USEAct
Urban Sustainable Environmental Actions

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4th BT/meeting

SMART USE OF DATA/ VISUALISATION

SMART USE OF DATA/

FOURTH TRILATERAL MEETING REPORT

NAPLES, 15th 16th July 2014

Meeting Venue:
University of Naples Federico II | Department of Architecture

European Union
European Regional Development Fund

Connecting cities
Building successes

URBACT

USE*Act* Fourth Trilateral meeting Report
Urban Sustainable Environmental Actions

Hosting Partner:

Lead Partner
City of Naples
Urban Planning Department

URBACT Projects_and Networks on Integrated
Urban Development Policies - Central Direction
Urban Planning and Management - UNESCO Site

Gaetano Mollura
USE*Act* Project coordinator
Anna Arena
Finance officer
Maria Luna Nobile
Communication officer
Vincenzo Fusco
LSG coordinator

Contacts:
phone +39 081 7958932 - 34 - 17
email gaetano.mollura@comune.napoli.it
urbactnapoli@comune.napoli.it

Lead Expert
Vittorio Alberto Torbianelli
USE*Act* Project Lead Expert
Contacts:
phone +39 040 5582749
email vittorioalberto.torbianelli@arch.units.it

Thematic Expert
Pauline Geoghegan
USE*Act* Project Thematic Expert
Contacts:
email paulinegeoghegan@hotmail.com

www.urbact.eu
www.urbact.eu/useact

This Fourth Trilateral meeting Report is written by **Vittorio Torbianelli**, USEAct Lead Expert.
It refers to the Second USEAct Trilateral Meeting held in Viladecans

Gaetano Mollura, Anna Arena, Maria Luna Nobile and Vincenzo Fusco, (Lead Partner team) contributed to editing the report.

SMART USE OF DATA AND VISUALISATION TOOLS

Meeting Report by Vittorio A. Torbianelli
USEAct Lead Expert

People attending the meeting

Carmine Piscopo, councilor for Urban Planning City Council of Naples

Mario Rosario Losasso,Director, Department of Architecture Federico II

Gaetano Mollura USEAct Coordinator,

Anna Arena, Maria Luna Nobile,

Vincenzo Fusco USEAct Project officers

Francesca Pignataro, Urban Planning and Management, City Council of Naples

Luigi Fusco Girard, Maria Cerreta, Pasquale De Toro - Department of Architecture - University of Naples Federico II

Agnese Bidermane, Riga Planning Region

Jim Sims, Buckinghamshire Business First

Stuart Bailey, Buckinghamshire Business First

Elena Masala, SITI (Istituto Superiore sui Sistemi Territoriali per l'Innovazione)

1. INTRODUCTION AND MAIN ISSUES

1.1 Introduction

Gaetano Mollura, Lead Partner

The Fourth Bilateral Trilateral meeting / USEAct / URBACT II "Smart use of data / visualization tools" held in Naples on July, 15th and 16th, 2015, addressed a topic of great interest such as the smart use of data for a better management of the territory and its development by comparing the experiences of private, public private and public.

The one day-and-half meeting, started by presenting the Italian context, has hosted by City of Naples and then by comparing it with the European Union and in particular with the countries of two partners participating in the project, United Kingdom (Buckinghamshire) and Latvia (Riga Planning Region).

The meeting was attended by representatives of :

- University of Naples, Department of Architecture, who introduced some case studies in Southern Italy;
- High Institute on Territorial Systems for Innovation (a non-profit organization, created in 2002 between Polytechnic of Turin and the bank foundation Compagnia di San Paolo, carrying out research and

training activities focused on innovation and socio-economic growth,) who described some experiences in the city of Turin;
- The city of Naples, illustrating the governance system of data management referred to the territorial planning and territorial promotion.
- In addition to Naples, the project leader USEAct, two other partners of the network, the Development agency of Buckinghamshire Business First - High Wycombe (Buckinghamshire (UK) and the Riga Planning Region (Latvia), who analysed some case studies in their own countries.

The Lead Expert of the USEAct network, Vittorio Torbianelli, who was unfortunately unable to attend the meeting, delivered however its contribution by elaborating this report, thanks also to the cooperation of the other participants to the meeting.
I would like to close this brief introduction by highlighting some key elements raised during the meeting:
1) The need, for the public administrations, to use innovative tools and models for integrated and smart management of the numerous data owned by the cities as representing an opportunity for increasing their competitiveness and for attracting new investments (economic growth), for improving the participation and the transparency of information (democracy) and for the effective control of the "vision" of the urban planned development (sustainable development).
2) The inadequacy of the current governments, in Southern and Eastern Europe more in particular, as confirmed by the representatives of the Region of Riga and the city of Naples, because the limited availability of economic and human resources / expertise inadequate for the "governance" of such "innovative" activities
3) The priority of many cities is to overcome this "gap" but they need appropriate financial and educational investments. It is not easy in the framework of the current economic crisis to get available public resources: the opportunities represented by European funding and programs / projects promoted by the European Commission must be catch up as they will help their own public administrations to improve in the issues addressed in this workshop.
We hereby are referring for example to the Horizon 2020 Programme (New Forms of Innovation 'and / or' ICT based governance). The participation in new initiatives of the European Commission could also be an opportunity to allow some partners USEAct to keep the network still active .With this aim, a specific session called "A Life Beyond USEAct " was introduced in the agenda of the transnational seminars.

1.2 Concept paper

The Concept paper prepared with support of the USEAct Lead Expert, Vittorio Torbianelli, focused on, as a priority issue, the fact that local administrations often face difficult challenges to communicate and promote, among citizens, optimal land use policies, and in particular the need to densify central or, in general, urban areas.
Participation and communication are as expected, fundamental pillars of any policy related to reducing land-take targets.
Visualization, in particular, is getting more and more important, due to increasing and widespread use of web-integrated tools.
Some general principles, already emerged during the USEAct meeting in Nitra, should be recalled here.
Firstly, **"visualization"** should not be a "separate room": it has firstly to be integrated with other design and planning tools, in particular with GIS planning tools and with strategic planning "cockpits" (in general).

