

Application Form

4th Call for Proposals

1. Project Identification

1.1. Main data			
Call for proposal ID	D	Project acronym	GeoSEE
Project title	Innovative uses of low-temperature geothermal resources in South East Europe		
Application ID	SEE/D/0162/2.4/X	EoI Reference number	SEE/D/0162/2.4/X
Priority Axis	Protection and improvement of the environment		
Area of Intervention	Promote energy & resource efficiency		
1.2. Project summary			
<p>It is undoubtedly true that growing concerns on environmental issues, desire of energetic independency and increasing process of energy require the development and utilization of clean and renewable energy sources. A significant contribution to these issues can be offered by geothermal resources and geothermal-derived energy. Due to its base-load power, a higher than 90 percent availability, a small footprint as well as low carbon emissions, this type of natural resource and form of energy are expected to contribute significantly to the diversification of the energy portfolio in Europe and the development of local or regional energy strategies. It is also evident that low and moderate temperature (less than 150°C) is by far the most common geothermal resource, as evidenced by the high number of hot springs that surface to the top of the Earth in many locations around the globe and Europe, in a much greater number than is the case with high-temperature sources. Yet, the utilization of low-to-middle temperature geothermal reservoirs for electricity production in Europe or the enhancement of the potential of different RESs has been only very recently investigated and is still far from being fully ascertained. The GeoSEE project intends to address these limitations and challenges to demonstrate that there are innovative approaches that can be pursued to realize in the short term the potential of low-enthalpy geothermal resources to produce electricity and additionally enhance that of already established renewable sources. These approaches will allow the countries within the area of South East Europe (SEE) and beyond to leverage the positive features of water-dominated geothermal sources, such as their low or no environmental impact and continuous operation, whilst contributing to the achievement of the most recent binding energy targets that have been agreed upon by European countries, as specified for instance in the European Energy and Climate Change Policy and its 20-20-20 targets for 2020. The GeoSEE project addresses the above challenges through two major outputs: a Strategic Agenda in the field of low-temperature geothermal energy and a Policy Guide. The former will include recommendations defining the way-ahead in SEE and Europe to ensure that national and European government and economic operators can achieve their objectives in increasing energy and resource efficiency through the deployment of low-temperature geothermal power. The latter will address all current restrictions in national and European legislation that hinder the adoption of innovative and sustainable utilization of low-temperature geothermal resources and suggest legislative solutions to facilitate and streamline permitting procedures and market adoption of low-temperature geothermal energy. The GeoSEE project involves 16 partners from 8 countries and will run for 24 months between december 2012 and november 2014.</p>			

Project Lead Partner <i>(official name in English)</i>	KSEENA - Energy Agency of Savinjska, Saleska and Koroska region	Lead Partner's country	Slovenia
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1.3. Financial summary			
Total budget		2,038,625.00 EUR	
Requested ERDF contribution	1,324,899.25 EUR	ERDF contribution rate	85.00 %
Requested IPA contribution	407,932.00 EUR	IPA contribution rate	85.00 %
Requested ENPI contribution	0.00 EUR	ENPI contribution rate	0.00 %
10% flexibility rule (amount)	0.00 EUR	10% flexibility rule (rate)	0.00 %
20% flexibility rule (amount)	0.00 EUR	20% flexibility rule (rate)	0.00 %

The project generates revenue	No
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1.4. Project duration			
From month/year	12 / 2012	To month/year	11 / 2014
Duration in months	24 months		

2. Partnership

2.1. Project partners (calculation: Partners + ASP – Observers)

Number of partners from EU	
<i>Bulgaria</i>	2
<i>Hungary</i>	2
<i>Italy</i>	3
<i>Romania</i>	1
<i>Slovenia</i>	3
Number of partners from Non EU	
<i>Croatia</i>	3
<i>Former Yugoslav Republic of Macedonia</i>	1
<i>Serbia</i>	1
Total number of Project Partners	16

2.2. List of Project Partners

Partner role	Official name in English	Abbreviation	Country
LP	KSENA - Energy Agency of Savinjska, Saleska and Koroska region	KSENA	Slovenia
ERDF PP1	LEAF - Land, Environmental, Agriculture and Forestry Department - Faculty of Agriculture - University of Padova	TESAF	Italy
ERDF PP2	Geological Institute of Romania	IGR	Romania
ERDF PP3	University Of Maribor	UM	Slovenia
ERDF PP4	Province of Padova	PADUA	Italy
ERDF PP5	Regional Energy Agency of Pazardjik	REAP	Bulgaria
ERDF PP6	/	/	/
ERDF PP7	Veneto Energy Consortium	CEV	Italy

ERDF PP8	Municipality of the XVIII. District of Budapest	BP18	Hungary
IPA-I PP1	Regional Energy Agency North	REAN	Croatia
IPA-I PP2	Faculty of Mechanical Engineering Belgrade University	MF	Serbia
IPA-I PP3	Municipality of Kocani	KOCANI	Former Yugoslav Republic of Macedonia
EU ASP1	Pazardzhik Regional Administration	PRA	Bulgaria
EU ASP2	National Environmental Protection and Energy Center Non-Profit Limited Liability Company	NKEK	Hungary
OP1	Energy Chamber of Slovenia	EZS	Slovenia
OP2	City of Krizevci	KRIZ	Croatia
OP3	Municipality of Molve	MOL	Croatia

2.3. Description of the Partnership

The project includes a well balanced mixture of partners coming from three main sectors, city/local authorities (PP4, PP7, PP8, IPA-PP3, ASP2 and PRA), research institutions/establishments (PP1, PP2, PP3 and IPA-PP2) and local energy agencies (LP, PP5, IPA-PP1). Together they represent varied views across a range of stakeholders and interests and provide competent knowledge and experience in the field of energy efficiency, renewable energy sources and geographic intelligence, especially with regards to technological issues and energy infrastructures in South East Europe. Partners from cities or local authorities are well known for their commitment and motivation towards the improvement of their environment and have all joined relevant transnational or national initiatives in the fields of energy efficiency or sustainable living. The academic or research institutions in the partnership play both a leading and scientific role and will be key in helping the local authorities in the project acquire the level of geographic intelligence and technical knowledge that is needed to support action planning against soaring CO2 emission levels and energy usage. The energy agencies bring in specific competences related to energy issues and strategies and offer a modern and forward looking approach that ensures consistency with the latest energy development trends in Europe as well as congruity with market changes and industry needs. The partnership is characterized by a strong transnational character, covering eight nations within the South East Europe Programme area, thus ensuring a good geographical and cultural coverage and relevant attention to the issues and needs of a wide range of institutional settings and establishments from South East European Countries. All partners have had previous experiences of participating to EU territorial cooperation projects and have acquired relevant experience in the importance of transnational issues and the added benefits for the resolution of common issues across European Countries. All partners have established strong networks of contacts either at the regional, national or international level. They are in contact with important stakeholders can rely on their support and can influence them to bring about new policies on national and European level. Partners have the common need to comply with national and

European legislation on energy and resource efficiency and have to define specific measures and concrete solutions for the implementation of renewable energy sources in urban settings and reduction of CO2 emissions. They share the desire to make a contribution towards global climate change, the enhancement of environmental sustainability and the improvement of quality of life of European citizens. All partners have the opportunity to gain throughout the project competitive knowledge and acquire innovative tools in the field of energy and resource efficiency and feel more confident and prepared to face forthcoming responsibilities and institutional duties in the field of renewable energies.

2.4. Project partners data

2.4.1 LP

2.4.1.1. Legal Identification Data			
Official name in English	KSSENA - Energy Agency of Savinjska, Saleska and Koroska region		
Full name in original language	KSSENA - Energetska agencija za Savinjsko, Šaleško in Koroško regijo		
Abbreviation	KSSENA	Country	Slovenia
NUTS II Region	Vzhodna Slovenija	NUTS III Region	Savinjska
Type of institution	Regional and local development agency		
Legal status	Public		
National tax number	SI58743359		
Official address	Koroška c. 37 a, Velenje, 3320 Slovenia		
Phone	(386)-3-8961520	Mobile	
Fax	(386)-3-8961 522	e-mail	info@kssena.velenje.eu
Homepage	www.kssena.si		
Legal representative			
Name of the legal representative	Boštjan Krajnc		
Position of legal representative	Manager		
Phone	(386)-3-8961 523	Mobile	(386)-41-726724
Fax	(386)-3-8961 522	e-mail	bostjan.krajnc@kssena.velenje.eu
Contact Person			
Name of contact person in project	Mr Gregor Tepež		
Position of contact person in project	Expert consultant		
Phone	(386)-3-8961521	Mobile	(386)-40-733977
Fax	(386)-3-8961522	e-mail	gregor.tepez@kssena.velenje.eu

2.4.1.2. Geographic scope of the LP activities

2.4.1.3. Relevance of the proposed LP in this project (thematic competence)

Energy Agency of Savinjska, Šaleška and Koroška region (KSENA) was established in the framework of Establishment of local or regional energy Agencies within the European programme Intelligent Energy Europe which is related to horizontal action 2 Think globally, act locally by the following founders: Municipality of Velenje, Municipality of Celje, Municipality of Slovenj Gradec and Public utilities Company. KSENA is an expert organization specialized in the field of energetic, with the emphasis on RES and RUE, and project management. KSENA is a professional bridge between potential users (emphasis on the public sector) and suppliers of specialized energy services and products. Purpose and goals of KSENA's activities: (1) Reduction of costs and energy use with the emphasis on the public sector (2) Reduction of green-house-gas (GHG) emissions (3) Development and implementation of innovative products and services (4) Implementation of pilot or demonstrative projects (5) Gain of non-refundable funds (6) Encouragements for inflow of capital for investment projects (7) Rise of energy culture of general and expert public. KSENA is accelerating promotion and implementation of measures in the fields of renewable energy sources, energy efficiency and sustainable city transport. With our programme and development we are following the aims of national and European energy policies for the benefit of social, economical and environmental development on local level. All activities carried out in KSENA are: energy concepts, energy management, coordination and realization of national and EU project, activities for private sector, cooperation with national and European partners, communication with public, educational and other events. KSENA promotes energy efficiency, rational use of energy, company, SMEs, industrial undertaking projects including activities on the field of geothermal, biomass, biogas, wind and hydro energy, solar system and PV, renewable energy sources, rational use of energy, sustainable development, public lighting and transport, sustainable development, biodiesel and implementation of biogas into existing and potential new cogeneration systems. KSENA is coordinator of local management for companies and SMEs who want to collaborate in fostering energy efficiency projects in companies and enterprises. KSENA assists local companies and SMEs for the purpose of rational use of energy projects. Our strength lies in our ability to provide knowledge and competences in a variety of energy and resource efficiency fields. We have implemented this approach in GeoSEE and we believe this will bring out important and concrete results. KSENA will be responsible for the project management of GeoSEE and the professional supervision of all project activities. Thanks to its existing important professional collaborations with the University of Maribor, KSENA will also be able to exercise an important control on the scientific activities of the project.

2.4.1.4. Partnership and management experience

KSENA has been cooperating since 2009 with the Faculty of Energy Technologies which was created at the University of Maribor. A number of educational seminars and conferences have been organized and executed in joint cooperation (the lectures from the Faculty actively cooperate on the events on RES and RUE topics). In 2011 KSENA developed the IEE proposal "H-Village" which promotes hydrogen. The main office of the Faculty of Energy Technologies is also in Velenje, close to the premises of KSENA. KSENA and its project managers have long-standing experience as coordinators of local, national and international activities for companies and SMEs who want to collaborate in fostering energy efficiency projects in companies and enterprises. Also, they have offered extensive technical support to local and national companies and SMEs for the purpose of rational use of energy projects. Staff at KSENA have had professional past experiences at the National Company for Development and Implementation of Environmental Solutions and Energy Projects as Project Technologists in the following fields: designing, execution, controlling and completion of projects of power technologies implementation and environmental solutions; technological preparation and support of projects; project management;

preparation of technical documentation; technological and financial analyses of projects; contracting and negotiation activities with suppliers and subcontractors; quality management of projects. Additional fields where KSEENA has strong expertise are: management of national and EU projects, energy management in public buildings, renewable energy promotion, energy advice to the public & SMEs, technical support to energy utilisation in public and enterprise sector, technical support in public lightning, preparation of projects for implementing RES and organization of public and other communication events. Members of staff at KSEENA have also gained experiences in additional industry sectors, such as automotive industry, steel construction and building industry due to past working engagements.

2.4.1.5. Description of previous participation to other relevant EU funded projects

Since its foundation, KSEENA has covered important roles within the following European projects and initiatives: Cyber display (IEE), EuroNet 50/50 (IEE), where KSEENA was project leader of WP6: Applying the 50/50 methodology in the 50 pilot schemes, RegCep (IEE), Prometheus (IEE), EnergyCity (CE) and MOVE (SI-AT), where KSEENA was project leader of WP7-Solar energy.

2.4.1.6. Overview of the LP's budget

ERDF Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total eligible budget
EUR	%	EUR	%	EUR	%	EUR	%	EUR
214,625.00	85.00	0.00	0.00	0.00	0.00	37,875.00	15.00	252,500.00

Revenues generated by the project	No	Amount:	0.00
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2.4.2 ERDF PP1

2.4.2.1. Legal Identification Data			
Official name in English	LEAF - Land, Environmental, Agriculture and Forestry Department - Faculty of Agriculture - University of Padova		
Full name in original language	TESAF - Dipartimento e Territorio Sistemi Agro-Forestali - Facolta' di Agraria - Universita' degli studi di Padova		
Abbreviation	TESAF	Country	Italy
NUTS II Region	Veneto	NUTS III Region	Padova
Type of institution	University, higher education institution, research centre, scientific institution, college		
Legal status	Public		
National tax number	00742430283		
Official address	Campus di Agripolis-Viale dell'Universita 16, Padova, 35020 Italy		
Phone	(39)-049-8272729	Mobile	
Fax	(39)-049-8272750	e-mail	monica.barzon@unipd.it
Homepage	http://www.tesaf.unipd.it		
Legal representative			
Name of the legal representative	Prof. Giancarlo Dalla Fontana		
Position of legal representative	Department Director		
Phone	(39)-049-8272732	Mobile	(39)-340-0580622
Fax	(39)-049-8272750	e-mail	giancarlo.dallafontana@unipd.it
Contact Person			
Name of contact person in project	Mrs Monica Barzon		
Position of contact person in project	Secretary (Administration)		
Phone	(39)-049-8272766	Mobile	
Fax	(39)-049-8272750	e-mail	monica.barzon@unipd.it

2.4.2.2. Geographic scope of the ERDF PP1 activities

National

2.4.2.3. Relevance of the proposed ERDF PP1 in this project (thematic competence)

The L.E.A.F. department is a modern research and teaching centre belonging to one of the oldest Universities in the world. New technologies, tradition, interdisciplinary studies and historical importance are all key elements that make the department stand out as a reference point in land and agro-forestry systems management. Our research and extension/outreach activities are focused in five main areas: Economics, Mechanical technologies, Ecology and silviculture, Water Resources and land defence, Plant pathology. Five subject-specific centres deepen our research activity on Alpine environment, precision agriculture, cartography, photogrammetry, remote sensing and GIS, viticulture and enology, irrigation. We collaborate with about 100 universities and research institutes both at a national, European and international level, creating a network that reaches the whole Italy, 12 EU countries, North and South America. The Departmental permanent research and teaching staff comprises of 34 Professors and 17 Researchers. Personnel includes 19 technicians, 2 librarians and 14 administrative employees. The Department also hosts 31 PhD students involved in different PhD programmes. Scientists and students working in L.E.A.F. have direct access to 28,000 books and to more than 6,000 on-line journals and 700 specialised periodicals kept in the Departmental library. The offer is completed by a library, IT services and a mountain-based lab. LEAF will lead WP5 and be actively involved in all project activities.

2.4.2.4. Description of previous participation to other relevant EU funded projects

As far as Interreg is concerned, L.E.A.F. has participated to the following projects: PARAMOUNT - Alpine Space Programme and NEWFOR - Alpine Space Programme. Additionally, L.E.A.F. has been a partner in the following FP projects: DAMOCLES, MITCH, CARBO INVENT, FLOODSITE, EPIC FORCE, HYDRATE, NKEKOJOB, EXIOPOL, CARBOMARK, NEWFOREX, AGORA, SCORE, CORE ORGANIC II and INTEGRAL.

2.4.2.5. Overview of the ERDF PP1's budget

ERDF Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total eligible budget
EUR	%	EUR	%	EUR	%	EUR	%	EUR
182,325.00	85.00	32,175.00	15.00	0.00	0.00	0.00	0.00	214,500.00

Revenues generated by the project	No	Amount:	0.00
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2.4.3 ERDF PP2

2.4.3.1. Legal Identification Data			
Official name in English	Geological Institute of Romania		
Full name in original language	Institutul Geologic al Romaniei		
Abbreviation	IGR	Country	Romania
NUTS II Region	Bucuresti - Ilfov	NUTS III Region	Bucuresti
Type of institution	University, higher education institution, research centre, scientific institution, college		
Legal status	Governed by public law		
National tax number	RO1581793		
Official address	Caransebes , Sector 1 1, Bucharest, 012271 Romania		
Phone	(40)-213060492	Mobile	(40)-729168868
Fax	(40)-213181326	e-mail	office@igr.ro
Homepage	www.igr.ro		
Legal representative			
Name of the legal representative	Stefan MARINCEA		
Position of legal representative	General Director		
Phone	(40)-213060400	Mobile	
Fax	(40)-213181326	e-mail	
Contact Person			
Name of contact person in project	Diana Persa		
Position of contact person in project	Researcher		
Phone	(40)-213060492	Mobile	(40)-729168868
Fax	(40)-213181326	e-mail	diana.persa@igr.ro

2.4.3.2. Geographic scope of the ERDF PP2 activities

National

2.4.3.3. Relevance of the proposed ERDF PP2 in this project (thematic competence)

Geological Institute of Romania (IGR) was established in 1906, by Royal Decree, as a national geological survey, and continued to activate without interruptions till present. Having the attributes of a National Institute of Research and Development in Geology, Geophysics, Geochemistry and Remote Sensing, this institution organizes and administrates the national fund of geological data, the conservation and exploitation of drill cores, collections of minerals, rocks and mine flowers; ensures the environmental monitoring of the mining zones; investigates the geology and structure of the Romanian territory and is in charge with the geological correlations between Romania and the neighbouring countries; elaborates, edits and prints the national geological, hydrogeological, geophysical and metallogenetic maps at various scales; elaborates genetic models of the accumulation of mineral and energetic resources; conducts studies on environmental geochemistry and environment monitoring; develops geoid models. Geological Institute of Romania is involved in projects focusing on territorial analysis and planning such as: the inventory and monitoring of natural hazard phenomena such as landslides, subsidence, flood areas; evolution in time of different processes like: extension of urban areas, desertification, erosion; evaluation of the natural potential for renewable energies, like geothermal potential, etc; landscape planning and protected areas; database analysis and interpretation: effects of global change assessment and risk management strategies. IGR will lead WP3 and be actively involved in all other project activities to provide information and analyses of geothermal regulations and development in Romania.

2.4.3.4. Description of previous participation to other relevant EU funded projects

IGR is one of partners of the SEE SARMA 2009-2011 project, of the following CIP-ICT-Policy Support Programme projects: ThermoMap (2011-2013) and EuroGeoSource (2010-2013), and also of the FP7 SAFELAND project (2009-2012).

2.4.3.5. Overview of the ERDF PP2's budget

ERDF Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total eligible budget
EUR	%	EUR	%	EUR	%	EUR	%	EUR
160,225.00	85.00	24,455.00	12.97	0.00	0.00	3,820.00	2.03	188,500.00

Revenues generated by the project	No	Amount:	0.00
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2.4.4 ERDF PP3

2.4.4.1. Legal Identification Data			
Official name in English	University Of Maribor		
Full name in original language	Univerza V Mariboru		
Abbreviation	UM	Country	Slovenia
NUTS II Region	Vzhodna Slovenija	NUTS III Region	Podravska
Type of institution	University, higher education institution, research centre, scientific institution, college		
Legal status	Governed by public law		
National tax number	SI71674705		
Official address	Slomškov trg 15, Maribor, 2000 Slovenia		
Phone	(386)-2-2355280	Mobile	
Fax	(386)-2-2355266	e-mail	rektorat@uni-mb.si
Homepage	www.uni-mb.si		
Legal representative			
Name of the legal representative	Prof.Dr Danijel Rebolj		
Position of legal representative	RNKEKTOR		
Phone	(386)-2-23 55 280	Mobile	
Fax	(386)-2-23 55 211	e-mail	rektorat@uni-mb.si
Contact Person			
Name of contact person in project	Dr. JURIJ AVSNKEK		
Position of contact person in project	VICE DEAN OF FACULTY OF ENERGY TNKEKHNOLOGY		
Phone	(386)-7-6202217	Mobile	(386)-7-6202222
Fax	(386)-7-631335118	e-mail	Jurij.Avsec@uni-mb.si

2.4.4.2. Geographic scope of the ERDF PP3 activities

National

2.4.4.3. Relevance of the proposed ERDF PP3 in this project (thematic competence)

The University of Maribor with its 25.000 students is an institution with a long history on educational programmes. The Faculty of Energy Technology is one of the younger members of the University of Maribor and will be implementing GeoSEE. The Faculty of Energy Technology is developing research technologies on how to convert, transport or produce energy. One of the main parts of the faculty is scientific and educational work in geothermal energy and other renewable technologies. The Faculty is striving to develop suitable knowledge, new approaches and new technologies for the use of traditional, renewable and alternative energy sources. The members of the faculty have prepared past projects on producing electricity from geothermal energy or using heat for district heating with sources of geothermal energy. GeoSEE will show the application of geothermal energy with some other sources, like biomass or biogas. The combination of different renewable sources and the optimization of processes is a very interested technology for research and implementation in Slovenian regions. In Slovenia geothermal energy is a very attractive source of energy, like in the areas of Pomurje, Krsko-Brezice and Velenje region. The Faculty of Energy Technology will lead WP4 and oversee all the technical and economical feasibility analyses within WP4 of potential utilization of low-temperature geothermal energy at case-study locations. The Faculty of Energy Technology will also collaborate in all other WPs.

2.4.4.4. Description of previous participation to other relevant EU funded projects

The University of Maribor is involved in several energy related ongoing projects, the most prominent ones are: Energy2Be (IEE), Enerscapes (MED Operation Programme) and Manergy (Central Europe Programme).

2.4.4.5. Overview of the ERDF PP3's budget

ERDF Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total eligible budget
EUR	%	EUR	%	EUR	%	EUR	%	EUR
167,301.25	85.00	0.00	0.00	0.00	0.00	29,523.75	15.00	196,825.00

Revenues generated by the project	No	Amount:	0.00
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2.4.5 ERDF PP4

2.4.5.1. Legal Identification Data			
Official name in English	Province of Padova		
Full name in original language	Provincia di Padova		
Abbreviation	PADUA	Country	Italy
NUTS II Region	Veneto	NUTS III Region	Padova
Type of institution	Regional public authority		
Legal status	Public		
National tax number	00700440282		
Official address	piazza Antenore 3, Padova, 35121 Italy		
Phone	(39)-049-8201111	Mobile	
Fax	(39)-049-8201235	e-mail	info@provincia.padova.it
Homepage	http://www.provincia.pd.it		
Legal representative			
Name of the legal representative	Mrs Barbara Degani		
Position of legal representative	President		
Phone	(39)-049-8201140	Mobile	
Fax	(39)-049-8201036	e-mail	presidente@provincia.padova.it
Contact Person			
Name of contact person in project	Mr Marco Cappellaro		
Position of contact person in project	Head of International Cooperation Unit		
Phone	(39)-049-8201631	Mobile	
Fax	(39)-049-8201008	e-mail	Stefania.pettina@provincia.padova.it

2.4.5.2. Geographic scope of the ERDF PP4 activities

Regional

2.4.5.3. Relevance of the proposed ERDF PP4 in this project (thematic competence)

The Province of Padua covers an area of 2.142 km² and a total population of 927.730 (2009), Padua is the most populated province of Veneto. There are 104 municipalities in the province. The Province includes a geothermal field that covers an area of about 20 Km² spanning over the Euganei Hills and comprising the municipalities of Abano Terme, Montegrotto Terme, Battaglia Terme and Galzignano Terme. At present about 180 wells are active and the total average flow rate of thermal fluids is about 17M m³/year. Most of the wells are public and other are privately owned. Water output is estimated around 40 million m³ per year of which about three quarters are hot, evidencing the importance of the geothermal resource. The wells are mainly used for spa recreational and curative purposes. The average temperature is 75°C and is mainly used by hotels for health treatment and to the swimming pools. There is only one use of geothermal energy which is non-spa independent operator, a 3 hectare greenhouses which are heated with 120 m³/h of 65°C water from three 200 m deep wells. There are not combined uses of RES at the Euganei geothermal basin at all. Municipalities and the Regional Park of the Euganei hills are strongly motivated to exploit innovative uses of geothermal resources in combination with RES. Considering the annual average peak sun of the area and the large quantity of biomass in the surrounding area, the Euganei basin has a huge potential to implement the innovative uses envisaged by GeoSEE. As a public authority, Padua strives to engage with stakeholders and citizens, understand their needs and expectations, build effective relationships with individuals, groups and organisations, influence others to take a positive approach to equality and diversity. PADUA will be actively involved throughout the entire project duration and be responsible for the implementation of action 6.4.

