ERA.Net RUS

Cover sheet

Project number:	ERANetRUS-033
Project acronym:	GEOURBAN
Project run time:	January 2013
Reporting period:	1/1/2012 - 31/12/2012

Name and address of the coordinating institution

Foundation for Research and Technology - Hellas (FORTH)
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Name of the legal representative of the coordinating institution

Prof. Costas Fotakis, Chairman of the Board of Directors of FORTH

Name of the project coordinator

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Project website address:

http://geourban-fp7-eranet.com/

Legal representative (I declare the accuracy of statement)	Place, date and signature (signed and stamped) COSTAS FOTAKIS Chairman, Board of Directors, FO.R.T.H. Heraklion, January 25, 2013
Project coordinator (I declare the accuracy of statement)	Place, date and signature (signed and stamped) Heraklion, January 25, 2013

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 the contract 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):
  ☑ 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 6) and if applicable with the certificate on financial statement.

Name of scientific representative of the Coordinator:

Dr. Nektarios Chrysoulakis

Place & Date: Heraklion, January 25, 2013

Structure of the Intermediate report

1. Publishable summary

Summary description of project context and objectives

The main objective of the GEOURBAN (ExploitinG Earth Observation in sUstainable uRBan plAnning & maNagement) project is to bridge the gap between EO scientists and urban planners by demonstrating the ability of current and future EO systems to depict parameters of urban structure and urban environmental quality over large areas at detailed level. The innovative potential of the project lies in the development of a web-based information system which reflects the multidimensional nature of urban planning and management, as operationalized in intelligible and transferable indicators which are easily understood and applicable by non-experts. Three cities with different typologies and planning perspectives are included as case studies: Tyumen (Russia), Tel-Aviv (Israel) and Basel (Switzerland). The project consists of nine Work Packages (WPs), two horizontal (WP1: Management and WP9: Dissemination - Exploitation) and seven thematic WPs: WP2 specifies the urban planning and management requirements, providing guidelines to the other WPs. The EO-based indicators will be developed in WP3, taking into account these guidelines. The EO data will be analysed in WPs 4 and 5, whereas the capabilities of future missions will be explored in WP6. WPs 4, 5 and 6 will give inputs to WP3. The indicators that will be developed in WP3 will be integrated in the system to be developed in WP7. Finally, WP8 is dedicated to information system demonstration.

Description of the work performed and main results achieved

During the 1st year of the project WPs 1, 2, 3, 4, 5, 7 and 9 were active.

In WP1 all the tasks described in the Annex 1b of the Umbrella Agreement were smoothly run and the main results were the GEOURBAN Kick-off Meeting (Heraklion February 8, 2012), 1st Progress Meeting (Tyumen, July 23-24, 2012) and Mid-term Meeting (Ankara, December 13-14, 2012), the development of an Action Lists for the 1st and the 2nd Semesters, the establishment of a Management Board and an Intellectual Property Right Committee, the elaboration of a Consortium Agreement and a Project Management Plan (Deliverable D.1.1), the Preparation of the 1st Interim Report and the Intermediate Report, as well as the organization of 6 Management Board Meetings (3 of them as Internet Meetings). Moreover, ftp documentation and data servers were prepared (**http://iacm.forth.gr/egroupware**, and **ftp://geourban@thales.iacm.forth.gr**).

The urban planning and management requirements relative to EO (WP2) for natural disaster risk mitigation and urban security as well as adaptation to climate change were determined for the three case studies (Basel, Tel Aviv, and Tyumen). These requirements were compiled combining the goals of urban planning institutions and the outcome of the Community of Practice (**CoP**) Meetings that were organized in GEOURBAN case studies: Basel (April 25, 2012), Tel Aviv (May 16, 2012) and Tyumen (July 23, 2012). The outcomes od these meetings are summarized in Deliverable D.2 (Urban Planning Requirements relative to EO).

