocket park has also been highly commended at the London Transport Awards 2015 – Contribution to Sustainable Transport and is being used as an exemplar case study by the Greater London Authority to promote similar schemes.
- A new Landscape Institute exhibition on [Rethinking the Urban Landscape](#) is presenting two of the case studies that TURAS work package 2 is working with: Barking Riverside and the Derbyshire St SUDS pocket park. The exhibition aims to present a 'landscape first' approach to urban development, via innovative water management, to make our cities more resilient to flooding.
- TURAS researchers from the University of East London Sustainability Research Institute were also invited to participate in London Pollinator Strategy workshops. Workshop comprised discussion of strategies to promote habitat improvements for pollinators across London. The resulting London Pollinators [document](#) included examples of TURAS case studies.
- The Beetle Bump was adopted as a best practice case study for the Buglife (the Invertebrate Conservation Trust) online [Brownfield Hub](#).
- University of East London TURAS researchers hosted a team of urban planner MSc students from the [University of Ljubljana](#).

- Sustainability Research Institute postgraduate research students gave a series of presentations on the research projects they are leading on as part of TURAS and other related projects. This was followed by SRI staff giving the Ljubljana group a tour of the Barking Riverside case study site and other sustainability projects across East London.
- The German Federal Office of the Environment created a web-based platform called "Tatenbank" on their Homepage, which presents best practise examples for adaption to Climate Change. The TURAS Demonstration Site "Green Living Room Ludwigsburg" is shown as one of those examples.
- The Urban Green Infrastructure questionnaire and Annex has been updated and added to the TURAS website PPA following review by work package 2 colleagues.
- The University of East London Sustainability Research Institute has created a new green roof experiment on the University's 'brown' roofs on the student Halls of Residence buildings. The experiment was designed to continue the studies of TURAS researcher Dr. Choe Molineux into how manipulating green roof substrates can increased the vegetation performance and thus resilience of green roof systems.

## Future planning

Plans for key future work linked to work package 2 include:

- Continuing to work with other work package s towards delivery of work package 7 Integrated Transition Strategy and work package 8 dissemination. This will include the development of the Activity Units (ACUs) catalogue and embedding TURAS work package 2 outputs, research and case studies on the TURAS website.
- Continued delivery of Local Authority Workshops including:
  - a CPD day organised for London Borough of Barking and Dagenham planners and local authority planners from other London Boroughs and nationally;
  - Local authority and SME workshops as part of a TURAS session during the Malaga Green Cities conference.
- Continued development of work package 2 outputs, Vision + Strategy Cards and Deliverable document. This will be carried out in a series of stages that have already been initiated across work package 2 partners:
  - *Update* - providing an update to all work package 2 partners on the various Vision + Strategy tools/projects being developed by each partner (i.e. UGI-CBA, Role Play, Best Practice Database, Green Living Room, Barking Riverside Showcase, etc.).
  - *Review* - work package 2 partners will be invited to critically review the status of Vision + Strategy Card projects to suggest improvements to ensure that they are all in a state appropriate for dissemination.
  - *Process* - work package 2 partners will develop an articulation of the processes involved to achieve the desired transition for all Activity Units/Vision + Strategy Cards. This would form part of the Activity Unit framework for describing each output.
  - *Strategic narrative* - writing a strategic narrative of how the tools being developed underpin the aims, objectives and legislative requirements of Local Authorities.
  - *Gaps* - identifying gaps in what we have achieved, with particular focus on developing future funding bids to address gaps in understanding and taking TURAS research programmes forward.
  - *Transfer* - developing a more communicative method of transferring research and case studies to stakeholder groups (e.g. multimedia presentations for use at Local Authority Workshops and on the TURAS website).
- Continue experimental data capture and scientific and report publication from:
  - Barking Riverside green roof experiments;
  - Ludwigsburg Green Living Room experiments;
  - Case study experiments incorporating TURAS urban green infrastructure design principles;
  - New urban green infrastructure project monitoring opportunities arising from TURAS expertise and dissemination.

- Work with Barking Riverside Community Interest Company to provide training on urban green infrastructure value, design and management to ensure sustainability of the TURAS legacy at Barking Riverside.
- Provide expert input into regional Integrated Transition Strategy development for TURAS partner Local Authorities.
- Develop funding bids with project partners and new stakeholders to take TURAS research beyond the initial five years of the project.

#### **Deviations for Annex I and impacts on other tasks, resources and planning**

- There are no deviations from Annex I for this work package.

#### **Reasons for failing to achieve critical objectives**

- All critical objectives have been met.

#### **Statement on the use of resources**

##### **Budgeted distribution of resources for full duration of project:**

- UEL (32PM), STUTT (12PM) Rome (16PM)

##### **Actual use of resources for first 18 months:**

- No deviations

#### **Corrective actions**

- Not applicable

## Work Package 3: Urban / industrial regeneration, land use planning and creative design

### Summary of progress towards objectives

All tasks with the exception of task 3.9 and 3.10 are completed and have fed into the identification of the tools and demonstration sites (Demo-sites). This phase of the work involves on-going measuring of the pilot actions in the participating case study areas and using this data in conjunction with work package 7 to develop visions, feasible strategies, spatial scenarios and guidance tools that promote adaptive governance and collaborative decision-making and behavioural change in urban regeneration in a wider European context.

Tool or Demo-sites	Description	Co-Location with work package 7
<a href="#">Re-using Dublin</a>	A crowd-sourced web-mapping application for underused spaces in Dublin	<i>work package 7 ACU-19</i> Re-using the City <a href="http://www.turas-cities.eu/acus/19">http://www.turas-cities.eu/acus/19</a>
<a href="#">Open Poplar, London</a>	A project/ homepage that calls for ideas of new potential uses for underused and derelict assets	<i>work package 7 ACU -25</i> Community Space Finder <a href="http://www.turas-cities.eu/acus/25">http://www.turas-cities.eu/acus/25</a>
<b>Co-Lab:</b> <a href="#">Connect the Dots</a> , Dublin	An initiative that connects people and communities of interest with underused spaces and each other.	<i>work package 7 ACU -05</i> Connect the Dots <a href="http://www.turas-cities.eu/acus/5">http://www.turas-cities.eu/acus/5</a>
<b>Community Gains, London</b>	An online guide + signposting tool to help communities identify funding and resource paths.	<i>work package 7 ACU - 26</i> Community Gains <a href="http://www.turas-cities.eu/acus/26">http://www.turas-cities.eu/acus/26</a>
<a href="#">Collaboration Dashboard</a> , Dublin	An online city portal that facilitates visibility, connection and horizontal networking between different groups in the city.	<i>work package 7 ACU -07</i> Collaboration Dashboard <a href="http://www.turas-cities.eu/acus/7">http://www.turas-cities.eu/acus/7</a>
<a href="#">Geotimeline</a> , Nottingham	The timeline tool facilitates an understanding of the relationship between community assets and the levels and quality of social cohesion.	<i>work package 7 ACU -27</i> timeline: Community Geo-Timeline <a href="http://www.turas-cities.eu/acus/27">http://www.turas-cities.eu/acus/27</a>
<b>Custom Build: Trent Basin Nottingham</b>	A process of custom build to strengthen community identity, commitment and social networks.	<i>work package 7 ACU -35</i> Custom Built <a href="http://www.turas-cities.eu/acus/35">http://www.turas-cities.eu/acus/35</a>
<b>Energy Security: the Meadows + Trent Basin</b>	Investigating the socio-economic benefits that can be gained from setting up and running smart energy communities.	<i>work package 7 ACU -16</i> Community Power <a href="http://www.turas-cities.eu/acus/16">http://www.turas-cities.eu/acus/16</a>
<b>Community Interest Company: Barking Riverside</b>	Demonstrating the process of transition for the Barking Riverside Community Interest Company from an appointed body to a fully elected one to manage the assets.	<i>work package 7 ACU -04</i> CIC! Community Interest Company <a href="http://www.turas-cities.eu/acus/4">http://www.turas-cities.eu/acus/4</a>
<b>Five demonstration sites for Collaborative practice in placemaking.</b> Creekmouth Heritage, Barking London Mountjoy Square Society Ltd, Dublin Cork Street Park, Dublin Bridgefoot Street Park, Dublin Pelletstown, Dublin	Investigating common threads of collaborative process: building working relationships between the communities of interest, academic, SME and local authorities in placemaking in the city.	<i>work package 7 ACU -03</i> Road Map for collaborative practice in placemaking. <a href="http://www.turas-cities.eu/acus/3">http://www.turas-cities.eu/acus/3</a>

**Table 1.** Tools and Demosites developed from research in [Deliverable 3.4](#) - Spatial scenarios for urban neighbourhoods.