2.4.5.4. Description of previous participation to other relevant EU funded projects

The Padua International Cooperation Unit has good experience in European projects both as leader and as partner. In 2004 we were leader in an international project with Balcan Europe about integrated local development. In the same year we were leader in a two-year international cooperation project, URB-AL Network 14 Programme, about the impact of the urban plan in the prevention of the crime. In 2004 and 2006 we were partner in two international cooperation projects: URB-AL Network 8 Programme about road safety with the Province of Treviso and URB-AL Network 14 Programme about the promotion of good practices on crime prevention at local level with the Municipality of San Joaquin - Chile. At the moment the Building Unit of the Province is implementing as partner two transnational projects related to Italy-Slovenia Programme (one is strategic and the other one is standard) about cycle-pedestrian lanes and waterways.

2.4.5.5. Overview of the ERDF PP4's budget

ERDF Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total eligible budget
EUR	%	EUR	%	EUR	%	EUR	%	EUR
162,095.00	85.00	28,605.00	15.00	0.00	0.00	0.00	0.00	190,700.00

Revenues generated by the project	No	Amount:	0.00
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2.4.6 ERDF PP5

2.4.6.1. Legal Identification Data			
Official name in English	Regional Energy Agency of Pazardjik		
Full name in original language	Sdruzenie Regionalna energiina agencia Pazardjik		
Abbreviation	REAP	Country	Bulgaria
NUTS II Region	Yuzhen tsentralen	NUTS III Region	Pazardzhik
Type of institution	Regional and local development agency		
Legal status	Governed by public law		
National tax number	112624631		
Official address	K. Chestimenski St. 41A, Pazardjik, 4400 Bulgaria		
Phone	(359)-3-4442124	Mobile	(359)-8-89803275
Fax	(359)-3-4442124	e-mail	reapazar@mbox.contact.bg
Homepage	www.reap-save.org		
Legal representative			
Name of the legal representative	Mr Nikolay Kulenski		
Position of legal representative	Executive Director		
Phone	(359)-3-4442124	Mobile	(359)-8-88941831
Fax	(359)-3-4442124	e-mail	reap@mbox.contact.bg
Contact Person			
Name of contact person in project	Mr Georgi Simeonov		
Position of contact person in project	Senior Expert		
Phone	(359)-3-4442124	Mobile	(359)-8-89803275
Fax	(359)-3-4442124	e-mail	reapazar@mbox.contact.bg

2.4.6.2. Geographic scope of the ERDF PP5 activities

Regional

2.4.6.3. Relevance of the proposed ERDF PP5 in this project (thematic competence)

The Regional Energy Agency of Pazardjik (REAP) has been legally established in June 2005 as a non-profit association under the statutes of Bulgarian Law, and confirmed with the autonomy requirement of Intelligent Energy - Europe (IEE) guidelines. The main purpose of REAP is to encourage the development of sustainable energy through local and regional actions for energy efficiency and renewable energy sources. REAP is an association of municipalities from Pazardjik district, as well as private organizations and stakeholders operating in the field of EE and RES. The Agency offers support to local authorities in achieving their objectives and strategic planning for renewable energies, as well as development of a range of initiatives with other local, regional and foreign organizations. Among main priorities of REAP are: EE and RES projects identification and development, energy efficiency in buildings, development of sustainable energy communities, EE and RES in SMEs. A specific priority of REAP is geothermal use for energy purposes, defined by the huge unutilized potential of this type of renewable energy source in the region of Pazardjik. REAP is involved in all project activities and will lead activity 6.3.

2.4.6.4. Description of previous participation to other relevant EU funded projects

REAP participated to this energy related EU projects: ASTWOOD (IEE), Interaction (IEE), Bionic (IEE), Panaguirishte (GEF-UNDP), NIMSNKEK (IEE).

2.4.6.5. Overview of the ERDF PP5's budget

ERDF Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total eligible budget
EUR	%	EUR	%	EUR	%	EUR	%	EUR
154,921.00	85.00	27,339.00	15.00	0.00	0.00	0.00	0.00	182,260.00

Revenues generated by the project	No	Amount:	0.00
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Activities of the ERDF partner in non-EU countries of the Programme Area

Sponsored EU ASP			
Beneficiary partner	EU ASP1		
Amount	3,200.00	Rate	0.20
Description and location of the activities implemented by applying the % flexibility rule			
Participation to Activity 1.3 Steering and monitoring of the project implementation (Output = 3 PSC interim meetings) and to Activity 1.2 - Day to day project management, coordination and internal communication (Participation to kick off meeting and to closure meeting).			

2.4.7 ERDF PP6 – WITHDRAWN PARTNER

2.4.8 ERDF PP7

2.4.8.1. Legal Identification Data			
Official name in English	Veneto Energy Consortium		
Full name in original language	Consorzio Energia Veneto		
Abbreviation	CEV	Country	Italy
NUTS II Region	Veneto	NUTS III Region	Verona
Type of institution	Other		
Legal status	Governed by private law		
National tax number	03274810237		
Official address	Corso Porta Nuova 127, Verona, 37122 Italy		
Phone	(39)-045-8105097	Mobile	
Fax	(39)-045-577012	e-mail	info@consorziocev.it; info@pec.consorziocev.it
Homepage	http://www.consorziocev.it/		
Legal representative			
Name of the legal representative	Mr Gianfranco Fornasiero		
Position of legal representative	President		
Phone	(39)-045-8105097	Mobile	
Fax	(39)-045-577012	e-mail	info@consorziocev.it; info@pec.consorziocev.it
Contact Person			
Name of contact person in project	Ms Barbara Grimani		
Position of contact person in project	Head of Communication		
Phone	045-8105097	Mobile	
Fax	045-577012	e-mail	bgrimani@consorziocev.it

2.4.8.2. Geographic scope of the ERDF PP7 activities

National

2.4.8.3. Relevance of the proposed ERDF PP7 in this project (thematic competence)

Veneto Energy Consortium consists of over 1000 members representing public authorities at various levels, i.e. local, regional and also national from several different regions in Italy. The Consortium has consolidated experience in the coordination of activities at national level amongst its over 1000 associated public authorities. Its know-how is in the sourcing and delivery of energy from renewable sources and the provision of advice on energy saving, sustainability and green energy. CEV is carrying out a series of ambitious projects in Italy for its associated local authorities, amongst them the project "1000 Photovoltaics roofs", which aims at installing photovoltaic panels on the school roofs of the associated authorities without any financial contribution from the schools. All associated costs are covered for by CEV. Similarly, CEV has started a flagship education programme aimed at forming energy experts in each one of its 1000 member authorities. CEV is again providing total financial support for this initiative. Many of CEV's members are characterized by the emergence within their area of low-temperature geothermal springs and are keen to explore the technical and economic feasibility of utilizing this resource to produce electricity or other forms of energy and make a contribution to their local energy plans. CEV has already started promoting GeoSEE amongst its members and is eager to provide financial backing to disseminate and implement the project's outputs into its entire membership. Knowledge and know-how gained within GeoSEE will become part of the training and educational material that are used within CEV's. CEV will also explore the possibility of providing financial support to implement the web-based spatial decision support system developed by GeoSEE into its associated public authorities.

2.4.8.4. Description of previous participation to other relevant EU funded projects

CEV and its members have important professional links and contacts with energy initiatives and agencies across Europe, such as Sustainable Energy Europe and the Covenant of Mayors, and is currently a member of EnergyCity, a Central Europe Cooperation project.

2.4.8.5. Overview of the ERDF PP7's budget

ERDF Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total eligible budget
EUR	%	EUR	%	EUR	%	EUR	%	EUR
143,990.00	85.00	25,410.00	15.00	0.00	0.00	0.00	0.00	169,400.00

Revenues generated by the project	No	Amount:	0.00
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2.4.9 ERDF PP8

2.4.9.1. Legal Identification Data			
Official name in English	Municipality of the XVIII. District of Budapest		
Full name in original language	Budapest, XVIII. Kerület Pestszentlőrinc-Pestszentlőrinc Önkormányzat Polgármesteri Hivatala		
Abbreviation	BP18	Country	Hungary
NUTS II Region	Közép-Magyarország	NUTS III Region	Budapest
Type of institution	Local public authority		
Legal status	Public		
National tax number	15518008-2-43		
Official address	Üllői út 400, Budapest, 1184 Hungary		
Phone	(36)-1-296-1325	Mobile	
Fax		e-mail	polgtit@bp18.hu
Homepage	www.bp18.hu		
Legal representative			
Name of the legal representative	Mr Attila Ughy		
Position of legal representative	Mayor		
Phone	(36)-1-296-1320	Mobile	
Fax		e-mail	polgtit@bp18.hu
Contact Person			
Name of contact person in project	Mr István Hunyadi		
Position of contact person in project	City director		
Phone	(36)-1-296-1325	Mobile	
Fax		e-mail	hunyadi@bp18.hu

2.4.9.2. Geographic scope of the ERDF PP7 activities

Local

2.4.9.3. Relevance of the proposed ERDF PP7 in this project (thematic competence)

COMPETENCE

The operation of local authorities in Hungary is regulated by the Act on municipalities, defining mandatory tasks such as environment protection, spatial development, developing local mass transportation, public lighting, etc. Supported by key stakeholders, the District has the appropriate policy- and decision-making competencies to design and implement a strategy related to resource efficiency. It has the political clout to initiate and later monitor the endorsement process linked to project results.

The District is specially located on the periphery of Budapest, with a large territory of green areas but at the same time, a large population size living on housing estates. A large amount of green waste is produced in gardens, the forest areas and public spaces. Therefore, the primary aim is to promote the use of green waste, its transformation into energy and optimal waste valorisation. As the District has a wide range of institutions, it also aims at lowering costs related to energy use.

KNOW-HOW

The District can share with the partnership its know-how regarding bringing together various stakeholder interests to initiate development processes. The District has produced and can share with the partnership its complex environmental monitoring system to enhance environmental conscious development.

BENEFIT

The District aims to provide a comprehensive regulatory framework for dealing with energy and waste issues in an integrative way. It wishes to lay special emphasis on raising awareness among citizens related to environmental conscious thinking. Budapest Capital joined the Covenant of Mayors initiative in 2008. However, the SEAP has not yet been submitted. Its final version will be approved by the Capital Council at its upcoming meeting. Budapest is represented in the CoM by the Capital. Districts contribute only indirectly to the SEAP process by staying in line with the Capital Environmental Protection Programme, which is an important pillar for the SEAP. However, the 18th District, being an independent legal decision-maker regarding energy and waste issues, wishes to go one step further in the process and intends to develop an integrated strategy to efficiently improve resource efficiency. This way, it will be a pilot district, and the endeavor will be closely followed by the Capital as a key stakeholder having numerous environment-related municipal companies seated in the district.

2.4.9.4. Description of previous participation to other relevant EU funded projects

The District has a great deal of experience in managing twinning projects and organising twinning conferences. Besides, it has been actively engaged in several national and international projects. Here is an indicative list:

- KEOP-2009/5.3.0/A - Several projects in energy development in buildings and renovation of public lighting
- Integrated social urban rehabilitation: rehabilitation of housing estates built with industrial technologies,
- KMOP-2007-5.1.1/C HAVANNA Housing Estate
- KMOP-2008-3.3.4/C ICT development related to environment protection in public administration
- Secondary utilisation of municipality data assets, GVOP 4.3.2

- Budapest integrated urban development programme: development of district centres KMOP-2009-5.2.2/B
- Comenius Regional cooperation
- Infrastructural development of services supporting social inclusion HEFOP 4.2
- Establishment of regional school and kindergarten development centres to promote competence based learning and teaching programmes
- Promoting local coordination of employment supporting activities ROP 3.2.1.
- IN VINO VERITAS, NKEK programme
- Youth in Action Programme, Action 1: Youth for Europe, 1.1 Youth Exchanges
- TOWN TWINNING- Krepuska Wine and Arts European Town Twinning Vintage Festival
- Supporting the implementation of municipalities: children and youth related activities IFJ-GY-07-C
- Europe for Citizens Programme (action 1) Town Twinning Multi-Annual Projects for networks of Twinned Towns
- KMOP-2008-4.5.2 A-component: Support for development of social services, basic child welfare services
- ÁROP-3.A.1 Organisational development of municipalities in the Central Hungarian Region.
- TÁMOP-5.2.5-08/1/2008-0057 - Strengthening community support of disadvantaged youth of the District and supporting their social integration
- TÁMOP-3.1.4/08/1. Competence based education, equal accessibility to education in innovative institutions

2.4.9.5. Overview of the ERDF PP8's budget

ERDF Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total eligible budget
EUR	%	EUR	%	EUR	%	EUR	%	EUR
139,417.00	85.00	16,402.00	10	0.00	0.00	8,201.00	5	164,020.00

Revenues generated by the project	No	Amount:	0.00
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Activities of the ERDF partner in non-EU countries of the Programme Area

Sponsored EU ASP			
Beneficiary partner	EU ASP2		
Amount	2,400.00	Rate	
Description and location of the activities implemented by applying the % flexibility rule			
Participation to Activity 1.3 Steering and monitoring of the project implementation (Output = 3 PSC interim meetings) and to Activity 1.2 - Day to day project management, coordination and internal communication (Participation to closure meeting).			

2.4.10 IPA-I PP1

2.4.10.1. Legal Identification Data			
Official name in English	Regional Energy Agency North		
Full name in original language	Regionalna energetska agencija Sjever		
Abbreviation	REAN	Country	Croatia
NUTS II Region	Sjeverozapadna Hrvatska	NUTS III Region	Koprivničko-križevačka županija
Type of institution	Regional and local development agency		
Legal status	Governed by public law		
National tax number	2484838		
Official address	Miroslava Krleze 81, Koprivnica, 48000 Croatia		
Phone	(385)-4-8289240	Mobile	(385)-4-8289250
Fax	(385)-9-911508389	e-mail	info.rea@rea-sjever.hr
Homepage	www.rea-sjever.hr		
Legal representative			
Name of the legal representative	Ivan Simic		
Position of legal representative	Managing director		
Phone	(385)-48 289 240	Mobile	(385)-99 2550 120
Fax	(385)-48 289 250	e-mail	Ivan.simic@rea-sjever.hr
Contact Person			
Name of contact person in project	Sasa Bjelotomic		
Position of contact person in project	Expert associate		
Phone	(385)-48 289 242	Mobile	
Fax	(385)-48 289 250	e-mail	sasa.bjelotomic@rea-sjever.hr

2.4.10.2. Geographic scope of the IPA-I PP1 activities

Regional

2.4.10.3. Relevance of the proposed IPA-I PP1 in this project (thematic competence)

REA North is established within the CIP IEE program and its main role is to support local authorities and other stakeholders in the area of RES and EE. REA North has experience in technical and economical analysis of various energy solutions and all necessary resources to add value and successfully implement the project. It has hands on experience in projects related to geothermal potential starting from development of project application, various analyses up to managing projects. Geothermal potential, in general, is underexploited in Croatia and knowledge and expertise from this project will be used not only to promote existing geothermal energy technologies but also to give boost to new exploitation paradigms. REAN will lead WP6 and be responsible for all project activities and research in Croatia.

2.4.10.4. Description of previous participation to other relevant EU funded projects

Project Iger CsK: Regional Energy Agency North has successfully developed a project application for research of geothermal potential in city of Koprivnica. The project was approved within the IPA cross-border cooperation program between Hungary and Croatia.

2.4.10.5. Overview of the IPA-I PP1's budget

IPA Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total eligible budget
EUR	%	EUR	%	EUR	%	EUR	%	EUR
155,805.00	85.00	0.00	0.00	27,495.00	15.00	0.00	0.00	183,300.00

Revenues generated by the project	No	Amount:	0.00
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2.4.11 IPA-I PP2

2.4.11.1. Legal Identification Data			
Official name in English	Faculty of Mechanical Engineering Belgrade University		
Full name in original language	Faculty of Mechanical Engineering Belgrade University		
Abbreviation	MF	Country	Serbia
NUTS II Region		NUTS III Region	
Type of institution	University, higher education institution, research centre, scientific institution, college		
Legal status	Public		
National tax number	PIB		
Official address	Kraljice Matije 16, Belgrade, 11120-35 Serbia		
Phone	(381)-1-13370266	Mobile	
Fax	(381)-1-13370364	e-mail	dekan@mas.bg.ac.rs
Homepage	http://www.mas.bg.ac.rs		
Legal representative			
Name of the legal representative	Mr Milorad Milovančević		
Position of legal representative	Dean		
Phone	(381)-1-13370350	Mobile	(381)-1-63287191
Fax		e-mail	dekan@mas.bg.ac.rs
Contact Person			
Name of contact person in project	Mr Mirko Komatina		
Position of contact person in project	Head of Thermomechanics department		
Phone	(381)-1-3302354	Mobile	(381)-1-62295553
Fax		e-mail	mirkokomatina@yahoo.com

2.4.11.2. Geographic scope of the IPA-I PP2 activities

National

2.4.11.3. Relevance of the proposed IPA-I PP2 in this project (thematic competence)

Participation in nationally funded research projects concerning optimization of energy exploitation of low-temperature groundwater, optimization of heat storages, cogeneration from biomass, or developing of technology of cigarette burning of soya straw. Also participation in bilateral projects with partners from Slovenia (concerning exploitation of low-temperature geothermal energy resources) and Croatia (various applications of thermography methods). The Faculty will be actively involved in all the WPs planned in GeoSEE and provide important scientific contributions to the technical analyses during WP4. It will also lead the implementation of action 4.2. It will be responsible for all project activities and research in Serbia.

2.4.11.4. Description of previous participation to other relevant EU funded projects

Several EUREKA projects connected with different problems considering thermodynamic analysis of heat pump systems and exploitation of low-temperature geothermal resources, for heating and cooling applications. EUREKA PROJNKEKT "HTH PUMP" - High temperature heat pump for exploitation of low temperature geothermal sources; 2007-2009. EUREKA PROJNKEKT "GGH PIPE" - Geothermal Gravity Heat Pipe for Exploitation of Geothermal Energy from Unproductive Wells; 2010-2012. Relevant nationally funded projects: 1. TR 18008 - Optimization of exploitation of energy from subgeothermal water resources; 2008-2010. Short description: Hydrogeological mapping of Serbia. Defining perspective regions for utilization of geothermal resources. Finding optimal way to utilize geothermal resources. 2. Research and application of renewable low temperature groundwater energy sources in context of improving energy efficiency in building sector; 2011-2014. Short description: Contouring work from TR 18008 with accent on low temperature groundwaters and their utilization

2.4.11.5. Overview of the IPA-I PP2's budget

IPA Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total eligible budget
EUR	%	EUR	%	EUR	%	EUR	%	EUR
128,452.00	85.00	0.00	0.00	22,668.00	15.00	0.00	0.00	151,120.00

Revenues generated by the project	No	Amount:	0.00
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2.4.12 IPA-I PP3

2.4.12.1. Legal Identification Data			
Official name in English	Municipality of Kocani		
Full name in original language	Municipality of Kocani		
Abbreviation	KOCANI	Country	Former Yugoslav Republic of Macedonia
NUTS II Region	Poranesnata jugoslovenska Republika Makedonija	NUTS III Region	Istocen
Type of institution	Local public authority		
Legal status	Public		
National tax number	4013005120909		
Official address	Rade Kratovche 1, Kocani, 2300 Former Yugoslav Republic of Macedonia		
Phone	(389)-3-3 274 001	Mobile	
Fax	(389)-3-3 273 542	e-mail	info@kocani.gov.mk
Homepage	www.kocani.gov.mk		
Legal representative			
Name of the legal representative	Mr RATKO DIMITROVSKI		
Position of legal representative	MAYOR		
Phone	(389)-3-33 274 001	Mobile	(389)-9-70 206 090
Fax	(389)-3-3 273 542	e-mail	rdimitrovski@kocani.gov.mk
Contact Person			
Name of contact person in project	Mr ZORAN HRISTOV		
Position of contact person in project	Adviser- GIS Analyst		
Phone	(389)-9-3 274 001 /111	Mobile	(389)-72-275 647
Fax	(389)-9-33 273 542	e-mail	zoki_hristov@yahoo.com

2.4.12.2. Geographic scope of the IPA-I PP3 activities

Local

2.4.12.3. Relevance of the proposed IPA-I PP3 in this project (thematic competence)

The Municipality of Kocani (through Communal public enterprise Vodovod established by Municipality) is the owner of the Geoterma geothermal system. In its development plans establishing of district heating network for public buildings with utilization of geothermal water has high level of priority. Transfer of "know how" from other geothermal systems will build up capacity of management and local experts for more efficient utilization of geothermal resource, especially in combination with biomass for which up to now there is no experience and practical cases. Municipality of Kocani through its experts will actively be involved in providing of all necessary data to external experts who will work on activities from all planned WP's in GeoSEE. It will be responsible for all project activities and research in Macedonia.

2.4.12.4. Description of previous participation to other relevant EU funded projects

Municipality of Kocani is one of the partners of the ongoing FP7 Geothermal Communities (GEOCOM) project with partner municipalities from Hungary (Moraholom), Slovakia(Galanta), Poland(Mszczonow), Italy (Montieri) and Serbia (Subotica).

2.4.12.5. Overview of the IPA-I PP3's budget

IPA Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total eligible budget
EUR	%	EUR	%	EUR	%	EUR	%	EUR
123,675.00	85.00	0.00	0.00	0.00	0.00	21,825.00	15.00	145,500.00

Revenues generated by the project	No	Amount:	0.00
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2.4.13 EU ASP1

2.4.13.1. Legal Identification Data			
Official name in English	Pazardzhik Regional Administration		
Full name in original language	Oblastna Administratsia - Pazardzhik		
Abbreviation	PRA	Country	Bulgaria
NUTS II Region	Yuzhen tsentralen	NUTS III Region	Pazardzhik
Type of institution	Regional public authority		
Legal status	Governed by private law		
National tax number	112121473		
Official address	Ekzarh Yosif St. 2, Pazardzhik, 4400 Bulgaria		
Phone	(359)-344-42448	Mobile	(359)-887-728573
Fax	(359)-344-42338	e-mail	secretary@pz.government.bg
Homepage	www.pz.government.bg		
Legal representative			
Name of the legal representative	Mr Doncho Pasanov		
Position of legal representative	Governor of Pazardzhik Region		
Phone	(359)-344-42448	Mobile	(359)-887-728573
Fax	(359)-344-42338	e-mail	secretary@pz.government.bg
Contact Person			
Name of contact person in project	Arch Ivan Tilev		
Position of contact person in project	Head of Infrastructural Dept.		
Phone	(359)-3-4400015	Mobile	(359)-8-87728573
Fax	(359)-3-4442338	e-mail	i.tilev@pz.government.bg

2.4.13.2. Geographic scope of the EU ASP1 activities

2.4.13.3. Relevance of the proposed EU ASP1 in this project (thematic competence)

Pazardzhik Regional Administration, Bulgaria is a public body established in 1999 to assist the Regional Governor of Pazardzhik Region in performing his/her duties. The institution is responsible for: conducting governmental policies at regional level; development and implementation of the Regional Development Strategy; implementation and management of public projects; coordination with 11 municipalities on the territory of the region on issues of regional and local significance. Since its establishment, the institution has participated in numerous EU projects and initiatives. Some of the most recent and relevant projects are: - Establishment of a Regional Energy Agency under the Intelligent Energy for Europe programme. The main purpose of this project was to establish a regional energy agency for the Pazardzhik District, as well as for the regions of Malaga, Spain and for Massa-Carrara, Italy. International partners for this project are the Local administration of Malaga, Spain as a Lead partner, and the Province of Massa-Carrara, Italy. - CENTURIO project under the INTERREG III C Program - the first interregional cooperation project for the PRA, partnering with the regions of Trento, Italy, Maramures, Romania and Vratsa, Bulgaria. - RAF-REGIONS project under the FP7 Programme: Bringing The Benefits Of Research To AgroFood SMEs of the Regions of Central Macedonia, Puglia and Pazardjik. The project is focused on increasing of the overall capacity of the regions of Central Macedonia (Greece), Puglia (Italy) and Pazardzhik (Bulgaria), which addresses directly the objectives of Call FP7, REGIONS-2007-1, Regions of Knowledge and Research Potential. - RURALAND project under the INTERREG IVC Programme. The Ruraland project was designed as a means to foster and encourage sustainable economic diversification, i.e. maintaining and promoting a balance between social, economic and environmental aspects in rural communities.- INNO-FOOD SEE project under the South East Europe - Transnational cooperation program. The objective of this project is to set up the appropriate mechanisms that will facilitate the exchange and coordination of innovation approaches and policies for the food sector and to increase awareness on the importance of food innovation for the wider SEE area.