A second aspect is related to subjects in charge of developing the processes. **"Who" does develop and control the visualization tool**? It is clear that focusing on "integration" and coordination between bodies/departments/stakeholders is a necessity.
As third point, visualization should be considered as an **"interactive" tool for policy appraisal** and, more specifically, for project appraisal. More specifically, visualization tools should be: a) "populated" with many high quality and relevant territorial GIS based data; b) capable to interact with appraising tools (e.g. spatial accessibility assessment tools and "maps"; economic impact assessment tools). Further more technical aspects are also remarkable. For example, it seems to be

important that – to be beneficial for urban «re-use» purposes - visualization tools are integrated with databases (and management programs) dedicated to «vacant land parcels».
Some questions arise about data sources: could data include “open data” as well? Some room for “innovating” approaches to involve public into the “think your territory” issue does likely exist. Another question related to open data is the following one: what are possible relationships between “open data” (to be seen as a new form of active participation) and “issues” that are relevant for visualization?
Integration between visualization tools and **“urban marketing oriented data” to attract investments** seems to be another strategic aspect.
Appraising development projects is another application field.
To identify and «show» potential impacts – “bad and good” ones! - “handy” impact models should be developed and linked to the visualization tools.
Showing environmental impact (visual impact, sensitive areas, etc.) is essential, but it providing tools capable to inform about economic impact from different activities is important as well. Basic indicators of potential economic impact (as simulations) should also be included into “project visualization outcomes”.
A tied question arises: what “indicators” could/ be integrated into the (GIS) / visualization system to better appraise and communicate the “redevelopment potential” for vacant spaces and to “market” them at the best?
In conclusion, visualization tools should be able to play different roles and specifically: a) working as a “cross functional (and cross-subjects) tools; b) being connected to qualified databases; c) being interconnected with relevant apprising tools (e.g. accessibility maps, economic impact scenarios) to guarantee more objective policy assessment scenarios/ development schemes, also to by-pass “politicians decision black-boxes”); d) being capable to provide outcomes both useful to “community involvement” (participation) and “urban marketing” oriented tools (to attract business or, in general, users).
Visualization tools, therefore, should be considered just as a component of wider tools (platforms) aimed at providing value and utility to the community and allowing a better link between public administration and population, useful to support public choice.

GIS AND OTHER TECHNOLOGIES: FOCUSING ON NEW “DRIVERS” AND VALUES

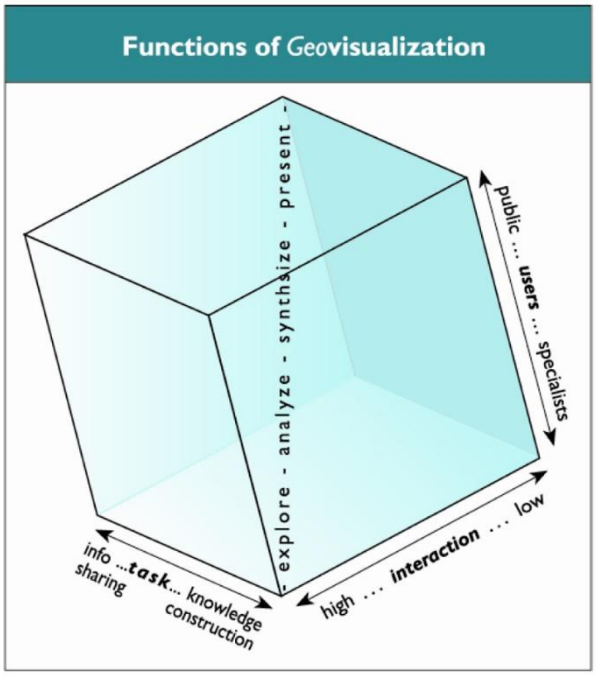
GIS (Geographic Information Systems) are in general a powerful tool to improve public administration capabilities of managing urban issues, but a full utilization of such tools to overcome the “Big Data Challenge”, requires to embed them into integrated data and process frameworks and to create value.
putted in evidence, during the meeting on “Smart use of data”, GIS has been introduced since many years, but until now not high percentage of GIS use in planning has been related to thematic maps (description) and simple analyses (prediction).
The scopes for GIS use are however very broader, including functions as Urban Planning, Regulatory enforcement, Development Design, Utility Provision, Biodiversity & Habitat Impacts.
Moreover, they may support “proactive participation”, trough informing the public and some further uses for public participation and special projects.
GIS benefits for planning are not easily quantified and can vary very much, but it is recognized that best results and mostly linked to administrative tasks in cities with a sound managerial setup for GIS.

2. FOCUSING ON EXTERNAL CASES STUDIES

2.1 The SITI "Invito" Case

Mrs. Elena Masala, SITI ("Istituto Superiore sui Sistemi Territoriali per l'Innovazione", placed in Torino, Italy, began to face technical issues, in her presentation dedicated to "***InViTo", an iInteractive Visualization Tool for supporting decision making in spatial planning processes.***

SiTI is a nonprofit association established in 2002 between the University "Politecnico di Torino" (Italy) and the foundation "Compagnia di San Paolo".
It proposes different geo-visualization tools integrated to platforms that can be considered as an exemplary case of innovative tools for urban spatial management and communication1.
SiTI carries out research and training activities to provide advanced services aimed at improving sustainability and integrates different key spatial-related fields, such transport and logistics, environmental resources management and protection, urban redevelopment, and related field.
Strategic target is developing services and tools for "geo-visualization", the discipline that allows to "see the unseen" (as McCormick, De Fanti and Brown affirms) and that can contribute to create common shared knowledge useful to improve spatial-related processes.
Geo-visualization allows "*the exploration and analysis of spatial information through interactive visual interfaces" (International Cartographic Association, ICA, Commission on Geo-visualization).*
The general aim of the company is to develop and implement the **"Interactive Visualization Tool"** concept (InViTo) to be used, in different situations and different specific targets, for supporting decision making.
Tools for supporting spatial planning and decision processes require, in fact, higher communication value, user friendliness and high interaction. The InViTo concept is a tool aimed at creating a shared language for supporting the dialogue between actors overcoming different geographical and disciplinary barriers.

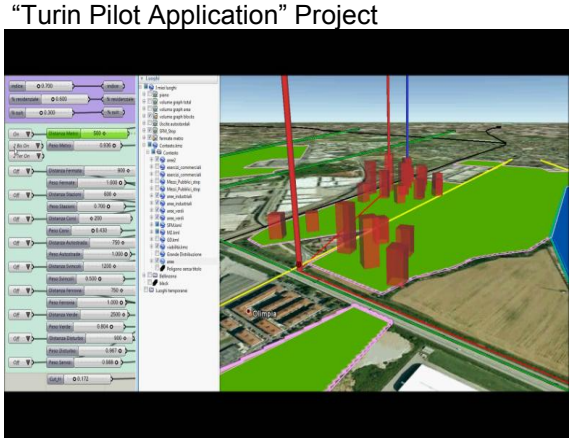


Different potential functions of Geovisualization

From different projects developed by SiTI it is possible to get how a single visualization tool concept can be used in different ways and with different purposes.
In the "Turin Pilot Application", a project aimed at providing information related to a wide area located in the northern part of the city, many different elements have been processed and visualized.
Moreover, possibility to carry on surveys to citizen and tools to identify specific spatial effect of each element (through mathematical functions) has been added to the platform, together with graph Volume and Quantitative Output Visualization.
Another project (COST) allowed SiTI to focus on 3D modeling. 3D models are increasingly used in different cities and countries for wide range of applications beyond mere visualization.
Figures presented showed some visualization outcomes of the project which has been developed to visualize different spatial elements and relationships (see the box included).