### Task 3.2 – Examine the potential for alternative resilient solutions through development of co-ordinated systems of land use planning

- This task supported the identification of the framework for Adaptive Co-Management and Design and was reported on in the Deliverable 3.4 Spatial scenarios for urban neighbourhoods'

### **Task 3.3 – Research mechanisms and strategies to unlock the potential of abandoned, deserted vacant or contaminated urban sites at various level and spatial scales**

- This task supported the identification of the following Tools and Demosites; Reusing Dublin , Co-Lab: Connect the Dots, Dublin and Open Poplar, London and the subsequent development of the following work package 7 ACUs; *work package 7 ACU-19 Re-using the City, work package 7 ACU -05 Connect the Dots and work package 7 ACU -25 Community Space Finder.*

### **Task 3.4 – Inventory of sites with the potential for drawing on community capital to enhance social resilience structures**

- This task supported the identification of the following Tools and Demosites; Open Poplar London, Community Gains London, the Geotimeline, Nottingham, Custom Build: Trent Basin, Nottingham, and the demonstration sites for Collaborative practice in place-making (Dublin) and the subsequent development the following work package & ACUs; *work package 7 ACU - 25 Community Space Finder, work package 7 ACU - 26 Community Gains, work package 7 ACU -27 timeline: Community Geo-Timeline and work package 7 ACU -03.*

### **Task 3.5 – Assess the sustainable re-use use of buildings on vacant sites,**

- This task supported the identification of the following Tools and Demosites; Reusing Dublin, Open Poplar, London and Co-Lab: Connect the Dots, and the subsequent development of the *work package 7 ACUs; ACU-19 Re-using the City, work package 7 ACU -25 Community Space Finder and work package 7 ACU -05 Connect the Dots.*

### **Task 3.6 – Establish mechanisms for engaging in collaborative planning processes and community-driven actions**

- This task supported the identification of the following Tools and Demosites; Co-Lab: Connect the Dots, Dublin, Community Gains, London, Collaboration Dashboard, Dublin, Geotimeline, Nottingham , Custom Build: Trent Basin, Nottingham, and Five demonstration sites for Collaborative practice in place-making, Dublin, and the development of the following work package 7 ACUs; *work package 7 ACU -05 Connect the Dots, work package 7 ACU - 26 Community Gains, work package 7 ACU -07 Collaboration Dashboard, work package 7 ACU - 27 timeline: Community Geo-Timeline, work package 7 ACU -35 Custom Built, and work package 7 ACU -03 Road Map for collaborative practice in placemaking.*

### **Task 3.7 – Identify mechanism for creating new and innovative funding**

- This task supported the identification of the following Tools and Demosites; Energy Security: the Meadows + Trent Basin, Community Gains, London, Community Interest Company: Barking Riverside and the development of the following work package 7 ACUs; *work package 7 ACU -16 Community Power , work package 7 ACU - 26 Community Gains, work package 7 ACU -04 CIC! Community Interest Company.*

### **Task 3.8 – Assess and expand upon the novel concept of ‘urban comfort zones’ and develop strategies for their incorporation into existing planning processes**

- This task was completed in the previous reporting period and its demonstration has been carried out under work package 2

### **Task 3.9 – Pilot test combined strategies in selected neighbourhoods**

- The task is ongoing. See Table 1.

### **Task 3.10 – Impacts and Results of Pilot Studies**

- This work is ongoing,

#### **Significant results**

- See table 1.

#### **Future planning**

- Work will continue to disseminate the Demosites and to explore new mechanisms for iterative research.

#### **Deviations for Annex I and impacts on other tasks, resources and planning**

- There are no deviations from Annex I for this work package.

### Reasons for failing to achieve critical objectives

- All objectives met. Task 3.10 is an iterative task and will be continually carried out.

### Statement on the use of resources

#### **Budgeted distribution of resources for full duration of project:**

- UCD (65PM), STUTT (12PM) DCC (16PM) IfS (14PM), Nottingham (6.5PM)

#### **Actual use of resources for first 18 months:**

- No deviations

### Corrective actions

- Not applicable

## Work Package 4: Climate change resilient city planning and climate-neutral infrastructure

### Summary of progress towards objectives

All tasks are completed. Nevertheless, still some work package 4 related activities have been performed, which are summarized here:

- The case study on Integrated Sustainable Waste Management (ISWM), which was late due to issues with the original and replacement partners, has been finalized and delivered by BioAzul. This [report](#), which follows the same structure as the chapters of the synthesis report and has been completed.
- Partners have continued dissemination their results through conferences and meetings.
- With the project into its demonstration phase (instead of research phase), a demonstration case has been set up for the Ljubljana region where the tools developed by IVM-VU on flood risk assessments and the experiences on developing flood risk management plans by Rotterdam will be transferred to Ljubljana. This was done during a workshop on 17<sup>th</sup>- 18<sup>th</sup> September in Ljubljana where partners from Rotterdam and IVM-VU will be present as well as local flood experts (Thursday) and stakeholders (Friday). In preparation, LUR and ULFGG collected all available information and forwarded this to IVM-VU partners who have used that to perform analyses using their tools.

#### Task 4.2 – Urban planning and adaptation to flood risk, and

#### Task 4.3 – Urban planning support through land use modelling

- PhD students from IVM-VU are continuing their research related to tasks 4.2 and 4.3 after M36.
- Elco Koks (task 4.2 – flooding): papers that were in press in Risk Analysis and Environmental Policy and Science have been published. Furthermore, two methodological papers on the modelling of indirect economic effects of flooding are in review in 'Natural Hazards' and 'Economic Systems Research'. Based on this work, a high-impact paper (targeted at a Nature series journal) is being prepared on the European wide impacts of extreme flood events due to economic linkages.
- Marthe Derkzen (task 4.3 – urban ecosystem services): the work on the supply of urban ecosystem services (through GIS modelling analysis) and on the perception and demand of such services by the public (through a survey) have been finalized. A paper on quantifying urban ecosystem services has been published in Journal of Applied Ecology and a papers on public perception and demand is in review with 'Mitigation and Adaptation Strategies for Global Change'.

#### Significant results

- All tasks have been finished.
- Partners from Netherlands and Slovenia combined efforts to set up a demonstration case for work package 7 on flood risk management in Ljubljana.
- Various peer-reviewed publications have been published resulting from work package 4 work.

#### Future planning

- Work package 4 partners will continue within the scope of work package 7 to finalize the demonstration case in Ljubljana.
- Work package 4 PhD students continue their research.

#### Deviations for Annex I and impacts on other tasks, resources and planning

- Since all tasks have formally ended and have also content-wise been finalized, there are no deviations from Annex I.

#### Reasons for failing to achieve critical objectives

- All critical objectives have been met

### Statement on the use of resources

#### **Budgeted distribution of resources for full duration of project:**

- VUIVM (52PM), Aalborg (12PM), RDA LUR (11PM), BioAzul (14PM)

#### **Actual use of resources for first 18 months:**

- No deviations

#### **Corrective actions**

- Not applicable

## Work Package 5: Limiting urban sprawl

### Summary of progress towards objectives

All tasks are completed, but there was some legacy work carried out in the following tasks:

#### **Task 5.6 - Study of the role and efficiency of nodes in a polycentric urban system**

- VFU has prepared a research paper to be submitted to a scientific journal titled “Polycentricity versus Sprawl in the General Urban Development Plan of Sofia”

#### **Task 5.7 - Preparation of planning and development regulations concerning peripheral territories**

- Further intensive discussions with the Spatial Planning Directorate of Sofia Metropolitan Municipality and the district administrations of the districts of Novi Iskar and Kremikovtsi, with local interested groups and stakeholders.
- Based on the attitudes expressed during these discussions improvements were elaborated in the proposed regulatory measures and the amendments in the four municipal ordinances.

#### **Task 5.8 - Development of monitoring and assessment tools**

- VFU has continued its research activities within the framework of cooperation with work package 7 led by the University of Stuttgart. The goal is to develop such a set of tools that should fit into the Guidelines for sustainable and resilient suburban development.

#### **Task 5.9 - Evaluation of short-term (first) results and further development of the system of regulations**

- VFU has started working on this task based on the results of the surveys conducted by Vitosha Research and SOFPROEKT.
- A draft of a paper is prepared for submission to a planning journal based on these surveys aimed to evaluate the results of the implementation of Sofia’s General Urban Development Plan concerning the impact of the plan in suburban areas.

#### **Task 5.10 - Preparation of Guidelines on limiting urban sprawl and promoting urban resilience**

- VFU has continued working on this task based on both the findings of theoretical and empirical research and the results of the implementation of the new master plans.
- The discussions with the local stakeholders, interested groups and the local administrations are a key factor for the development of the Guidelines.
- Another key factor is the assessment of the Guidelines in result of the discussions with IAUS and with the team of the University of Stuttgart (work package 7).
- The role of the collaboration with is important in view of the goal to develop a system of tools for efficient regulation of suburban development.

### Significant results

- Research conducted during the analytical phase of the project. Studies conducted during the analytical phase investigated the current situation in the suburban areas of Sofia, Rome and Belgrade. This has generated a number of research papers. In the Second Report Period 5 research papers had been published, including 1 published in a journal with high impact factor (Planning Theory) and one chapter in a book published by Wiley Blackwell. In the Third Report Period 7 papers have been published in international journals, three of them in journals with high impact factor – Habitat International and Planning Theory. The latter three papers are listed below.
- Along with published articles, one chapter of a book was also published and 7 research papers have been presented by members of work package 5 at international conferences in Belgrade, Volos, Porto Heli (Greece), Groningen and Varna.
- Research relating to the elaboration of implementation tools and guidelines for regulating suburbanisation processes aimed to achieve sustainable and resilient suburban development.
- The initial proposal for guidelines and implementation tools and measures was prepared in the Second Report Period and was discussed in detail with the Directorate of Spatial Planning of Sofia Metropolitan Municipality.

- The structure of the proposal and the Guidelines and implementation tools were improved in result of the discussions with the University of Stuttgart.
- The Guidelines and the implementation and monitoring tools will comprise:
  - guidelines and tools for evaluation of funding needed for the development of suburban infrastructure,
  - guidelines and tools for assessment of the value of suburban natural amenities,
  - guidelines for preparation of a system of local fees based on economic, social, ecological and other planning considerations, and
  - tools and indicators for monitoring urban sprawl. The team of VFU has started working on these four components of the Guidelines and implementation tools.
- Discussions have been carried out with the Directorates on Transport Infrastructure, on Housing and Public construction and on the Consolidated Budget of Sofia Metropolitan Municipality and also with the District administration of Novi Iskar district, the mayor, the chief architect, representatives of the local population and local interested groups and the local business. Many useful proposals and changes were made at these meetings.
- As a result, the Guidelines and implementation tools with amendments in four ordinances of Sofia Metropolitan Municipality are ready to be submitted to the Municipal Council.

### Future planning

- Future planning of work package 5 concerns more detailed definition of the findings of tasks 5.8, 5.9 and 5.10.
- The plan for the development of the final task, the preparation of Guidelines on regulating urban sprawl, comprises the preparation of the four Guidelines listed in the section above.

### Significant results

- This period has been very productive in the area of academic, peer-reviewed output.

### Future planning

- The work package partners continue to collaborate on dissemination as well as horizon scanning for new mechanisms for collaborating

### Deviations for Annex I and impacts on other tasks, resources and planning

- There are no significant deviations from Annex I for this work package

### Reasons for failing to achieve critical objectives

- All critical objectives have been met.