2.4.13.4. Description of the added value of its participation

The regional administration is a very experienced partner, especially in the area of interregional cooperation projects, that would bring its EU experience to the project consortium. This will enable project partners to learn from the PRA's success stories and increase their know-how in order to overcome barriers which can possibly arise during the project, and after its completion. On the other hand, the District of Pazardzhik is famous for its geothermal potential, wood residual biomass, and other sources of renewable energy. As a state body, the PRA is responsible for conducting governmental policy at regional level, and it will integrate best practices and outputs of the GeoSEE project into the Regional Development Strategy of Pazardjik District. The Regional Development Strategy is a policy document outlining the vision, the philosophy and the sustainable growth prospects for the region and has been made up on the basis of the development strategies of the 11 municipalities comprising the Pazardjik region. The PRA is the body responsible for development and implementation of the Strategy.

2.4.13.5. Description of the involvement of the partner in the project

This partner will participate in project partners meetings, meetings of the Steering Committee, and local project meetings. Other responsibilities officially undertaken by the PRA include dissemination of project outputs and results, as well as participation in thematic local events organized by the other Bulgarian

partner; integration of results into the Regional Development Strategy. The administration will assist directly the other partner from Bulgaria, REAP, when carrying out project activities and tasks.

2.4.14 EU ASP2

2.4.14.1. Legal Identification Data			
Official name in English	NKEK National Environmental Protection and Energy Center Non-Profit Limited Liability Company		
Full name in original language	NKEK Nemzeti Környezetvédelmi és Energia Központ Nonprofit Kft.		
Abbreviation	NKEK Non-profit Ltd.	Country	Hungary
NUTS II Region	Közép-Magyarország	NUTS III Region	Budapest
Type of institution	Public body		
Legal status	State owned non-profit limited liability company referred by national and EU law		
National tax number	18160013-2-41		
Official address	Váci út 45, Budapest, 1134 Hungary		
Phone	(36)-1-802 4390	Mobile	
Fax	(36)-1-802 4301	e-mail	ugyfelszolgalat@nkek.hu
Homepage	www.nkek.hu		
Legal representative			
Name of the legal representative	Mr Zoltán Körtvély		
Position of legal representative	Managing Director		
Phone	(36)-1-238-6697	Mobile	
Fax	(36)-1-238-6667	e-mail	
Contact Person			
Name of contact person in project	Ms Zita Dibácsi		
Position of contact person in project	Head of International Unit		
Phone	(36)- 1-238-6555	Mobile	
Fax	(36)- 1-238-6622	e-mail	dibaczi.zita@nkek.hu , IR@nkek.hu

2.4.14.2. Geographic scope of the EU ASP2 activities

National

2.4.14.3. Relevance of the proposed EU ASP2 in this project (thematic competence)

The NKEK National Environmental Protection and Energy Center Non-Profit Limited Liability Company (hereinafter NKEK Non-Profit Ltd.) was established in 1997. NKEK Non-Profit Ltd. took over the professional roles of the Environmental Development Directorate on 1st July 2011. The Hungarian State is the owner of the company; while the founding power belongs to the Minister for National Development on behalf of the Ministry of National Development. Mission of the company is: „Besides the endorsement of professional aspects and fulfilling the expectations of the owner or the endorsing body, functioning as an effective and applicant-friendly intermediate body within the actual regulatory frameworks.”

AREA OF FUNCTIONING:

Among the core activities of the company we can find the fulfilment of activities related to the intermediate body function defined by law (coordination of use of EU funds) in the field of environmental protection, energy and nature conservation.

NKEK Non-Profit Ltd. manages more than 100 constructions in the frameworks of the New Hungary Development Plan and the New Széchenyi Plan as the intermediate body of Environment and Energy Operational Programme (EEOP, 2007-2013) financed by the European Regional Development Fund (ERDF) and Cohesion Fund (CA). EEOP developments base and enhance the strengthening of the Hungarian economic competitiveness and the growth in the Hungarian social welfare. Related to these developments further improvement can be reached in many of the producing and service sectors' efficiency such as in the expansion of employment. Aim of the developments set in the Environment and Energy Operational Programme is to moderate Hungary's environmental problems thereby increasing the quality of life of the society and the economy's adaptation to environmental processes. Approximately € 4 billion support could be utilized in the framework of the Operational Programme. Number of the funded projects is more than 3700.

Further EU co-financed programmes, where NKEK Non-Profit Ltd. operates as an intermediate body, are:

- in the case of Environmental Protection and Infrastructure Operational Programme (2004-2006, implementation until 2008) – 96 funded projects, approximately € 180 million fund;
- in the case of Cohesion Fund (2000-2012) – 26 funded projects, € 1 200 million fund.

Besides the intermediate body functions, the company provides professional activities in the following areas:

- Implementation of management activities in the field of national funded projects (National Energy Conservation Programme);
- Coordination of institutional development projects that belong to the authority of the Minister for National Development being responsible for PHARE and the Professional Programme Manager Body of Transitional Support Programmes;
- Supporting the LIFE + and Intelligent Energy Europe Programmes as National Contact Point;
- Functioning as Programme Operator in the field of the Renewable Energy Programme Area of the European Economic Area Financial Mechanism 2009-2014;
- Participation in international projects and cooperation.

2.4.14.4. Description of the added value of its participation

NKEK was involved in the GEO.POWER- "Geothermal energy to address energy performance strategies in residential and industrial buildings" project as a partner and is willing to capitalize the gained knowledge in the GEOSEE project. The project has collected best practises on the sustainable use of low enthalpy geothermal utilization.

NKEK Non-Profit Ltd. is ready to share its national, EU-related and international experiences gained during the last years and is open to further broaden its international relations in the field of such professional areas, which belong to the company's operating range. The company is an accredited intermediate body and is an active participant in programmes providing cross-border change of experiences. The company intends to build up long-term cooperation possibilities with foreign organisations and companies.

2.4.14.5. Description of the involvement of the partner in the project

NKEK and the GEOSEE project partners agree to keep each other informed of activities and developments relevant to the GEOSEE-project within their sphere of knowledge. In order to facilitate and maintain this information flow, a representative of NKEK will be a member of the Project Steering Committee (PSC) and participate in some of the transnational project meetings. Information that is relevant for the GEOSEE project and that has already been compiled by or is available to NKEK (e.g. on existing and planned subsidy programmes or funding opportunities for renewable energy in businesses, on events in the project region, on information materials, information events or courses aimed at businesses or energy consultants, on best practice cases etc.) will be made available to the GEOSEE project partners. NKEK will disseminate information about and results from the GEOSEE-project via its communication channels (e.g. website, newsletters or events where thematically appropriate, etc.) and the partners of the GEOSEE project will disseminate information from NKEK via their communication channels where thematically appropriate. One or several links to the project website will be placed on the website of NKEK and vice versa.

2.4.15 OP1

2.4.15.1. Legal Identification Data			
Official name in English	Energy Chamber of Slovenia		
Full name in original language	Energetska zbornica Slovenije		
Abbreviation	EZS	Country	Slovenia
NUTS II Region	Zahodna Slovenija	NUTS III Region	Osrednjeslovenska
Type of institution	Chamber of commerce, collective business support actor		
Legal status	Governed by private law		
National tax number	50198700		
Official address	Dimičeva 13, Ljubljana, 1000 Slovenia		
Phone	(386)-1-5898269	Mobile	
Fax	(386)-1-5898100	e-mail	energetika@ezs.si
Homepage	www.ezs.si		
Legal representative			
Name of the legal representative	Mr Niko Martinec		
Position of legal representative	Executive Director		
Phone	(386)-1-5898269	Mobile	
Fax	(386)-1-5898100	e-mail	niko.martinec@ezs.si
Contact Person			
Name of contact person in project	Mr Niko Martinec		
Position of contact person in project	Executive Director		
Phone	(386)-1-5898269	Mobile	
Fax	(386)-1-5898100	e-mail	niko.martinec@ezs.si

2.4.15.2. Geographic scope of the OP1 activities

National

2.4.15.3. Relevance of the proposed OP1 in this project (thematic competence)

The Energy Chamber of Slovenia (EZS) covers the role of sector integrator and representative of the interests of the members of the Chamber of Commerce that operate in the field of renewable energy sources and geothermal energy as well. The Energy Chamber of Slovenia adopts and enforces the views of its members in relations with external factors in the Republic of Slovenia and the European Community level, including the cooperation with official bodies and the representation of Slovenia to the NKEK institutions and to individual ministries and meetings of committees of the National Assembly and National Council when making regulations which specifically concern the interests of its members. EZS reflects and represents the specific interests of other energy-related activities. EZS believes that GeoSEE will bring positive effects in the RES industrial sectors as it will advance awareness, knowledge and technology about the potential of geothermal energy sources and as such it fits into the wider development strategies of our organization and its members.

2.4.15.4. Description of the added value of its participation

The EZS will act as a link between the project and the Slovenian businesses that operate in the renewable energy sector. EZS will seek the feedback of its members on project activities and verify what opportunities might exist to find firms that are willing to invest in the low-temperature hybrid geothermal technologies that will be verified by GeoSEE.

2.4.15.5. Description of the involvement of the partner in the project

EZS will receive regular project updates via newsletters and be invited to the stakeholders' hearings in WP2.

2.4.16 OP2

2.4.16.1. Legal Identification Data			
Official name in English	City of Krizevci		
Full name in original language	Grad Križevci		
Abbreviation	KRIZ	Country	Croatia
NUTS II Region	Sjeverozapadna Hrvatska	NUTS III Region	Koprivničko-križevačka županija
Type of institution	Local public authority		
Legal status	Governed by private law		
National tax number	35435239132		
Official address	Ivana Zakmardija Dijankovečkog 12, Krizevci, 48260 Croatia		
Phone	(385)-4-8681411	Mobile	
Fax	(385)-4-8681207	e-mail	webmaster@krizevci.hr
Homepage	www.krizevci.hr		
Legal representative			
Name of the legal representative	Mr Branko Hrg		
Position of legal representative	City Mayor		
Phone	(385)-4-8628902	Mobile	(385)-9-11720960
Fax	(385)-4-8681207	e-mail	ured-gradonacelnika@krizevci.hr
Contact Person			
Name of contact person in project	Ms Ljiljana Stojsavljevic-Krizan		
Position of contact person in project	Senior Adviser for Public Procurement and Energetic Efficiency		
Phone	(385)-4-8628942	Mobile	(385)-9-11720986
Fax	(385)-4-8681207	e-mail	ljiljana.krizan@krizevci.hr

2.4.16.2. Geographic scope of the OP2 activities

Local

2.4.16.3. Relevance of the proposed OP2 in this project (thematic competence)

We appreciate the expected outcomes of the project and we believe it is valuable for the insurance of the necessary conditions for further development of this city in terms of use of renewable energy sources. This project will result in the change of the current situation to a positive direction with higher awareness and knowledge about the potential of geothermal energy sources. It will also contribute to the successful promotion and usage of renewable energy sources, environmental protection and improvement of life standards. We confirm that the project fits into the wider development strategies of our city and by completing the project this city will make a step forward toward the exploitation of existing resources and benefit in many different ways.

2.4.16.4. Description of the added value of its participation

The aim and purpose of the participation of the City of Krizevci as an observer of the GEOSSEE project is to bring the support of the city into the project, to provide institutional advice and to help the transferability and sustainability of the results of the project.

2.4.16.5. Description of the involvement of the partner in the project

The City of Krizevci will receive regular project updates via newsletters and be invited to the stakeholders' hearings in WP2.

2.4.17 OP3

2.4.17.1. Legal Identification Data			
Official name in English	Municipality of Molve		
Full name in original language	Općina Molve		
Abbreviation	MOL	Country	Croatia
NUTS II Region	Sjeverozapadna Hrvatska	NUTS III Region	Koprivničko-križevačka županija
Type of institution	Local public authority		
Legal status	Governed by private law		
National tax number	61513207365		
Official address	Trg kralja Tomislava 32, Molve, 48327 Croatia		
Phone	(385)-4-8892024	Mobile	(385)-9-14832707
Fax	(385)-4-8892294	e-mail	opcina-molve@kc.t-com.hr
Homepage	www.molve.hr		
Legal representative			
Name of the legal representative	Mr Stjepan Fosic		
Position of legal representative	Mayor		
Phone	(385)-4-8210368	Mobile	(385)-9-8431051
Fax	(385)-4-8892294	e-mail	opcina-molve@kc.t-com.hr
Contact Person			
Name of contact person in project	Mr Vladimir Siset		
Position of contact person in project	Project advisor		
Phone	(385)-4-8892024	Mobile	(385)-9-14832707
Fax	(385)-4-8892294	e-mail	vsetet@gmail.com

2.4.17.2. Geographic scope of the OP3 activities

Local

2.4.17.3. Relevance of the proposed OP3 in this project (thematic competence)

We appreciate the expected outcomes of the project and we believe it is valuable for the insurance of the necessary conditions for further development of this city in terms of use of renewable energy sources. This project will result in the change of the current situation to a positive direction with higher awareness and knowledge about the potential of geothermal energy sources. It will also contribute to the successful promotion and usage of renewable energy sources, environmental protection and improvement of life standards. We confirm that the project fits into the wider development strategies of our city and by completing the project this city will make a step forward toward the exploitation of existing resources and benefit in many different ways.

2.4.17.4. Description of the added value of its participation

The aim and purpose of the participation of the Municipality of Molve as an observer of the GEOSEE project is to bring the support of the city into the project, to provide institutional advice and to help the transferability and sustainability of the results of the project.

2.4.17.5. Description of the involvement of the partner in the project

The Municipality of Molve will receive regular project updates via newsletters and be invited to the stakeholders' hearings in WP.

3. Project description

3.1. Project background

The project idea was initially drafted with the contribution of KSENA, the University of Maribor, the Regional Energy Agency North and the Province of PADUA. These partners were already involved in collaborations partially related to other ETC programmes. The Province of PADUA mentioned to the other partners its desire to include in its energy resource plan the provision of electricity that could be produced using the well-known local geothermal resources, which have been so far utilized only for balneology and other indirect uses. Initial informal discussions were started and ideas were exchanged about the convenience of developing tools and methods to explore the feasibility of producing electricity using low-temperature geothermal resources, since this kind of resource is prevalent in the countries of these partners. Some of the partners mentioned above had also the need and desire to become compliant with EU legislation on energy and resource efficiency and to anticipate forthcoming legislation on these subjects. Stakeholders from the KSENA and REAN also wanted to explore the feasibility of implementing energy renewable sources and energy efficiency measures to contribute to generating a more pleasant environment to their residents and to improve local socio-economic conditions, with the production of new jobs and the enhancement of the well-being and quality of life of the local population. Thanks to the presence of established cultural and professional links between these partners and other organizations across South East Europe, it emerged that additional local authorities, energy agencies and public institutions from other countries had similar goals and plans, so a transnational collaborative effort was started. The University of Maribor mentioned that there are numerous examples of recent technological advancements where innovative technology has been used to produce electricity using low-temperature geothermal resources in combination with other RES and suggested exploring the applicability of this methodology to some of the local geothermal resources in the partners' countries. Additional partners and stakeholders approached the project following personal or professional existing contacts, networking and publicity initiatives within the framework of the South East Europe Programme. A number of face-to-face and online meetings took place to draft the project structure, one of them was held in Velenje in October 2011 to finalize the project contents.

3.2. Problem or challenge to be addressed

One of the major challenges faced today by countries in South East Europe and beyond is the reduction of energy wastages and the improvement of energy and resource efficiency. This is necessary if Europe wants to find solutions to the threats posed by its increased dependency on energy imports, dwindling supplies of fossil fuels and soaring carbon dioxide emissions. A fifth of Europe's energy is wasted because of energy inefficiency and wastages. Reducing energy consumption and increasing energy and resource efficiency is therefore the most effective and immediate way to cut carbon emissions and mitigate the effects of climate change. As published by the Directorate-General for Energy and Transport and the International Energy Agency, there are alarming trends both within the EU-27 and the world that demonstrate that energy consumption and CO₂ emissions are set to follow a path of soaring growth. The forecast for the period 2005-2030 is an 11% increase on energy consumption for EU-27 and 60% for the world. During the same period, CO₂ emissions will increase 5% in EU-27 and 50% in the world. It is therefore mandatory to halt these trends and implement measures that can contribute to the reduction of energy wastages and the curbing of increasing CO₂ emissions. Delivering the changes needed in South East Europe to resolve these

challenges requires a multi-faceted approach and coordinated actions based on three points: technological advancements, market pull and new legislative frameworks for RES and energy efficiency. The GeoSEE project addresses these three points with a focused approach which will provide significant and short term impacts in the fight against climate change and greenhouse gas emissions. From a technological point of view, GeoSEE intends to demonstrate that innovative and sustainable uses of low-temperature (also called low-enthalpy) geothermal resources (less than 150°C) are possible when they are combined with further renewable sources to provide solutions for heating/cooling and electricity production. These hybrid uses will contribute to making the utilization of lower temperature geothermal fluids more economically viable and reduce business risk thus improving market pull and attracting private investors. With its concrete actions and pilot demonstration projects GeoSEE will define a methodology and a strategic framework that will contribute to the implementation of the paradigm shift on the energy market which represents one of the main priorities of the 20-20-20 targets set by the European Energy and Climate Change Policy. The final stages of GeoSEE also include actions and analyses aimed at informing policy makers about the benefits of adopting and utilizing low temperature geothermal energy. These activities will analyze the current permitting processes in the partners' countries and collect evidence about the major inefficiencies involved. A set of guidelines will be collated to facilitate new national laws and regulations that will favour the adoption of low temperature geothermal energy. GeoSEE is also poised to offer an ideal solution to the challenges outlined above thanks to the territorial and thematic composition of its partnership. From a regional point of view, GeoSEE partners represent a set of regions that covers almost entirely the extent of the South East Europe Programme area. Although the presence in almost all the partnership countries of geothermal resources has been long established, GeoSEE intends to demonstrate that the presence of low temperature geothermal water when combined with additional renewable energy sources can significantly contribute to the promotion and development of energy and resource efficiency and represents an ubiquitous resource that is suitable to be exploited in the whole of Europe and beyond.

3.3. Main objectives of the project

The general objective of the project is to contribute to the rapid development and deployment of more energy efficient and renewable energy technologies in South East Europe and beyond, and in particular of those technologies that allow these countries to harness clean, sustainable and widespread domestic resources. GeoSEE intends to demonstrate that low temperature geothermal power is an important energy resource that meets these requirements and that can deliver important gains for the mitigation of climate change and the reduction of soaring carbon emissions when a multidisciplinary and integrated approach with additional renewable energy resources is deployed. GeoSEE aims to provide countries in the SEE area with the tools and strategies to achieve development and widespread implementation of economically viable, innovative, sustainable and scalable technologies that harness the potential of widespread low temperature geothermal resources in conjunction with that of higher temperature renewable energy sources, such as biomass or solar. GeoSEE intends to address all current restrictions in national and European legislation that hinder the adoption of innovative utilizations of low-temp geothermal resources and impose uneconomical regulatory and policy constraints on the utilization of these resources. This objective can only be achieved through the development of actions and the production of results directed at informing policymakers about the benefits that can be gained if current permitting process and regulations are streamlined and facilitated. The specific objectives of the project are: 1. Develop a methodology to analyze and assess in detail the potential to produce electricity from low-temperature geothermal resources in combination with biomass, biogas, heat recovery and solar within the partner countries and beyond. 2. Advance technologies that can be used to integrate low-enthalpy geothermal water with other forms of renewable energy to produce electricity or to implement innovative heating/cooling solutions. 3. Assess the potential of low-enthalpy geothermal resources to increase the efficiency of other renewable energy processes for energy purposes, especially those affected by high production costs such as biomass gasification. 4. Execute process optimizations of the defined integration methodologies in order to scale up and generalize the results of the case study locations to develop a regional model of integrated uses of renewable energy sources to produce electricity where low-

temperature geothermal water is available. 5. Analyze the market penetration of the developed processes in each partner country to demonstrate that low-temperature geothermal resources in combination with other renewable sources can be a nationwide energy resource. 6. Compile a set of guidelines targeting all levels of governance, at European, national and local level, to demonstrate how low-temperature geothermal technologies can be harnessed to improve energy and resource efficiency. 7. Establish the environmental benefits in terms of reduced CO₂ and fuel savings derived from the implementation of the low-temp geothermal integration processes defined by the project. 8. Assess the economic and social benefits that could be attained by communities from future implementations of the low-temp geothermal integration processes defined by the project.

3.4. Contribution of the project objectives to the objectives of the Priority and Aol (relevant ToR if strategic call)

GeoSEE is in line with Priority Axis 2 - Protection and Improvement of the Environment - and in particular Aol 2.4 - Promote energy and resource efficiency. The general objective of the project is in fact to contribute to the rapid development and deployment of more energy efficient and renewable energy technologies in South East Europe and beyond, and in particular of those technologies that allow these countries to harness clean, sustainable and widespread domestic resources. The partners of GeoSEE share the strong conviction that low-temperature geothermal energy can offer a significant contribution to this objective due to its ubiquitous presence both in SEE and beyond, a higher than 90 percent availability, a small footprint and low carbon emissions. As called upon by the Priority Axis 2 and the 2.4 Aol, activities in the project will develop a series of tools, documents and technological advancements that will conflate into a final strategy agenda that will demonstrate how low-temperature geothermal resources can prepare countries in SEE and Europe respond to the increased energy demands of the oncoming years whilst protecting the environment and improving the social and economic conditions of citizens. Diminishing supplies of fossil fuels and increasing carbon dioxide emissions are problems equally faced by all countries in South East Europe as well as those of the extended EU27. The partners in GeoSEE believe that all these nations have a great opportunity to tackle the above problems by harnessing their low-temperature geothermal resources as usable energy. GeoSEE will have a positive impact even on territories not directly involved in the project since low-temperature geothermal resources are to be found in almost all European countries as evidenced by the Atlas of Geothermal resource in Europe. In particular, countries not traditionally charted as rich in geothermal energy, such as Austria, Belgium, Denmark, continental France, have instead sizeable amounts of geothermal energy in the 65-90 and 90-120 °C temperature ranges. These countries will be able to use the tools and recommendations developed by GeoSEE to capitalize on the presence of these resources within their territories for electricity production and the augmentation of existing indirect uses of low-enthalpy geothermal resources.

3.5. Methodological approach

GeoSee intends to bring a substantial contribution to the implementation of renewable energy sources and efficiency practices by filling a gap created by the lack of consistent and public available transnational tools, technological frameworks and strategies to support the sustainable utilization of low-temperature geothermal resources in combination with other forms of renewable energy sources. The methodological approach of GeoSEE will see partners start their work in WP3 with the integration of earlier work, available knowledge and data from both previous cooperation projects and other initiatives in the fields of geothermal, biomass and other renewable technological programs. The aim is to develop a knowledge baseline and state of the art on which the design of methods for hybrid plants based on geothermal, solar and biomass and their techno-economic analysis can be carried out in the partner countries. Additionally, WP3 will prepare a user requirement analysis to define requirements, benefits and long-term developments that stakeholders expect from GeoSEE. Subsequently, the project will carry out in WP4 several technical and economical feasibility studies for the future implementation of pilot integration

projects in the partner countries aimed at producing technological innovations and validating low-temperature geothermal utilization. Low-temperature geothermal resources in combination with biomass, biogas, heat recovery and thermal solar in several case-study locations within the partner countries will be analyzed and assessed in detail. Each integration/hybridization analysis will be developed following the principles and requirements delineated within the strategy document produced in WP3. The overall aim of WP4 is to demonstrate the feasibility of the chosen hybridization strategies, both from a technical and economic point of view, and the potential of low-enthalpy geothermal resources to increase the efficiency of other renewable energy processes. The methodology approached chosen by the partners will then lead in WP5 to the development of a spatial information system that can be used to delineate areas with the presence of geothermal and additional renewable energy sources that can be integrated for the purpose of developing hybridization projects to produce energy or innovative heating and cooling solutions. This system will act as a decision support system that will be used by local administrators and decision makers, in the partner countries but also outside the partnership, who want to capitalize on the presence of low-temperature geothermal resources within their region or country and wish to understand how they can be utilized sustainably, especially in relation to their combined use with other RES. This toolkit will make it possible to identify the best integration strategies that promise to deliver the highest returns in terms of energy outputs and economic performances. This system will represent a concrete output that can be easily implemented and leveraged by the partnership to ensure the widest possible transferability and capitalization of the project results and outputs. The final steps of the methodology in WP6 take on a wider perspective and consider far-reaching aspects deriving from the outputs and results developed in the preceding steps. The aim is to establish a platform that will be based on a jointly developed final transnational strategy and policy document and will deliver a series of recommendations that will be supported and complemented by the case studies, tools and technologies produced by the GeoSEE partnership. These final steps will make a contribution towards the definition of the way-ahead for EU's and national institutions to ensure that local and EU government can achieve their objectives in increasing energy and resource efficiency. The approach followed by GeoSEE is illustrated in the GeoSEE_project_structure.pdf file attached to this application form.