[1] Main Source: Elena Masala, InViTo: Interactive

"Turin Pilot Application" Project

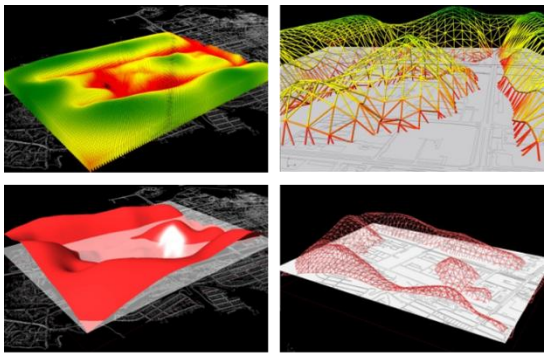


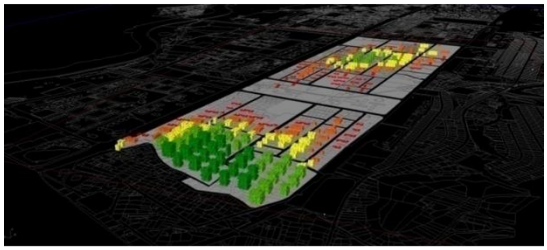
Area: 2,5 km x 0,6 km
Grid: 20 m
urban function / facilities

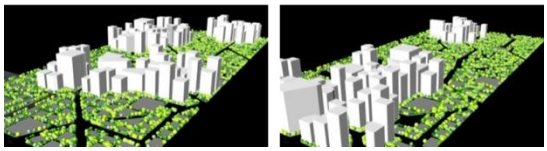
Considered elements (for residential):
bus stops, subway stops, railway stations, green areas, public services, motorway exits (network distance)
main streets, railway and motorway tracks, industrial sites (euclidean distance)

Survey to citizen
to identify specific spatial effect of each elements as mathematical function

Graph Volume and Flats Distribution
Output Visualization







InViTo has been also utilized within the well-known "CircUse" Project (Circular Flow Land Use Management), a land-use management oriented project focused on promoting sustainable development of brownfields, greyfields and degraded greenfields in urban and peri-urban areas[2].
Further InViTo implementations have been also developed in occasion of projects on accessibility, urban mobility, impact of infrastructure corridors, etc.
What are main lessons that can be learnt from the specific InViTo experience?
Firstly, that an integrated visualization concept – with related tools and applications - can be developed (with remarkable economies of scale) for many different purposes and for different geographical scales.
Secondly, that many functions and data can be integrated on locally driven platforms that are not single-purpose, but work as integrated service providers. This is a challenge also for local authorities interested in implementing such kind of platforms: heavy integration among departments (and with other subjects/bodies) and broad strategic visions are essential, to avoid "platform multiplication" with high risk of cost-inefficiency and low quality outcomes.

2.2 Integrated assessment and situated strategies. The UniNa approach

Maria Cerreta, Pasquale De Toro - Dipartimento di Architettura - University of Naples Federico II :
Smart use of data/ visualization tools at urban planning level: case studies and experiences in different Italian cities

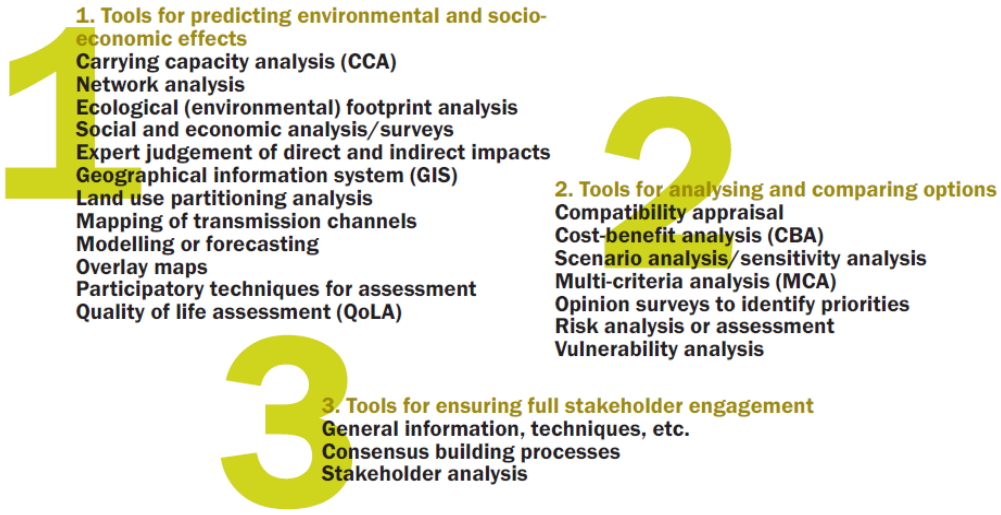
Maria Cerreta and Pasquale De Toro, University of Naples (DiARC – Unina), during their presentation focused on the "Smart use of data/visualization tools" for Urban Plannng. They, in particular, discussed, through cases studies and experiences, how such tools can be used to carry out "Integrated Assessment" and contributing, through a "visualization tool based framework", to build up, at local level, "situated strategies".

Integrated assessment: the role of soft and hard data in the assessment system
Researchers from University of Naples started with enlighten that importance of integration of environmental, social and economic dimensions in

[2] See "First Thematic Paper".

policies, plans and programmes is increasing and more and more evaluation of the inter linkages is required.
An integrated approach should focus on many variables, as Assessment and Environmental Governance require a constant interaction in processes of spatial transformations.
Currently, the decisional process on "spatial planning" has often to deal with not structured problems (multiplicity of actors, multiplicity of points of view, huge interests – with relating conflicts - important intangible values, uncertainty and risk.
In such articulated contests, impact assessment is potentially a powerful tool to appraise policies, but it requires to fit the complexity of the system.
A clear example is the so called Strategic Environmental Assessment: it requires a very wide set of Analytical and Decision-making Tools, as showed in Fig.1.