### Statement on the use of resources

#### Budgeted distribution of resources for full duration of project:

- Varna (54PM), IAUS (32PM), Sapienza (16PM), Roma (12PM)

#### Actual use of resources for first 18 months:

- No deviations.

### Corrective actions

- Not applicable

## Work Package 6: Short-circuit economies

### Summary of progress towards objectives

Two deliverables were produced by work package 6 during this reporting period. [Deliverable 6.8](#) and [Deliverable 6.9](#). All tasks were completed during this reporting period. The following tasks were completed as part of the updating of the consortium agreement and the updating of the work package 6 tasks:

#### **Task 6.4 – Research on support programmes for ‘localised’ business sectors such as the creative industries or specific geographical areas**

- The project in Manziana made little progress. A meeting was organised on the site of the Solfatara at the initiative of the work package 6 leader on the 22<sup>nd</sup> June with some of the stakeholders of the site of Manziana (Universitat Agraria, BicLazio, entrepreneur in cultural activities, etc.).
- As the stakeholders were failing to formulate a shared vision for the conversion of the site, the decision was taken to organize a workshop using the curatorial methodology developed by work package 6.
- The methodology can potentially help the Manziana local stakeholders in succeeding in the exercise of formulating a vision and identifying the missing links to implement the vision.
- The workshop will take place probably in November-December 2015 as part of the Integrated Transition Strategy to be developed by BicLazio for work package 7.

#### **Task 6.5 – Analysis of outputs of other work package s and opportunities for supporting creation and growth of local ‘green’ businesses**

- Candidates were selected after the call for interest and started using the consulting and laboratory facilities of I-Agri (the agriculture incubator)
- The land incubation part of I-Agri originally scheduled to begin in the last quarter of 2014 had to be interrupted in November 2014. Due to numerous budget cuts implemented by the Lazio Region authority, the financial resources available were not anymore sufficient to cover the costs linked to the infrastructural aspects of the implementation of the I-Agri (the access to land plots). The project is on hold since then until additional source of resources are found. BicLazio is currently analysing the available options in terms of European funds.
- BicLazio wrote a short information report to present the I-Agri project and give some general guidelines for local authorities from other regions that would be interested in implementing a similar project (available: [here](#))
- The interest of Rome municipality for the I-agri project (representatives of the Rome municipality came to visit the project the third quarter of 2014) led BicLazio and Rome to engage in a collaboration project around another site, the Parco Agricolo Casal del Marmo. The park has 400 hectares of public land which could potentially integrate an innovative incubator like I-Agri.
- Before working on a transfer from the I-agri model to the Parco, work package 6 partners proposed to explore more into deep the strategic aspect that a peri-urban site such as the Parco Agricolo could represent in terms of supporting SREAL and facilitating the transition to a place-based economy.
- A series of three-day workshops was organised using a methodology developed by work package 6 (the curatorial methodology). The methodology is a system thinking tool which aims at bridging between multiple scales, dimensions and actors in the context of system transitions.
- To prepare the workshops work package 6 partner BicLazio was realized a geological study of the Parco Agricolo by an expert, based on soil samples taken, in order to make an initial screening of this area destined to agricultural use and verify the presence of possible pollutants.
- Work package 6 academic partners provided BicLazio with a technical questionnaire which was used to interview 15 main stakeholders of the Municipio XIV to be able to feed the discussions of the thematic working groups during the workshop
- The overall vision that resulted from the workshops was documented in a report, which includes also a series of policy recommendations.

- The methodology is described in a paper that was submitted and accepted for the ISOCARP Congress (The International Society of City and Regional Planner) that will be held in October 2015.

#### **Task 6.7 – Research on adaptive governance and SREAL**

- During this reporting period, academic partners focused on a case study in Brussels led by partner Brussels Environment, the Employment Environment Alliance (EEA). It is an innovative form of governance for the transition of key urban economic sectors towards more sustainability through a participatory construction of a territorial strategy that aims at supporting local initiatives addressing transition obstacles and structuring interactions between regime, public and private actors.
- As a result of the analysis, an evaluation paper was published in the scientific journal “Brussels Studies” and a [methodological guide](#) for local authorities was elaborated to explain how to put in place a process like the EEA
- The academic paper on adaptive governance reported in the previous period “Blending adaptive governance and institutional theory to explore urban resilience and sustainability strategies in the Rome Metropolitan Area, Italy “ was peer-reviewed, adapted and accepted

#### **Task 6.8 – Research on community green infrastructure management and maintenance as social enterprise )**

- Background research was undertaken on how similar neighbourhoods in England (Upton, Northants and Cambourne, Cambs) manage green infrastructure, and what social enterprise/ non-profit companies in East London offer a community asset management offer.
- A community questionnaire has been prepared and is being distributed through various channels to residents at Barking Riverside to gauge their interest and experience across a range of possible social capital / social enterprise activities.
- Networking and information sharing events were undertaken with the community at Barking Riverside.
- An information stall was held during a cultural event in the summer, to share information with residents about the innovative green infrastructure features of their neighbourhood, with invitations received to talk to the school, scouts groups, the residents’ forum and current management company. An update was provided to the Community Interest Company (CIC) for Barking Riverside.

#### **Task 6.9 – Research on the use of sustainable neighbourhood contracts to support local economic activity**

- The [flow chart](#) (Bernaerts’ process) that was created during the previous reporting period and that serves as a general procedure to reuse empty building for supporting SREAL in Brussels is currently being used for discussions around the creation of a region based Socio-economic real estate agency. The creation of this agency would integrate a list of action linked to the Brussels Regional Plan for Circular Economy.
- The research around the sustainable neighbourhood contract led to the publication of a paper in the scientific journal Ecological Economics.

#### **Task 6.10 – Analysis of results, development of a coherent strategy for supporting SREAL, recommendations for exploitation at city, national and European level (IBGE/BIM)**

- All results were integrated into [Deliverable 6.9](#), which describes a coherent strategy for supporting SREAL from an adaptive governance perspective and more specifically from a “bridging” perspective.

#### **Significant results**

- An information report on I-agri is being finalised.
- The curatorial methodology was successfully tested on the Parco Agricolo Casal del Marmo in Rome and the experience was documented in a report and in an academic paper submitted for the ISOCARP conference in October 2015.
- An academic paper around adaptive governance has been adapted and accepted after review.
- An academic paper around the Employment Environment Alliance (EEA) has been presented at the 2nd Interdisciplinary Symposium on Sustainable Development.

- A methodological guide around the EEA was elaborated for local authorities information.
- **The** organisation of different networking and information sharing events around the Community Interest Company with the community at Barking Riverside.
- The academic paper presenting the results on the sustainable neighbourhood contracts program in Brussels was accepted for review.
- All the results of the research and the practical outputs were integrated into a final report [Deliverable 6.9](#): “Bridges for local economies Community - and place-based strategies for local authorities”.
- Building on the 4 years of research, the spin-off company OSMOS will be set-up to offer consulting services to local communities and authorities on the strategies to support the transition towards a place-based economic system.

### Future planning

- A workshop will be organised in November/December 2015 with local stakeholders to formulate a vision for the conversion of the Solfatara site in Manziana (using the curatorial methodology developed for the Parco Agricolo in Rome).
- A second workshop will be organized with the local stakeholders to go further with the implementation of the vision for transforming the Parco Agricolo in order to stimulate SREALs.
- The EEA methodological guide will be presented during the conference Green Cities and Sustainability in October in Malaga on the 7<sup>th</sup> October.
- The guide will be also serve as a point of discussion during a special workshop around the stimulation of the local economy for Malaga with local stakeholders on the 8<sup>th</sup> October.
- Further community events are planned, linking green infrastructure, community assets and local enterprise opportunities. An action plan for community engagement in the master planning process will be developed. Further engagement events will be undertaken with residents and the Community Interest Company.
- The Brussels partners will work further on the formalisation of the Bernaerts’ process through the opportunity of the creation of the Regional Socio-economic real estate agency.
- Work package 6 partners will now concentrate on activities linked to work package 7 (ensuring transferability of work package 6 outputs and elaborating their Integrated Transition Strategy).

### Deviations for Annex I and impacts on other tasks, resources and planning

- The lack of capacity for the local stakeholders to find an agreement on the conversion of the Solfatara of Manziana site has delayed the Manziana project. BicLazio clearly needs support from experts to facilitate the discussions between the local stakeholders. Work package 6 Academic partners could provide this expertise (using the curatorial methodology approach) but there is currently no sufficient budget to work further on the case study for the academic partners. This is due to the same issue that was pointed out during the first external review of the working package 6, which has been designed without sufficient budget for academic presence and support.

### Reasons for failing to achieve critical objectives

- The extension of work from work package 6 partners in work package 7 activities will be a major issue because the work package 6 local authority partners are not backed up by academic partners. It is the same issue as the one that was revealed during the first external review. The local authority partners were not assisted by academics having the necessary expertise. Work package 6 was able to find a solution by temporarily engaging a second academic partner from Brussels but there is no more budget to follow this collaboration concerning work package 7 activities

### Statement on the use of resources

#### Budgeted distribution of resources for full duration of project:

- IBGE (34PM), UEL (29PM),

#### Actual use of resources for first 18 months:

- Extra person months given from Seville to IBGE and UEL to compensate for liquidation.

### Corrective actions

- As a result of the delay with the Manziana case study partner BicLazio has been asked to concentrate the resource on the new Parco Agricolo case study in Rome (task 6.5). This allowed to test successfully the curatorial methodology. The methodology could have further relevance within the Manziana context because it aims at helping unlocking the discussions between different stakeholders when formulating a vision for the transition. To proceed further with Manziana, BicLazio will need support from the work package 6 academic partners
- A solution for the Manziana case study could be to organize the workshop with the local stakeholders around the site conversion through the future work for working package 7. Manziana corresponds to the location around which the Integrated Transition Strategy will be designed. Discussions are taken place to transfer part of the partner Roma Capitale budget to work package 6 academic partners to allow them to follow on with the collaboration.