3.6. Transnational approach

All European countries are facing the challenge to improve energy and resource efficiency and reducing CO₂ emissions. The European Commission has recognized the importance of this challenge and produced the ambitious "20/20/20 by 2020" plan, which aims at reducing emissions of 20% over 1990 levels allied to a 20% gain in energy efficiency and 20% of energy from renewables by 2020. This is necessary if European countries want to improve competitiveness, security of supply and for meeting the commitments on climate change introduced by the Kyoto protocol. Since NKEK countries face the same challenge, a coordinated and transnational approach is needed in order to introduce coherent policies and achievable targets that can be met by all countries in Europe. European countries have a huge potential to save energy and diversify supply of energy, as RES still only account for 18% of the EU energy production in 2009. In the same year energy industries and construction were responsible for 53% of CO₂ emissions. It is therefore important for NKEK countries to introduce a paradigm shift on the energy market and identify potential strategies for CO₂ emissions reduction, particularly in the industrial sector. These strategies must be developed equally across South East Europe (and beyond), otherwise any achievement in one country would be invalidated by the negative effects caused by neighbouring as well as more distant countries. GeoSEE intends to prepare countries in Europe face this challenge on a practical as well as institutional level. The policy panorama in Europe with regards to energy and resource efficiency is in fact very dynamic and changing and new legislative frameworks are being conceived by the European Energy Efficiency Action Plan, which will introduce more stringent regulations to improve energy efficiency in a variety of sectors. Through their participation to GeoSEE, project partners can develop a united stance that will increase their level of preparedness towards the forthcoming legislation and eliminate fragmentations across Europe with regards to energy and resource practices, policies and tools. Thanks to the transnational cooperation in GeoSEE, project partners will be able to collect existing experiences and common expertise, have a wider

range of data, and be able to harmonize the project final results to national legislative requirements and environmental protocols.

3.7. Expected outputs and results

The following main physical outputs will be produced by the project. 1 A technical study containing an in-depth analysis and estimation of geothermal systems, biomass and biogas resources and heat recovery processes in eight case-study sites within the SEE region. 2. Eight feasibility studies demonstrating the technological, economic, legal and operational feasibility of the integration of low-temperature geothermal water with other renewable energy sources in eight each case-study locations in SEE. 3. A study defining models of regionalization highlighting how geothermal integration strategies can contribute to regional energy balance and supply in SEE and beyond. 4. A study analyzing the feasibility of market penetration of the integration strategies of renewable energies defined by the project in national models of energy utilization and supply, based on the feasibility study for each test site and the legal framework governing the process of energy distribution in each country. 5 A web-based spatial information system that can be used by local administrators and decision makers in the partner countries and beyond who want to capitalize on the presence of low-temp geothermal resources within their region or country and wish to understand how they can be utilized successfully, especially in relation to their combined use with other RES. 6. A study analyzing the effects in terms of reduced consumption of fossil fuels and CO₂-emissions and improved economic conditions for local communities that will be brought about by the future implementation of the proposed integration strategies of low-temperature geothermal water with other forms of renewable energy. 7. A final transnational strategy and policy document containing a series of recommendations that will be supported and complemented by the case studies, tools and technologies developed by the GeoSEE partnership. Geosse will produce the following results. 1. Improved information management and knowledge transfer via the production of an online information repository and data catalogue containing key information and approaches to be used by planners, energy advisers and decision-makers who want to implement resource efficiency technologies. 2. Improved research and development to establish advanced technologies that can realize the potential of low-temperature geothermal energy as a clean, reliable and affordable resource. 3. Assessment and validation of the realistic potential of sustainable utilization of low-temperature geothermal resources, in combination with other forms of RESs for national renewable energy deployment goals. 3. Facilitation of large-scale deployment of low-temperature geothermal technologies and their integration into existing energy infrastructures through connections to grids and other industry processes. 4. Improved economic conditions for operators in each case-study location, such as energy companies and local businesses, but also local authorities and agencies, whose activities will take advantage from the future implementation of the integration strategies outlined in each partner country. 5. Facilitated procedures and streamlined permitting processes for operators wishing to implement commercial activities aimed at utilizing low-temperature geothermal resources for the production of electricity or the improvement of existing RESs plants 6. Reduced risks and higher capital returns for businesses looking to invest in and implement low-temperature geothermal projects. 7. Better education and greater awareness amongst the public towards the environmental and social benefits of low-temperature geothermal resources and additional renewable energy technologies. 8. Better information and increased understanding amongst policymakers and lawmakers of the benefits that can be gained from the elimination of current legal and bureaucratic intricacies. All outputs and products of the project will be uploaded on the project website and available for download.

3.8. Plans for sustainability and transferability of projects results

Actions and outputs from GeoSEE will be concretely implemented in the project case-studies and adopted within existing or newly defined energy efficiency plans for the public authorities and agencies in the project. GeoSEE products and outputs will therefore become integral part of the institutional framework and operational plans of the authorities and agencies and will be instrumental for the realisation of new initiatives or the improvement of existing projects in the partners' organizations, such as the Geoterma

system, located in Podlog - Banja, within the municipality of Kocani (MK) or the currently undeveloped geothermal wells in Galzignano Terme (Padua, I). Additional elements that will provide sustainability are the Padova Energy Plan, which has defined low-temperature geothermal energy as a strategic energy resource for the Province area. The results from GeoSEE will therefore be the starting point for further development of this resource in the Province away from the traditional balneology and recreational current uses. Similarly, REAN, REAP and KSENA will implement the project results into ongoing and future energy initiatives and plans, such as the City of Koprivnica Sustainable Energy Action Plan (Institutional sust.). The Policy Guidance Document (WP6) will be formally submitted to the attention of the Directorate-General for Energy and Transport. It will contain recommendations for the definition of the way-ahead for EU's and national institutions to help local and EU Gov. achieve their objectives in increasing energy and resource efficiencies for regional and national infrastructures (political sust.). Further actions aimed at the sustainability of the project results will be specified in the Network Establishment that will be drawn up amongst the partners as part of WP6. Financial sustainability will be ensured with the inclusion of the project deliverables in the framework of existing networks and programs, as mentioned above. Similarly, transferability will be ensured through initiatives aimed at influencing key policy makers about the project results and their useful contribution to other legislative frameworks on regional, national and European level. Project partners will participate to seminars and workshops where they will have the opportunity to engage in networking activities with representatives from the public and private sector and also politicians from European, national and regional levels. In this respect, one opportunity is represented by the participation to the initiatives of the EU Sustainable Energy Week, the annual Europe's key event for energy sustainability with over 700 events organized in all parts of Europe. Some of GeoSEE's partners and their affiliated organizations are already involved in important transnational initiatives and umbrella organizations, such as the 2009/28/NKEK Directive, Sustainable Now, Energie-Cites and the Covenant of Mayors. Thanks to these existing links, GeoSEE will have the opportunity to be part of working groups to collaborate on the establishment of key community initiatives or campaigns for the inclusion of the project outcomes and benefits into forthcoming policies on different levels (regional, national and European). All project results will be made available to any interested public party.

3.9. Target groups/ stakeholders involvement

The project identifies three main groups of target groups and stakeholders. The first group includes renewable energy industries, agencies and investors in the partners' countries and Europe. They have a need for reliable resource information and technologically proven methodology that can be used to reduce business and risk and augment economic returns of investments in clean, reliable and fossil-free renewable energy sources. They will be involved through the communication activities of WP2, in particular the stakeholders hearings, and existing links with project partners, in particular KSENA, REAN and REAP. The second group includes policy- and lawmakers in European Countries across all levels (local, regional and national). Their identified needs cover the introduction of measures to improve the energy and resource efficiency of regions in order to make them more sustainable and less dependant on fossil fuels. They also need to increase the potential to save energy for Europe and engage with citizens to shape new behaviours and attitudes towards renewable energy sources and the acceptance of low-temperature geothermal resources as a clean, affordable and reliable power source. Their quantification includes policy makers from the local authorities directly involved in the project as well as members of the Directorate-General for Energy and Transport and politicians from Central European governments. They will be included during the project meetings or addressed indirectly via the formal submission of the project Policy Guidance Document produced in WP6. The third group includes residents of the areas where the pilot case-studies will be carried out as well as other European regions where low-temperature geothermal hybridization projects will be implemented following the uptake of the project results. They will benefit from improved quality of life and well-being via the reduction of carbon dioxide emissions caused by the widespread utilization of fossil fuels and better living conditions deriving from the implementation of innovative cascading uses. Their involvement in the project will occur through the citizens' awareness campaigns planned in WP6, which will include publicity campaigns either online or in libraries, council offices and the

like. With these campaigns citizens will become better informed and more aware of the environmental and economic benefits derived from low-temperature geothermal resources.

3.10. Capitalisation of results

GeoSEE will use results and experiences from completed and ongoing transnational projects and international collaborations in the fields of environmental protection, renewable energies and energy resource management. The following projects are based in the present SEE area or the former CADSES geographical extent. C2ENET (2005-2007): analysis of EU legislation, national legislation and European indicators on the use of renewable energy resources. This set of data will be used by GeoSEE as a starting point for the collection of information on legislative protocols in WP3 and also for the compilation of the policy guidance document in WP6. CER2 (2003-2006): database with energy concepts supported or developed and quality schemes for production, systems and buildings. GeoSEE will integrate CER2's results within the databases that will be developed in WP5 to allow local administrator and decision makers to chart the presence of RES that can be coupled with that of low-temperature geothermal sources. ENERSUPPLY (2009-2012): this ongoing project plans to produce results in these three areas: energy management implementation, planning of investment in RES and promotion of investments in RES. As these results are published, they will be taken into consideration by GeoSEE for the economic feasibility analysis in WP4 and the Strategic Agenda in WP6. M2RES (2011-2014): ongoing project whose main result is the requalification of marginal areas through investments programmes that focus on the installation of RES, including biomass, biogas and geothermal. GeoSEE will capitalize on the results of this project by looking carefully at the locations analyzed to see if these can be considered as suitable sites for the implementation of the hybridization approaches developed by GeoSEE. The following projects are not based in the present or former South East cooperation area, but provide very important capitalization opportunities for GeoSEE. GEO.POWER (2010-2012): an ongoing INTERREG IVC project whose results will provide useful insights into the application of ground source heat pumps and that will be used by GeoSEE to substantiate the technical feasibility analyses of WP4, especially in those situations where the production of electricity is not deemed attainable and alternative uses must be considered for the low-temperature geothermal resources being investigated. LOW-BIN (2006-2009): an FP6 project whose main result has been the development of a unit that can generate electricity from low temperature geothermal resources, with temperature threshold for profitable operation down to 65 °C, compared with 90-100 °C of existing units. This result, along with additional LOW-BIN findings, will be integrated within the technical feasibility analyses of the eight low-temperature geothermal test sites in GeoSEE. Finally, additional projects that GeoSEE will capitalize on are: ThermoMap (2010-2012), an ongoing FP7-ICT project that offers important capitalization opportunities for GeoSEE in relation to the mapping of the potential of horizontal shallow geothermal energy in Europe, and GEOCOM, an ongoing FP7-CONCERTO project with capitalization benefits for GeoSEE in relation to the analysis of retrofitting projects that will be analyzed in WP4.

3.11. Possible internal or external constraints during and after project implementation and solutions foreseen

This series of constraints and risks with countermeasures (with probability and impact in brackets) has been identified by the partnership as mostly likely to arise during the project implementation. (1) Some of the partners might be non-performing, inactive or are not willing to communicate (medium/medium): this risk must be reduced by establishing a friendly project atmosphere where partners are free to express dissatisfaction and each partner feels equally involved and instrumental for the implementation of the project's objectives. (2) Political risk is to be expected in the form of lack of commitment from stakeholders due to a shift in priorities (low, medium): this risk must be accept and monitored by developing and maintaining a good relationship and delivering constant updates on project advancements. Technical risks are possible to surface due to (3) poor project management (medium, high): this risk can be reduced by carefully assessing project manager capabilities during process execution and monitoring their

performance. Hostility to project implementation from staff employed in local authorities involved in the project represents a form of institutional risk (4) (medium, low): this risk must be reduced by demonstrating that benefits are to be gained and highlighting advantages compared to previous situations. Legal risks (5) are likely to manifest in the form of hostility actions perpetrated by organizations or lobbies that might see their interests as damaged by GeoSEE (high/high): this risk must be accepted but countermeasures can only be implemented with support from the programme authorities and possibly ad-hoc legal advice. Economic risk (6) is to be faced by the partnership due to delays in financial reporting and delivery of payments (medium/medium): this risk can be reduced with careful financial management and efficient reporting and auditing from the project partners. There could also be obstacles posed by the general public (7) due to negative perception of the project outcomes and benefits (medium/low): this constraint can be avoided through the careful planning of awareness campaigns to raise public interest.

3.12. Contribution to the Community Cohesion Policy and the Programme's overall objective/strategy

GeoSEE will contribute to the achievement of the global objectives of the SEE Program. The establishment of a transnational partnership composed by relevant actors from five member states and three non-member states and the implementation of strategic common innovative actions in the field of energy and resource efficiency, will: (1) help improve the territorial economic and social integration process and (2) contribute to the cohesion, stability and competitiveness of the countries participating to GeoSEE. A concrete cooperation among the project partners will ensure the achievement of visible project results which will contribute to the facilitation of innovation in the SEE area. GeoSEE WP3, WP4, WP5 and, particularly, WP6 foresee the implementation of substantial cooperation actions. Visible results will be reached taking into account sustainable development (WP5, WP6) and an important contribution to the improvement of the attractiveness of the regions and municipalities involved will be achieved in this way. A well balanced partnership composed of territorial actors from one side (Province, Municipalities, Regional Agencies) and research Institutions on the other (Universities and National Institutes) will contribute to fostering integration. Substantial contribution to the Community Cohesion Policy will also be ensured. GeoSEE will contribute to decreasing territorial disparities by bringing together several countries of South-East Europe and giving them access to jointly developed and elaborated tools and strategies, with special attention to Municipalities and local agencies, where energy demand is augmented by high concentrations of population. GeoSEE contributes to strengthening partnerships in SEE by increasing the involvement of local and regional stakeholders, social partners and civil society organizations in the implementation of national operational programs. The innovative character of the project and the transnational partnership will contribute to the sustainable and balanced economic development of the South East European territory.

The exchange within GeoSEE of best practice and knowledge regarding energy production, uses of low-temperature geothermal resources and management approaches will contribute to the improvement of territorial cohesion throughout South East Europe, providing an equal level of knowledge about available technologies, implementation strategies and future benefits for renewable energy sources.

3.13. Consistency of the project with EU horizontal policy on environmental sustainability

Environmental sustainability	Positive
<p>GeoSEE contributes to environmental sustainability via the promotion of low-temperature geothermal energy as a clean, renewable and reliable power source and the reduction of greenhouse gas emissions. Geothermal resources and geothermal-derived energy have in fact a higher than 90% availability, a small footprint as well as low carbon emissions. This type of natural resource and form of energy can therefore contribute significantly to the improvement of the natural environment in Europe and the development of renewable energy strategies. With the development of a spatial information system, GeoSEE will make</p>	

available a practical tool that will be used by administrators and decision makers in the partner countries and beyond who want to capitalize on the presence of low-temp geothermal resources and use them to increase the reliance within their region or country on renewable energy sources. The project will also help define and establish environmental conscious behaviours and practices via a number of core pilot actions for the training of local authorities staff and the involvement of citizens and communities.

3.14. . Consistency of the project with EU horizontal policy on opportunities and non-discrimination

Equal opportunities	Positive
<p>GeoSEE will ensure that the pilot training actions in WP5 and the citizens awareness campaigns in WP6 are open to people of all backgrounds thus contributing to the improvement of equal opportunities. The LP will pay special attention to the respect of equal opportunities with the project environment and will recommend such principles to all PPs. Equal opportunities will be respected by making the project website accessible by visually impaired users and by publishing dissemination material in audio form. The LP will also endeavour to take action against any practice during project implementation that might be against the principles of equal opportunities and discriminate on the basis of gender, ethnic origin, religion, disability, age or sexual orientation and will strive to verify that partners follow a common stance in relation to these principles.</p>	

3.15. Level of joint cooperation

The potential beneficiaries will cooperate in at least two of the following ways:

Joint development of the project's idea	Yes	Extensive communication activities (emails, meetings) occurred amongst the partners during the development of the project idea under the coordination of the LP. This ensures that the needs and priorities of the stakeholders represented by the project partners are clearly integrated in the project ideas.
Joint implementation of the activities	Yes	Project activities will be carried out with coordinated actions and equal involvement of partners throughout the entire project life. Partners' cooperation during the proposal preparation and the coordination of the LP during project execution will ensure that partners contribute equally towards the achievement of the project objectives.
Joint staffing	Yes	A project steering committee, composed of representatives of all partners, plus a project management team under the supervision of the LP will be appointed at the beginning of the project to avoid duplication of functions and implement a coordinated project management structure.
Joint financing	Yes	GeoSEE has a single project budget divided amongst the partners according to the activities carried out. Each partner contributes jointly to the financing of the project in accordance with national contributions rules.

3.16. Innovative character

GeoSEE introduces several elements of innovation. It has an innovative goal aimed at establishing low-temperature geothermal resources as an important nationwide energy source not only in single countries

but across the SEE and Europe. GeoSEE hinges in fact on the unprecedented conviction that low-temperature geothermal power can be harnessed to expand energy efficiency and renewable energy technology and that can deliver important gains for the mitigation of climate change and the reduction of soaring carbon emissions. GeoSEE also follows an innovative approach that shuns away from traditional technology aimed at high-temperature steam based geothermal resources and focuses instead on the innovative and sustainable utilization of low-temperature ones in conjunction with that of higher temperature renewable energy sources, such as biomass or solar. This approach will yield new and unexplored economic gains and technical improvements as it will contribute to the removal of some of the limitations that affect other renewable energy processes, such as their often high production costs. GeoSEE will produce a spatial information system that unlike existing data repositories, which are often a mere collection of maps charting the distribution of RESs, will be used by local administrators and decision makers in SEE and beyond who want to capitalize on the presence of low-temp geothermal resources within their region or country and wish to understand how they can be utilized successfully in relation to their combined use with other RES. From a context point of view, GeoSEE will compile a new Policy Guidance document and make an original contribution towards the definition of the way-ahead for EU's and national institutions to help local and European government achieve their objectives in increasing energy and resource efficiency and implement the paradigm shift on the energy market which represents one of the main priorities of the 20-20-20 targets. Finally, the project gives special attention to citizens' information and involvement, with the definition of social and economic benefits for the local population. It will also bring innovation into the public sector and structures thanks to its transnational pilot training actions.

3.17. Synergies with other policies, programmes and projects

GeoSEE has strong synergies with existing EU policies and regulations, in particular the Directive 2006/32/NKEK on energy end-use efficiency and energy services and the "20/20/20 by 2020" plan for the reduction of emission of 20% over 1990 levels allied to a 20% gain in energy efficiency and 20% of energy from renewable sources by 2020. Also there are synergies with the draft directive on the promotion of the use of energy from renewable sources. Regarding the Dir. 2006/32, synergies arise from the fact that GeoSEE will evaluate the potential for deploying a whole range of energy efficiency measures and renewable energy sources for local communities in several case study locations in SEE, this way facilitating the removal of barriers that prevent the efficient use of energy and creating a market for energy services. Regarding the 20/20/20 by 2020 policy, partners in GeoSEE or their affiliated institutions have joined the Covenant of Mayor and have therefore committed themselves to go beyond the targets set by this plan. GeoSEE results and products will be instrumental in helping these partners and local actors implement or expand their energy action plans as required by their adhesion to the Covenant of Mayor. Additional synergies are foreseen with the following organizations and programmes: the Energy Industry Chamber of Slovenia, of which the University of Maribor is a member, the Executive Agency for Competitiveness and Innovation and its Intelligent Energy Programme, which are the funding agent of three partners in GeoSEE (KSSENA, REAN and REAP), and also Energy Cities, Covenant of Mayors, ICLEI and CIVITAS, since many of the organizations and stakeholders supporting some of the GeoSEE partners are also part of these programmes. On the par with these initiatives, GeoSEE aims at removing market barriers and creating a more favourable business environment for growing energy efficiency and renewable markets. There are also synergies with other ETC projects, as some of the funding or associated strategic partners in GeoSEE are also partners of other projects, most notably: ThermoMap, an ICT-PSP funded project aiming at estimating the superficial geothermal potential in nine European countries (whose partnership includes IGR), EnergyCity, a Central Europe funded project aiming at reducing CO2 emission and energy consumption in cities across Central Europe (KSSENA being one of their members), and, finally, GEO.POWER, an INTERREG IVC funded project aimed at exchanging best practices related to low enthalpy geothermal energy supply. Other synergies exist with additional NKEKT projects where GeoSEE partners are involved; these are listed in the partnership section of this application form. Synergies will be exploited throughout the project, starting from WP3 where GeoSEE will capitalize on these projects and highlight

lessons learnt that will be included in the methodology to be developed. Actors and partners from the projects and programmes listed above will be invited to subscribe to the project newsletters and also will be added to the recipients of press releases. One important opportunity foreseen to make synergies concrete is offered by the stakeholder hearings, to be organized in all the GeoSEE countries, where debates and exchanges of ideas amongst participants will highlight how mutual competencies can be shared, components and applications reused and finally how success of common objectives can be achieved and measured in the future.

3.18. Consistency with the local, regional and national policies of the involved partners

Relevant national policies are based on the renewable energy sources and energy end-use efficiency and energy services directives, with different levels of integration across the partners' countries. The project implementation is in line with the principles of these directives and is therefore compliant with the national policies that are derived from these directives and that are aimed at increasing the production and promotion of energy from renewable energy sources and the reduction of CO2 emissions. GeoSEE will analyze existing requirements and environmental protocols, target definitions and expected results across partners' countries, and will contribute this way to the harmonization of all relevant national policies. With its strong support for equal opportunities and the removal of discriminations, the project is also compliant with national policies against discrimination.