The EO data were collected for the three case studies**.** Very High Resolution (VHR) satellite observations and aerial images, as well as High and Low Resolution (HR-LR) satellite images were available. Pre-processing of the satellite images, e.g. geometric correction was implemented. After pre-processing, image analysis methods, such as classification and spectral unmixing were applied in order to develop products such as land cover from raw remote sensing data (WP4, WP5). The analysis procedures are documented in Deliverables D.4.2 and D.5.2 (EO Data Analysis Protocol, VHR and HR-LR, respectively), whereas the derived EO products were organized in databases described in the Deliverables D.4.1 and D.5.1 (EO Products Database, VHR and HR-LR, respectively).

The urban environmental indicators to be developed in WP3 and implemented in WP7, will be based on these EO-derived products. A list of urban indicators according to urban planning and management requirements is elaborated by WP3. Methodology of urban indicators development is going to be implemented based on common practices and literature review. The indicators selection and development procedures will be documented in Deliverable D.3 (EO-based Indicators Development) in the first semester of 2013.

A Web-based Information System (WIS) mockup is elaborated in WP7 (**http://geourban.itpgrad.ru/**). It will be the basis of the 1st WIS prototype design and development in the in the first semester of 2013.

Regarding WP9, a Dissemination and Use Plan (Deliverable D.9.1) was elaborated, the **GEOURBAN website** (Deliverable D.9.2) was developed and continuously updated (**http://geourban-fp7-eranet.com/**) and the 1st GEOURBAN Newsletter (Deliverable D.9.3.1) was prepared and electronically dispatched. Furthermore, three articles will be prepared for the following Conferences: a) 10th Pan-Russian Conference "Urban planning and regional development of Russia", held in Vyborg, Russia (July 23-27, 2012); b) Joint Urban Remote Sensing Conference (JURSE) 2013 to be held in Sao Paulo, Brazil (April 21-23, 2013); c) IEEE International Geoscience and Remote Sensing Symposium (IGARSS) 2013, to be held in Melbourne, Australia (July 21-26, 2013).

Expected final results and their potential impact and use

The main GEOURBAN achievements in the 1st year are:

- User requirements capture.
- Data collection.
- Indicators list update.
- VHR methodology specification and data processing.
- HR methodology specification and data processing.
- Web-site, ftp servers operational.
- 1st Newsletter dispatched
- Conference article submitted.

The expected final results can be summarized as follows:

- Complete the indicators list.
- Development of a WIS for urban indicators implementation.
- Application of WIS in all GEOURBAN case studies and demonstration.
- Dissemination of results by publication in peer-reviewed Conferences and Journals.
- Development of technology implementation plans for the WIS prototype.

A gap exists between the research-focused results offered by the urban EO community and the application of these data and products by urban planners and decision makers. GEOURBAN results are expected to bridge this gap by demonstrating the ability of current and future EO systems to depict parameters of urban structure and urban environmental quality over large areas at detailed level. The potential impact of the project lies in the development of a WIS which reflects the multidimensional nature of urban planning and management, as operationalized in intelligible and transferable indicators which are easily understood and applicable by a non-scientific public. The potential impact and use of GEOURBAN results to urban planning and management can be therefore seen in supporting activities related to: urban surface structure; urban surface type; urban sprawl; urban environmental quality; vulnerability to hazards and socioeconomics.

2. & 3. Project objectives and Work progress and achievements during the period

In the following paragraphs the projects objectives and work progress achievements for each Partner during the 1st year are described:

FORTH

Progress towards objectives and details for each task

FORTH activities under WP1 are described in Section 5 (project Management).
FORTH activities in WP2:

- Organization of the Community of Practice (CoP) Meeting in Basel, on April 25.
- Organization of the CoP Meeting in Tel-Aviv, on May 16, 2012.
- Preparation of the CoP Meeting to be held in Tyumen on July 23, 2012.
- Elaboration the user requirements to support EO-based indicators selection.
- Review and submission of Deliverable D.2.

FORTH activities in WP3:

- Development of a preliminary indicators list.
- Revision of a preliminary indicators list based on CoP Meetings outcomes.
- Define the EO-products needed in indicators evaluation.
- Present the updated indicators list in the Mid-term meeting.