## Work Package 7: Integrated transition strategies

### Summary of progress towards objectives

#### Task 7.1 Identification of synergies between work packages 2 to 6

Objectives:

- The multi-dimensional framework of categorisations for work package 7 (the 'ITS Matrix') that was developed throughout the conceptual preparatory phase has been supplemented through input from the planning practice-oriented work done with LAPI partners during this reporting period.
- The Activity Unit (ACU) methodology was further pursued
- In collaboration with work package 8 a TURAS 'product catalogue' was developed for collating the main TURAS output in ACU format and for accessing it online.
- Based on the categories from the 'ITS Matrix' and following the logic of the ACU methodology, it is a 'dynamic' IT solution and allows for evolution of its content as well as for multi-criteria filtering. This is now in place in the back office of the TURAS website.
- All three before mentioned activities are supporting work package 7 efforts to come to a more systemic understanding of TURAS in order to identify interdependencies between TURAS products and ultimately provide strategic guidance on their application.

#### Task 7.2 Demonstration of Integrated Transition Strategy (ITS) in TURAS partner cities

- According to locally varying challenges, strengths and interests the ITS process was adapted for each TURAS city following the generic structure of 'system-vision-strategy-implementation'.
- In consultation with work packages 1 and 8 a topical focus has been defined; related relevant challenges and interdependencies have been identified; potential stakeholders have been suggested and (as far as possible) involved; and a set of relevant TURAS products (and potentially suitable for local implementation) has been chosen.
- Work package 7 transferred the (interim) result of this collaborative process into a strategic document, while the local partners focused on the realisation of the suggested steps and elements.
- The framework and approach were discussed (using 'graphic recording') during a workshop for the LAPI partners in terms of local progress, challenges encountered, necessary alignments and possible formats.
- In collaboration with work package 8 a template was developed to capture the experience made so far local with both the ITS process as well as the TURAS products applied locally and to present it at the up-coming AGM in Malaga.

#### Task 7.3 Delivery of final framework for integrated transition strategy for non-participating cities

- A first version of a conceptual framework was presented and discussed during the combined review and AGM event in Brussels, January 2015.
- This framework was translated into an approach for strategic planning and 'packaged' into a step-by-step template for local adaption and 'testing' (or demonstration).
- The template was locally adapted and implemented (as far as the timeframe allowed for) during the first part of the 'demonstration phase'.
- A workshop was organised in summer 2015 for collecting first insights on the usability of the framework and possible formats for its distribution, to make already first adjustments.

### Significant results

- [Deliverable 7.10](#).
- A penultimate working draft of key TURAS output (or product) has been identified, refined, categorised and made online accessible via the TURAS catalogue.
- Within the TURAS catalogue more comprehensive product entities have been identified, categorised as 'starter projects':
  - 'CIC! Community Interest Company' starter project
  - 'Green Living Room' starter project
  - 'iAgri' starter project
  - 'Integrated Flood Management' starter project

- 'Residential' starter project
- 'Re-using the City' starter project
- For most of the TURAS cities a draft city ITS is available by now, guiding and documenting the 'demonstration' of the ITS process as well as TURAS products.

### Future planning

- The interface between the TURAS catalogue and the ITS framework will be discussed, with the work package 7 meeting during the 4th Malaga AGM being the first opportunity. Follow-up discussion will be suggested by work package 7 to take place in a smaller working group of interested LAPI members.
- The TURAS product catalogue will be further developed into a 'final' version: Information for more predefined categories will be added; categories are re-viewed and might be adjusted; information on resilience trade-offs will be added according to availability and after a comprehensive assessment of the 'TURAS demonstration phase' has been carried out. One (or several target group oriented) interface(s) will be developed and added, based on the state of knowledge after the 'demonstration phase'; possibilities for semantic search as well as visualisation will be further examined.
- Insights from the current reporting period (cp. Task 7.1 and Task 7.2 above) will be structured and assessed as a whole. The experience of the LAPI partners using the 'ITS process' locally will be documented and evaluated.
- This knowledge will be used for designing the overarching framework and methodology for urban-regional authorities and agencies. It should facilitate local trans-disciplinary sustainability transition based on TURAS outcomes while supporting strategic decision making through new knowledge on resilience trade-offs between urban systems. As a product this might overlap with an interface of the TURAS catalogue for urban-regional authorities and agencies.
- The key term methodology and glossary related activities will be further pursued in the coming phase in accordance with the usability needs of the final ITS framework.
- A suggestion of scientific paper(s) on the diverse interfaces within TURAS is under preparation and can hopefully be finalised within the duration of the project.

### Deviations for Annex I and impacts on other tasks, resources and planning

- There are no deviations from tasks

### Reasons for failing to achieve critical objectives

- All critical objectives have been met.

### Statement on the use of resources

- STUTT (36PM), UCD (11PM), municipalities (7-14PM)

### Corrective actions

- DCC transferred 7PM to UCD in order to accommodate the recruitment embargo.
- The Steering Committee of TURAS agreed to ring fence 5% of the total work package 7 budget of all partners to cover the cost of adding the ITS to the TURAS site via a move to Pracsis. This was agreed by the Project Officer.

## Work Package 8: Dissemination, training and exploitation of results

### Summary of progress towards objectives

#### Task 8.1 Dissemination and exploitation strategy and plan

- A dissemination and exploitation strategy was developed by EBN with input from all partners and submitted in accordance with the DoW as Deliverable 8.14 TURAS Dissemination Strategy in Month 6.
- The DoW foresees a revision of the dissemination and exploitation strategy on an annual basis throughout the project. The TURAS dissemination strategy has been reviewed at the Steering Committee Meeting in month 18 of the project, in Amsterdam in June 2014 and most recently at the AGM in Brussels in January 2015 and the SCM in June 2015.
- The key message communicated at both the AGM and SCM in 2015 was that the primary focus of the project has changed from RTD and awareness raising activities to Demonstration (work package 7), Dissemination (work package 8) and Exploitation (work package 9) activities. The clear feedback from local authority partners (LAPI) at the AGM was that a comprehensive but easily accessible catalogue of TURAS results was essential to successful dissemination/exploitation of project results.
- The priorities for this final 24 month period were presented as follows:
  - Working closely with work package 7, work package leaders and local authority partners (LAPI) in particular to develop an online catalogue of TURAS outcomes as a precursor to effective exploitation.
  - Provide direction and support to local authority partners on the organisation of a dissemination, training and exploitation event to present the TURAS catalogue of results and their Integrated Transition System (ITS) to a wider audience of local authorities in their respective countries.
  - Prepare communication material to support the dissemination, communication and exploitation activities
- The dissemination strategy ([Deliverable 8.14](#)) was updated reflecting this new focus on integration, dissemination and exploitation strategy for the remaining period of the project.

#### Task 8.2 Development and maintenance of interactive communications platform

The recommendations of the 18-month review meeting as regards work package 8 were as follows:

- Task 8.2 is led by Pracsis in close consultation with EBN and with input and feedback collected from all partners through meetings, emails and online discussions.
- Activities during this reporting period was focused on the following elements:
  - Keeping up to date content on the home page of the TURAS site in particular through Twitter and blog posts.
  - Creation of an event mini-site for the first major public dissemination event in Brussels following the TURAS AGM in January 2015. This site (created by the EBN event management team) was linked seamlessly to the main TURAS site and allowed for online participant registration, profiling of speakers and sessions, downloading of presentations, photos and videos afterwards.
  - In close collaboration with Dublin City Council (DCC) the leader of Task 8.3, blog functionality was added to the site.
  - Towards the end of the reporting period, Mauro Cicio, Task 8.2 leader and Eva-Maria Stumpp (work package 7 leader) collaborated closely on the development of an online catalogue to present TURAS results (ACUs) in a format to meet both local authority requests but also to facilitate future development of ITS.

#### Task 8.3/Task 8.4 Offline dissemination activities in each participating city (more than one neighbourhood)

- Offline dissemination activities varied considerably from city to city. In many cities dissemination activities were not restricted to individual neighbourhoods or case study areas but had a wider reach and impact. For this reason we report together on Task 8.3 and Task 8.4 activities.

- As per previous report and as requested previously by reviewers rather than present an exhaustive list of activities completed by partners during each reporting period, we present instead some highlights from each city.
- The strategy proposed by the Task 8.3 leader Dublin City Council to report on Task 8.3/Task 8.4 activities during this period was to collect blog posts from each local authority (LAPI) partner on their activities.
- This approach presents multiple benefits: informative reporting on Tasks 8.3/8.4 activities, wider dissemination of individual LAPI community related activities through TURAS platform, sharing of ideas and approaches to dissemination with other LAPI partners.
- A [report](#) on LAPI activities through blog posts was produced.

#### **T8.5 Focused training to assist in exploitation of results by other councils/cities**

- The first major TURAS public dissemination event targeting local authorities not involved in the TURAS project took place in [Brussels on 13<sup>th</sup> January 2015](#).
- By this stage the majority of RTD work on TURAS had been completed and results were starting to emerge in a variety of different formats from reports and guidelines to a series of vision + strategy cards from work package 2. The objective of the event was therefore to present emerging results and gain some initial feedback on the relevance and level of interest in these results from outside the partnership.
- The event was fully subscribed with 100+ participants primarily from local authority partners in the Benelux/Northern France area but also with representatives from non partner regions in Spain, Finland, Italy and Slovakia amongst others.
- The event was structured into three sessions:
  - Roundtable 1: EC policy makers and local authority championing the TURAS agenda
  - Roundtable 2: Local authority 'pitching session' – 5 TURAS LAPI partners presented 5 minute 'pitches' to the audience of local authorities.
- Workshop breakout sessions: Each of the pitches was followed by smaller local authority workshop sessions allowing for one to one questions and contacts to be established between interested local authorities and TURAS partners.
- Evaluation forms completed after each workshop showed that TURAS results were of high relevance and interest to participants.
- Overall the feedback and interactions at this event provided the partners with useful feedback on the relevance and interests of external target audiences and provided a good starting point for future follow up when TURAS results have been 'processed'
- The full programme for the event, presentations, photographs/animations are available to download from the TURAS website.
- To support this event communications material was developed focusing on the results emerging from each of the main TURAS work packages 1-6.
- A video animation was also developed presenting key words and results in a visual format.