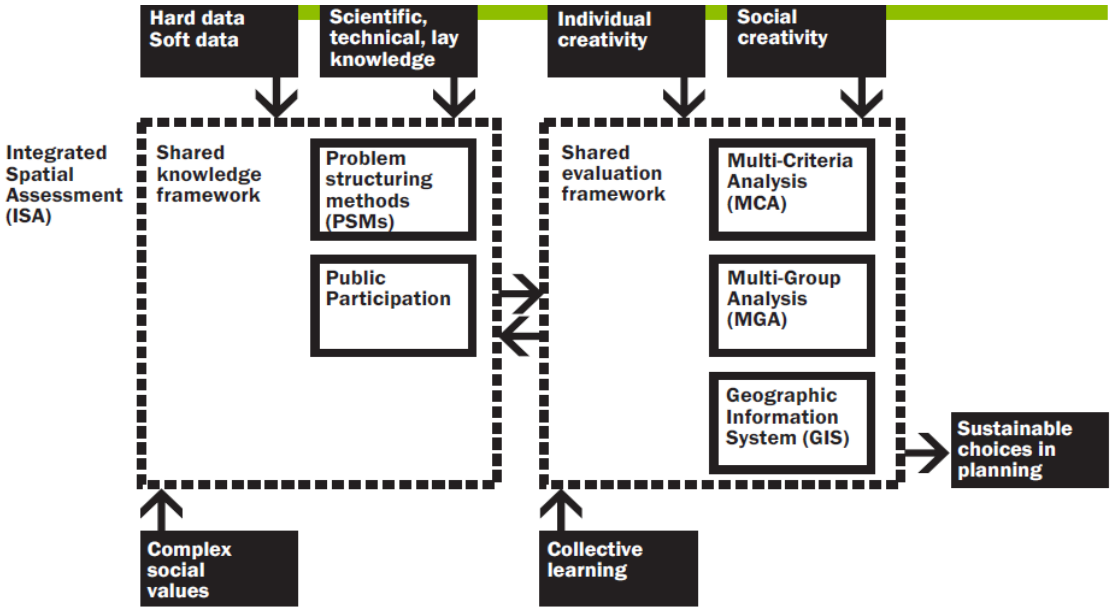
Fig1: Analytical and decision-making tools in Urban Planning



Source: Unina

Both soft and hard data, that can be managed through visualization tools, are needed to feed the decisional process, but they have to be integrated, through a "systematic framework", into a "local system", with several further inputs and processes of different nature, as showed in Fig. 2.

Fig.2 Role of hard data and soft data in the sustainable planning: the framework



Source: Unina

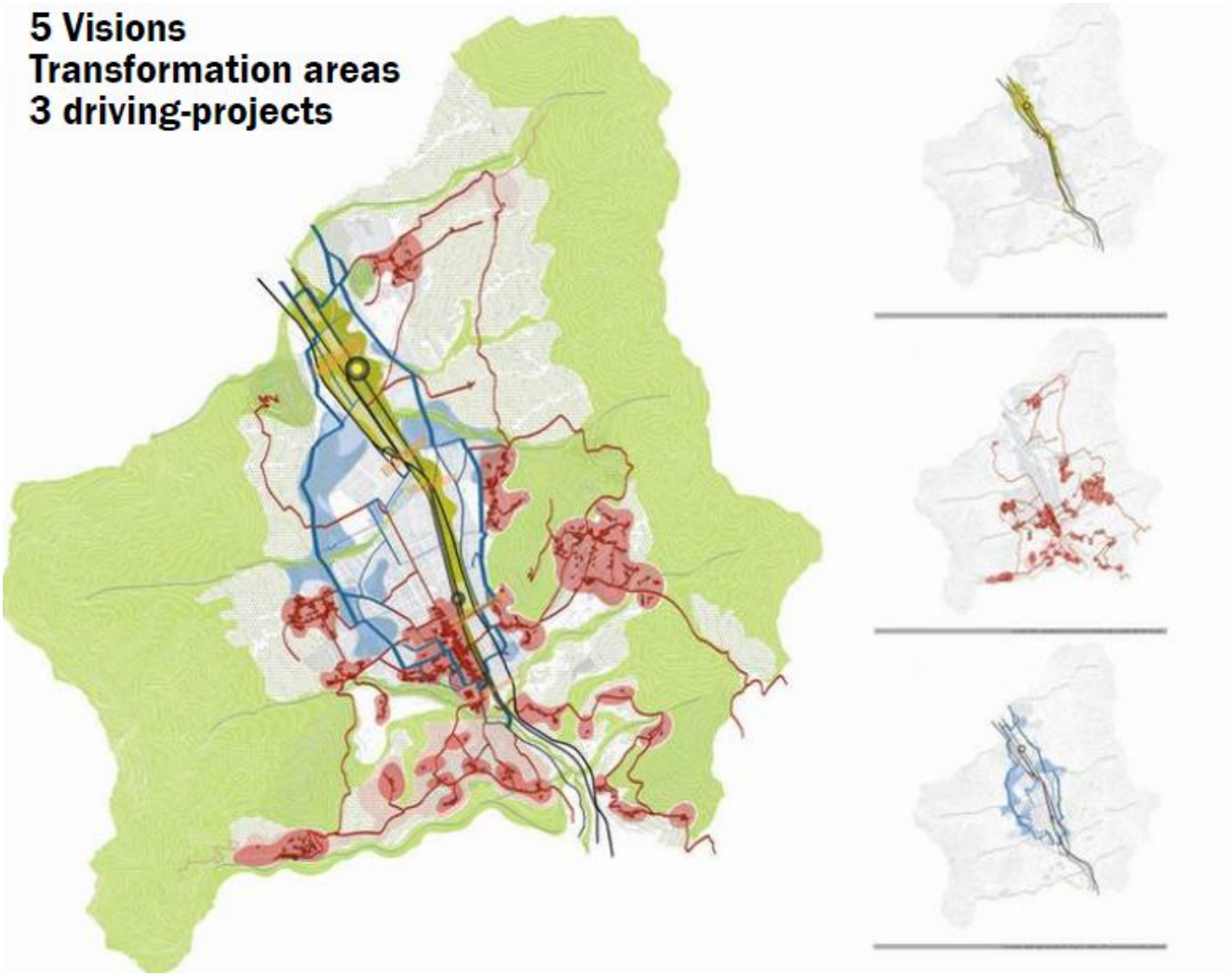
“Situated strategies”

The integrated system described above, can be “situated” in different local contexts, to become an operational system.

Maria Cerreta and Pasquale De Toro presented several case-studies. The firs relates to Cava dei Tirreni, a municipality located in Campania Region, which adopted a visualization tool based approach to design the “Master Plan”.

Visualization tools, as showed in Fig.3, have been heavily used to illustrate and discuss, trough participative approach, different visions on developing potentials and show possible projects.

Fig.3 Cava dei Tirreni – Vision and transformation projects (Master Plan)



Source: UniNa

Visualization tools also allowed a in depth spatial impact analysis, since detailed, multi-indicator mapping of the area has been previously developed.

Another cases illustrated during the presentation, relate to “Valsi” (Municipality of San Marco dei Cavoti) and “Cilento” areas.

Visualization tools, when integrated with a sound “model” to interpret interrelation and networks, can heavily support a tangible “people based” transformation strategy.