4. Work packages and activities

4.0. wp0 – Preparation activities

4.0.1. Work Package Main Data			
Title	Preparation activities		
Responsible Partner	LP - KSSENA		
WP Total	30,200.00 EUR	WP Total ERDF partners	22,200.00 EUR
		WP Total IPA-I partners	8,000.00 EUR
4.0.2. Description			
<p>During the preparation of the project initial meetings were held amongst the partners in Italy, Hungary, Slovenia and Croatia. Each partner actively contributed to developing concepts and preparing the project by sending information regarding budget and activities. Constant written and phone contacts were undertaken by all partners with the Lead Partner in the framework of the partner consortium, in order to have a common overview of the application form preparation. Partners also provided information related to the relevant national frameworks and similar initiatives. Each partner conducted a stakeholder analysis to identify categories and individual, internally to their organization but also externally, that should be contacted and informed about the project. Presentations of the project ideas were held to make sure that stakeholders understood the scope of GeoSEE, its objectives and activities and were therefore willing to get involved and give their support. The list of stakeholders was collated in a stakeholder database, containing names and contact details of important organizations outside the partnership that play a key role for the successful implementation and development of GeoSEE.</p>			
4.0.3. Activities of ERDF & IPA-I partners			
act 0.1			
Title	Preparation		
Timeframe	03/05/2010 - 20/11/2011	Amount	30,200.00 EUR
Description of the activity	<p>During the preparation of the project initial meetings were held amongst the partners in Italy, Hungary, Slovenia and Croatia. Each partner actively contributed to developing concepts and preparing the project by sending information regarding budget and activities. Constant written and phone contacts were undertaken by all partners with the Lead Partner in the framework of the partner consortium, in order to have a common overview of the application form preparation. Partners also provided information related to the relevant national frameworks and similar initiatives. Each partner conducted a stakeholder analysis to identify categories and individual, internally to their organization but also externally, that should be contacted and informed about the project. Presentations of the project ideas were held to make sure that stakeholders understood the scope of GeoSEE, its objectives and activities and were therefore willing to get involved and give their support. The list of stakeholders was collated in a stakeholder database, containing names and contact details of important organizations outside the partnership that play a key role for the successful implementation and development of GeoSEE.</p>		

Role of each partner	For the preparation of the project, representatives of TESAF travelled to Slovenia to meet with KSENA. Similarly, REAN travelled to Slovenia to meet with KSENA. KSENA travelled to Hungary and met with SORO. Each partner actively contributed to developing concepts and preparing the project by sending information regarding budget and activities. Each partner spoke with KSENA either on email or via skype to clarify various aspects of project. REAN held talks with City of Krizevci and Municipality of Molve to get support for project and add them as observing partners. SORO visited EC in Budapest to illustrate project contents and benefits deriving from participation in GeoSEE. The Lead Partner got in contact and liaised with the Energy Chamber of Slovenia to secure their participation. REAP liaised with the Pazardzhik Regional Administration in order to add them to the project as associated partners. All partners supported the LP in writing the application form. All partners provided details of stakeholders to be added to the stakeholder database.
Geographical location	

4.0.4. Qualitative and quantitative description of the outputs and results

Type	Description	Partner	Contributing Partner	Measurement unit	Base value	Target value	Period of delivery
output	Stakeholder database	LP - KSENA	All other PPs	Nr of	0.00	1.00	period01

4.1. wp1 – Transnational project and financial management

4.1.1. Work Package Main Data

Title	Transnational project and financial management		
Responsible Partner	LP - KSENA		
WP Total including ENPI partners	366,380.00 EUR	WP Total ERDF partners	295,820.00 EUR
		WP Total IPA-I partners	70,560.00 EUR

4.1.2. Description

A robust project management structure will be implemented to ensure a problem-free project execution and the timely delivery of the expected outputs and results of GeoSEE. The project management structure will include a Project Steering Committee (PSC), a Project Technical Secretariat (PTS) and a Project Management Team (PMT). The PSC will have the overall responsibility for the delivery of GeoSEE and will ensure stakeholders' needs are met. Its members will include partner directors or senior managers from the project partners' organizations and important stakeholders, including the project's strategic partners and observers. The PTS will offer the PMT support with technical and financial issues and liaise with the JTS. The PMT is assembled by a Project Manager (PM), a Finance Manager (FM) and a Communication Manager (CM). The PMT will include also the project and finance managers from each PP and the WPs coordinators. The PM is responsible for the whole project implementation (planned scope, time and budget). He/she will coordinate the steering group sessions, the Finance Manager, the Communication Manager and the project managers of each PP. The FM is responsible for the financial implementation and budget monitoring. The LP will lead the PMT and will be responsible to the Programme MA/JTS for the overall management of GeoSEE. The PMT will

carry out the following: 1) Coordinate the partners and inform them about reporting and accounting duties and deadlines 2) Organize and coordinating five partners' meetings 3) Prepare reports, including financial reports and collecting all the contributions from the PPs 4) Liaise with the Project Steering Group. Each PP's project manager will ensure a continuous exchange of information with the LP about work progress and technical and financial issues, will set up first level control procedures and will put in place adequate financial monitoring and reporting systems.

4.1.3. Activities of ERDF & IPA-I partners

act 1.1

Title	Day to day project management and coordination		
Timeframe	01/12/2012 - 30/11/2014	Amount	159,160.00 EUR
Description of the activity	<p>This activity will start with the appointment of the PMT which includes a coordination structure as described above for the delivery of the planned activities in the WPs. This activity will also generate a GeoSEE implementation manual, where each WP leader will, with the supervision of the LP, put together an accurate plan detailing the schedule for the activities to be carried out and the procedures to be followed within the WP they will be responsible for. The implementation manual will also include a risk assessment plan in the form of a matrix specifying the forecast risks during project execution, their probability and the countermeasures to be put in place should risks occur. During this activity the kick-off meeting will take place. This represents the start of project implementation where partners get to know each other, confirm the objectives, schedule and milestones, communication plan and structure and the composition of team as well as important administrative procedures. Activity progress reports will also be part of this activity, including reporting to the Controlling Bodies, describing project activities progress. This is a repetitive output every six months. The first one will be available after 6 months from project start. Transnational project meetings will also be held throughout this activity (at six months intervals), when partners meet face-to-face to discuss progress and activity reporting. They will be held at the same time as Steering Group meetings to reduce travelling time and costs. The first transnational project meeting will be held after 6 months. The project closure meeting will be held at the beginning of month 24.</p>		
Role of each partner	<p>At start of project, KSSENA will appoint the PM, FM and CM. Each PP will designate a project and finance manager. IGR, UM, TESAF and REAN - as work packages leader - will appoint a WP manager. KSSEAN, IGR, UM, TESAF and REAN will define a work plan and time table in detail for WP1 through to WP6 respectively. KSSENA will collate each detailed WP time plan into an implementation manual for the whole project. KSSEAN, IGR, UM, TESAF and REAN will assess risks for the WP of their competence and help KSSENA put together a project risk assessment plan. As project gets under way, KSSENA will prepare activity reports at the end of each reporting period giving account of the general progress of the whole project, what has been achieved and delivered, how the partnership developed and if there is any kind of deviation from the original plans. Each project partner will contribute to the compilation of each activity report. This is valid also for PRA (EU ASP1) and NKEK (EU ASP2). All partners, including EU associated strategic partners, will help the LP in the preparation of the regular</p>		

	<p>activity report by filling in and forwarding their partner report to the LP well on time.</p> <p>All partners will participate in the kick-off meeting. Role of LP in this activity will also include: continuous monitoring to ensure that the project stays on track, conducting team reviews with PMT to review progress and plan next activities, monitor changes to one of more project activities, ensure that all stakeholders are kept informed of project status and progress.</p> <p>Role of each partner in this activity will also include: review progress of tasks on partner level, report to the LP/ inform about the progress, inform of potential risks and problems associated with risks, exchange regularly status information for activities with LP.</p>		
Geographical location	Partners' countries.		
act 1.2			
Title	Steering and monitoring of the project implementation		
Timeframe	01/12/2012 - 30/11/2014	Amount	66,600.00 EUR
Description of the activity	This activity will start with the appointment of the Project Steering Committee and the Project Technical Secretariat. The PSC will meet face-to-face every six months for the strategic coordination, evaluation and decision making of GeoSEE for a total of three meetings. The PTS will provide both the PMT and PPs with support and clarifications on administrative matters and liaise with the JTS.		
Role of each partner	Representatives of the LP and PPs will be selected to form the PSC. The PTS will be appointed by the LP.		
Geographical location	Partners' countries.		
act 1.3			
Title	Financial management and certification of expenditure		
Timeframe	01/12/2012 - 30/11/2014	Amount	140,620.00 EUR
Description of the activity	This activity includes all finance-related actions. It includes the preparation of the financial reports listing expenditures incurred by partners to be submitted to the MA for certification. These will be used to monitor and report days worked and costs by project staff and members whilst carrying out the project activities.		
Role of each partner	The LP will appoint a project Financial Manager (FM) who will liaise with each partner's financial manager to carry out all financial duties within the project.		
Geographical location	Partners' countries		

4.1.4. Additional information

Will the activities related to transnational management and coordination be sub-contracted?

Yes

Will the activities related to transnational financial management be sub-contracted?	Yes
Description of project management	<p>The project management structure will include a Project Steering Committee (PSC), a Project Technical Secretariat (PTS) and a Project Management Team (PMT). The PSC will have the overall responsibility for the delivery of GeoSEE and will ensure that project implementation occurs in accordance with stakeholders' expectations and needs. The PTS will offer PPs support with technical and financial issues, monitor the implementation of project activities and liaise with the JTS. The PMT represents a core working group, so is responsible for the execution of project activities, is supported by the PTS and reports to the PSC. The LP will appoint the Project, Finance and Communication Managers. A financial manager for each PP will be appointed during the start-up of the project and a specific workshop or webcast will be held by the Financial Manager (FM) to provide all required information on financial issues (roles and responsibilities, schedule for financial claims and time-scale of financial reports). Each team will be responsible for their institution to fulfil financial requirements and to provide information and certifications of expenditure in due time. By clearly defining financial responsibilities and procedures for each PP, difficulties during the project implementation will be avoided. The FM will be responsible for the collection of certifications from each PP and the submissions of Payment Claims within deadlines. The FM will regularly communicate with the PPs about the project's financial situation, answer questions, and approve or reject requests of extra expenditures. Any possible budgetary changes must be discussed with PPs and approved by the PSC.</p>

4.1.5. Qualitative and quantitative description of the outputs and results

Type	Description	Partner	Contributing Partner	Measurement unit	Base value	Target value	Period of delivery
output	Partnership agreement	LP - KSEENA	All PPs	Nr of	0.00	1.00	period01
output	Subsidy contract	LP - KSEENA	All PPs	Nr of	0.00	1.00	period01
output	Appointment of PMT	LP - KSEENA		Nf or	0.00	1.00	period01
output	GeoSEE implementation manual	LP - KSEENA	All PPs	Nr of	0.00	1.00	period01
output	Kick-off meeting	LP - KSEENA	All PPs	Nr of	0.00	1.00	period01
output	4 interim progress reports (months)	LP - KSEENA	All PPs	Nr of	0.00	4.00	period05

	6, 12, 18 and 24)						
output	4 transnational project meetings (months 6, 12, 18 and closure meeting)	LP - KSSENA	All PPs	Nr of	0.00	4.00	period05
output	Appointment of PSC and PTS	LP - KSSENA		Nr of	0.00	2.00	period01
output	3 PSC interim meetings and reports (months 6, 12 and 18)	LP - KSSENA	All PPs	Nr of	0.00	3.00	period05
output	4 financial interim reports (months 6, 12, 18 and 24)	LP - KSSENA	All PPs	Nr of	0.00	4.00	period05

4.2. wp2 – Communication activities

4.2.1. Work Package Main Data			
Title	Communication activities		
Responsible Partner	LP - KSSENA		
WP Total including ENPI partners	266,160.00 EUR	WP Total ERDF partners	207,040.00 EUR
		WP Total IPA-I partners	59,120.00 EUR
4.2.2. Description			
<p>An articulated communication and dissemination campaign will be implemented throughout the project as part of this WP to address South East Europe Countries (general public, local and central authorities, universities, research centres and associations), the EU DG for Energy and Transport, European and International energy networks (IEA, EEA, International Geothermal Association) and also private stakeholders' organizations. The timely and reliable delivery of communication and dissemination messages and activities will be instrumental towards the achievement of the project objectives, as it will help obtain the necessary backing from a wide range of stakeholders and facilitate the implementation of the pilot actions planned in WP4 and WP6. The communication and dissemination campaign will raise the profile of the project and of its partners and help establish the consortium of partners as a new network of relevant actors in the field of energy and resource efficiency. Communication activities will be delivered using more than one media or non-media channel simultaneously. The information and communication activities will involve the whole partnership and be coordinated and supervised by the Lead Partner. The project will appoint a Communication manager responsible for implementation of information and communication measures. Fluent internal communication during project implementation will be insured by purposely developed web tools to minimize travel costs and to guarantee day to day availability of information. There will also be scheduled face-to-face interim project meetings (one every six months). Partners will receive regular feedback and monitoring to insure that all information is communicated to PPs when problems occur or milestones have been achieved. Project newsletters will give partners up to date information about the current workplan, forthcoming actions and all decisions made during the implementation process.</p>			
4.2.3. Activities of ERDF & IPA-I partners			

act 2.1			
Title	Media communication and dissemination		
Timeframe	01/12/2012 - 30/11/2014	Amount	139,840.00 EUR
Description of the activity	<p>This activity will cover the entire project length and include all the media communication and dissemination actions planned within GeoSEE. This activity will see the compilation of a communication plan to ensure the effective dissemination of the project's results to users beyond the project partnership and an effective internal communication. The plan will contain a communication SWOT analysis, goals to be achieved, the overall strategy, audiences to be targeted, the messages to be delivered, methods and tools and also specific responsibilities amongst the partners. The main tools and tactics of the plan will be: 1) Media activities on local, regional, national newspapers, and also on magazines and local radio channels. These continuous professional media communication activities will also include campaigns, participation to fairs and exhibitions or regional info days with the aim of informing target groups and media about the project intermediate results and activities. There will be a minimum of one media activity per partner in each project semester. The exact details of the media activities will be specified at the beginning of the project inside the communication plan. Also, a press media lists will be compiled for the whole project and each partner with details of press contacts to receive regular media information about the project. 2) 5 Press releases will be compiled by the LP at the beginning and end of the project and at the end of WP3, WP4 and WP5. They will be forwarded to partners who will distribute them to their contacts. 3) a major information activity to launch the project. It will include a press conference to be organized by the LP and a publicity page in a major newspapers in each project country or a radio advert to be aired across major radio networks in each country. 4) a mid-term information activity which will include a press conference and a transnational conference to address the general public and media in South East Europe and beyond to present mid-term project results. It will also include a publicity page in a local or major newspapers in each project country or a radio advert to be aired across a radio network in each country. The mid-term press conference and the mid-transnational conference will be organized by KOCANI. 5) A final information activity which will include a press conference and a transnational conference to address the general public and media in South East Europe and beyond to show achieved results and present project products to stakeholders. It will also include a publicity page in a local or major newspapers in each project country or a radio advert to be aired across a radio network in each country. The final press conference and the final transnational conference will be organized by REAN.</p>		
Role of each partner	<p>LP: appoint a Communication Manager and coordinate the compilation of the communication plan; research and collect contact details in Slovenia of important organizations, press agencies, energy institutes to be added to the media list; organize one media activities every six months in Slovenia; compile and release five press releases at the beginning and end of the project and at the end of WP3, WP4 and WP5; organize the press conference to launch the project; organize a media activity in Slovenia (either publicity page or magazine article or similar) to be published at beginning, middle and end of the project in</p>		

	<p>coincidence with the major information activities; Each partner will be involved and will be responsible for the execution of communication activities in their country. Partners will have to equally contribute to the execution of the following actions: designate a communication manager who will liaise with the Project Communication Manager; research and collect contact details in own country of important organizations, press agencies, energy institutes to be added to the media list; provide content material for press releases to be added to the website and forward this to their media contacts and other organizations within their country; organize one media activities every six months in own country; distribute press releases prepared by the LP to media contacts in own country; organize a media activity in own country (either publicity page or magazine article or similar) to be published at beginning, middle and end of project in coincidence with the major information activities of the project; prepare material or presentation to be distributed during the press conferences at the start, middle and end of the project; contribute to the organization and participate in mid and final transnational conferences. KOCANI to organize mid-term press conference and mid-term transnational conference. REAN to organize final press conference and transnation conference.</p>		
Geographical location	Partners' countries		
act 2.2			
Title	Non-media communication/dissemination and website		
Timeframe	01/12/2012 - 30/11/2014	Amount	126,320.00 EUR
Description of the activity	<p>This activity will cover the entire project length and include actions for non-media and internal communication, including all communication initiatives aimed at the project's stakeholders. A website will be put together; it will act as a promotion tool of the project and will also provide public access to all project reports and newsletters. It will contain two special sessions, namely a web-GIS and a dedicated stakeholder forum. Promotional material will be prepared, including a description brochure, a project flyer and additional material, such as pens, mouse pads, block-notes and similar. Visual identity will be designed, with corporate design for GeoSEE, including project logo and application rules, uniform templates for reports, press releases and all other PR measures. Newsletters will be produced at bimonthly intervals (or as required); these will provide a means for reaching a wide audience with summary information, keeping stakeholders as well as the wider public up to date with the latest development in GeoSEE. Stakeholder bulletins will be prepared, with project updates relevant to stakeholders. There will also be eight stakeholder hearings, one in each country with relevant energy stakeholders and experts to discuss GeoSEE issues with an expert audience (a minimum of 20-30 participants per hearing in each country is expected). Mid- and final transnational conferences will be held to address the general public and media in South East Europe and beyond to show achieved results and present expected outcomes to stakeholders. The final conference (expected min. participants: 50) will widely involve media, public, policy makers and energy efficiency stakeholders to present the project main outcomes.</p>		

Role of each partner	LP will be responsible for the organization and execution of all non-media, communication/dissemination and website actions, including the construction and maintenance of the website, the preparation of promotional material, the design of the project visual identity, the preparation of the newsletters and the stakeholder bulletins. All other partners will contribute to these activities as planned, required ad directed by the LP. Additionally, LP, PADUA, KOCANI, IGR, BP18, REAN, REAP and MF will organize a stakeholder hearing in their respective countries. They will be organized half-way through the project.
Geographical location	Partners' countries

4.2.4. Additional information

Will the activities related to project's transnational communication and dissemination be sub-contracted?

Yes

4.2.5. Qualitative and quantitative description of the outputs and results

Type	Description	Partner	Contributing Partner	Measurement unit	Base value	Target value	Period of delivery
output	Promotional material	LP - KSEENA	All PPs	Nr of	0.00	2,000.00	period01
output	Visual identity	LP - KSEENA	PP4	Nr of	0.00	1.00	period01
output	Stakeholder bulletins	LP - KSEENA	All PPs	Nr of	0.00	8.00	period05
output	Newsletters	LP - KSEENA	All PPs	Nr of	0.00	12.00	period05
output	Communication plan	LP - KSEENA	All PPs	Nr of	0.00	1.00	period01
result	Press Conferences	LP - KSEENA	All PPs	Nr of	0.00	3.00	period05
output	Media activities	LP - KSEENA	All PPs	Nr of informed citizens	0.00	50,000.00	period05
output	Press releases	LP - KSEENA	All PPs	Nr of	0.00	3.00	period05
result	Project website	LP - KSEENA	PP4	Nr of	0.00	1.00	period01
result	Stakeholders Hearings	LP - KSEENA	All PPs	Nr of informed stakeholders	0.00	160.00	period04

output	Transnational conferences	LP - KSEENA	All PPs	Nr of	0.00	5.00	period05
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4.3. wp3 – Content

4.3.1. Work Package Main Data			
Title	Centralized information database and user requirements		
Responsible Partner	ERDF PP2 - IGR		
WP Total including ENPI partners	305,180.00 EUR	WP Total ERDF partners	238,300.00 EUR
		WP Total IPA-I partners	66,880.00 EUR
4.3.2. Description			
<p>This WP will research earlier work, available knowledge and data from both previous cooperation projects and other initiatives in the fields of geothermal, biomass and other renewable technological programs. The aim is to develop a knowledge baseline and state of the art on which the design in subsequent WPs of methods for hybrid plants based on geothermal, solar and biomass and their techno-economic analysis can be carried out in the partner countries. This WP will provide an overview of information availability in Europe and beyond and highlight the main gaps in knowledge and/or technology hindering the current development of initiatives for the sustainable utilization of low-temperature geothermal resources. This collection and analysis will also focus on the existing regulatory conditions and funding schemes that are currently driving policies related to the use of geothermal resources in combination with other RES in the partner countries. Additionally, this WP provides the key information and data to fulfil one of the project results, i.e. the development of improved information management, knowledge transfer and dissemination to industry and communities in the countries of SEE and beyond. The wealth of information collected will enable energy experts and potential investors make informed decisions about deployment and investments on low-temperature geothermal sources. The information database will be structured in the form of an online repository and an online data catalogue to be published in the project website. This information will therefore be easily accessible and shared thereby increasing dialogue and facilitating partnerships amongst different stakeholders (investors, energy agencies and local authorities). The WP wraps up with an analysis of the information and requirements collected in activities 3.1-3.4 to produce a final review in the form of a document setting out the methodology and approach to be followed by GeoSEE in the proceeding WPs.</p>			
4.3.3. Activities of ERDF & IPA-I partners			
act 3.1			
Title	Past and current initiatives and projects		
Timeframe	01/02/2013 - 31/03/2013	Amount	68,000.00 EUR
Description of the activity	<p>This action will be dedicated to the collection and analysis of earlier works, projects, knowledge and data in the fields of geothermal, biomass, biogas and thermal solar and their integration. The information collected will be reviewed and analysed with the objective of identifying best practices and successful case studies whose results and lessons learnt should be given high attention by the project. Important capitalization opportunities with past and ongoing projects and programmes will be highlighted and investigated.</p>		
Role of each partner	The action will be coordinated by PP2 (IGR). Each partner will analyze the state		

	of the art in their own country. Where countries have more than one partner, the state of the art analysis will be carried out as a cooperation effort amongst the same-country partners. Each partner will prepare a report exploring the state of the art in their country then a final common state of the art report will be prepared by IGR summarizing the state of the art in SEE.		
Geographical location	Partners' countries.		
act 3.2			
Title	Technologies for geothermal and RES integration		
Timeframe	01/03/2013 - 30/04/2013	Amount	17,180.00 EUR
Description of the activity	<p>This action will concentrate on reviewing existing models for economic and process evaluation of surface plants where attempts have been made in the past, or are still ongoing, to generate electricity from non-conventional low temperature geothermal resources. Particular attention will be given to binary ORC technology and its thermodynamic principles. The objective of the action is to highlight those past or ongoing projects that have produced the most reliable and promising technologies. Attention will be also given to the identification of critical geological and hydraulic parameters (in particular temperature and pressure) that have underpinned successful energy production demonstration projects in the past using low-temperature geothermal sources combined with other RES. Additionally, a comprehensive review of existing models to cost hybrid plants will be performed, taking into account the main cost elements that will be incurred, but excluding the costs related to exploration and drilling as GeoSEE will only consider low-temperature geothermal sources in the partner countries whose properties have already been analyzed and established in the past. Results will be used in the technical and economic feasibility analyses in WP4.</p>		
Role of each partner	<p>The action will be coordinated by UM. UM will work alongside TESAF and MF to analyze the main technologies and basic schemes for coupling a geothermal source to an additional temperature source, such as biomass or solar. UM and MF will investigate the mechanical and thermodynamic principles whilst TESAF will provide expertise on the utilization of biomass. UM will prepare a technical review of technologies for hybrid uses of geothermal and additional RES for electricity generation with the support of TESAF and MF.</p>		
Geographical location	Partners' countries		
act 3.3			
Title	Geographic models		
Timeframe	01/03/2013 - 30/04/2013	Amount	81,400.00 EUR
Description of the activity	<p>In this activity partners will review what geographic models have been developed in the past for the production of maps that can be used to assess renewable energy sources and their combined use. This activity will also review what standard and protocols exist and major areas where further development is required for the mapping of RES and their integration. The aim of this activity is to highlight what research methodologies have been applied in the past to carry out geographical and regional analyses and what that key attributes have</p>		

	been spatially analyzed. Results will be used to prepare the actions of WP5.		
Role of each partner	The action will be coordinated by TESAF. All other partners will analyze what datasets, maps or models have been collated and published in their own countries that can be integrated within GeoSEE. TESAF will collect the analysis of each partner and produce a document containing links, examples and a critical review.		
Geographical location	Partners' countries.		
act 3.4			
Title	User requirement analysis		
Timeframe	01/02/2013 - 30/04/2013	Amount	55,880.00 EUR
Description of the activity	<p>The objective of this activity is to carry out a user requirement analysis to inventory stakeholders' needs and make sure that the results developed by GeoSEE will fulfil these needs with regards to the methodology to be developed and the data to be collected. This activity will influence the analyses in activities 4.2 and 4.3 and also provide feedback and guidance throughout the execution of all following WPs. First, a user requirements questionnaire will be prepared with a list of questions divided in to relevant thematic areas related to energy and resource efficiency and existing utilizations of low-temperature geothermal resources in the partners' countries. Identification of stakeholders will be derived from the stakeholders' database developed in WPO. Extensive interviews and discussions with stakeholders and authorities in the partner regions will then be carried out to define the stakeholders' needs, their expectations and short- and long-term desires. At the end of the activity, a synthesis of user requirements will be prepared by each partner for the questionnaires collected in their country. These will be collated into a final summary of user requirements highlighting proposal and priorities that have emerged from the questionnaires. User requirements will also be sought to define the content, quality and usability of the information database to be developed in activity 3.5.</p>		
Role of each partner	The activity will be coordinated by LP, UM and BP18 who will be supported by all partners in the preparation of a user requirements questionnaire. KSENA, PADUA, REAP, BP18, CEV, REAN and KOCANI will carry out interviews with stakeholders in their respective countries and fill in the questionnaires. UM and LP will prepare questionnaire, BP18 will prepare a final document with recommendations for future activities in the project based on the analysis of the collected requirements.		
Geographical location	Partners' countries		
act 3.5			
Title	Integration and information database		
Timeframe	01/04/2013 - 30/06/2013	Amount	82,720.00 EUR
Description of the activity	This activity will collate information from activities 3.1-3.4, integrate it and make it available within two purposely developed transnational tools: (1) an online information repository (glossary/alphabetical searchable web facility		

	with indexes and keywords containing definitions, examples and illustrations of relevant parameters) and (2) an online data catalogue (online searchable data warehouse where information collected in previous actions is catalogued according to relevant thematic areas with links to the collected resources). The purpose of the transnational tools is to make existing information on low-temperature geothermal resources easily accessible and shared in order to increase dialogue and facilitate informed decisions amongst different stakeholders. Secondly, the activity will set out, within an integration document, the methodology and approach to be followed by GeoSEE, based on lessons learned from the analysis of past experiences and projects in act 3.1-3.4. The document will contain the project vision and goals, current critical areas of activity related to low-temperature geothermal energy that should be investigated by GeoSEE, high-priority actions for each area of development and specific results to be achieved in the proceeding WPs. The purpose of this document is to finalize alignment and capture the highest possible level of agreement amongst project partners on the definition of GeoSEE's methodology and expected results beyond what already defined within this application form. This will ensure that all project partners stay true to the project's goals and will help rule out scope creep during project execution.
Role of each partner	IGR will coordinate the activity. All partners will provide support when and as required by IGR. Preparation of integration document to be carried out by LP who will also coordinate the construction of the online information repository and the online data catalogue with the support of all other PPs.
Geographical location	Partners' countries.