#### **T8.6 Widespread dissemination to other cities, to policy makers, to the research community and to the general public through programme of conferences, events and specialised communications etc.**

##### **List of peer-reviewed papers**

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Derkzen, M.L., van Teeffelen, A.J.A., & Verburg, P.H. (2015), REVIEW: Quantifying urban ecosystem services based on high-resolution data of urban green space: an assessment for Rotterdam, the Netherlands. [Journal of Applied Ecology](#), 52 1020-1032.

Koks, E.E., Bockarjova, M., Moel, H. de & Aerts, J.C.J.H. (2015). Integrated Direct and Indirect Flood Risk Modeling: Development and Sensitivity Analysis. [Risk Analysis](#), 35(5), 882-900.

Koks, E.E., Jongman, B., Husby, T.G. & Botzen, W.J.W. (2015). Combining hazard, exposure and social vulnerability to provide lessons for flood risk management. [Environmental Science & Policy](#), 47, 42-52.

- Molineux, C. J., Gange, A. C., Connop, S. P. & Newport, D. J. (2015) Using recycled aggregates in green roof substrates for plant diversity, [Ecological Engineering](#), 82, 596-604.
- Molineux, C.J. Connop, S.P. & Gange, A.C. (2014) Manipulating soil microbial communities in extensive green roof substrates. [Science of the Total Environment](#), 493, 632-638.
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- Nash, C., Clough, J., Gedge, D., Lindsay, R. Newport, D., Ciupala, M. A. & Connop, S. (2015) Initial insights on the biodiversity potential of biosolar roofs: A London Olympic Park green roof case study. [Israel Journal of Ecology & Evolution](#), (Green Roof Ecology Special Edition), *in press*.
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- Slaev, A.D., (2015) Property Rights and Methods of Nomocratic Planning. [Planning Theory](#), *in press*.
- Zeković S. & Vujošević M. (2015) Development of South-Eastern Europe: The Role of Industrial Policy, [American Journal of Economics, Finance and Management](#) 1(5) 445-459
- Zeković S., Vujošević, M., & Maričić T. (2015) A Preliminary Analysis of Sustainable Development in the BMA, [International Journal of Social, Behavioural, Educational, Economic and Management Engineering](#) 9(7), 3314-3221
- Zeković S., Vujošević, M., & Maričić T. (2015) Spatial regularization, planning instruments and urban land market in a post-socialist society: the case of Belgrade, [Habitat International](#), 48, 65-78.
- Zeković S., Vujošević, M., Bolay, J.C., Cvetinovic, M., Živanović-Miljković, J. & Maricic T. (2015) Planning and land policy tools for limiting urban sprawl: example of Belgrade, [Spatium](#), International Review 33, 69-75.

#### List of conference presentations

- Alvarez, L., Rodrigues, L., Borsi, K., & Gillott, M. (2015). "A bifocal-ecological approach for enhancing social resilience in neighbourhoods". In: AIARG 2015 Systems Thinking and the City: New practices and connections, Fourth Annual Meeting, 30<sup>th</sup>-31<sup>st</sup> January. University College Dublin. Ireland.
- Borsi, K., Alvarez, L., Rodrigues, L., & Gillott, M., (2015). "Community resilience and social equity for the sustainable development of disadvantaged neighbourhoods". In: AR 2015 Architecture and Resilience at the Human Scale. 10<sup>th</sup> 12<sup>th</sup> September, Sheffield, UK.
- Clough, J. (2015) Greening local neighbourhoods: practicing what you preach. UEL research conference, June, London, UK
- Connop, S. (2015) presented 'TURAS – applying theory into practice' at Innovate UK Horizon 2020 Nature Based Solutions stakeholder workshop (September)
- Corcoran, A. & Nedovic-Budic, Z. (2015) Computers in Urban Planning and Urban Management (CUPUM). "Reusing Dublin": A crowd sourced web mapping application to support the reuse of underutilized spaces in Dublin. Boston, 7<sup>th</sup>-10<sup>th</sup> July.
- Corcoran, A. & Nedovic-Budic, Z. (2015) IGU –Urban Geography Commission Conference. A crowd sourced web mapping application to support the reuse of underutilised spaces in Dublin. Dublin, Ireland, 9<sup>th</sup>-16<sup>th</sup> August.
- Crowe, P. & Foley, K. (2014). "Vacant Sites Mapping: Motivation, process and use". In: 2nd International Conference on Urban Sustainability and Resilience (USAR), 3<sup>rd</sup>-5<sup>th</sup> November, University College London, UK.
- Crowe, P., Foley, K. & Corcoran, A. (2015) Building Adaptive Capacity to Change: A century of mapping underused spaces in Dublin. Urban Ecologies Conference, 17<sup>th</sup>-19<sup>th</sup> June, Toronto, Canada.

- Crowe, P., Foley, K. & Corcoran, A. (2015). Creating a Template for Change: A century of mapping underused spaces in Dublin. AR 2015 Architecture and Resilience at the Human Scale. 10<sup>th</sup>-12<sup>th</sup> September, University of Sheffield, UK.
- Foley, K. (2015) Developing community resilience through active landscape engagement. In: AR 2015 Architecture and Resilience at the Human Scale. 10<sup>th</sup>-12<sup>th</sup> September, Sheffield, UK.
- Helix Pflanzen (2014) Citizens information event: Nachhaltigkeitstag in Baden Württemberg; at the 'Green Living Room' Ludwigsburg. In cooperation with Stadt Ludwigsburg, Verband Region Stuttgart, Universität Stuttgart, TURAS, Ludwig Schönle Architekto.
- Helix Pflanzen (2014) GaLaBau – International Trade Fair for Urban Green and Open Spaces, 17<sup>th</sup>-20<sup>th</sup> September.
- Helix Pflanzen (2015) Green Living Room and other TURAS, European Green Week and Exhibition, Brussels.
- Kampelmann, S. (2015) [Curating complexity: a participatory approach for real-world system transitions](#), 51<sup>st</sup> ISOCARP Congress, 19<sup>th</sup>-23<sup>rd</sup> October, Netherlands and Belgium
- Kampelmann, S. (2015) Stuck in the middle with you: mediation between bottom-up and top-down approaches in urban regeneration policies, 11<sup>th</sup> International Conference of the European Society for Ecological Economics (ESEE), 30<sup>th</sup> June – 3<sup>rd</sup> July, University of Leeds.
- Kovachev, A., & Slaev, A.D. (2015) The Balance between Planning and the Market in the Current Practice of Spatial Development in Bulgaria. *Proceedings of the Seventh International Scientific Conference "Architecture, Civil Engineering – Modernity"*. Varna: Varna Free University. 28<sup>th</sup>-30<sup>th</sup> May.
- Müller, H. & Bahsitta, M. (2014) The Green Living Room. Gründach Forum (4 conferences in Mainau, Munich, Hannover and Berlin), October.
- Nash, C. & Connop, S. (2014) Mosaic approach to urban green infrastructure. Poster presented at the Amateur Entomological Society and British Ecological Society's Annual Conservation Conference, London, UK.
- Nedovic-Budic, Z. & Corcoran, A. (2015) Association of American Geographers, Annual Meeting. GICT design for urban resilience, 21<sup>st</sup>-25<sup>th</sup> April, Chicago, USA.
- Nedovic-Budic, Z. & Corcoran, A. (2015) GICT design for urban resilience. Association of European Schools of Planning (AESOP), 13<sup>th</sup>-16<sup>th</sup> July, Prague.
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- Petrić, J. & Bajić, T. (2015) [Variability of Suburban Preference in a Post-socialist Belgrade](#), HASSACC 2015 (Conference Proceedings: in press)
- Petrić, J. & Nikolić, T. (2014) Razvoj urbane matrice Beograda: kompaktnost, nekontrolisano širenje i „fleksibilnost“/Development of Belgrade's Urban Form: Compactness, Urban Sprawl and 'Resilience', *Obnova strateškog prostornog mišljenja, istraživanja i upravljanja u Srbiji – knjiga 2 /*

- Renewal of Strategic Spatial Thinking, Research and Governance in Serbia – book 2*, pp. 171-194, Belgrade: Institute of Architecture and Urban & Spatial Planning of Serbia.
- Rodrigues, L., Alvarez, L., Borsi, K. & Gillott, M., (2014). "A bifocal approach for framing community resilience". In: 2nd International Conference on Urban Sustainability and Resilience (USAR), 3<sup>rd</sup>-5<sup>th</sup> November, University College London, UK.
- Slaev, A., & Ivanov, V.: Sofia's Suburban Areas: Initial Conclusions about the Implementation of the General Urban Development Plan. *Proceedings of the Seventh International Scientific Conference "Architecture, Civil Engineering – Modernity"*, 28<sup>th</sup>-30<sup>th</sup> May, Varna: Varna Free University.
- Weidenbacher, S. (2015) Introduction and presentation of TURAS. SEAP-ALPS Final Conference, March, Munich, Germany.
- Weidenbacher, S. & Eisenberg, B. (2014) TURAS and the Green Living Room presentation. At „Stadt 2022: Innenstadt Begrünung als Basis für mehr Umwelt- und Lebensqualität in Zeiten des Klimawandels“ Conference on Greening Cities.
- Weidenbacher, S. & Eisenberg, B. (2015) TURAS and the Green Living Room presentation. KICK-off Meeting of Life+ European Project ADAPTCITY, October.
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- Other publications**
- Newspaper article: Dublin's People newspaper. July 8<sup>th</sup> 2015: Reclaiming Dublin City.
- Online article: LovinDublin. August 2<sup>nd</sup> 2015: Help to Transform Our City with a brilliant new website called Reusing Dublin.
- Online article: Dublin Buzz: June 23<sup>rd</sup> 2015. Identifying the Underused Spaces in our City with Reusing Dublin.
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- Connop, S., Clough, J, Carneiro, M A, & Borland, T. (2015) Report on water attenuation performance of green roof in the Ruislip Depot. London: University of East London.
- London Borough of Tower Hamlets (2014) [SUDS Guidance](#): London Borough of Tower Hamlets.
- Connop, S. & Clough, J. (2015) [Novel urban greening project in collaboration with Aquaten © water retention membrane](#).
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Helix Pflanzen (online article) for German Sustainability Activity Days, part of [European Sustainable Development Week](#).