The example of “visualizing and GIS mapping” individual “feelings and perceptions” about places – as showed in Fig.4, is just one example of how advanced platforms can support real citizen involvement into designing local transformation processes.

Fig.4 Integrating personal stories into the local “spatial visualization tool” – a Cilento case

Source: UniNa

3. USEACT PARTNERS AND VISUALIZATION TOOLS

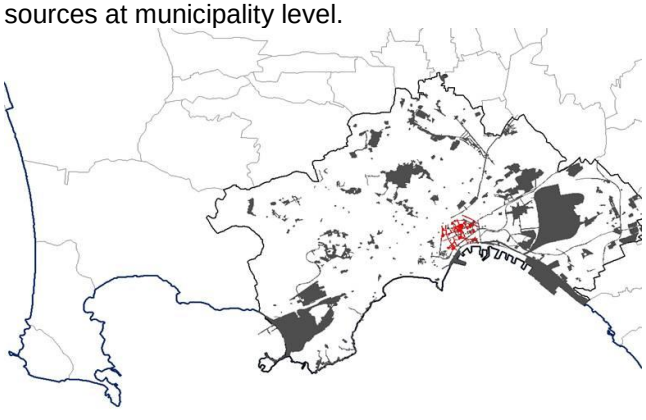
3.1 GIS and data use in Naples GIS and spatial decision support systems

In her presentation, Mrs. Francesca Pignataro, presented a GIS based project developed in Naples. Municipality of Naples, in cooperation with the local University and other technical partners, is currently developing and enhancing the use of GIS with spatial planning purposes.

Among the main challenges emerged along the process, the following ones appear to be of particular importance: clarifying the role of upper level government and research institutions, for data collection and elaboration; establishing efficient procedures and skills to manage the same data for different purposes and processes, without duplications or overlapping functions; guaranteeing improved participation in the planning process, trough new GIS-based tools capable, for instance, to involve citizens and further stakeholders, in large projects too.

Further remarkable difficulties also arose because of the low level of IT/public communication investment by public administration that allowed carrying on only low or no-budget actions only.

In general, available data are limited - most data are collected at regional scale - with virtually no detailed sources at municipality level.

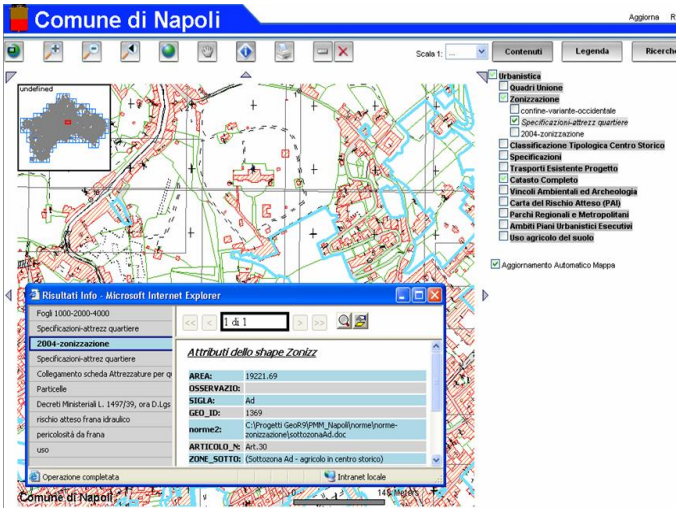


Although these difficulties, important results have been reached. GIS tools allowed, for instance, quantifying and categorizing urban green areas.

However, one of the most important aspects of the developing phases of the Naples GIS management is related to participation. In general, several effective participation processes in Naples were previously carried out without any support from GIS. In particular, capability to quickly extract different data (such as environmental constraints, etc.) to be showed to the people during the participative sessions appeared a very appreciable opportunity.

GIS also facilitate a web-site based participation process. This allows, for instance, estimating how many people have been informed about the project; receiving proposals for public discussions and dialoguing with people that cannot be present at the participation sessions. A tool for filing and retrieving information for each project,

With regard to the main USEAct target for Municipality of Naples – that is improving real estate/housing assets located in the historic centre - GIS may provide valuable services to improve management of restoration process in the historic quarters...



A first goal to be achieved in that field is guaranteeing, trough GIS based assessments, improved preservation processes for heritage in Naples.

Moreover, trough GIS-based database, several information on restauration works (physical and legal setting, work procedure status, urban planning constraints, etc.) could be managed and processed.

A second goal is related to real estate management. Detailed data about city council properties, state properties (public domain), private properties, and church properties are potentially useful to maximize benefits for the community, for example trough facilitating alternative uses – tourist and cultural uses as well - of underused public properties, or supporting maintenance processes.

Maps showed during presentations allowed to get the high potential of GIS mapping, in terms of variety of targets.

Furthermore, GIS platforms allow to improve participatory processes, as clearly emerged in the Napoli setting too, where successful participatory events took place with support of GIS visualization.

3.2 The “Buckinghamshire Business First” experience

As putted in evidence by the presentation by Mr. Jim Sims, Buckinghamshire, Relevance of GIS related outcomes for public administrations is also increasing in relation to new social and technological “drivers” that, together with diffusion of new software applications, allow GIS to be integrated into innovative strategic frameworks facing cities.

New drivers are: the “Smart City” construct, the “Big Data” challenge (and opportunity), the Public Sector driven “Open Data Initiative (ODI).

Further important drivers, of a more socio-economic nature, are tied to tight public sector finances, to the need to innovate and transform business models, to opportunity for ‘triple-helix’ collaborations and to ‘democratize’ urban decision key processes.
Further room for innovation are also linked to the opportunity to develop feedback loops to incentivize residents and encourage behavior change, as to the need to ‘shift’ procurement models (away from traditional tendering processes) and to move towards creation of more integrated ‘platforms’.
The real possibility that GIS related processes play key roles in such deeply changing urban technological and socio-economic environment depends also on several specific challenges at

organizational level. Rapidly changing environments require new mindset and new skills for professionals. Organizations need to learn to collaborate and to think in a cross disciplinary way (energy, planning, land use etc.). Public Sector specifically needs to link these developments to service transformation models. Private sector that invest in technology is also called to innovate models: business models often need a strong 'invest to save' approach and organizations need to identify use cases with strong cost/benefit returns and to find ways of monetizing peoples interaction with these new systems.

FUNCTIONS,OUTPUTS, VALUES OF VISUALIZATION PLATFORMS

What functions and what values, in relation with the "land take reduction" targets are offered by visualization platforms? Cases studies presented during USEAct meetings show the wide scope of visualization platforms and the opportunity to cover costs trough creating market value.

Service oriented and self-financing smart data platforms: the Buckinghamshire way

Capability to integrate targets, functions and subjects are a key issue for developing visualizations tools. This implies specific organizational choices. What are, for public administrations, possible organizational approaches to develop "smart use of data"?