4.3.4. Additional information

4.3.5. Qualitative and quantitative description of the outputs and results

Type	Description	Partner	Contributing Partner	Measurement unit	Base value	Target value	Period of delivery
output	State of the art reports in each partner country	ERDF PP2 - IGR	KSENA, TESAF, UM, PADUA, REAP, BP18, CEV, REAN, MF, KOCANI	Nr of	0.00	8.00	period01
output	State of the art in the partners' countries and SEE	ERDF PP2 - IGR		Nr of	0.00	1.00	period02
output	Review of technologies for hybrid uses of geothermal and additional RES	ERDF PP3 - UM	MF and TESAF	Nr of	0.00	1.00	period02
output	Review of models, standards and	ERDF PP1 -	KSENA, PADUA, IGR,	Nr of	0.00	1.00	period02

	data for RESs mapping and their integration	TESAF	BP18, CEV, REAP, REAN and KOCANI				
output	User requirement questionnaire	LP and UM	BP18, PADUA, CEV, KOCANI, REAP, REAN, IGR, MF and KOCANI	Nr of	0.00	1.00	period01
output	User requirements in the partners' countries	ERDF PP8 - BP18	KSSENA, PADUA, REAP, CEV, REAN and KOCANI	Nr of	0.00	8.00	period02
output	Final user requirements document	ERDF PP8 - BP18		Nr of	0.00	1.00	period02
output	Specifications of online information repository and online data catalogue: structure, rules and contents	ERDF PP2 - IGR	All other PPs	Nf or	0.00	1.00	period02
result	Online Information Repository	ERDF PP2 - IGR	All other PPs	Nr of	0.00	1.00	period02
result	Online Data catalogue	ERDF PP2 - IGR	All other PPs	Nr of	0.00	1.00	period02
output	GeoSEE: project vision and strategy	LP - KSSENA	All other PPs	Nr of	0.00	1.00	period02

4.4. wp4 – Content

4.4.1. Work Package Main Data

Title	Advancing low-temperature geothermal energy technologies		
Responsible Partner	ERDF PP3 - UM		
WP Total including ENPI partners	323,120.00 EUR	WP Total ERDF partners	234,300.00 EUR
		WP Total IPA-I partners	88,820.00 EUR

4.4.2. Description

The specific objective of this WP is to analyze and assess in detail low-temperature geothermal resources in

combination with biomass, biogas, heat recovery and thermal solar in several case-study locations within the partner countries. To this purpose, a technical and economic analysis in each case-study area of the integration of low-temperature geothermal water with other forms of renewable energy will be carried out. When local conditions or specific constraints require the integration across different countries of the same forms of RES with geothermal resources, efforts will still be made to select sources with varying input parameters, such as different temperature of geothermal wells or different biogas productions, so that a number of system layouts will be investigated. Each integration project will be developed following the principles and guidelines delineated within the strategy document produced in action 3.5. The WP will start with a collection of the relevant environmental and physical conditions of each site. Existing materials related to the characteristics of the geothermal wells will be used, such as geological maps, seismic profiles and flow tests. Important parameters and operational conditions of other forms of RES in the proximity of the test sites will also be collated. Once all the relevant input parameters have been gathered, the WP will carry out a techno-economic analysis with the execution of process modelling and the evaluation of the cost of electricity at each case-study location. The general objective of this WP is to demonstrate the feasibility of the chosen hybridization strategies and the potential of low-enthalpy geothermal resources to increase the efficiency of other renewable energy processes. When the technical-economic analyses reveal that production of electricity is not deemed attainable, alternative uses will be investigated for the low-temperature geothermal resources, such as hybrid biomass - geothermal district heating.

4.4.3. Activities of ERDF & IPA-I partners

act 4.1

Title	Description of case-study locations: resources, infrastructures and services		
Timeframe	01/05/2013 - 31/07/2013	Amount	83,640.00 EUR
Description of the activity	<p>The activity will prepare a series of documents containing descriptions of case-study locations, with RES, infrastructures and facilities available in each area with maps. It is foreseen that the following test-case locations will be examined: (1) Topolšica (Šaleška Valley, SI), (2) Euganean Hills (Province of Padova, I), (3) Oradea (Bihor County, RO), (4) Križevci/Molve (Podravina County, HR), (5) Budapest and Pest County (HU), (6) Palilula (City of Belgrade, RS), (7) Podlog/Banja (Municipality of Kocani, MK), (8) Velingrad (Region of Pazardjik, BG).</p> <p>In each region, partners will have to carry out these activities, with partners from the same country working together:</p> <ol style="list-style-type: none"> 1) Prepare a general description of the area or region, with information on relevant historical events, geography, economy, climate and others. 2) Research and describe the regional infrastructure of the test-case locations, with reference to transport, road networks, energy distribution, renewable and fossil-based power plants, industrial sites, green locations and utilities. 3) Research and describe the social infrastructure of the test-case locations and collect information on education, healthcare, emergency services and community facilities to provide evidence of future population or service growth that could increase or alter the demand for energy. 4) Prepare detailed maps showing the distribution of infrastructure sites and facilities that can be relevant for the purposes and aims of the project 5) Collate the collected information in a report for each test site location describing the present infrastructure layout and future possible development and requirements that are likely to generate increased demand for energy. 		

Role of each partner	TESAF will coordinate the activity. KSENA will prepare a general description and describe the regional infrastructure of the Topolšica Šaleška Valley area. UM will describe the social infrastructure, prepare detailed maps and collate the collected information for the Topolšica Šaleška Valley area in a report. PADUA will prepare a general description and describe the regional infrastructure of the Euganean Hills. CEV will describe the social infrastructure, prepare detailed maps and collate the collected information for the Euganean Hills area in a report. IGR will carry out actions listed above for Oradea (Bihar County); REAN will carry out actions listed above for the Križevci/Molve area; BP18 will carry out actions listed above for the Budapest and Pest County; MF will carry out actions listed above for the Palilula geothermal area; KOCANI will carry out actions listed above for the Podlog/Banja district; REAP will carry out actions listed above for the Velingrad district.		
Geographical location	Partners' countries		
act 4.2			
Title	Process modelling of low-temperature geothermal energy		
Timeframe	01/07/2013 - 31/12/2013	Amount	109,120.00 EUR
Description of the activity	<p>This activity, along with the following one, represents the core activity of this WP as its objective is the evaluation of the performance of the chosen hybrid plants, based on thermodynamic feasibility and the recourse to OCR technology. Simulations for the models chosen at each site will make it possible to define the productivity, efficiency and capacity for each hybridization analysis. The activity will generate one output for each study location, with conceptual designs of hybrid plants, analyses of electric power generation, or alternatively of systems outputs, for those hybridization projects where electric power is not attainable. These studies will demonstrate the viability and effectiveness of hybridization of low-temperature geothermal energy with additional forms of RES. The analyses are also aimed at demonstrating that high production costs for RES such as biomass can be reduced when combined in hybridization projects, as much smaller portion of biomass would be needed to produce the same amount of electricity. It is foreseen that the following low-temperature geothermal projects will be analyzed: (1) A geothermal-biomass integration of the Topolšica geothermal spring (SI), (2) An integration project of geothermal wells in the Euganean Hills (I) in conjunction with biogas, (3) An integration project combining the geothermal wells in Oradea (RO) with solar energy (4) Integration with one additional RES technology system for electricity generation and heat production in CHP plants of the two geothermal wells in the Podravina geothermal basin (HR), (5) Integration of the geothermal resources of Budapest and Pest County (HU) with biomass in support of biomass production as planned by Corvinus University, (6) a geothermal-biomass integration pilot project in Belgrade's municipality of Palilula (RS), (7) an integration project analyzing the construction of a biomass heat-only boiler station to provide additional heat in the Geoterma system, located in Podlog Banja (MK) (8) A biomass-geothermal integration project located in the the region of Pazardjik (BG).</p>		
Role of each partner	The technical analyses will be coordinated by MF with the scientific and		

	technical support of UM (for engineering issues) and TESAF (for biomass/biogas issues). All other partners will take care of the analysis in their area/country. PADUA and CEV will work together to assess the possibility to integrate the geothermal resources of the Euganean Hills with both biomass and biogas.		
Geographical location	Partners' countries		
act 4.3			
Title	Economic modelling of low-temperature geothermal energy		
Timeframe	01/09/2013 - 31/01/2014	Amount	99,780.00 EUR
Description of the activity	After the calculation of the main productivity parameters for each pilot project listed in act 4.2, this activity will carry out an assessment of the economic key elements, which include capital investments, operating costs, financial incentives and energy savings to establish the cost of electricity or retrofitting at each case-study location. Additionally, the development of an expense/revenue model for each site along with an estimated ROI for each pilot project will be carried out.		
Role of each partner	The technical analyses will be coordinated by UM with the scientific and technical support of MF (for engineering issues) and TESAF (for biomass/biogas issues). All other partners will take care of the analysis in their area.		
Geographical location	Partners' countries.		
act 4.4			
Title	Selection of best integration strategies in each pilot area		
Timeframe	01/01/2014 - 28/02/2014	Amount	30,580.00 EUR
Description of the activity	In this activity a final evaluation of the analyses carried out in act 3.2 and 3.4 will be performed with the objective of selecting the most promising integration strategies that could be replicated across the partner countries and beyond. In particular, the selection of site specific relevant design elements and a sensitivity analysis of these variables to establish how they can affect technical and economic risk will be evaluated. This activity will generate two transnational results, a final technical study and an investors' guide. These studies will contain a review of the analyses carried out in this WP and will act as pilot actions aimed at demonstrating the viability and effectiveness of the integration of low-temperature geothermal energy with other RES to produce electricity. The technical study will be collated as a start-up guide with a synopsis of technical obstacles and important elements not to be missed by stakeholders interested in developing geothermal hybrid projects or implementing innovative uses for low-temperature geothermal resources not only in the chosen test-case sites but also in SEE and beyond. The latter will be a study containing economic guidance and financial considerations for stakeholders (investors, local authorities, energy companies) looking to set up hybridization projects of geothermal resources or implementing innovative uses for low-temperature geothermal resources.		
Role of each partner	The activity will be coordinated by UM with the support of MF and TESAF.		
Geographical location	Partners' countries		

4.4.4. Additional information

4.4.5. Qualitative and quantitative description of the outputs and results

Type	Description	Partner	Contributing Partner	Measurement unit	Base value	Target value	Period of delivery
output	Descriptions of case-study locations	ERDF PP3 - UM	All other PPs	Nr of	0.00	9.00	period03
output	Technical feasibility analyses of foreseen pilot projects	ERDF PP3 - UM	All others PPs	Nr of	0.00	9.00	period03
output	Economical feasibility analyses of foreseen pilot projects	ERDF PP3 - UM	All others PPs	Nr of	0.00	9.00	period04
result	Pilot study: Low-temperature geothermal resources - technical study	ERDF PP3 - UM	MF, TESAF	Nr of	0.00	1.00	period04
result	Pilot study: Low-temperature geothermal resources - investors guide	ERDF PP3 - UM	MF, TESAF	Nr of	0.00	1.00	period04

4.5. wp5 – Content

4.5.1. Work Package Main Data

Title	Deploying geographic models and databases of sustainable utilization of low temperature geothermal energy		
Responsible Partner	ERDF PP1 - TESAF		
WP Total including ENPI partners	323,290.00 EUR	WP Total ERDF partners	251,760.00 EUR
		WP Total IPA-I partners	71,530.00 EUR

4.5.2. Description

The aim of this WP is to develop a mapping methodology and a spatial information system that can be used to delineate areas with the presence of geothermal and additional renewable energy sources that can be integrated for the purpose of developing hybridization projects to produce energy. This system will act as a

multi-criteria decision support system that will be used by local administrator and decision makers in the partner countries and beyond who want to capitalize on the presence of low-temp geothermal resources within their region or country and wish to understand how they can be exploited successfully, especially in relation to their combined use with other RES. This system will make it possible to identify the best integration strategies that promise to deliver the highest returns in terms of energy outputs and economic performances. The system will include a database of maps charting the distribution of geothermal resources in the partner countries, and in particular of low- to mid- temperature ones, and additional resources, such as biomass, solar irradiance and punctual waste heat sources. It will also contain additional datasets, such as already available geological or stratigraphy maps, which will be integrated according to a purposely developed spatial integration model. Displaying and querying functionality will be developed through the recourse to webgis technology. Data collection will be performed by all partners with relevance to their own territory.

4.5.3. Activities of ERDF & IPA-I partners

act 5.1

Title	Definition of system requirements and functional specifications		
Timeframe	01/01/2014 - 28/02/2014	Amount	71,500.00 EUR
Description of the activity	This activity will define the system requirements, functional specifications and data requirements of the spatial information system to be developed. Information from the document containing the specification of user requirements as compiled in WP3 will be reviewed and turned into actual system and functional requirements. These will contain a complete description of the behaviour of the spatial information system to be developed and will include a set of use cases that will describe interactions between users and the system. The requirements will list the following important aspects: i) purpose of the system, definitions, system overview and references; ii) overall description of system interfaces, user interfaces, hardware and software interfaces, communication interfaces, memory constraints, operations, functions, user characteristics, constraints and assumptions; iii) specific description of specific requirements for external interfaces, functions, performance, constraints, database logic and software attributes, such as reliability, security and maintainability; iv) other requirements.		
Role of each partner	The activity will be coordinated by TESAF with the support of BP18, KSENA, APDUA, REAP, CEV and KOCANI. These partners will review the list of requirements resulting from the user requirement analysis conducted in activity 3.4 and extract the information pertaining to the content, quality and usability of the system as emerged from stakeholders' interviews. BP18, KSENA, APDUA, REAP, CEV and KOCANI will write a report highlighting stakeholder's unique operational processes, decision-relevant business rules and perceived needs that were elicited when interviews were conducted. Each of these partners will use the information collected to define use cases which will describe how the stakeholders they interviewed are expecting to be able to interact with the system to achieve their specific business or goals. Use cases will contain textual descriptions of the ways in which stakeholders are intended to work with the spatial information system. TESAF will then analyse the reports and uses cases compiled by BP18, KSENA, APDUA, REAP, CEV and KOCANI and turn them into actual system, functional and data requirements describing the internal workings of the spatial information system and how the		

	system will be implemented.		
Geographical location	Partners' countries		
act 5.2			
Title	Definition of system architecture and technology		
Timeframe	01/02/2014 - 31/03/2014	Amount	7,000.00 EUR
Description of the activity	<p>This activity will define the system architecture and technology of the spatial information system to be developed. The system will use an open, user-friendly architecture based on a seamless integration of the different local data sources, easy to maintain and developed with open-source and low-cost technology. The underlying web architecture for the system will be based on OGC standards and include: a web-based mapping engine, a geospatial database, a web server platform and a web browser. Users will log onto to the system and pull data from a secured web server according to their area of interest. The system will contain a variety of maps for all the areas of the project. Following standard software engineering principles, the web architecture will be based on a four-tier model: user interface (Presentation), functional logic (Application), data management (Data) and web-mapping (Web Service). The resulting adopted technology for the system will be based on widely accepted opensource stacks: Linux operating system, Apache Web Server and Javascript/PHP programming languages. Geographical data will be stored in a PostgreSQL/PostGIS and MySQL geospatial database. Mapping functionality will be provided by MapServer, a web-based engine originally developed by the University of Minnesota. TESAF will define the system architecture and technology using the system requirements and functional specifications defined in activity 5.1. TESAF will develop these points and define the major components of each layer to produce a detailed description of the architectural design.</p>		
Role of each partner	<p>This activity will be carried out by TESAF only. The system architecture is expected to fulfill the requirements of an intelligent web mapping product aadvanced capabilities for presenting and interrogating spatial data, accessed through an easy to use and familiar style of interface based on widely used open source spatial libraries. TESAF will define the system architecture and technology using the system requirements and functional specifications defined in activity 5.1. The architecture to be developed will follow widespread software engineering principles with the use of a four-tier structure: user interface (Presentation), functional logic (Application), data management (Data) and web-mapping (Web Service). TESAF will develop these points and define the major components of each layer to produce a detailed description of the architectural design.</p>		
Geographical location	Partners' countries		
act 5.3			
Title	Development of data model and installation of database		
Timeframe	01/03/2014 - 31/05/2014	Amount	7,900.00 EUR
Description of the activity	<p>This activity will develop the specifications of the data model underlying the spatial system (such as the attributes to be stored and their relationship types</p>		

	<p>with geographical objects). A database will then be installed to host the data collected in WP3. The database will also link as much as possible to existing data repositories of projects from former programming periods to try and include their data. This will allow GeoSEE to capitalize on the results of these projects and also avoid duplications. The data acquired during the project will be stored in a data model properly configured during this activity in order on the one hand to build and populate a "repository" of cartographic databases standardized from a geometrical point of view, as well as a thematic and relational one and on the other to allow the implementation of the successive additions of mapping layer on the basis of protocols for data acquisition using standard procedures. In this way a centralized cartographic geodatabase will be created complying with detailed technical specifications that will create a mapping service for the analysis of geothermal resources which will allow for the dynamic generation of thematic derived maps (e.g. the best integration strategies that promise to deliver the highest returns in terms of energy outputs and economic performances). There will also be a process of standardization of existing data that will be added to the geodatabase. This will ensure maximum efficiency in the process of returning the requested information, both in terms of speed of response and geometric and thematic accuracy. This process will be based on a simple, linear and extremely reliable workflow in which the typical problems of non-overlapping between information sources (different reference systems), topological conflict (presence of discontinuities of the linear elements), semantic inconsistency, etc.. will be resolved at the beginning during the implementation phase of the geodatabase.</p>		
Role of each partner	<p>This activity will be carried out by TESAF with the support of IGR and UM. IGR will analyze and describe the data structure, defining the characteristic of the types of geographic objects to be included in the database within a comprehensive diagram. UM will instead investigate the database structure and put together a specification of how the database storing geographic information will be structured and used. Using the outputs produced by IGR and UM, TESAF will implement the data and database structures and prepare a powerful and open geo-database that will form the back-end of the spatial information system to be developed in activity 5.4.</p>		
Geographical location	Partners' countries		
act 5.4			
Title	Development, installation and testing of spatial information system		
Timeframe	01/04/2014 - 31/07/2014	Amount	125,740.00 EUR
Description of the activity	<p>This activity will lead to the development, and subsequent installation and testing, of the spatial information system. This will be an advanced tool containing energy modelling features and the use of specific Geographical Information technology. It will integrate actual/real data (thus acting as a typical monitoring tool) with simulated data concerning future scenarios of energy production (this way complying with the specifications of a more advanced decision support system).</p>		
Role of each partner	<p>This activity will see the involvement of TESAF with the support of all other partners. TESAF will first develop a prototype containing a significant subset of</p>		

	<p>the functions as specified in the system requirements and functional specifications. The system is to be developed as a web application with multi-user access. After the development and testing of the system, each partner will access the system and use it for a short period of time until all partners are satisfied that the prototype complies with the requirements. During this process, TESAF will apply any changes to the prototype due to misalignments with the requirements as pointed out by the partners. TESAF will then develop the full-blown system and perform all the necessary testing to fix bugs and malfunctions. The development and testing will follow standard software development practices with alpha and beta versions followed by several release versions until the system is deemed stable and fit for its purpose. Each partner will be involved in the testing and be asked to report within a written report the errors in each subsequent release. TESAF will populate the database with the maps and datasets collected in activity 3.3.</p>		
Geographical location	Padua, Italy		
act 5.5			
Title	System documentation and user training		
Timeframe	01/06/2014 - 31/08/2014	Amount	111,150.00 EUR
Description of the activity	<p>In this activity documentation for the developed spatial information system will be compiled. A list of contents will be prepared by TESAF and each partner will be given the task to write a chapter. The system documentation will then be added to the online spatial decision support system developed in the previous activities. Also, there will be a one-day training course in each municipality and local authority affiliated to GeoSEE to train local users and decision makers on the use of the spatial system and the analyses that can be performed with it. CEV will work with PADUA to organize a training course at the Province and at a few selected CEV member municipalities that are interested by the presence of low-temperature geothermal water. A total of 10 training workshops will be organized with the aim of preparing a minimum of 100 users from the public authorities supporting the project. The users will learn hands-on how online mapping and cartographic outputs can successfully be applied for the purpose of exploring the potential in their area for the implementation of geothermal hybridization projects. Each training workshops will last for a day and cover these subjects: general principles of geothermal and other renewable energy sources; principles of hybridization strategies and their benefits; availability of local geothermal and renewable energy sources; introduction to mapping and online cartography; architecture and functionality of the online mapping system; hands-on exercises on the use of the online mapping system.</p>		
Role of each partner	<p>TESAF will coordinate the compilation of the system documentation with the support of all PPs. Each partner will organize a one-day training course in their local area. The training courses will be organized as hands-on courses using material prepared by TESAF. Each partner will adapt the training material according to their specific needs or those of the stakeholders they represent. Each partner will have to make themselves extensively familiar and confident in the use of the online mapping system to then be able to train users from their organization. At the end of the training users will have fully familiarized themselves with the use of the system and be able to benefit from its</p>		

	functionality to be able to support their decision-making process with regards to the best geothermal integrations strategies available in their country.
Geographical location	

4.5.4. Additional information

4.5.5. Qualitative and quantitative description of the outputs and results

Type	Description	Partner	Contributing Partner	Measurement unit	Base value	Target value	Period of delivery
output	Document containing system/data requirements and functional specifications	ERDF PP1 - TESAF	all other PPs	Nr of	0.00	1.00	period04
output	Document with specification of system architecture and technology	ERDF PP1 - TESAF		Nr of	0.00	1.00	period04
output	document with data model specifying system objects and the relationships amongst them (ER diagram)	ERDF PP1 - TESAF	IGR, UM	Nr of	0.00	1.00	period04
output	Database installation: configuration and installation of database	ERDF PP1 - TESAF		Nr of	0.00	1.00	period04
result	Transnational tool - Database implementation	ERDF PP1 - TESAF		Nr of	0.00	1.00	period04
output	Development of spatial information system, with several testing versions up to beta version	ERDF PP1 - TESAF		Nr of	0.00	1.00	period05
result	Transnational tool - Installation and go-live for spatial	ERDF PP1 - TESAF		Nr of transnational tool	0.00	1.00	period05

	information system						
output	User guide with textual and graphical explanation of system functionality	ERDF PP1 - TESAF	IGR, UM and MF	Nr of	0.00	1.00	period05
result	Transnational pilot actions - One day training courses in the partners' locations	ERDF PP1 - TESAF	KSSENA, PADUA, IGR, REAN, BP18, CEV, MF, KOCANI and REAP	Number of trained users	0.00	100.00	period05

4.6. wp6 – Content

4.6.1. Work Package Main Data

Title	Informing policy-makers and citizens about low temperature geothermal energy		
Responsible Partner	IPA-I PP1 - REAN		
WP Total including ENPI partners	424,295.00 EUR	WP Total ERDF partners	309,285.00 EUR
		WP Total IPA-I partners	115,010.00 EUR

4.6.2. Description

This work package extends the focus of the project with a review of the results of previous WPs and a set of new actions that include the development of market penetration models and the analysis of environmental and social benefits deriving from the implementation of low-temperature geothermal energy. This WP will draw conclusions to finalize a common strategy based on the use of the methodological approach developed by GeoSEE and the results gained from the implementation of previous analyses. This strategy will be compiled in a Strategic Agenda charting the way-ahead for SEE and NKEK governments and communities wanting to utilize low-temperature geothermal energy to increase energy and resource efficiency. This WP will also deliver a Policy Guidance aimed at informing European policymakers about the benefits and challenges of utilizing low temperature geothermal energy and solutions to overcome current legislative restrictions to favour the sustainable implementation of advanced technologies. The workload will start with a review in Act 6.1 of what collected in WP3 with reference to laws and policies regulating the utilization of low-temperature geothermal resources. Each partner will produce a paper detailing the policy recommendations for their country. REAN will then integrate these recommendations into a comprehensive paper with policy advice at European level. Through activities 6.2-6.4 each partner will assess models of market penetration, environmental benefits and positive effects on communities in their own country whilst REAN will integrate these considerations into a series of results delineating best practices and environmental/social benefits for SEE and European countries. In its final stages the WP will also produce a Transnational Joint Management Establishment amongst the GeoSEE partners to delineate follow-on measures and actions with the goals of expanding GeoSEE's key products and promoting their uptake in the wider European community.