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University of Nottingham (11<sup>th</sup> March 2015) 'Nottingham City Council invests in Blueprint to boost city regeneration'

University of Nottingham (15<sup>th</sup> March 2015) 'Urban farming trials at the University of Nottingham'

University of Nottingham (9<sup>th</sup> July 2015) 'Trent Basin: A Catalyst for Change is on Site!'

University of Nottingham (29<sup>th</sup> July 2015) 'Strengthening Community Identity through Custom Build'

University of Nottingham (10<sup>th</sup> August 2015) 'The Island Site: Testing TURAS Strategies'.

Corcoran, A. Radio Interview: Dublin City FM (29<sup>th</sup> April 2015): Reusing Dublin.

Nedovic-Budic, Z. (May 1<sup>st</sup> 2015) Workshop Where Science and Practice Meet: Approach and Lessons from TURAS Project. New Zealand Ministry of Business, Innovation & Employment

### **Collaborative planning and community driven actions**

21<sup>st</sup> October 2014: Location: Dublin, "[Temporary Cities](#)" workshop' participation by TURAS partner DCC.

25<sup>th</sup> October 2014: Location: Nottingham; A community focus group was undertaken at the Pavilion Community Centre, Nottingham and moderated by TURAS partners UoN/UCD

30<sup>th</sup> October 2014: Location: Nottingham; Community focus groups were undertaken at the Meadows Community Centre, and at St Georges Church and moderated by TURAS partners UoN/UCD

5<sup>th</sup> November 2014: Location: Dublin, Presentation of TURAS to Masters students from Queens University Belfast. TURAS partner DCC.

26<sup>th</sup> November 2014: Location: Dublin, Presentation at "Hidden Rooms" event (a Dublin Future-Thinking project to stimulate collaborative efforts that will deliver innovative solutions to city issues.) TURAS partner DCC.

11<sup>th</sup> December 2014; Location: Dublin; Inaugural "Connect the Dots" event held in Grangegorman Dublin with 80 invited guests. TURAS partner DCC.

14<sup>th</sup> January 2015: Conference "Resilient Cities: Novel tools for local authorities" Location: Brussels, "Resilient Cities: Novel tools for local authorities" was hosted by Brussels Environment in

cooperation with EBN, the European Business and Innovation Centre Network. At this event, local authority TURAS partners from Dublin, Stuttgart, London, Rome, Brussels, Sofia and Rotterdam showcased some of the outcomes from TURAS and explore together with the audience the potential to share their experience and outcomes in other interested cities. VRS presented the TURAS demonstration site "Green Living Room Ludwigsburg" during a pitch. TURAS partners VRS/DCC/LBBD.

5<sup>th</sup> March 2015: Location: Dublin, Dublin Food Co-op, Connect the Dots: Pot Luck Supper. One of a structured series of events to facilitate the development of a collaborative network to address the issue of prevailing vacant space in Dublin. It identifies and brings together diverse stakeholders in an iterative series of events that aim to encourage dialogue, build connections, share knowledge, and spur collaboration. TURAS partners DCC/UCD

23<sup>rd</sup> March 2015: SEAP-ALPS Final Conference, Location: Munich, During the SEAP-ALPS final conference in Munich a poster exhibition about TURAS and several project outcomes was presented. TURAS partner VRS.

March 28<sup>th</sup> 2015: Location: Dublin, Hugh Lane Gallery, Phoenix Rising Exhibition. Presentation and participation on a panel for a seminar on a public exhibition at Dublin City Gallery The Hugh Lane called Phoenix Rising. Part of an art installation by Vagabond Reviews called Scientia Civitatis: Missing Titles. TURAS contribution was called 'Beyond Neoliberalism: The communal and co-operative city', focussing on the thinking of Patrick Geddes (1854-1932) on social-ecological systems and the city. TURAS partner UCD.

15 April 2015. Location: Dublin, ULSARA (Upper Leeson Street Area Residents Association) AGM guest speaker. 'Patrick Geddes in Dublin: Civic engagement and vacant sites'. TURAS partner UCD.

17<sup>th</sup> April 2015: Location: Dublin, D-Light Studio, N Great Clarence studio, Connect the Dots: one of a series of creative/experimental interventions to help those interested in activating vacant space to learn about each other and from each other – to connect, pool knowledge, share resources, and collaborate. Launch of Re-using Dublin. TURAS partners DCC/UCD.

30<sup>th</sup> May 2015: Location: Dublin, Dublin Castle Conference. Connect the Dots In association with Bloom Fringe Festival, an Urban Planning Picnic & an Interactive Public Exhibition. We will be further developing our four main visions addressing the challenges of reusing space with the following topics: 1) Support Network / Coalition, 2) Information Collection & Dissemination, 3) Liaising & Advising Mechanism, 4) Policy, Legislation, Regulation. TURAS partner DCC/UCD.

12<sup>th</sup> June 2015: Location: Dublin, Presentation about "re-using Dublin" to students from the University of Dayton, Ohio. TURAS Partners UCD/DCC

20<sup>th</sup> June 2015: Location: Dublin, 'Recycling Dublin' - A Reusing Dublin civic engagement event that involved a guided cycle around underused spaces in the north inner city. TURAS partner UCD.

20<sup>th</sup> July 2015: Location: Portland Community Centre Nottingham, A community engagement event regarding the installation of battery energy storage in the Meadows community was held on the 20th of July 2015, in the Portland Community Centre, in the Meadows, Nottingham. TURAS partner UoN.

22<sup>nd</sup> July 2015: Location: Dublin Crescent Park. Pelletstown, First Community Event. Bio-diversity day. A community engagement event to explore the potential for aesthetic and subjective research strategies to engage otherwise disinterested or disconnected communities in issues around urban/ecological sustainability. TURAS partners UCD/DCC/DFLA.

25<sup>th</sup> July 2015: Location: Dublin, 'Re-walking Dublin' - A Reusing Dublin civic engagement event that involved 2 guided walks around underused spaces in the north inner city. TURAS partner UCD.

1<sup>st</sup> / 2<sup>nd</sup> August 2015: Location: Barking London, Open House Circus weekend. TURAS Stand at Open House Circus weekend to Promote TURAS, Green Infrastructure, its tools and demonstration sites. TURAS partner IFS.

5<sup>th</sup> August 2015: Location: Nottingham, Nottingham TURAS partners produced a historic map analysis of the Meadows community in Nottingham. This document visually displays the evolution of the Meadows community over the period from 1861 to 2014, and infers findings and conclusions based on the analyses. TURAS partner UoN.

20<sup>th</sup> August 2015: Location: Nottingham, A questionnaire was produced in order to gauge the views, attitudes, and opinions of the Meadows community in relation to energy storage. This questionnaire examines the attitudes, opinions and energy behaviours of the residents. It will be administered to members of the Meadows community who have signed up to the SENSIBLE project. TURAS partner UoN.

2<sup>nd</sup>-4<sup>th</sup> September 2015: Location Manchester, UK., World Symposium on Climate Change Adaptation (WSCCA), Manchester: VRS' Presentation the Stuttgart Region's Climate protection and adaption strategy which will include also the TURAS demonstration site Green Living Room Ludwigsburg (Title: Strategies for Climate Change Adaptation in metropolitan areas: Initiating, coordinating and supporting local activities - the approach of Stuttgart Region, Germany). TURAS partner VRS.

17<sup>th</sup> September 2015: Location Dublin: Goethe Institute, Connect the Dots; "Access to Space"; one of a series of creative/experimental interventions to help those interested in activating vacant space to learn about each other and from each other – to connect, pool knowledge, share resources, and collaborate. TURAS partners DCC/UCD.

17<sup>th</sup> September 2015: Location: University of Speyer, Germany, Lecture to Chinese administration officers on Climate & Energy Change in Stuttgart including the green living room. TURAS partner VRS.

24<sup>th</sup> September 2015: Location: Stuttgart, German Green roofs Association FFB, Presentation "Adaption to climate Change – Pilot project Green Living Room Ludwigsburg-European Research project TURAS". TURAS partner VRS.

### **Significant results**

- High level of participation and positive feedback from first TURAS public dissemination event in January 2015
- Launch of TURAS blog highlighting ongoing TURAS local authority dissemination activities

### **Future planning**

- Series of workshops to be organised by TURAS local authority partners for dissemination/exploitation of project results by other local authorities across Europe (Task 8.5). Second event taking place in Malaga on 7<sup>th</sup> October 2015.

### **Deviations for Annex I and impacts on other tasks, resources and planning**

- There are no deviations.

### **Reasons for failing to achieve critical objectives**

- All critical objectives have been achieved.

### **Statement on the use of resources**

- The Steering Committee of TURAS agreed to ring fence 5% of the total work package 8 budget of all partners to cover the cost of dissemination material for the end of the project. This was agreed by the Project Officer.

### **Corrective actions**

- Not applicable

### 3.2.3 Project management during the period

#### Consortium management tasks and achievements

- The management team consisting of Dr. Louise Dunne, Dr. Marcus Collier (UCD) and Ms. Siobhán McQuaid (EBN) meet on a weekly / daily basis.
- Links have been developed with other EC funded projects: ARTS, JPI URBAN EUROPE,
- Conclusion of the removal of Sevilla Global from the consortium.
- Successful incorporation of new partners, Promálaga, Málaga, ES and the University of Nottingham, Nottingham, UK.
- Appointment of two new members to the High Level Advisory Board – professor Leonie Pearson and Nick Ebbs.
- Participation at European Green Week

#### Problems, which have occurred, and how they were solved or envisaged solutions

##### Work Package 1: Geospatial ICT-support infrastructure for urban resilience

- There were some delays in developing one of the tools with project partners due to uncertainty of the desired application – continuing collaboration with the work package resolved this issue.