In the UK different alternative solutions to face the issue have been adopted, as Mr. Jm Sims told.

A first approach could be called "Inward Investment & Development Promotion" (see, for instance, the activity carried out by Southampton Port Development and York City Council).

A second model could be defined as "piloting the development of certain applications".

Examples of such kind of approach, often promoted by private providers of public utility services, are the so called "Energy model" developed in partnership with cities or the initiative called "British Telecom campus".

A third approach is founded on horizontal cooperation between different subjects of local/regional governance system.

This "open" approach, aimed at building the base data layer mainly through collaboration, is the option adopted in the Buckinghamshire County, to develop the so called "Buckinghamshire Virtual Model"[3].

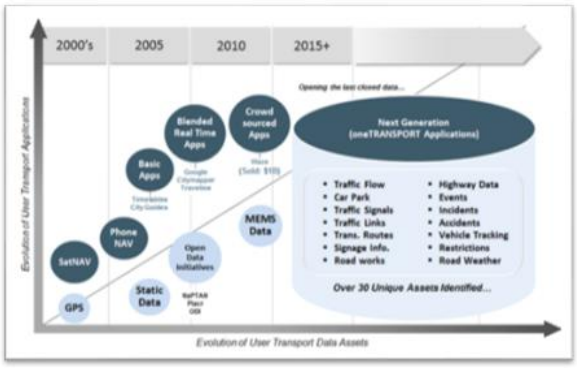
[3]For detailed information see: http://bcc.vvhosting.co.uk;

http://bcc.vvhosting.co.uk

An example of such general approach is represented by an advanced platform now in development, focused on the transport system.

The system now in development is planned to include and integrate transport data assets and advanced transport applications, to provide a wide range of real time transport related services and information to the users.

Buckinghamshire case: Development phases of the integrated platform for transport sector



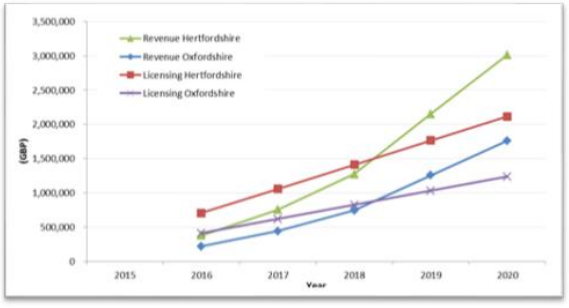
The platform is designed with the aim of generating returns (investment perspective) thanks to its capability to provide value to the customers. In general, to develop such systems on a business/service oriented perspective, it is essential to identify societal problems which lend themselves to 'Big Data' solutions, together with potential datasets and potential use-cases for potential 'killer applications'.

As showed, total revenues depend on the territorial scale the service is produced and sold at.

More regional subjects are engaged into the development within the cooperation, more resources are expected to flow to finance the project.

Moreover, financial returns from the platform model have to be guaranteed, together with funds to enable projects to be pump-primed. In general, another winning approach is to identify model for migrating other existing platform to one which can be revenue generating and to secure partner commitment.

Expected revenues (splitted by areas)



Source: Jim Sims

SMART USE OF DATA/VISUALISATION TOOLS – the "3D vision" in Buckingamshire

In developing localities – Mr. Jim Sims told - it is vital for a range of 'communities of interest' to be able to assess the range of potential development options available to them; to evaluate the relative benefits/risks associated with alternative development scenarios; and then be able to communicate with a range of wider stakeholders about what a particular development might look like.

In constrained urban areas, the situation is more complex. Debates between different 'communities of interest' can sometime degenerate into entrenched emotional discussions between the environmentalists ('protecting the greenbelt'); the private sector ('development at all costs'); and the planning function ('the regulators').

Discussions between these groups tend to be emotionally charged, and lack an informed evidence base. Despite the push from the private sector for development outside of the 'urban fringe' little or no evidence is put forward for the amount of development land, vacant commercial stock, or duration that that stock has been vacant.

In short, despite a strong drive to develop outside the urban fringe, little or no evidence is analysed or put forward to consider what options might exist to re-develop redundant buildings or utilise pockets of redundant land within the urban fringe.

Despite the emergence of town planning games which encourage the democratisation of the town planning process (such as SIM CITY), town planners tend to control quite tightly information and modelling tools which would allow different communities of interest to play a strong part in 'place shaping' and town planning.

In response to the main issues, Buckinghamshire partners have expressed an interest in developing a 3-D modelling tool which can;

- Assist in communicating the challenges, opportunities and infrastructure priorities presented in to members, stakeholders, local businesses and the community;

- Provide a technical tool for officers involved in the delivery of the infrastructure, and strategic development within Buckinghamshire, to access important infrastructure data from a single repository.

With this in mind, Buckinghamshire development agency set out to develop a tool which included;

- A video/flyover of Buckinghamshire area, incorporating video/audio sound bites to communicate the key issues within the area with a clear focus on promoting the potential future infrastructure developments within the county to a wider audience – members, stakeholders, local businesses and the community;

- A GIS/Google Earth-based map of Buckinghamshire, annotated with all of the major infrastructure proposals including: strategic development sites, transport infrastructure/services, gateways/hubs, planning constraints; embedded text files to provide "click and load" functionality on a fully scalable map.

Clearly, the scope of the visual tool will be constrained by finite budgets and the pursuit of good value.

The Benefits of developing such a 3D Visualisation Tool are that it will;

- Provide intelligence to inform debate amongst decision makers regarding what infrastructure is needed where
- Supports an evidence led approach to infrastructure provision, helping to satisfy local and national funding bodies that Buckinghamshire provides value for money investment, generating increased income
- Innovatively communicate the Buckinghamshire "story" to stakeholders through the creation of an online interactive map, "virtual" map flyovers and digital visuals of Buckinghamshire on different themes e.g. challenges of economic growth, infrastructure in the pipeline

- Help enhance and define the Buckinghamshire brand
- As the products are digital they can be continually updated ensuring they remain valid and responsive to the new developments

Numerous academic studies have been conducted into the use of Virtual Reality environments to aid the planning process;

- University of Bath - http://fos.prd.uth.gr/vas/papers/CAAD-TNDC/
- Virtual Stafford - http://tinyurl.com/mvpzcqu
- Virtual Los Angles at UCLA -http://www.research.ucla.edu/chal/20.htm
- Virtual Barcelona -http://www.youtube.com/watch?v=Kxupuo17o-8&list=UUicNRzu-dNMzTDAgzHcJcVw&index=8&feature=plcp

However, many of these tools generally take the form of virtual 3-D fly-throughs of localities. Few of them are genuinely provide users with an ability to plan their localities.

In Buckinghamshire work in developing a 3D modelling tool of Buckinghamshire, a google earth style virtual map of the county has been built, and some 3D modelling data from the urban centres, enable the user to fly-thorugh the county to see the characteristics of the locality.