4.6.3. Activities of ERDF & IPA-I partners

act 6.1			
Title	Facilitating national procedures and regulation development		
Timeframe	01/06/2014 - 31/07/2014	Amount	76,360.00 EUR
Description of the activity	<p>This activity will take the information collected in WP3 and explore laws and regulations of each country related to low-temperature geothermal resources and RES. The following regulatory aspects will be reviewed: governmental financial support, feed-in tariffs, grid-supply/feed-in, approval procedures, trade of emission-rights and possible restrictions (i.e. nature protection laws). Each partner will investigate what restrictions might exist in their country that make permitting procedures lengthy and complex, what agencies operate and what permitting processes they have put in place and the major inefficiencies that affect the adoption of low-temperature geothermal technologies in their country. REAN will then review the analyses of each partner with the aim of producing a critical review that will contain guidelines and recommendations on what efforts should be put in place to remove policy and regulatory hurdles that inhibit the implementation of these technologies and to facilitate national procedure and regulation development and consequently private investment in SEE.</p>		
Role of each partner	The activity will be coordinated by REAN with the contribution of all other PPs.		
Geographical location	Partners' countries.		
act 6.2			
Title	Highlighting environmental benefits		
Timeframe	01/07/2014 - 30/09/2014	Amount	96,140.00 EUR
Description of the activity	<p>This activity will take into consideration environmental benefits that can be gained from the deployment of hybrid low-temperature geothermal resources in the case-study location and the partners' countries. The activity will calculate GHG emissions and estimate potential for carbon reduction according to IPCC methodology for each pilot area. These results will be generalized to produce estimates of environmental benefits in terms of GHG and carbon emissions reduction across the partner countries. The findings emerging from the analyses of each partnering country will be collated to produce estimates of similar environmental benefits for SEE as a whole and also EU27.</p>		
Role of each partner	The environmental analyses in the case study locations and partners' countries will be coordinated by REAP and carried out by all PPs. REAN will summarize the findings from each partner to highlight environmental benefits of sustainable utilization of low temperature geothermal energy in SEE.		
Geographical location	Partners' countries.		
act 6.3			
Title	Highlighting community and social benefits		
Timeframe	01/08/2014 - 30/09/2014	Amount	85,260.00 EUR

Description of the activity	<p>This activity will be dedicated to the analysis of the improved economic conditions for operators in each case-study locations, such as farmers or animal growers, whose activities could take advantage from the future implementation of the integration technologies outlined in each partner country within WP4. The activity will also define the wider positive aspects for the local communities living in and around the case-study locations that will be brought about by the implementation of the integration strategies outlined in each partner country, such as the creation of job opportunities or the provision of new services. In order to ensure that the future implementation of the pilot projects in the case study locations meets with the support of the local population, this activity will organize an awareness raising campaign in each partnering country in order to introduce the future utilization of low-temperature hybrid geothermal projects to the general public and explore how these plants will be seen by the local population. The campaigns will also be targeted to act as a survey of public opinion; they will investigate how many people are familiar with the advantages of future innovative low-temperature hybrid geothermal plants, as opposed to traditional steam-based ones. The campaigns will be coordinated via a transnational campaign plan detailing what contents should be considered and how they should be publicized. The findings emerging from the campaigns and analyses of each partnering country will be collated to produce estimates of similar social and community benefits for SEE as a whole and also EU27.</p>		
Role of each partner	<p>The social analyses in the case study locations and partners' countries will be coordinated by PADUA and carried out by all PPs. REAN will summarize the findings from each partner to highlight community and social benefits of sustainable utilization of low temperature geothermal energy in SEE. The Citizens Awareness Campaigns will be coordinated by REAN and organized with the contribution of all PPs.</p>		
Geographical location	Partners' countries		
act 6.4			
Title	Developing market penetration models		
Timeframe	01/09/2014 - 31/10/2014	Amount	98,810.00 EUR
Description of the activity	<p>In this activity the partnership will produce a series of analyses of the markets for hybrid geothermal applications and systems in the partner countries. This will include market structure, market potential, risk analysis as well as surveys of relevant experts to give an overview on good-practices and approaches on hybrid low-temperature geothermal applications on regional or national energy markets. Results from analyses in the previous WPs will be integrated systematically. The market analyses will comprise: 1. Market structure analysis: overview of demand and supply, competition, quantity of equipments, quantity of energy and heat produced energy prices etc. in each partner country. 2. Market potential: availability of substrates, space available (for cultivation of plants)/ utilization rivalry, soil conditions, animal population (development), special characteristics of the substrates due to geological/ geographical/ climate property etc in each partner country. 3 Risk-analysis: legal risks, currency risks, technological risks, trade risks, geological/ geographical/ climate</p>		

	risks etc. in each partner country. This activity will finish with a review of all relevant aspects conducted by REAN, which will contain the analysis of the partner countries and the economic feasibility studies conducted in activity 4.3 for each case study location in the project. REAN will generalize what emerged in activity 4.3 with the nation-wide economic analyses carried out by each partner to produce an economic analysis of sustainable utilization of low temperature geothermal energy for all countries in SEE.		
Role of each partner	The activity will be coordinated by KSENA, each partner will produce a market/economic analysis for their country. REAN will produce the final paper highlighting economic principles and business benefits of sustainable utilization of low-temperature geothermal resources in South East Europe.		
Geographical location	Partners' countries		
act 6.5			
Title	Implementing a low-temperature geothermal energy strategy in SEE and Europe		
Timeframe	01/10/2014 - 30/11/2014	Amount	67,725.00 EUR
Description of the activity	<p>This activity will produce a Strategic Agenda and a Policy Guidance as well as a joint management establishment amongst the GeoSEE partners. The Strategic Agenda will be produced after a review of several criteria, such as technology focus (which technology showed the best results in the analyses of WP4), cost, time, environmental and social requirements, policies and regulating institutions or agencies. From these aspects, the partnership will derive elements of good practice to be transferred into the partner countries. Each partner will produce a strategic agenda taking into consideration the different stages of technical and policy development in their country. REAN will then collate these documents and generalize their conclusions and apply them to the wider context of South East Europe and the EU27 to produce the final Strategic Agenda. Similarly, the Policy Document, addressing all current restrictions in national and European legislation and suggesting legislative solutions to facilitate and streamline permitting procedures and market adoption of low-temperature geothermal energy in the partners' countries and the SEE, will be produced as a collaborative effort of all PPs and REAN. This activity will be concluded with the formation of a Joint Management Establishment amongst the GeoSEE's partners. Its purpose is to formalize a mechanism for GeoSEE partners to delineate follow-on measures and actions with the goals of expanding GeoSEE's key products and promoting their uptake in the wider European community. This mechanism will address they key issues of finding additional resources to support these goals and analyze how the long-term sustainability and continuation of the project benefits can be guaranteed. Project partners will sign a network agreement to formalize a sustainable transnational cooperation effort.</p>		
Role of each partner	All results within this activity will be coordinated by REAN with the contribution of all other PPs.		
Geographical location	Partners' countries.		

4.6.4. Additional information

4.6.5. Qualitative and quantitative description of the outputs and results

Type	Description	Partner	Contributing Partner	Measurement unit	Base value	Target value	Period of delivery
output	Country studies: Facilitating policies and procedures in the partners' countries	IPA-I PP1 - REAN	all others PPs	Nr of	0.00	8.00	period05
result	Transnational Policy Document: Guidelines and recommendations to facilitate policies in SEE	IPA-I PP1 - REAN		Nr of	0.00	1.00	period05
output	Market analyses in partners countries	IPA-I PP1 - REAN	all others PPs	Nr of analyses	0.00	8.00	period05
result	Transnational Strategy Document: Economic modelling of sustainable utilization of low temperature geothermal energy in SEE	IPA-I PP1 - REAN		No of	0.00	1.00	period05
output	Country Studies: Environmental benefits in partners' countries	IPA-I PP1 - REAN	all others PPs	No of	0.00	8.00	period05
result	Transnational Strategy Document: Environmental benefits of sustainable utilization of low temperature geothermal energy in SEE	IPA-I PP1 - REAN		Nr of	0.00	1.00	period05
output	Community and	IPA-I PP1	all others PPs	Nr of			period05

	social benefits in the partners' countries	- REAN			0.00	8.00	
result	Transnational Strategy Document: Community and social benefits of sustainable utilization of low temperature geothermal energy in SEE	IPA-I PP1 - REAN		Nr of	0.00	8.00	period05
result	Citizens Awareness Campaigns in each partner country	IPA-I PP1 - REAN	all others PPs	Nr of citizens informed	0.00	30,000.00	period05
result	Transnational Strategy Document: Final recommendations for SEE and Europe	IPA-I PP1 - REAN	all others PPs	Nr of	0.00	1.00	period05
result	Transnational Policy guidance document	IPA-I PP1 - REAN	all others PPs	Nr of	0.00	1.00	period05
result	GeoSEE Joint Management Establishment	IPA-I PP1 - REAN	all others PPs	Nr of	0.00	1.00	period05

5. Project Budget – INVALID BUDGET! Valid budget in Annex 6b – Budget change

5.1. Source of co-financing per partners

Partner role and abbreviation	ERDF Contribution		IPA Contribution		ENPI Contribution		State Contribution		Other Public Contribution		Own Public Contribution		Total PP Budget
	EUR	%	EUR	%	EUR	%	EUR	%	EUR	%	EUR	%	EUR
LP - KSSENA	213,248.00	85.00	0.00	0.00	0.00	0.00	37,632.00	15.00	0.00	0.00	0.00	0.00	250,880.00
ERDF PP1 - TESAF	182,325.00	85.00	0.00	0.00	0.00	0.00	32,175.00	15.00	0.00	0.00	0.00	0.00	214,500.00
ERDF PP2 - IGR	160,225.00	85.00	0.00	0.00	0.00	0.00	24,455.00	12.97	0.00	0.00	3,820.00	2.03	188,500.00
ERDF PP3 - UM	165,006.25	85.00	0.00	0.00	0.00	0.00	843.75	0.43	0.00	0.00	28,275.00	14.57	194,125.00
ERDF PP5 - REAP	154,921.00	85.00	0.00	0.00	0.00	0.00	27,339.00	15.00	0.00	0.00	0.00	0.00	182,260.00
ERDF PP4 - PADUA	162,095.00	85.00	0.00	0.00	0.00	0.00	28,605.00	15.00	0.00	0.00	0.00	0.00	190,700.00
ERDF PP8 - BP18	149,039.00	85.00	0.00	0.00	0.00	0.00	17,301.00	9.87	0.00	0.00	9,000.00	5.13	175,340.00
ERDF PP7 - CEV	143,990.00	85.00	0.00	0.00	0.00	0.00	25,410.00	15.00	0.00	0.00	0.00	0.00	169,400.00
IPA-I PP1 - REAN	0.00	0.00	155,805.00	85.00	0.00	0.00	0.00	0.00	27,495.00	15.00	0.00	0.00	183,300.00
IPA-I PP2 - MF	0.00	0.00	128,452.00	85.00	0.00	0.00	0.00	0.00	22,668.00	15.00	0.00	0.00	151,120.00
IPA-I PP3 - KOCANI	0.00	0.00	123,675.00	85.00	0.00	0.00	0.00	0.00	0.00	0.00	21,825.00	15.00	145,500.00
Total	1,330,849.25	65.06	407,932.00	19.94	0.00	0.00	193,760.75	9.47	50,163.00	0.00	62,920.00	3.08	2,045,625.00

5.2. Total project budget per Project Partners and Work Packages

Partner role and abbreviation	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
LP - KSSENA	9,000.00	71,660.00	59,560.00	18,200.00	15,500.00	22,400.00	54,560.00	0.00	0.00	250,880.00	16.02
ERDF PP1 - TESAF	2,500.00	28,900.00	14,100.00	23,500.00	38,300.00	67,700.00	39,500.00	0.00	0.00	214,500.00	13.70
ERDF PP2 - IGR	3,500.00	17,600.00	18,600.00	55,100.00	34,100.00	26,600.00	33,000.00	0.00	0.00	188,500.00	12.04
ERDF PP3 - UM	2,200.00	29,600.00	16,560.00	27,320.00	53,780.00	31,300.00	33,365.00	0.00	0.00	194,125.00	12.40

ERDF PP4 - PADUA	0.00	45,300.00	34,600.00	28,500.00	18,100.00	25,600.00	38,600.00	0.00	0.00	190,700.00	12.18
ERDF PP5 - REAP	2,500.00	33,620.00	22,260.00	25,900.00	29,940.00	25,380.00	42,660.00	0.00	0.00	182,260.00	11.64
ERDF PP8 - BP18	4,000.00	31,640.00	22,340.00	34,480.00	26,780.00	23,980.00	32,120.00	0.00	0.00	175,340.00	11.20
ERDF PP7 - CEV	2,500.00	39,100.00	20,100.00	25,300.00	17,800.00	28,800.00	35,800.00	0.00	0.00	169,400.00	10.82
WP Totals of ERDF partners	26,200.00	297,420.00	208,120.00	238,300.00	234,300.00	251,760.00	309,605.00	0.00	0.00	1,565,705.00	100.00
IPA-I PP1 - REAN	3,000.00	23,260.00	23,160.00	25,900.00	21,380.00	27,110.00	59,490.00	0.00	0.00	183,300.00	38.19
IPA-I PP2 - MF	2,500.00	25,200.00	20,360.00	12,680.00	28,540.00	30,320.00	31,520.00	0.00	0.00	151,120.00	31.49
IPA-I PP3 - KOCANI	2,500.00	22,100.00	15,600.00	28,300.00	38,900.00	14,100.00	24,000.00	0.00	0.00	145,500.00	30.32
WP Totals of IPA partners	8,000.00	70,560.00	59,120.00	66,880.00	88,820.00	71,530.00	115,010.00	0.00	0.00	479,920.00	100.00
WP Totals of ENPI partners	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	34,200.00	367,980.00	267,240.00	305,180.00	323,120.00	323,290.00	424,615.00	0.00	0.00	2,045,625.00	
	1.67	17.99	13.06	14.92	15.80	15.80	20.76	0.00	0.00		

5.3. Total budget overview per budget lines and per WP

5.3.a Total budget overview for ERDF and IPA-I partners per budget lines and WP

	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	29,500.00	172,500.00	129,000.00	205,400.00	165,000.00	196,000.00	359,500.00	0.00	0.00	1,256,900.00	61.44
2. Overheads	0.00	8,880.00	6,040.00	7,880.00	6,720.00	10,290.00	18,715.00	0.00	0.00	58,525.00	2.86
3. Travel and accommodation costs	2,200.00	18,400.00	38,700.00	11,400.00	13,800.00	15,600.00	0.00	0.00	0.00	100,100.00	4.89
4. External expertise and services	2,500.00	163,000.00	93,500.00	80,500.00	135,600.00	97,900.00	46,400.00	0.00	0.00	619,400.00	30.28
5. Equipment	0.00	5,200.00	0.00	0.00	2,000.00	3,500.00	0.00	0.00	0.00	10,700.00	0.52
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	34,200.00	367,980.00	267,240.00	305,180.00	323,120.00	323,290.00	424,615.00	0.00	0.00	2,045,625.00	
	1.67	17.99	13.06	14.92	15.80	15.80	20.76	0.00	0.00		

5.3.b Total budget overview for ERDF partners per budget lines and WP

	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	21,500.00	124,000.00	94,500.00	173,000.00	146,500.00	136,000.00	266,000.00	0.00	0.00	961,500.00	61.41
2. Overheads	0.00	6,320.00	4,120.00	6,200.00	6,000.00	6,360.00	12,205.00	0.00	0.00	41,205.00	2.63
3. Travel and accommodation costs	2,200.00	13,600.00	29,500.00	7,600.00	9,200.00	10,000.00	0.00	0.00	0.00	72,100.00	4.60
4. External expertise and services	2,500.00	150,000.00	80,000.00	51,500.00	71,600.00	97,900.00	31,400.00	0.00	0.00	484,900.00	30.97
5. Equipment	0.00	3,500.00	0.00	0.00	1,000.00	1,500.00	0.00	0.00	0.00	6,000.00	0.38
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	26,200.00	297,420.00	208,120.00	238,300.00	234,300.00	251,760.00	309,605.00	0.00	0.00	1,565,705.00	
	1.67	19.00	13.29	15.22	14.96	16.08	19.77	0.00	0.00		

5.3.c Total budget overview for IPA-I partners per budget lines and WP

	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	8,000.00	48,500.00	34,500.00	32,400.00	18,500.00	60,000.00	93,500.00	0.00	0.00	295,400.00	61.55
2. Overheads	0.00	2,560.00	1,920.00	1,680.00	720.00	3,930.00	6,510.00	0.00	0.00	17,320.00	3.61
3. Travel and	0.00	4,800.00	9,200.00	3,800.00	4,600.00	5,600.00	0.00	0.00	0.00	28,000.00	5.83

accommodation costs												
4. External expertise and services	0.00	13,000.00	13,500.00	29,000.00	64,000.00	0.00	15,000.00	0.00	0.00	134,500.00	28.03	
5. Equipment	0.00	1,700.00	0.00	0.00	1,000.00	2,000.00	0.00	0.00	0.00	4,700.00	0.98	
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL	8,000.00	70,560.00	59,120.00	66,880.00	88,820.00	71,530.00	115,010.00	0.00	0.00	479,920.00		
	1.67	14.70	12.32	13.94	18.51	14.90	23.96	0.00	0.00			

5.4. Total spending forecast PER WP and period

5.4.a Total spending forecast for ERDF partners per WP and period

	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	26,200.00	14,871.00	10,406.00	119,150.00	0.00	0.00	0.00	0.00	0.00	170,627.00	10.90 %
period02	0.00	44,573.00	20,846.00	119,150.00	46,860.00	0.00	0.00	0.00	0.00	231,429.00	14.78 %
period03	0.00	74,355.00	42,664.00	0.00	152,295.00	0.00	0.00	0.00	0.00	269,314.00	17.20 %
period04	0.00	89,226.00	62,436.00	0.00	35,145.00	176,232.00	30,960.50	0.00	0.00	393,999.50	25.16 %
period05	0.00	74,395.00	71,768.00	0.00	0.00	75,528.00	278,644.50	0.00	0.00	500,335.50	31.96 %
TOTAL	26,200.00	297,420.00	208,120.00	238,300.00	234,300.00	251,760.00	309,605.00	0.00	0.00	1,565,705.00	
	1.67	19.00	13.29	15.22	14.96	16.08	19.77	0.00	0.00		

5.4.b Total spending forecast for IPA-I partners per WP and period

	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL
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period01	8,000.00	3,528.00	3,006.00	33,440.00	0.00	0.00	0.00	0.00	0.00	47,974.00	10.00 %
period02	0.00	10,584.00	5,912.00	33,440.00	17,764.00	0.00	0.00	0.00	0.00	67,700.00	14.11 %
period03	0.00	17,640.00	11,824.00	0.00	57,733.00	0.00	0.00	0.00	0.00	87,197.00	18.17 %
period04	0.00	21,168.00	17,736.00	0.00	13,323.00	50,071.00	11,501.00	0.00	0.00	113,799.00	23.71 %
period05	0.00	17,640.00	20,642.00	0.00	0.00	21,459.00	103,509.00	0.00	0.00	163,250.00	34.02 %
TOTAL	8,000.00	70,560.00	59,120.00	66,880.00	88,820.00	71,530.00	115,010.00	0.00	0.00	479,920.00	
	1.67	14.70	12.32	13.94	18.51	14.90	23.96	0.00	0.00		

5.5. ERDF and IPA-I partners' budgets per budget lines and per WP

LP - KSSENA	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	7,000.00	27,000.00	19,500.00	15,000.00	12,500.00	17,500.00	50,000.00	0.00	0.00	148,500.00	59.19 %
2. Overheads	0.00	2,160.00	1,560.00	1,200.00	1,000.00	1,400.00	4,560.00	0.00	0.00	11,880.00	4.74 %
3. Travel and accommodation costs	2,000.00	0.00	7,500.00	2,000.00	2,000.00	2,000.00	0.00	0.00	0.00	15,500.00	6.18 %
4. External expertise and services	0.00	40,000.00	31,000.00	0.00	0.00	0.00	0.00	0.00	0.00	71,000.00	28.30 %
5. Equipment	0.00	2,500.00	0.00	0.00	0.00	1,500.00	0.00	0.00	0.00	4,000.00	1.59 %
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
TOTAL	9,000.00	71,660.00	59,560.00	18,200.00	15,500.00	22,400.00	54,560.00	0.00	0.00	250,880.00	
	3.59	28.56	23.74	7.25	6.18	8.93	21.75	0.00	0.00		
ERDF PP1 - TESAF	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	2,500.00	16,000.00	8,500.00	23,500.00	29,500.00	5,500.00	32,000.00	0.00	0.00	117,500.00	54.78 %
2. Overheads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %

3. Travel and accommodation costs	0.00	800.00	2,600.00	0.00	800.00	800.00	0.00	0.00	0.00	5,000.00	2.33 %
4. External expertise and services	0.00	12,100.00	3,000.00	0.00	8,000.00	61,400.00	7,500.00	0.00	0.00	92,000.00	42.89 %
5. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
TOTAL	2,500.00	28,900.00	14,100.00	23,500.00	38,300.00	67,700.00	39,500.00	0.00	0.00	214,500.00	
	1.17	13.47	6.57	10.96	17.86	31.56	18.41	0.00	0.00		
ERDF PP2 - IGR	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	3,500.00	12,000.00	13,500.00	39,500.00	21,000.00	25,000.00	33,000.00	0.00	0.00	147,500.00	78.25 %
2. Overheads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
3. Travel and accommodation costs	0.00	1,600.00	3,600.00	1,600.00	0.00	1,600.00	0.00	0.00	0.00	8,400.00	4.46 %
4. External expertise and services	0.00	4,000.00	1,500.00	14,000.00	13,100.00	0.00	0.00	0.00	0.00	32,600.00	17.29 %
5. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
TOTAL	3,500.00	17,600.00	18,600.00	55,100.00	34,100.00	26,600.00	33,000.00	0.00	0.00	188,500.00	
	1.86	9.34	9.87	29.23	18.09	14.11	17.51	0.00	0.00		
ERDF PP3 - UM	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	2,000.00	25,000.00	12,000.00	19,000.00	31,000.00	27,500.00	27,500.00	0.00	0.00	144,000.00	74.18 %
2. Overheads	0.00	2,000.00	960.00	1,520.00	2,480.00	2,200.00	2,365.00	0.00	0.00	11,525.00	5.94 %

3. Travel and accommodation costs	200.00	1,600.00	3,600.00	800.00	800.00	1,600.00	0.00	0.00	0.00	8,600.00	4.43 %
4. External expertise and services	0.00	0.00	0.00	6,000.00	19,500.00	0.00	3,500.00	0.00	0.00	29,000.00	14.94 %
5. Equipment	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,000.00	0.52 %
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
TOTAL	2,200.00	29,600.00	16,560.00	27,320.00	53,780.00	31,300.00	33,365.00	0.00	0.00	194,125.00	
	1.13	15.25	8.53	14.07	27.70	16.12	17.19	0.00	0.00		
ERDF PP4 - PADUA	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	0.00	8,500.00	9,500.00	17,500.00	12,000.00	15,000.00	34,500.00	0.00	0.00	97,000.00	50.87 %
2. Overheads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
3. Travel and accommodation costs	0.00	800.00	2,600.00	0.00	1,600.00	1,600.00	0.00	0.00	0.00	6,600.00	3.46 %
4. External expertise and services	0.00	36,000.00	22,500.00	11,000.00	4,500.00	9,000.00	4,100.00	0.00	0.00	87,100.00	45.67 %
5. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
TOTAL	0.00	45,300.00	34,600.00	28,500.00	18,100.00	25,600.00	38,600.00	0.00	0.00	190,700.00	
	0.00	23.75	18.14	14.94	9.49	13.42	20.24	0.00	0.00		
ERDF PP5 - REAP	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	0.00	19,000.00	14,500.00	22,500.00	25,500.00	23,500.00	39,500.00	0.00	0.00	144,500.00	79.28 %
2. Overheads	0.00	1,520.00	1,160.00	1,800.00	2,040.00	1,880.00	3,160.00	0.00	0.00	11,560.00	6.34 %