FORTH activities in WPs 4 and 5:

- Support the EO-analysis methodology definition.
- Support the optical satellite data processing.
- Review and submission of Deliverable D.4.1.
- Review and submission of Deliverable D.4.2.
- Review and submission of Deliverable D.5.1.
- Review the Deliverable D.5.2.

FORTH activities in WP 9:

- Development of a ftp server, password protected for data and information exchange among GEOURBAN partners.
- Contribution, Deliverable D.9.1.
- Contribution to the Deliverable D.9.2.
- Contribution review and submission of Deliverable D.9.3.1.
- Contribution to the preparation of GEOURBAN articles in Conferences.

Results

WP2:

- Minutes of the CoP Meetings.
- Final version of the Deliverable D.2.

WP3:

- Updated EO-products list needed in indicators evaluation.
- Updated EO-based indicators list.

WPs 4 and 5:

- EO-products for the case study of Tyumen.
- Final version of the Deliverable D.4.1.
- Final version of the Deliverable D.4.2.
- Final version of the Deliverable D.5.1.

WP 9:

- GEOURBAN ftp and exchange servers.
- Final version of the Deliverable D.9.1.
- Final version of the Deliverable D.9.3.1.
- GEOURBAN publications.

Problems occurred or foreseen - issues imposing actions.

No problems occurred or foreseen. There were no deviations from the Annex 1b of the Umbrella Agreement, therefore there were no issues imposing actions. WP3 (led by FORTH) was started earlier than the time that was initially planned (Month 6), in order to prepare a preliminary GEOURBAN indicators list, to be discussed with urban planners during the CoP meetings that were organized in the three Case Study cities.

GRADI

Progress towards objectives and details for each task

- Preparation of the document 'Review of the current understanding of urban planning and management requirements' for the deliverable D 2.1.
- Organization of Meeting of GEOURBAN International Project partners, local authorities' representatives, public authorities, experts in urban planning and information support of urban development in Tyumen (July 23-24, 2012).
- Review the deliverable D 4.1 and D 4.2 and preparation the comments.
- Developing the English version of the WIS prototype using Basel Study Case and Tyumen datasets.

Results

- Document 'Review of the current understanding of urban planning and management requirements'.
- English version of the WIS prototype with Basel Study Case and Tyumen datasets integrated.

Problems occurred or foreseen – issue imposing actions

No problems occurred or foreseen. Therefore WP7 was started earlier then the time that was initially planned (Month 12), in order to develop the English version of the prototype, to be released and discussed during the 2nd PM. Implementation of the WIS functionality firstly depends on when technologies, system architecture and algorithms will be defined, secondly it depends on what format of the data will be provided. Also some delay in implementing the final version of the WIS is possible if the case studies will not be ready to be integrated.

GARD

Progress towards objectives

- Development of a draft version of the Deliverable D.9.1: Dissemination and Use Plan (GARD).
- Development of the Deliverable D.9.2: GEOURBAN Web Site (GARD).
- Preparation of 1st GEOURBAN project Newsletter.

Results

- Dissemination and Use Plan (Deliverable D.9.1).
- GEOURBAN Web-Site operational: **http://geourban-fp7-eranet.com/** (Deliverable D.9.2).
- GEOURBAN 1st Newsletter (Deliverable D.9.3.1)

Problems occurred or foreseen – issue imposing actions

No problems occurred or foreseen.

DLR

Progress towards objectives and details for each task

So far all DLR activities are proceeding on schedule according to the project proposal. In the following a list of current and future contributions to each WP involving DLR is given:

- WP1: Support has been provided to project management activities as member of the Management Board in taking decisions about costs, people, facilities, communication, knowledge, purchase, risks, legal aspects and intellectual property right;
- WP3: Support has been provided to the identification of a comprehensive preliminary list of EO-based indicators (by accounting for a variety of currently available EO products at different scales) that has served as a basis for discussion with urban planning authorities of the three case study cities. The list is going to be further updated and refined according to priorities of the three municipalities;
- WP4: Support has been provided to micro-scale applications in the project case studies. In particular, VHR urban footprints (UFs) outlining urban built-up structures have been produced for the three reference cities. UFs have been obtained by employing advanced in-house state-of-the-art algorithms both using SAR (i.e., TanDEM-X) as well as optical (i.e., RapidEye) data. Furthermore, percentage imperviousness maps have been generated using VHR RapidEye data in order to describe the entirety of impermeable surfaces including roads, buildings, parking lots, railroads and other infrastructural elements such as squares and sidewalks;
- WP5: Support has been provided to local and regional applications in the project case studies. In particular, contribution has been given in identifying most suitable currently available HR and LR state-of-the-art EO products suitable for the evaluation of a subset of the indicators defined in WP3;
- WP9: in the context of dissemination activities support has been given in drawing up the project Newsletter, as well as in promoting the project in the framework of national and international conferences. These activities will be further pursued in the remainder of the project.

Results

WP3:
- Updatyed EO-products list needed in indicators evaluation.
- Updated EO-based indicators list.

WP 4:
- VHR EO-products for Tyumen.
- VHR EO-products for Tel Aviv.
- VHR EO-products for Basel.

WP 5:
- HR EO-products for Tyumen.
- HR EO-products for Tel Aviv.
- HR EO-products for Basel.

WP 9:
- Contribution to the 1st Newsletter.
- GEOURBAN publications.

Problems occurred or foreseen – issue imposing actions

No problems occurred or foreseen.

KUZGUN

Progress towards objectives and details for each task

WP4 mainly involves the micro-scale applications in GEOURBAN case studies. Although previous research projects already addressed the use of VHR EO-data in urban planning and management, WP4 represents a unique attempt to collect and analyze an integrated EO dataset suitable for the estimation of a subset of the EO-based indicators developed in WP3. WP4 is provides two major deliverable namely, Deliverable 4.1- the EO Products and Database Deliverable 4.2-the EO Data Analaysis Protocol (VHR).

Deliverable 4.2 is produced and submitted to Joint Call Secretariat. It is a protocol for the use of micro-scale EO-images to drive EO-based indicators to guide end-users. It contains information about general characteristics of Very High Resolution (VHR) images for micro-scale applications, literature research about existing algorithms which are used for various information extractions from VHR images and applications for GEOURBAN case study sites. In Deliverable 4.2, since many of the identified indicators can be derived from land use land cover (LULC) maps, LULC classification for Basel is presented. For this purpose, a 4-band (R,G,B,NIR) Quickbird Multispectral image with a 2.51 m spatial resolution is considered. Six classes of water, grass, tree, bare land, road and built up are extracted from Quickbird data as well assessing the classification accuracy which is considerably high for the given complex nature of the Basel data. The urban foot print from for Tel Aviv and Tyumen is extracted from RapidEye images. In addition percent impervious layers for Tyumen is produced from TerraSAR-X data.

Deliverable 4.1 contains description of the conceptual database design for GEOURBAN product database. The EO data and related products involve mainly the raw EO satellite images and their processed outputs which are obtained by using various image processing algorithms. The processed images of EO data form the basis of indicators to be used GEOURBAN framework. In GEOURBAN project, these products are obtained for case studies namely, Basel, Tyumen and Tel Aviv according to available EO data in various spatial resolutions. For the data types considered in the previous section a relational database is considered. The data tables with their relations are provided.
Finally, the processed VHR data (in both raster and vector format) for Basel, Tyumen and Tel Aviv are provided to other WP's to be used in WIS.

Results

WP 4:
- VHR analysis methodology definition.
- VHR products database development.
- VHR EO-products for Tyumen.
- Final version of the Deliverable D.4.1.
- Final version of the Deliverable F.4.2.

WP 9:
- Contribution to the 1st Newsletter.
- GEOURBAN publications.

Problems occurred or foreseen – issue imposing actions

No problems occurred or foreseen.