On top of this, the map with different data sets (vacant property, development land etc.) has been then overloaded, in the hope it would provide decision-makers with greater insight into the development options available

In reality however, the tool needs further investment and development. “We envisage we could do this with others (as the tool is capable of taking a range of data from different localities) – Mr. Jim Sims told – and we would be happy to demonstrate where we have got to so far at the next meeting, and assess other partners interest in adopting a shared development model”

3.3. Setting up information, monitoring and spatial planning decision support systems: the experience of Riga Planning Region and Riga City

As explained by Mrs. Agnese Bidermane, of the Riga Planning Region, Riga Planning Region and Riga City are cooperating for developing integrated decision support systems based on GIS technology. Both local administrations are developing projects aimed at improving capacity in monitoring and managing land use.

Riga Planning Region established a general framework for data management (definition of “statistical areas” and development of a Regional statistical area database pilot project).

With reference to the main targets of USEAct project (urban management and land take containment at an inter-municipality scale), defining (GIS bases) statistical areas at a regional level to be filled with detailed data at local level is fundamental. RPR statistic areas database collects information not only on 28 “Novads” of the Region but on all 412 territorial units of the Riga Planning Region.

The project allowed to “fill” each territorial unit with data on: number of inhabitants and distribution, inhabitant’s income tax data and employment data. Moreover, the system allow visualizing them on a free of charge “Google Maps” cartographic base and elaborating pictures in pdf format.

Because of data can be used as marketing tools with the aim of promoting potential investment areas, a specific tool, called “Investment platform of the RPR local governments”, to integrate information related to each local government, was developed.

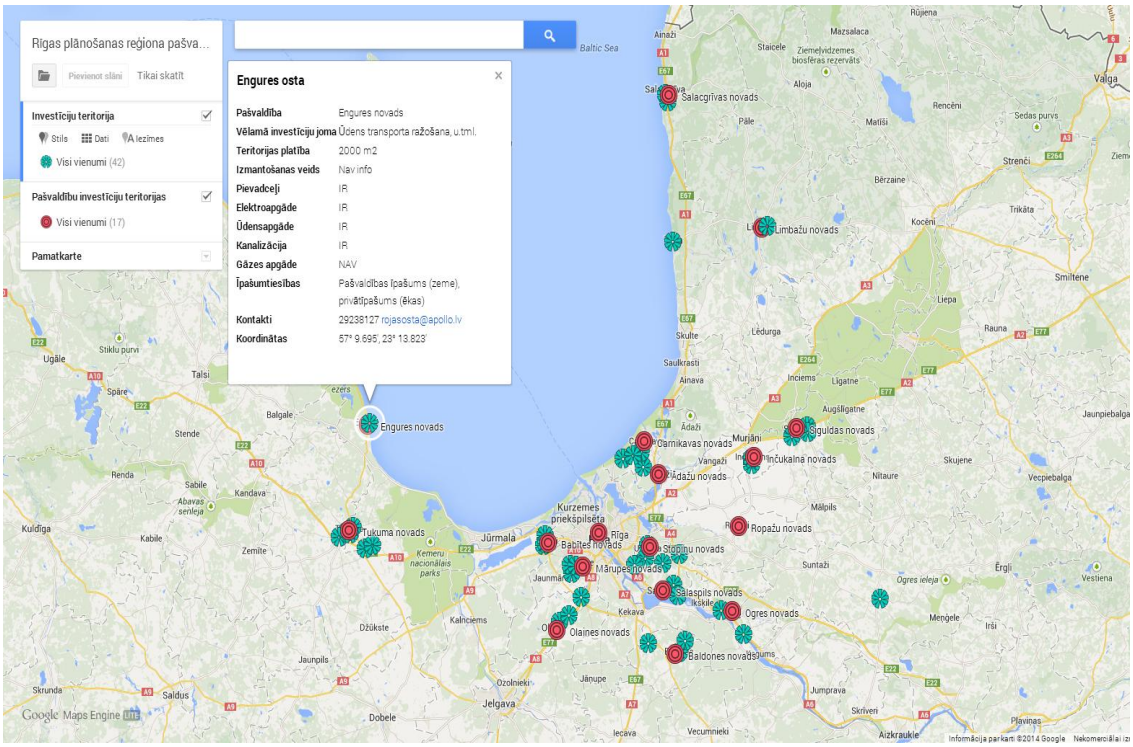


Fig.5 Investment platform pilot project of the Riga Planning Region

On the other hand, Riga City carried out other projects (Communication and information tool for Riga City subdivision units; Riga City Strategy for monitoring system; Interactive map of investment projects) that represent essential steps of a strategy aimed at reinforcing the role of GIS based data assets for urban management.

The “Communication and information tool for Riga City subdivision units” offers extensive information about each Riga territorial subdivisions and is valuable to the various target groups (citizens, professionals, investors, non-governmental organizations, students, researchers, policy makers). This tool is used by Riga City as a platform to inform public not only about public events but also planning and development activities, often as a participation and consultation facilitator.

A more specifically planning oriented tool is the so called “Riga City Strategy monitoring system”. It includes statistical data on Riga City, information on planning and development activities, data on implementation of local strategies (also with performance “charts”), database for research. It also includes maps (e.g. degraded areas, investments etc.) and further information on city development.

Interactive map of Riga City focuses on investment projects. It works as an open interactive map, aimed at showing the 2014-2020 development programs for Riga as well as investment plans and projects. Interactive tools allow getting detailed multifaceted information on each project.

4 CAPITALIZATION

INTERVIEWING FRANCESCA PIGNATARO

SIT (Sistema Informativo Territoriale) Urban Planning and Management – UNESCO Site Direction City Council of Naples

Mrs. Francesca Pignataro, kindly answered some question aimed at focusing on outcomes of the meeting from the partner and stakeholder perspective:

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1) Which are the main lessons you have learnt from the B/T meeting on smart visualization tool and which are, potentially, the most pertinent/useful for your local administration?

The most important feature of the meeting has been the focus on the use of (smart, of course) technology for the governance of transformation. Explaining to people the changes, or representing potential new uses of land, buildings, infrastructure to potential investors. Technology allows transparency, a feature we like – and allows multiple analysis and evaluation of scenarios.

Our organization – comune di Napoli – does not have a unit dedicated to the integration of potentially useful information, evaluation of plans and support for investors.

Political staffs receive potential investors and interact with a lot of different departments to evaluate feasibility for a project, and meet with a lot of difficulties. The regione Campania, too, is focused on marketing the territories for touristical initiatives or filming activities, or has specific plans for big kind of investments (i.e. infrastructure) .

So it was important to analyze the benefit that a unit expressly devoted to promote a territory can offer to integrate the services managed by our organization, such as planning or regulation of economic activities.