3. Travel and accommodation costs	0.00	3,200.00	4,600.00	1,600.00	2,400.00	0.00	0.00	0.00	0.00	11,800.00	6.47 %
4. External expertise and services	2,500.00	9,900.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	14,400.00	7.90 %
5. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
TOTAL	2,500.00	33,620.00	22,260.00	25,900.00	29,940.00	25,380.00	42,660.00	0.00	0.00	182,260.00	
	1.37	18.45	12.21	14.21	16.43	13.93	23.41	0.00	0.00		
ERDF PP8 - BP18	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	4,000.00	8,000.00	5,500.00	21,000.00	6,000.00	11,000.00	22,500.00	0.00	0.00	78,000.00	44.49 %
2. Overheads	0.00	640.00	440.00	1,680.00	480.00	880.00	2,120.00	0.00	0.00	6,240.00	3.56 %
3. Travel and accommodation costs	0.00	4,000.00	2,400.00	800.00	800.00	1,600.00	0.00	0.00	0.00	9,600.00	5.48 %
4. External expertise and services	0.00	19,000.00	14,000.00	11,000.00	19,500.00	10,500.00	7,500.00	0.00	0.00	81,500.00	46.48 %
5. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
TOTAL	4,000.00	31,640.00	22,340.00	34,480.00	26,780.00	23,980.00	32,120.00	0.00	0.00	175,340.00	
	2.28	18.04	12.74	19.66	15.27	13.68	18.32	0.00	0.00		
ERDF PP7 - CEV	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	2,500.00	8,500.00	11,500.00	15,000.00	9,000.00	11,000.00	27,000.00	0.00	0.00	84,500.00	49.88 %
2. Overheads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %

3. Travel and accommodation costs	0.00	1,600.00	2,600.00	800.00	800.00	800.00	0.00	0.00	0.00	6,600.00	3.90 %
4. External expertise and services	0.00	29,000.00	6,000.00	9,500.00	7,000.00	17,000.00	8,800.00	0.00	0.00	77,300.00	45.63 %
5. Equipment	0.00	0.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	1,000.00	0.59 %
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
TOTAL	2,500.00	39,100.00	20,100.00	25,300.00	17,800.00	28,800.00	35,800.00	0.00	0.00	169,400.00	
	1.48	23.08	11.87	14.94	10.51	17.00	21.13	0.00	0.00		
IPA-I PP1 - REAN	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	3,000.00	14,500.00	14,500.00	10,000.00	3,500.00	23,500.00	48,500.00	0.00	0.00	117,500.00	64.10 %
2. Overheads	0.00	1,160.00	1,160.00	800.00	280.00	2,010.00	3,990.00	0.00	0.00	9,400.00	5.13 %
3. Travel and accommodation costs	0.00	1,600.00	2,000.00	1,600.00	1,600.00	1,600.00	0.00	0.00	0.00	8,400.00	4.58 %
4. External expertise and services	0.00	5,000.00	5,500.00	13,500.00	16,000.00	0.00	7,000.00	0.00	0.00	47,000.00	25.64 %
5. Equipment	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,000.00	0.55 %
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
TOTAL	3,000.00	23,260.00	23,160.00	25,900.00	21,380.00	27,110.00	59,490.00	0.00	0.00	183,300.00	
	1.64	12.69	12.64	14.13	11.66	14.79	32.45	0.00	0.00		
IPA-I PP2 - MF	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	2,500.00	17,500.00	9,500.00	11,000.00	5,500.00	24,000.00	29,000.00	0.00	0.00	99,000.00	65.51 %
2. Overheads	0.00	1,400.00	760.00	880.00	440.00	1,920.00	2,520.00	0.00	0.00	7,920.00	5.24 %

3. Travel and accommodation costs	0.00	1,600.00	3,600.00	800.00	1,600.00	2,400.00	0.00	0.00	0.00	10,000.00	6.62 %
4. External expertise and services	0.00	4,000.00	6,500.00	0.00	20,000.00	0.00	0.00	0.00	0.00	30,500.00	20.18 %
5. Equipment	0.00	700.00	0.00	0.00	1,000.00	2,000.00	0.00	0.00	0.00	3,700.00	2.45 %
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
TOTAL	2,500.00	25,200.00	20,360.00	12,680.00	28,540.00	30,320.00	31,520.00	0.00	0.00	151,120.00	
	1.65	16.68	13.47	8.39	18.89	20.06	20.86	0.00	0.00		
IPA-I PP3 - KOCANI	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
1. Staff	2,500.00	16,500.00	10,500.00	11,400.00	9,500.00	12,500.00	16,000.00	0.00	0.00	78,900.00	54.23 %
2. Overheads	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
3. Travel and accommodation costs	0.00	1,600.00	3,600.00	1,400.00	1,400.00	1,600.00	0.00	0.00	0.00	9,600.00	6.60 %
4. External expertise and services	0.00	4,000.00	1,500.00	15,500.00	28,000.00	0.00	8,000.00	0.00	0.00	57,000.00	39.18 %
5. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
6. Small scale investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
7. Financial charges and guarantee costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 %
TOTAL	2,500.00	22,100.00	15,600.00	28,300.00	38,900.00	14,100.00	24,000.00	0.00	0.00	145,500.00	
	1.72	15.19	10.72	19.45	26.74	9.69	16.49	0.00	0.00		

5.6. ERDF and IPA-I Partners' spending forecast per WP and per period

SEE Programme

Document reg. no.: INTRA-5204609

LP - KSSENA	WPO	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	9,000.00	3,583.00	2,978.00	9,100.00	0.00	0.00	0.00	0.00	0.00	24,661.00	9.83 %
period02	0.00	10,749.00	5,956.00	9,100.00	3,100.00	0.00	0.00	0.00	0.00	28,905.00	11.52 %
period03	0.00	17,915.00	11,912.00	0.00	10,075.00	0.00	0.00	0.00	0.00	39,902.00	15.90 %
period04	0.00	21,498.00	17,868.00	0.00	2,325.00	15,680.00	5,456.00	0.00	0.00	62,827.00	25.04 %
period05	0.00	17,915.00	20,846.00	0.00	0.00	6,720.00	49,104.00	0.00	0.00	94,585.00	37.70 %
TOTAL	9,000.00	71,660.00	59,560.00	18,200.00	15,500.00	22,400.00	54,560.00	0.00	0.00	250,880.00	
	3.59	28.56	23.74	7.25	6.18	8.93	21.75	0.00	0.00		
ERDF PP1 - TESAF	WPO	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	2,500.00	1,445.00	705.00	11,750.00	0.00	0.00	0.00	0.00	0.00	16,400.00	7.65 %
period02	0.00	4,335.00	1,410.00	11,750.00	7,660.00	0.00	0.00	0.00	0.00	25,155.00	11.73 %
period03	0.00	7,225.00	2,820.00	0.00	24,895.00	0.00	0.00	0.00	0.00	34,940.00	16.29 %
period04	0.00	8,670.00	4,230.00	0.00	5,745.00	47,390.00	3,950.00	0.00	0.00	69,985.00	32.63 %
period05	0.00	7,225.00	4,935.00	0.00	0.00	20,310.00	35,550.00	0.00	0.00	68,020.00	31.71 %
TOTAL	2,500.00	28,900.00	14,100.00	23,500.00	38,300.00	67,700.00	39,500.00	0.00	0.00	214,500.00	
	1.17	13.47	6.57	10.96	17.86	31.56	18.41	0.00	0.00		
ERDF PP2 - IGR	WPO	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	3,500.00	880.00	930.00	27,550.00	0.00	0.00	0.00	0.00	0.00	32,860.00	17.43 %
period02	0.00	2,640.00	1,860.00	27,550.00	6,820.00	0.00	0.00	0.00	0.00	38,870.00	20.62 %
period03	0.00	4,400.00	3,720.00	0.00	22,165.00	0.00	0.00	0.00	0.00	30,285.00	16.07 %
period04	0.00	5,280.00	5,580.00	0.00	5,115.00	18,620.00	3,300.00	0.00	0.00	37,895.00	20.10 %
period05	0.00	4,400.00	6,510.00	0.00	0.00	7,980.00	29,700.00	0.00	0.00	48,590.00	25.78 %
TOTAL	3,500.00	17,600.00	18,600.00	55,100.00	34,100.00	26,600.00	33,000.00	0.00	0.00	188,500.00	
	1.86	9.34	9.87	29.23	18.09	14.11	17.51	0.00	0.00		
ERDF PP3 - UM	WPO	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	2,200.00	1,480.00	828.00	13,660.00	0.00	0.00	0.00	0.00	0.00	18,168.00	9.36 %

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Document reg. no.: INTRA-5204609

period02	0.00	4,400.00	1,656.00	13,660.00	10,756.00	0.00	0.00	0.00	0.00	30,472.00	15.70 %
period03	0.00	7,400.00	3,312.00	0.00	34,957.00	0.00	0.00	0.00	0.00	45,669.00	23.53 %
period04	0.00	8,880.00	4,968.00	0.00	8,067.00	21,910.00	3,336.50	0.00	0.00	47,161.50	24.29 %
period05	0.00	7,440.00	5,796.00	0.00	0.00	9,390.00	30,028.50	0.00	0.00	52,654.50	27.12 %
TOTAL	2,200.00	29,600.00	16,560.00	27,320.00	53,780.00	31,300.00	33,365.00	0.00	0.00	194,125.00	
	1.13	15.25	8.53	14.07	27.70	16.12	17.19	0.00	0.00		
ERDF PP4 - PADUA	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	0.00	2,265.00	1,730.00	14,250.00	0.00	0.00	0.00	0.00	0.00	18,245.00	9.57 %
period02	0.00	6,795.00	3,460.00	14,250.00	3,620.00	0.00	0.00	0.00	0.00	28,125.00	14.75 %
period03	0.00	11,325.00	6,920.00	0.00	11,765.00	0.00	0.00	0.00	0.00	30,010.00	15.74 %
period04	0.00	13,590.00	10,380.00	0.00	2,715.00	17,920.00	3,860.00	0.00	0.00	48,465.00	25.41 %
period05	0.00	11,325.00	12,110.00	0.00	0.00	7,680.00	34,740.00	0.00	0.00	65,855.00	34.53 %
TOTAL	0.00	45,300.00	34,600.00	28,500.00	18,100.00	25,600.00	38,600.00	0.00	0.00	190,700.00	
	0.00	23.75	18.14	14.94	9.49	13.42	20.24	0.00	0.00		
ERDF PP5 - REAP	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	2,500.00	1,681.00	1,113.00	12,950.00	0.00	0.00	0.00	0.00	0.00	18,244.00	10.01 %
period02	0.00	5,043.00	2,260.00	12,950.00	5,988.00	0.00	0.00	0.00	0.00	26,241.00	14.40 %
period03	0.00	8,405.00	4,452.00	0.00	19,461.00	0.00	0.00	0.00	0.00	32,318.00	17.73 %
period04	0.00	10,086.00	6,678.00	0.00	4,491.00	17,766.00	4,266.00	0.00	0.00	43,287.00	23.75 %
period05	0.00	8,405.00	7,757.00	0.00	0.00	7,614.00	38,394.00	0.00	0.00	62,170.00	34.11 %
TOTAL	2,500.00	33,620.00	22,260.00	25,900.00	29,940.00	25,380.00	42,660.00	0.00	0.00	182,260.00	
	1.37	18.45	12.21	14.21	16.43	13.93	23.41	0.00	0.00		
ERDF PP8 - BP18	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	4,000.00	1,582.00	1,117.00	17,240.00	0.00	0.00	0.00	0.00	0.00	23,939.00	13.65 %
period02	0.00	4,746.00	2,234.00	17,240.00	5,356.00	0.00	0.00	0.00	0.00	29,576.00	16.87 %
period03	0.00	7,910.00	4,468.00	0.00	17,407.00	0.00	0.00	0.00	0.00	29,785.00	16.99 %

period04	0.00	9,492.00	6,702.00	0.00	4,017.00	16,786.00	3,212.00	0.00	0.00	40,209.00	22.93 %
period05	0.00	7,910.00	7,819.00	0.00	0.00	7,194.00	28,908.00	0.00	0.00	51,831.00	29.56 %
TOTAL	4,000.00	31,640.00	22,340.00	34,480.00	26,780.00	23,980.00	32,120.00	0.00	0.00	175,340.00	
	2.28	18.04	12.74	19.66	15.27	13.68	18.32	0.00	0.00		
ERDF PP7 - CEV	WPO	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	2,500.00	1,955.00	1,005.00	12,650.00	0.00	0.00	0.00	0.00	0.00	18,110.00	10.69 %
period02	0.00	5,865.00	2,010.00	12,650.00	3,560.00	0.00	0.00	0.00	0.00	24,085.00	14.22 %
period03	0.00	9,775.00	5,060.00	0.00	11,570.00	0.00	0.00	0.00	0.00	26,405.00	15.59 %
period04	0.00	11,730.00	6,030.00	0.00	2,670.00	20,160.00	3,580.00	0.00	0.00	44,170.00	26.07 %
period05	0.00	9,775.00	5,995.00	0.00	0.00	8,640.00	32,220.00	0.00	0.00	56,630.00	33.43 %
TOTAL	2,500.00	39,100.00	20,100.00	25,300.00	17,800.00	28,800.00	35,800.00	0.00	0.00	169,400.00	
	1.48	23.08	11.87	14.94	10.51	17.00	21.13	0.00	0.00		
IPA-I PP1 - REAN	WPO	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	3,000.00	1,163.00	1,158.00	12,950.00	0.00	0.00	0.00	0.00	0.00	18,271.00	9.97 %
period02	0.00	3,489.00	2,316.00	12,950.00	4,276.00	0.00	0.00	0.00	0.00	23,031.00	12.56 %
period03	0.00	5,815.00	4,632.00	0.00	13,897.00	0.00	0.00	0.00	0.00	24,344.00	13.28 %
period04	0.00	6,978.00	6,948.00	0.00	3,207.00	18,977.00	5,949.00	0.00	0.00	42,059.00	22.95 %
period05	0.00	5,815.00	8,106.00	0.00	0.00	8,133.00	53,541.00	0.00	0.00	75,595.00	41.24 %
TOTAL	3,000.00	23,260.00	23,160.00	25,900.00	21,380.00	27,110.00	59,490.00	0.00	0.00	183,300.00	
	1.64	12.69	12.64	14.13	11.66	14.79	32.45	0.00	0.00		
IPA-I PP2 - MF	WPO	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	2,500.00	1,260.00	1,068.00	6,340.00	0.00	0.00	0.00	0.00	0.00	11,168.00	7.39 %
period02	0.00	3,780.00	2,036.00	6,340.00	5,708.00	0.00	0.00	0.00	0.00	17,864.00	11.82 %
period03	0.00	6,300.00	4,072.00	0.00	18,551.00	0.00	0.00	0.00	0.00	28,923.00	19.14 %
period04	0.00	7,560.00	6,108.00	0.00	4,281.00	21,224.00	3,152.00	0.00	0.00	42,325.00	28.01 %
period05	0.00	6,300.00	7,076.00	0.00	0.00	9,096.00	28,368.00	0.00	0.00	50,840.00	33.64 %

TOTAL	2,500.00	25,200.00	20,360.00	12,680.00	28,540.00	30,320.00	31,520.00	0.00	0.00	151,120.00	
	1.65	16.68	13.47	8.39	18.89	20.06	20.86	0.00	0.00		
IPA-I PP3 - KOCANI	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	TOTAL	
period01	2,500.00	1,105.00	780.00	14,150.00	0.00	0.00	0.00	0.00	0.00	18,535.00	12.74 %
period02	0.00	3,315.00	1,560.00	14,150.00	7,780.00	0.00	0.00	0.00	0.00	26,805.00	18.42 %
period03	0.00	5,525.00	3,120.00	0.00	25,285.00	0.00	0.00	0.00	0.00	33,930.00	23.32 %
period04	0.00	6,630.00	4,680.00	0.00	5,835.00	9,870.00	2,400.00	0.00	0.00	29,415.00	20.22 %
period05	0.00	5,525.00	5,460.00	0.00	0.00	4,230.00	21,600.00	0.00	0.00	36,815.00	25.30 %
TOTAL	2,500.00	22,100.00	15,600.00	28,300.00	38,900.00	14,100.00	24,000.00	0.00	0.00	145,500.00	
	1.72	15.19	10.72	19.45	26.74	9.69	16.49	0.00	0.00		

5.7. Equipments

WP	Description of the equipment	Responsible partner	Quantity	Unit rate	Amount EUR
wp1	Professional translation software	LP - KSSENA	1	750.00	750.00
wp1	Project Management Software	LP - KSSENA	1	750.00	750.00
wp1	laptops	LP - KSSENA	1	1,000.00	1,000.00
wp1	laptop	ERDF PP3 - UM	1	1,000.00	1,000.00
wp1	laptops	IPA-I PP1 - REAN	1	1,000.00	1,000.00
wp1	work stations	IPA-I PP2 - MF	1	700.00	700.00
WP total					5,200.00
WP	Description of the equipment	Responsible partner	Quantity	Unit rate	Amount EUR
wp4	laptops able to support process modelling	IPA-I PP2 - MF	1	1,000.00	1,000.00
wp4	laptop able to support process modelling	ERDF PP7 - CEV	1	1,000.00	1,000.00
WP total					2,000.00
WP	Description of the equipment	Responsible partner	Quantity	Unit rate	Amount EUR
wp5	advance 3D high resolution Projector with Wallmount Bracket for the training course	IPA-I PP2 - MF	1	1,500.00	1,500.00
wp5	128-inch Electric Screen for the training course	IPA-I PP2 - MF	1	500.00	500.00
wp5	advance 3D high resolution Projector with Wallmount Bracket for the training course	LP - KSSENA	1	1,500.00	1,500.00
WP total					3,500.00

Total equipments

10,700.00

5.8. Small scale investments

6. Timeplan

Activites	2010												2011												2012												
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	
act 0.1					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X														
act 1.1																																			X	X	
act 1.2																																			X	X	
act 1.3																																			X	X	
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Activites	2013												2014												2015														
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December			
act 0.1																																							
act 1.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																	
act 1.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																	
act 1.3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																	
act 2.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																	
act 2.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																	
act 3.1	X	X	X																																				
act 3.2		X	X	X																																			
act 3.3		X	X	X																																			

act 3.4	X	X	X	X																																				
act 3.5			X	X	X	X																																		
act 4.1				X	X	X	X																																	
act 4.2						X	X	X	X	X	X																													
act 4.3								X	X	X	X	X	X																											
act 4.4												X	X																											
act 5.1												X	X																											
act 5.2												X	X	X																										
act 5.3												X	X	X	X																									
act 5.4														X	X	X	X	X																						
act 5.5															X	X	X	X																						
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act 6.3																	X	X	X																					
act 6.4																		X	X	X																				
act 6.5																				X	X	X																		

Activites	2016												2017												2018												
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	
act 0.1																																					

7. Indicators

7.1. Output

Description	Type	Mandatory	Measurement unit	Base value	Target value
Indicators					
01. No of articles/appearances published in the press and in other media (including online media, TV, radio)	output	No	no.	0.00	10.00
02. No of press conferences	output	No	no.	0.00	3.00
03. Average of hits per month on the project?s website	output	No	no.	0.00	50.00
04. No of publications produced (editions, specify: e.g. folder, newsletter, brochure, report, guideline, handbook), No of copies disseminated	output	No	no.	0.00	2,013.00
05. No of transnational events implemented, no of participants involved	output	No	no.	0.00	2.00
06. No of national events implemented, no of participants involved	output	No	no.	0.00	0.00
07. No of regional events implemented, no of participants involved	output	No	no.	0.00	0.00
08. No of study visits organised, no of participants involved	output	No	no.	0.00	0.00
09. No of studies produced	output	No	no.	0.00	37.00
10. No of guidelines produced	output	No	no.	0.00	5.00
11. No of management plans developed	output	No	no.	0.00	0.00
12. No of joint action plans produced	output	No	no.	0.00	0.00
13. No of databases created or improved	output	No	no.	0.00	2.00
14. No of training events,	output	No	no.	0.00	16.00

Description	Type	Mandatory	Measurement unit	Base value	Target value
seminars organised					
15. No of participants involved in trainings and seminars	output	No	no.	0.00	260.00
16. No of individuals that participated in exchange schemes	output	No	no.	0.00	0.00
17. No of promotion concepts	output	No	no.	0.00	2.00
18. No of promotion actions	output	No	no.	0.00	10.00
19. No of services developed	output	No	no.	0.00	2.00
20. No of small scale infrastructure projects	output	No	no.	0.00	0.00
21. No of person in charge for administration of projects	output	No	no.	0.00	11.00
22. No of project meetings held	output	No	no.	0.00	6.00
Project specific indicators					
dd	output	No	eeee	500.00	0.00

7.2. Result

Description	Type	Mandatory	Measurement unit	Base value	Target value
Indicators					
01. No of permanent information sources / channels in project (e.g. websites, regular publications)	result	No	no.	0.00	2.00
02. No of individuals reached directly through dissemination outputs in the co-operation area	result	No	no.	0.00	50,000.00
03. No of administrative actors reached directly through dissemination outputs in the co-operation area	result	No	no.	0.00	100.00
04. No of private sector	result	No	no.	0.00	100.00

Description	Type	Mandatory	Measurement unit	Base value	Target value
actors reached directly through dissemination outputs in the co-operation area					
05. No of SME reached directly through dissemination outputs in the co-operation area	result	No	no.	0.00	150.00
06. No of advanced tools and methodologies adopted to increase the projects visibility among experts and wider communities, the public (additionally description necessary)	result	No	no.	0.00	2.00
07. No of common positions / agreements formulated	result	No	no.	0.00	1.00
08. No of common methodologies adopted	result	No	no.	0.00	0.00
09. No of strategies adopted at governmental level	result	No	no.	0.00	8.00
10. No of innovative products developed	result	No	no.	0.00	1.00
11. No of regional/local policies and instruments improved or developed	result	No	no.	0.00	9.00
12. No of common standards established (e.g. through new guidelines)	result	No	no.	0.00	1.00
13. No of new tools / instruments developed	result	No	no.	0.00	1.00
14. No of impact studies on environmental issues carried out (e.g. in pre-investment projects)	result	No	no.	0.00	8.00
15. No of pilot actions prepared (first application)	result	No	no.	0.00	8.00
16. No of pilot actions implemented (first application)	result	No	no.	0.00	8.00
17. No permanent exchange programmes established	result	No	no.	0.00	0.00
18. No of staff members	result	No	no.	0.00	100.00

Description	Type	Mandatory	Measurement unit	Base value	Target value
with increased capacity (awareness / knowledge / skills)					
19. No of advanced tools and methodologies adopted to improve knowledge management within the partnership (additionally description necessary)	result	No	no.	0.00	2.00
20. No of regions proactively promoted	result	No	no.	0.00	20.00
21. No of common management structures / systems established	result	No	no.	0.00	1.00
22. No of individuals benefiting directly from new / improved services	result	No	no.	0.00	10,000.00
23. No of investment proposals developed (if possible specify volume of investment)	result	No	no.	0.00	0.00
24. No of private market reactions achieved (e.g. private activities mobilized)	result	No	no.	0.00	0.00
25. No of investment projects implemented (specify volume of investment)	result	No	no.	0.00	0.00
26. No of infrastructures of common interest improved	result	No	no.	0.00	0.00
Project specific indicators					

8. Other Data

8.1. Codes for the Priority Theme Dimension

42 - Renewable energy: hydroelectric, geothermal and other

8.2. Keywords

Accessibility
Climate change
Education / institutional learning
Entrepreneur(ship), start-ups, businesses
Environmental policy / legislation
Governance
ICT
Knowledge transfer
Natural resource management
Pollution (air, water, soil...)
Production processes and products (env.friendly)
Renewable energies
Territorial development

9. Checklist

Check	Fulfilled (YES/NO)
The application form and all its annexes are in the working language of the Programme (English) and all required parts are duly filled in.	YES
All annexes of the application form are submitted by all relevant partners. They are printed on headed paper, signed, dated and stamped and included in the application pack in original version.	YES
No "ERROR" messages are displayed.	YES
The applicant has verified the compliance of the application with the eligibility criteria of the SEE Transnational Programme described in the programme documents.	YES
The application form is dated, stamped and signed by a duly authorised representative of the Lead partner and submitted within the fixed deadline.	YES

10. Annexes

Code	Name	Mandatory	Channel	Attached/Sent	Piece
1	Annex 1: Partnership agreement	YES	Paper and electronic	YES	1
2	Annex 2: Declaration of pre-financing and co-financing statement	YES	Paper and electronic	YES	1
3	Annex 3: State Aid declaration	YES	Paper and electronic	YES	1
4	Annex 4: Data sheet on the Member state responsible body	NO	Paper and electronic	NO	0
5	Annex 5: ASP and Observer Declaration	NO	Paper and electronic	YES	1
6	Annex 6: ENPI Application Form (including annex B budget and annex C logical framework)	NO	Paper and electronic	NO	0
7	Annex 6: ENPI Legal entity sheet (and its supporting documents)	NO	Paper and electronic	NO	0
8	Annex 6: ENPI Financial identification form	NO	Paper and electronic	NO	0
9	Annex 6: ENPI supporting documents (Statutes or articles of association and latest accounts)	NO	Paper and electronic	NO	0