UNIBAS

Progress towards objectives and details for each task

UNIBAS activities in WP2:

- Two CoP meetings (Task 2.2) were organized in Basel on April 25 and June 7 2012 in Basel. The preliminary indicator list was an outcome of these meetings and input to the CoP meeting in Tel Aviv and Tyumen and to WP3. Task 2.1 and deliverable D.2 "Urban planning requirements relative to EO" were successfully completed with input from GRADI (section 3.1.4) and FORTH (organization of CoP meetings). Data collection (Task 2.3) started in April 2012 with input from DLR (VHR data) and is subject to permanent updating according to the needs defined in WP 4 and WP 5.

UNIBAS activities in WP3:

- UNIBAS provided input to WP3 (preliminary indicator list from Basel CoP meetings).

UNIBAS activities in WP5:

- Task 5.1 "Local and regional scale applications specification" was successfully completed and presented and discussed during the Mid-Term meeting (MTM) in Ankara (December 13-14, 2012). In the frame of Task 5.2 "Local and regional scale applications in GEOURBAN case studies", some prototype products were also presented and discussed at MTM. It was decided by the consortium that WP 5 (and WP 4) activities continue in the next semester by calculating the key products to be used in indicator evaluation and taking into account WP7 constraints.
- In the frame of Task 5.2 "Development of a HR-LR EO data analysis protocol" processing techniques for HR products were presented and discussed with the consortium during the MTM. Furthermore, the technical details concerning the format of the products to be delivered by WP4 and WP5 to GRADI for the implementation of the web based information system (WIS) in the frame of WP7 needed some clarification. These issues were solved during an informal short meeting with KUZGUN and GRADI during the MTM.

UNIBAS activities in WP9:

- UNIBAS provided inputs to D.9.1, D.9.2 and D.9.3.1.

Results

WP2:

- Final version of the Deliverable D.2.

WP3:

- Updated EO-based indicators list.

WP 5:

- EO analysis methodology.
- EO-products for the case study of Basel.
- Final version of the Deliverable D.5.1.
- Draft version of the Deliverable D.5.2.

WP 9:

- Contributions to D.9.1, D.9.2 and D.9.3.1.
- Contributions to GEOURBAN publications.

Problems occurred or foreseen – issue imposing actions

Because MTM discussions were necessary as an input for the final decision of algorithms for the end-products, the final version of the Deliverable D.5.2, originally due by M12, is slightly delayed. The final version of D 5.2 is expected to be submitted in early 2013. No other problems occurred or foreseen.

4. Deliverables table [Table 1] and milestones table [Table 2]

TABLE 1. DELIVERABLES								
Del. no.	Deliverable name	WP no.	Lead beneficiary	Nature	Delivery date from Annex A (proj. month)	Delivered Yes / No	Actual / Forecast Delivery date dd/mm/yyyy	Comments
D1.1	Project Management Plan	1	FORTH	CO	31/03/2012	Yes	30/03/2012	
D1.2.1	1st Interim Report	1	FORTH	CO	30/06/2012	Yes	09/07/2012	
D.2	Urban Planning Requirements Relative to EO	2	UNIBAS	CO	30/06/2012	Yes	30/10/2012	
D.4.1.	EO Products Database (VHR)	4	KUZGUN	CO	30/06/2012	Yes	31/12/2012	
D.4.2	EO Data Analysis Protocol (VHR)	4	KUZGUN	CO	30/06/2012	Yes	11/12/2012	
D.9.1	Dissemination and Use Plan	9	GARD	CO	30/06/2012	Yes	13/07/2012	
D9.2	GEOURBAN Web Site	9	GARD	PU	30/06/2012	Yes	13/07/2012	
D.5.1.	EO Products Database (HR-LR)	5	UNIBAS	CO	31/12/2012	Yes	31/12/2012	
D.5.2.	EO data analysis protocol (HR-LR)	5	UNIBAS	CO	31/12/2012	No	28/02/2013	Deliverable in draft format. Input (EO analysis results) from all Partners is expected to be included in the final version, taking into account WIS requirements.
D.9.3.1	1st Newsletter	9	GARD	PU	31/12/2012	Yes	31/12/2012	
D.1.3	Mid-term Report	1	FORTH	CO	31/12/2012	Yes	31/12/2012	It is this Intermediate Report