2) With regard to the "visualization tools" issue, which are the main targets/challenges/opportunities your/ or the city/local administration could get through visualization tools?

Reinforcing the idea that our city is a good place – a good product, easily sold, easily acknowledgeable.

Creation of tools that make information on infrastructure, real estate, rules easily collected, managed and updated.

3) Do you think that your local administration could have short or medium term "operational steps" to start/improve its visualization tools strategy, to be integrated into a redevelopment strategy for vacant areas/facilities? Which could be these steps?

Of course. Assessment of public property of potential redevelopment, in synergy with other branches of public administration.

Re-planning of public services in a new scenario (less public intervention, more attention on private/public partnership, new national rules with less regard for quantities – square meter per inhabitant- more for immaterial services)

Synergy between planning department and public real estate department in local administration

Extend the use of GIS tools to help managing information

Prepare people in the public sector to project for European funds.

4) How you think you could link the outcomes of the meeting with the implementation of the USEAct Local Action Plan ?

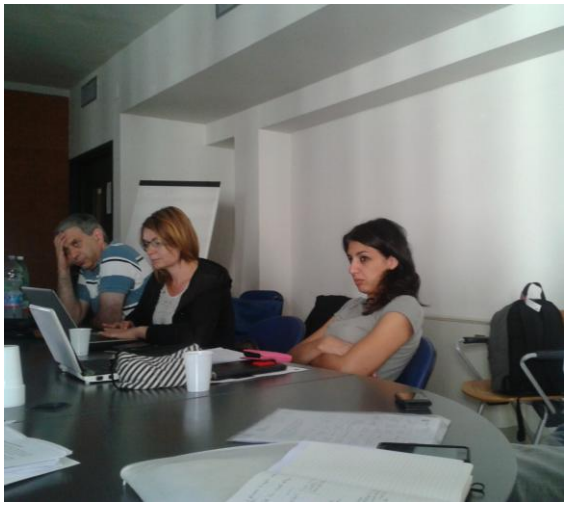
Local action plans in Naples have selected limited areas in which a pilot project implementing tools for smart visualization can be feasible. Information has partially been collected. There is the need to select a technological partner, either from partnership with university departments or from the assignment of specific resources.

5) What are your opinion about the possibility to start a cooperation within some EU funding scheme (e.g. Horizon2020) in fields tied to the "visualization tools" issue? How do you imagine targets, partnership and approaches for this cooperation?

It could be extremely interesting. Our cultural heritage is a significant feature that marks our territory, with hallmarks that characterize a place and could make it desirable for setting activities. Infrastructure planning has been carried on with a particular stress on configuring a System of connections, so it should be easy to explain this approach in a smart visualization tool.

Much more is to be done in marking and featuring our city with regard to economical activities (i.e.quality artisan activities to protect or develop) and visualizing immaterial assets (i.e. settled traditions, or perception of criminal activities).

Simple collecting of information on public real estate and commonweals in a friendly visualization tool could have a positive-disruptive effect on local politics.



FOURTH USEACT BILATERAL MEETING BUCKINGHAMSHIRE | NAPLES |RIGA
SMART USE OF DATA/VISUALISATION TOOLS

ACTIVITY PROGRAM |Meeting point : 15 July 2014 , 8. 30 at the lobby of the Hotel Culture

First day/ 15 July - Meeting venue: University of Naples Federico II - Department of Architecture
Via Toledo 402, 4th floor Aula Dante Rabitti

Welcome and introduction to the meeting

9.00 Carmine Piscopo, Urban Planning Councilor - City Council of Naples
9.10 Mario Rosario Losasso, Director of the Department of Architecture - University of Naples Federico II
9.20 Luigi Fusco Girard, Director of the Interdipartimental Research Center "Alberto Calza Bini"
9.30 Roberto Berni Canani, Latvian Honorary Consul in Naples
9. 40 Gaetano Mollura – Lead Partner: ***The targets of the Bilateral Meeting***

The Italian context /Contribution on the theme:

10.00 Elena Masala – SITI (Istituto Superiore sui Sistemi Territoriali per l'Innovazione) – Torino (Italia): ***InViTo: Interactive Visualization Tool for supporting decision making in spatial planning processes***
10.20 – Maria Cerreta, Pasquale De Toro - Dipartimento di Architettura - University of Naples Federico II : **Smart use of data/ visualization tools at urban planning level: case studies and experiences in different Italian cities**
Discussion
11.00 – Coffee Break

Host city partner contribution :

11.15 Francesca Pignataro - SIT (Sistema Informativo Territoriale) Urban Planning and Management – UNESCO Site Direction - City Council of Naples: **Cartographical visualization and analysis tools for the Planning decisions of the City Council of Naples: state of the art and critical points**

Partners contribution :

11.35 Jim Sims, ***Buckinghamshire Business First (United Kingdom)***
11.55 Agnese Bidermane, ***Riga Planning Region (Latvia)***
12.15 Group Discussion: **The USEACT partners current SMART USE OF DATA/VISUALISATION TOOLS -state of the art and challenges (Buckinghamshire, Naples and Riga)**
13.00 – 14-00 Lunch Break
14.00 – 15.00 Group Discussion: **how can municipalities better exploit innovative tools and models of data to deliver transparency and attract investors ?**
15.00 – Coffee Break
15.15 – 16.30 -"DESIGN" WORKSHOP **– *Testing Buckinghamshire 3D model in the USEACT partner contexts: updating , opportunities and critical points***
16.30 – 17.00 Gaetano Mollura - **The outcomes of the workshop**
17.00 Conclusions
17.15 end of the first day meeting

Second day /16 July - Meeting venue: University of Naples Federico II - Department of Architecture **Via Toledo 402, 4th floor Aula Vincenzo Andriello**

9.30 – 10.10 – **Capitalization of the meetings results: identifying the main topics and suggestions**
10.10 – 10.40– WORKSHOP/2 - **How could we link the outcomes of the meeting with the local action plans?**
10.40 – 11.00 Coffee Break
11.00-12.15 – WORKSHOP/3 - **Reporting the meeting to the USEAct community**
12.15 12.30 – **Conclusions: how to valorize the meeting results**
12.30 - Lunch
13.00 END OF THE MEETING

URBACT II

URBACT is a European exchange and learning programme promoting sustainable urban development.

It enables cities to work together to develop solutions to major urban challenges, reaffirming the key role they play in facing increasingly complex societal changes. URBACT helps cites to develop pragmatic solutions that are new and sustainable, and that integrate economic, social and environmental dimensions. It enables cities to share good practices and lessons learned with all professionals involved in urban policy throughout Europe. URBACT is 500 cities, 29 countries, and 7,000 active participants. URBACT is jointly financed by ERDF and the Member States.

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