##### Work Package 2: Greening public and private green infrastructure

- The rate of development of the Barking Riverside site has slowed since the inception of the TURAS project. This has been due to issues related to providing sustainable transport links at the development, which need to be in place in order to expand the size of the population at the site.
- Spiralling costs of transport infrastructure meant that original plans to expand the Docklands Light Railway network to Barking Riverside were no longer feasible. In order to deal with this change in the rate of development partners were able to work with London SMEs to establish and monitor case study projects at sites beyond the original scope of the TURAS proposal. These case studies have been installed and are being monitored.
- Related to this issue, there were also problems with engagement with Barking Riverside staff due to changes in staff since the original project agreement and a shift in duties of the new staff to resolving issues related to transport links rather than the environment of the development.
- To overcome these issues greater engagement with University of East London staff was promoted through increased frequency of visits and updates on opportunities at the site. Primarily this has been achieved by the designation of a University of East London staff member to work more closely with Barking Riverside and to work with the London Borough of Barking and Dagenham on behalf of Barking Riverside to help develop an Integrated Transition Strategy for the site. This focus on greater engagement is also supporting the identification of new opportunities for TURAS to engage with the Barking Riverside and London Borough of Barking and Dagenham planning processes.
- Lack of expertise within a partner organisation was identified as a barrier to delivering a complete Task.
- In order to resolve this issue resources within a work package 2 partner organisation were shifted in order to supply the missing expertise and provide appropriate support to ensure that all of the objectives of the Task were achieved

##### Work Package 3: Urban / industrial regeneration, land use planning and creative design

- There were no problems encountered during this reporting period.

##### Work Package 4: Climate change resilient city planning and climate-neutral infrastructure

- There were no problems encountered during this reporting period.

##### Work Package 5: Limiting urban sprawl

- There were no problems encountered during this reporting period.

##### Work Package 6: Short-circuit economies

- There were no problems encountered during this reporting period.

##### Work Package 7: Integrated transition strategies

- There were no problems encountered during this reporting period.

### **Work Package 8: Dissemination, training and exploitation of results**

- There were no problems encountered during this reporting period.

### **Work Package 9: Project management**

- There were a problem officially closing Seville and this was fixed and a contract amendment approved in this period.
- Teething troubles moving to electronic reporting from the LEARs and changes in LEARs, resulting in requesting extensions for the last reporting period, and one partner (Rome) not submitting anything due to a LEAR change.
- Some difficulties between partners in working arrangements were accommodated by moving PMs of some under performing partners between work packages to compensate. The Project Officer was made aware of all changes, and the Steering Committee discussed and approved of all solutions. There are no outstanding issues from this reporting period; however there is an emerging issue with Rome as an under performing partner. The Project Officer has given approval to transfer some of their budget to other partners to compensate. This will be reported in the final reporting period.

### **Changes in the consortium**

- There is one new partner in the consortium and no departures. The new partner, Promálaga, has undertaken to fulfil some of the tasks of Sevilla Global, as well as co-organising the dissemination event and consortium AGM in October 2015. The university of Nottingham has also formally joined TURAS.

### **List of project meetings, dates and venues (Month 37 – 48)**

#### **Work Package 1: Geospatial ICT-support infrastructure for urban resilience**

- Steering committee meeting Brussels, June 2015.
- Annual Consortium Meeting Brussels, January 2015.
- Monthly attendance on the Steering Committee conference calls.
- Weekly meeting between work package leader and work package researchers.
- Monthly meetings with work package 1 partners Future Analytics in relation to application development.
- Frequent and regular communications were maintained between work package leaders and project partners in relation to application development.

#### **Work Package 2: Greening public and private green infrastructure**

- Partners meeting, TURAS AGM Brussels (January 15<sup>th</sup>)
- TURAS Resilient Cities: Novel tools for local authorities (dissemination event in Brussels) (Jan 15)
- London work package 2 partner meeting to update and discuss with work package (work package ) lead Darryl Newport work package news and next steps (March 2015)
- London Borough of Barking Riverside ITS meeting (April 2015)
- Poplar HARCA case study site partner meeting (April 2015)
- Barking Riverside work package 2 Partnership meeting (July 2015)
- Let's make London a National Park City event (July 2015)
- London partner meeting to discuss TURAS stand at Open House Circus weekend (work package 2&7) (August 2015)
- work package 2 partners conference call to discuss the Calling all Planners and Regeneration Specialists for Continuing Professional Development (half) Day: Green Infrastructure (Sept 2015)
- All work package 2 partner conference calls:
  - Oct 2014
  - Nov 2014
  - Dec 2014
  - April 2015

#### **Work Package 3: Urban / industrial regeneration, land use planning and creative design**

**Group conference calls:**

- 21<sup>st</sup> October 2014
- 18<sup>th</sup> November 2014
- 16<sup>th</sup> December 2014
- 4<sup>th</sup> February 2015
- 10<sup>th</sup> March 2015
- 7<sup>th</sup> April 2015
- 9<sup>th</sup> June 2015
- 7<sup>th</sup> July 2015

**Partner meetings and conference calls:**

- 8<sup>th</sup> October 2014 TURAS partner UoN/Blueprint
- 8<sup>th</sup> October 2014 TURAS partner DCC/IDA
- 9<sup>th</sup> October 2014 TURAS Partner DCC (Case study Granby Park)
- 14<sup>th</sup> October 2014 TURAS Partner UCD/DCC (Studio project; Red line case study)
- 21<sup>st</sup> October 2014 TURAS partner UoN/Blueprint
- 21<sup>st</sup> October 2014 TURAS Partner DCC
- 24<sup>th</sup> October 2014 TURAS partner UoN/MOZES
- 24<sup>th</sup> October 2014 TURAS partners DCC/UCD (Pelletstown)
- 4<sup>th</sup> November 2014 TURAS partners DCC/UCD (Pelletstown)
- 19<sup>th</sup> November 2014 work package 3/work package 6 call
- 6<sup>th</sup> November 2014 Presentation of TURAS to Landscape and Environmental officers DCC
- 1<sup>st</sup> December 2014 MOZES AGM. TURAS partner UoN
- 2<sup>nd</sup> December 2014 Pelletstown Demos site. TURAS Partner DCC.
- 22<sup>nd</sup> December 2014 Pelletstown demo-site. TURAS Partner DCC.
- 6<sup>th</sup> January 2014 TURAS partners IfS/LBBD/UEL (supporting the Barking Riverside CIC to implement TURAS tools)
- 6<sup>th</sup> January 2015 TURAS partner DCC/UCD (Pelletstown)
- 8<sup>th</sup> January 2015 TURAS partners DCC/UCD (Case study Re-using Dublin)
- 5<sup>th</sup> February 2015 TURAS partner DCC (Case study Dublin UNESCO Biosphere)
- 9<sup>th</sup> February 2015 TURAS partner DCC/UCD (Case study Re-using Dublin)
- 11<sup>th</sup> February 2015 TURAS partner UoN and Blueprint
- 12<sup>th</sup> February 2015 TURAS partner DCC (Demo-site Pelletstown)
- 2<sup>nd</sup> February 2015 MOZES board meeting, TURAS partner UoN
- 6<sup>th</sup> February 2015 TURAS Partner UoN and Energy Technology Institute
- 17<sup>th</sup> February 2015 TURAS DCC/UCD (Pelletstown)
- 17<sup>th</sup> February 2015 TURAS partners IfS/LBBD/UEL (supporting the Barking Riverside CIC to implement TURAS tools)
- 20<sup>th</sup> February 2015 TURAS partner DCC (Case study Collaboration dashboard)
- 26<sup>th</sup> February 2015 TURAS partners DCC/UCD (Demo-site Pelletstown)
- 2<sup>nd</sup> March 2015 TURAS partners DCC/UCD (Demo-site Pelletstown)
- 3<sup>rd</sup> March 2015 TURAS partner DCC (Connect the Dots)
- 11<sup>th</sup> March 2015 TURAS partner UoN /MOZES/Community School
- 25<sup>th</sup> March 2015 TURAS partner UoN/Blueprint (custom build at the Trent Basin site)
- 26<sup>th</sup> March 2015 TURAS partners IfS/LBBD/UEL (supporting the Barking Riverside CIC to implement TURAS tools)
- 8<sup>th</sup> April 2015 TURAS partner DCC (Collaboration dashboard)
- 8<sup>th</sup> April 2015 TURAS partners DCC/UCD (Pelletstown)
- 9<sup>th</sup> April 2015 TURAS partner DCC (Connect the Dots)
- 13<sup>th</sup> April 2015 TURAS partners IfS/LBBD/UEL (supporting the Barking Riverside CIC to implement TURAS tools)
- 30<sup>th</sup> April 2015 TURAS partner DCC (Pitching Collaboration Dash-board at Code 4 Ireland)
- 5<sup>th</sup> May 2015 MOZES board meeting, TURAS partner UoN
- 6<sup>th</sup> May 2015 TURAS partner UoN (Attendance at the 2015 UK Green Film Festival screening of Bikes vs Cars)