TABLE 2. MILESTONES							
Mile stone no.	Milestone name	WP no.	Lead beneficiary	Delivery date From Annex A dd/mm/yyyy	Achieved Yes/No	Actual / Forecast Achievement date dd/mm/yyyy	Comments
M.1	Kick-off Meeting	1	FORTH	08/01/2012	Yes	08/01/2012	▪ Discussion on the Project Management Plan.
M.2	1st Progress Meeting	1,2,3,4,5,9	FORTH	23-24/07/2012	Yes	23-24/07/2012	▪ WPs 2 and CoP meetings concluded. ▪ Begin of WPs 3, 5 and 7. ▪ Web-site operation.
M.3	Mid-term Meeting	All	FORTH	13-14/12/2012	Yes	13-14/12/2012	▪ WP4 concluded. ▪ 1st Newsletter released. ▪ Begin of WPs 6. ▪ Intermediate Report submitted.

5. Project Management

Project Management tasks are included in a dedicated Workpackage (WP1), thus ensuring that the project has a solid management and flexible structure adapted to its ambitious context. The management structure is split into three levels of management: a) the strategic management; b) the integrative management; and c) the WP management is based on the procedures implemented by the Management Board (MB), which will be the tool for the successful integration. The strategic management level includes the main decision-making role: The MB and the Coordinator. The MB consists of the WP Leaders and chaired by the Coordinator. It is therefore identical with the General Assembly, since every partner leads at least one WP. The MB implements and deploys the necessary management procedures (costs, people, facilities, communication, knowledge, purchase, legal aspects, rtc.), following a matrix organisation (as described in teh Project Management Plan) that has been adopted to provide more flexibility and adaptability in changing conditions. The Coordinator is also assisted by the Intellectual Property Right Committee (IPRC). The IPRC is composed of one specialist from each partner. The IPRC will set up a quality and monitoring procedure to manage the protection of IPR issues.

The Project Management activities follow the schedule described in detail in the Deliverable D.1.1 (Project Management Plan). During the 1st year of the project the management of teh consortium activities included the following actions:

- Communication with the Joint Call Secretariat.
- Communication with the National Funding Sources.
- GEOURBAN Kick-off Meeting (Heraklion, February 8, 2012).
- Organization of the 1st Management MB Meeting (Heraklion, February 8, 2012).
- Development of a Project Management Plan (Deliverable D.1.1).
- Development of the 1st Semester Action List.
- Development and sign a Consortium Agreement.
- Organization of the 2nd MB (Skype) Meeting (May 11, 2012).
- Assignment of contact person for Intellectual Property Rights Committee.
- Development of the GEOURBAN documentation exchange server.
- Development of the GEOURBAN ftp data server.
- Development of a draft of the 1st Interim Report (Deliverable D.1.2.1).
- Organization of the GEOURBAN 1st Progress Meeting (Tyumen, July 23-24, 2012).
- Organization of the 3rd MB Meeting (Tyumen, July 23-24, 2012).
- Development of the 2nd Semester Action List.
- Organization of the 4th MB (Skype) Meeting (September 14, 2012).
- Provide input for the JCS Leaflet.
- Organization of the 5th MB (Skype) Meeting (November 2, 2012).
- Organization of the GEOURBAN Mid-term Meeting (Ankara, December 13-14, 2012).
- Organization of the 6th MB Meeting (Ankara, December 13-14, 2012).
- Development of the 3rd Semester Action List.
- Preparation of the Intermediate Report (Deliverable D.1.3).

Results

- Minutes of the GEOURBAN Kick-off, 1st Progress and Mid-term meetings.
- Action List for the 1st , 2nd and 3rd semesters of the project.
- Minutes of the six MB Meetings held during the 1st year of the project.
- Consortium Agreement.
- Project Management Plan (Deliverable D.1.1)
- Interim Report (Deliverable D.1.2.1)
- Intermediate Report (Deliverable D.1.3)

Problems occurred or foreseen - issues imposing actions.

- No problems occurred or foreseen. There were no deviations Annex 1b of the Umbrella Agreement, therefore there were no issues imposing actions.