- 22<sup>nd</sup> May 2015 TURAS partner UoN and Blueprint
- 28<sup>th</sup> May 2015 TURAS partner UoN/ SIEMENS (community energy in the Trent Basin project)
- 1<sup>st</sup> June 2015 TURAS partner UoN/ SIEMENS/Blueprint (community energy in the Trent Basin project)
- 2<sup>nd</sup> June 2015 TURAS partners DCC/UCD (Pelletstown)
- 4<sup>th</sup> June 2015 TURAS partner DCC (Collaboration dashboard)
- 10<sup>th</sup> June 2015 TURAS partner UoN/ SIEMENS/Blueprint (community energy in the Trent Basin project)
- 15<sup>th</sup> June 2015 TURAS partners DCC/UCD/DFLA (Pelletstown)
- 19<sup>th</sup> June 2015 TURAS partners DCC/UCD (Pelletstown)
- 22<sup>nd</sup> June 2015 TURAS partners UCD/DFLA (Pelletstown)
- 29<sup>th</sup> June 2015 TURAS partners IfS/LBBD/UEL (supporting the Barking Riverside CIC to implement TURAS tools) 9<sup>th</sup> July 2015 TURAS partner UoN/ SIEMENS (discussing Innovate UK funding for community energy storage)
- 1<sup>st</sup> July 2015 TURAS partners UCD/DFLA (Pelletstown)
- 10<sup>th</sup> July 2015 LAPI Conference call TURAS partners UoN/DCC
- 14<sup>th</sup> July 2015 TURAS UoN/Blueprint
- 16<sup>th</sup> July 2015 LAPI Conference call TURAS UoN/Blueprint
- 16<sup>th</sup> July 2015 TURAS partners IfS/LBBD/UEL (supporting the Barking Riverside CIC to implement TURAS tools)
- 17<sup>th</sup> July 2015 TURAS partners IfS/LBBD/UEL (supporting the Barking Riverside CIC to implement TURAS tools)
- 29<sup>th</sup> July 2015 TURAS partner UoN/Blueprint
- 10<sup>th</sup> August 2015 TURAS partner DCC (Connect the Dots)
- 13<sup>th</sup> August 2015 TURAS partner UoN/ SIEMENS
- 13<sup>th</sup> August 2015 TURAS partner UoN/Blueprint (Integrated Planning Transition Framework)
- 7<sup>th</sup> and 8<sup>th</sup> September TURAS LAPI Meeting Brussels TURAS partner UoN/DCC/LBBD/VRS

#### **Work Package 4: Climate change resilient city planning and climate-neutral infrastructure**

No specific work package meetings as the specific activities came to a close in Month 36. However, there have been numerous ad hoc follow up meetings and collaborations on report corrections, conference presentations and papers.

- Bilateral contact of partners within and between cities with respect to demonstration and dissemination activities.
- 16<sup>th</sup> and 17<sup>th</sup> September 2015 TURAS Flood Risk workshop Ljubljana, Slovenia (with work packages 7 and 8).

#### **Work Package 5: Limiting urban sprawl**

- 03.12.2014 - Work meeting- VFU, Sofia Municipality- in Sofia
- 10.12.2014 - Work meeting- VFU, Sofia Municipality- in Sofia
- 12.01.2015 - 14.01.2015 – Annual Consortium Meeting in Brussels
- 14.01.2015 - Work meeting of work package 5 in Brussels
- 17.02.2015 - Work meeting- VFU, Sofia Municipality- in Sofia
- 12.03.2015 - Work meeting- VFU, Sofia Municipality- in Sofia
- 05.06.2015 – Steering Committee Meeting in Brussels
- 05.6.2015 - Work meeting- VFU, Sofia Municipality- in Sofia
- 22.6.2015 - Work meeting- VFU, Sofia Municipality- in Sofia
- 10.7.2015 - Work meeting- VFU, Sofia Municipality (heads of departments)- in Sofia
- 10.7.2015 - Work meeting- VFU, Sofia Municipality- District of Novi Iskar- in Novi Iskar, Sofia

#### **Work Package 6: Short-circuit economies**

- 16-17/10/2014: work package 6 partners meeting in Rome (BicLazio offices)
- 11/12/2014: work package 6 conference call meeting
- 14/01/2015: work package 6 partners meeting in Brussels during the conference Resilient Cities : novel tools for local authorities
- 04/02/2015: work package 6 conference call meeting

- 08/05/2015: work package 6 conference call meeting
- 15/05/2015: work package 6 conference call meeting
- 07/07/2015 : work package 6 conference call meeting
- 25/08/2015 : work package 6 conference call meeting

### **Work Package 7: Integrated transition strategies**

This work package was the most active in communication throughout this reporting period. Communications between partners and work package 7, as well as daily calls and Skype consultation meetings, would prove excessive use of space in this report. On average, work package 7 hosted 10 bilateral phone calls per week, 20 multi-partner Skype and conference calls per month and, on average, 3 personal trips and face-to-face meetings per month.

### **Work Package 8: Dissemination, training and exploitation of results**

Given the close alignment between work package 7 and work package 8 activities for the remainder of the project work package 7 leader was invited to participate on all work package 8 Partner calls.

28 <sup>th</sup> October 2014	work package 8 Partner Conference call
7 <sup>th</sup> January 2015	work package 8 Partner Conference call
14 <sup>th</sup> January 2015	work package 8 Partner Meeting (during AGM)
12 <sup>th</sup> February 2015	work package 8 Partner Conference call
13 <sup>th</sup> March 2015	work package 8 Partner Conference call
27 <sup>th</sup> April 2015	work package 8 Partner Conference call
27 <sup>th</sup> May 2015	work package 8 Partner Conference call
26 <sup>th</sup> June 2015	work package 8 Partner Conference call
24 <sup>th</sup> July 2015	work package 8 Partner Conference call
31 <sup>st</sup> August 2015	work package 8 Partner Conference call
5 <sup>th</sup> October 2015	work package 8 Partner Meeting (during AGM)

Frequent bilateral communications with individual task leaders in particular Mauro Cicio (Pracsis) and Svenja Schumann (Climate Alliance).

### **Work Package 9: Project management**

- Steering Committee Meetings.
- Consortium Meetings
- Daily/weekly/ monthly conference calls and project management

### **Project planning and status**

The TURAS project is on track and is on schedule for delivery of all materials as agreed with the EC. All work packages have indicated that any minor problems have been dealt with internally to the consortium and have not hindered the progress of the project or the Tasks therein.

### **Impact of possible deviations from the planned milestones and deliverables**

There is no potentially negative impact from any of changes discussed in this report. Most have been made to keep the TURAS project sharp and focussed on emerging ideas and technologies that were not envisaged during the original application and negotiation process. Some have been made to respond to the economic situation in certain European countries.

### **Any changes to the legal status of any of the beneficiaries, in particular non-profit public bodies, secondary and higher education establishments, research organisations and SMEs**

None.

### **Development of the Project website**

This has been addressed in the reporting of Work Packages 1 and 8. These were specifically designed around interactive technology usage.

### 3.3 Deliverables and milestones tables

#### Deliverables

<b>Table 1. Deliverables</b>										
<b>Del. no.</b>	<b>Deliverable name</b>	<b>Version</b>	<b>work package no.</b>	<b>Lead beneficiary</b>	<b>Nature</b>	<b>Dissemination level</b>	<b>Delivery date from Annex I (month)</b>	<b>Actual / Forecast delivery date dd/mm/yyyy</b>	<b>Status Not submitted / Submitted</b>	<b>Comments</b>
1.2	Model of GIS database	Final	1	UCD	Report	Public	48	30/09/2015	Submitted	None
6.8	An adaptive governance approach to the transition of cities towards place-based resilient economies	Final	6	Brussels Environment (IBGE-BIM)	Report	Public	48	30/09/2015	Submitted	None
6.9	Bridges for local economies Community- and place-based strategies for local authorities	Final	6	Brussels Environment (IBGE-BIM)	Report	Public	48	30/09/2015	Submitted	None
7.10	Integrated transition report	Final	7	UStutt	Report	Public	42	31/03/2015	Submitted	None



## Milestones

Table 2. Milestones							
Milestone no.	Milestone name	Work package no	Lead beneficiary	Delivery date from Annex I dd/mm/yyyy	Achieved Yes/No	Actual / Forecast achievement date dd/mm/yyyy	Comments
39	Circulation of draft transition strategy	7	6	30/11/2014	Yes	30/11/2014	Internal circulation
40	Publication of Transition Strategy	7	6	30/09/2015	Yes	30/09/2015	Published internally for consultation between partners
41	Report on training activities	8	25	30/09/2015	Yes	30/09/2015	Published internally for consultation between partners



### **3.4 Explanation of the use of the resources and financial statements**

The financial statements have to be provided within the Forms C for each beneficiary (if Special Clause 10 applies to your Grant Agreement, a separate financial statement is provided for each third party as well) together with a summary financial report which consolidates the claimed Community contribution of all the beneficiaries in an aggregate form, based on the information provided in Form C (Annex VI of the Grant Agreement) by each beneficiary.

The "Explanation of use of resources" requested in the Grant Agreement for personnel costs, subcontracting, any major costs (ex: purchase of important equipment, travel costs, large consumable items) and indirect costs, have now to be done within the Forms (user guides are accessible within the Participant Portal)<sup>4</sup>.

When applicable, certificates on financial statements shall be submitted by the concerned beneficiaries according to Article II.4.4 of the Grant Agreement.

Besides the electronic submission, Forms C as well as certificates (if applicable), have to be signed and sent in parallel by post.

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<sup>4</sup> In the past, the explanation of use of resources requested in the Grant Agreement was done within a table in this section. The merge of this table within the Forms C was a measure of simplification aimed at avoiding duplication and/or potential discrepancies between the data provided in the table 'Explanation of use of resources' and the data provided in the Forms C.

**The following table is required only for the funding schemes for Research for the benefit of SMEs**

**THE TRANSACTION**

Please provide a list of the actual cost incurred by the RTD performers during the performance of the work subcontracted to them. These costs refer only to the agreed '**Transaction**'.

<b>Name of RTD Performer</b>	<b>Number of person months</b>	<b>Personnel Costs (€)</b>	<b>Durable equipment</b>	<b>Consumables</b>	<b>Computing</b>	<b>Overhead Costs (€)</b>	<b>Other Costs (€)</b>	<b>Total by RTD performer</b>
<b>TOTAL</b>								

## **IMPORTANT:**

Form C varies with the funding scheme used. Please make sure that you use the correct form corresponding to your project (Templates for Forms C are provided in Annex VI to the Grant Agreement). An example for collaborative projects is enclosed hereafter.

A Web-based online tool for completing and submitting forms C is accessible via the Participant Portal: <http://ec.europa.eu/research/participants/portal>, (except for projects managed by DG MOVE and ENER).

If some beneficiaries in security research have two different rates of funding (part of the funding may reach 75%<sup>5</sup>) then two separate financial statements should be filled by the concerned beneficiaries and two lines should be entered for these beneficiaries in the summary financial report.

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<sup>5</sup> Article 33.1 of the EC FP7 rules for participation - REGULATION (EC) No 1906/2006.