6. & 7. Explanation of the use of the resources and Finances

FORTH
FORTH total budget for 1st year was € 33,613.54. The budget breakdown is as follow:

- Personnel (N. Chrysoulakis, P. Prastacos, I. Papadakis, A. Beleconi): 21,479.77
- Travel (Progress meetings and CoP meetings): 8,547.59
- Equipment (hardware and software): 2,389.89
- Consumables: 424.21
- Other (KoM organization): 772.08

GRADI
GRADI's total budget for 1st year was € 39,330
• Personnel: 25,378.87
• Travel (Meetings in Iraklion, Tyumen, Ankara): 13,281
• Other (consumables): 670.13

GARD
GARD total budget for 1st year was about € 40,000 The budget breakdown is as follow:

- Personnel (A. Tal, A. Efros, G. Fleishman): 30,000
- Travel (Progress meetings and CoP meetings): 6,500
- Equipment (hardware and software): 2,000
- Consumables: 500
- Other (CoP meetings organization): 1000

DLR

- Personnel (T. Esch, M. Wiesner, H. Taubenböck, B. Regeling): 45,318.37
- Travel (Progress meetings and CoP meetings - T. Esch, M. Marconcini): 3,355.76
- Equipment (hardware and software): 2,389.89
- Courier Costs: 107.06
- Indirect Costs: 30,816.52

KUZGUN
KUZGUN total budget for 1st year was € 72.781,74. The budget breakdown is as follow:

- Personnel (H.Şebnem Düzgün, Mahmut Çavur, Serkan Kemeç, Arzu Erener): 66.159,74
- Travel (Progress meetings and CoP meetings): 5.700,00
- Consumables: 120
- Other (KoM organization): 802

Since the KUZGUN Grant Agreement was not signed until the 9th of February 2012, employment of a KUZGUN scientist and other expenses were delayed by 5 months and started in February 2012. It will be compensated in the 2013 annual accounts.

UNIBAS
UNIBAS total budget for 1st year was € 36'799

- Personnel (C. Feigenwinter): 31.250
- Travel (Progress meetings and CoP meetings): 5.041
- Consumables (CoP meeting): 508

Since the UNIBAS Grant Agreement was not signed until the end of May 2012, employment of a GEOURBAN scientist was delayed by 3 months and started in April 2012. This explains the surplus of funding in 2012 finances. It will be compensated in the 2013 annual accounts.

in EURO	FORTH	GRADI	GARD	DLR	KUZGUN	UNIBAS	Total
Contractual funding Max.	100,000	100,000	24,000	89,708.67	114,045.37	100,000	527,754.04
Contractual funding rate Max.	100%	50%	30%	100%	75%	100%	
Intermediate Reporting Period							
Total Costs	33,613.54	39,330	40,000	79,597.71	72,781.74	36,799	302,121.99
Own funds	0	19,670	28,000	0	38,525.22	0	86,195.22
Funding	33,613.54	19,660	12,000	45,176.15	34,256.52	50,000	194,706.21
Quota	35%	19.67%		100%	48%	73 %	
Receipts	35,000.00	19,656		37,085.45			
Final Reporting Period							
Total Costs							
Own funds							
Funding							
Quota							
Receipts							
Total reported							
Total Costs	33,613.54	39,330	40,000	79,597.71	72,781.74	36,799	302,121.99
Own funds	0	19,670	28,000	0	38,525.22	0	86,195.22
Funding	33,613.54	19,660	12,000	45,176.15	34,256.52	50,000	194,706.21
Quota	100%	19.67%		100%	48%	73 %	
Receipts	35,000.00	19,656		37,085.45			

Received Payments							
Total received							
Payment 1	35,000.00	19,656	5,134	37,085.45	34,256.52	50,000	181,131.97
Date	04/10/2012	28/5/2012	1/5/2012	14/12/2012	18/07/2012	07/09/2012	
Payment 2			3,192				3,192
Date			15/7/2012				
Payment 3			2,337				2,337
Date			18/10/2012				